Bid Addendum

Addendum No. 2 for the City of Staunton Gypsy Hill Park Pool House project.

Addendum Date: June 13, 2025

To: All Bidders

From: Wiley|Wilson
Lynchburg, VA

This Addendum contains 2 page(s) and listed attachments and forms a part of the bidding documents and modifies the Project Manual dated May 19, 2025 and Drawings dated May 14, 2025, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

RESPONSE TO PRE-BID RFIs

Question 28: There is no way to quantify the amount of rock or unsuitable identified in the geo tech report. Will the owner please revise the bid form to established quantities and unit cost to account for both?
Response: Owner defines all excavation as "unclassified".

Question 29: Can the bid form be revised to clearly state bid alternates and their descriptions as shown on the drawings?
Response: There is one bid alternative. It includes the patio roof as shown on Sheet A-112 and detailed on Sheet S-402, along with five luminaires noted in Key Note 2 on Sheet EL101 and two outdoor ceiling fans. All structural foundation work for the patio roof is part of the base bid. The base bid also includes grading to an inlet located at the center of the patio. The bid alternative does not modify the patio grading or the nyloplast inlet.

Question 30: Please confirm that it is the intention of the steel spec to only allow for AISC Certified Steel Manufacturers and Erecters.
Response: It is acceptable to remove the AISC Quality Certification requirement for steel fabricators given that the correct steps are taken to inspect and certify that the steel structure was fabricated and erected according to construction documents and code requirements. Removing the requirement for the steel fabricators to have an AISC Quality Certification will increase the responsibilities of the special inspector on the project and require coordination with the building official for the building permit. Special inspections and reporting must be completed following all requirements of IBC chapter 17. Section 1704.2.5.1 specifically talks about fabricator approval and states that inspections during fabrication are not required when work is performed at an approved facility. But if work is not performed by an AISC approved fabricator then at the end of the fabrication they must submit a certificate of compliance to the owner to submit to the building official. All steel must meet inspection requirements of IBC section 1705.2, not just the welding and bolting performed in the field. IBC section 1705.2.1 on structural steel calls out AISC 360 for specific special inspection requirements for steel, these are found in chapter N. See the following tables within ASIC 360 chapter N for a detailed list of inspection requirements; tables N5.4-1, N5.4-2, N5.4-3 cover inspections related to welding and tables N5.6-1, N5.6-2, N5.6-3 cover inspections related to bolting.

Question 31: Assuming the following items are not OFOI, could you please provide some specifications or basis of design for: Fire Rated Gas Can Storage Cabinet and Mobile Ice Cream freezer w/ sliding top.
Response: Basis of design cut sheets are included in this Addendum. See page 111 for ice cream freezer and page 165 for the storage cabinet.

Question 32: We have been advised that the WT9x30s that are shown as supports at the canopies are very difficult to obtain. Would either of the following options be an acceptable alternate to use in this application? 1. Steel plate of the appropriate width and thickness. 2. Two steel angles of appropriate leg widths and thickness sandwiched together to form a "T".
Response: It is acceptable to submit an alternate member shape- or built-up member shape of equal section properties by RFI or in shop drawings review.

Question 33: Does the owner have an idea of make/model for the SH-2 Outdoor Rinse Shower? My suppliers are having trouble finding something that meets the specs on the schedule.
Response: Aquastyle Milo Dual Function Outdoor Shower used for basis of design. Intended use with hot water inlet capped. Similar products may be approved but must meet performance design criteria.

Question 34: There is a discrepancy in the resinous floor specifications compared to the system called out on the legend. Finish legend calls out: FASTOP DECO FLAKE SL45 / 1/8" FLAKE, ALMOND MILK. This is a flake broadcast system, at 1/8" thickness. Spec calls out: This is a quartz broadcast system. 3/16 – 1/4" thickness, with a slurry mortar base. This system cannot be installed at/on a slope at all because it is a slurry/self-leveler base.
Response: All references to quartz broadcast system should be flake broadcast system. The 1/8" refers to the size of the flake. Follow the manufacturers best practices for installation on a slight grade.

Question 35: Are there any utility connection fees associated with the project, and if so, are they the responsibility of the GC?
Response: The City will be responsible for any utility connection fees.

Question 36: In section 260573 it lists several studies for the power system, which studies are required for this project?
Response: See section 260573, 1.2 B, for all required power system study reports.

Question 37: On page EP101 (Keynote 1) & page E-701 (Keynote 1) it calls out the installation of feeder wires and conduit from power pole/transformer to service, typically Dominion provides conductors & conduits, and installs the conductors themselves.
Response: The building will have a meter. The utility company will provide the transformer and secondary conductors to the meter base. Contractor shall provide secondary conductors from the meter base to service entrance panel MDP. See sheet C-104, note 3, for existing pole location. Coordinate with utility company for installation of transformer and utility company.

Question 38: On the power plan it does not show a location of meter for the service.
Response: Coordinate with utility company for final meter location. For bidding, assume that meter is located at the existing pole.

ATTACHMENTS

1. Cut Sheets

End of Addendum No. 2

Wiley|Wilson



Dan T. Sutton, PE

Gypsy Hill Park Pool House

Comm. No. 240163

Cutsheets

Issued for Construction

May 14, 2025

CONTACT:
Dan T. Sutton, PE
Project Manager
434.426.4779 mobile
dsutton@wileywilson.com

Mechanical Cutsheets

Job Name: SQ-95-VG Cut Sheet
Tag: EF-1
Quantity: 1
Printed Date: February 21, 2025

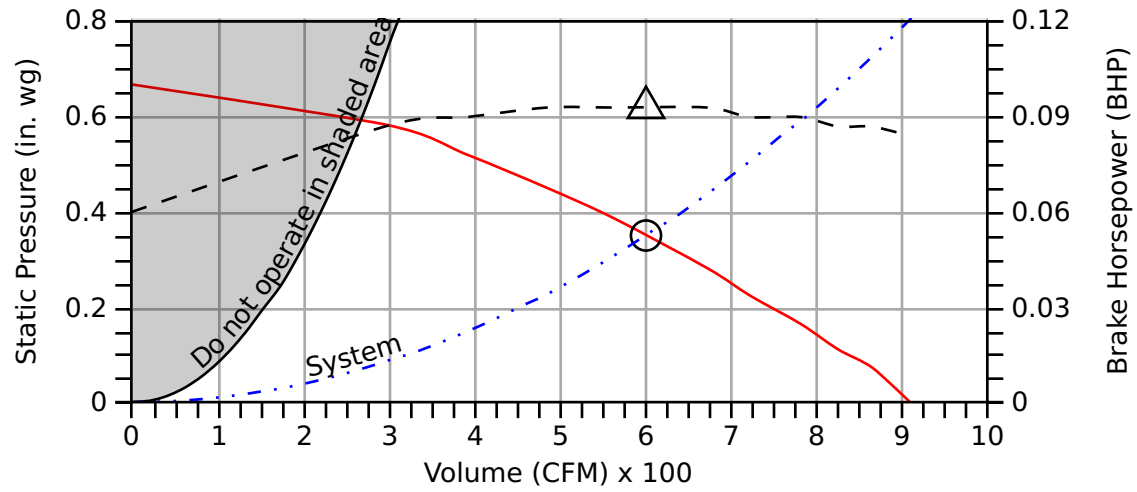
Model: SQ-95-VG

Direct Drive Inline Fan

Standard Construction Features: Galvanized steel housing (optional aluminum). Centrifugal backward inclined wheel. Direct driven motor in the air stream.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	600
Actual Volume (CFM)	600
Total External SP (in. wg)	0.35
Fan RPM	1,531
Operating Power (bhp)	0.09
Startup Power (bhp)	0.09
FEI	-
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	933
Static Efficiency (%)	36
Outlet Velocity (ft/min)	600



Motor	
Size (hp)	1/6
V/C/P	115/60/1
NEC FLA (Amps)	2.8
Min Circuit Ampacity (MCA)	3.5
Max Overload Production (MOP)	15
Short Circuit Current Rating (SCCR)	5 kA

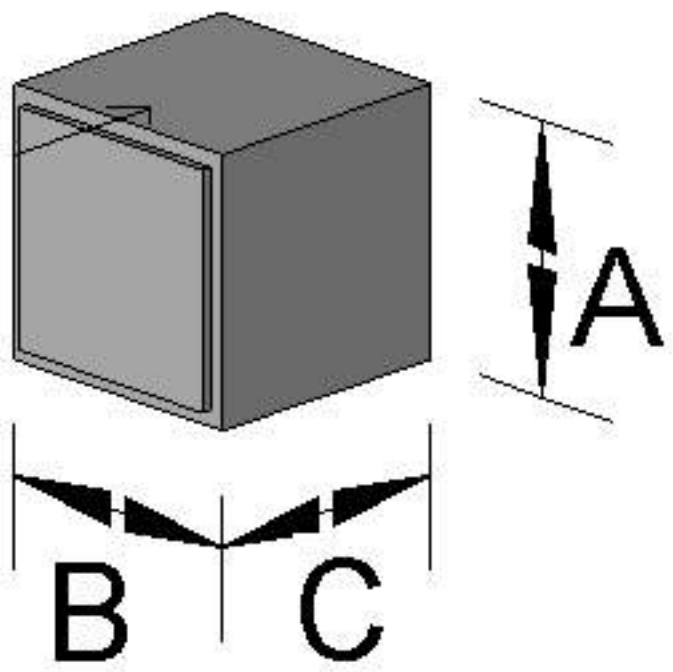
Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	79	77	72	64	58	50	41	38	68	56	8.0
Radiated	80	79	66	58	53	44	35	34	66	54	7.5

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type B: Free inlet, ducted outlet.Power rating does not include transmission losses.Performance ratings do not include the effects of appurtenances.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type B: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

FLA - based on tables 150 or 148 of National Electric Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.
MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc.).
SCCR is a rating on components and assemblies representing the maximum level of short-circuit current that a component or assembly can withstand without causing a fire or shock hazard. A short circuit exceeding this rating can cause catastrophic and violent equipment, component and enclosure failure.

Dimensions and Weights		
Label	**Value**	**Description**
-	10.875	Impeller Diameter (in)
-	34	Weight w/o accessories (lbs)
A	15	Overall Height (in)
B	15	Overall Width (in)
C	16	Overall Length (in)
-	11.875	Inlet Width (in)
-	11.875	Inlet Height (in)
-	11.875	Outlet Width (in)
-	11.875	Outlet Height (in)



*All dimensions are in inches.

Job Name: SP-A90 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: February 21, 2025

Model: SP-A90

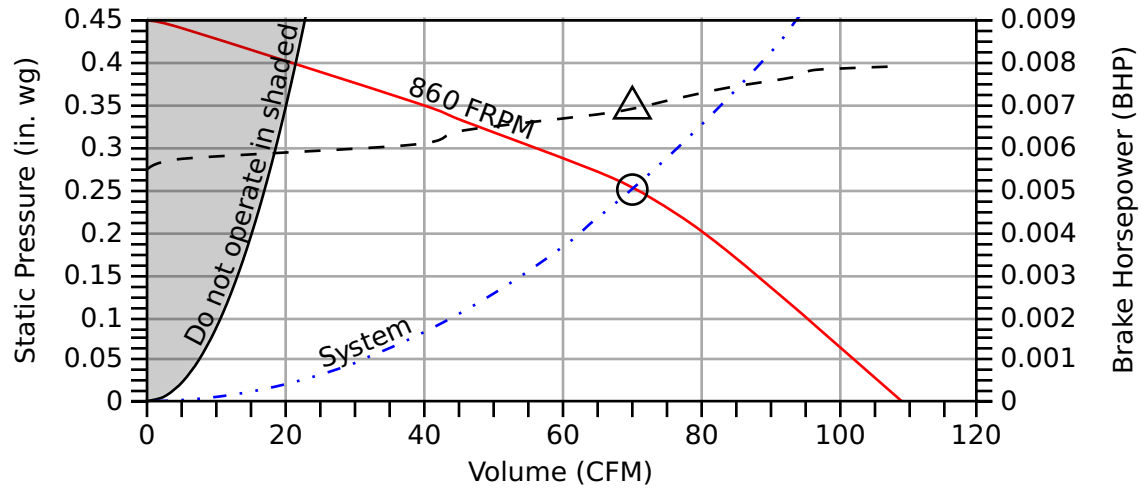
Direct Drive Bathroom Exhaust Fan

Standard Construction Features: Galvanized steel housing and grille. Centrifugal forward curved wheel. Direct driven motor in the air stream.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	70
Actual Volume (CFM)	70
Total External SP (in. wg)	0.25
Operating frequency (Hz)	57
Fan RPM	860
Operating Power (bhp)	0.01
Startup Power (bhp)	0.01
FEI	-
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	933
Watts (W)	13
Static Efficiency (%)	40
Outlet Velocity (ft/min)	368

Motor	
V/C/P	115/60/1
NEC FLA (Amps)	0.17
Min Circuit Ampacity (MCA)	0.2
Max Overload Production (MOP)	15



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

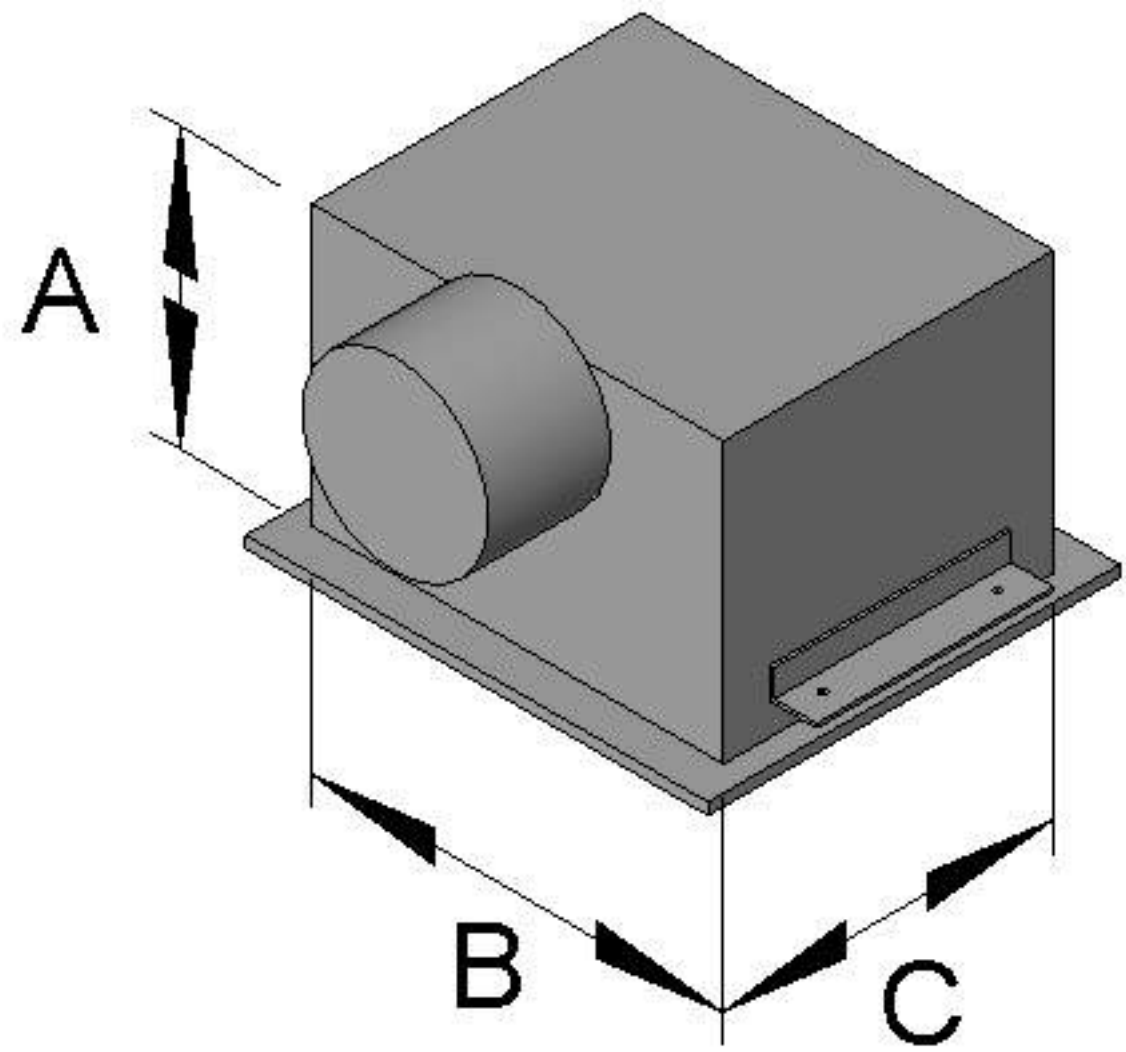
Sound

	Spherical Sones
Inlet	0.4

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Wattage is shown at free air. Wattage is approximate and may vary between motors. Fan shaft input power (bhp) is not certified.
FLA - based on tables 150 or 148 of National Electric Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.
MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc.).

Dimensions and Weights		
Label	**Value**	**Description**
-	12	Weight w/o accessories (lbs)
A	9	Overall Height (in)
B	13	Overall Width (in)
C	11	Overall Length (in)
-	6	Outlet Diameter (in)
-	14.938	Grille Width (in)
-	13.375	Grille Length (in)



*All dimensions are in inches.

Job Name: SQ-60-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: February 25, 2025

Model: SQ-60-VG

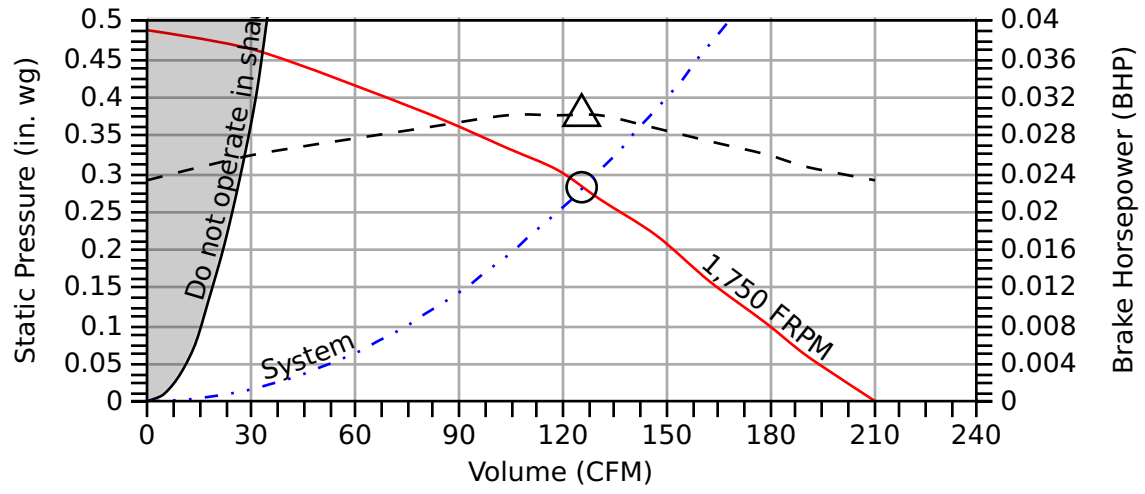
Direct Drive Inline Fan

Standard Construction Features: Galvanized steel housing (optional aluminum). Centrifugal backward inclined wheel. Direct driven motor in the air stream.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	130
Actual Volume (CFM)	126
Total External SP (in. wg)	0.28
Fan RPM	1,750
Operating Power (bhp)	0.03
Startup Power (bhp)	0.03
FEI	-
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.071
Elevation (ft)	1450
Static Efficiency (%)	19
Outlet Velocity (ft/min)	225

Motor	
Size (hp)	1/15
V/C/P	115/60/1
NEC FLA (Amps)	1.3
Min Circuit Ampacity (MCA)	1.6
Max Overload Production (MOP)	15
Short Circuit Current Rating (SCCR)	5 kA



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

Static Pressure Calculations	
External SP	0.3 in. wg
Direct Drive RPM Adjustment	-0.02 in. wg
Total External SP	0.28 in. wg

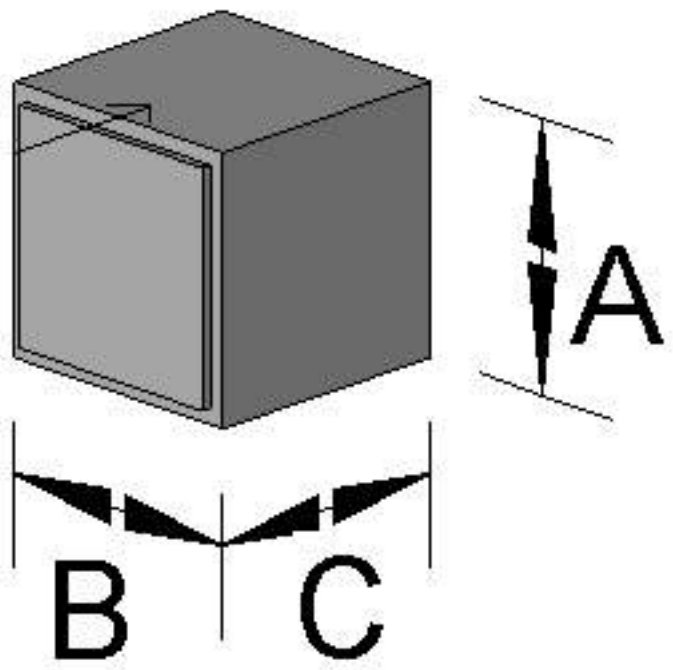
Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	62	66	66	55	52	52	45	41	61	50	5.4
Radiated	63	68	61	49	48	46	40	37	57	46	4.2

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FLA - based on tables 150 or 148 of National Electric Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.
MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc.).
SCCR is a rating on components and assemblies representing the maximum level of short-circuit current that a component or assembly can withstand without causing a fire or shock hazard. A short circuit exceeding this rating can cause catastrophic and violent equipment, component and enclosure failure.

Dimensions and Weights		
Label	**Value**	**Description**
-	8.125	Impeller Diameter (in)
-	27	Weight w/o accessories (lbs)
A	12	Overall Height (in)
B	12	Overall Width (in)
C	13	Overall Length (in)
-	8.875	Inlet Width (in)
-	8.875	Inlet Height (in)
-	8.875	Outlet Width (in)
-	8.875	Outlet Height (in)



*All dimensions are in inches.

PEAD-A24AA9 & PUZ-HA24NHA1
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR

Job Name:

System Reference: Date:



Indoor Unit PEAD-A24AA9

Outdoor Unit PUZ-HA24NHA1

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16”)
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 70 ft.
- High pressure/temperature protection
- Built-in base pan heater

Specifications are subject to change without notice.

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SPECIFICATIONS: PEAD-A24AA9 & PUZ-HA24NHA1

Cooling at 95°F[1]	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,100
	Maximum Power Input	W	2,040
	Rated Power Input	W	2,040
	Moisture Removal	Pints/h	6.9
	Sensible Heat Factor		0.68
	Power Factor [208V / 230V]	%	93.0 / 93.0
Heating at 47°F[2]	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	10,100
	Maximum Power Input	W	2,310
	Rated Power Input	W	1,940
	Power Factor [208V / 230V]	%	92.0 / 92.0
Heating at 17°F[3]	Maximum Capacity	BTU/H	25,000
	Rated Capacity	BTU/H	18,200
	Maximum Power Input	W	3,550
	Rated Power Input	W	2,156
Heating at 5°F[4]	Maximum Capacity	BTU/H	25,000
	Maximum Power Input	W	3,510
Heating at -4°F[5]	Maximum Capacity	BTU/H	22,400
Heating at -13°F[7]	Maximum Capacity	BTU/H	20,000
Efficiency	SEER2		16.7
	EER2[1]		11.7
	HSPF2 [IV]		9.4
	COP at 47°F[2]		3.7
	COP at 17°F at Maximum Capacity[3]		2.0
	COP at 5°F at Maximum Capacity[4]		2.1
	COP at -13°F at Maximum Capacity[7]		1.63
	ENERGY STAR® Certified		No
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	187 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	2.25
	Fan Motor Full Load Amperage	A	1.80
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512–565–636–742
	Airflow Rate at Heating, Dry	CFM	512–565–636–742
	Sound Pressure Level [Cooling]	dB[A]	27–29–31–35
	Sound Pressure Level [Heating]	dB[A]	27–29–31–35
	External Static Pressure	in.WG	0.14–0.2–0.28–0.4–0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	53-15/16 x 35-7/16 x 13 [1,370 x 900 x 330]
	Unit Weight	Lbs. [kg]	67 [30]
	Package Weight	Lbs. [kg]	78 [35]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	95 DB, 71 WB / 67 DB, 57 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	80 DB / 70 DB

NOTES:

AHRI Rated Conditions
(Rated data is determined at a fixed compressor speed)

Conditions

[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
[7]Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
  - Wind baffles required to operate below 23°F DB in cooling mode.
  - Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):
  - System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

Specifications are subject to change without notice.

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SPECIFICATIONS: PEAD-A24AA9 & PUZ-HA24NHA1

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		Linear expansive valve
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling[1]	dB(A)	52
	Sound Pressure Level, Heating[2]	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Oil [Type // Charge]	oz.	FVC68D
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 13 (+1-3/16) x 37-1/8 [950 x 330 (+30) x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 23 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -13 DB, -13 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	7.0, 11.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	3.5 [65]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	3/8 [9.52]
	Maximum Piping Length	Ft. [m]	165 [50]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
	[7]Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
  - Wind baffles required to operate below 23°F DB in cooling mode.
  - Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):
  - System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

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INDOOR UNIT ACCESSORIES: PEAD-A24AA9

Control Interface	3-Pin Connector	☐ PAC-715AD
	Airzone Wired Blueface Principal Controller White	☐ AZZBSBLUEZEROCB
	Airzone Wired Lite Controller White	☐ AZZBSLITECB
	Airzone Wireless Lite Controller White	☐ AZZBSLITERB
	Airzone Wireless Think Controller White	☐ AZZBSTHINKRB
	CN24 Relay Kit	☐ CN24RELAY-KIT-CM3
	Deluxe Wired MA Remote Controller	☐ PAR-41MAAU
	IT Extender	☐ PAC-WHS01IE-E
	kumo station® for kumo cloud®	☐ PAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Remote Operation Adapter‡	☐ PAC-SF40RM-E
	Thermostat Interface	☐ PAC-US445CN-1
	USNAP Adapter	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	☐ PAC-USSEN002-FM-1
	Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller†	☐ PAC-YT53CRAU-J
	Touch MA Controller†	☐ PAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	☐ MHK2
	Lockdown bracket for remote controller	☐ RCMKP1CB
	Wireless MA Receiver	☐ PAR-FA32MA-W
	Wireless MA Remote Controller	☐ PAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	☐ X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	☐ C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	☐ COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	☐ CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	☐ CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2” X 4” utility box] - Black	☐ TAZ-MS303
	(30A/600V/UL) [fits 2” X 4” utility box] - White	☐ TAZ-MS303W
Filter Box	Filter Box with MERV 13 Filter	☐ FBM2-3-A
Lineset	10’ x 3/8” x 10’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-10
	100’ x 3/8” x 100’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-100
	15’ x 3/8” x 15’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-15
	30’ x 3/8” x 30’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-30
	50’ x 3/8” x 50’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-50
	65’ x 3/8” x 65’ x 5/8” Lineset (Twin-Tube Insulation)	☐ MPLS385812T-65

NOTES:
‡PAC-SF40RM-E (Unable to use with wireless remote controller)

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OUTDOOR UNIT ACCESSORIES: PUZ-HA24NHA1

Air Outlet Guide	Air Outlet Guide (1 Piece)	☐ PAC-SG59SG-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
Hail Guards	Hail Guard	☐ HG-A6
M-NET Converter	M-NET Converter	☐ PAC-SJ95MA-E
	M-NET Converter	☐ PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 24” x 42” x 3”	☐ ULTRILITE2
Snow/Rain Diverter	Snow/Rain Diverter	☐ SRD-4
Stand	18” Single Fan Stand	☐ QSMS1801M
	24” Single Fan Stand	☐ QSMS2401M
	Condenser Wall Bracket	☐ QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	☐ QSWBSS
	Outdoor Unit Stand — 12” High	☐ QSMS1201M
Wind Baffle	Front Wind Baffle	☐ WB-PA5
	Rear Wind Baffle	☐ WB-RE5
	Side Advanced Wind Baffle	☐ WB-SD5

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INDOOR UNIT DIMENSIONS: PEAD-A24AA9

INDOOR UNIT

PEAD-A09, 12, 15, 18, 24, 30, 36, 42AA9

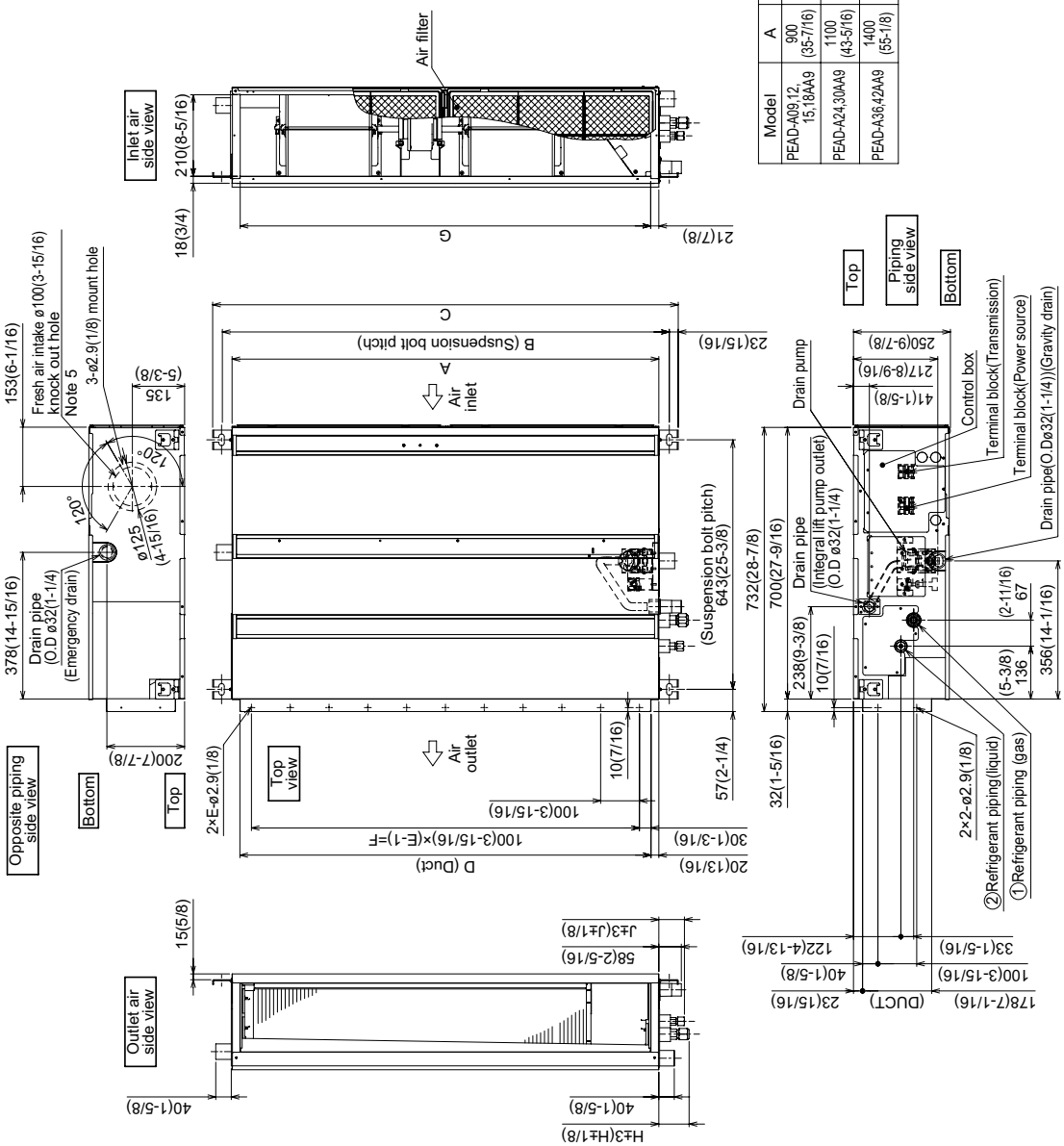
Notes 1.Use an M10 screw for the suspension bolt (field supply).
2.Keep the service space for maintenance at the bottom.
3.This drawing is for PEAD-A09·12·15·18·24·30AA9 models,which have 2 fans. PEAD-A36·42AA9 models have 3 fans.
4.If the inlet duct is used,remove the air filter(supplied with the unit),then install the filter(field supply) at the suction side.
5.Heat air to 0°C(32°F) or higher when taking fresh air with a fresh air intake.

Unit:mm(in.)

Model	J	①Gas pipe	②Liquid pipe
PEAD-A09AA9	62 (2-1/2)	ø9.52 (3/8)	ø6.35 (1/4)
PEAD-A12,15, 18AA9		ø12.7 (1/2)	
PEAD-A24,30AA9	66 (2-5/8)	ø15.88 (5/8)	ø9.52 (3/8)
PEAD-A36,42AA9			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
PEAD-A09,12, 15,18AA9	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24,30AA9	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36,42AA9	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

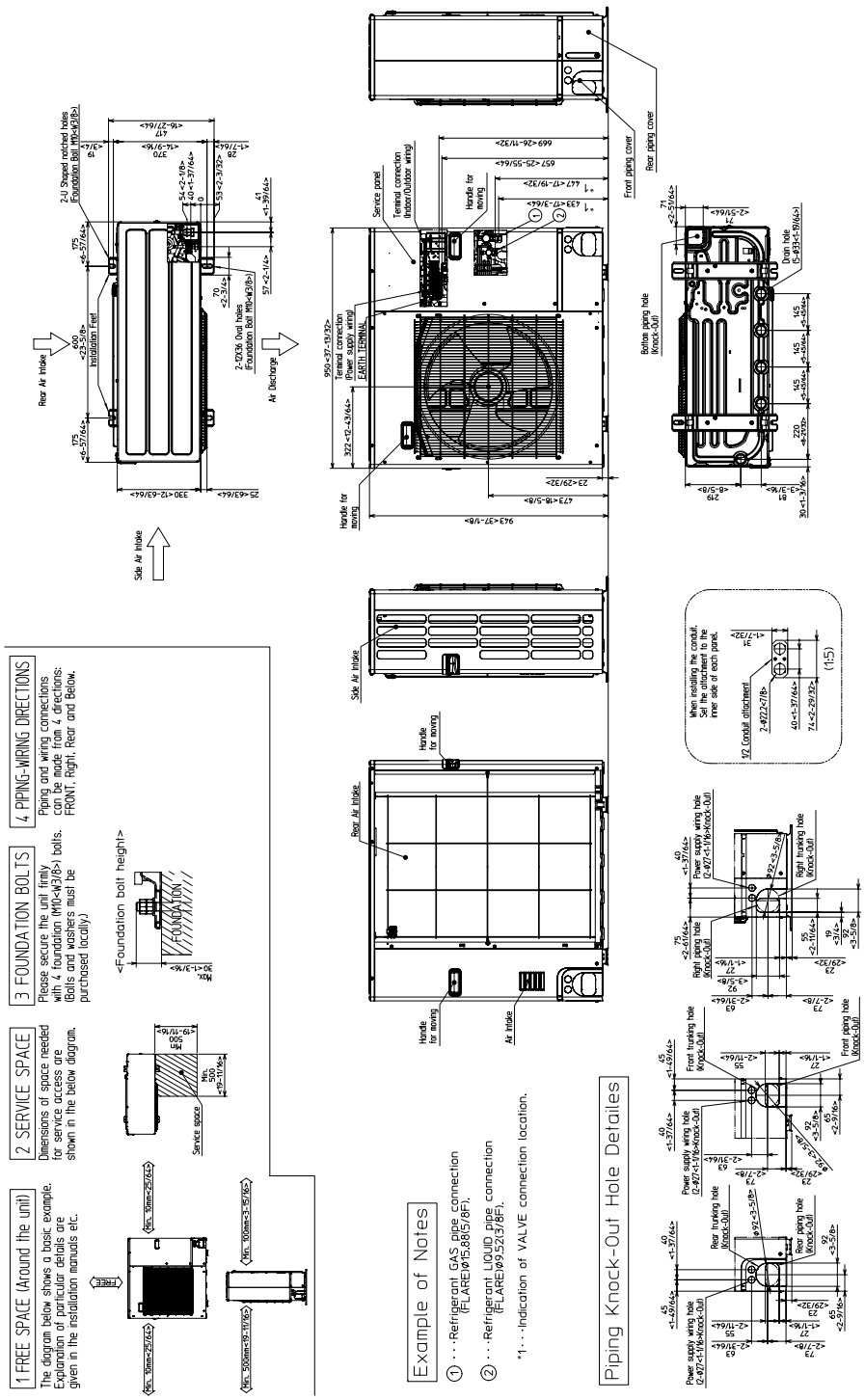


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OUTDOOR UNIT DIMENSIONS: PUZ-HA24NHA1

Unit: mm<in>



1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# PEAD-A24AA9 & PUZ-HA24NHA1 - 202404

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PEAD-A18AA9 & PUZ-A18NKA7
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
18,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR

Job Name:

System Reference: Date:





Indoor Unit PEAD-A18AA9

Outdoor Unit PUZ-A18NKA7

INDOOR UNIT FEATURES

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16”)
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection*
  - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
  - Fan Motor Support: Epoxy resin coating (at edge face)
  - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
  - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
  - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

*Seacoast protection standard from 2022 production

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SPECIFICATIONS: PEAD-A18AA9 & PUZ-A18NKA7

Cooling at 95°F[1]	Maximum Capacity	BTU/H	18,000
	Rated Capacity	BTU/H	18,000
	Minimum Capacity	BTU/H	7,800
	Maximum Power Input	W	1,660
	Rated Power Input	W	1,660
	Moisture Removal	Pints/h	3.7
	Sensible Heat Factor		0.77
	Power Factor [208V / 230V]	%	91.0 / 91.0
Heating at 47°F[2]	Maximum Capacity	BTU/H	22,000
	Rated Capacity	BTU/H	19,000
	Minimum Capacity	BTU/H	7,700
	Maximum Power Input	W	1,820
	Rated Power Input	W	1,460
	Power Factor [208V / 230V]	%	92.0 / 92.0
Heating at 17°F[3]	Maximum Capacity	BTU/H	11,400
	Rated Capacity	BTU/H	11,400
	Maximum Power Input	W	1,370
	Rated Power Input	W	1,370
Heating at 5°F[4]	Maximum Capacity	BTU/H	11,400
	Maximum Power Input	W	1,530
Heating at -4°F[5]	Maximum Capacity	BTU/H	9,800
Efficiency	SEER2		19.8
	EER2[1]		10.8
	HSPF2 [IV]		9.0
	COP at 47°F[2]		3.8
	COP at 17°F at Maximum Capacity[3]		2.4
	COP at 5°F at Maximum Capacity[4]		2.2
	COP at -4°F at Maximum Capacity[5]		2.1
	ENERGY STAR® Certified		No
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	2.25
	Fan Motor Full Load Amperage	A	1.80
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	403–424–512–600
	Airflow Rate at Heating, Dry	CFM	403–424–512–600
	Sound Pressure Level [Cooling]	dB[A]	28–29–34–37
	Sound Pressure Level [Heating]	dB[A]	28–29–34–37
	External Static Pressure	in.WG	0.14–0.2–0.28–0.4–0.6
	Drain Pipe Size	In. [mm]	1-1/4 [32]
	Condensate Lift Mechanism, Maximum Distance	In. [mm]	27-9/16 [700]
	Coating on Heat Exchanger		—
	External Finish Color		Galvanized
	Unit Dimensions	W x D x H: In. [mm]	35-7/16 x 28-7/8 x 9-7/8 [900 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	46-1/16 x 35-7/16 x 13 [1,170 x 900 x 330]
	Unit Weight	Lbs. [kg]	60 [27]
	Package Weight	Lbs. [kg]	71 [32]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	95 DB, 71 WB / 67 DB, 57 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	80 DB / 70 DB

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
  - » Wind baffles required to operate below 23°F DB in cooling mode.
  - » Heat pump system with wind baffle: 0°F - 115°F.
  - » Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):
- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:
- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 1ZU*****

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SPECIFICATIONS: PEAD-A18AA9 & PUZ-A18NKA7

Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		Linear expansive valve
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling[1]	dB(A)	44
	Sound Pressure Level, Heating[2]	dB(A)	46
	Compressor Type		DC INVERTER-driven Twin Rotary
	Compressor Model		SNB130FQCMC-L1
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 16
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
	Unit Dimensions	W x D x H: In. [mm]	31-13/16+2-7/16 x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]
	Package Dimensions	W x D x H: In. [mm]	38 x 17 x 33 [941 x 411 x 819]
	Unit Weight	Lbs. [kg]	100 [45]
	Package Weight	Lbs. [kg]	112 [51]
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / 12 DB, 10 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-13 / -4
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 14.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	1 [19]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
  - » Wind baffles required to operate below 23°F DB in cooling mode.
  - » Heat pump system with wind baffle: 0°F - 115°F.
  - » Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):
- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:
- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 1ZU*****

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INDOOR UNIT ACCESSORIES: PEAD-A18AA9

Control Interface	Airzone Wired Blueface Controller (White)	☐ AZZBSBLUEZEROCB
	Airzone Wired Lite Controller (White)	☐ AZZBSLITECB
	Airzone Wireless Lite Controller (White)	☐ AZZBSLITERB
	Airzone Wireless Think Controller (White)	☐ AZZBSTHINKRB
	Backup Heat Relay Kit Adapter for CN24 or CN152 on ducted models	☐ CN24RELAY-KIT-CM3
	IT Extender for kumo station™	☐ PAC-WHS01IE-E
	kumo station™ for kumo cloud®	☐ PAC-WHS01HC-E
	On/Off Input Adapter for CN32 and Forced Fan Operation Input Adapter for SWE	☐ PAC-715AD
	Operation and Error Status Output Adapter	☐ PAC-SF40RM-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	☐ PAC-US445CN-1
	USNAP Adapter for Demand Response	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor for SEZ, SLZ, SVZ and all P-Series models	☐ PAC-USSEN002-FM-1
	Wall Mount Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe MA Wired Remote Controller†	☐ PAR-41MAAU
	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller	☐ PAC-YT53CRAU-J
	Touch MA Wired Remote Controller	☐ PAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller & Receiver kit	☐ MHK2
	Lockdown Bracket for Wireless Handheld Remote Controllers	☐ RCMKP1CB
	Universal Wireless MA Handheld Remote Controller	☐ PAR-FL32MA-E
	Universal Wireless Receiver for PAR-FL32MA-E	☐ PAR-FA32MA-W
	Wireless Signal Receiver	☐ PAR-SA9CA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H	☐ X86-003
	Blue Diamond Sensor Extension Cable — 15 Ft.	☐ C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	☐ COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	☐ CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	☐ CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2” X 4” utility box] - Black	☐ TAZ-MS303
	(30A/600V/UL) [fits 2” X 4” utility box] - White	☐ TAZ-MS303W
Filter Box	Filter Box with MERV 13 Filter	☐ FBM2-2-A
Lineset		☐ Lineset 1/4x1/2
	100’ x 1/4” x 100’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-100
	15’ x 1/4” x 15’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-15
	30’ x 1/4” x 30’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-30
	50’ x 1/4” x 50’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-50
	65’ x 1/4” x 65’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-65

NOTES:
‡PAC-SF40RM-E (Unable to use with wireless remote controller)

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OUTDOOR UNIT ACCESSORIES: PUZ-A18NKA7

Air Outlet Guide	Air Outlet Guide	☐ PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	☐ PAC-SG63DP-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	☐ M21EC0397
	USB Conversion Cable for PAC-USCMS-MN-1	☐ M21EC1397
Drain Socket	Drain Socket	☐ MAC-871DS
Hail Guards	Hail Guard	☐ HG-A5
M-NET Converter	M-NET Interface for PUZ-A-NKA7 12 & 18 outdoor units	☐ PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 16” x 36” x 3”	☐ ULTRILITE1
Snow/Rain Diverter	Snow/Rain Diverter	☐ SRD-2
Stand	18” Single Fan Stand	☐ QSMS1801M
	24” Single Fan Stand	☐ QSMS2401M
	Condenser Wall Bracket	☐ QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	☐ QSWBSS
	Outdoor Unit Stand — 12” High	☐ QSMS1201M
Wind Baffle	Front Wind Baffle	☐ WB-PA4
	Rear Wind Baffle	☐ WB-RE4
	Side Advanced Wind Baffle	☐ WB-SD4

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INDOOR UNIT DIMENSIONS: PEAD-A18AA9

INDOOR UNIT

PEAD-A09, 12, 15, 18, 24, 30, 36, 42AA9

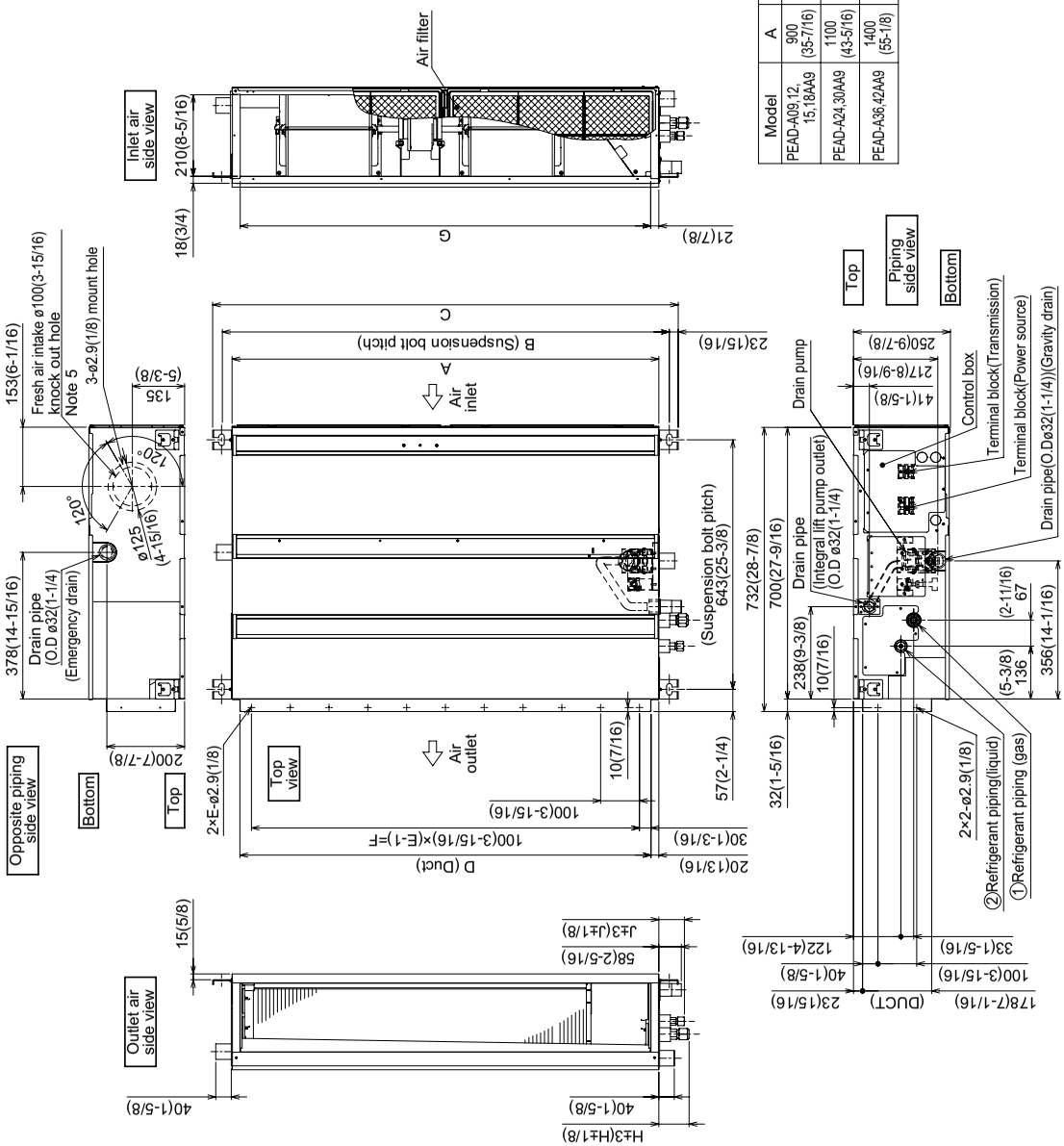
Notes 1.Use an M10 screw for the suspension bolt (field supply).
2.Keep the service space for maintenance at the bottom.
3.This drawing is for PEAD-A09·12·15·18·24·30AA9 models,which have 2 fans. PEAD-A36·42AA9 models have 3 fans.
4.If the inlet duct is used,remove the air filter(supplied with the unit),then install the filter(field supply) at the suction side.
5.Heat air to 0°C(32°F) or higher when taking fresh air with a fresh air intake.

Unit:mm(in.)

Model	J	①Gas pipe	②Liquid pipe
PEAD-A09AA9	62 (2-1/2)	ø9.52 (3/8)	ø6.35 (1/4)
PEAD-A12,15, 18AA9		ø12.7 (1/2)	
PEAD-A24,30AA9	66 (2-5/8)	ø15.88 (5/8)	ø9.52 (3/8)
PEAD-A36,42AA9			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
PEAD-A09,12, 15,18AA9	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24,30AA9	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36,42AA9	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

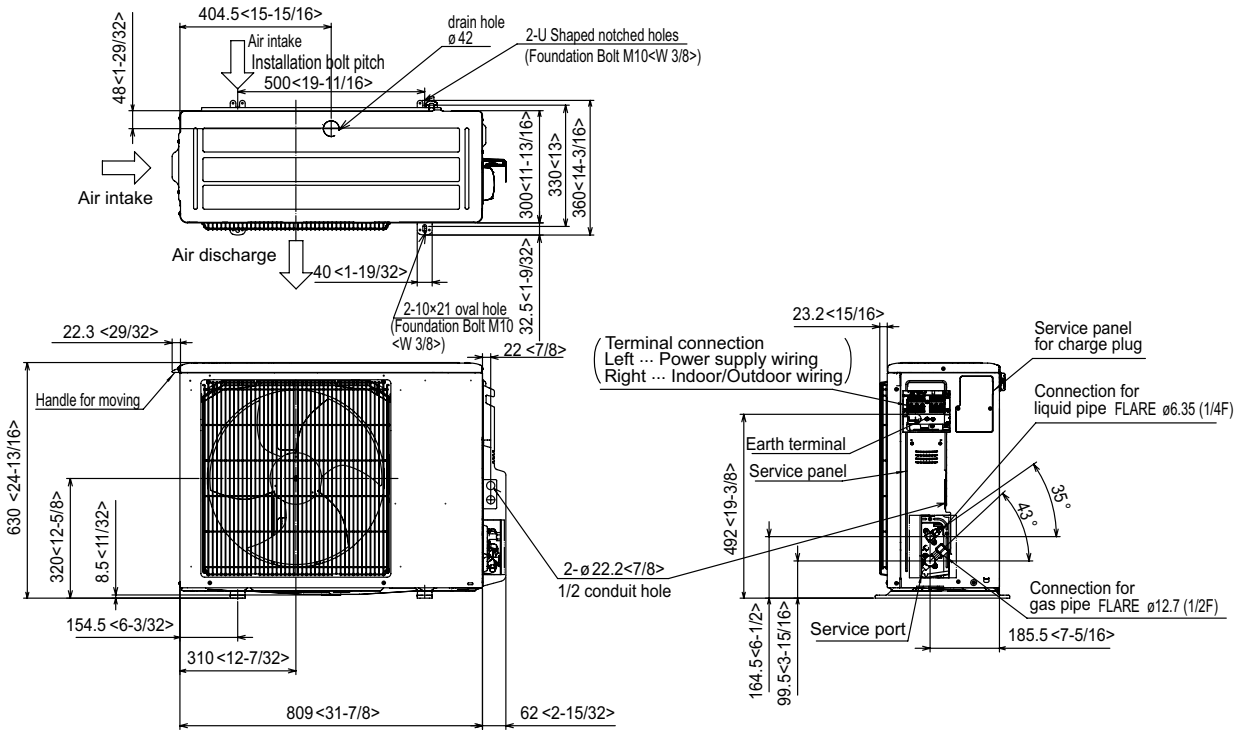


Specifications are subject to change without notice.

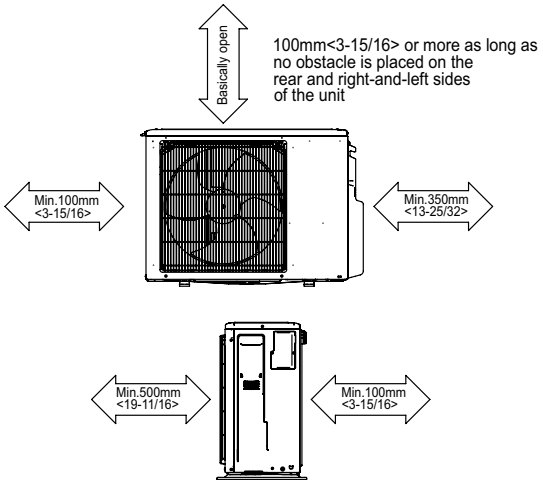
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OUTDOOR UNIT DIMENSIONS: PUZ-A18NKA7

Unit: mm<in>



Free space around the outdoor unit (basic example)

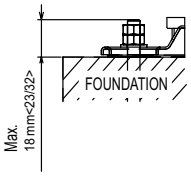


2 sides should be open in the right, left and rear side.

FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10<W3/8>) bolts. (Bolts, washers and nut must be purchased locally).

<Foundation bolt height>



PIPING-WIRING DIRECTION

Piping and wiring connection can be made from the rear direction only.

1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# PEAD-A18AA9 & PUZ-A18NKA7 - 202408

Specifications are subject to change without notice.

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CCI (931I) SERIES

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS*

The heating equipment shall include a ceiling mounted 931I electric automatic fan-forced heater suitable for large area heating as manufactured by Indeeco®. The heater shall be designed for ceiling surface, recess or T-Bar mounting. Heaters shall be cETLus Listed.

HEATER ASSEMBLY: The heater assembly, which fits in the back box, shall consist of a fan panel upon which is mounted all of the operational parts of the heater.

HEATING ELEMENT: The heating element shall be of the non-glowing design consisting of 80/20 NiCh resistance wire enclosed in a steel sheath to which plate fins are copper brazed. It shall be warrantied for 5 years.

FAN AND FAN MOTOR: The fan shall be five-bladed aluminum. The fan motor shall be totally enclosed.

FAN DELAY SWITCH: Fan control shall be of bi-metallic, snap-action type and shall activate fan after heating element reaches operating temperature. The fan shall continue to operate after the thermostat is satisfied and until the heating element is cool.

THERMAL CUTOUT: A thermal cutout shall be built into the system to shut off the heater in the event of overheating.

DISCONNECT SWITCH: A double-pole single throw disconnect switch shall be mounted on the back box for positive disconnect of power supply. It will be completely concealed behind the faceplate.

BACK BOX: The back box shall be designed for duty as a recessed rough-in box either masonry or frame installations, and is also used with the surface mounting frame in surface mounting installations. The back box shall be 20- gauge galvanized steel and shall contain knockouts through which power leads are brought.

FACEPLATE: The louvered faceplate shall be of 14-gauge cold-rolled steel, phosphatized, then electrostatically painted Beige by a powder coat process. A ¼-inch mesh screen shall be installed beneath the faceplate to deter the insertion of foreign objects. The face plate shall be secured to the heating unit with tamper-resistant screws.

THREE-PIECE DESIGN: The heater shall be made up of a back box, a heater assembly and a faceplate.

OPTIONS:

THERMOSTAT: The optional tamper-resistant thermostat shall be of the bi-metallic, snap-action type with enclosed contacts. It shall be completely concealed behind the faceplate to become tamper-resistant (FIT-FT1-Z or FIT-FFT2-Z).

LOW VOLTAGE TIME DELAY RELAYS: 24 volt and 120 volt low voltage time delay relays are available as optional equipment to control 208, 240 or 277 volt heaters (with an external supplied 24 or 120 volt control circuit) in conjunction with central energy control systems. The built-in thermostat can then be used as one of the thermostats in an automatic night set back operation (FIR-FR2-Z or FIR-FR12-Z).

LOW VOLTAGE TRANSFORMER/RELAYS: (Primary or Secondary) Transformer/Relays shall be available as optional equipment to control 208, 240 or 277 volt heaters (with single point supply connection and internal supplied 24 volt control circuit) in conjunction with central energy control systems. The built-in thermostat can then be used as one of the thermostats in an automatic night set back operation (FIR-FTR4-Z OR FIR-FTR7-Z).

SURFACE MOUNTING FRAME: The surface mounting frame, designed to allow full surface mounting, shall be of 14-gauge cold-rolled steel, phosphatized, then electrostatically painted by a powder coat process (FIF-FSM-N).

T-BAR FRAME: For T-Bar mounting, a 14-gauge cold-rolled steel frame, phosphatized and electrostatically painted by a powder coat process, shall be available. Frame shall be designed to mount in a standard 2′ x 2′ ceiling grid (FIF-FTBF-N).

**Indeeco reserves the right to change specifications without prior notice.*

Models & Specifications:

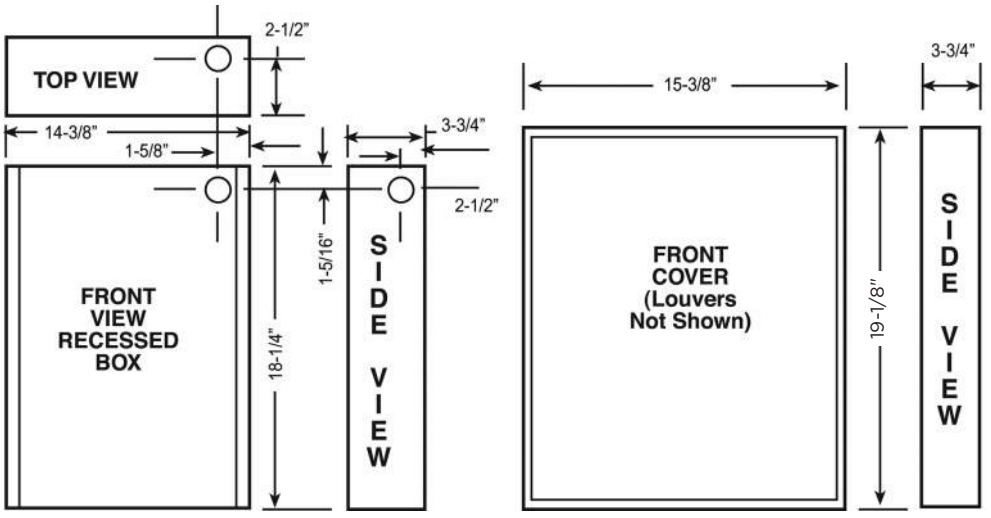
	ELECTRICAL DATA					
CATALOG NO.	VOLTS	PHASE	WATTS	AMPS	BTU/HR	SHIP WT.
931IF-F1500-N	120	1	1500	12.5	5120	23 lbs
931IF-F3007-N	277	1	3000/1500	10.8/5.4	10239/5120	23 lbs
931IF-F4008-N	208	1	4000/2000	19.2/9.8	13652/6826	23 lbs
931IF-F4004-N	240	1	4000/2000	16.7/14.4	13652/10239	23 lbs
	208	1	3000/1500		10239/5120	
931IF-F4007-N	277	1	4000/2000	14.4/12.5	13652/10239	23 lbs
	240	1	3000/1500		10239/5120	
931IF-F4804-N	240/208	1	4800/3600	20.0/17.3	16382/12287	23 lbs
931IF-F4807-N	277/240	1	4800/3600	17.3/15.0	16382/12287	23 lbs
931IF-F48483-N	480	3	4800	5.8	16382	23 lbs
931IF-F48483L-N	480	3	4800	5.8	16382	23 lbs
931IF-F3003-N	347	3	3000	8.6	10239	23 lbs
EFF3006	600	3	3000	5	10239	23 lbs
931IF-F4003-N	347	3	4000	11.5	13652	23 lbs
931IF-F4006-N	600	3	4000	6.7	13652	23 lbs
931IF-F4803-N	347	3	4800	13.8	16382	23 lbs
931IF-F4806-N	600	3	4800	8	16382	23 lbs

NOTE: Factory-wired for highest wattage, field-convertible to lower wattages. Orders above 7500' sea level require special order

Optional Accessories:

CATALOG NO.	DESCRIPTION	SHIP WT.
FIF-FSM-N	Surface Mounting Sleeve - Beige	6 lbs
FIR-FR2-Z (24V)	Time delay relay, 45-60 seconds to close when energized; Uses remote 24V or 120V power source	1 lbs
FIR-FR12-Z (120V)		
FIF-FTBF-N	T-Bar Frame Kit	4.5 lbs
FIT-FT1-Z	Single Pole T-Stat. (Field Installed)	1 lbs
FIT-FFT2-Z	Double Pole Thermostat. (Field Installed)	2 lbs
FIR-FTR4-Z	208/240V Primary Transformer 24V Relay	1 lbs
FIR-FTR7-Z	277V Primary 24V Sec. Transformer Relay	1 lbs

Dimensions and Clearances:



No matter the industry or application, Indeeco has a robust portfolio of innovative, reliable, high-performance comfort heating and ventilation solutions for all your heating needs.

THERM-X-TROL®

Thermal Expansion Tanks: Diaphragm ST-C Series ASME

150 PSIG Working Pressure

DET-1

Construction

Shell	ST-5C through ST-42VC: Deep Drawn Steel ST-60VC through ST-210VC: Steel Head & Shell
Diaphragm	Heavy Duty Butyl NSF/ANSI 61
Liner	Antimicrobial Polypropylene w/Anti-Legionella Protection
System Connection	Stainless Steel
Finish	Red Oxide Primer
Water Circulator	Turbulator® (Deep Drawn Models)
Air Valve	Schrader Valve w/ EPDM Seat
Factory Precharge	55 PSIG (3.8 bar)

Performance

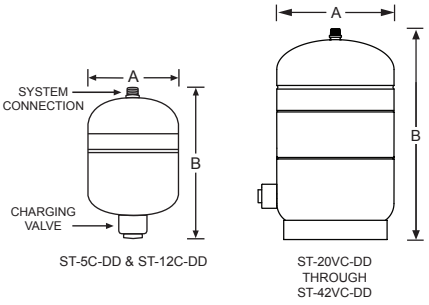
Maximum Operating Temperature	200°F (93°C)
Maximum Working Pressure	150 PSIG (10.3 bar)
Warranty	3-Years

Application

- For use in closed, domestic hot water systems to control pressure buildup.
- Fixed diaphragm construction.
- Designed and constructed per ASME Code Section VIII, Division 1.
- Tested to JIS Z 2801 for reduction of Legionella, Staphylococcus and E. coli.
- Follows ASHRAE 188 Anti-Legionella guidelines.
- All models available with optional sight glass.
- Seismic restraints available on stand models only.
- Deep drawn models are lighter, stronger and more compact than traditional head and shell construction.

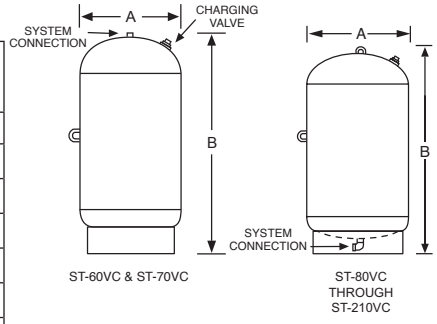
Deep Drawn In-Line & Stand Models

Model Number	Tank Volume		Max. Accept. Factor	A Tank Diameter		B Tank Height		System Conn. (NPTM)	Shipping Weight	
	Gal	Lit		In	mm	In	mm	In	Lbs	Kg
ST-5C-DD	2.0	8	.45	8	203	14	356	¾	10	5
ST-12C-DD	6.4	24	.50	12	305	18	457	¾	26	12
ST-20VC-DD	8.6	33	.37	12	305	22	559	¾	36	16
ST-30VC-DD	16.5	63	.68	15	381	25	636	¾	48	22
ST-42VC-DD	23.0	88	.49	15	381	33	838	¾	68	31



Head & Shell Stand Models

Model Number	Tank Volume		Max. Accept. Factor	A Tank Diameter		B Tank Height		System Conn. (NPTF)	Shipping Weight	
	Gal	Lit		In	mm	In	mm	In	Lbs	Kg
ST-60VC	25.0	95	.44	16	406	32	813	¾	85	39
ST-70VC	34.0	129	.32	16	406	45	1143	¾	99	45
ST-80VC	53.0	201	.66	24	610	37	940	1¼	224	102
ST-120VC	68.0	257	.51	24	610	44	1118	1¼	266	121
ST-180VC	77.0	291	.45	24	610	49	1245	1¼	285	129
ST-210VC	90.0	341	.39	24	610	57	1448	1¼	319	145



All dimensions and weights are approximate.

Job Name _____ Notes _____

Engineer _____

Contractor _____

P.O. No. _____

Sales Rep. _____

Model No. _____

188 AntiLegionella Antimicrobial

NSF Certified to NSF/ANSI/CAN 61

Turbulator DEEP DRAWN MODELS

ISO 9001:2015 CERTIFIED

LEAD FREE IAPMO R&T

Amtrol Inc., 1400 Division Road, West Warwick, RI 02893 USA T: 401.884.6300 **www.amtrol.com**

MC4400 (01/24)

THERM-X-TROL®

Thermal Expansion Tanks: Diaphragm ST-C Series ASME

150 PSIG Working Pressure

DET-2

Construction

Shell	ST-5C through ST-42VC: Deep Drawn Steel ST-60VC through ST-210VC: Steel Head & Shell
Diaphragm	Heavy Duty Butyl NSF/ANSI 61
Liner	Antimicrobial Polypropylene w/Anti-Legionella Protection
System Connection	Stainless Steel
Finish	Red Oxide Primer
Water Circulator	Turbulator® (Deep Drawn Models)
Air Valve	Schrader Valve w/ EPDM Seat
Factory Precharge	55 PSIG (3.8 bar)

Performance

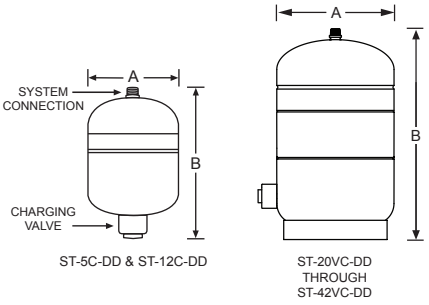
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Application

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- All models available with optional sight glass.
- Seismic restraints available on stand models only.
- Deep drawn models are lighter, stronger and more compact than traditional head and shell construction.

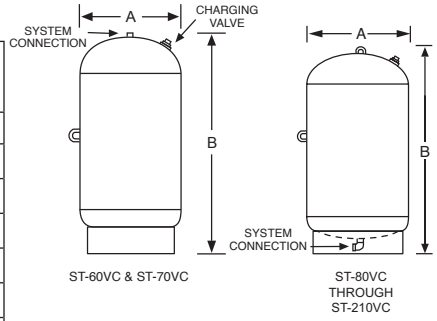
Deep Drawn In-Line & Stand Models

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Head & Shell Stand Models

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ST-120VC	68.0	257	.51	24	610	44	1118	1¼	266	121
ST-180VC	77.0	291	.45	24	610	49	1245	1¼	285	129
ST-210VC	90.0	341	.39	24	610	57	1448	1¼	319	145



All dimensions and weights are approximate.

Job Name _____ Notes _____

Engineer _____

Contractor _____

P.O. No. _____

Sales Rep. _____

Model No. _____

188 AntiLegionella. Antimicrobial.

NSF Certified to NSF/ANSI/CAN 61

Turbulator DEEP DRAWN MODELS

ISO 9001:2015 CERTIFIED

LEAD FREE IAPMO R&T

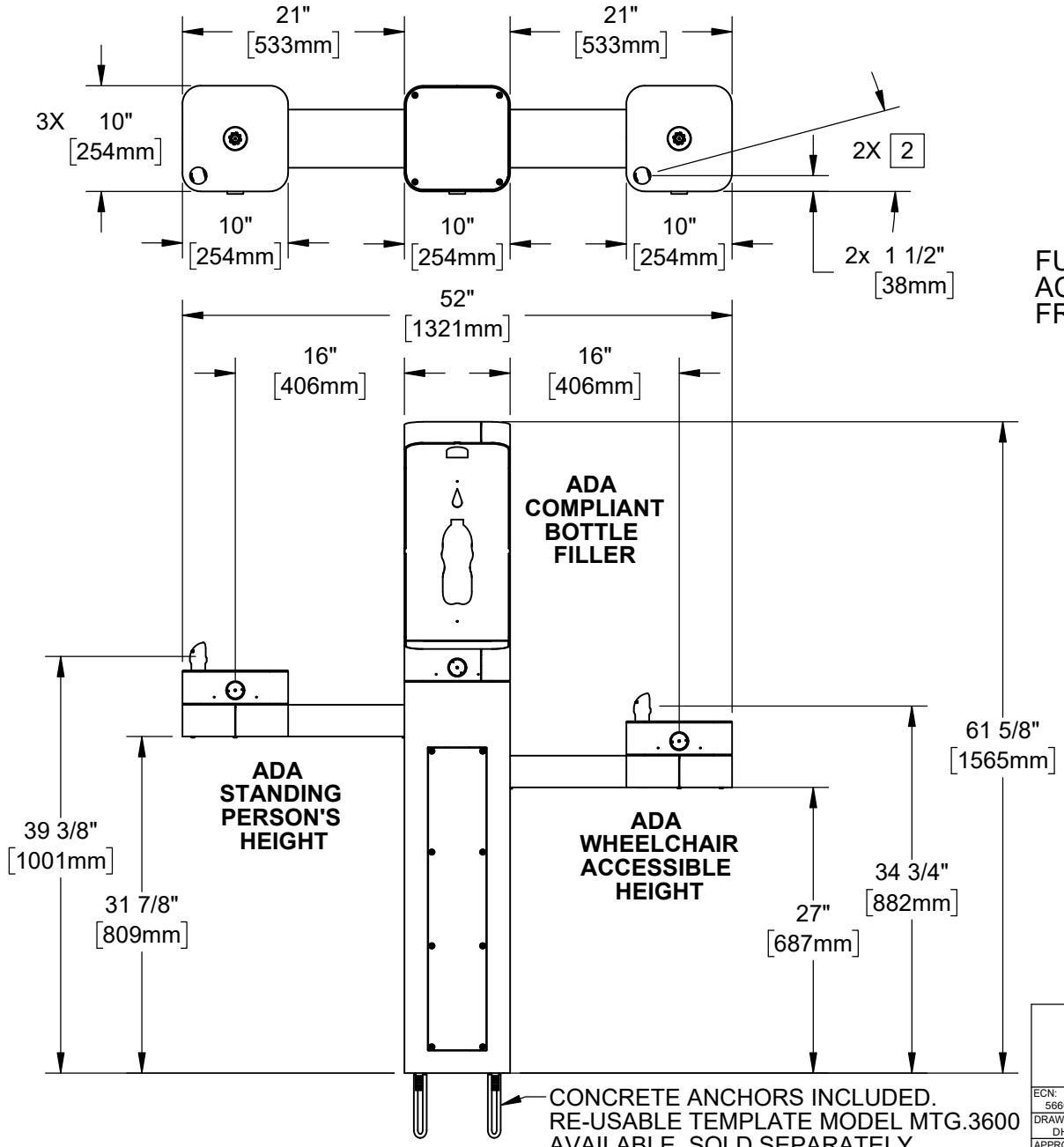
Amtrol Inc., 1400 Division Road, West Warwick, RI 02893 USA T: 401.884.6300 **www.amtrol.com**

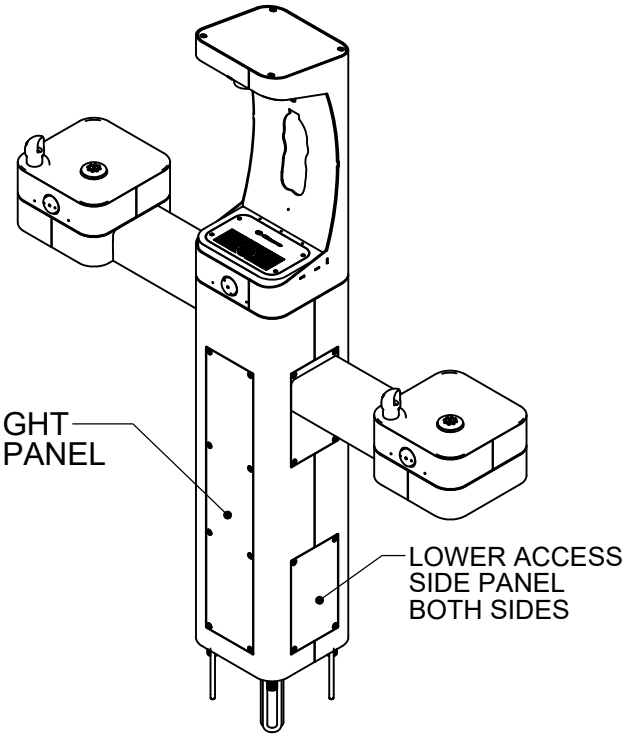
MC4400 (01/24)

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NOTES:
1. WHEN INSTALLING THIS UNIT, LOCAL, STATE, OR FEDERAL CODES SHOULD BE ADHERED TO. INSTALL A TRAP IN THE WASTE LINE AND A SCREWDRIVER STOP IN THE SUPPLY LINE IF REQUIRED.

[2] MAXIMUM ADJUSTABLE RANGE IS 15° FROM PARALLEL TO BACK OF WALL.





HAWS MODEL 3612/3612F IS FULLY COMPLIANT WITH THE FEDERAL 2010 AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS WHEN INSTALLED AS SHOWN HERE AND WHEN INSTALLED WITH PROPER CLEARANCES AND ACCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ADHERE TO LOCAL, STATE, AND FEDERAL CODES WHEN INSTALLING THIS UNIT. DISTANCE TO SURROUNDING OBJECTS, APPROACH SURFACES, ETC. SHOULD BE CONSIDERED. REFER TO SHEET 9 FOR MORE INFORMATION.

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SPARKS, NEVADA 89431
(775) 359-4712 FAX (775) 359-7424
E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

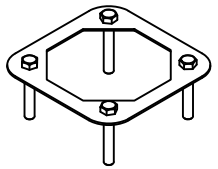
ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 1 OF 9

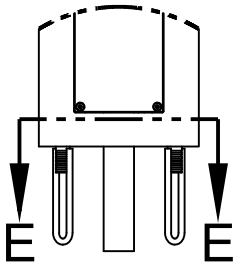
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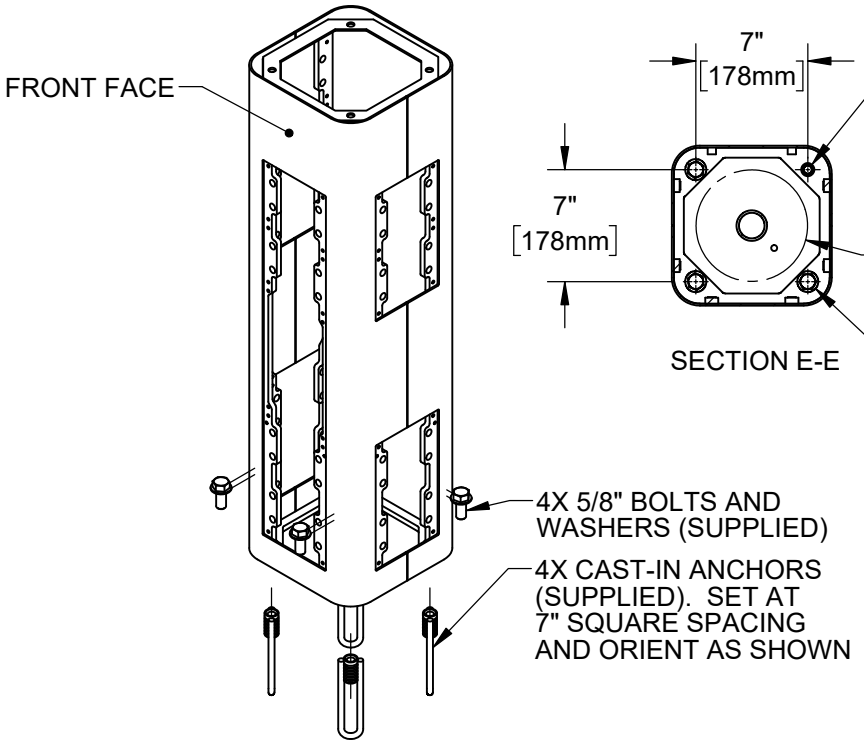
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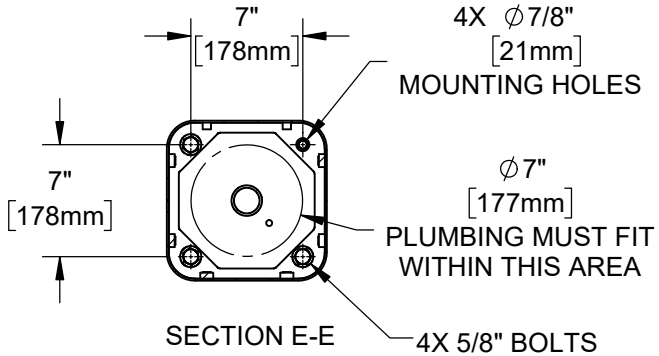
INSTALLATION INSTRUCTIONS

MODEL MTG.3600
(OPTIONAL)
TEMPLATE FOR SPACING ANCHORS DURING CONCRETE POUR

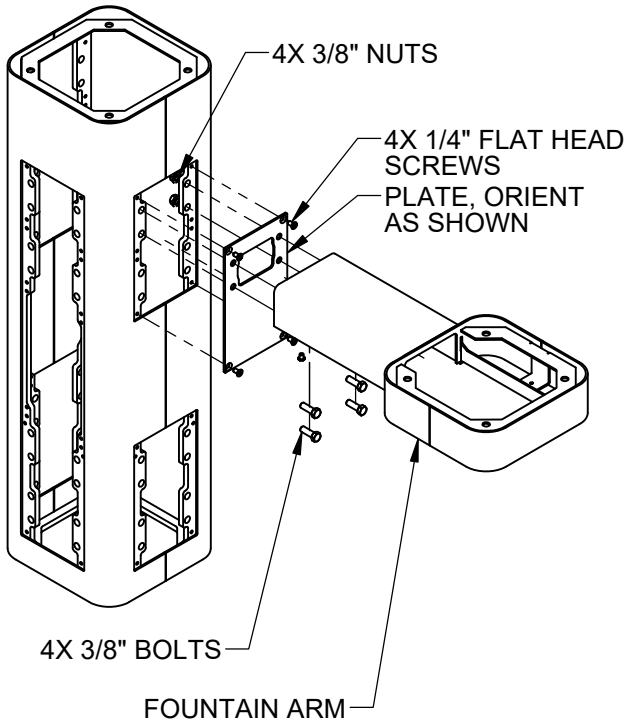








SECTION E-E



STEP 1
MOUNT PEDESTAL TO CONCRETE SLAB IN DESIRED ORIENTATION. SLAB TO BE 30" MINIMUM SQUARE AND 6" MINIMUM THICK (BY OTHERS). PLUMBING CAST IN CONCRETE MUST FIT IN 7" DIAMETER AREA CENTERED UNDER PEDESTAL LOCATION.

STEP 2
REMOVE BOTTOM COVER PLATES FROM ARMS BY REMOVING 3 1/4" BUTTON HEAD SCREWS. INSTALL ONE FOUNTAIN ARM ON RIGHT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATE. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.

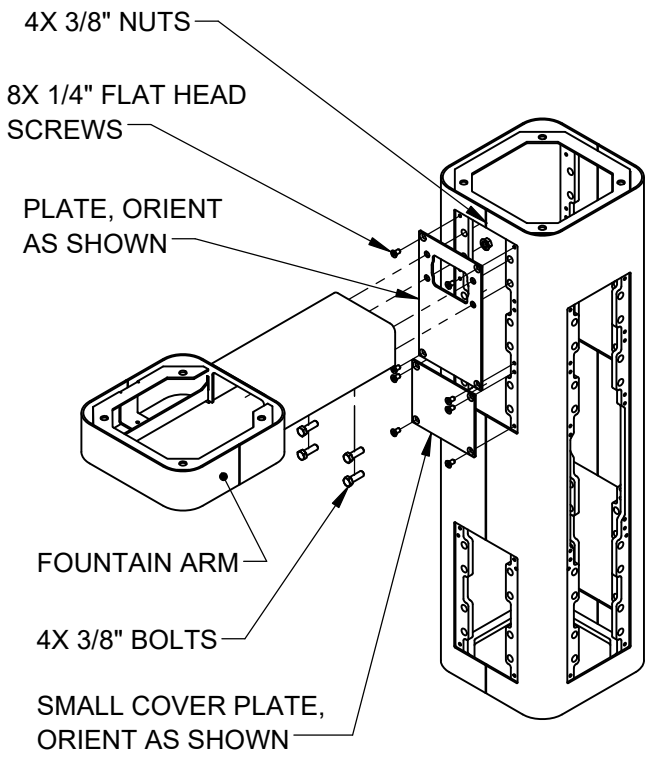
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E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 2 OF 9

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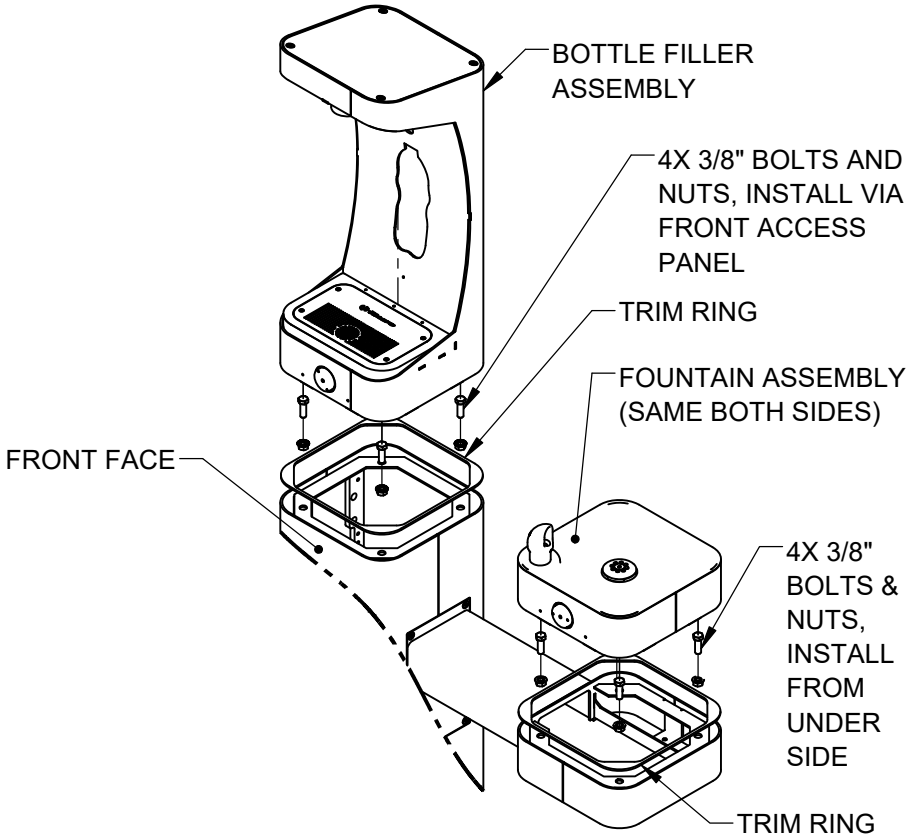
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INSTALLATION INSTRUCTIONS



STEP 3

INSTALL REMAINING ARM ON LEFT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATES. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.



STEP 4

PLACE SQUARE TRIM RING ON BOTTOM OF BOTTLE FILLER AND PLACE BOTTLE FILLER ON TOP OF PEDESTAL, FACING THE FRONT. USE 3/8" BOLTS AND NUTS VIA THE FRONT ACCESS PANEL TO SECURE BOTTLE FILLER TO PEDESTAL. PLACE TRIM RING AND INSTALL FOUNTAINS ON ARMS AS SHOWN. CAREFULLY CENTER BOTTLE FILLER, FOUNTAIN, AND TRIM RINGS, THEN TORQUE BOLTS/NUTS TO 18 FT-LBS

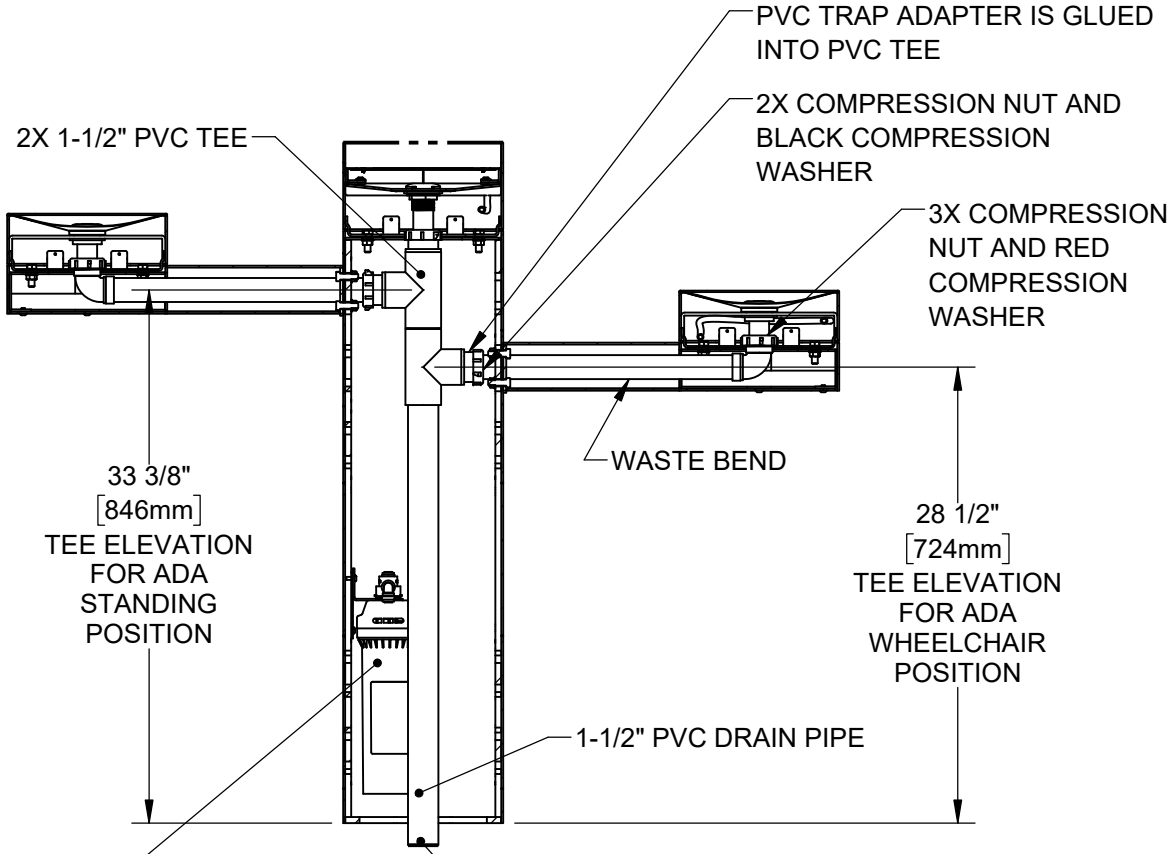
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INSTALLATION INSTRUCTIONS



MODEL 3612F (WITH FILTER) SHOWN

STEP 5

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEES. USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

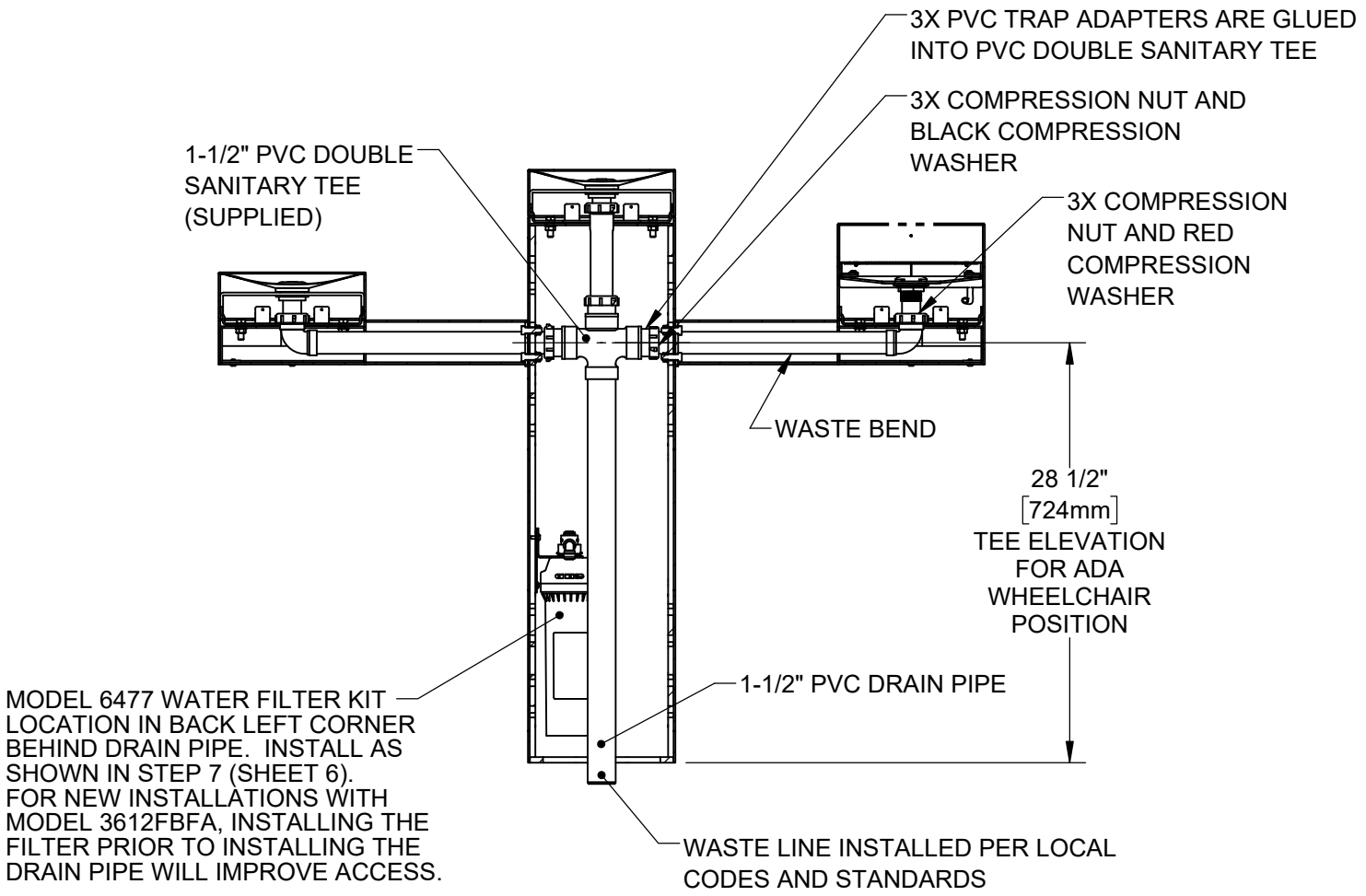
Haws Since 1906
1455 KLEPPE LANE
SPARKS, NEVADA 89431
(775) 359-4712 FAX (775) 359-7424
E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
5666	6030	FV	3612 & 3612F	0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 4 OF 9

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INSTALLATION INSTRUCTIONS



ALTERNATE MODEL 3612FBFA (WITH FILTER) SHOWN

STEP 5 (ALTERNATE)

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEE(S). USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

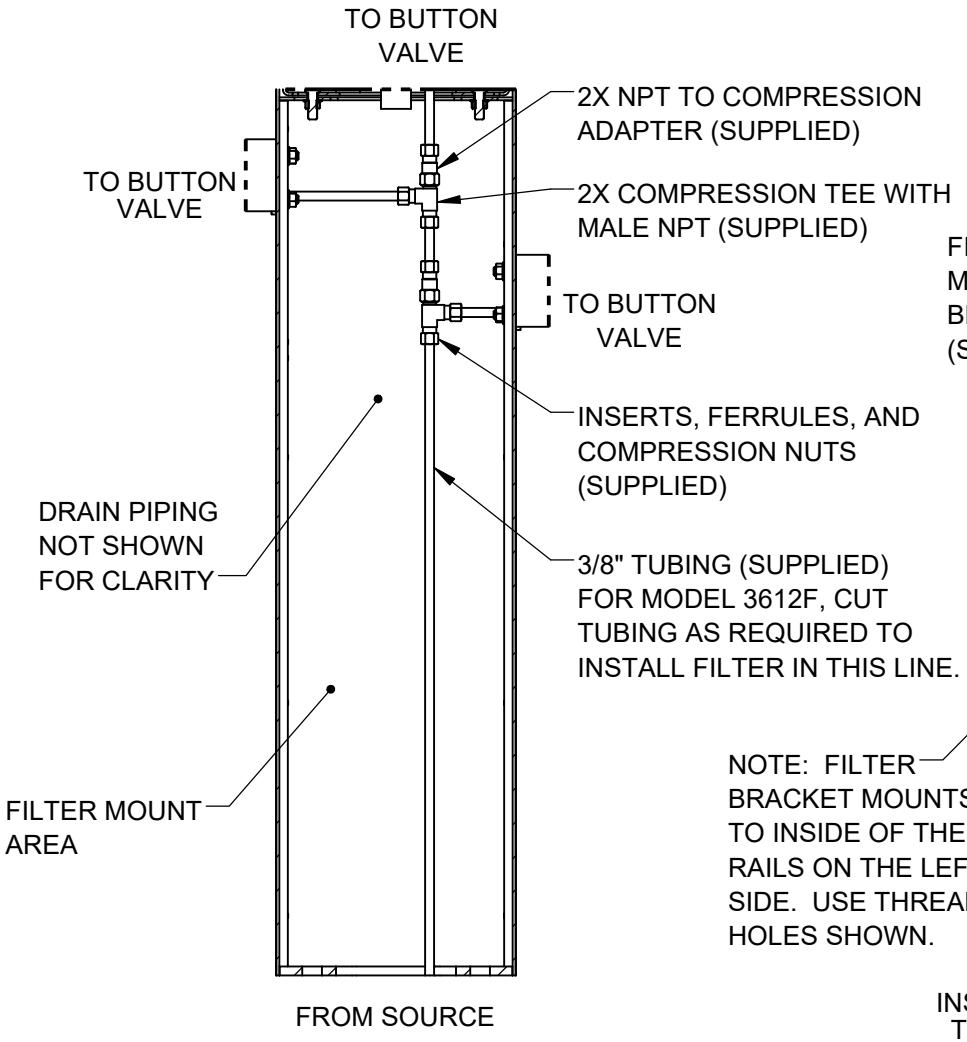
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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S)	3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL			REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:12	DRAWING TYPE: INSTALLATION	SIZE: A / SHEET 5 OF 9

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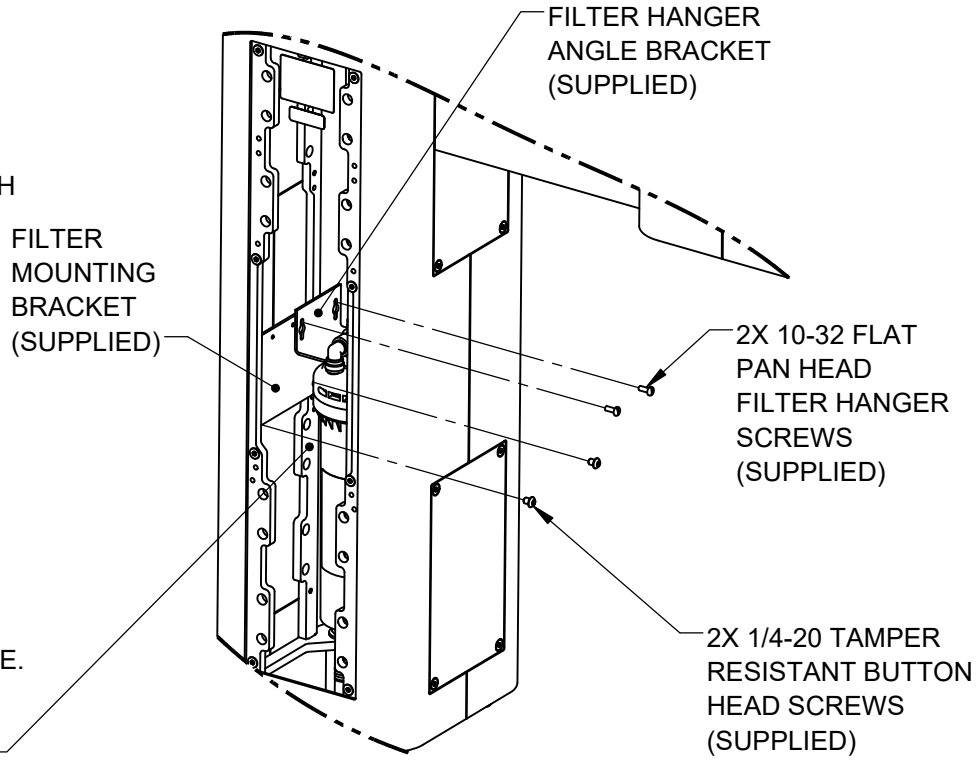
INSTALLATION INSTRUCTIONS



3612 SUPPLY PLUMBING

STEP 6

COMPLETE WATER SUPPLY PLUMBING AS SHOWN. OPEN SUPPLY VALVE(S) AND TEST. REPLACE ARM BOTTOM PLATES AND PEDESTAL ACCESS PLATES.



3612F FILTER BRACKET MOUNTING

STEP 7

INSTALL FILTER MOUNTING BRACKET (SUPPLIED WITH MODEL 6477) TO LEFT INSIDE VERTICAL RAILS USING 2 BUTTON HEAD SCREWS AS INDICATED ABOVE. INSTALL FILTER HEAD ON HANGER ANGLE WITH 4 SUPPLIED SELF-TAPPING SCREWS. IF USING THE SUPPLIED 3000-GALLON CAPACITY FILTER, INSTALL FILTER HANGER ANGLE BRACKET IN RIGHTMOST HOLES AS SHOWN. SEE SHEET 6 FOR OWNER-PROVIDED FILTER (6000-GALLON CAP.) INSTALLATION INSTRUCTIONS. SEE MODEL 6477 OPERATION AND MAINTENANCE MANUAL FOR ADDITIONAL DETAILS.

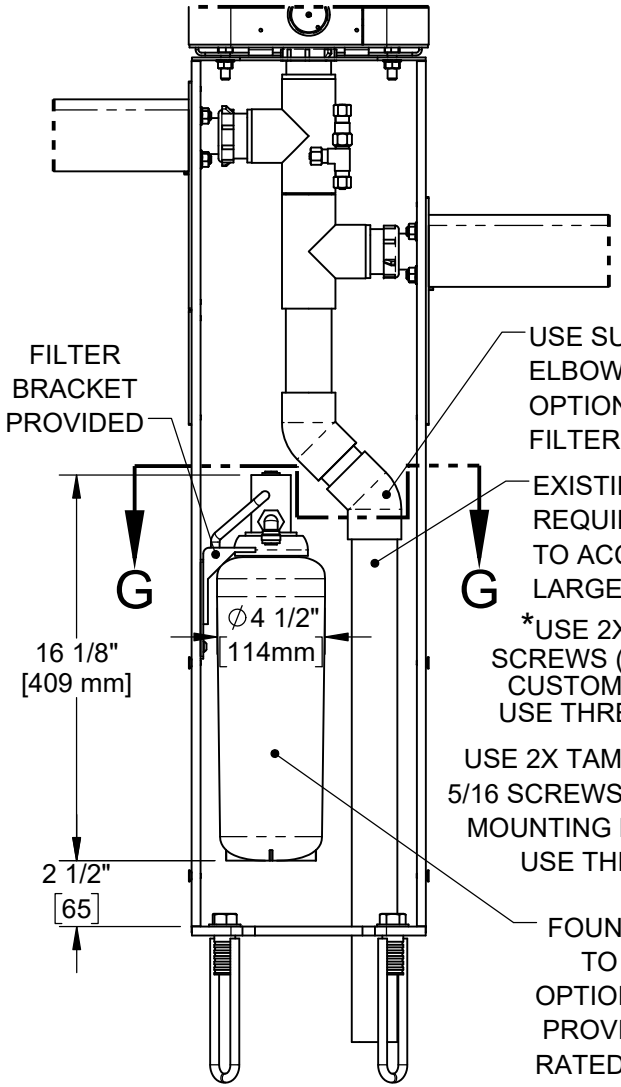
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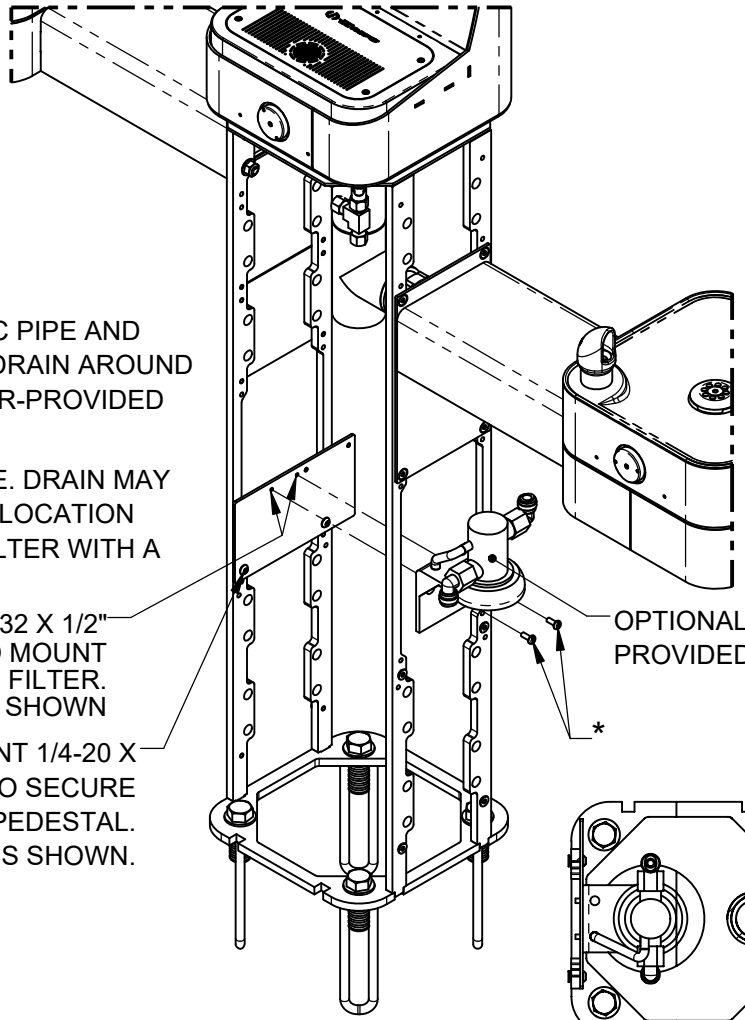
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5666	6030	FV	3612 & 3612F	0580001180.D
DRAWN:	DATE:	CHK'D.:		REVISION
DHP	6/11/20	JL		6
APPROVED:	DATE:			
FV	07/02/24			
SCALE: 1:24	DRAWING TYPE: INSTALLATION	SIZE: A	SHEET 6 OF 9	

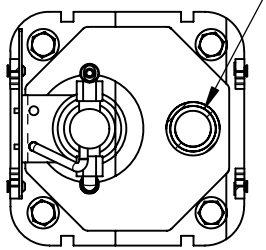
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OPTIONAL OWNER-PROVIDED FILTER INSTALLATION







ALTERNATE DRAIN LOCATION FOR CUSTOMER SUPPLIED OPTIONAL FILTER

SECTION A-A

INSTRUCTIONS FOR OPTIONAL OWNER-PROVIDED FILTER

NOTE: MOUNTING BRACKET, 1-1/2" X 3" PVC PIPE AND 45˚ PVC ELBOWS (QTY. 2) SUPPLIED WITH 6477 FILTER MOUNTING KIT ARE REQUIRED (SHOWN ON MODEL 3612/3612F FOR REFERENCE ONLY). INSTALLATION INSTRUCTIONS APPLY TO EITHER NEW OR RETROFIT APPLICATIONS. SEE SHEETS 4 THRU 6 FOR STANDARD FILTER (3000-GALLON CAPACITY) INSTALLATION INSTRUCTIONS.

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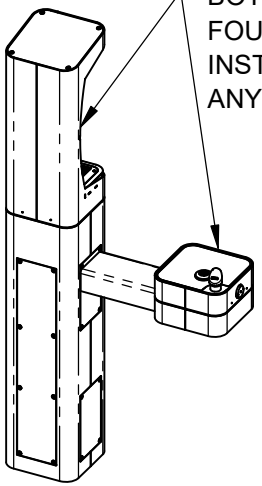
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DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 7 OF 9

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NOTES ON OPTIONAL CONFIGURATIONS

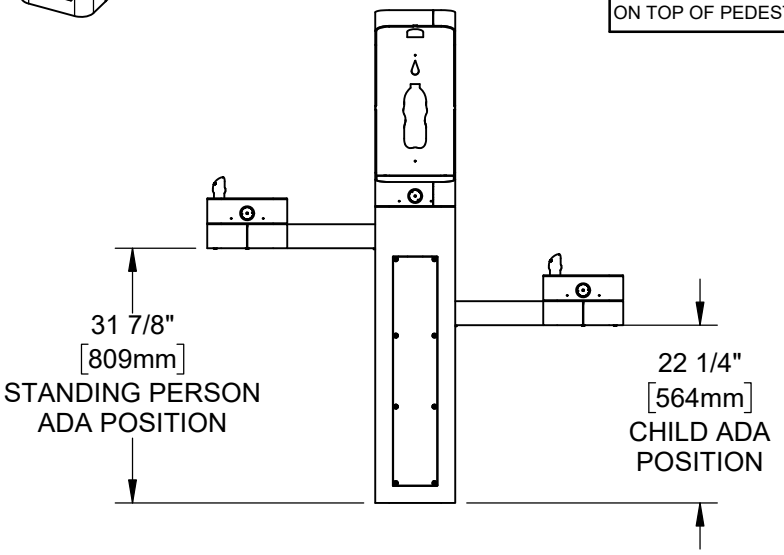
HAWS 3600/3600F SERIES OUTDOOR FOUNTAINS ARE MODULAR AND CAN BE ASSEMBLED AND CONFIGURED MANY DIFFERENT WAYS. DISPLAYED HERE ARE A FEW EXAMPLES. CONFIGURATIONS OTHER THAN THAT SHOWN IN THE INSTALLATION INSTRUCTIONS FOR THE 3612/3612F MAY AFFECT COMPLIANCE WITH ADA REGULATIONS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO UNDERSTAND LOCAL, STATE, AND FEDERAL REGULATIONS AS APPLICABLE IF INSTALLING THIS FOUNTAIN IN CONFIGURATIONS OTHER THAN THAT INDICATED ON SHEET 1 (PAGE 6 OF 14).

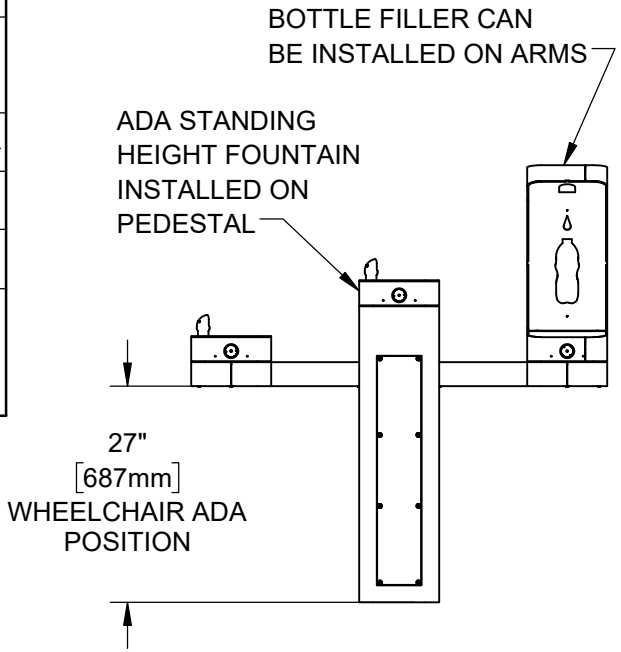


ADA ARM HEIGHT POSITION OPTIONS				
	LEFT SIDE*	RIGHT SIDE*	ARM HEIGHT (LOWER EDGE)	BUBBLER NOZZLE HEIGHT
STANDING ADA	YES (STD)	NO	31-7/8 [809 mm]	39-3/8 [999 mm]**
WHEELCHAIR ADA	YES	YES (STD)	27 [687 mm]	34-5/8 [878 mm]
CHILD ADA	YES	YES	22-1/4 [566 mm]	29-7/8 [757 mm]

* RIGHT AND LEFT CAN BE REVERSED IF PEDESTAL IS ROTATED 180°.

**NOZZLE HEIGHT IS 41-1/2" WHEN FOUNTAIN IS INSTALLED ON TOP OF PEDESTAL.





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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 8 OF 9

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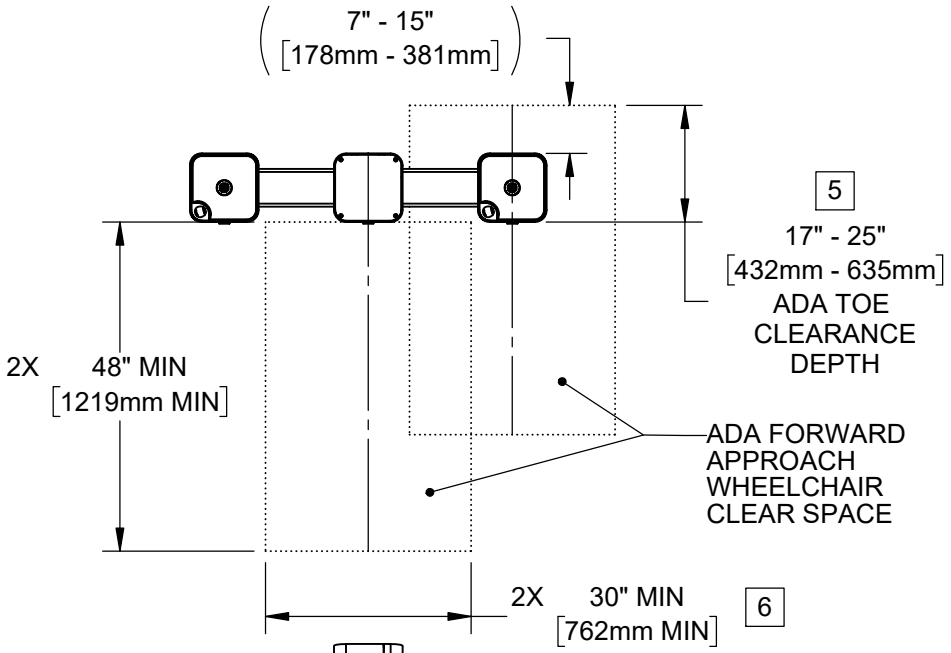
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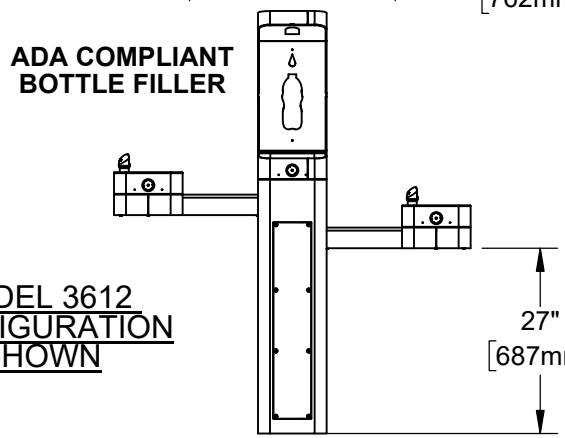
3. CLEAR FLOOR SPACES APPLY FOR ALL MODELS WITH A DRINKING FOUNTAIN OR BOTTLE FILLER INSTALLED AT ADA WHEELCHAIR ACCESSIBLE HEIGHT AND PEDESTAL MOUNTED BOTTLE FILLERS.
4. ORIENTATION OF CLEAR FLOOR SPACE IS DEPENDENT ON THE FOUNTAIN OR BOTTLE FILLER ORIENTATION.

[5] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 18" MIN.

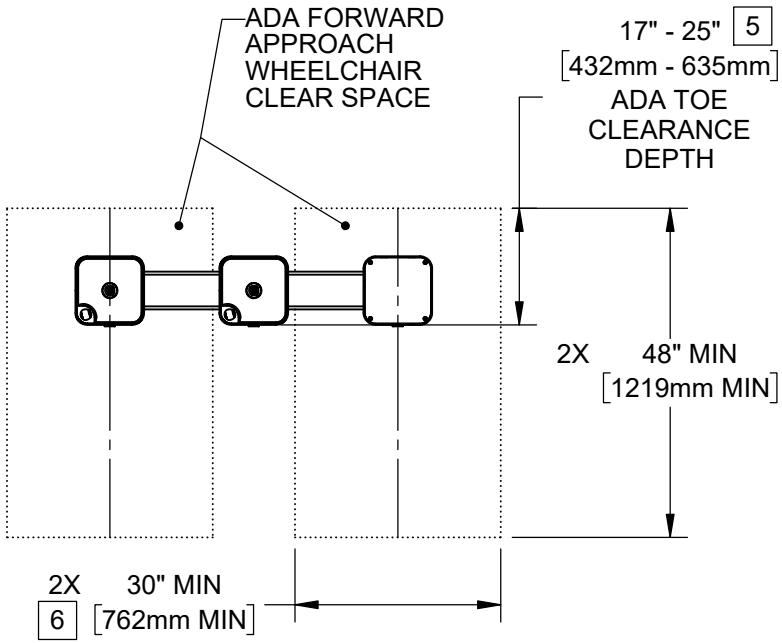
[6] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 32" MIN.

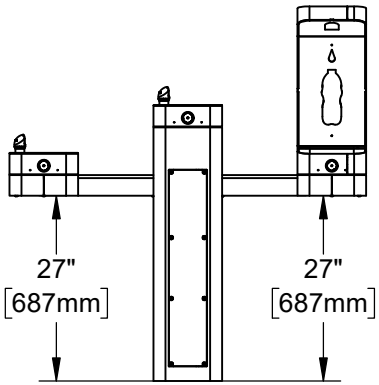
7. REFER TO ADA STANDARDS AND/OR YOUR LOCAL BUILDING CODE FOR CLEAR SPACE GUIDELINES FOR PARALLEL APPROACH.





MODEL 3612 CONFIGURATION SHOWN





MODEL 3612BFA ALTERNATE CONFIGURATION SHOWN

THESE HAWS MODELS ARE FULLY COMPLIANT WITH THE FEDERAL 2010 AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS WHEN INSTALLED AS SHOWN HERE AND WHEN INSTALLED WITH PROPER CLEARANCES AND ACCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ADHERE TO LOCAL, STATE, AND FEDERAL CODES WHEN INSTALLING THIS UNIT. DISTANCE TO SURROUNDING OBJECTS, APPROACH SURFACES, ETC. SHOULD BE CONSIDERED.

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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:28 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 9 OF 9

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INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

1455 Kleppe Lane ◆Sparks, NV 89431-6467 ◆(775) 359-4712 ◆Fax (775) 359-7424
E-mail: haws@hawsco.com ◆ website: www.hawsco.com

No. 0580001180 (6)

MODELS 3612 & 3612F
Outdoor Bottle Filler/Dual Drinking Fountain

NOTE TO INSTALLER: Please leave this information with the Maintenance Department.

LIMITED WARRANTY

HAWS warrants that all of its products are guaranteed against defective material or poor workmanship for a period of **one year from the date of shipment.** The foregoing notwithstanding, *HAWS* warrants certain specific products or components thereof for an adjusted period. A list of these excepted products and components and a description of their respective warranty terms may be found here: www.hawsco.com/warranty. *HAWS*' liability under this warranty shall be discharged by furnishing without charge F.O.B. *HAWS* factory any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first-class workmanship, provided that a claim is made in writing to Company within a reasonable period after receipt of the product. Where claims for defects are made, the defective part or parts shall be delivered to the Company, prepaid, for inspection. *HAWS* shall not be liable for the cost of repairs, alterations or replacements, or the labor required to implement them, or for any expense connected therewith made by the owner or owner's agents, except upon written authority from *HAWS*. *HAWS* shall not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that *HAWS* has made no other warranties either express or implied in addition to those above stated, except that of title with respect to any of the products or equipment sold hereunder and that *HAWS* shall not be liable for general, special, incidental, or consequential damages claimed to arise under the contract of sale.

Equipment manufactured by HAWS is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended. Any HAWS emergency equipment is intended to supplement first-aid treatment. Due to widely varying conditions, HAWS cannot guarantee that the use of this emergency equipment will prevent serious injury or the aggravation of existing or prior injuries.

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SHOULD YOU EXPERIENCE DIFFICULTY WITH THE INSTALLATION OF THIS MODEL PLEASE CALL:

TECHNICAL SUPPORT: 1-800-766-5612

FOR CUSTOMER SERVICE: 1-888-640-4297

RECOMMENDED TOOLS:

- Measuring Tape
- PVC Pipe Cutter
- Plastic Tubing Cutter
- PVC Solvent Weld Glue
- ¼" Bit-Holding Screwdriver
- Level
- 10" Pipe Wrench
- Adjustable Plier
- 1/8 and 5/32 Tamper Resistant Hex Bits (Supplied)
- 9/16" and 5/8" Box/Open Combination Wrenches, 8" Max Length
- 3/8" Socket Wrench/Rachet, 8" Max Length
- 9/16" Deep Socket
- 15/16" Socket

LOCATION OF UNIT: The Model 3612/3612F (with Filter) Bottle Filler and Dual Fountain can be installed and assembled to be ADA accessible by first locating the pedestal base on a hardscape with dimensions that comply with your local, state, and federal codes regarding clear floor space and pedestrian protection area. Refer to the last page of this document for more information. When the right pedestal arm is installed in the high orientation, the height dimensions shown on the model specification sheet meet current Federal Americans with Disabilities Act (ADA) wheelchair requirements. When the left pedestal arm is installed in the highest position, the height dimensions shown on the model specification sheet meet current ADA standing height requirements. The bottle filler meets ADA requirements for either a front approach or a side approach. When installing this unit, local, state and federal (including ADA) codes must be adhered to. If height other than shown is required, then dimensions must be adjusted accordingly.

ATTENTION: For model 3612F (model with 3000-gallon capacity Filter), the Operating Temperature Range for the 6477 Filter Kit Assembly (Required - supplied separately) is 40° F - 100° F (4.4° C – 37.8° C).

SUPPLY LINE: Model 3612 – The minimum recommended line size is 1/2"IPS with 30-90 psi (2-6 ATM) flowing pressure. Where sediment or mineral content is a problem, an inlet filter is recommended. **Model 3612F (with 3000-gallon capacity Filter) –** The minimum recommended line size is 1/2"IPS with 40-90 psi (2.76-6 ATM) flowing pressure.

PLUMBING CONNECTIONS: Model 3612 – Water supply inlet connection is a 3/8"O.D. compression fitting. Waste outlet is 1-1/2" PVC pipe. **Model 3612F –** Water supply inlet and outlet connection (for Filter) is a 3/8"O.D. push-in type fitting. Waste outlet is 1-1/2" PVC pipe. Plumbing connections will vary depending on how each model is configured during assembly. Please consult the installation drawings below for supply and waste fitting arrangements and assembly for your specific model.

MAINTENANCE: Models 3612 & 3612F Periodically clean the pushbutton valve strainer. Refer to 5874 Series Valve Operation and Maintenance Manual for more information. **Model 3612F –** Filter replacement to occur at 1 year maximum or 3,000 gallons maximum, whichever comes first. Replace filter (3000-gallon capacity) per Filter Replacement instructions listed on model 6477 Operation & Maintenance Manual.

INSTALLATION PROCEDURE

GENERAL NOTES:

1. **For all compression fitting connections, only connect NSF-61 copper or plastic 3/8" outside diameter tubing. The following assembly instructions must be followed to ensure a watertight connection:**

a. **Cut tubing square and clean. Deburr if necessary.**
b. **Place compression nut and ferrule over end of tubing.**
c. **For plastic tubing (must be ¼" inside diameter), insert supplied tubing insert into end of tubing.**
d. **Push tube into the fitting until it bottoms out.**
e. **Thread nut onto fitting and tighten snugly with 5/8" wrenches.**

Tube Sizes	O.D. Tolerance	Insertion Depth
3/8"	±.005"	3/4"

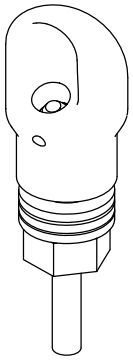
TROUBLESHOOTING			
	PROBLEM		**REPAIR CHECKLIST**
1.	Insufficient bubbler flow (From Drinking Fountain)	1a.	For 3612 – Verify minimum 30 psi flowing supply pressure. For 3611F – Verify minimum 40 psi flowing supply pressure
		b.	Check that inlet screwdriver stop valve is wide open. Clean inlet strainer or adjust valve to increase flow. See 5874 Series Valve Manual*.
		c.	For 3612F (Only) – Check water filter. Replace at 1 year or 3,000 gallons (max.), whichever comes first.
2.	Insufficient bottle filler flow	2a.	For 3612 – Verify minimum 30 psi flowing supply pressure. For 3612F – Verify minimum 40 psi flowing supply pressure.
		b.	Nozzle strainer is clogged. Use nozzle removal tool to remove strainer and replace. Replacement strainers may be ordered by calling Customer Service.
		c.	Check that inlet screwdriver stop valve is wide open. Clean inlet strainer or adjust valve to increase flow. See 5874 Series Valve Manual*.
		d.	For 3612F (Only) – Check water filter. Replace at 1 year or 3,000 gallons (max.), whichever comes first.

*For more information about Haws products, see our website: www.hawsco.com

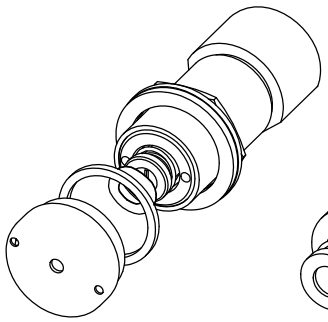
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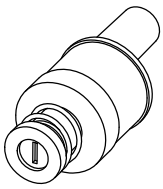
REPLACEMENT PARTS DRINKING FOUNTAIN



MODEL 5703M BUBBLER HEAD

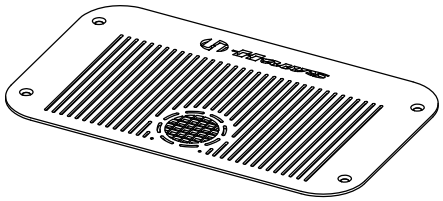


MODEL 5874PB PUSHBUTTON

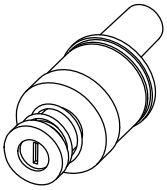


MODEL VRK5874 VALVE REPAIR KIT

REPLACEMENT PARTS BOTTLE FILLER



0410000564 BOTTLE FILLER DRAIN COVER PLATE

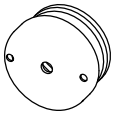


MODEL VRK5874HF VALVE REPAIR KIT, HIGH FLOW

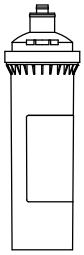


MODEL VRKNOZ1 QTY 10 AERATORS AND INSTALL TOOL

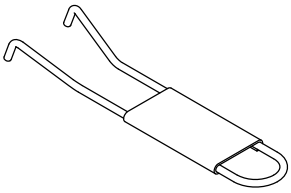
REPLACEMENT PARTS FOUNTAIN & BOTTLE FILLER



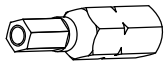
MODEL PBA7 BUTTON ASSEMBLY



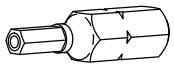
MODEL 6428 FILTER CARTRIDGE (FOR 36XXF SERIES MODELS)



0006983506 SPANNER WRENCH

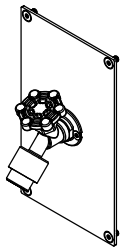


0510001030 HEX BIT, PINNED, 5/32"

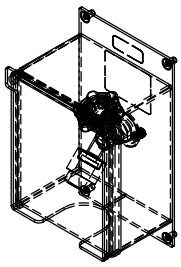


0510001029 HEX BIT, PINNED, 1/8"

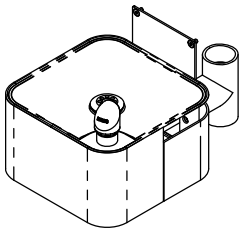
OPTIONAL ACCESSORIES



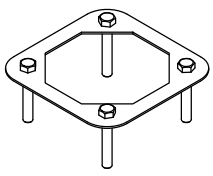
MODEL 3661 HOSE BIB (NOT FREEZE RESISTANT)



MODEL 3660 LOCKABLE HOSE BIB (NOT FREEZE RESISTANT)



MODEL 3670 DOG BOWL (NOT FREEZE RESISTANT)



MODEL MTG.3600 INSTALLATION AID

3612 & 3612F
MODULAR OUTDOOR FOUNTAIN SYSTEM

PARTS BREAKDOWN

WHEN ORDERING PARTS, PLEASE SPECIFY PART NUMBER

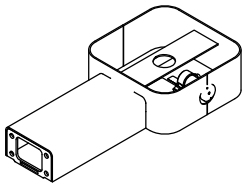
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E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
5666	6030	FV	3612 & 3612F	0580001180
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APPROVED: FV	DATE: 07/02/24	SCALE: 1:2	DRAWING TYPE: PARTS BREAKDOWN	SIZE: A

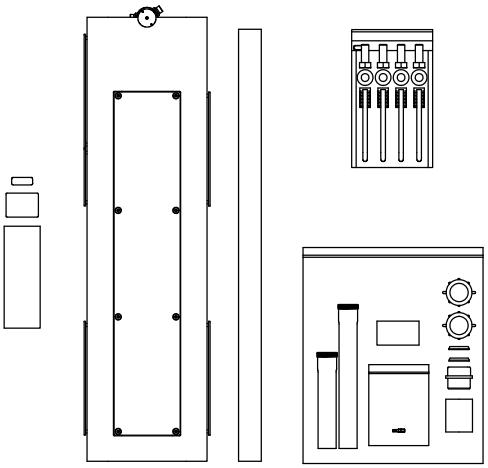
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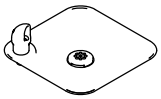
AVAILABLE SUB COMPONENT MODELS



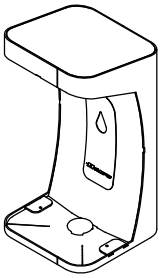
MODEL 3671 PEDESTAL ARM ASSEMBLY



MODEL 3674 PEDESTAL ASSEMBLY



MODEL 3680 FOUNTAIN ASSEMBLY



MODEL 3690 BOTTLE FILLER ASSEMBLY

3612 & 3612F
MODULAR OUTDOOR FOUNTAIN SYSTEM

PARTS BREAKDOWN

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ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
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DHP	6/11/20	JL		6
APPROVED:	DATE:			
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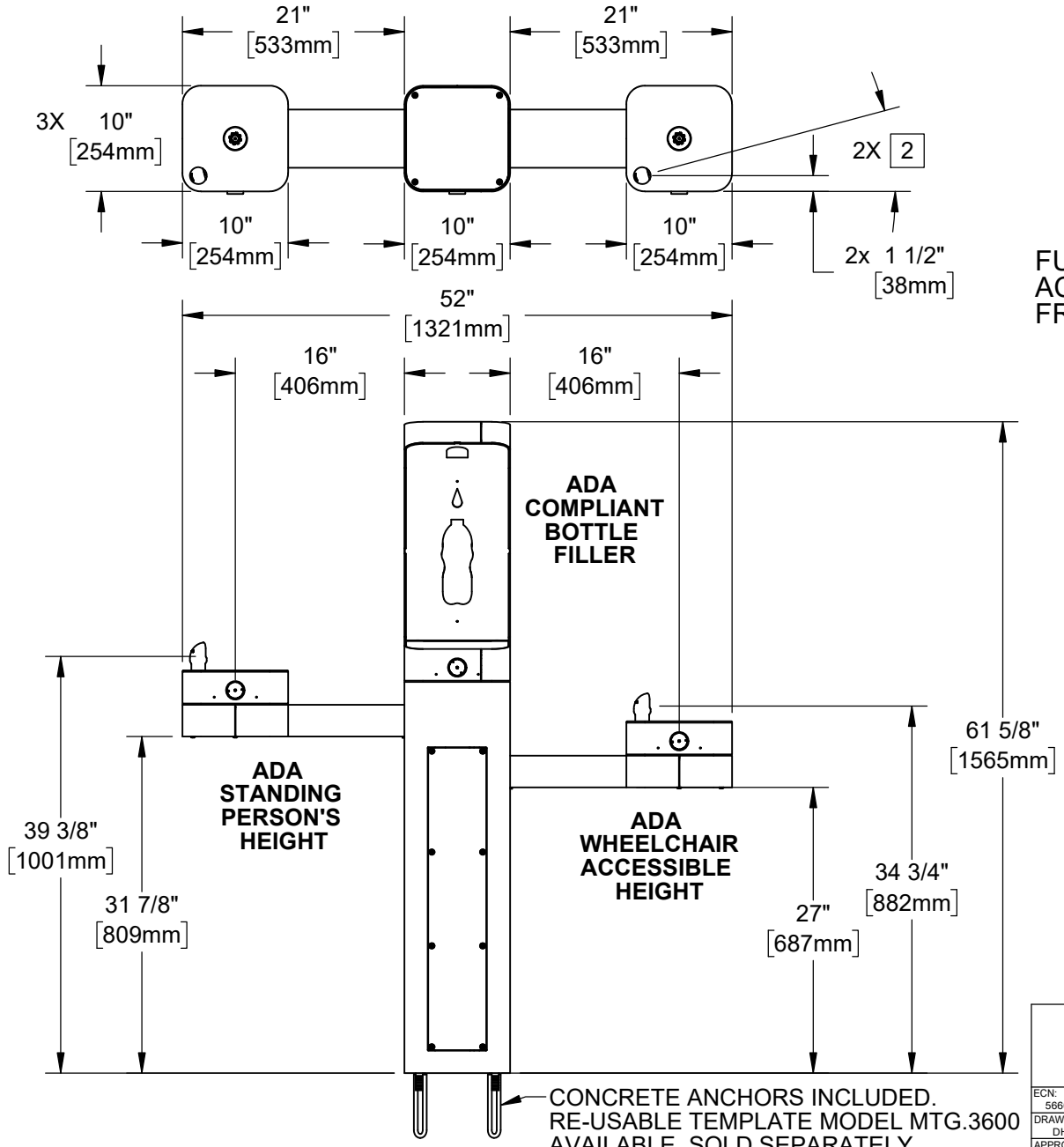
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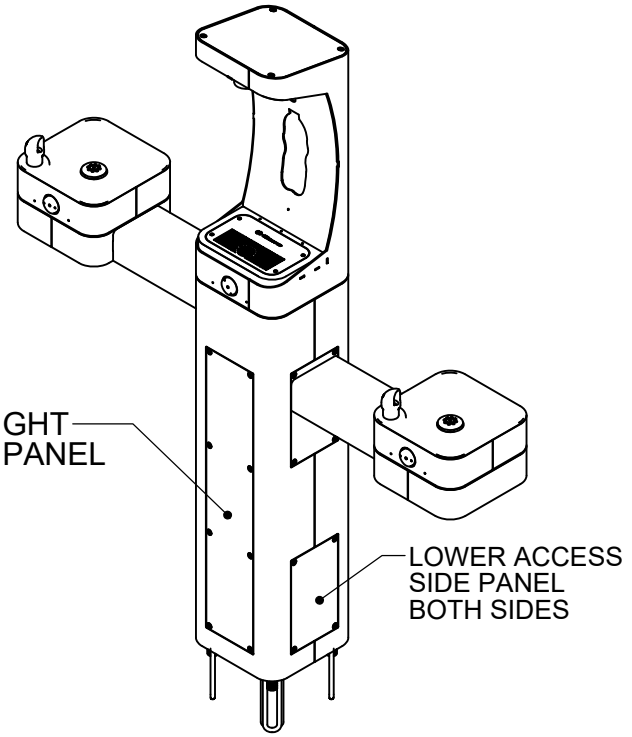
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NOTES:
1. WHEN INSTALLING THIS UNIT, LOCAL, STATE, OR FEDERAL CODES SHOULD BE ADHERED TO. INSTALL A TRAP IN THE WASTE LINE AND A SCREWDRIVER STOP IN THE SUPPLY LINE IF REQUIRED.

[2] MAXIMUM ADJUSTABLE RANGE IS 15° FROM PARALLEL TO BACK OF WALL.





HAWS MODEL 3612/3612F IS FULLY COMPLIANT WITH THE FEDERAL 2010 AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS WHEN INSTALLED AS SHOWN HERE AND WHEN INSTALLED WITH PROPER CLEARANCES AND ACCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ADHERE TO LOCAL, STATE, AND FEDERAL CODES WHEN INSTALLING THIS UNIT. DISTANCE TO SURROUNDING OBJECTS, APPROACH SURFACES, ETC. SHOULD BE CONSIDERED. REFER TO SHEET 9 FOR MORE INFORMATION.

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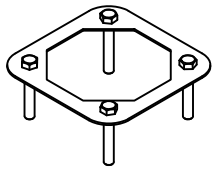
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APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 1 OF 9

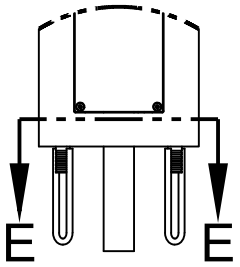
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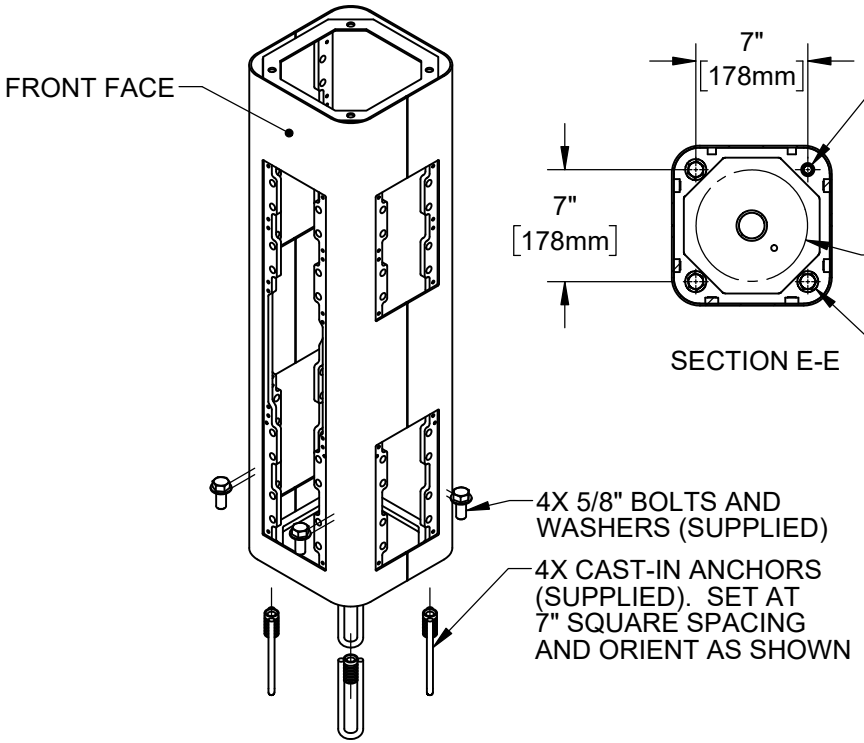
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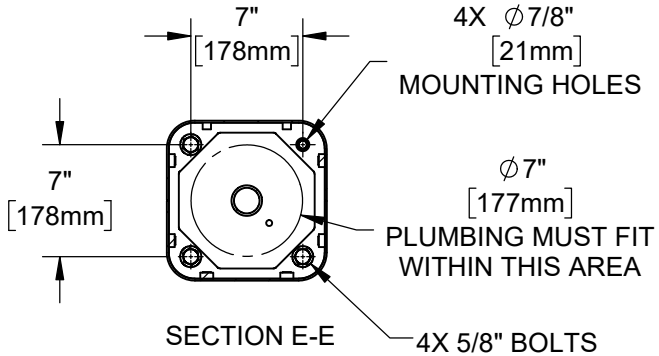
INSTALLATION INSTRUCTIONS

MODEL MTG.3600
(OPTIONAL)
TEMPLATE FOR SPACING ANCHORS DURING CONCRETE POUR

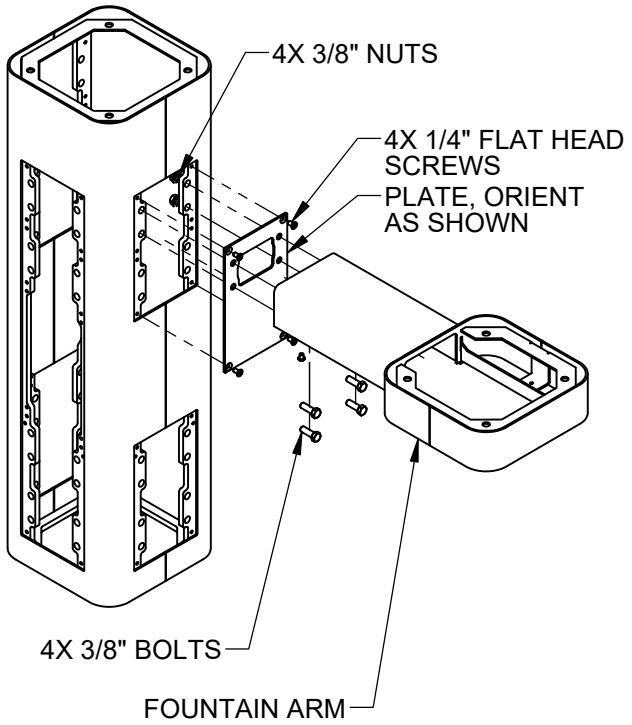








SECTION E-E



STEP 1
MOUNT PEDESTAL TO CONCRETE SLAB IN DESIRED ORIENTATION. SLAB TO BE 30" MINIMUM SQUARE AND 6" MINIMUM THICK (BY OTHERS). PLUMBING CAST IN CONCRETE MUST FIT IN 7" DIAMETER AREA CENTERED UNDER PEDESTAL LOCATION.

STEP 2
REMOVE BOTTOM COVER PLATES FROM ARMS BY REMOVING 3 1/4" BUTTON HEAD SCREWS. INSTALL ONE FOUNTAIN ARM ON RIGHT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATE. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.

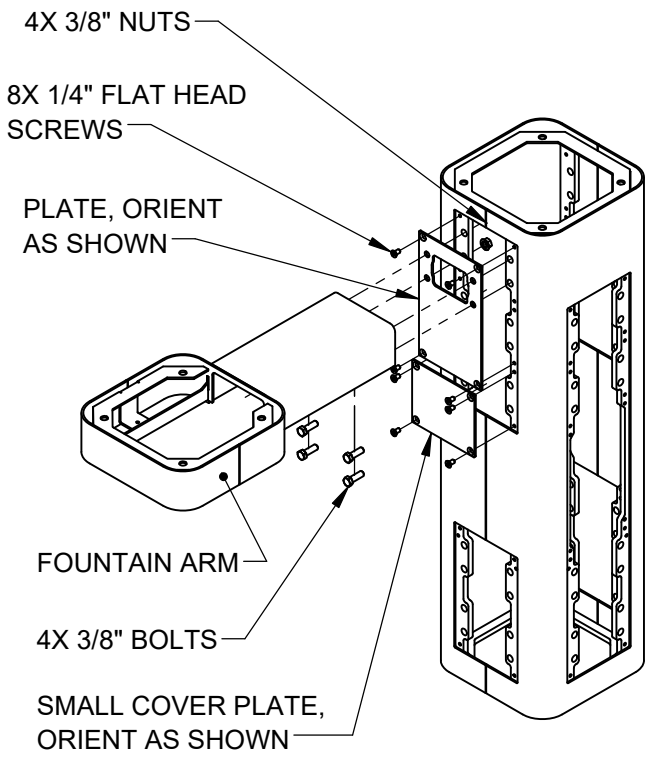
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DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 2 OF 9

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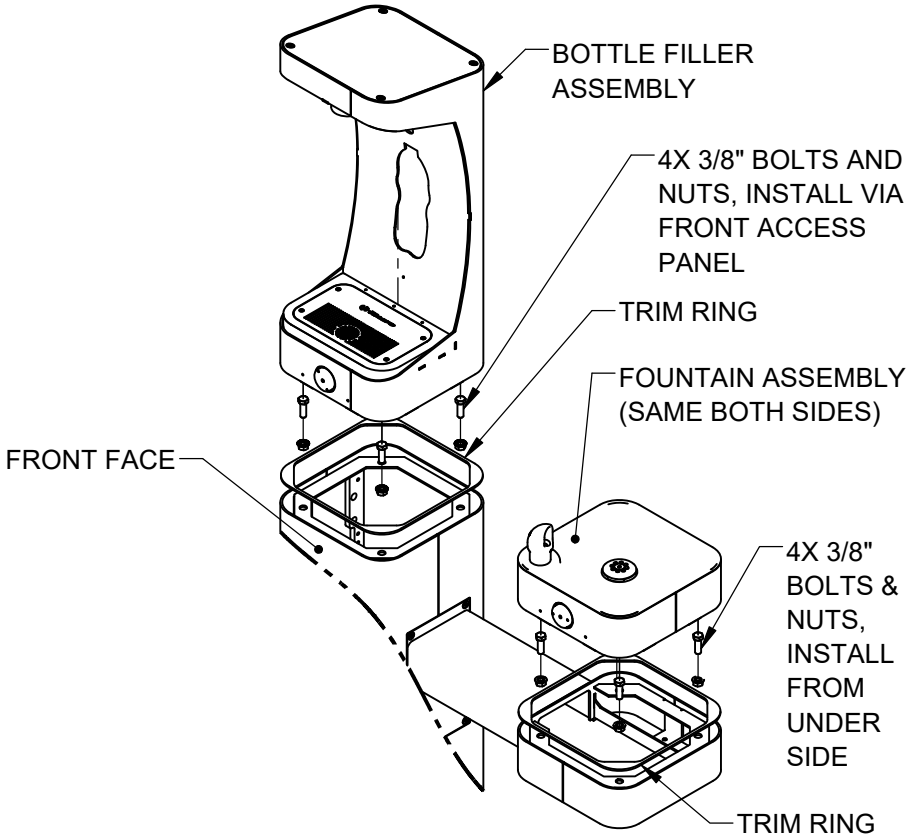
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INSTALLATION INSTRUCTIONS



STEP 3

INSTALL REMAINING ARM ON LEFT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATES. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.



STEP 4

PLACE SQUARE TRIM RING ON BOTTOM OF BOTTLE FILLER AND PLACE BOTTLE FILLER ON TOP OF PEDESTAL, FACING THE FRONT. USE 3/8" BOLTS AND NUTS VIA THE FRONT ACCESS PANEL TO SECURE BOTTLE FILLER TO PEDESTAL. PLACE TRIM RING AND INSTALL FOUNTAINS ON ARMS AS SHOWN. CAREFULLY CENTER BOTTLE FILLER, FOUNTAIN, AND TRIM RINGS, THEN TORQUE BOLTS/NUTS TO 18 FT-LBS

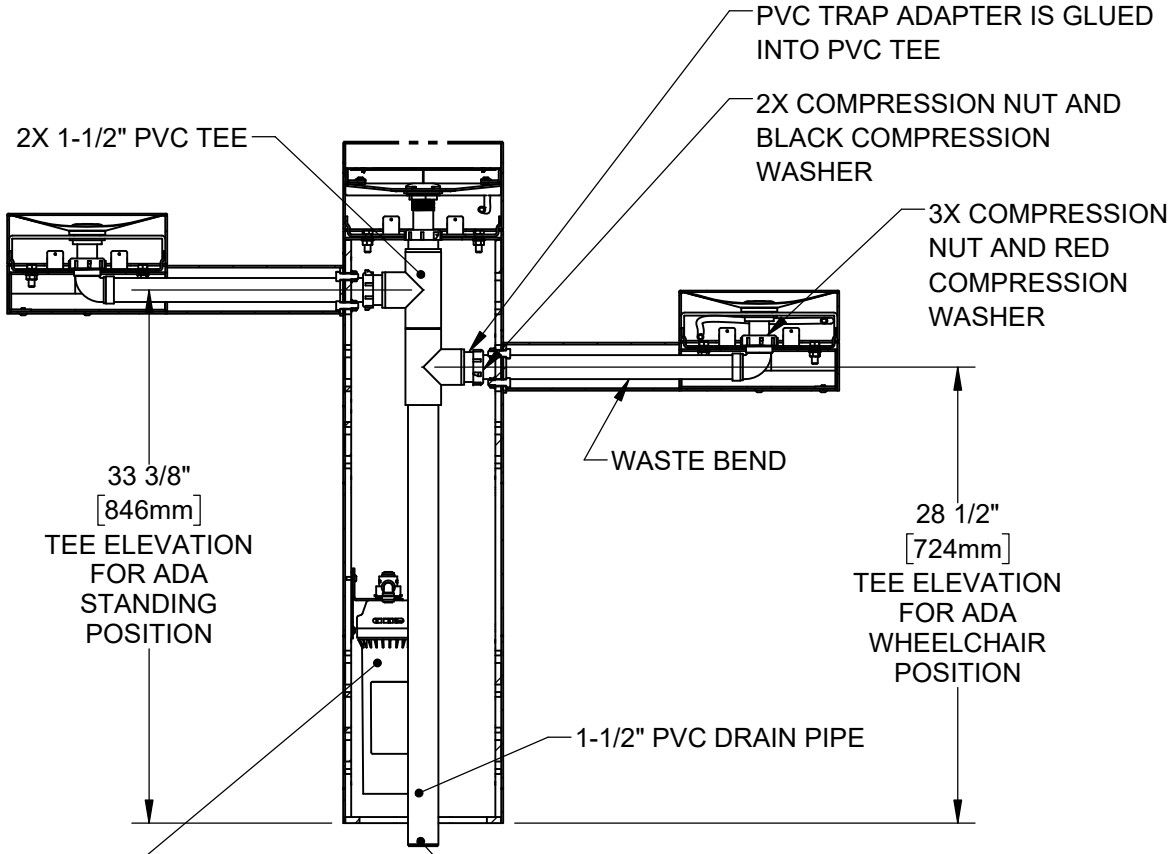
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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 3 OF 9

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INSTALLATION INSTRUCTIONS



MODEL 3612F (WITH FILTER) SHOWN

STEP 5

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEES. USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

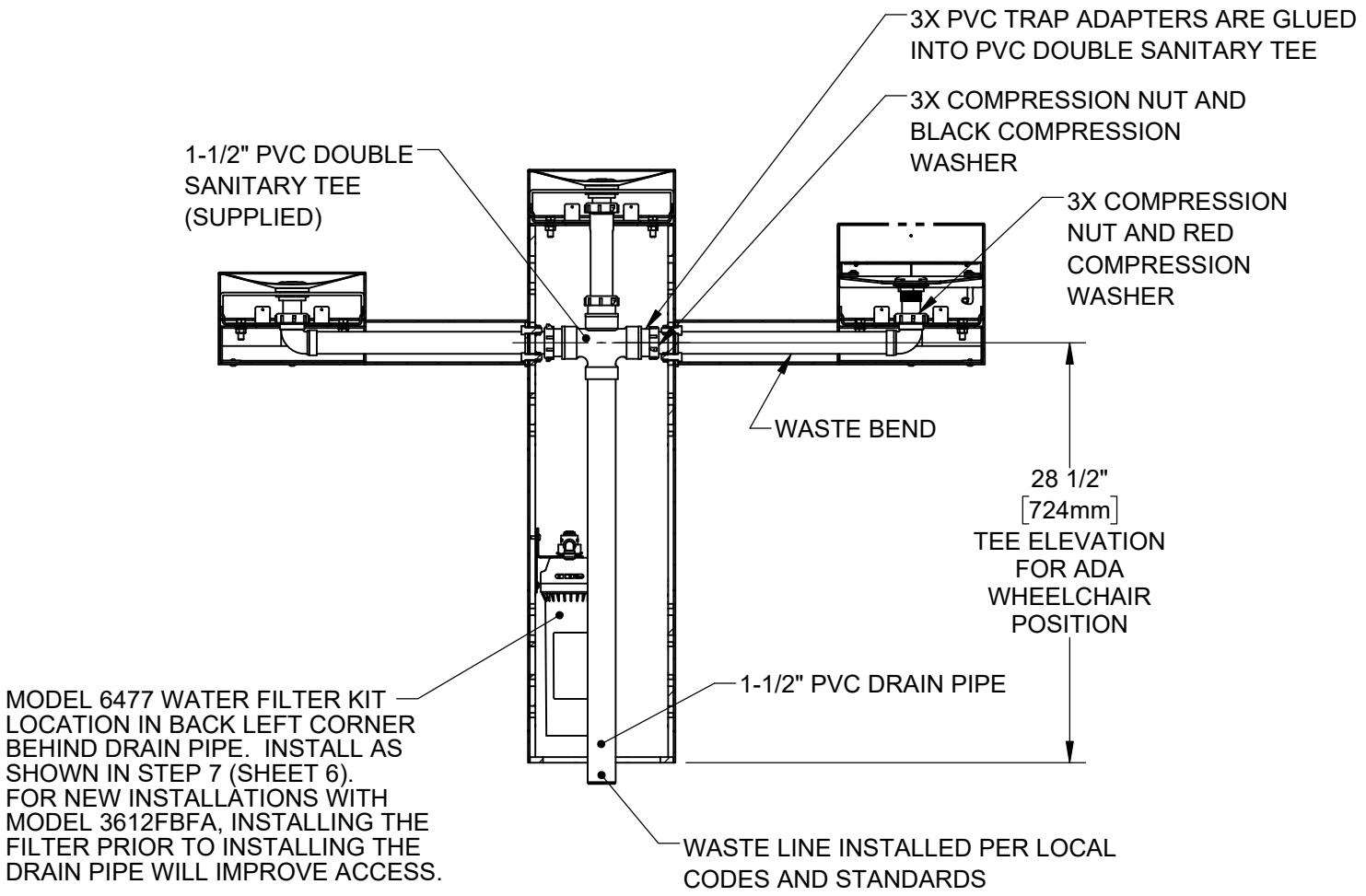
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INSTALLATION INSTRUCTIONS



ALTERNATE MODEL 3612FBFA (WITH FILTER) SHOWN

STEP 5 (ALTERNATE)

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEE(S). USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

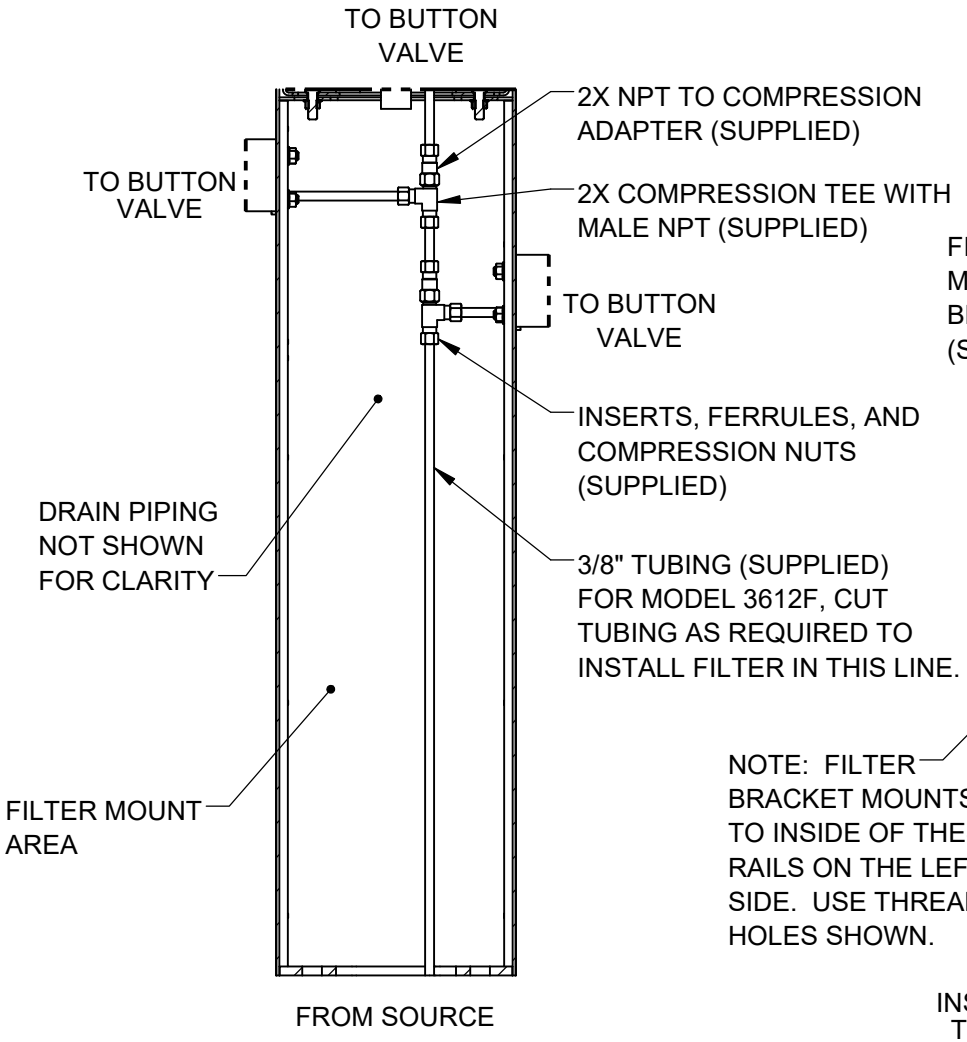
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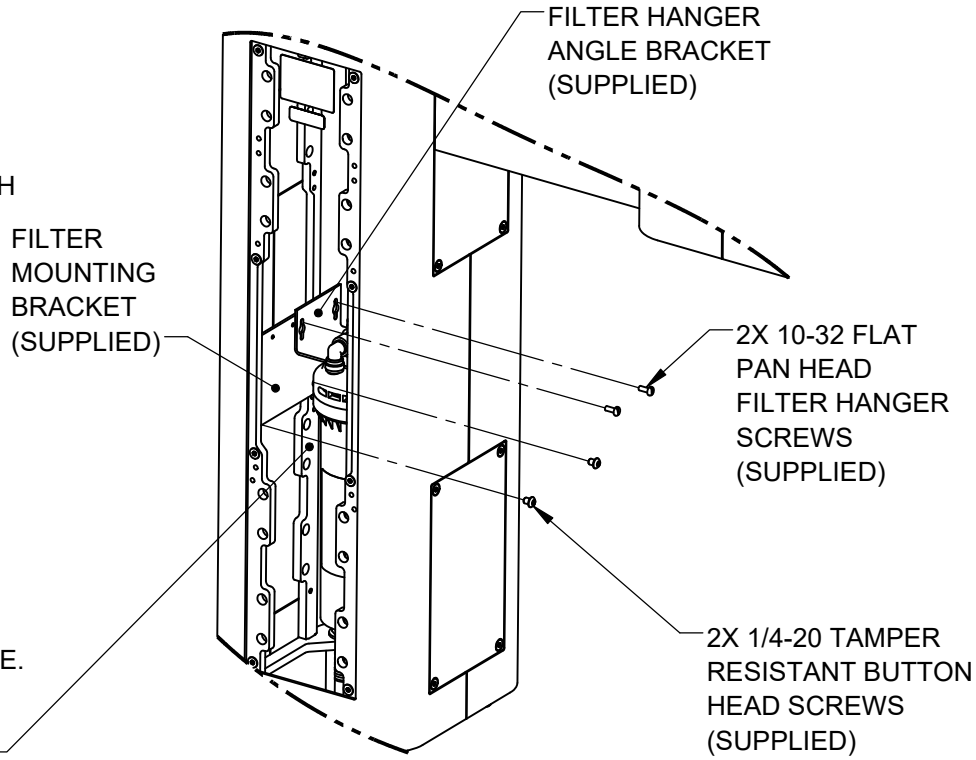
INSTALLATION INSTRUCTIONS



3612 SUPPLY PLUMBING

STEP 6

COMPLETE WATER SUPPLY PLUMBING AS SHOWN. OPEN SUPPLY VALVE(S) AND TEST. REPLACE ARM BOTTOM PLATES AND PEDESTAL ACCESS PLATES.



3612F FILTER BRACKET MOUNTING

STEP 7

INSTALL FILTER MOUNTING BRACKET (SUPPLIED WITH MODEL 6477) TO LEFT INSIDE VERTICAL RAILS USING 2 BUTTON HEAD SCREWS AS INDICATED ABOVE. INSTALL FILTER HEAD ON HANGER ANGLE WITH 4 SUPPLIED SELF-TAPPING SCREWS. IF USING THE SUPPLIED 3000-GALLON CAPACITY FILTER, INSTALL FILTER HANGER ANGLE BRACKET IN RIGHTMOST HOLES AS SHOWN. SEE SHEET 6 FOR OWNER-PROVIDED FILTER (6000-GALLON CAP.) INSTALLATION INSTRUCTIONS. SEE MODEL 6477 OPERATION AND MAINTENANCE MANUAL FOR ADDITIONAL DETAILS.

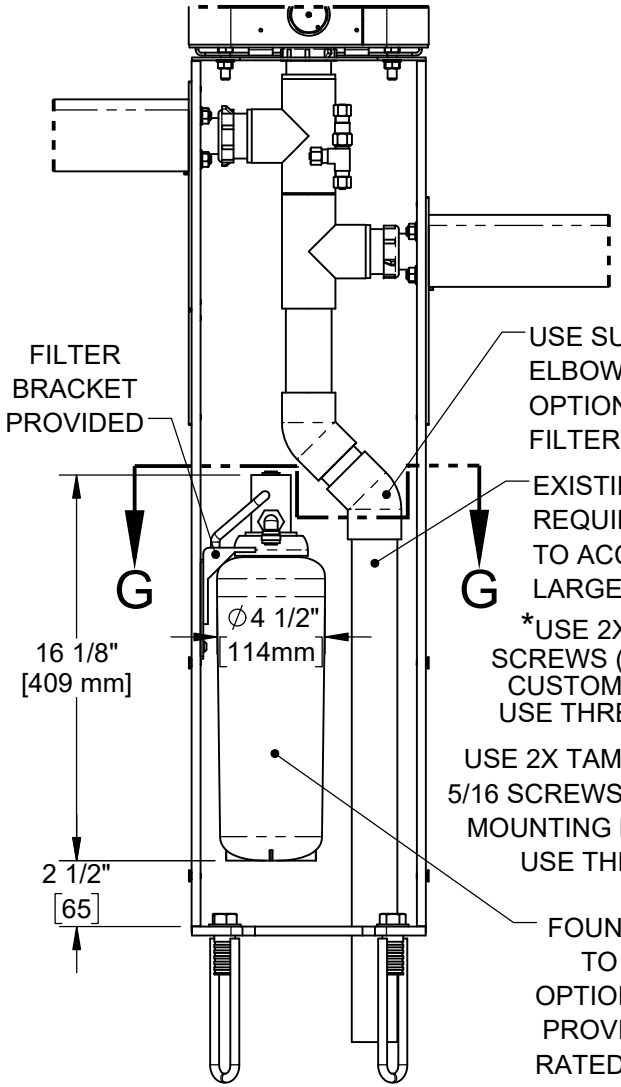
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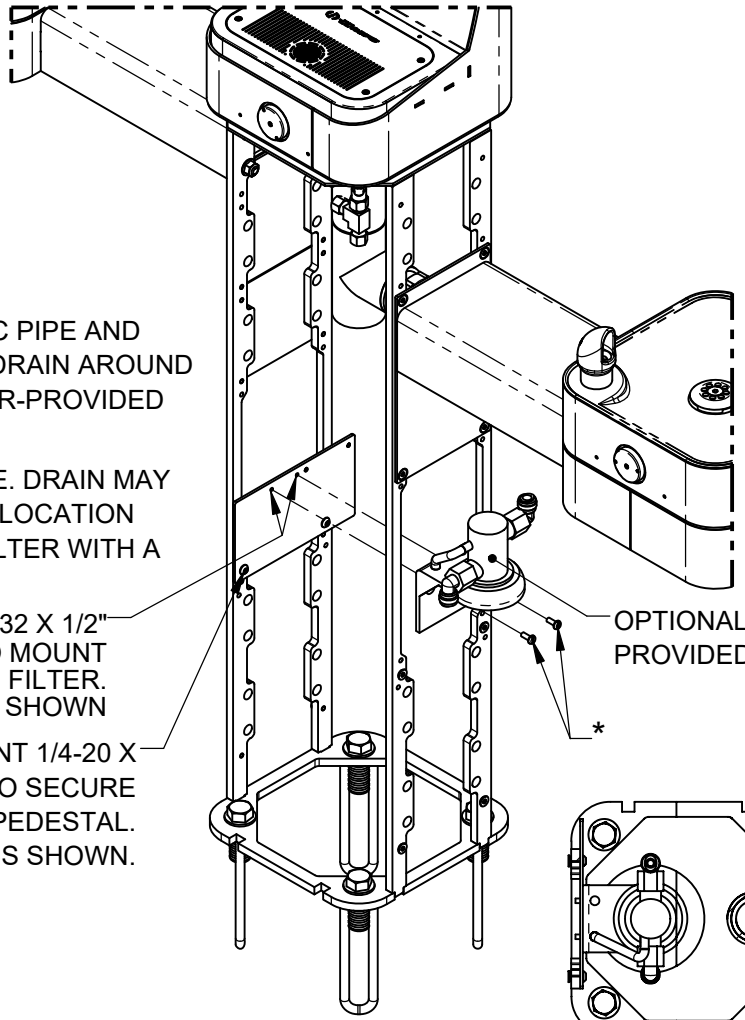
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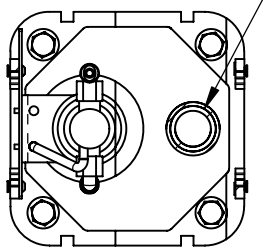
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OPTIONAL OWNER-PROVIDED FILTER INSTALLATION







ALTERNATE DRAIN LOCATION FOR CUSTOMER SUPPLIED OPTIONAL FILTER

SECTION A-A

INSTRUCTIONS FOR OPTIONAL OWNER-PROVIDED FILTER

NOTE: MOUNTING BRACKET, 1-1/2" X 3" PVC PIPE AND 45˚ PVC ELBOWS (QTY. 2) SUPPLIED WITH 6477 FILTER MOUNTING KIT ARE REQUIRED (SHOWN ON MODEL 3612/3612F FOR REFERENCE ONLY). INSTALLATION INSTRUCTIONS APPLY TO EITHER NEW OR RETROFIT APPLICATIONS. SEE SHEETS 4 THRU 6 FOR STANDARD FILTER (3000-GALLON CAPACITY) INSTALLATION INSTRUCTIONS.

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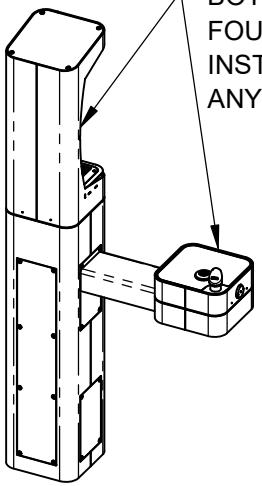
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DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
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NOTES ON OPTIONAL CONFIGURATIONS

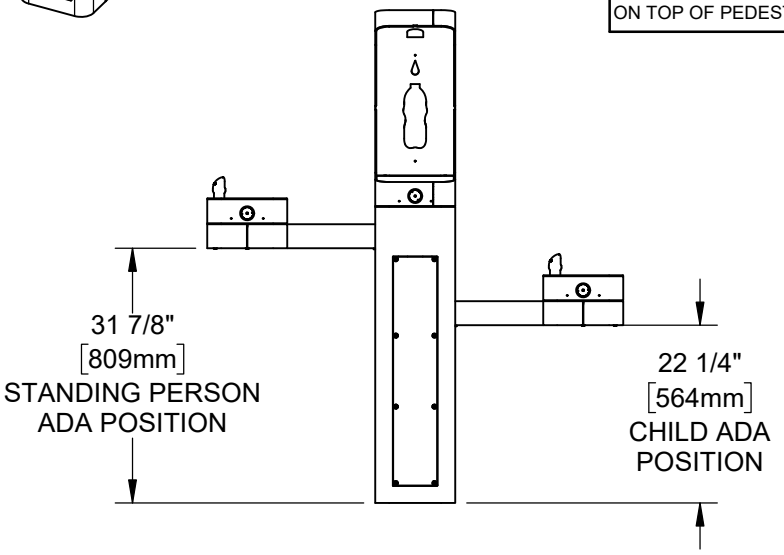
HAWS 3600/3600F SERIES OUTDOOR FOUNTAINS ARE MODULAR AND CAN BE ASSEMBLED AND CONFIGURED MANY DIFFERENT WAYS. DISPLAYED HERE ARE A FEW EXAMPLES. CONFIGURATIONS OTHER THAN THAT SHOWN IN THE INSTALLATION INSTRUCTIONS FOR THE 3612/3612F MAY AFFECT COMPLIANCE WITH ADA REGULATIONS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO UNDERSTAND LOCAL, STATE, AND FEDERAL REGULATIONS AS APPLICABLE IF INSTALLING THIS FOUNTAIN IN CONFIGURATIONS OTHER THAN THAT INDICATED ON SHEET 1 (PAGE 6 OF 14).

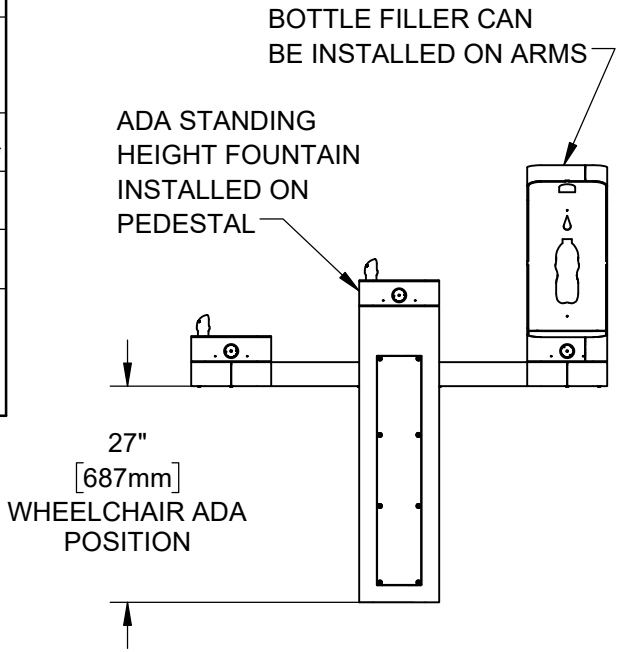


ADA ARM HEIGHT POSITION OPTIONS				
	LEFT SIDE*	RIGHT SIDE*	ARM HEIGHT (LOWER EDGE)	BUBBLER NOZZLE HEIGHT
STANDING ADA	YES (STD)	NO	31-7/8 [809 mm]	39-3/8 [999 mm]**
WHEELCHAIR ADA	YES	YES (STD)	27 [687 mm]	34-5/8 [878 mm]
CHILD ADA	YES	YES	22-1/4 [566 mm]	29-7/8 [757 mm]

* RIGHT AND LEFT CAN BE REVERSED IF PEDESTAL IS ROTATED 180°.

**NOZZLE HEIGHT IS 41-1/2" WHEN FOUNTAIN IS INSTALLED ON TOP OF PEDESTAL.





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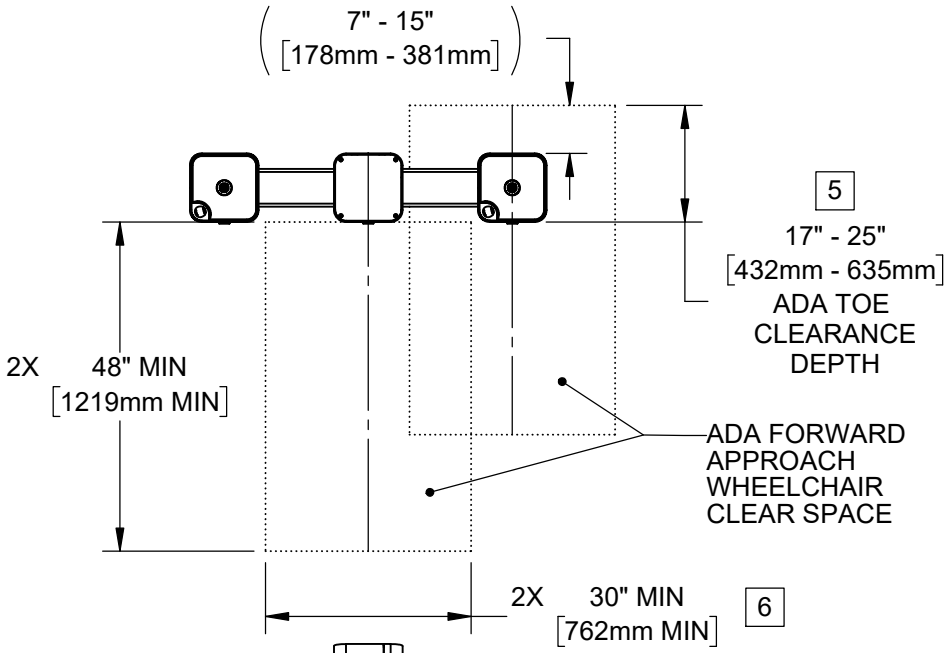
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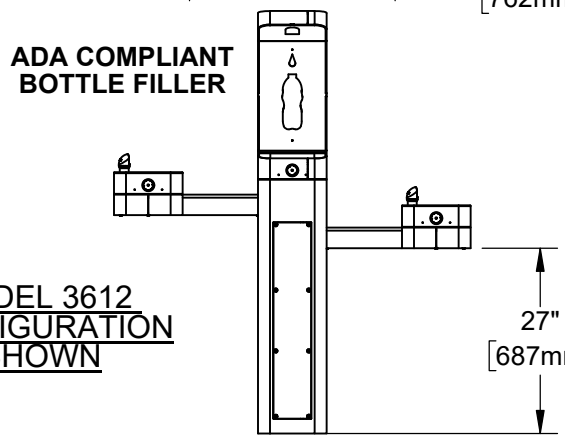
3. CLEAR FLOOR SPACES APPLY FOR ALL MODELS WITH A DRINKING FOUNTAIN OR BOTTLE FILLER INSTALLED AT ADA WHEELCHAIR ACCESSIBLE HEIGHT AND PEDESTAL MOUNTED BOTTLE FILLERS.
4. ORIENTATION OF CLEAR FLOOR SPACE IS DEPENDENT ON THE FOUNTAIN OR BOTTLE FILLER ORIENTATION.

[5] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 18" MIN.

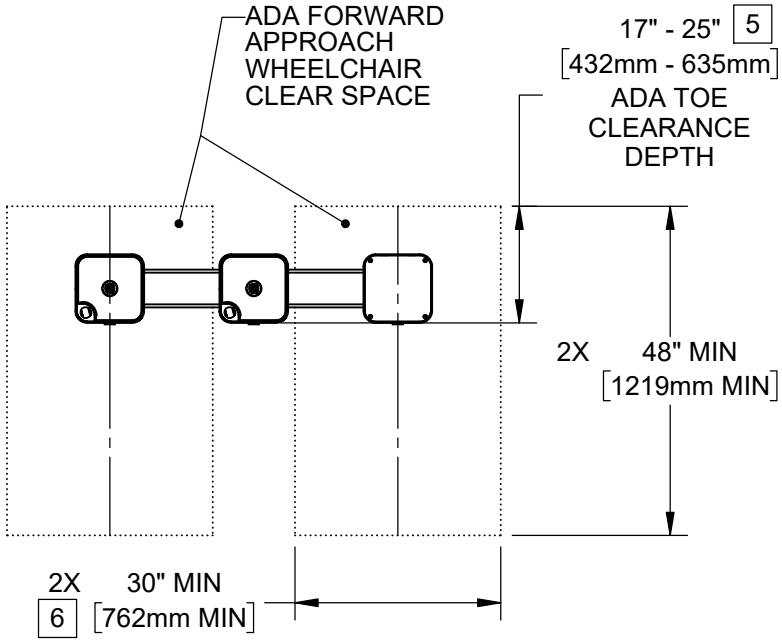
[6] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 32" MIN.

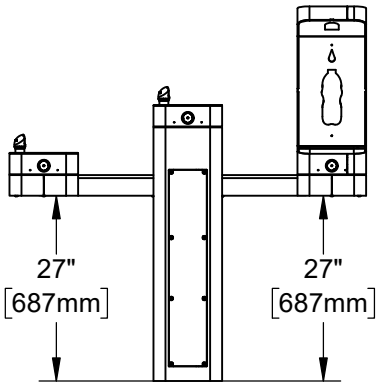
7. REFER TO ADA STANDARDS AND/OR YOUR LOCAL BUILDING CODE FOR CLEAR SPACE GUIDELINES FOR PARALLEL APPROACH.





MODEL 3612 CONFIGURATION SHOWN





MODEL 3612BFA ALTERNATE CONFIGURATION SHOWN

THESE HAWS MODELS ARE FULLY COMPLIANT WITH THE FEDERAL 2010 AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS WHEN INSTALLED AS SHOWN HERE AND WHEN INSTALLED WITH PROPER CLEARANCES AND ACCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ADHERE TO LOCAL, STATE, AND FEDERAL CODES WHEN INSTALLING THIS UNIT. DISTANCE TO SURROUNDING OBJECTS, APPROACH SURFACES, ETC. SHOULD BE CONSIDERED.

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model 3612F

ADA Vandal-Resistant Outdoor Filtered Bottle Filler and Fountain

FEATURES & BENEFITS

VANDAL RESISTANT

The bubbler heads, push buttons, drain strainers and access plates are locked in place, discouraging unwanted vandal tampering.

ADA COMPLIANCE

ADA-compliant bottle filling station and dual-height high-low drinking fountain required for wheel chair use, and for the standing person.

FRONT APPROACH

Face all three water stations frontward and the overall footprint needed is only 73” inches wide, saving 33% of the hard scape required for access compliance. This also allows the fountain to be placed with its back to within 8 inches of a wall or a fence.

BOTTLE FILLER

The ADA-compliant open design bottle filling station offers a 17" high bottle area, and open sides making this push button operated bottle filling station more accessible to users.

DRINKING FOUNTAIN VALVES

The push-button activated valves offers the only all stainless steel valve body that is machined out of solid bar stock, is fully serviceable through the front of the push button assembly offering access to the water control cartridge and integral water supply strainer, and with front access to the water stream height adjustment for easy maintenance without having to remove the valve. Operating pressure range of 30 to 90 psi (2.1 to 6.2 bar)

BUBBLER HEADS

Polished chrome plated brass bubbler heads with integral 5/8” dia. threaded shank for vandal resistant strength, and top-down access for nozzle replacement or water line service, with .45 gpm flow rate.

CONSTRUCTION

Heavy-duty stainless steel with silver powder-coated color finish, and stainless-steel drinking fountain bowls. Modular construction allows for easy replacement or rearrangement of drinking fountain bowls and bottle filler modules.

DRAIN CLEAN-OUT

Top-down access to the drain allows the fountain to be cleaned without taking the unit apart, good for outdoor settings with drain-clogging or leaves

OPTIONS

- Pet Fountain: Model 3670, dog bowl attachment for 3600 series pedestal fountains.
- Hose Bib: Model 3660, lockable hose bib attachment for 3600 series pedestal fountains.
- Installation Aid: Model MTG.3600, mounting guide for 3600 series pedestal fountains.
- Freeze-Resistant Option: Model 3612FR, ADA stainless steel freeze-resistant bottle filler and dual fountain.
- For more information, visit www.hawsco.com or call (888) 640-4297.

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SPECIFICATIONS

Model 3612F outdoor, ADA pedestal bottle filler and drinking fountain shall include a heavy duty stainless-steel pedestal with matte silver powder-coating, one bottle filler and two drinking fountains, filter-ready with mounting bracket and configured waste assembly, push-button operated stainless steel valves with front-accessible cartridge and flow adjustment, polished chrome-plated brass vandal-resistant shielded bubbler heads, large-opening bottle filler with quick-fill 1 gpm flow rate, 100% lead-free waterways, polished chrome-plated vandal-resistant waste strainers with top-down clean-out access on fountains, vandal-resistant access plates, integral mounting feet, and 1-1/2″ slip waste.

APPLICATIONS

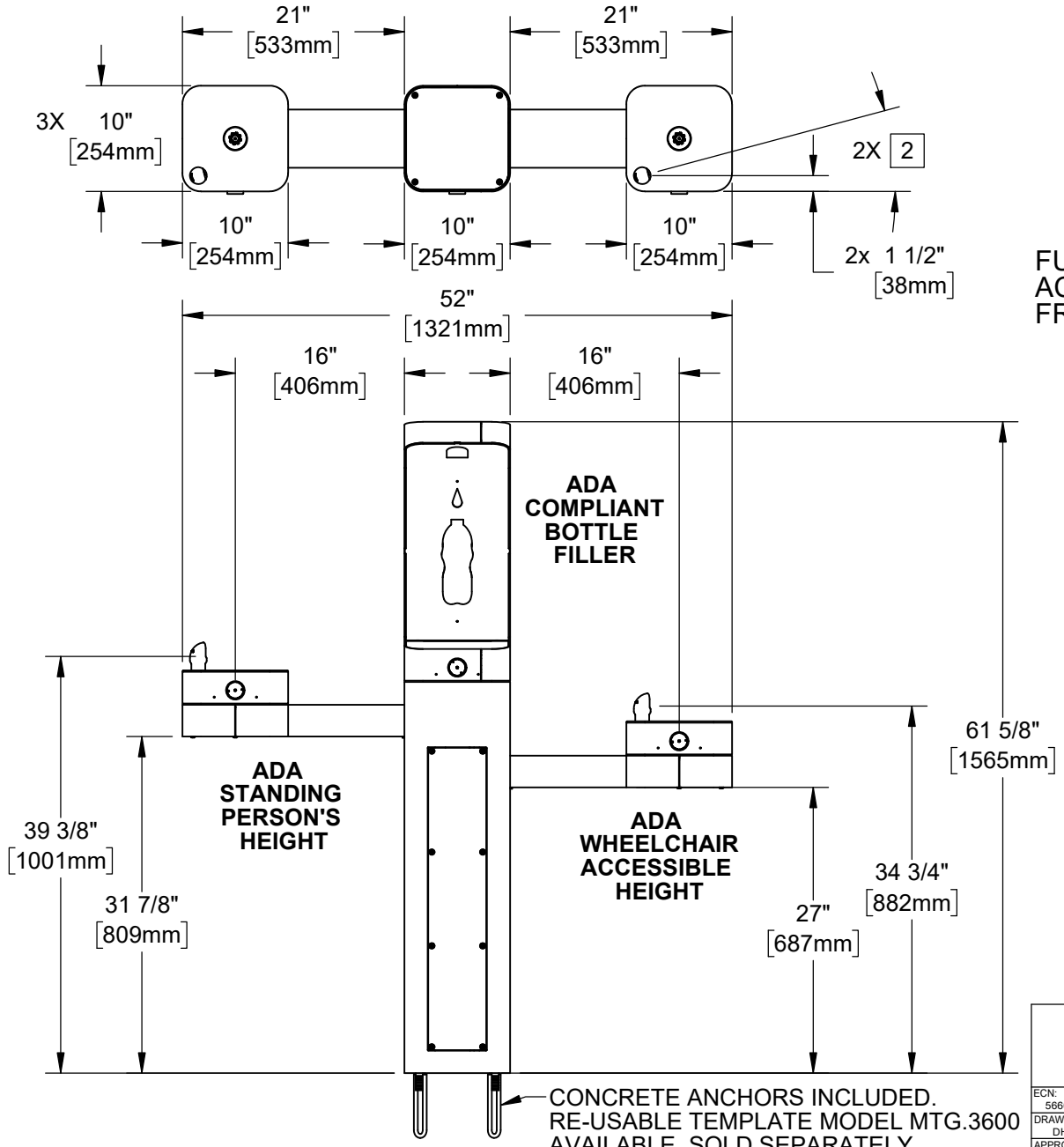
The 3612F offers a solution for the changing needs of outdoor settings as well as outdoor wheelchair access, appealing to all users through accessibility and safety. This outdoor fountain is ideal in areas such as parks, schools, and other outdoor areas where hydration facilities are needed. Model meets all current Federal Regulations for the disabled including those in the Americans with Disabilities Act. Haws manufactures drinking fountains, faucets and electric water coolers to be lead-free by all known definitions including NSF/ANSI/CAN 61- Section 9, NSF/ANSI/CAN 372, California Proposition 65, and the Federal Safe Drinking Water Act. Product is compliant to California Health and Safety Code 116875 (AB 1953-2006), and 116876 (AB 100) “NSF/ANSI/CAN 61: Q ≤ 1”.

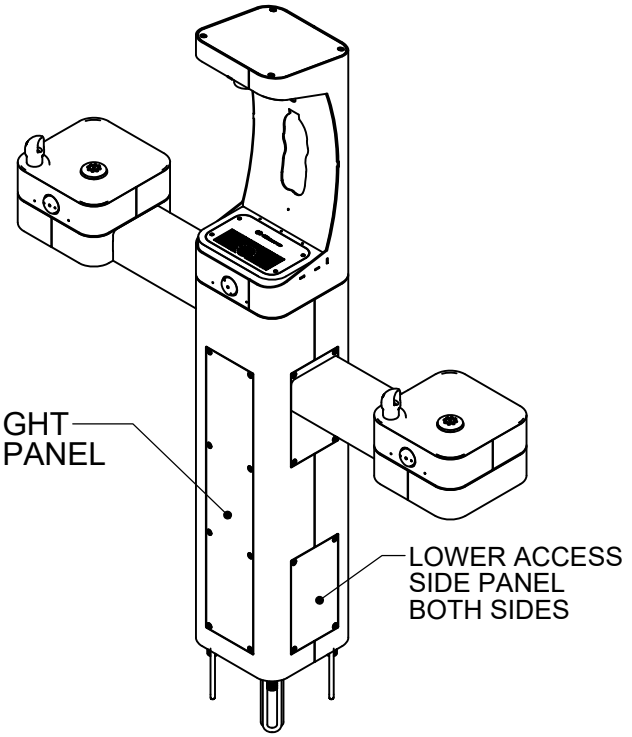
DISCLAIMER: Continued product improvements make specifications subject to change without notice. Check www.hawsco.com for the latest product information and updates.

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NOTES:
1. WHEN INSTALLING THIS UNIT, LOCAL, STATE, OR FEDERAL CODES SHOULD BE ADHERED TO. INSTALL A TRAP IN THE WASTE LINE AND A SCREWDRIVER STOP IN THE SUPPLY LINE IF REQUIRED.

[2] MAXIMUM ADJUSTABLE RANGE IS 15° FROM PARALLEL TO BACK OF WALL.





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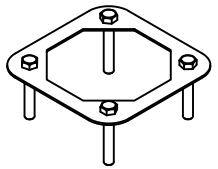
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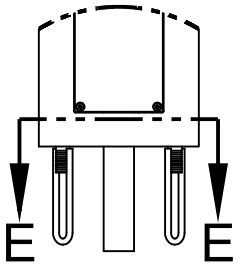
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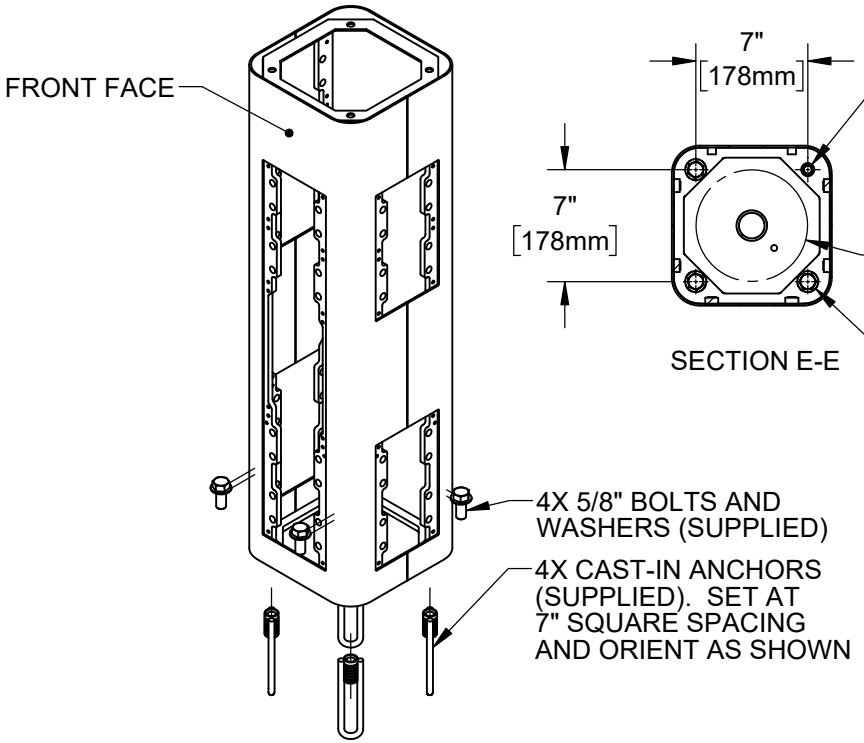
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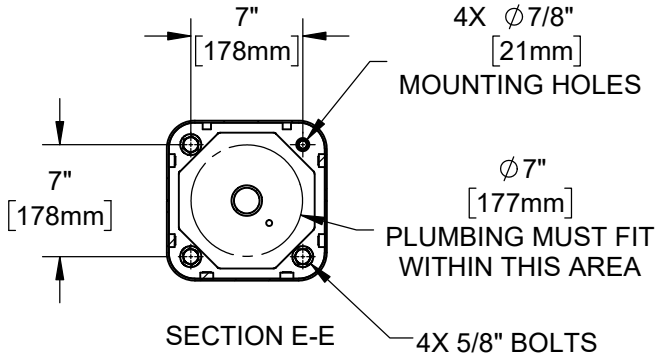
INSTALLATION INSTRUCTIONS

MODEL MTG.3600
(OPTIONAL)
TEMPLATE FOR SPACING ANCHORS DURING CONCRETE POUR

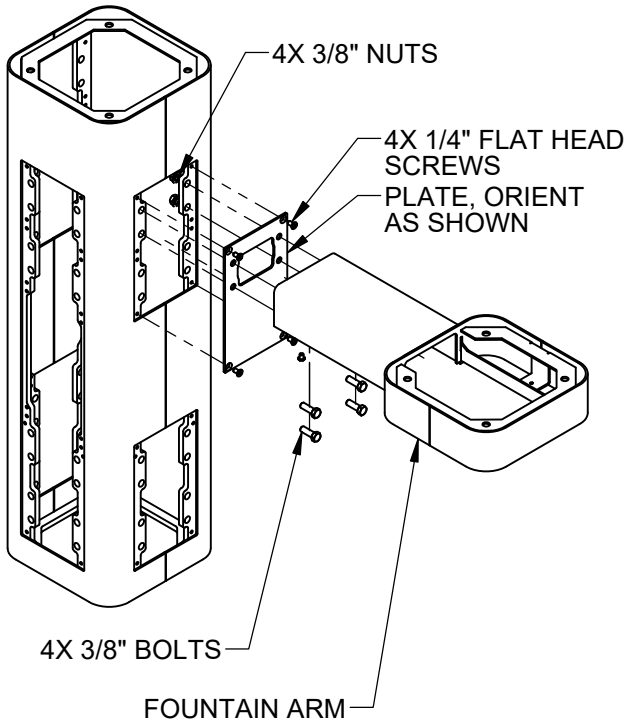








SECTION E-E



STEP 1
MOUNT PEDESTAL TO CONCRETE SLAB IN DESIRED ORIENTATION. SLAB TO BE 30" MINIMUM SQUARE AND 6" MINIMUM THICK (BY OTHERS). PLUMBING CAST IN CONCRETE MUST FIT IN 7" DIAMETER AREA CENTERED UNDER PEDESTAL LOCATION.

STEP 2
REMOVE BOTTOM COVER PLATES FROM ARMS BY REMOVING 3 1/4" BUTTON HEAD SCREWS. INSTALL ONE FOUNTAIN ARM ON RIGHT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATE. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.

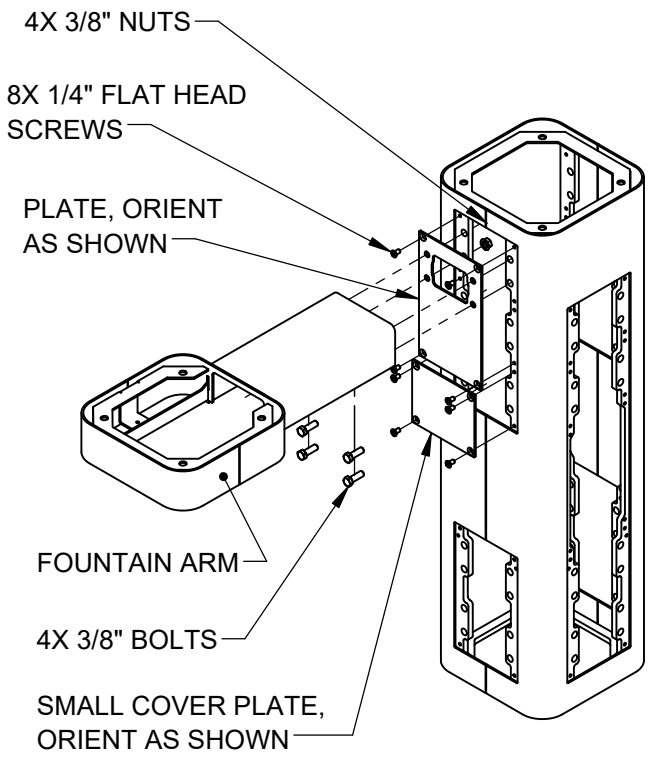
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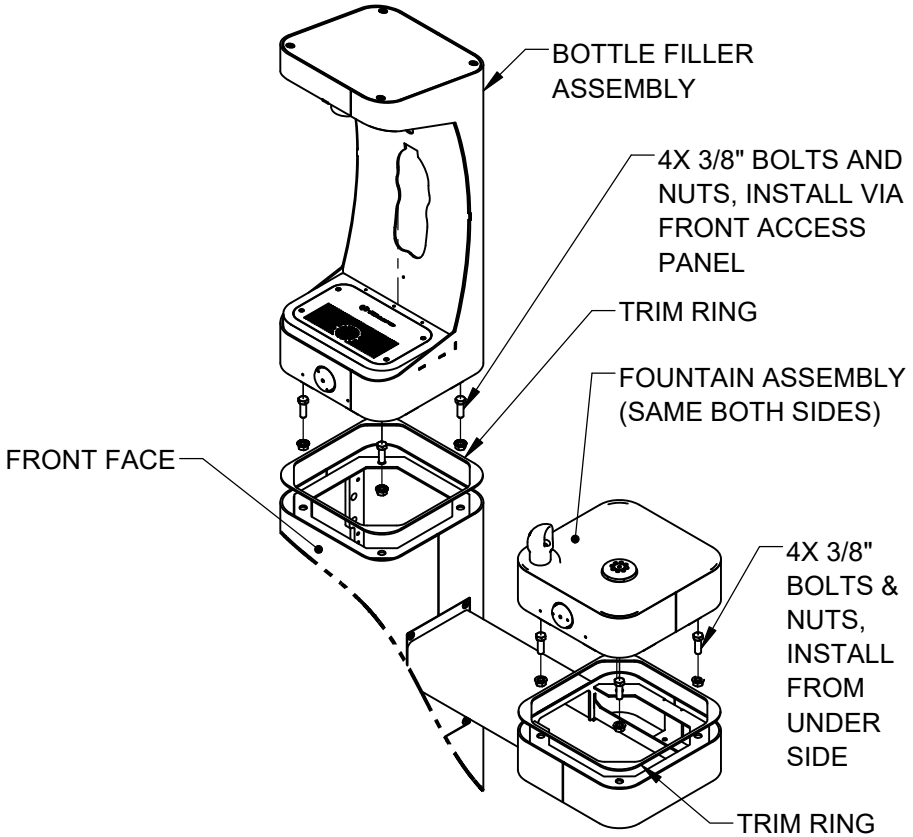
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INSTALLATION INSTRUCTIONS



STEP 3

INSTALL REMAINING ARM ON LEFT SIDE AS SHOWN. USE 1/4" FLAT HEAD SCREWS (SUPPLIED) TO INSTALL PLATES. USE 3/8" BOLTS AND NUTS (SUPPLIED) AND TORQUE TO 18 FT-LBS TO INSTALL ARM.



STEP 4

PLACE SQUARE TRIM RING ON BOTTOM OF BOTTLE FILLER AND PLACE BOTTLE FILLER ON TOP OF PEDESTAL, FACING THE FRONT. USE 3/8" BOLTS AND NUTS VIA THE FRONT ACCESS PANEL TO SECURE BOTTLE FILLER TO PEDESTAL. PLACE TRIM RING AND INSTALL FOUNTAINS ON ARMS AS SHOWN. CAREFULLY CENTER BOTTLE FILLER, FOUNTAIN, AND TRIM RINGS, THEN TORQUE BOLTS/NUTS TO 18 FT-LBS

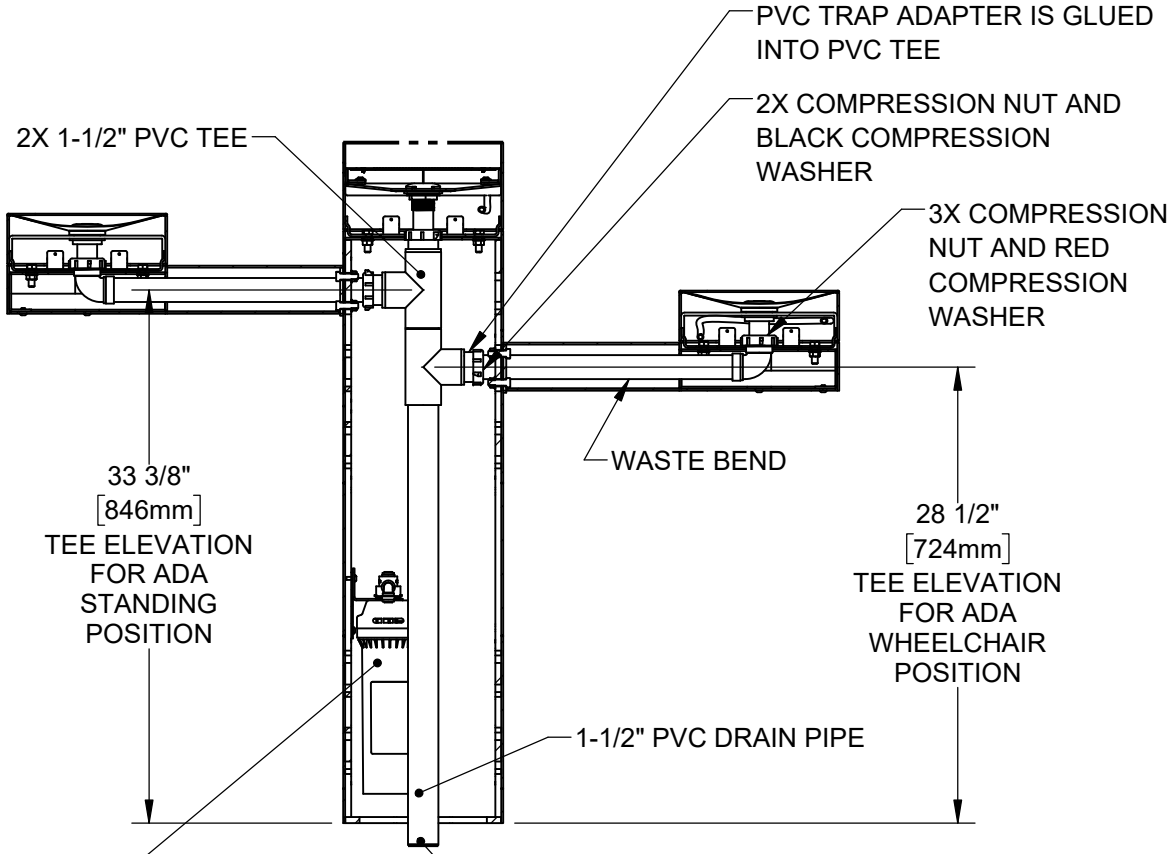
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INSTALLATION INSTRUCTIONS



MODEL 3612F (WITH FILTER) SHOWN

STEP 5

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEES. USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

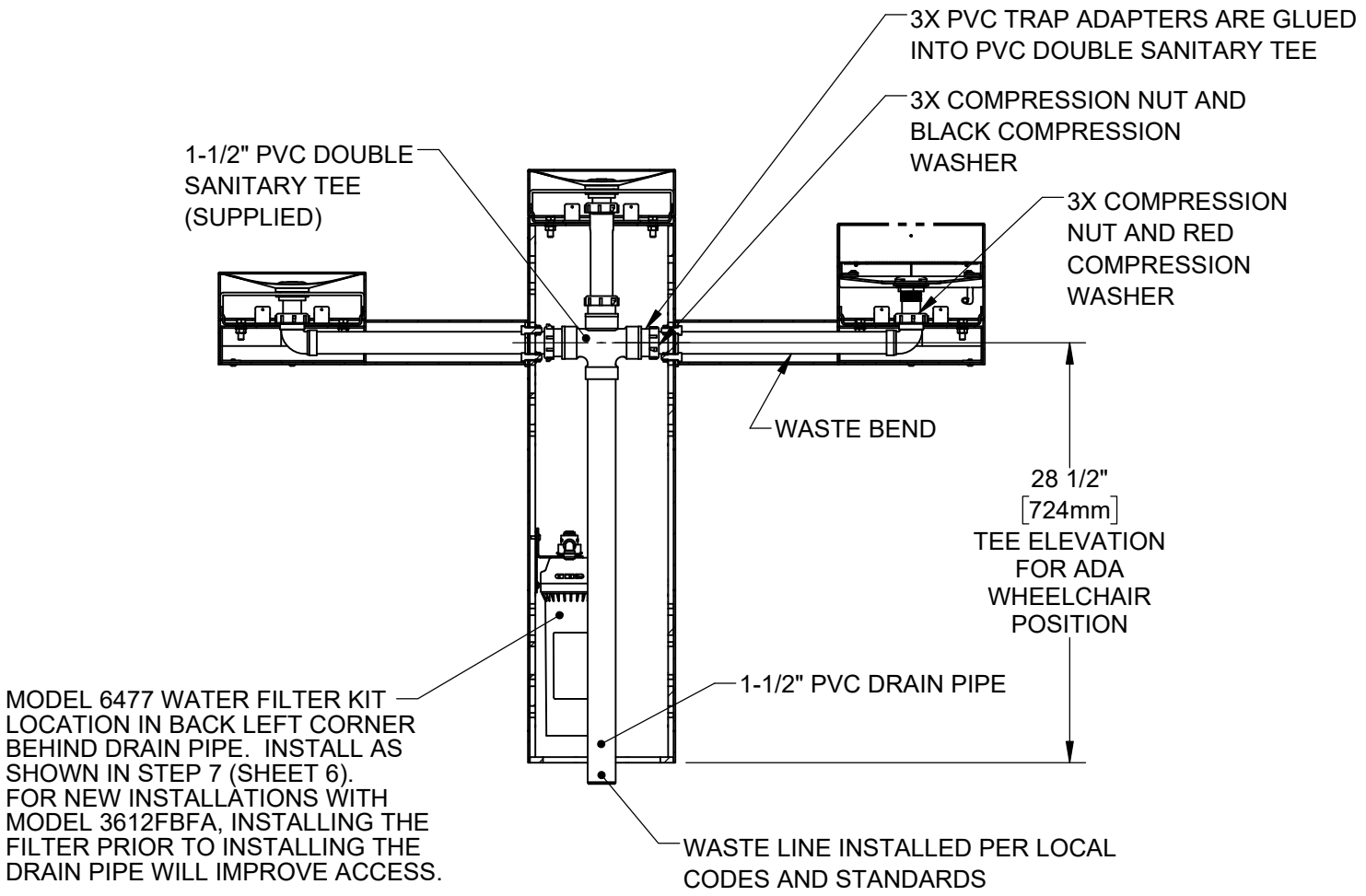
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INSTALLATION INSTRUCTIONS



ALTERNATE MODEL 3612FBFA (WITH FILTER) SHOWN

STEP 5 (ALTERNATE)

INSTALL SUPPLIED DRAIN COMPONENTS AS SHOWN. RED COMPRESSION WASHERS ADAPT FROM 1-1/4" TO 1-1/2" AT EACH DRAIN TAIL PIECE. BLACK COMPRESSION WASHERS ARE USED IN TRAP ADAPTERS AT TEE(S). USE APPROPRIATE PVC CEMENT TO MAKE SOLVENT CEMENT CONNECTIONS. TRIM WASTE BEND AND/OR TAIL PIECE LENGTH IF REQUIRED. NOTE THAT EXTRA PARTS MAY BE INCLUDED TO FACILITATE OTHER CONFIGURATIONS OF THIS FOUNTAIN.

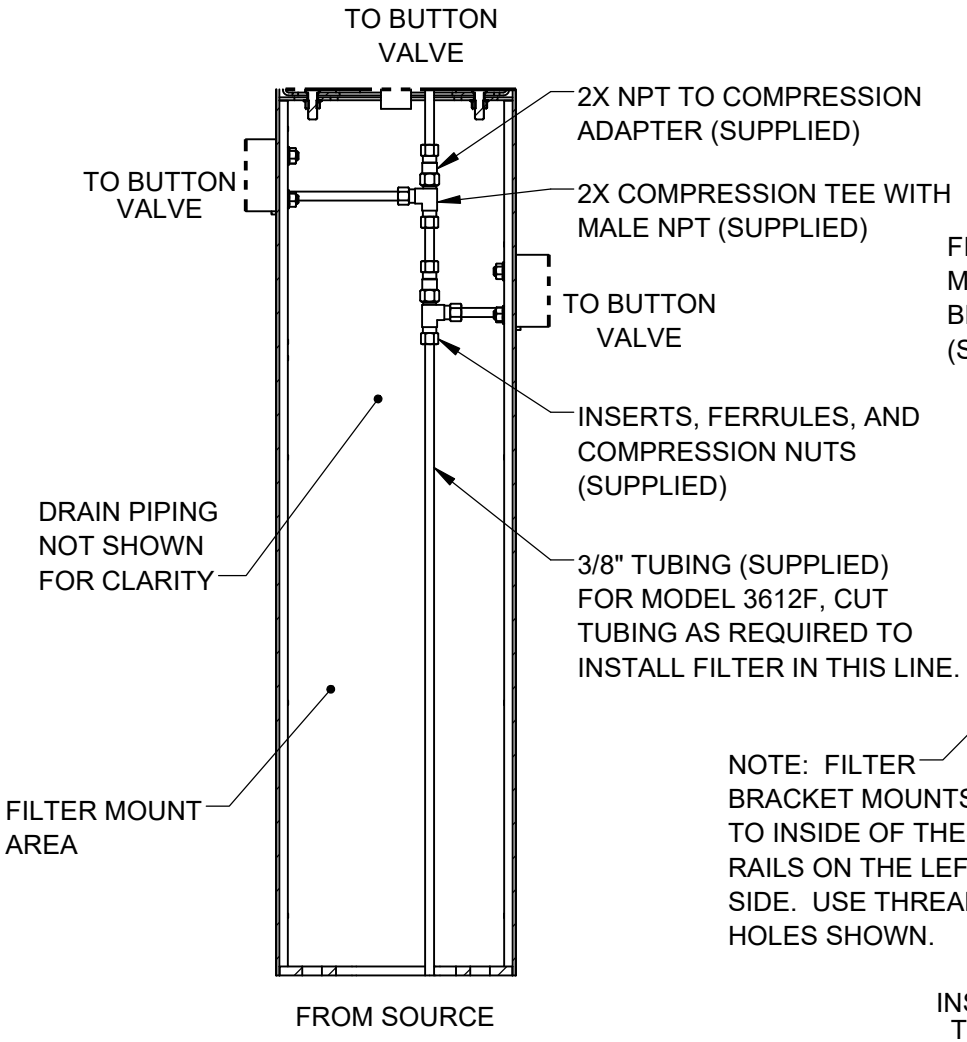
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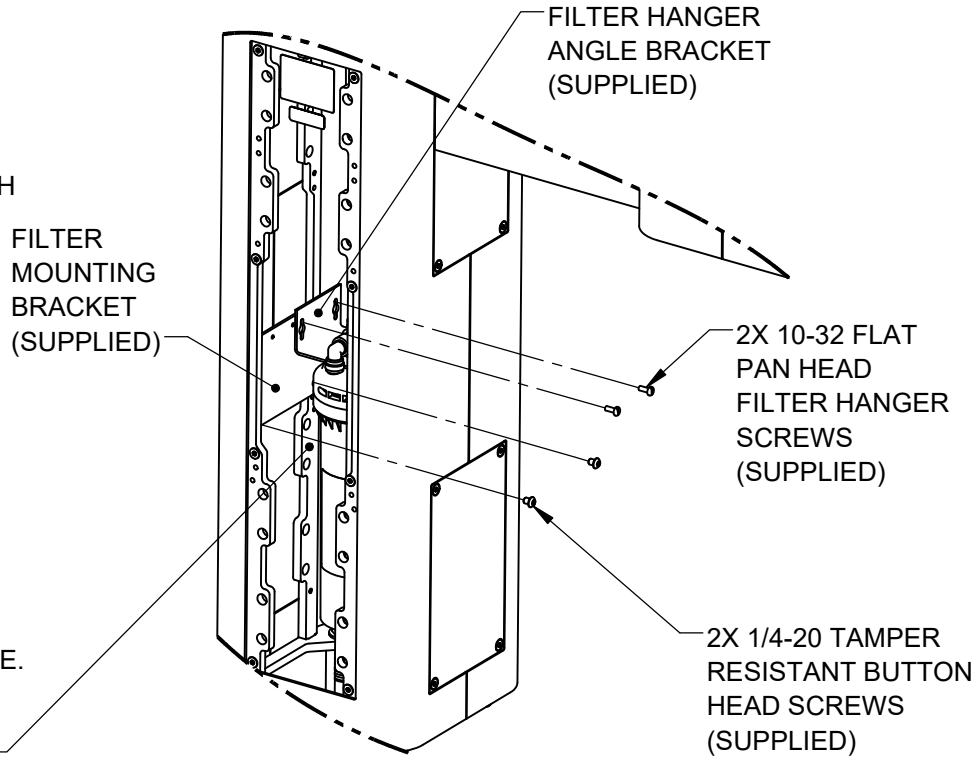
INSTALLATION INSTRUCTIONS



3612 SUPPLY PLUMBING

STEP 6

COMPLETE WATER SUPPLY PLUMBING AS SHOWN. OPEN SUPPLY VALVE(S) AND TEST. REPLACE ARM BOTTOM PLATES AND PEDESTAL ACCESS PLATES.



3612F FILTER BRACKET MOUNTING

STEP 7

INSTALL FILTER MOUNTING BRACKET (SUPPLIED WITH MODEL 6477) TO LEFT INSIDE VERTICAL RAILS USING 2 BUTTON HEAD SCREWS AS INDICATED ABOVE. INSTALL FILTER HEAD ON HANGER ANGLE WITH 4 SUPPLIED SELF-TAPPING SCREWS. IF USING THE SUPPLIED 3000-GALLON CAPACITY FILTER, INSTALL FILTER HANGER ANGLE BRACKET IN RIGHTMOST HOLES AS SHOWN. SEE SHEET 6 FOR OWNER-PROVIDED FILTER (6000-GALLON CAP.) INSTALLATION INSTRUCTIONS. SEE MODEL 6477 OPERATION AND MAINTENANCE MANUAL FOR ADDITIONAL DETAILS.

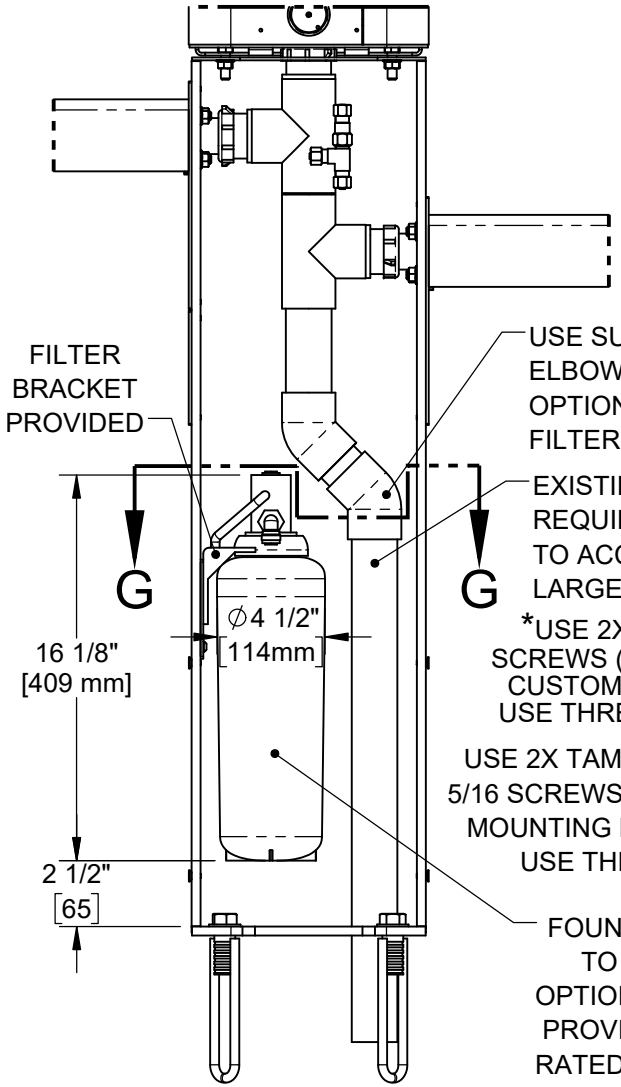
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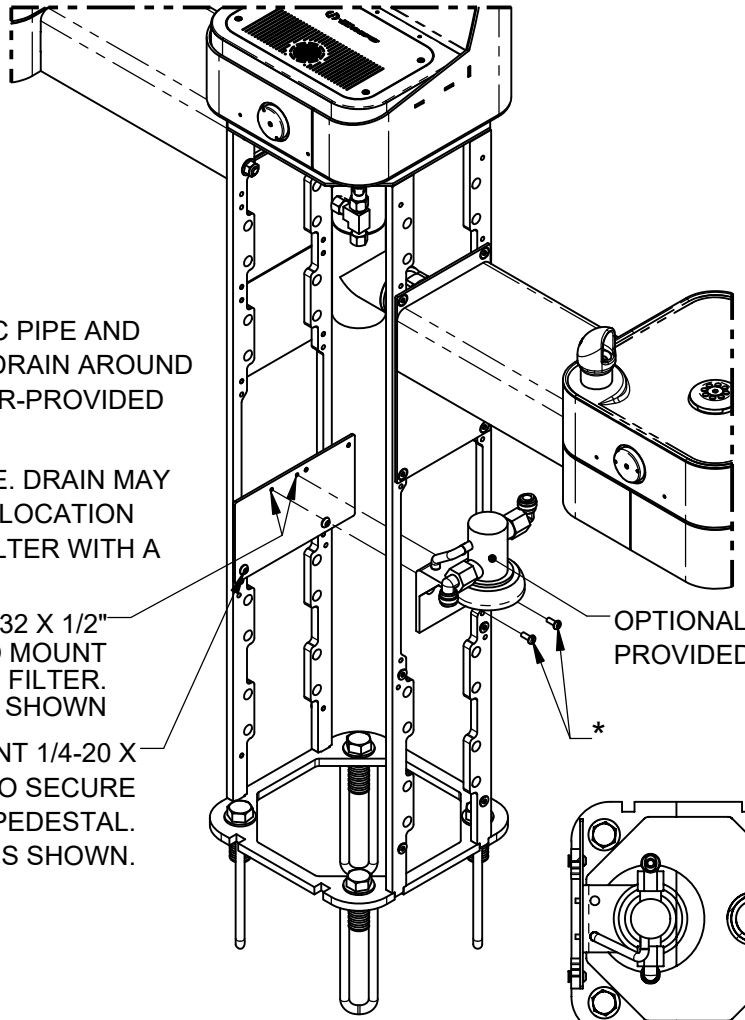
ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
5666	6030	FV	3612 & 3612F	0580001180.D
DRAWN:	DATE:	CHK'D.:		REVISION
DHP	6/11/20	JL		6
APPROVED:	DATE:			
FV	07/02/24			
SCALE: 1:24	DRAWING TYPE: INSTALLATION	SIZE: A	SHEET 6 OF 9	

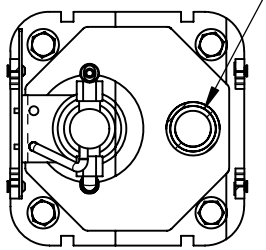
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OPTIONAL OWNER-PROVIDED FILTER INSTALLATION







ALTERNATE DRAIN LOCATION FOR CUSTOMER SUPPLIED OPTIONAL FILTER

SECTION A-A

INSTRUCTIONS FOR OPTIONAL OWNER-PROVIDED FILTER

NOTE: MOUNTING BRACKET, 1-1/2" X 3" PVC PIPE AND 45˚ PVC ELBOWS (QTY. 2) SUPPLIED WITH 6477 FILTER MOUNTING KIT ARE REQUIRED (SHOWN ON MODEL 3612/3612F FOR REFERENCE ONLY). INSTALLATION INSTRUCTIONS APPLY TO EITHER NEW OR RETROFIT APPLICATIONS. SEE SHEETS 4 THRU 6 FOR STANDARD FILTER (3000-GALLON CAPACITY) INSTALLATION INSTRUCTIONS.

Haws Since 1906
1455 KLEPPE LANE
SPARKS, NEVADA 89431
(775) 359-4712 FAX (775) 359-7424
E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

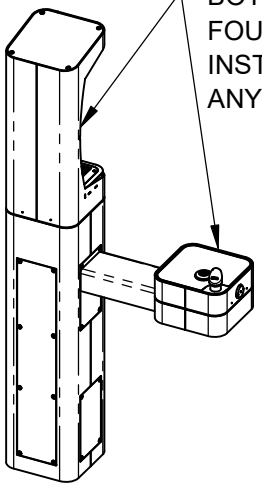
ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 7 OF 9

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NOTES ON OPTIONAL CONFIGURATIONS

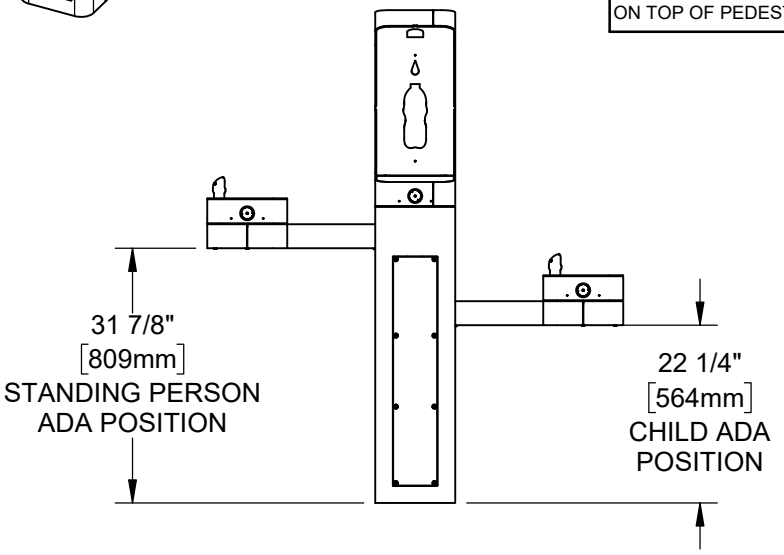
HAWS 3600/3600F SERIES OUTDOOR FOUNTAINS ARE MODULAR AND CAN BE ASSEMBLED AND CONFIGURED MANY DIFFERENT WAYS. DISPLAYED HERE ARE A FEW EXAMPLES. CONFIGURATIONS OTHER THAN THAT SHOWN IN THE INSTALLATION INSTRUCTIONS FOR THE 3612/3612F MAY AFFECT COMPLIANCE WITH ADA REGULATIONS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO UNDERSTAND LOCAL, STATE, AND FEDERAL REGULATIONS AS APPLICABLE IF INSTALLING THIS FOUNTAIN IN CONFIGURATIONS OTHER THAN THAT INDICATED ON SHEET 1 (PAGE 6 OF 14).

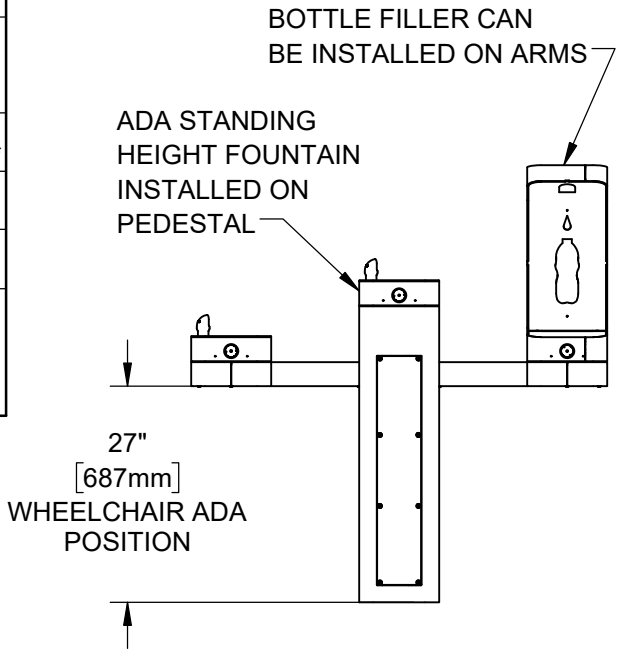


ADA ARM HEIGHT POSITION OPTIONS				
	LEFT SIDE*	RIGHT SIDE*	ARM HEIGHT (LOWER EDGE)	BUBBLER NOZZLE HEIGHT
STANDING ADA	YES (STD)	NO	31-7/8 [809 mm]	39-3/8 [999 mm]**
WHEELCHAIR ADA	YES	YES (STD)	27 [687 mm]	34-5/8 [878 mm]
CHILD ADA	YES	YES	22-1/4 [566 mm]	29-7/8 [757 mm]

* RIGHT AND LEFT CAN BE REVERSED IF PEDESTAL IS ROTATED 180°.

**NOZZLE HEIGHT IS 41-1/2" WHEN FOUNTAIN IS INSTALLED ON TOP OF PEDESTAL.





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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:24 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 8 OF 9

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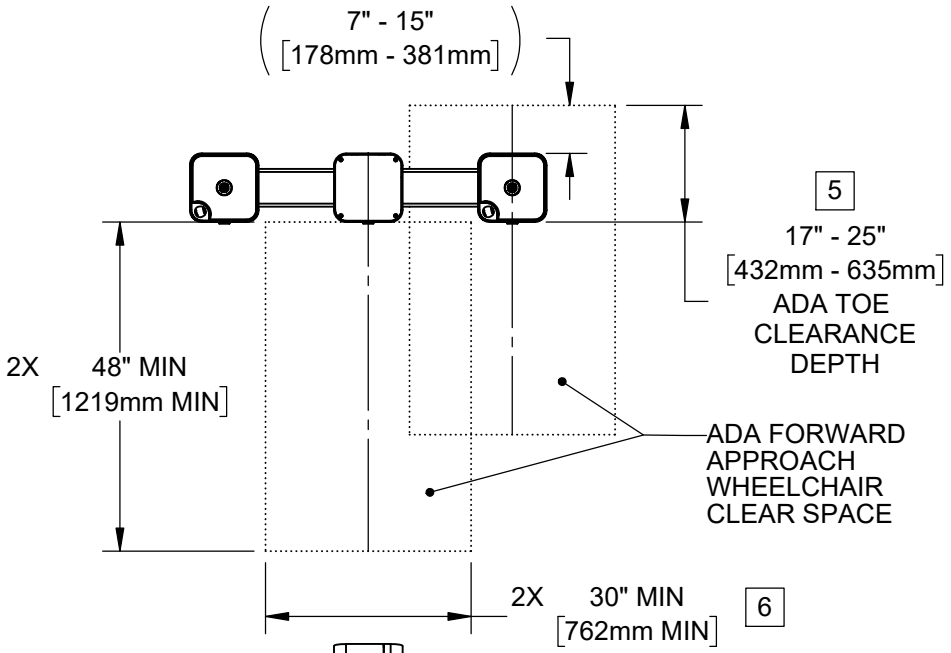
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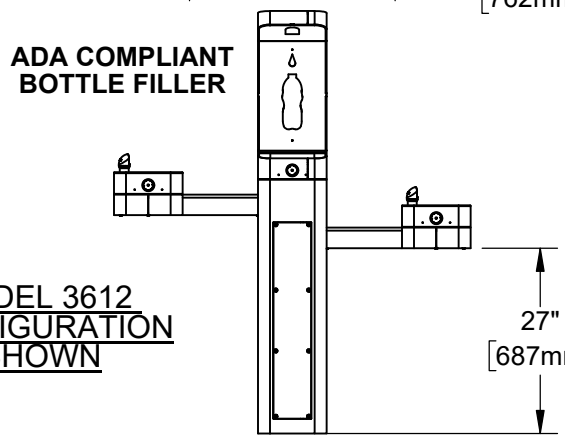
3. CLEAR FLOOR SPACES APPLY FOR ALL MODELS WITH A DRINKING FOUNTAIN OR BOTTLE FILLER INSTALLED AT ADA WHEELCHAIR ACCESSIBLE HEIGHT AND PEDESTAL MOUNTED BOTTLE FILLERS.
4. ORIENTATION OF CLEAR FLOOR SPACE IS DEPENDENT ON THE FOUNTAIN OR BOTTLE FILLER ORIENTATION.

[5] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 18" MIN.

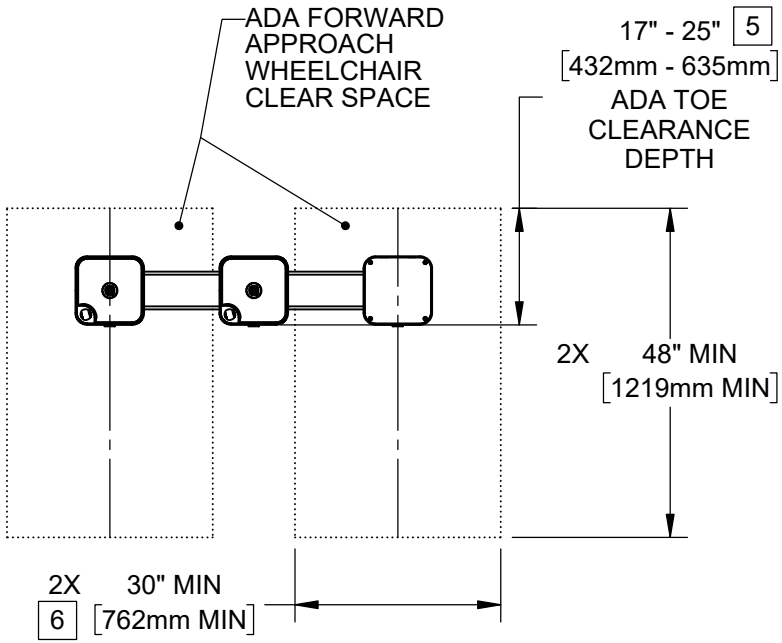
[6] SOME CALIFORNIA JURISDICTIONS MAY REQUIRE 32" MIN.

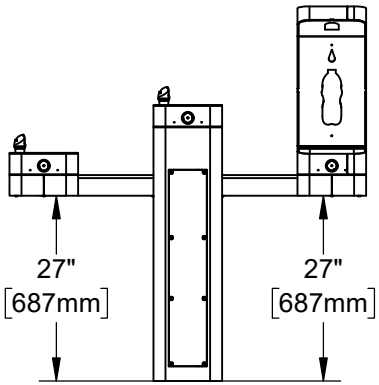
7. REFER TO ADA STANDARDS AND/OR YOUR LOCAL BUILDING CODE FOR CLEAR SPACE GUIDELINES FOR PARALLEL APPROACH.





MODEL 3612 CONFIGURATION SHOWN





MODEL 3612BFA ALTERNATE CONFIGURATION SHOWN

THESE HAWS MODELS ARE FULLY COMPLIANT WITH THE FEDERAL 2010 AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS WHEN INSTALLED AS SHOWN HERE AND WHEN INSTALLED WITH PROPER CLEARANCES AND ACCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ADHERE TO LOCAL, STATE, AND FEDERAL CODES WHEN INSTALLING THIS UNIT. DISTANCE TO SURROUNDING OBJECTS, APPROACH SURFACES, ETC. SHOULD BE CONSIDERED.

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(775) 359-4712 FAX (775) 359-7424
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ECN: 5666	REV. ECN: 6030	BY: FV	MODEL(S) 3612 & 3612F	PART NUMBER 0580001180.D
DRAWN: DHP	DATE: 6/11/20	CHK'D.: JL		REVISION 6
APPROVED: FV	DATE: 07/02/24		SCALE: 1:28 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 9 OF 9

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Submittal Data Information

007e® ECM High-Efficiency Circulator

101-177

DHWP-1

Effective: Febuary 1, 2023

Supersedes: August 16, 2021

Job: _____ Engineer: _____ Contractor: _____ Rep: _____

ITEM NO.	MODEL NO.	

Specifications

- Max. Shut-off Head: 10 feet
- Max. Flow: 16 gpm
- Max. Operating Pressure:
  - Cast Iron: 125 psi (8.6 bar)
  - Stainless Steel: 150 psi (10 bar)
- Max. Water Temp: 230°F (110°C)
- Min. Water Temp: 36°F (2°C)
- Electrical specifications:
  - Voltage: 120V, 60 Hz Single phase
  - Max. Operating Power: 44W
  - Max. AMP Rating: 0.54
- Cast iron casing suitable for closed loop systems only
- Stainless steel casing suitable for potable water and open loop systems
- Not suitable for chilled water
- Taco circulator pumps are for indoor use only
- Acceptable for use with water or maximum of 50% water/glycol solution

Materials of Construction:

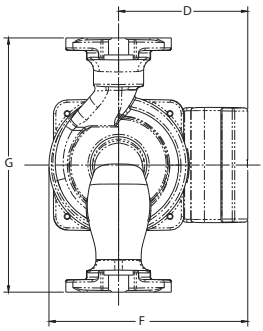
Casing: .....Cast Iron or .....Stainless Steel
Stator Housing: .....Composite
Cartridge: .....Composite
Impeller: .....Composite
Shaft: .....Ceramic
Bearings: .....Carbon
Thrust Bearing: .....Ceramic
O-Ring & Gaskets: .....EPDM

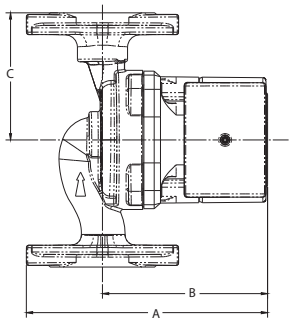
Certified to NSF/ANSI/CAN 61 & 372

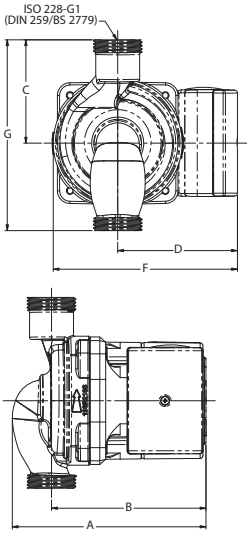
Stainless Steel models only

Applications

The 007e is a high-efficiency wet rotor circulator with an ECM permanent magnet motor. Its ECM performance is equivalent to the legendary 007 circulator. It is ideal for hydronic systems zoned with circulators or zone valves or used on potable water systems for domestic water recirculation. The 007e is not suitable for chilled water systems.



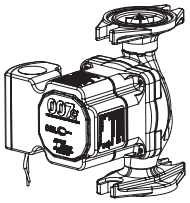


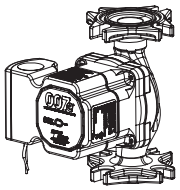


Pump Dimensions & Weights

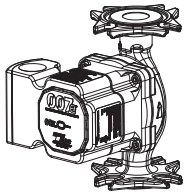
Model Number	Connection Type	Casing	A		B		C		D		F		G		Ship Wt.	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	Kg
007e-2F2	Standard	CI	6	152	4-1/8	104	3-3/16	80	3-1/4	82	5	126	6-3/8	161	5.8	2.6
007e-2F4	Universal	CI	6	152	4-1/8	104	3-3/16	80	3-1/4	82	5	126	6-3/8	161	6	3.7
007e-SF4	Universal	SS	6	152	4-1/8	104	3-3/16	80	3-1/4	82	5	126	6-3/8	161	5.5	2.5
007e-SU	Union	SS	5-1/6	131	4-1/8	104	3-3/16	80	3-1/4	82	5	126	5-1/8	130	4.6	2.1

Connection Types


Cast Iron Standard Flange

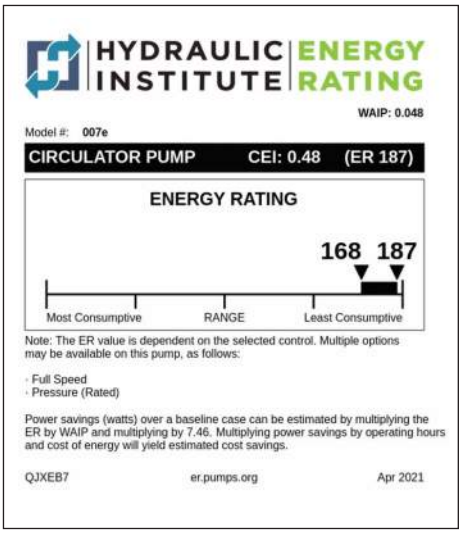

Cast Iron Universal Flange


Stainless Steel Union

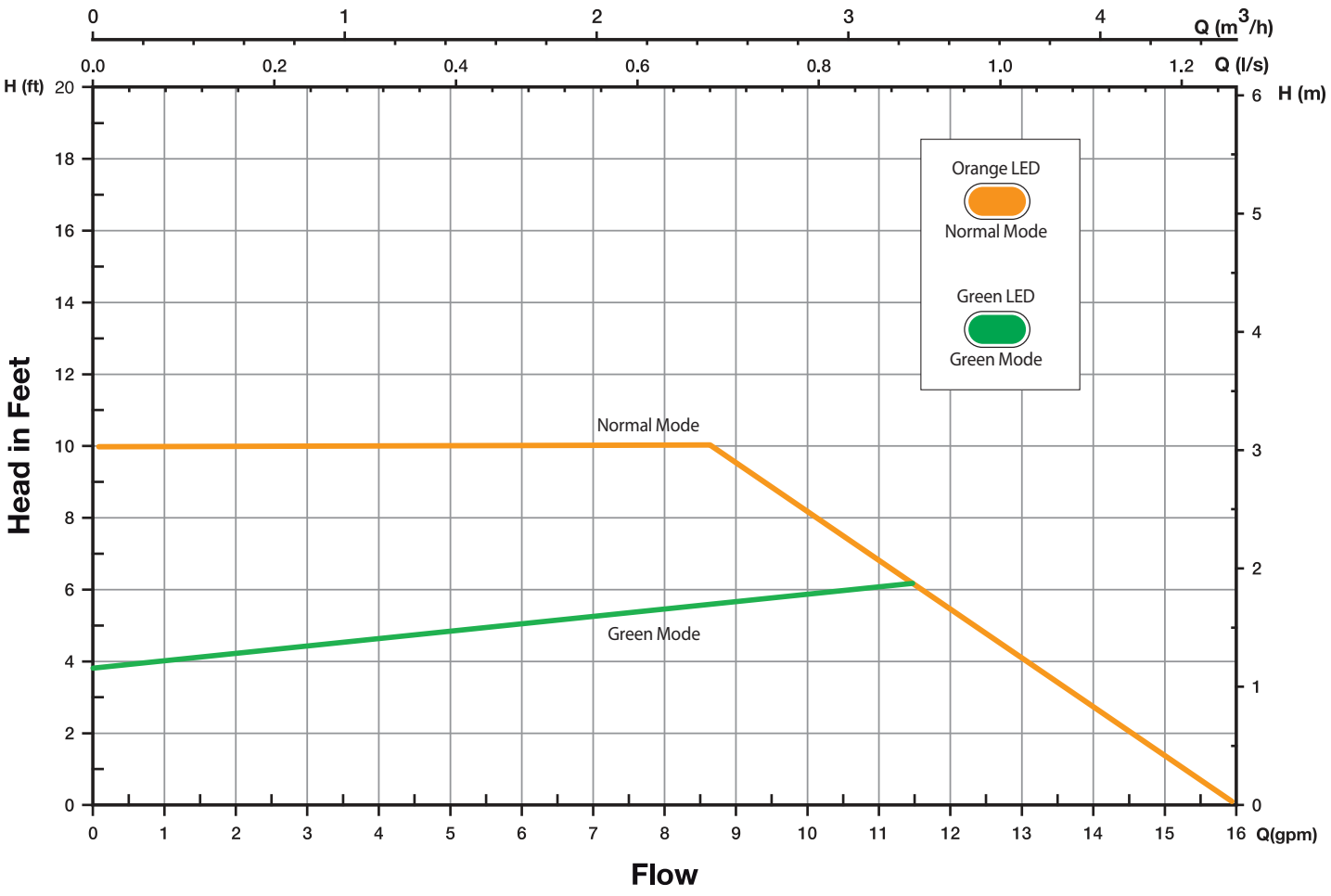

Stainless Steel Universal Flange

Electrical Data

Model	Volts	Hz	Ph	Max. Amps	Max. Watts	RPM
All Models	120	60	1	.54	44	1590-4830
Motor Type	ECM, Permanent Magnet, Thermally Protected					



Performance Curves



Taco Comfort Solutions® A Taco Family Company
Taco, Inc., 1160 Cranston Street, Cranston, RI 02920 | Tel: (401) 942-8000
Taco (Canada), Ltd., 8450 Lawson Road, Suite #3, Milton, Ontario L9T 0J8 | Tel: (905) 564-9422
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ELKAY®
SPECIFICATIONS

Elkay® 8" Centerset with Exposed Deck Faucet with 5" Gooseneck Spout 4" Wristblade Handles Chrome
Model(s) LK810GN05T4

PRODUCT SPECIFICATIONS

Elkay® 8" Centerset with Exposed Deck Faucet with 5" Gooseneck Spout 4" Wristblade Handles Chrome. Faucet has a flow rate of 1.5 GPM, and is made of Chrome-plated Brass material, with a Quarter Turn Ceramic Disc valve. Faucet requires 3 faucet holes.

Mounting Type:	Deck Mount
Special Features:	Low Flow Solid Brass Construction Spout Swing Restriction Pin
Finish:	Chrome (CR)
Handle Type:	4" Wristblade Handle
Deck Clearance:	7-5/16"
Spout Reach:	5-1/8"
Spout Height:	10-11/16"
Hole Drillings:	3
Material:	Chrome-plated Brass
Valve Type:	Quarter Turn Ceramic Disc
Valve Connection:	1/2" NPSM Male
Flow Rate:	1.5 GPM
Faucet Hole Size (min):	1-3/8"
Faucet Hole Spread:	8
Spout Type:	Gooseneck


Chrome (CR)



A Century of Tradition and Quality.
For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

Product Compliance: ADA & ICC A117.1
ASME A112.18.1/CSA B125.1
CEC
NSF 372 (lead free)
NSF 61 (Q≤1)

Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

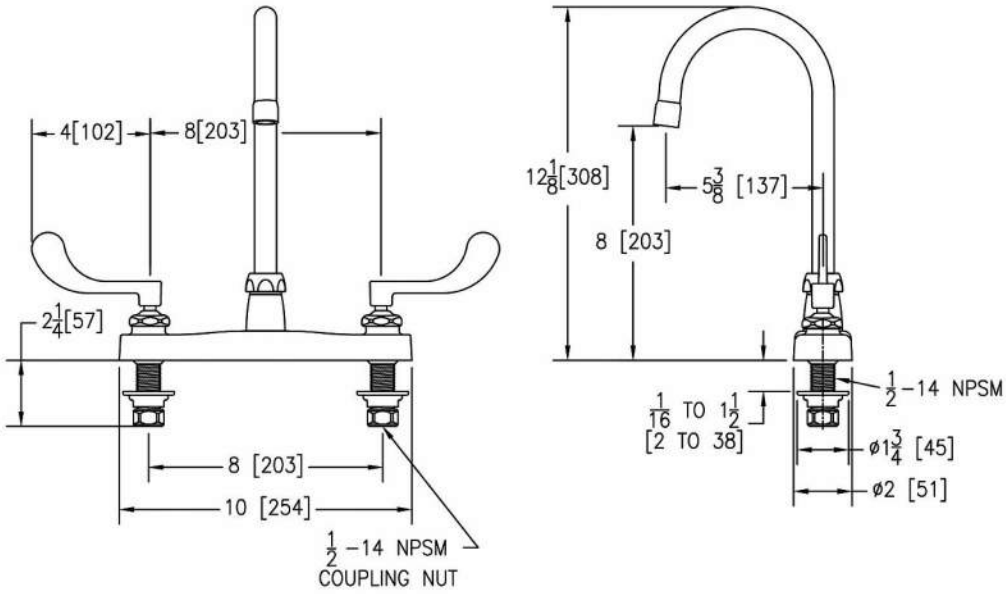
Clean and Care Manual (PDF)
Installation Instructions (PDF) - A55483
Warranty (PDF)

PART:_____QTY: _____
PROJECT:_____
CONTACT:_____
DATE:_____
NOTES:_____
APPROVAL:_____

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

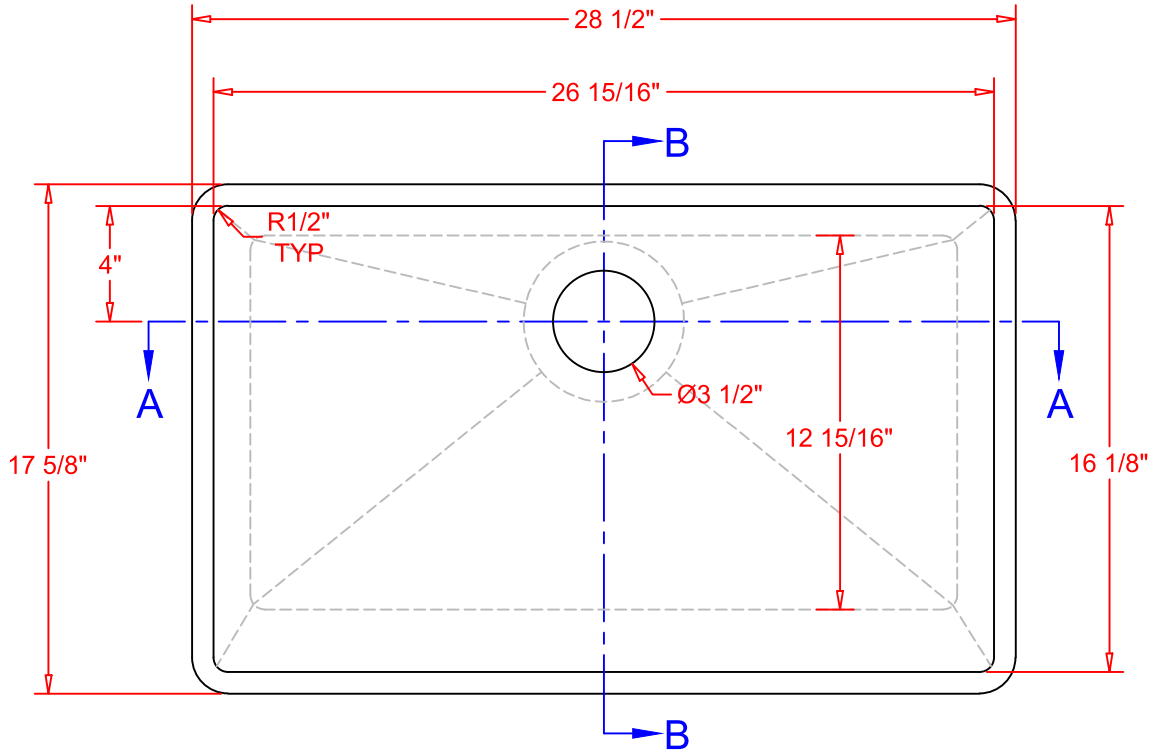
Elkay® 8" Centerset with Exposed Deck Faucet with 5" Gooseneck Spout 4" Wristblade Handles Chrome

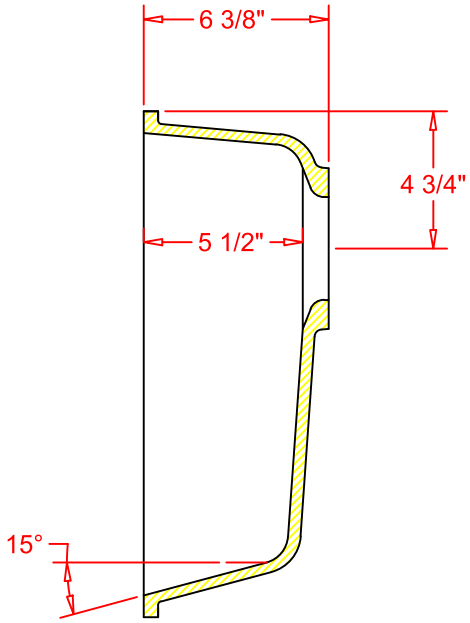
Model(s) LK810GN05T4



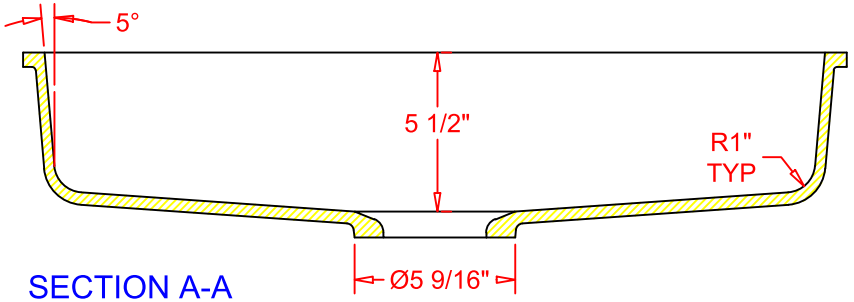
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Rev #			
Rev #			





SECTION B-B



SECTION A-A

Wilsonart®
SOLID SURFACE

Part Number:	AK2716				
Description:	Large ADA Utility Sink				
Date Drawn:	10 / 02 / 2018	Weight:	20.0 Lbs	Scale:	None
Drawn By:	Carlos Hernandez			Revised By:	
Approved By:	Daniel Shin			Date Revised:	01 / 09 / 2019

Customer Approval: Date:

Path: @Engineering\

ELKAY®
SPECIFICATIONS

Elkay® Foodservice 3-8" Adjustable Centers Wall Mount Faucet w/Double Swing Spout 4" Wristblade Handles 2" Inlet

Model(s) LK945DS20T4T

PRODUCT SPECIFICATIONS

Elkay® Foodservice 3-8" Adjustable Centers Wall Mount Faucet w/Double Swing Spout 4" Wristblade Handles 2" Inlet. Faucet has a flow rate of 1.5 GPM, and is made of Chrome-plated Brass material, with a Quarter Turn Ceramic Disc valve. Faucet requires 2 faucet holes.

Mounting Type:	Wall Mount
Special Features:	Low Flow Solid Brass Construction Spout Swing Restriction Pin
Finish:	Chrome (CR)
Handle Type:	4" Wristblade Handle
Deck Clearance:	3-1/2"
Spout Reach:	19-1/2"
Spout Height:	6"
Hole Drillings:	2
Material:	Chrome-plated Brass
Valve Type:	Quarter Turn Ceramic Disc
Valve Connection:	Offset Adj 1/2" NPT Female Inl
Flow Rate:	1.5 GPM
Faucet Hole Size (min):	1-1/2"
Faucet Hole Spread:	3-3/8" to 8-1/2" Adjustable Spread
Spout Type:	Double Swing

Special Note: 1.5 GPM VR aerator installed with 2.2 and .5 GPM inserts included



Chrome (CR)

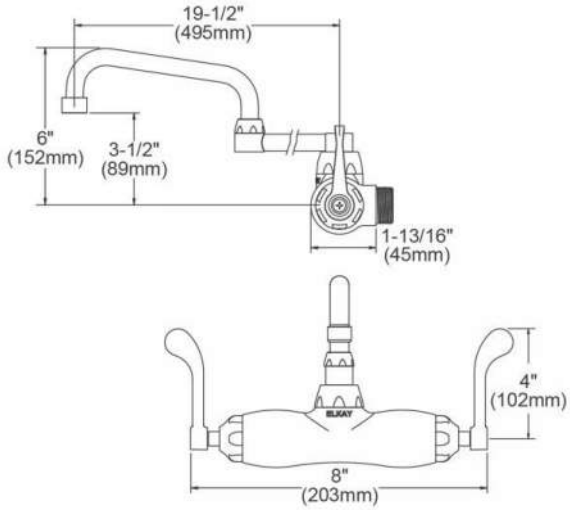


A Century of Tradition and Quality.
For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

Product Compliance: ADA & ICC A117.1
ASME A112.18.1/CSA B125.1
CEC
NSF 372 (lead free)
NSF 61 (Q≤1)

Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Clean and Care Manual (PDF)
Installation Instructions (PDF) - A55483
Warranty (PDF)



PART:_____QTY: _____

PROJECT:_____

CONTACT:_____

DATE:_____

NOTES:_____

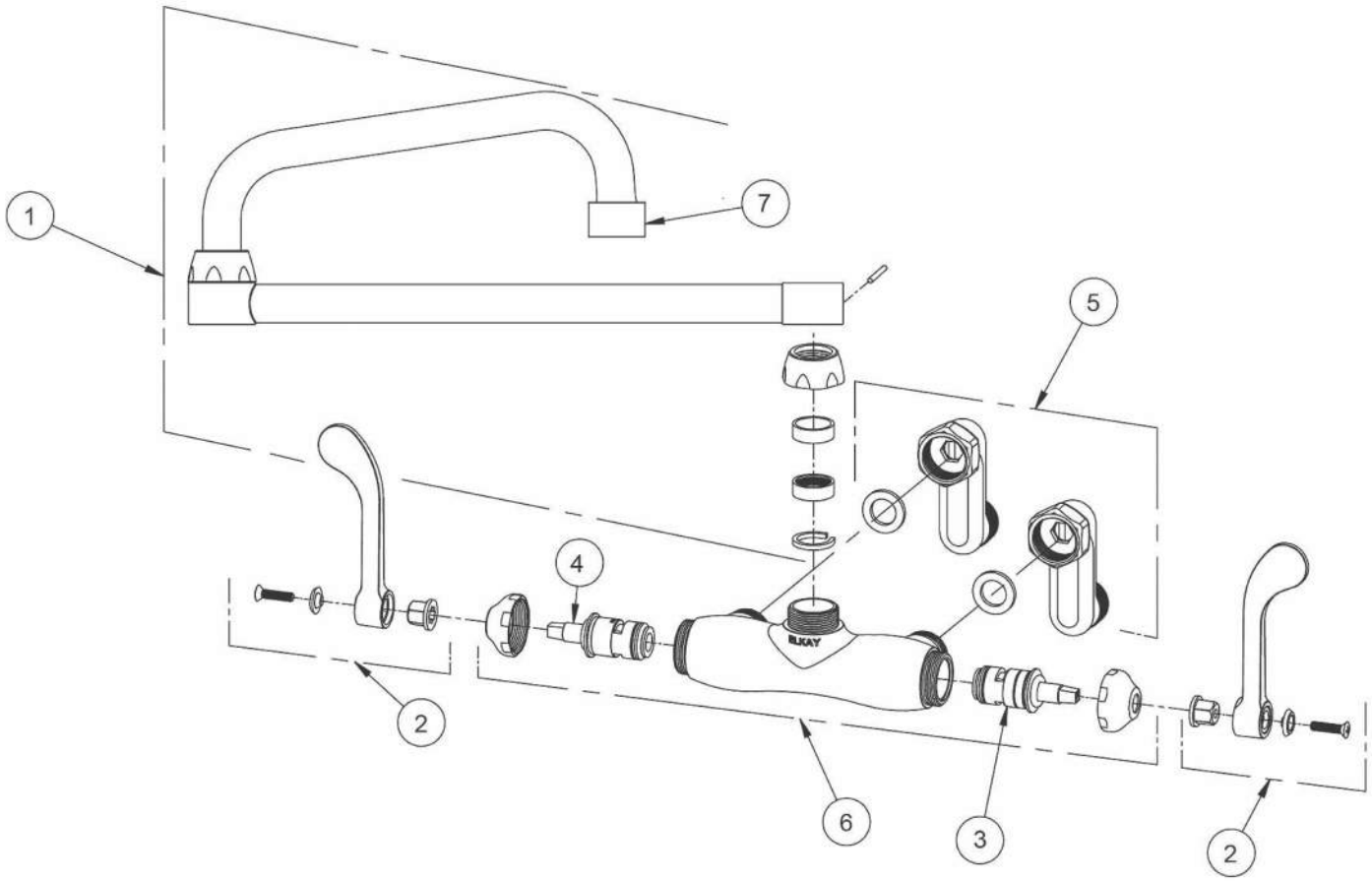
APPROVAL:

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Elkay® Foodservice 3-8" Adjustable Centers Wall Mount Faucet w/Double Swing Spout 4" Wristblade Handles 2" Inlet

Model(s) LK945DS20T4T

ITEM	IND. PART	DESCRIPTION
1	A55411	Spout
2	45919C	Handle, 4"
3	45923C	Right Cold Cartridge
4	45924C	Left Hot Cartridge
5	A55413	2" Adjustable Inlet
6	45913C	Body
7	LK734	2.2 GPM VR Aerator



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Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 600S118182G

Regency Tables & Sinks

Regency 54" 16 Gauge Stainless Steel One Compartment Commercial Sink with Galvanized Steel Legs and 2 Drainboards - 18" x 18" x 14" Bowl

#600S118182G







Technical Data

Length	54 Inches
Width	23 1/2 Inches
Height	44 3/4 Inches
Drainboard Length	18 Inches
Bowl Depth	14 Inches
Backsplash Height	10 3/4 Inches
Work Surface Height	36 1/2 Inches
Basket Drain Size	3 1/2 Inches
Bowl Front to Back	18 Inches
Bowl Left to Right	18 Inches

Features

- Features a durable 16 gauge type 304 stainless steel construction
- Designed with a 14" deep bowl and rounded corners for easy cleaning
- Galvanized steel legs and adjustable plastic bullet feet provide stability
- Includes (2) 18" drainboards and a 3 1/2" drain basket
- Backsplash and rolled edges prevent splashes and overflow

Certifications

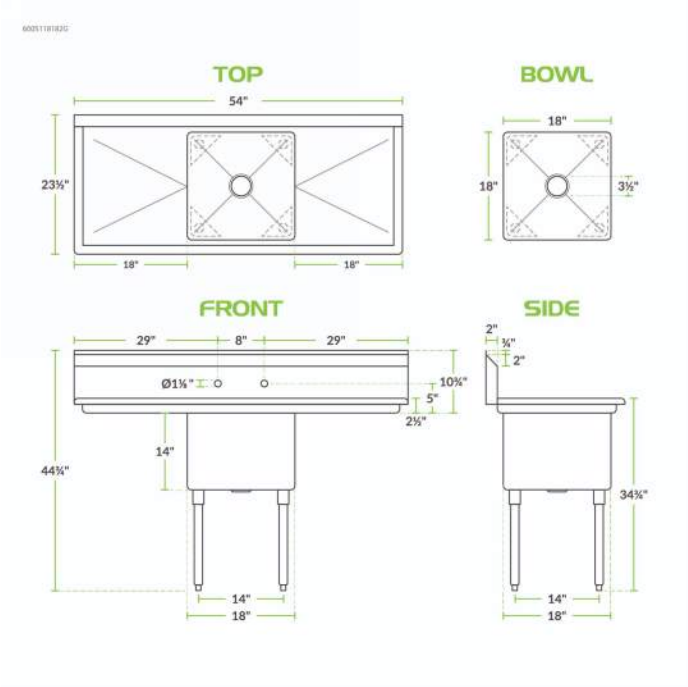
NSF Listed

© 2025 Regency Tables & Sinks

Technical Data

Drain Outlet Size	1 1/2 Inches
Faucet Centers	8 Inches
Features	Massachusetts Accepted Plumbing Product NSF Listed
Gauge	16 Gauge
Leg Construction	Galvanized Steel
Material	Stainless Steel
Number of Compartments	1 Compartment
Number of Drainboards	2 Drainboards
Stainless Steel Type	Type 304
Style	2 Drainboards
Type	Straight / Line Sinks

Plan View



Notes & Details

Outfit your facility with a long-lasting sink with this Regency 54" one compartment sink with 2 drainboards. It's constructed from high-quality, 16 gauge type 304 stainless steel, making it more corrosion-resistant and durable than other sinks made from thinner, 18 gauge material. This sink features 2 sturdy, 18" drainboards so you can easily wash and dry dishes and utensils in one convenient location. The welded construction also contributes to the long-lasting use and overall strength of this sink / drainboard combo.

The 14" deep bowl is die-stamped to a minimum of 1/4" to ensure proper drainage. Plus, it includes a 3 1/2" basket strainer to catch food debris, which prevents the drain from clogging. For easy cleaning, the compartment has rounded corners so you can rinse and wipe down the sink.

A 10 3/4" tall backsplash is included with (2) 1 1/8" diameter holes punched on 8" centers to accommodate 1 faucet (sold separately). This sink includes a 1 1/2" raised rolled edge, which is 2" tall on the front and both sides to contain splashes and overflow. This model also has galvanized steel legs and adjustable plastic bullet feet to keep the sink level and stable. These features serve to prolong the life of your sink while adding exceptional strength to the unit.

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⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Model: WBB2158998

Sani-Lav® 605FL Wall Mount Sinks With Faucet NSF/ANSI 372

★★★★★ (0)



Ships within 1 Business Day

Product Description

SANI-LAV 605FL Wall Mount Sinks With Faucet NSF/ANSI 372

Deep drawn from heavy duty 18 gauge type 304 stainless steel with large rounded corners. Exposed surfaces have an electro polished finish to enhance resistance to corrosion, reduce any bacterial growth and make for easier cleaning. Includes (1) Swivel Gooseneck Faucet with 4" Wrist Blade Handles, (1) Wall Mounting Bracket, (1) Strainer Assembly with Basket.

For California customers, please refer to the 0.5 GPM model, Manufacturer's Part # 605FL-0.5, Global Item # B2159015

Specifications

Weights & Dimensions

Length	16 in
Width	15-1/2 in
Height	13 in
Weight	14 lbs
Gauge	18 ga
Drain Opening	2 in
Basin Depth	5 in
Backsplash Height	8 in
Basin Length	14 in
Basin Width	11 in

Product Details

Flow Rate	2 gal/min
Number of Stations	1
Mounting Location	Wall
Material	Stainless Steel
Manufacturers Part Number	605FL
Brand	Sani-Lav
Type	Hand Sink
Color	Silver
Number of Compartments	1
Handle Style	Wrist Blade

Faucet Holes	2

Warranty

Warranty	1 yr

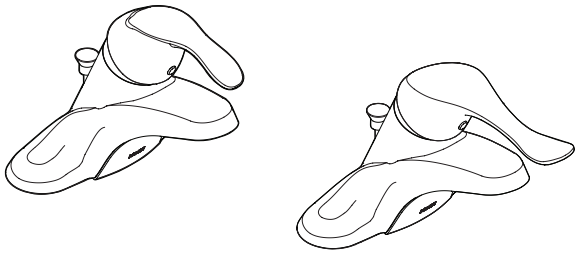
Compliance & Certifications

ADA Compliant	No
NSF Certified	Yes

MOEN®

COMMERCIAL

Specifications



DESCRIPTION
- Metal construction with Chrome plated or Classic Brushed Nickel finish
- 1/2" IPS connections or flex supply lines (3/8" compression fittings)
- Brass adjustable temperature limit stop
- Includes metal pop-up type waste assembly or metal grid strainer where noted

OPERATION
- Pivot action lever style handle in 3" and 4"

FLOW
- Water usage is limited to these maximum flow rates as indicated by the corresponding product markings

CARTRIDGE
- 1255™ Duralast™ cartridge
- Nonmetallic/nonferrous and stainless steel material

STANDARDS
- Third party certified to WaterSense,® ASME A112.18.1/CSA B125.1, and all applicable requirements referenced therein
- Certified to NSF 61/9 & 372
- Products marked with 1.2 gpm are compliant with California water efficiency regulations
- Complies with California Proposition 65 and with the Federal Safe Drinking Water Act
- **ADA** for lever handles

WARRANTY
- Warranted for 5 years against material or manufacturer defects

M-BITION® Single-Handle Lavatory Faucet

MODEL	LEVER HANDLE SIZE	FLOW RATE (GPM)	CONNECTION TYPE	DRAIN	FINISH	WATERSENSE CERTIFIED
8400	4"	1.2	IPS	Without	Chrome	x
8420	4"	1.2	IPS	Metal	Chrome	x
8420CBN	4"	1.2	IPS	Metal	CBN	x
8422	4"	1.2	Flex Supply Lines	Without	Chrome	x
8422CBN	4"	1.5	Flex Supply Lines	Without	CBN	x
8422F03	4"	0.35	Flex Supply Lines	Without	Chrome	N/A
8422F05	4"	0.5	Flex Supply Lines	Without	Chrome	N/A
8425	4"	1.2	IPS	Grid	Chrome	x
8430	3"	1.2	IPS	Without	Chrome	x
8430CBN	3"	1.2	IPS	Without	CBN	x
8430F03	3"	0.35	IPS	Without	Chrome	N/A
8430F05	3"	0.5	IPS	Without	Chrome	N/A
8432	3"	1.2	IPS	Metal	Chrome	x
8432F05	3"	0.5	IPS	Metal	Chrome	N/A
8434	3"	1.2	IPS	Grid	Chrome	x
8437	3"	1.2	Flex Supply Lines	Metal	Chrome	x
8437CBN	3"	1.2	Flex Supply Lines	Metal	CBN	x
8439	3"	1.2	Flex Supply Lines	Without	Chrome	x
8439CBN	3"	1.5	Flex Supply Lines	Without	CBN	x
8439F05	3"	0.5	Flex Supply Lines	Without	Chrome	N/A

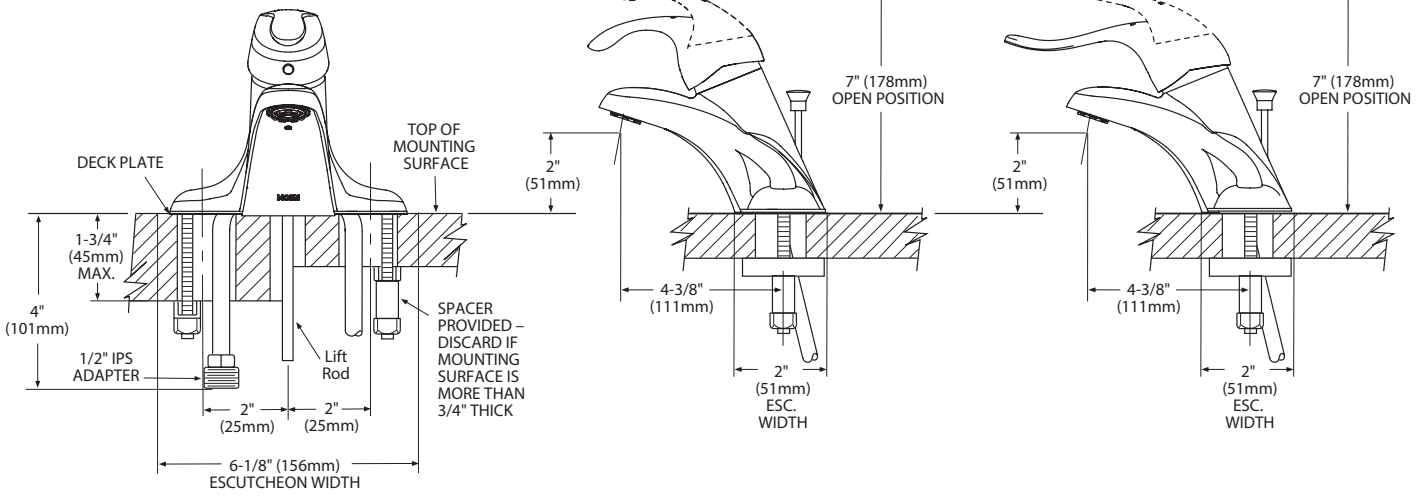
CBN- Classic Brushed Nickel

NOTE: This faucet is designed to be installed thru 3-1" dia. holes, 2" on center

BUY AMERICAN ACT COMPLIANT

WaterSense Meets EPA Criteria Certified by IAPMO R&T

See table above



CRITICAL DIMENSIONS

(DO NOT SCALE)

01/17/2017 SPC11546 5000023312 Rdz060414

Z5350

19” x 17” Wall Hung Lavatory

L-1 AND L-1A

TAG _____



Z5350 Series

Recommended Trim:

- ☐ **Z8743-PC** Grid Strainer
- ☐ **Z8700** Series P-Trap
- ☐ **Z8800** Series Top with Flexible Supplies
- ☐ **Z8946-1-NT** ADA Trap, Stop, and Supply Protectors

Optional Trim:

- ☐ **Z8746-PC** ADA Grid Strainer
- ☐ **Z8946-3-NT** ADA Trap, Stop, and Supply Protectors for Offset Grid Strainers

Z5350 Series

- 19" [483 mm] x 17" [432 mm]
- Vitreous china
- Faucet holes for single, 4", or 8" centers
- Wall hung lavatory provided with wall hanger
- Front overflow
- Waste: 1-1/4" O.D.
- Shipping Weight: 28 lbs.

Engineering Specification:

- ☐ **Z5351** 19" x 17" vitreous china wall hung lavatory with single faucet hole. Provided with hanger plate.
- ☐ **Z5354** 19" x 17" vitreous china wall hung lavatory with 4" center faucet holes. Provided with hanger plate.
- ☐ **Z5358** 19" x 17" vitreous china wall hung lavatory with 8" center faucet holes. Provided with hanger plate.

This space is for Architectural/engineering Approval

These dimensions and specifications are subject to change without notice.

Fixture dimensions meet ANSI/ASME standard A112.19.2 and CAN/CSA B45 requirements.

Meets the American Disabilities Guidelines and ANSI A117.1 requirements when lavatory is installed 34” [864mm] from finished floor.

See Zurn One Systems for suggested packages.

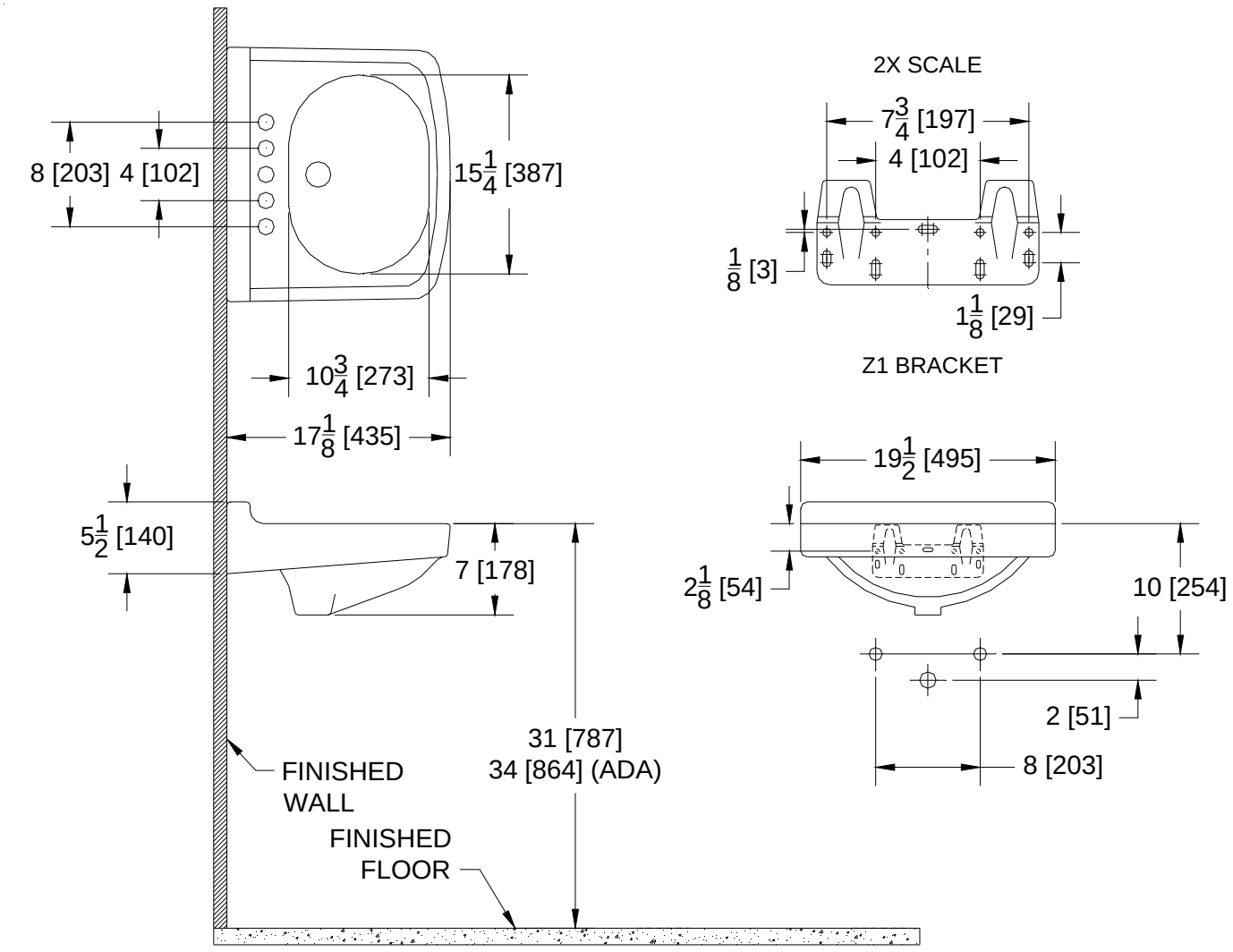
ZURN INDUSTRIES, LLC. ♦ COMMERCIAL BRASS OPERATION ♦ 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330
Phone: 1-800-997-3876 ♦ Fax: 919-775-3541 ♦ World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905-405-8272 Fax: 905-405-1292

Z5350

19” x 17” Wall Hung Lavatory Rough-In

TAG _____

Rough-in dimensions for Z5350 Series
- Z5351 Lavatory with single hole faucet
- Z5354 Lavatory with 4" center faucet holes
- Z5358 Lavatory with 8" center faucet holes



These dimensions and specifications are subject to change without notice.

Fixture dimensions meet ANSI/ASME standard A112.19.2 and CAN/CSA B45 requirements.

Meets the American Disabilities Guidelines and ANSI A117.1 requirements when lavatory is installed 34” [864mm] from finished floor.

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ELKAY®
SPECIFICATIONS

Elkay® 8" Centerset Wall Mount Faucet w/7" Bucket Hook Spt 4in Wristblade Handles 1/2" Offset Inlet Polished Chrome
Model(s) LK940BP07T4H

PRODUCT SPECIFICATIONS

Elkay® 8" Centerset Wall Mount Faucet w/7" Bucket Hook Spt 4in Wristblade Handles 1/2" Offset Inlet Polished Chrome. Faucet has a flow rate of 4.0 GPM, and is made of Chrome-plated Brass material, with a Quarter Turn Ceramic Disc valve. Faucet requires 2 faucet holes.

Mounting Type:	Wall Mount
Special Features:	1/2" Adjustable Inlets Solid Brass Construction Spout Swing Restriction Pin
Finish:	Chrome (CR)
Handle Type:	4" Wristblade Handle
Deck Clearance:	2-1/8"
Spout Reach:	6-1/2"
Spout Height:	4-5/8"
Hole Drillings:	2
Material:	Chrome-plated Brass
Valve Type:	Quarter Turn Ceramic Disc
Valve Connection:	1/2" NPT Female
Flow Rate:	4.0 GPM
Faucet Hole Size (min):	1-1/2"
Faucet Hole Spread:	8
Spout Type:	Bucket Hook


Chrome (CR)

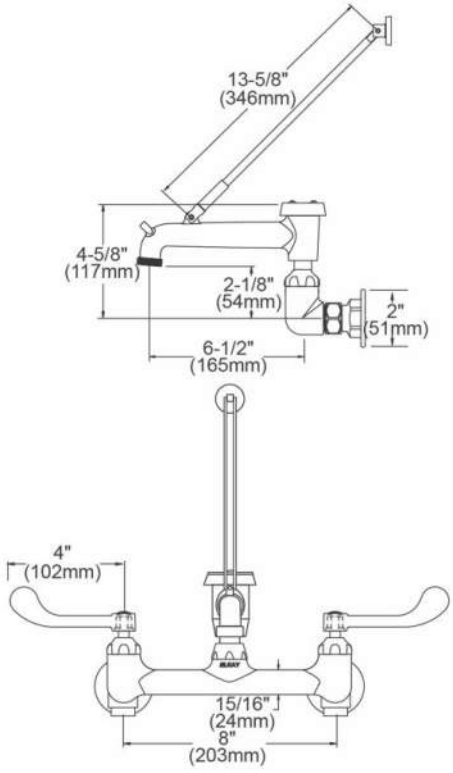


A Century of Tradition and Quality.
For more than 100 years, Elkay has been making innovative products and providing exceptional customer care. We take pride in offering plumbing products that make life easier, inspire change and leave the world a better place.

Product Compliance: ADA & ICC A117.1
ASME A112.18.1/CSA B125.1
NSF 372 (lead free)
NSF 61 (Q≤1)

Complies with ADA & ICC A117.1 accessibility requirements when installed according to the requirements outlined in these standards.

Clean and Care Manual (PDF)
Installation Instructions (PDF) - A55483
Warranty (PDF)



PART:_____QTY: _____
PROJECT:_____
CONTACT:_____
DATE:_____
NOTES:_____
APPROVAL:

In keeping with our policy of continuing product improvement, Elkay reserves the right to change product specifications without notice. Please visit elkay.com for the most current version of Elkay product specification sheets. This specification describes an Elkay product with design, quality, and functional benefits to the user. When making a comparison of other producers' offerings, be certain these features are not overlooked.

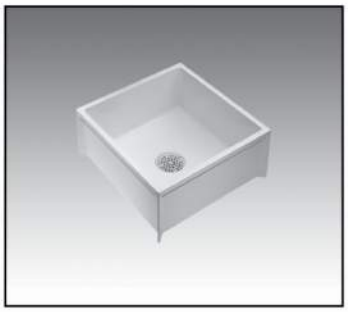
Elkay® 8" Centerset Wall Mount Faucet w/7" Bucket Hook Spt 4in Wristblade Handles 1/2" Offset Inlet Polished Chrome
Model(s) LK940BP07T4H

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MUSTEE
Preferred by the "Pros"

Mop Service Basin — Model 63M

SEE PAGE 2 FOR A LIST OF ACCESSORIES!



Design features:

- **All Mustee basins are one-piece molded from high impact resistant DURASTONE® structural fiberglass (24" x 24")**
- **Integral, molded-in drain for connection to 3" ABS, PVC (Sch. 80) or cast iron**
- **Available drain seals for connection to 2" pipe or 3" soil pipe**
- **Complete range of accessories to meet specific application needs**
- **Colorfast marbleized white finish**
- **Easy to install**

Code Accepted

Mustee Mop Service Basins meet or exceed performance requirements as listed:

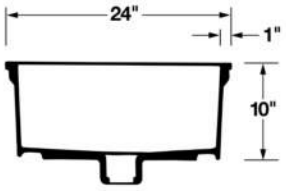
- **International Association of Plumbing and Mechanical Officials (IAPMO)® Listed**
- **Warnock Hersey® (Canada) Listed—CSA test standards: Mop Basins - #B45.0**
- **American National Standards Institute (ANSI)-Specification Z 124-2011**
- **American Society of Testing and Materials (ASTM) D 635 E 84 and E 162**
- **CAN/ULC S102-07 Burn and Smoke Test**

Specifications

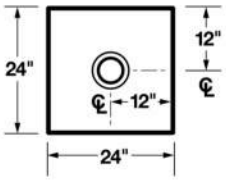
Model Number	Model	H x W x D	UPC
63M	White	10" x 24" x 24"	6 71031 00189 4

General: Furnish and install as shown on plans, Mop Service Basin model 63M, as manufactured by E.L. Mustee & Sons, Inc. Unit to be one-piece molded fiberglass made with matched metal molds using extreme heat and pressure. Height shall be 10" with not less than 1" wide shoulder. Size 24" x 24". Drain shall be integrally molded, complete with drain seal for installation of 3" ABS, PVC (Sch. #80) and iron pipe. Removable stainless steel strainer. Performance tested to meet or exceed ANSI Z 124-2011 and FHA/HUD UM-73. Weight 45 lbs., cubic feet 4.2. Install in compliance with local codes.

Sectional View



Top View



MUSTEE

E.L. Mustee & Sons, Inc. • 5431 West 164th Street • Brook Park, OH 44142 • Phone: 216.267.3100 • Fax: 216.267.9997
E-mail: info@mustee.com. • Web: www.mustee.com • Proudly made in the USA

Notice: Our continuous commitment to product improvement may result in changes to product specifications without notice.
Patents pending. Made and Printed in U.S.A.

Mop Service Basin — Model 63M Accessories

Service Faucet



Model No.	UPC
63.600A	6 71031 00277 8

Heavy duty, chrome plated brass dual handle sink faucet with top reinforcing bar and pail hook on spout.

Hose and Hose Holder



Model No.	UPC
65.700	6 71031 00196 2

Heavy duty 5/8" dia. reinforced 31" rubber hose with brass couplings on one end. Spring loaded, molded rubber hose holder mounts on stainless steel wall plate.

Mop Hanger



Model No.	UPC
65.600	6 71031 00195 5

Three spring-loaded rubber holders mounted to a 3" x 24" stainless steel wall plate. Click here for more information.

Bumper Guards



Available in high impact resistant molded vinyl (3 versions) or stainless steel (2 versions).

Model No.	UPC
High Impact-resistant vinyl	
63.401 20-3/4" Long	6 71031 00290 7
Stainless steel	
63.403 20-3/4" Long	6 71031 00409 3

DURAGUARD™ Wall Guards



Protects wall surfaces from splashing and damage from impacts, 12" height, 20 gauge #304 stainless steel.

Model No.	UPC
67.2424 Two panels & bracket for 24" x 24" corner	6 71031 00293 8
67.24C One panel & corner bracket	6 71031 00295 2

Optional Seals



For installations with the following pipe connections:

Model No.	UPC
65.308 For 2" PVC, ABS and iron	6 71031 00303 4
65.309 For 3" PVC, ABS and iron,(Included w/mop basin)	6 71031 00304 1
65.311 For 3" soil pipe (No-Hub)	6 71031 00305 8

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DELTA COMMERCIAL

TECK®

T13H Series - MultiChoice® Universal Pressure Balance Tub and Shower System

T13H183

Description

This polished chrome-plated fixture features a pressure balance cartridge that ensures a stable water flow and temperature. The temperature is controlled solely through the handle, which can be adjusted to limit rotation into the hot water zone. The cartridge also includes integral checks to prevent the mixing of hot and cold water. Rated for a minimum flow rate of 1.2 gpm @ 45 psi (4.5 L/min @ 310 kPa), this fixture comes with a non-removable blue/red visual cover indicator to indicate the handle positions for cold, mixing, and hot water. The ADA-compliant lever blade handle measures 2.25” (57 mm) in length. It includes a shower #8 with an H2Okinetic shower head, arm, and flange. The maximum flow rate for the shower is 1.5 gpm @ 80 psi (5.7 L/min @ 552 kPa), while the minimum flow rate is 1.3 gpm @ 45 psi (4.9 L/min @ 310 kPa).



Specifications

- Finish: Polished chrome plated
- Cartridge: Pressure Balance
- Temperature Control: Handle only
- Field Adjustable: Yes, to limit handle rotation into hot water zone
- Crossflow Prevention: Integral checks in cartridge prevent crossflow between Hot and Cold water inlets
- Cartridge Minimum Flow Rating: 1.2 gpm @ 45 psi (4.5 L/min @ 310 kPa)
- Handle Position Indicator: Non-removable Blue/Red visual cover indicator for Cold, Mixing, and Hot handle positions
- Handle #3: Lever Blade Handle, ADA-compliant, measuring 2.25” (57 mm) in length
- Shower #8: H2Okinetic Shower Head, Arm & Flange
- Shower #8 - Flow Rate Min. - 1.5 gpm @ 80 psi (5.7 L/min @ 552 kPa)
- Shower #8 - Flow Rate Min. - 1.3 gpm @ 45 psi (4.9 L/min @ 310 kPa)

Required Accessories

- Rough-in **- R10000-UNWS** - ordered separately

Complies With

- ASME A112.18.1 / CSA B125.1
- Pressure Balance and Diverter lever handles are compliant to ICC / ANSI A117.1
- EPA WaterSense® listed
- Pressure Balance Valve ASSE 1016

WaterSense Meets EPA Criteria
Certified by CSA Group
Shower Head
Pomme de douche

Lever Handle Only
Poignée à levier seulement

(Contact Delta Representative for State and/or Local Approvals)

WaterSense® is a registered trademark of the U.S. Environmental Protection Agency.

Max. flow rates are at 80 psi (552 kPa), Min. flow rates @ 45 psi (310 kPa)

Delta Faucet Company reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Check with local codes for requirements in your area.

Masco Canada Limited
350 South Edgeware Rd, St Thomas, Ontario, Canada N5P 4L1
1-800-387-8277

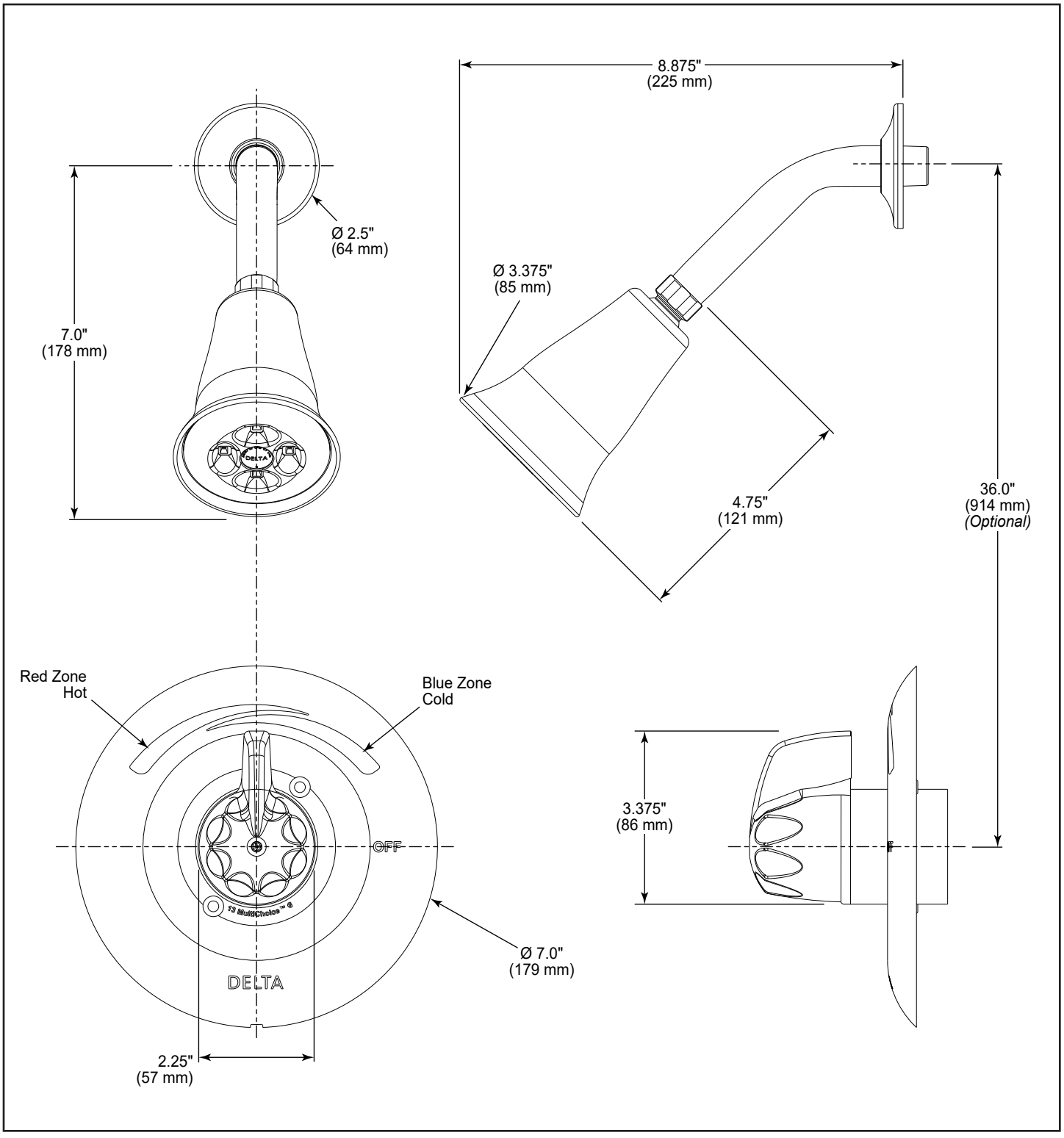
This specification sheet was produced on December 19, 2023.

DELTA COMMERCIAL

TECK

T13H Series - MultiChoice® Universal Pressure Balance Tub and Shower System

T13H183



NOTICE

- Dimensions are for reference **ONLY.**
- Measurements may vary ± 0.25" (6 mm).

WaterSense® is a registered trademark of the U.S. Environmental Protection Agency.

Max. flow rates are at 80 psi (552 kPa), Min. flow rates @ 45 psi (310 kPa)

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350 South Edgeware Rd, St Thomas, Ontario, Canada N5P 4L1
1-800-387-8277

T13H183

This specification sheet was produced on December 19, 2023.

DELTA COMMERCIAL

TECK®

T13H Series - MultiChoice® Universal Pressure Balance Tub and Shower System

T13H152-25

Description

This polished chrome-plated fixture features a pressure balance cartridge that ensures a stable water flow and temperature. The temperature is controlled solely through the handle, which can be adjusted to limit rotation into the hot water zone. The cartridge also includes integral checks to prevent the mixing of hot and cold water. Rated for a minimum flow rate of 1.2 gpm @ 45 psi (4.5 L/min @ 310 kPa), this fixture comes with a non-removable blue/red visual cover indicator to indicate the handle positions for cold, mixing, and hot water. The ADA-compliant metal lever handle measures 3.375” (86 mm) in length. An optional 69” (175.3 cm) long CP stainless steel hose is provided, which can stretch to 92” (233.7 cm). It includes a shower #5 featuring a slide hand shower and a shower diverter valve. The maximum flow rate for the hand shower is 1.5 gpm @ 80 psi (5.7 L/min @ 552 kPa), while the minimum flow rate is 1.13 gpm @ 45 psi (4.3 L/min @ 310 kPa). The hand shower also includes backflow protection provided by two integral check valves. Additionally, an optional 36” (914 mm) stainless steel grab bar with slide is provided to replace the standard 24” (610mm) stainless steel grab bar with slide, providing enhanced usability and reach.



Specifications

- Finish: Polished chrome plated
- Cartridge: Pressure Balance
- Temperature Control: Handle only
- Field Adjustable: Yes, to limit handle rotation into hot water zone
- Crossflow Prevention: Integral checks in cartridge prevent crossflow between Hot and Cold water inlets
- Cartridge Minimum Flow Rating: 1.2 gpm @ 45 psi (4.5 L/min @ 310 kPa)
- Handle Position Indicator: Non-removable Blue/Red visual cover indicator for Cold, Mixing, and Hot handle positions
- Optional Grab Bar: 36” (914 mm) Stainless steel bar with adjustable slide
- Hand Shower back flow protection provided by two integral certified check valves in series, which operate independently
- Handle #2: Metal Lever Handle, ADA-compliant, measuring 3.375” (86 mm) in length
- Optional Hose: Chrome-plated stainless steel, 69” (175.3 cm) length (relaxed), extends to 92” (233.7 cm)
- Shower #5: Hand shower
- Shower #5 - Flow Rate Max. - 1.5 gpm @ 80 psi (5.7 L/min @ 552 kPa)
- Shower #5 - Flow Rate Min. - 1.13 gpm @ 45 psi (4.3 L/min @ 310 kPa)

Complies With

- ASME A112.18.1 / CSA B125.1
- Handshower is compliant to ICC / ANSI A117.1
- Pressure Balance and Diverter lever handles are compliant to ICC / ANSI A117.1
- EPA WaterSense® listed
- Pressure Balance Valve ASSE 1016
- Hand Shower backflow protection provided by two integral certified check valves in series, which operate independently

WaterSense Meets EPA Criteria
Certified by CSA Group
Hand Shower
Douchette

Lever Handle Only
Poignée à levier seulement

(Contact Delta Representative for State and/or Local Approvals)

Operation

- Plumbing Codes require that showerheads and handshowers provide a small but continuous flow of water (trickle) when in “PAUSE” mode. Because of this continuous flow, in certain circumstances pressure variations in the water line and/or changes in the position of the shower temperature control handle while in “PAUSE” mode could result in dramatic changes to the temperature of the water when the shower head or hand shower is returned to the “ON” position
- ALWAYS point the shower head away from yourself when returning to the “ON” position and feel the water with your hand before resuming your shower to ensure the water flow is not too hot or too cold
- DO NOT allow children or others who might not understand this warning to use the “PAUSE” function

Required Accessories

- Rough-in **- R10000-UNWS** - ordered separately

WaterSense® is a registered trademark of the U.S. Environmental Protection Agency.

Max. flow rates are at 80 psi (552 kPa), Min. flow rates @ 45 psi (310 kPa)

Delta Faucet Company reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Check with local codes for requirements in your area.

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350 South Edgeware Rd, St Thomas, Ontario, Canada N5P 4L1
1-800-387-8277

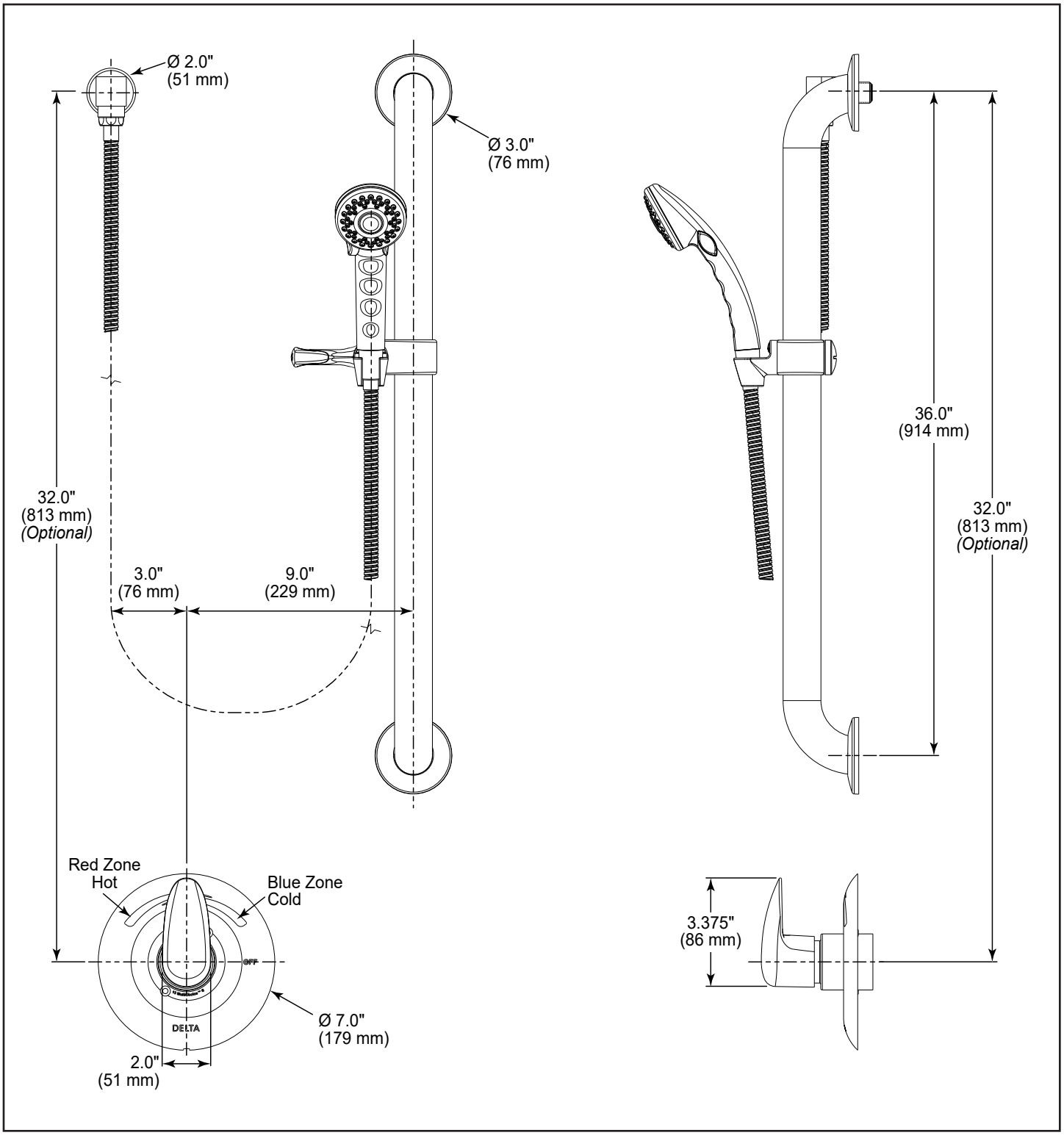
This specification sheet was produced on December 19, 2023.

DELTA COMMERCIAL

TECK

T13H Series - MultiChoice® Universal Pressure Balance Tub and Shower System

T13H152-25



NOTICE

- Dimensions are for reference **ONLY.**
- Measurements may vary ± 0.25" (6 mm).

WaterSense® is a registered trademark of the U.S. Environmental Protection Agency.

Max. flow rates are at 80 psi (552 kPa), Min. flow rates @ 45 psi (310 kPa)

Delta Faucet Company reserves the right (1) to make changes in specifications and materials, and (2) to change or discontinue models, both without notice or obligation. Check with local codes for requirements in your area.

Masco Canada Limited
350 South Edgeware Rd, St Thomas, Ontario, Canada N5P 4L1
1-800-387-8277

T13H152-25

This specification sheet was produced on December 19, 2023.

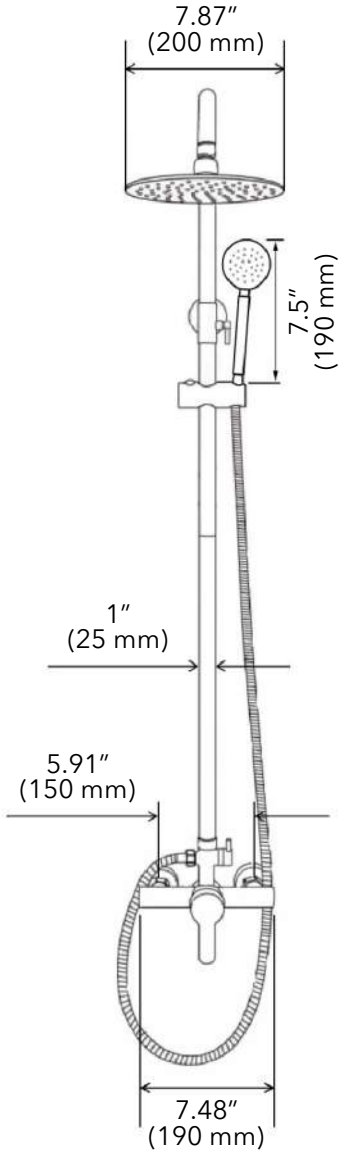
MILO DUAL FUNCTION OUTDOOR SHOWER

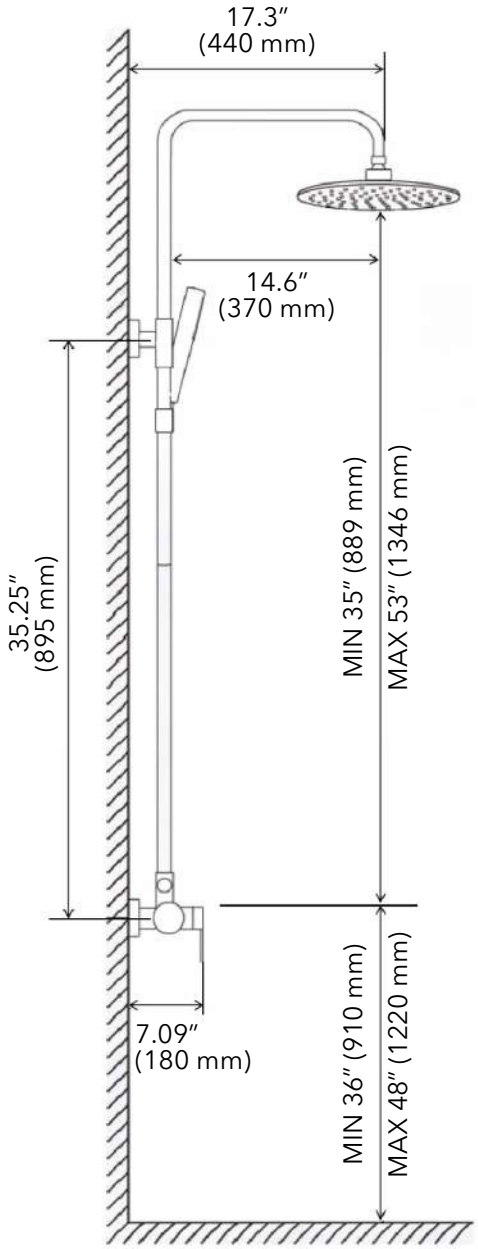
AQUASTYLE
OUTDOOR SHOWERS



brushed
AS-WM01-GN

matte black
AS-WM01-BL





SPECIFICATIONS

MATERIAL:	stainless steel	
FEATURES:	single lever mixer two-way diverter round hand shower on sliding rail 8 inch rain shower head	
FLOW RATE:	1.8 GPM	6.8 liters per minute
WEIGHT:	16 lbs	7.3 kg
PACKAGE DIMENSIONS:	L 23″ x W 19″ x H 7″	L 58 x W 48 x H 17 cm
DELIVERY WEIGHT:	18 lbs	8.2 kg

MAINTENANCE & CARE

BRUSHED:	Regularly apply stainless steel cleaner and rub in the direction of the grain, using a slightly abrasive sponge.
MATTE BLACK:	Regularly clean with soap water or alcohol. Do not use abrasives.

These dimensions and specifications may contain errors and are subject to change without prior notice.

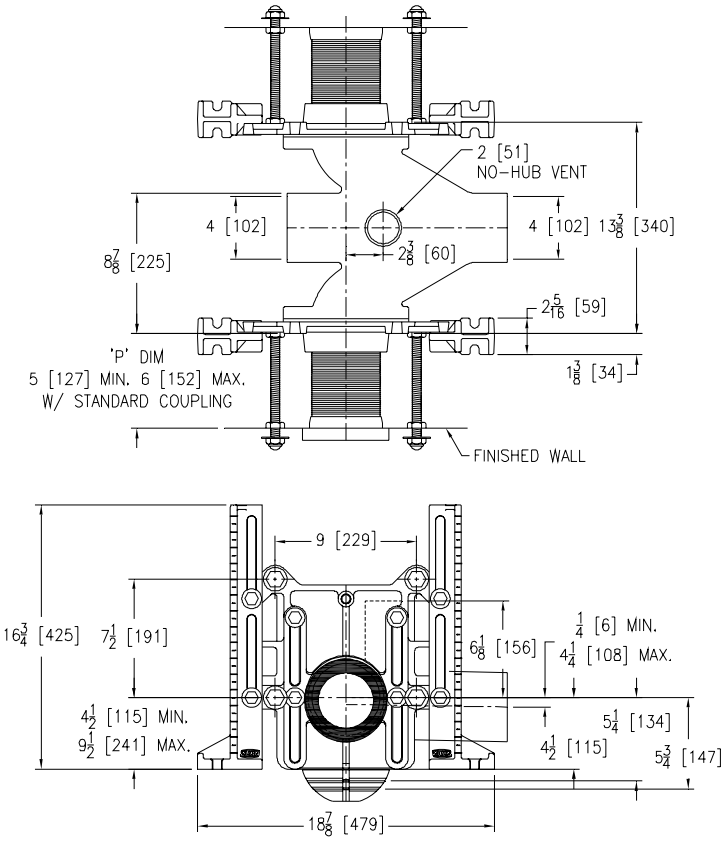
Z1203-ND4

ADJUSTABLE HORIZONTAL BACK TO BACK SIPHON JET-NO HUB

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Product Number	Approx. Wt. Lbs. [kg]
Z1203-ND4	120[51]

Note:

1. Min. 'P' Dim. Obtainable=2 [51]
2. Feet bolted to floor using min. 1/2 [13] dia. bolts and back slots on carrier feet.

ENGINEERING SPECIFICATION: ZURN Z1203-ND4

Adjustable, horizontal siphon jet water closet "Rigid System" with 4 [102] No-Hub connections. Complete with Dura-Coated cast iron fitting, with 2 [51] vent, adjustable gasketed face plates, universal floor mounted foot supports, corrosion resistant adjustable ABS couplings with integral test cap, fixture bolts, trim, stud protectors and bonded "Neo-Seal" gaskets.

OPTIONS (Check/specify appropriate options)

Z1203-ND4 4 [102] No-Hub Back to Back Inlet (Double)

PREFIXES

- ____ Z D.C.C.I. System with Zurn "ZZ" Adjustable Coupling*
- ____ ZQ D.C.C.I. System with Non-Adjustable Coupling

SUFFIXES

- ____ -A Auxiliary Support Assembly (For P-Dim. Greater than 18 [457])
- ____ -B Blowout Type Fixture Support
- ____ -BC Back Cleanout
- ____ -CC Corrosion Resistant Cast Iron Coupling (6 to 12 [152] to [305])
- ____ -CL Coupling Length Greater than 12 [152] (Specify Length Required.)
- ____ -F Floor Mount, Back Outlet Fixture Support
- ____ -G Galvanized Cast Iron
- ____ -JC 2 [51] Auxiliary Inlet with Sanitary Sweep on Faceplate Centerline (No-Hub only)
- ____ -M Auxiliary Foot Support (For P-Dim. 10-18 [254-457])
- ____ -T Threaded Connection (Available on Restricted Basis Only)
- ____ -VP Vandal-Proof Trim
- ____ -W Adapter for Women's Urinal
- ____ -XB Bariatric 1000 lb [454 kg] Carrier
- ____ -XH Extra-Heavy-Duty 750 lb [340 kg] Carrier
- ____ -X3 3 [76] Foot Extension
- ____ -X4 4 [102] Foot Extension
- ____ -29 Mechanical Test Cap Assembly (Previously Z1210-29)
- ____ -45 Finishing Frame for Siphon Jet System (For Blowout System Specify -45-B) (Previously Z1210-45)
- ____ -50 Flush Valve Supply Support for W.C. (Previously Z1210-50)
- ____ -61 "ZZ" Coupling Wrench

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. G DATE: 9/25/08 C.N. NO. 99142

DWG. NO. 54354 PRODUCT NO. Z1203-ND4

ZURN INDUSTRIES, LLC. ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814\455-0921 ♦ Fax: 814\454-7929 ♦ World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905\405-8272 Fax: 905\405-1292

Commercial Heavy Duty Toilet Seat
Z5950

TAG _____

ARCHITECTURAL & ENGINEERING SPECIFICATION

☐ Z5955SS-EL Elongated, white, open front toilet seat, less cover, with stainless steel check hinge.
- ☐ -AM ZurnSHIELD™ protection
- ☐ -AMFR ZurnSHIELD™/Fire Retardant
- ☐ -STS Self-sustaining stainless steel check hinge

☐ Z5956SS-EL Elongated, extra heavy duty, premium white, open front toilet seat, less cover, with stainless steel check hinge.
- ☐ -AM ZurnSHIELD™ protection
- ☐ -STS Self-sustaining stainless steel check hinge

☐ Z5957SS White, open front toilet seat, with cover and stainless steel check hinge.

☐ Z5958SS White, closed front toilet seat, with cover and stainless steel check hinge.

☐ Z5959SS-JUV White, ZurnSHIELD™ open front child's toilet seat, less cover, with stainless steel check hinge, thickness 1" [25].

PRODUCT FEATURES

- Injection molded for rugged, heavy duty use.
- Highly resistant to cleansers and strong chemicals
- Stainless steel check hinge
- Integrally molded bumpers for lasting durability

*ZurnSHIELD™ protects the seat by inhibiting the growth of stain and odor causing mold mildew and bacteria, thus reducing the amount of time, chemicals and water to clean the seat.



Z5955SS-EL



Z5956SS-EL



Z5957SS



Z5958SS



Z5959SS-JUV

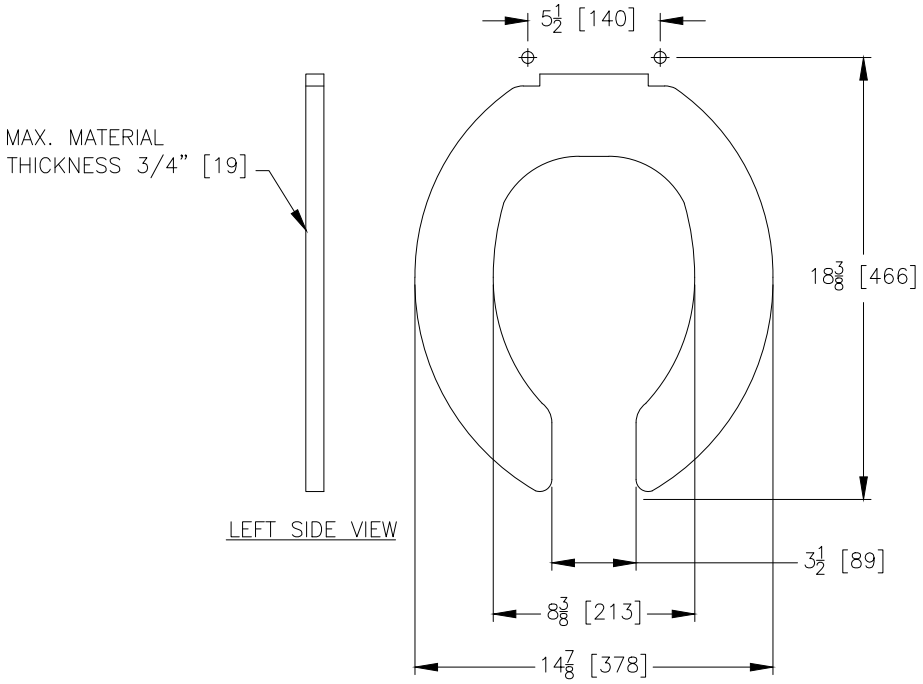
Architectural/Engineering Approval

The information contained in this document is subject to change without notice.
Please contact Zurn for most up to date information.

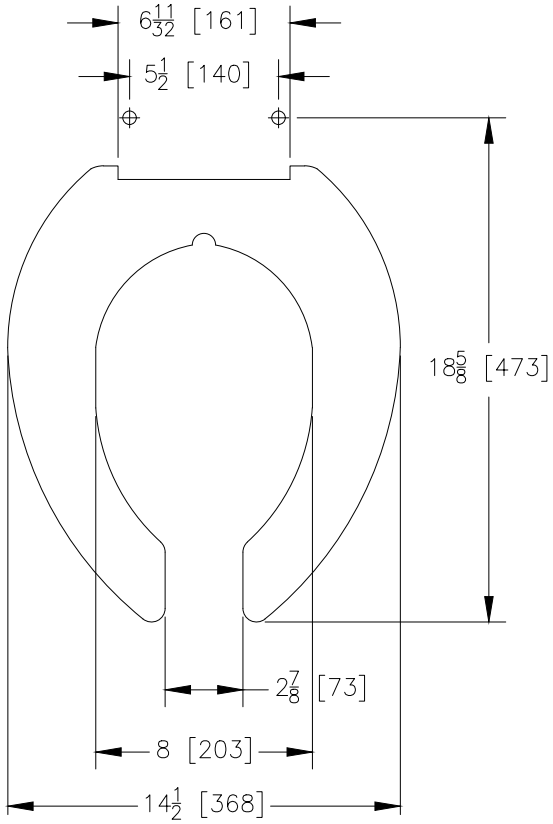
Rev. B | Date: 04/02/2024 | C.N. No. 145954 | Prod./Dwg. No. SS Z5950

TAG _____

Rough-in dimensions/Overview dimensions



Z5955SS-EL shown above



Z5956SS-EL shown above

Patent zurn.com/patents
US 1.855.ONE.ZURN **CANADA** 1.877.892.5216
ZURN.COM
by zurn ELKAY Water Solutions

CODE NUMBER

24501010

DESCRIPTION

ST-2459 Water Closet and SLOAN 111 Flushometer.

COMPONENTS

- Flushometer: Code 3780018
- Water Closet: Code 2102459

DETAILS

- Flush Volume: 1.28 gpf (4.8 Lpf)
- Nominal Dimensions: 26 ¾" × 15" × 13 ¼" (679 × 381 × 337mm)

FLUSHOMETER FEATURES

- High Chloramine Resistant PERMEX® Synthetic Rubber Diaphragm with Linear Filtered Bypass and Vortex Cleansing ActionTM
- 1" I.P.S. Screwdriver Bak-Chek® Angle Stop with Vandal Resistant Stop Cap
- Vacuum Breaker with Flush Connection
- Spud Coupling and Spud Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Wall Flange
- Non-Hold-Open Handle and No External Volume Adjustment to Ensure Water Conservation
- Diaphragm, Handle Packing and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine Resistance
- ADA Compliant Metal Oscillating Non-Hold-Open Handle

FIXTURE FEATURES

- White Vitreous China
- Elongated bowl
- Wall mounted, wall outlet
- Siphon jet flushing action achieves 1000g Map score when used with any Sloan flushometer
- Static load rating of 750 lbs (see Notes)
- Water spot area: 10⅛" x 9⅜" (26 cm x 24 cm)
- 1½" I.P.S. top spud inlet
- 2⅛" fully glazed trapway
- Toilet seat not included
- Static load rating of 750 lbs. (See Notes)



COMPLIANCES & CERTIFICATIONS

(ADA Compliant, BAA Compliant, BREEAM Materials Credit, BREEAM Water Credit, EPD, Green Globes Materials & Resources Credit, Green Globes Water Credit, HPD, LEED Materials & Resources EPD Credit, LEED Materials & Resources HPD Credit, LEED V4 Water Efficiency Credit, Satisfies LEED Credits, WaterSense Listed, WELL Building Standard)

DOWNLOADS

- ST-2459 Installation Instructions
- Sloan Exposed Installation Instructions
- SS/ST/SU/WETS/WEUS Fixtures Repair and Maintenance Guide
- Sloan Flushometer Repair and Maintenance Guide
- Additional Downloads

NOTES

All information contained within this document subject to change without notice.

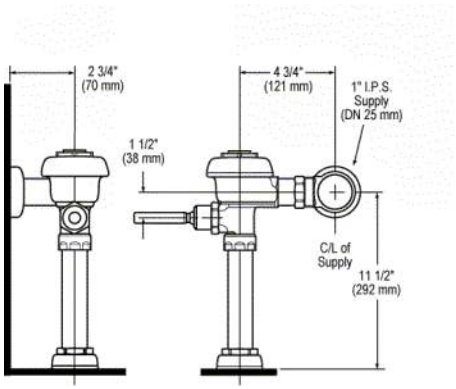
Static load tested according to the procedure outlined in Section 6.7 of ASME A112.19.2. Not recommended for bariatric use.

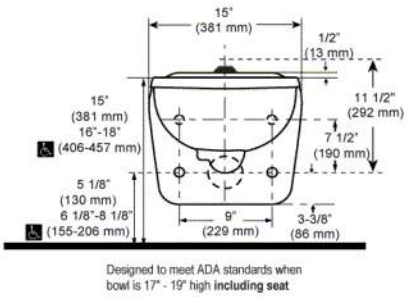
WARRANTY

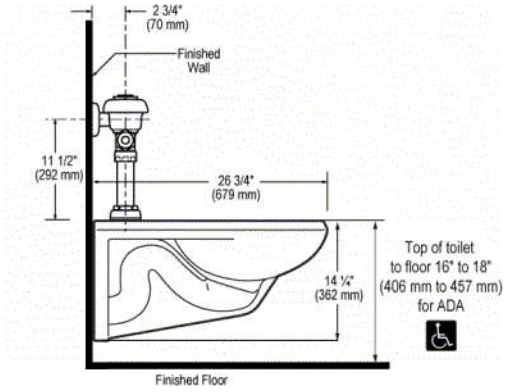
View Warranty Information

Sloan 10500 Seymour Ave, Franklin Park, IL 60131
Phone: 800.982.5839 • Fax: 800.447.8329 • sloan.com

ROUGH-IN







Sloan 10500 Seymour Ave, Franklin Park, IL 60131
Phone: 800.982.5839 • Fax: 800.447.8329 • sloan.com

PATRIOT™

WH-1

Designed for use as a recovery heater having its own storage tank. Available in upright, standard, and lowboy models.

GLASSLINED TANK

- Thirteen sizes; 6 thru 119 gallon capacity. Tank interior is coated with glass specially designed by State Water Heaters for water heater use.

ELEMENTS

- Zinc plated copper sheaths for longer life. Medium watt density means lower surface temperature to minimize scale build-up and more surface to heat water. Element sizes from 1.5 to 6.1 KW. Maximum input 12 KW (see chart).

STANDARD VOLTAGES

- 120, 277 single phase and 208, 240 and 480V unbalanced three-phase delta; easily converted to single-phase at terminal block with limited exceptions. Single element heaters, single-phase only.

TERMINAL BLOCK

- Factory-installed. Just bring the service to heater and connect to block. Terminal block not supplied on 120V & 277 volt models. (No junction box on PCE 6-20)

CONTROLS

- Temperature control (adjustable through arange of 110° to 170°F on single element and 120° to 181°F on dual element) and manual reset high temperature cutoff per element (dual element models). Factory-wired for non-simultaneous operation; easily converted to simultaneous element operation (three phase models only).

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

SIMPLIFIED CIRCUITRY, COLOR CODED FOR EASE OF SERVICE

ANODE ROD FOR MAXIMUM CORROSION PROTECTION

CABINET HAS BONDERIZED UNDERCOAT WITH BAKED ENAMEL FINISH

TOP INLET AND OUTLET OPENINGS

DRAIN VALVE (EXCLUDES PCE 6-20)

UL APPROVED FIELD CONVERSION PROGRAM

COMPLIANCE

- Meets the standby loss Requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1.

LIMITED WARRANTY OUTLINE

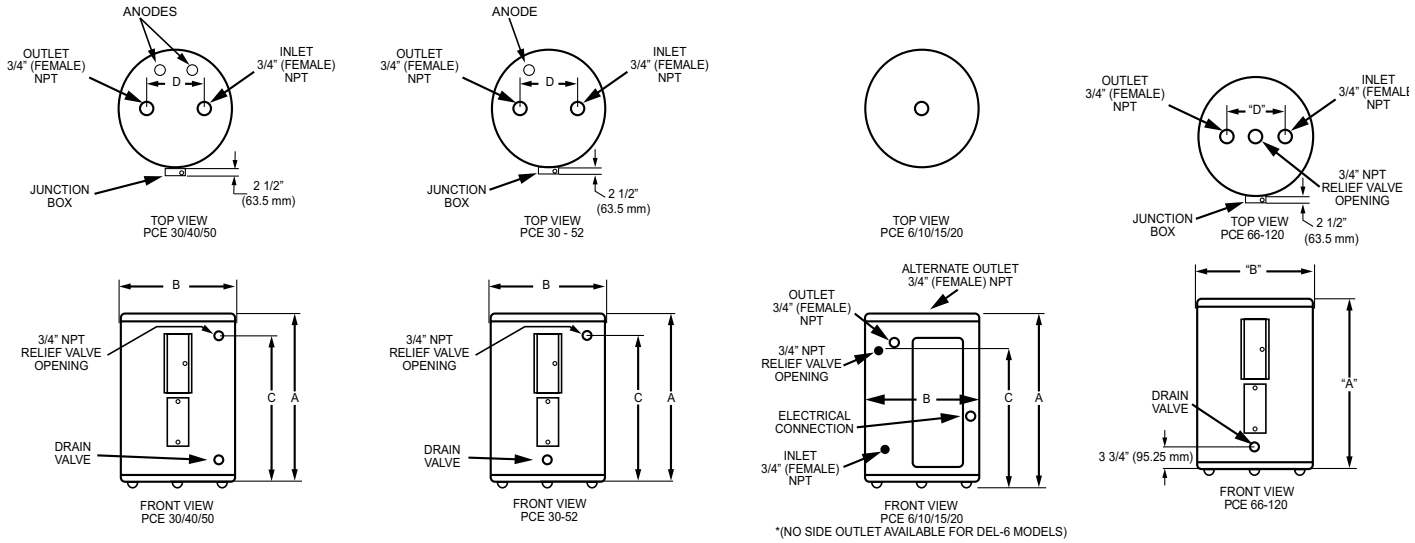
- If the tank should leak any time during the first three years, under the terms of the warranty, State Water Heaters will furnish a replacement heater; installation, labor, handling and local delivery extra. THIS OUTLINE IS NOT A WARRANTY. For complete information consult the written warranty or statewaterheaters.com



Low Lead Content

SOLID. STATE.

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ROUGH-IN DIMENSIONS

Models	UEF	No. of Elements	Nominal Capacity	Rated Storage Volume	A		B		C		D		Shipping Weight	
					Inches	mm	Inches	mm	Inches	mm	Inches	mm	lbs.	Kg.
PCE-6	N/A	1	6	6	15-1/2	394	14-1/4	362	11	279	N/A	N/A	35	15.9
PCE-10	N/A	1	10	10	18-1/4	464	18	457	12-1/2	318	N/A	N/A	54	24.5
PCE-17	N/A	1	15	15	26	660	18	457	20-1/2	521	N/A	N/A	58	26.3
PCE-20	N/A	1	20	19	22-1/4	565	21-3/4	552	15-3/8	391	N/A	N/A	73	33.1
PCE-30-20LS	0.92	2	36	33	32	813	24	610	24	610	8	203	118	53.5
PCE-40-20LS**	0.92	2	38	35	32	813	23	584	24	610	8	203	118	53.5
PCE-50-20LS	0.92	2	51	48	36	914	26-1/2	673	25	635	8	203	172	78
PCE-30-20RT	0.92	2	40	37	49-3/4	1264	20-1/2	521	40-3/4	1035	8	203	109	49.4
PCE-40-20RT	0.92	2	50	46	59	1499	20-1/2	521	51-1/4	1302	8	203	125	56.7
PCE-52-20RT	0.92	2	55	55	56-1/2	1435	24	610	48-1/2	1232	8	203	145	65.8
PCE-66-20RTA	N/A	2	66	60	60-3/4	1543	21-3/4	552	N/A	N/A	8	203	176	79.8
PCE-82-20RTA	N/A	2	80	76	59-3/8	1508	24	610	N/A	N/A	8	203	211	95.7
PCE-120-20RTA	N/A	2	120	108	62-7/16	1586	29-3/8	746	N/A	N/A	8	203	326	147.9

U.S Gallons/HR and Litres/HR at Temperature Rise Indicated													
Element Wattage (Upper/Lower)	Input KW	F°	36 F°	40 F°	54 F°	60 F°	72 F°	80 F°	90 F°	100 F°	108 F°	120 F°	126 F°
		C°	20 C°	22.2 C°	30 C°	33.3 C°	40 C°	44.4 C°	50 C°	55.5 C°	60 C°	66.6 C°	70 C°
6100/6100**	12.2	GPH	138	124	92	82	69	62	55	49	46	41	39
		LPH	522	469	348	310	261	235	208	184	174	153	146

*No side outlet available on PCE-6 Model
**Blanket model
Note: All 66, 80, 120 models can only be ordered 277V, 240V, or 480V

ELEMENT AVAILABILITY CHART (LIGHT-DUTY COMMERCIAL ELECTRIC)

Models & Elements	Voltage	Wiring	kW Input Available									
6-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3						
	240V	-	1.5	2	2.5	3						
	277V	-	1.5	2	2.5	3						
	480V	-		2	2.5	3						
10-Gallon through 20-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	240V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	277V	-	1.5	2	2.5	3		4	4.5	5		6
	480V	-		2	2.5	3		4	4.5	5	5.5	6

6 gallon model not available above 3kW
6/10/15/20 gallon models all A6 circuit (2 wire) only

Model	Element Wattage					
		120V	208V	240V	277V	480V
PCE-30-20LS	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-40-20LS	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-50-20LS	Min Watts	N/A	4000	4000	4000	4000
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-30-20RT	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-40-20RT	Min Watts	3000 (*)	3000	3000	3000	3000
	Max Watts	3000 (*)	6000 (*)	6000 (*)	6000	6000
PCE-52-20RT	Min Watts	2500	2500	2500	2500	2500
	Max Watts	3000 (*)	6000 (*)	6000 (*)	6000	6000

Additional limitations apply to 120V, 208V, and 240V - Simultaneous Operation are not available (*) for these voltages.
3 phase only on 240 6000 watt for simultaneous operation

RECOVERY CAPACITIES

Element Wattage (Upper/Lower)	Input	U. S. Gallons/Hr and Litres/Hr at Temperature Rise Indicated											
		F°	36	40	54	60	72	80	90	100	108	120	126
	kW	C°	20	22.2	30	33.3	40	44.4	50	55.5	60	66.6	70
Non-Simulataneous Operation													
/1500	1.5	GPH	17	15	11	10	8	8	7	6	6	5	5
		LPH	64	58	43	38	32	29	26	23	21	19	18
/2000	2	GPH	23	20	15	14	11	10	9	8	8	7	6
		LPH	85	77	57	51	43	38	34	31	28	26	24
/2500	2.5	GPH	28	25	19	17	14	13	11	10	9	8	8
		LPH	107	96	71	64	53	48	43	38	36	32	30
3000/3000	3	GPH	34	30	23	20	17	15	14	12	11	10	10
		LPH	128	115	85	77	64	58	51	46	43	38	37
4000/4000	4	GPH	45	41	30	27	23	20	18	16	15	14	13
		LPH	170	153	114	102	85	77	68	61	57	51	49
4500/4500	4.5	GPH	51	46	34	30	25	23	20	18	17	15	14
		LPH	192	173	128	115	96	86	77	69	64	58	55
5000/5000	5	GPH	56	51	38	34	28	25	23	20	19	17	16
		LPH	213	192	142	128	107	96	85	77	71	64	61
6000/6000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
Simulataneous Operation													
3000/3000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
4000/4000	8	GPH	90	81	60	54	45	41	36	32	30	27	26
		LPH	341	307	227	205	170	153	136	123	114	102	97
4500/4500	9	GPH	101	91	68	61	51	46	41	36	34	30	29
		LPH	384	345	256	230	192	173	153	138	128	115	110
5000/5000	10	GPH	113	101	75	68	56	51	45	41	38	34	32
		LPH	426	384	284	256	213	192	170	153	142	128	122
6000/6000	12	GPH	135	122	90	81	68	61	54	49	45	41	39
		LPH	511	460	341	307	256	230	205	184	170	153	146

Recovery capacities at 100° F rise equal: for non-simultaneous element operation = 4.1 gal. x kW of one element; for simultaneous element operation = 4.1 gal. x 2/3 kW of both elements.
For other rises multiply element kW as previously explained by 410 and divide by temperature rise. Full load current for single phase = total watts/voltage.

SPECIFICATION

The water heaters(s) shall be Patriot™ Model(s) No. _____ as manufactured by State Water Heaters or an approved equal. Heater(s) shall be rated at _____kW, _____volts, _____-phase, 60 cycle AC, and listed by Underwriters' Laboratories. Models shall meet the standby loss requirements of the U.S. Department of energy and current edition of ASHRAE/IESNA 90.1. Tank(s) shall be _____gallon capacity. Heater(s) shall have 150 psi working pressure and be equipped with extruded high density anode rod. All internal surfaces of the heater(s) exposed to water shall be glasslined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature range of 1400°F to 1600°F. Electric heating elements shall be medium watt density with zinc plated copper sheath. Each element shall be controlled by an individually mounted thermostat and high temperature cutoff switch. The outer jacket shall be of backed enamel finish and shall enclose the tank with foam insulation. Electrical junction box with heavy duty terminal block shall be provided (except on 120V & 277V {no junction box on PCE 6 thru 20}). The drain valve shall be located in the front for ease of servicing. Heater tank shall have a three year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included.

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PATRIOT™

WH-2

Designed for use as a recovery heater having its own storage tank. Available in upright, standard, and lowboy models.

GLASSLINED TANK

- Thirteen sizes; 6 thru 119 gallon capacity. Tank interior is coated with glass specially designed by State Water Heaters for water heater use.

ELEMENTS

- Zinc plated copper sheaths for longer life. Medium watt density means lower surface temperature to minimize scale build-up and more surface to heat water. Element sizes from 1.5 to 6.1 KW. Maximum input 12 KW (see chart).

STANDARD VOLTAGES

- 120, 277 single phase and 208, 240 and 480V unbalanced three-phase delta; easily converted to single-phase at terminal block with limited exceptions. Single element heaters, single-phase only.

TERMINAL BLOCK

- Factory-installed. Just bring the service to heater and connect to block. Terminal block not supplied on 120V & 277 volt models. (No junction box on PCE 6-20)

CONTROLS

- Temperature control (adjustable through arange of 110° to 170°F on single element and 120° to 181°F on dual element) and manual reset high temperature cutoff per element (dual element models). Factory-wired for non-simultaneous operation; easily converted to simultaneous element operation (three phase models only).

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

SIMPLIFIED CIRCUITRY, COLOR CODED FOR EASE OF SERVICE

ANODE ROD FOR MAXIMUM CORROSION PROTECTION

CABINET HAS BONDERIZED UNDERCOAT WITH BAKED ENAMEL FINISH

TOP INLET AND OUTLET OPENINGS

DRAIN VALVE (EXCLUDES PCE 6-20)

UL APPROVED FIELD CONVERSION PROGRAM

COMPLIANCE

- Meets the standby loss Requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1.

LIMITED WARRANTY OUTLINE

- If the tank should leak any time during the first three years, under the terms of the warranty, State Water Heaters will furnish a replacement heater; installation, labor, handling and local delivery extra. THIS OUTLINE IS NOT A WARRANTY. For complete information consult the written warranty or statewaterheaters.com



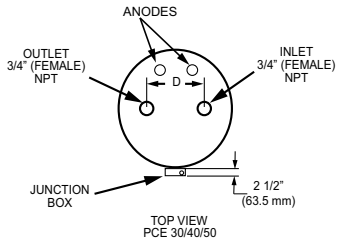
Low Lead Content

SOLID. STATE.

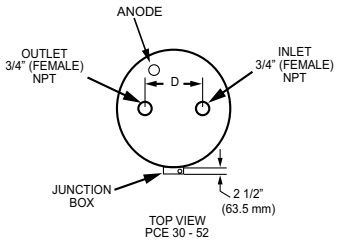
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Commercial Light Duty Electric

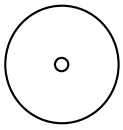
Water Heaters

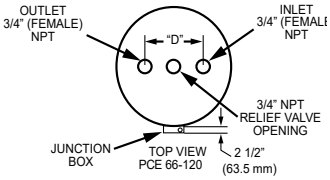


TOP VIEW PCE 30/40/50

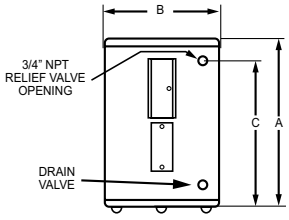


TOP VIEW PCE 30 - 52

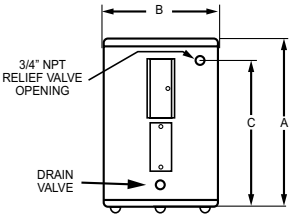

TOP VIEW PCE 6/10/15/20



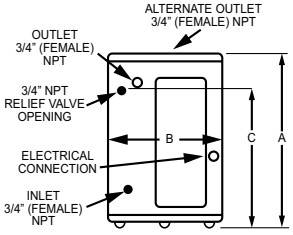
TOP VIEW PCE 66-120



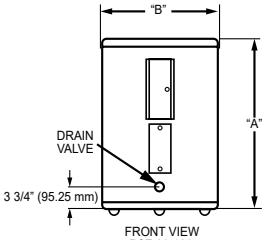
FRONT VIEW PCE 30/40/50



FRONT VIEW PCE 30-52



FRONT VIEW PCE 6/10/15/20
*(NO SIDE OUTLET AVAILABLE FOR DEL-6 MODELS)



FRONT VIEW PCE 66-120

ROUGH-IN DIMENSIONS

Models	UEF	No. of Elements	Nominal Capacity	Rated Storage Volume	A		B		C		D		Shipping Weight	
					Inches	mm	Inches	mm	Inches	mm	Inches	mm	lbs.	Kg.
PCE-6	N/A	1	6	6	15-1/2	394	14-1/4	362	11	279	N/A	N/A	35	15.9
PCE-10	N/A	1	10	10	18-1/4	464	18	457	12-1/2	318	N/A	N/A	54	24.5
PCE-17	N/A	1	15	15	26	660	18	457	20-1/2	521	N/A	N/A	58	26.3
PCE-20	N/A	1	20	19	22-1/4	565	21-3/4	552	15-3/8	391	N/A	N/A	73	33.1
PCE-30-20LS	0.92	2	36	33	32	813	24	610	24	610	8	203	118	53.5
PCE-40-20LS**	0.92	2	38	35	32	813	23	584	24	610	8	203	118	53.5
PCE-50-20LS	0.92	2	51	48	36	914	26-1/2	673	25	635	8	203	172	78
PCE-30-20RT	0.92	2	40	37	49-3/4	1264	20-1/2	521	40-3/4	1035	8	203	109	49.4
PCE-40-20RT	0.92	2	50	46	59	1499	20-1/2	521	51-1/4	1302	8	203	125	56.7
PCE-52-20RT	0.92	2	55	55	56-1/2	1435	24	610	48-1/2	1232	8	203	145	65.8
PCE-66-20RTA	N/A	2	66	60	60-3/4	1543	21-3/4	552	N/A	N/A	8	203	176	79.8
PCE-82-20RTA	N/A	2	80	76	59-3/8	1508	24	610	N/A	N/A	8	203	211	95.7
PCE-120-20RTA	N/A	2	120	108	62-7/16	1586	29-3/8	746	N/A	N/A	8	203	326	147.9

U.S Gallons/HR and Litres/HR at Temperature Rise Indicated													
Element Wattage (Upper/Lower)	Input KW	F°	36 F°	40 F°	54 F°	60 F°	72 F°	80 F°	90 F°	100 F°	108 F°	120 F°	126 F°
		C°	20 C°	22.2 C°	30 C°	33.3 C°	40 C°	44.4 C°	50 C°	55.5 C°	60 C°	66.6 C°	70 C°
6100/6100**	12.2	GPH	138	124	92	82	69	62	55	49	46	41	39
		LPH	522	469	348	310	261	235	208	184	174	153	146

*No side outlet available on PCE-6 Model
**Blanket model
Note: All 66, 80, 120 models can only be ordered 277V, 240V, or 480V

ELEMENT AVAILABILITY CHART (LIGHT-DUTY COMMERCIAL ELECTRIC)

Models & Elements	Voltage	Wiring	kW Input Available									
6-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3						
	240V	-	1.5	2	2.5	3						
	277V	-	1.5	2	2.5	3						
	480V	-		2	2.5	3						
10-Gallon through 20-Gallon Models Single-Element	120V	-	1.5	2	2.5	3						
	208V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	240V	-	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
	277V	-	1.5	2	2.5	3		4	4.5	5		6
	480V	-		2	2.5	3		4	4.5	5	5.5	6

6 gallon model not available above 3kW
6/10/15/20 gallon models all A6 circuit (2 wire) only

Model	Element Wattage					
		120V	208V	240V	277V	480V
PCE-30-20LS	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-40-20LS	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-50-20LS	Min Watts	N/A	4000	4000	4000	4000
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-30-20RT	Min Watts	N/A	4500	4500	4500	4500
	Max Watts	N/A	6000 (*)	6000 (*)	6000	6000
PCE-40-20RT	Min Watts	3000 (*)	3000	3000	3000	3000
	Max Watts	3000 (*)	6000 (*)	6000 (*)	6000	6000
PCE-52-20RT	Min Watts	2500	2500	2500	2500	2500
	Max Watts	3000 (*)	6000 (*)	6000 (*)	6000	6000

Additional limitations apply to 120V, 208V, and 240V - Simultaneous Operation are not available (*) for these voltages.
3 phase only on 240 6000 watt for simultaneous operation

RECOVERY CAPACITIES

Element Wattage (Upper/Lower)	Input	U. S. Gallons/Hr and Litres/Hr at Temperature Rise Indicated											
		F°	36	40	54	60	72	80	90	100	108	120	126
	kW	C°	20	22.2	30	33.3	40	44.4	50	55.5	60	66.6	70
Non-Simulataneous Operation													
/1500	1.5	GPH	17	15	11	10	8	8	7	6	6	5	5
		LPH	64	58	43	38	32	29	26	23	21	19	18
/2000	2	GPH	23	20	15	14	11	10	9	8	8	7	6
		LPH	85	77	57	51	43	38	34	31	28	26	24
/2500	2.5	GPH	28	25	19	17	14	13	11	10	9	8	8
		LPH	107	96	71	64	53	48	43	38	36	32	30
3000/3000	3	GPH	34	30	23	20	17	15	14	12	11	10	10
		LPH	128	115	85	77	64	58	51	46	43	38	37
4000/4000	4	GPH	45	41	30	27	23	20	18	16	15	14	13
		LPH	170	153	114	102	85	77	68	61	57	51	49
4500/4500	4.5	GPH	51	46	34	30	25	23	20	18	17	15	14
		LPH	192	173	128	115	96	86	77	69	64	58	55
5000/5000	5	GPH	56	51	38	34	28	25	23	20	19	17	16
		LPH	213	192	142	128	107	96	85	77	71	64	61
6000/6000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
Simulataneous Operation													
3000/3000	6	GPH	68	61	45	41	34	30	27	24	23	20	19
		LPH	256	230	170	153	128	115	102	92	85	77	73
4000/4000	8	GPH	90	81	60	54	45	41	36	32	30	27	26
		LPH	341	307	227	205	170	153	136	123	114	102	97
4500/4500	9	GPH	101	91	68	61	51	46	41	36	34	30	29
		LPH	384	345	256	230	192	173	153	138	128	115	110
5000/5000	10	GPH	113	101	75	68	56	51	45	41	38	34	32
		LPH	426	384	284	256	213	192	170	153	142	128	122
6000/6000	12	GPH	135	122	90	81	68	61	54	49	45	41	39
		LPH	511	460	341	307	256	230	205	184	170	153	146

Recovery capacities at 100° F rise equal: for non-simultaneous element operation = 4.1 gal. x kW of one element; for simultaneous element operation = 4.1 gal. x 2/3 kW of both elements.
For other rises multiply element kW as previously explained by 410 and divide by temperature rise. Full load current for single phase = total watts/voltage.

SPECIFICATION

The water heaters(s) shall be Patriot™ Model(s) No. _____ as manufactured by State Water Heaters or an approved equal. Heater(s) shall be rated at _____kW, _____volts, _____-phase, 60 cycle AC, and listed by Underwriters' Laboratories. Models shall meet the standby loss requirements of the U.S. Department of energy and current edition of ASHRAE/IESNA 90.1. Tank(s) shall be _____gallon capacity. Heater(s) shall have 150 psi working pressure and be equipped with extruded high density anode rod. All internal surfaces of the heater(s) exposed to water shall be glasslined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature range of 1400°F to 1600°F. Electric heating elements shall be medium watt density with zinc plated copper sheath. Each element shall be controlled by an individually mounted thermostat and high temperature cutoff switch. The outer jacket shall be of backed enamel finish and shall enclose the tank with foam insulation. Electrical junction box with heavy duty terminal block shall be provided (except on 120V & 277V {no junction box on PCE 6 thru 20}). The drain valve shall be located in the front for ease of servicing. Heater tank shall have a three year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included.

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Architectural Cutsheets

Item #: 178GDC23HCW Project: _____

Qty: _____ Date: _____ Approval: _____

Avantco GDC-23-HC 28 3/8" White Customizable Swing Glass Door Merchandiser Refrigerator with LED Lighting

Item #178GDC23HCW







Technical Data

Width	28 3/8 Inches
Depth	31 7/8 Inches
Height	83 7/8 Inches
Power Cord Length	96 Inches
Interior Width	25 1/4 Inches
Left Door Opening Width	25 1/4 Inches
Shelf Width	24 5/16 Inches
Interior Depth	28 3/8 Inches
Shelf Depth	23 1/4 Inches
Interior Height	62 1/2 Inches

Features

- Features (1) self-closing, anti-fog dual-pane tempered glass swing door with magnetic gaskets
- Interior LED lighting illuminates product; back lit exterior top panel attracts customers' attention
- 4 adjustable shelves with price tag strip on each shelf
- Easy to use digital temperature controls
- 115V; 1/3 hp; R290 refrigerant

Certifications

ETL, US **5-15P** **Customizable** **ETL Sanitation**

Avantco Refrigeration

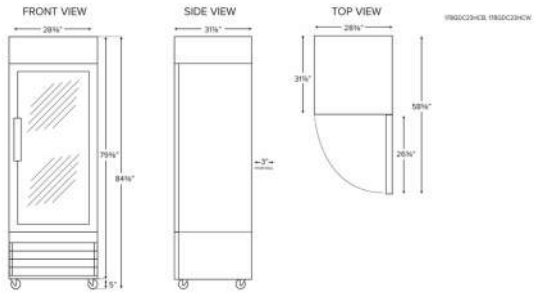
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Avantco Refrigeration

Technical Data

Amps	3 Amps
Hertz	60 Hz
Phase	1 Phase
Voltage	115 Volts
Wattage	315 Watts
Access Type	Doors
BTU (LBP)	1109 BTU
Capacity	23 cu. ft.
Capacity (per Shelf)	90 lb.
Color	White
Compressor Location	Bottom Mounted
Door Style	Swing
Door Type	Glass
Features	Customizable LED Lighting
Hinge Location	Right
Horsepower	1/3 hp
Installation Type	Freestanding
Interior Color	White
Number of Doors	1 Doors
Number of Shelves	4 Shelves
Refrigerant Capacity	2.6 oz.
Refrigerant Type	R-290
Sections	1 Section
Starting Amps	9 Amps
Starting Wattage	945 Watts
Temperature Range	33 - 40 Degrees F
Type	Merchandising Refrigeration

Plan View



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Avantco Refrigeration

Notes & Details

Increase your sales of "grab and go" items like bottled tea and soda, or pre-packaged sandwiches and salads with this Avantco GDC-23-HC28 3/8" white merchandising refrigerator! Designed with sharp looks and usability in mind, this unit is the perfect display for your products with its sleek white finish and a lighted top graphics area. And, since the housing is made from white coated steel, you can be sure that it will provide superior durability. Additionally, it boasts an anti-fogging, dual-pane tempered glass swing door to ensure that customers always have a clear view of your products, while (4) plastic coated steel shelves help you stay organized. Plus, the shelves easily adjust to accommodate changing inventory and menus. Interior LED lighting on the right side also works to illuminate and further merchandise your products.

Designed to maintain temperatures from 33-40 degrees Fahrenheit, this refrigerator boasts a bottom-mounted 1/3 hp compressor that runs on R290 refrigerant. This specialized refrigerant has an ozone depletion potential (ODP) of 0 and a global warming potential (GWP) of 3. In addition, the bottom-mounted design makes it easy for employees to load and unload products due to the raised bottom shelf. For optimal temperature retention, the entire cabinet is foamed-in place using polyurethane insulation. Other helpful features include self-closing aided by magnetic gaskets, automatic defrosting, and a digital temperature control. This item requires a 115V electrical connection for operation.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Item #: 178A49FHC Project: _____

Qty: _____ Date: _____ Approval: _____

Avantco A-49F-HC 54" Solid Door Reach-In Freezer

Item #178A49FHC







Technical Data

Width	54 Inches
Depth	32 3/16 Inches
Height	82 1/2 Inches
Power Cord Length	96 Inches
Interior Width	49 3/8 Inches
Left Door Opening Width	22 9/16 Inches
Right Door Opening Width	22 9/16 Inches
Shelf Width	23 1/4 Inches
Interior Depth	27 1/8 Inches
Shelf Depth	23 5/8 Inches

Features

- Corrosion-resistant stainless steel exterior and aluminum interior with 304 stainless steel floor
- Features 2 self-closing and stay-open locking doors
- Includes 6 epoxy coated shelves with 88 lb. capacity each
- Digital temperature controller with automatic defrost function
- R-290 refrigerant; 115V; 1 2/7 hp

Certifications

ETL, US **5-15P** **ETL Sanitation**

Avantco Refrigeration

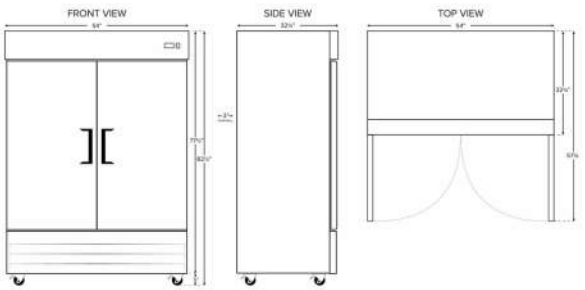
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Avantco Refrigeration

Technical Data

Interior Height	53 1/2 Inches
Amps	8.5 Amps
Hertz	60 Hz
Phase	1 Phase
Voltage	115 Volts
Wattage	780 Watts
Access Type	Doors
BTU (LBP)	2614 BTU
Capacity	46.65 cu. ft.
Capacity (per Shelf)	88 lb.
Casters	With Casters
Color	Silver
Compressor Location	Bottom Mounted
Construction	Stainless Steel and Aluminum
Door Style	Swing
Door Type	Solid
Dutch Half Doors	Without Dutch Half Doors
Features	Removable Magnetic Door Gaskets
Handle Material	Plastic
Hinge Location	Left Right
Horsepower	1 2/7 hp
Installation Type	Freestanding
Number of Doors	2 Doors
Number of Shelves	6 Shelves
Plug Type	NEMA 5-15P
Refrigerant Capacity	4.6 oz.
Refrigerant Type	R-290
Sections	2 Sections
Starting Amps	25.5 Amps
Starting Wattage	2340 Watts
Temperature Range	-8 - -1 Degrees F
Type	Freezers

Plan View



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Avantco Refrigeration

Notes & Details

Your establishment relies on refrigeration for proper food safety, and with this Avantco A-49F-HC 54" solid door freezer, you receive performance you can depend on! A painted aluminum interior with a 304 stainless steel floor gives you increased durability, while (2) 430 stainless steel doors and exterior sides give it a sleek appearance. For convenience, 6 epoxy coated shelves feature shelf clips for customization when desired.

Designed to maintain temperatures from -8 to -1 degree Fahrenheit, this freezer boasts a bottom-mounted 1 2/7 hp compressor that Uses R-290 refrigerant. This specialized refrigerant has an ozone depletion potential (ODP) of 0 and a global warming potential (GWP) of 3. In addition, the bottom-mounted design makes it easy for employees to load and unload products due to the raised bottom shelf. For optimal temperature retention, the entire cabinet is foamed-in place using polyurethane insulation. Other helpful features include stay open doors with locks, automatic defrosting, and a digital temperature control with digital display. This item requires a 115V electrical connection for operation.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Item #: 194KMCF430BA Project: _____

Qty: _____ Date: _____ Approval: _____

Avantco Ice KMC-F-430-BA 30" Air Cooled Modular Full Cube Ice Machine with 375 lb. Bin - 397 lb.

Item #194KMCF430BA







Technical Data

Width	30 Inches
Depth	24 3/8 Inches
Height	22 3/8 Inches
Bin Width	30 Inches
Bin Depth	32 11/16 Inches
Bin Height	45 5/16 Inches
Phase	1 Phase
Voltage	115 Volts
24 Hour Ice Yield	397 Pounds
Bin Storage Capacity	375 lb.

Features

- Makes up to 397 lb. of full cube ice per day
- Durable 304 stainless steel exteriors with polyethylene interiors
- Digital controller allows user to quickly identify issues
- Bright LED lights illuminate the ice bin
- Kit includes ice machine, ice bin, and ice scoop

Certifications

ETL Sanitation **ETL, US & Canada** **3/4" Water Connection**

5-15P

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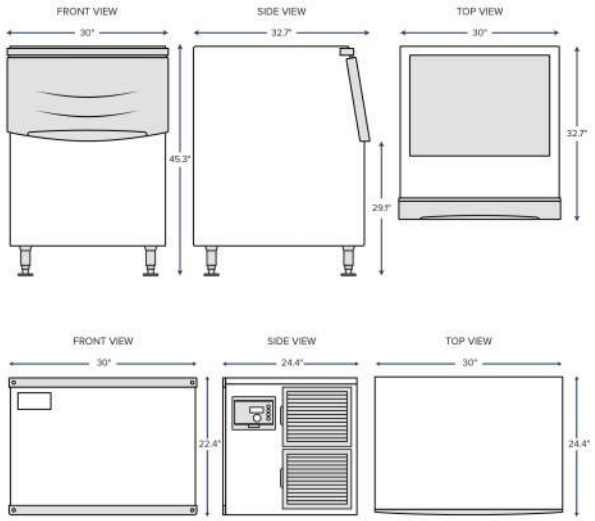
Avantco Ice Machines

Avantco Ice Machines

Technical Data

Color	Silver
Condenser Type	Air Cooled
Features	LED Lighting
Ice Type	Full Size Cubes
Installation Type	Freestanding
Interior Material	Polyethylene
Material	Stainless Steel
Plug Type	NEMA 5-15P
Refrigerant Type	R-290
Type	Ice Machines with Bins
Water Inlet Size	3/4 Inches

Plan View



© 2025 Avantco Ice Machines

Avantco Ice Machines

Notes & Details

Make sure you've always got plenty of fresh ice on hand with the Avantco Ice KMC-F-430-BA 30" air cooled modular full cube ice machine with bin! Capable of producing up to 397 lb. of full cube ice per day, you'll always have plenty of ice to serve on demand. Not only that, with an included ice bin that holds an impressive 375 lb. of ice, this ice machine and bin duo are perfect for preventing periods of downtime while ice is being made. Bright LED lights illuminate the ice bin and this kit also comes with an ice scoop for a complete set.

For ease of maintenance, a built in diagnostic system will identify problems that your ice machine may be having and will display the issue on the digital controller so it can be repaired accordingly. This easy-to-use controller can also be used to monitor the current stage of ice production that your machine is in. It allows you to adjust the bridge thickness up or down to maximize your harvest into individual cubes of ice, rather than full sheets. It also initiates the cleaning cycle and displays what stage of the cycle you're in.

Thanks to their durable type 304 stainless steel construction with polyethylene interiors, these units are built to last, and at only 30" in width, are great for kitchens where space is at a premium. Plus, (4) 6" adjustable legs stabilize the unit on uneven floors. A nickel plated evaporator and removable air filter make for quick and simple cleaning and maintenance. The ice machine comes with pre-drilled holes on the back of the unit to mount your OceanLoch water filter (sold separately) to the machine to ensure you are serving the cleanest and freshest ice possible. The ice machine is also designed for side-breathing and rear exhaust, which prevents hot air from being blown outward into your kitchen or service area. This unit requires a 115V electrical connection for operation.

Kit Includes:
- Avantco Ice KMC-F-430-BA 30" air cooled modular full cube ice machine - 397 lb.
- Avantco Ice BIN27530 30" ice storage bin - 375 lb.
- Sanitary ice scoop

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Item #: 178A49RHC Project: _____

Qty: _____ Date: _____ Approval: _____

Avantco A-49R-HC 54" Solid Door Reach-In Refrigerator

Item #178A49RHC







Technical Data

Width	54 Inches
Depth	32 3/16 Inches
Height	82 1/2 Inches
Power Cord Length	96 Inches
Interior Width	49 3/8 Inches
Left Door Opening Width	22 9/16 Inches
Right Door Opening Width	22 9/16 Inches
Shelf Width	23 1/4 Inches
Interior Depth	27 1/8 Inches
Shelf Depth	23 5/8 Inches

Features

- Corrosion-resistant stainless steel exterior and aluminum interior with 304 stainless steel floor
- Features 2 self-closing and stay-open locking doors
- Includes 6 epoxy coated shelves with 88 lb. capacity each
- Digital temperature controller with automatic defrost function
- R-290 refrigerant; 115V; 1/4 hp

Certifications

5-15P **ETL Sanitation** **ETL, US & Canada**

Avantco Refrigeration

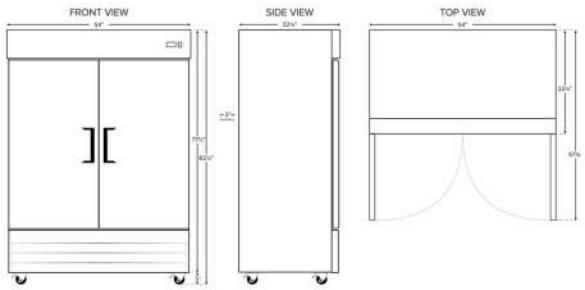
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Avantco Refrigeration

Technical Data

Interior Height	53 1/2 Inches
Amps	6.2 Amps
Hertz	60 Hz
Phase	1 Phase
Voltage	115 Volts
Wattage	516 Watts
Access Type	Doors
BTU (LBP)	1264 BTU
Capacity	46.65 cu. ft.
Capacity (per Shelf)	88 lb.
Casters	With Casters
Color	Silver
Compressor Location	Bottom Mounted
Construction	Stainless Steel and Aluminum
Door Style	Swing
Door Type	Solid
Dutch Half Doors	Without Dutch Half Doors
Features	Removable Magnetic Door Gaskets Self-Closing Doors
Handle Material	Plastic
Hinge Location	Left Right
Horsepower	1/4 hp
Installation Type	Freestanding
Number of Doors	2 Doors
Number of Shelves	6 Shelves
Plug Type	NEMA 5-15P
Refrigerant Capacity	4.6 oz.
Refrigerant Type	R-290
Sections	2 Sections
Starting Amps	18.6 Amps
Starting Wattage	1548 Watts
Temperature Range	33 - 40 Degrees F
Type	Refrigerators

Plan View



© 2025 Avantco Refrigeration

Avantco Refrigeration

Notes & Details

Your establishment relies on refrigeration for proper food safety, and with this Avantco A-49R-HC 54" solid door refrigerator, you receive performance you can depend on! A painted aluminum interior with a 304 stainless steel floor gives you increased durability, while a 430 stainless steel door and exterior sides give it a sleek appearance. For convenience, 6 epoxy coated shelves feature shelf clips for customization when desired.

Designed to maintain temperatures from 33-40 degrees Fahrenheit, this refrigerator boasts a bottom-mounted 1/4 hp compressor that Uses R-290 refrigerant. This specialized refrigerant has an ozone depletion potential (ODP) of 0 and a global warming potential (GWP) of 3. In addition, the bottom-mounted design makes it easy for employees to load and unload products due to the raised bottom shelf. For optimal temperature retention, the entire cabinet is foamed-in place using polyurethane insulation. Other helpful features include stay open doors with locks, automatic defrosting, and a digital temperature control with digital display. This item requires a 115V electrical connection for operation.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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MASTER-BILT®
Refrigeration Solutions

ITEM NO. _____
PROJECT _____
LOCATION _____
DATE _____ QTY. _____

COLDIN-3™ MSF-AN SERIES
Flat Lid Display Freezers

MODELS
- ❑ MSF-31AN
- ❑ MSF-43AN
- ❑ MSF-52AN
- ❑ MSF-71AN



MSF-43AN

Intertek Intertek

FEATURES

CONSTRUCTION
- Standard interior LED lighting with separate on/off switch
- Tempered glass sliding lids
- White zinc-coated baked-on enamel steel exterior
- Painted white powder-coated steel interior
- Flat top three-compartment baskets
- Removable rubber bumper guards on grille side
- Heavy-duty casters, two locking
- Bottom drain with plug
- Lid lock and keys
- The unobtrusive frame around the glass lids ensures a highly visible display
- External analog thermometer display
- Control panel with adjustable temperature range of +10 to -18°F
- Low energy consumption

REFRIGERATION
- Refrigerant: R290
- Temperature range: -18° to 10°F (-27° to -12°C)

WARRANTY
- Standard one year parts and labor

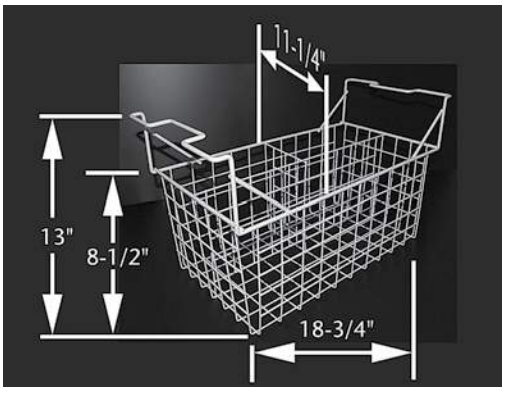
OPTIONS

❑ Replacement baskets

STANDARD BASKETS

MSF-AN model merchandisers are supplied with equally-sized baskets and two fixed dividers per basket.

MODEL	NO. OF BASKETS
MSF-31AN	2
MSF-43AN	3
MSF-52AN	4
MSF-71AN	5





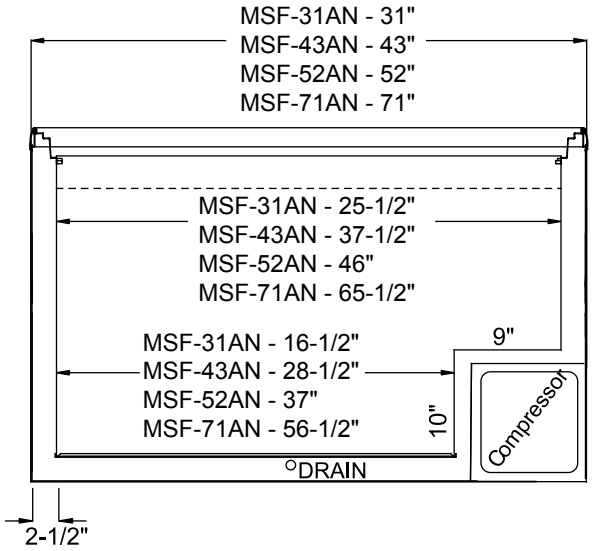
One vertical and one horizontal fixed divider in each basket.

FLAT LID DISPLAY FREEZERS

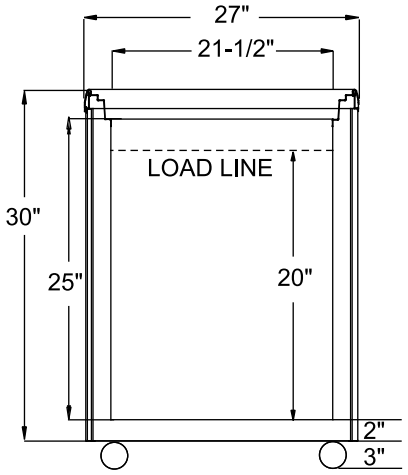
TECHNICAL SPECIFICATIONS

Models	MSF-31AN	MSF-43AN	MSF-52AN	MSF-71AN
Crated Weight (lbs) (kg)	130 (59)	154 (70)	179 (81)	218 (99)
Crated Height (in) (mm)	39-1/2 (1003)	39-1/2 (1003)	39-1/2 (1003)	39-1/2 (1003)
Crated Width (in) (mm)	34 (864)	46 (1168)	55 (1397)	74 (1880)
Crated Depth (in) (mm)	30 (762)	30 (762)	30 (762)	30 (762)
Interior Height (in) (mm)	25 (635)	25 (635)	25 (635)	25 (635)
Interior Width (in) (mm)	25-1/2 (648)	37-1/2 (953)	43-1/2 (1105)	65-1/2 (1664)
Interior Depth (in) (mm)	21-1/2 (546)	21-1/2 (546)	21-1/2 (546)	21-1/2 (546)
Overall Height (in) (mm)	33 (838)	33 (838)	33 (838)	33 (838)
Overall Width (in) (mm)	31 (787)	43 (1092)	52 (1321)	71 (1803)
Overall Depth (in) (mm)	27 (686)	27 (686)	27 (686)	27 (686)
Gross Cubage (CuFt) (L)	7.4 (209.5)	11.1 (314.3)	13.8 (390.7)	20.0 (566)
Number of Baskets*	2	3	4	5
Number of Casters	4	4	4	4
Condensing Unit Size	1/3 HP	1/3 HP	1/3 HP	2/3 HP
Refrigerant	R290	R290	R290	R290
Electrical Characteristics	115/60/1	115/60/1	115/60/1	115/60/1
NEMA Plug Configuration	5-15P	5-15P	5-15P	5-15P
Total Amp Draw	1.3	1.4	2.0	4.1

* Includes 1 horizontal and 1 vertical fixed divider per basket.



ELEVATION VIEW



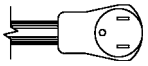
SIDE VIEW

LISTINGS

Intertek Intertek

HOOKUP

Via plug in, 6-1/2 ft. long, flexible 3 wire 14AWG/3 cord with molded plug.



NEMA 5-15P

BID SPECIFICATIONS

Item no. MSF-_____AN

Provide_____( )

Flat Lid Display Freezer(s)

Master-Bilt® model MSF-_____AN.

Freezer to be constructed of a white zinc-coated baked-on enamel on steel exterior with painted white powder-coated steel interior. Freezer to be furnished with standard LED interior lighting. Also standard with baskets, integrated basket dividers, external thermometer and lock. Additionally, it will be provided with heavy-duty casters and a defrost water drain. Lids will contain tempered safety glass.

Refrigeration system will use R290 refrigerant in all models. The temperature range will be -18° to 10°F (-27° to -12°C).

Freezer to have standard one year parts and labor warranty.

Freezer to be ETL listed in the U.S. and Canada and ETL Sanitation listed.

NOTE: Cabinet designed for optimum performance in air-conditioned area at 75°F ambient and 55% relative humidity.
All specifications within this publication subject to change without notice.

1489-7/21
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Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 600TUS2496S

Regency Spec Line

Regency Spec Line Easy Attach 24" x 96" 14-Gauge Stainless Steel Commercial Open Base Work Table

#600TUS2496S







Technical Data

Length	96 Inches
Width	24 Inches
Height	34 Inches
Backsplash	Without Backsplash
Configuration	Straight
Features	Easy Attach Technology NSF Listed
Gauge	14 Gauge
Leg Construction	Stainless Steel
Number of Legs	6 Legs

Features

- Durable, corrosion-resistant 14-gauge type 304 stainless steel top
- Easy Attach Technology allows you to add and remove worktable attachments without needing to drill
- Stainless steel cross bracing and adjustable bullet feet add stability
- 1 5/8" stainless steel legs with adjustable metal bullet feet
- Open base allows for additional storage space

Certifications

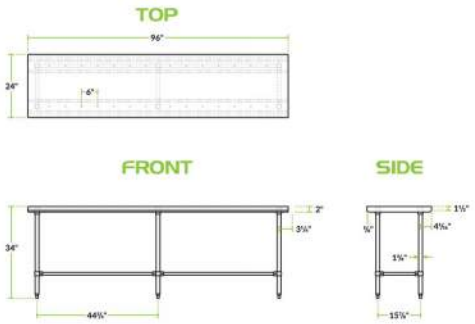
NSF Listed

© 2025 Regency Spec Line

Technical Data

Size	24" x 96"
Stainless Steel Type	Type 304
Table Style	Open Base
Tabletop Material	Stainless Steel
Top Capacity	600 lb.
Type	Work Table
Usage	Heavy Duty

Plan View



Notes & Details

This Regency Spec Line Easy Attach 24" x 96" 14-gauge 304 stainless steel commercial open base work table is the superior option for a versatile and convenient addition to your kitchen. Made from durable, easy-to-clean 14-gauge 304-series stainless steel, this work table is corrosion resistant, providing you with long-lasting use and added durability over other work tables made of 18-gauge stainless steel. Its all-stainless steel construction can withstand a wide range of tasks in your restaurant, cafe, or bakery. It's a great option for rolling out dough or chopping fruits and vegetables, providing your staff with additional workspace to complete tasks efficiently.

This table can hold up to 600 lb. of evenly distributed weight and features an open base that allows you to store tall items underneath the table. For increased stability, it includes stainless steel cross bracing with aluminum corner brackets. The legs of this work table are 1 5/8" in diameter and feature adjustable stainless steel feet, allowing you to account for uneven floors and keep your work surface level.

The Easy Attach products have all the features to provide ultimate convenience, such as the Unistrut system that eliminates the need for welding and drilling, allowing you to add and remove accessories seamlessly. It comes with a spring clip, Unistrut set, 14-gauge 304 stainless steel open base work table, and a 24" Z-bracket. It is the ultimate option to elevate your business!

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

© 2025 Regency Spec Line

Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 600S118182G

Regency Tables & Sinks

Regency 54" 16 Gauge Stainless Steel One Compartment Commercial Sink with Galvanized Steel Legs and 2 Drainboards - 18" x 18" x 14" Bowl

#600S118182G







Technical Data

Length	54 Inches
Width	23 1/2 Inches
Height	44 3/4 Inches
Drainboard Length	18 Inches
Bowl Depth	14 Inches
Backsplash Height	10 3/4 Inches
Work Surface Height	36 1/2 Inches
Basket Drain Size	3 1/2 Inches
Bowl Front to Back	18 Inches
Bowl Left to Right	18 Inches

Features

- Features a durable 16 gauge type 304 stainless steel construction
- Designed with a 14" deep bowl and rounded corners for easy cleaning
- Galvanized steel legs and adjustable plastic bullet feet provide stability
- Includes (2) 18" drainboards and a 3 1/2" drain basket
- Backsplash and rolled edges prevent splashes and overflow

Certifications

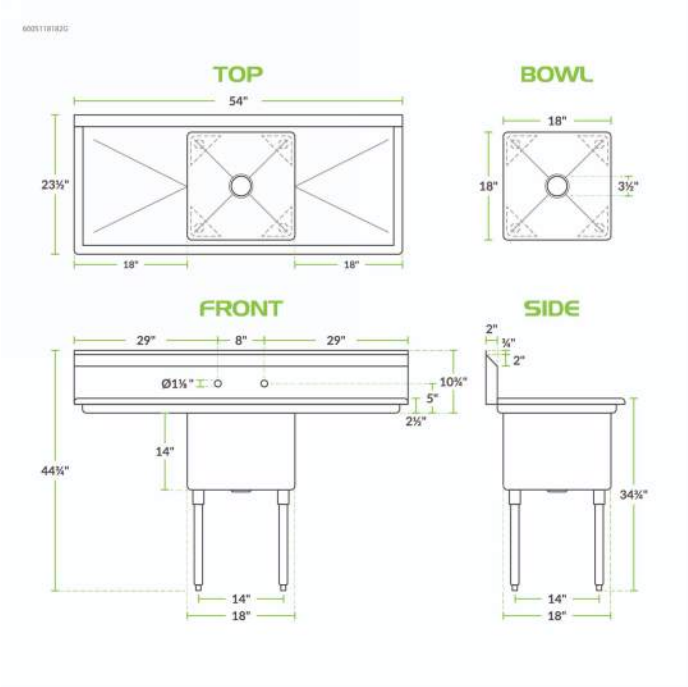
NSF Listed

© 2025 Regency Tables & Sinks

Technical Data

Drain Outlet Size	1 1/2 Inches
Faucet Centers	8 Inches
Features	Massachusetts Accepted Plumbing Product NSF Listed
Gauge	16 Gauge
Leg Construction	Galvanized Steel
Material	Stainless Steel
Number of Compartments	1 Compartment
Number of Drainboards	2 Drainboards
Stainless Steel Type	Type 304
Style	2 Drainboards
Type	Straight / Line Sinks

Plan View



Notes & Details

Outfit your facility with a long-lasting sink with this Regency 54" one compartment sink with 2 drainboards. It's constructed from high-quality, 16 gauge type 304 stainless steel, making it more corrosion-resistant and durable than other sinks made from thinner, 18 gauge material. This sink features 2 sturdy, 18" drainboards so you can easily wash and dry dishes and utensils in one convenient location. The welded construction also contributes to the long-lasting use and overall strength of this sink / drainboard combo.

The 14" deep bowl is die-stamped to a minimum of 1/4" to ensure proper drainage. Plus, it includes a 3 1/2" basket strainer to catch food debris, which prevents the drain from clogging. For easy cleaning, the compartment has rounded corners so you can rinse and wipe down the sink.

A 10 3/4" tall backsplash is included with (2) 1 1/8" diameter holes punched on 8" centers to accommodate 1 faucet (sold separately). This sink includes a 1 1/2" raised rolled edge, which is 2" tall on the front and both sides to contain splashes and overflow. This model also has galvanized steel legs and adjustable plastic bullet feet to keep the sink level and stable. These features serve to prolong the life of your sink while adding exceptional strength to the unit.

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Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 600WS1848HD

Regency Space Solutions

Regency 16 Gauge Stainless Steel 18" x 48" Heavy Duty Wall Shelf

#600WS1848HD







Technical Data

Length	48 Inches
Width	18 Inches
Height	15 3/4 Inches
Capacity	385 lb.
Color	Silver
Features	NSF Listed
Gauge	16 Gauge
Material	Stainless Steel
Style	Solid
Type	Wall Shelves

Features

- 16 gauge stainless steel
- Mounts directly to wall (mounting hardware sold separately)
- 385 lb. capacity; heavy-duty construction
- Makes the most of unused wall space
- Easy to clean with no sharp edges

Certifications

NSF Listed

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Notes & Details

Keep food, dishes, or other small items from cluttering your work area with the Regency 18" x 48" stainless steel heavy duty wall shelf! This shelf is made of 16 gauge type 430 stainless steel to provide outstanding durability and long-lasting support. This shelf has a maximum capacity of 385 lb. The corners are solid welded and polished to a matching finish, and all edges are rounded and smooth to help prevent accidental injury.

Installation hardware sold separately.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 600WS1860HD

Regency Space Solutions

Regency 16 Gauge Stainless Steel 18" x 60" Heavy Duty Wall Shelf

#600WS1860HD







Technical Data

Length	60 Inches
Width	18 Inches
Height	15 3/4 Inches
Capacity	450 lb.
Color	Silver
Features	NSF Listed
Gauge	16 Gauge
Material	Stainless Steel
Style	Solid
Type	Wall Shelves

Features

- 16 gauge stainless steel
- Mounts directly to wall (mounting hardware sold separately)
- 450 lb. capacity; heavy-duty construction
- Makes the most of unused wall space
- Easy to clean with no sharp edges

Certifications

NSF Listed

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Notes & Details

Keep food, dishes, or other small items from cluttering your work area with the Regency 18" x 60" stainless steel heavy duty wall shelf! This shelf is made of 16 gauge type 430 stainless steel to provide outstanding durability and long-lasting support. This shelf has a maximum capacity of 450 lb. The corners are solid welded and polished to a matching finish, and all edges are rounded and smooth to help prevent accidental injury.

Installation hardware sold separately.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Project: _____ Date: _____ Approval: _____ Qty: _____ Item #: 423WDSFS2







ServIt WDSFS-2 Double Freestanding Drawer Warmer - 900W, 120V

#423WDSFS2

FEATURES

- Two drawers fit full size 12" x 20" x 6" food pans
- Full stainless-steel construction and 14 gauge slide brackets help ensure long-lasting durability
- 1" thick fiberglass insulation and built-in drawer gasket keep the heat inside for efficient use
- A vent control feature to adjust airflow based on whether foods need to be kept dry or moist
- Thermostatic controls provide an 80-220 degrees Fahrenheit temperature range; 900W, 120V

TECHNICAL DATA

Width	27 3/4 Inches
Depth	21 Inches
Height	24 1/4 Inches
Hertz	60 Hz
Phase	1 Phase
Voltage	120 Volts
Wattage	900 Watts
Control Type	Thermostatic
Features	NSF Listed
Installation Type	Freestanding

CERTIFICATIONS

NSF Listed

UL Listed, US

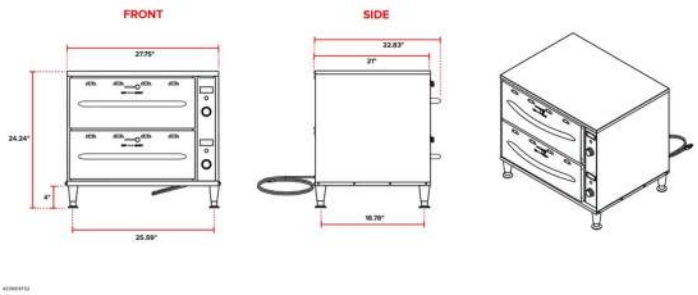
5-15P

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TECHNICAL DATA

Maximum Temperature	220 Degrees F
Number of Drawers	2 Drawers
Plug Type	NEMA 5-15P
Power Type	Electric
Style	Standard Drawer
Temperature Range	80 - 220 Degrees F
Warmer Style	Stationary

Plan View



Notes & Details

Keep your most popular sides and entrees hot and ready to serve with the ServIt WDSFS-2 double freestanding drawer warmer! This warmer features 900 watts of heating power and two drawers that accommodate a full size 12" x 20" x 6" food pan in each drawer that you can fill to the brim with a variety of hot foods. There are also pan supports to accommodate different compatible sizes of food pans in this warmer. The durable, full stainless steel construction makes sure that this drawer warmer will stand up to frequent use while the 1" thick fiberglass insulation and built-in drawers gasket keeps the heat inside for efficient use.

The unit's freestanding design allows it to be easily installed almost anywhere in your kitchen, and its 11 gauge drawers slide on 14 gauge slide brackets to help ensure long-lasting durability. Recessed thermostatic temperature controls for each drawer, an indicator lamp, and vent controls allow you to efficiently adjust this warmer to properly keep your best foods hot and ready to eat. The vent control allows ultimate control over airflow for foods to be kept dry, or can be closed to restrict airflow to keep foods moist. The thermostatic controls will automatically turn back on when there is a 3 to 10 degrees Fahrenheit drop in temperature. This drawer warmer boasts a wide temperature range between 80 and 220 degrees Fahrenheit, allowing you to keep a variety of foods at safe temperatures all day. This unit requires a 120V electric connection.

⚠ **WARNING:** This product can expose you to chemicals including Lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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INVERTER
precision cook technology

Panasonic

Owner's Manual

Convection/Broil/Microwave Oven
Household Use Only
Model No. NN-CD87KS



Scan this code for product registration

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT, AND SAVE THIS MANUAL FOR FUTURE USE.

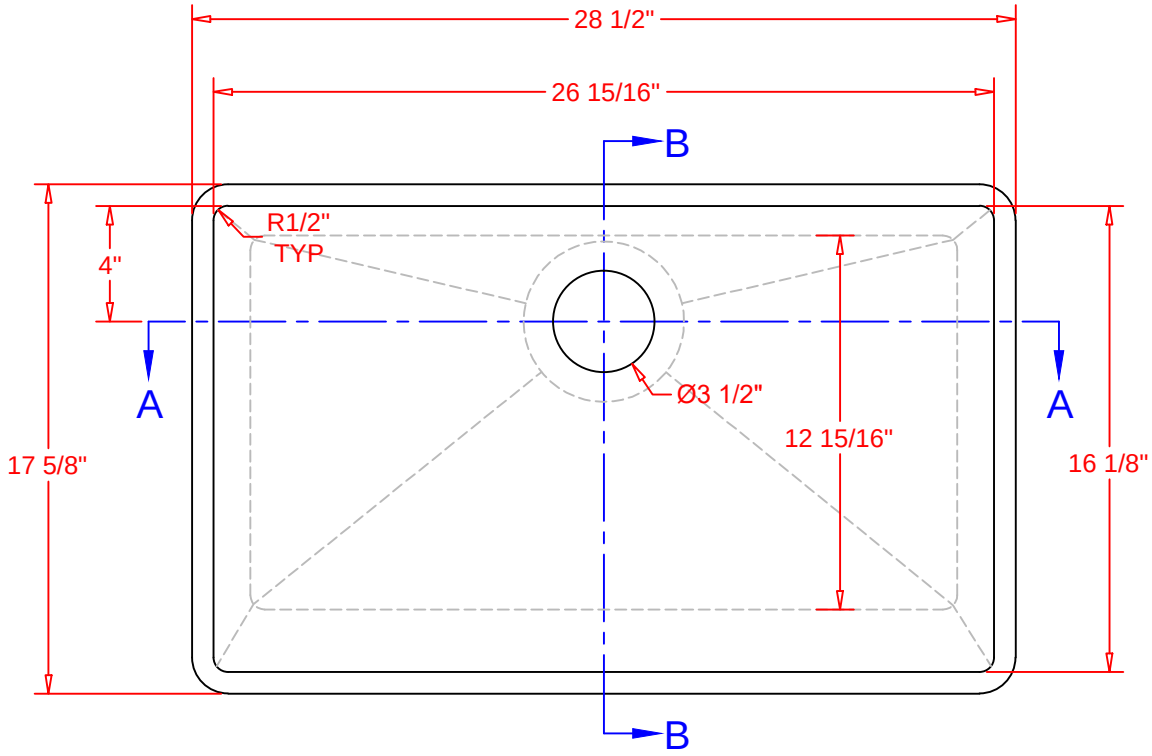
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http://shop.panasonic.com/support **(U.S.A Only)**

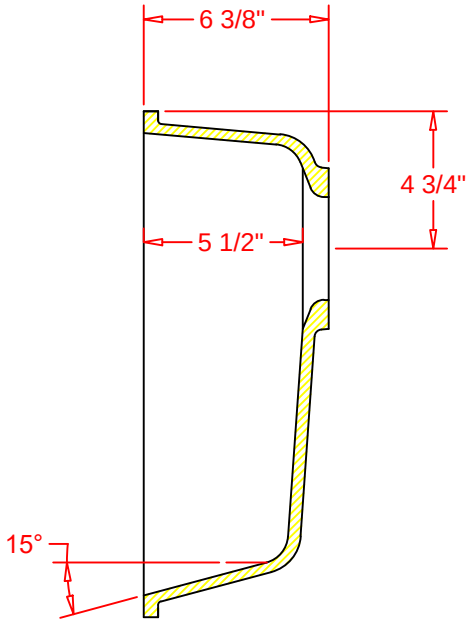
For microwave oven safety reference, please visit the FDA's web page at:
http://www.fda.gov/radiation-emittingproducts/resourcesforyouradiationemittingproducts/ucm252762.htm

Para obtener instrucciones en español, por favor visite la página web en:
http://shop.panasonic.com/support

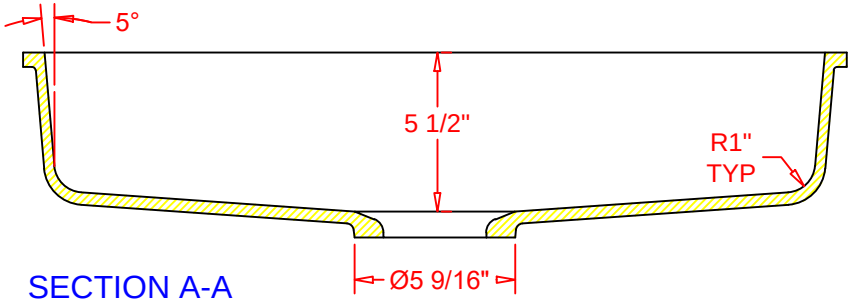
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Rev #			
Rev #			





SECTION B-B



SECTION A-A

Wilsonart® SOLID SURFACE

Part Number:	AK2716				
Description:	Large ADA Utility Sink				
Date Drawn:	10 / 02 / 2018	Weight:	20.0 Lbs	Scale:	None
Drawn By:	Carlos Hernandez			Revised By:	
Approved By:	Daniel Shin			Date Revised:	01 / 09 / 2019

Customer Approval: Date:

Path: @Engineering\

LG REFRIGERATION

LTCS20020_

Top Mount Refrigerator

KEY FEATURES

- Large Capacity- 20 cu. ft.
- Reversible Door
- Premium LED Refrigerator Lights
- Ice Maker Optional- LK65C
- Stainless Steel



AVAILABLE COLORS

- STAINLESS STEEL
- SMOOTH WHITE
- SMOOTH BLACK

PRODUCT FEATURES

CAPACITY	
Refrigerator (cu. ft.)	14.7
Freezer (cu. ft.)	5.5
Total Capacity (cu. ft.)	20.2
ENERGY	
Energy Consumption (kWh/Year)	430
ENERGY STAR® Qualified	Yes
WATER & ICE SYSTEM	
Ice System	Ice Maker Optional- LK65C
COOLING	
Inverter Compressor	Yes
Multi-Air Flow™ System	Yes
Temperature Sensors	3
Refrigerant	R600a - Low Global Warming Potential, Zero Ozone Depletion Potential and More Energy Efficient Refrigerant than R134a
CONVENIENCE	
Display Type	Internal Membrane / Green LED
Temperature Controls	Electronic/Digital
LoDecibel™ Quiet Operation	Yes
REFRIGERATOR	
No. of Shelves	2
Shelf Construction	Tempered Glass
Crisper Bins	2 Humidity Crispers
Refrigerator Light	Top LED
REFRIGERATOR DOOR	
Door Type	Reversible Door
No. of Bins	2 Total (2 Gallon Sized)
Door Bin Construction	1 Piece (Clear, Diamond Pattern)
FREEZER	
Door Type	Swing Door Type
Drawers	1 Glass Shelf
No. of Door Bins/Construction	2 Full (Clear, Diamond Pattern)
Freezer Handle	Pocket Handle

MATERIALS AND FINISHES	
Contour Door	Yes
Surface	Smooth
All Available Colors	Stainless Steel, Smooth White
Insulation	Cyclopentane - Low Global Warming Potential, and Zero Ozone Depletion Potential Blowing Agent
DIMENSIONS/CLEARANCES/WEIGHTS	
Depth with Handles	33 3/8"
Depth without Handles	33 3/8"
Depth without Door	29 1/2"
Depth (Total with Door Open)	60"
Height to Top of Case	65 1/2"
Height to Top of Door Hinge	66 1/8"
Width	29 3/4"
Width (Door Open 90˚ with Handle)	31 3/4"
Width (Door Open 90˚ without Handle)	31 3/4"
Door Edge Clearance with Handle	2"
Door Edge Clearance without Handle	2"
Installation Clearance	Sides 2", Top 2", Back 2"
Weight (Unit/Carton)	202 lbs./226 lbs.
Carton Dimensions (WxHxD)	31 4/5" x 69 3/8" x 38 1/7"
LIMITED WARRANTY	
Parts & Labor	1 Year
Sealed System (Parts & Labor)	5 Years
Compressor (Parts & Labor)	5 Years
Inverter Compressor (Parts Only)	6-10 Years
UPC CODES	
LTCS20020S (Stainless Steel)	048231805179
LTCS20020W (Smooth White)	195174001448
LTCS20020B (Smooth Black)	195174004548

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COOPERWORKS
INDUSTRIES

Plastic Laminate Products
SPECIFICATIONS CATALOG

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Base Cabinets

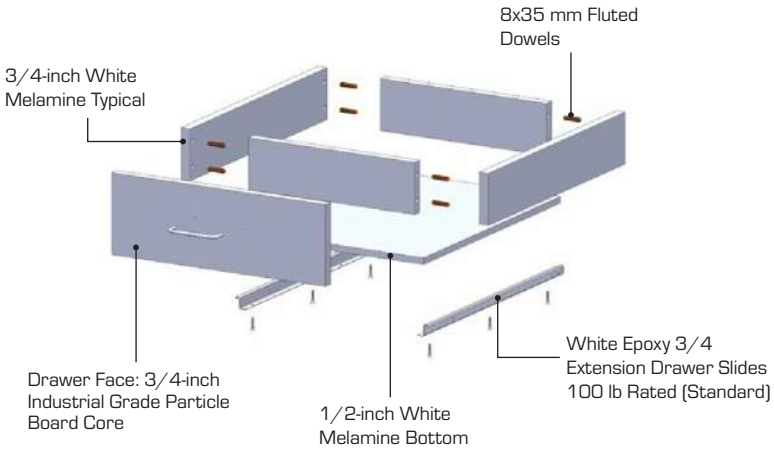
STANDARD FEATURES

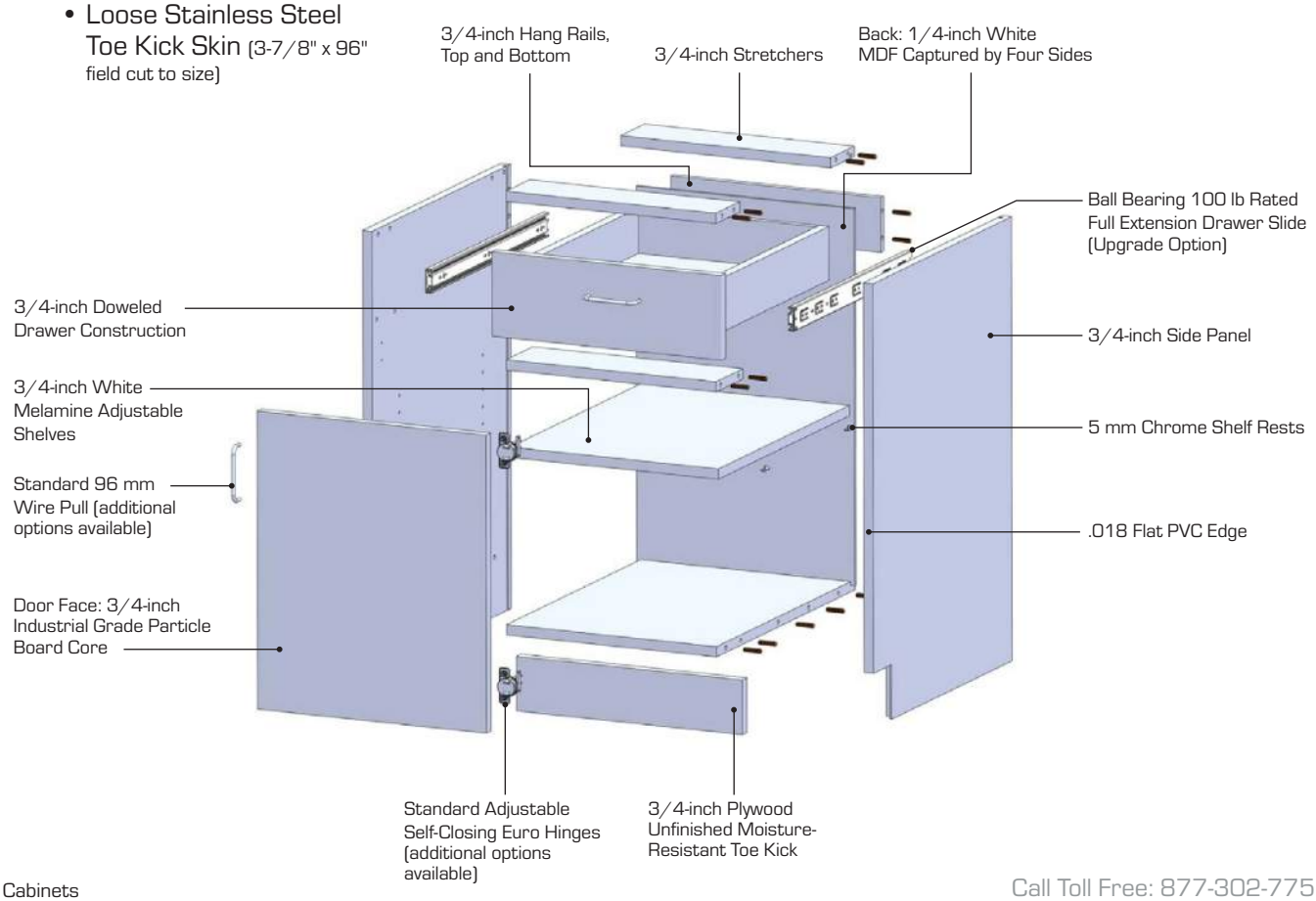
- Self-close hinges
- Superior doweled drawer construction
- 3/4 extension white epoxy 100 lb rated drawer slides
- 3/4-inch moisture resistant plywood toe kick

OPTIONS & ACCESSORIES

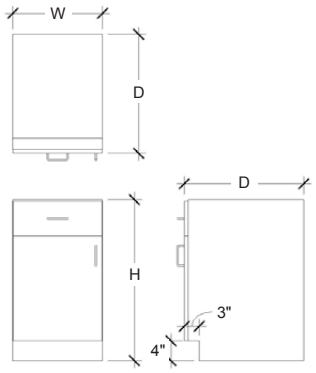
See pages 32-35.

- Locks
- Hinges
- Pulls
- Slides
- Loose Plywood Base
- Loose Stainless Steel Base
- Loose Stainless Steel Toe Kick Skin (3-7/8" x 96" field cut to size)





COOPERWORKS INDUSTRIES



Base Cabinets



LB105 Left Hinge (shown) | LB106 Right Hinge			
Width	Height	Depth	Description
18"	28.5"	18"	Single Sink Base Cabinet
21"	32.5"	21"	Optional Lock
24"	34.5"	24"	
		29"	



LB107			
Width	Height	Depth	Description
12"	28.5"	18"	(4) 1/4 Drawer Base Cabinet
15"	32.5"	21"	
18"	34.5"	24"	
21"		29"	
24"			



LB108			
Width	Height	Depth	Description
16"	28.5"	18"	BBF Pedestal Single File Drawer Base Cabinet
19"		21"	
		24"	
		29"	

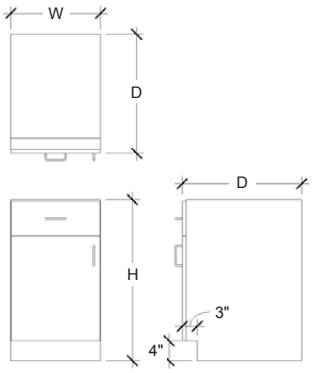
*Center drawer height will vary based on total cabinet height.

Note: BBF = Box Box File

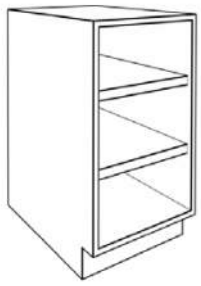


LB109			
Width	Height	Depth	Description
16"	28.5"	18"	FF Pedestal Double File Drawer Base Cabinet
19"		21"	
		24"	
		29"	

Note: FF = File File



Base Cabinets



LB110			
Width	Height	Depth	Description
15"	28.5"	18"	Two Tier Pull Out Roller Shelf Base Cabinet (1-2) Adjustable Shelves Exposed Interior Matches Exterior
18"	32.5"	21"	
21"	34.5"	24"	
24"		29"	
27"			
30"			
33"			
36"			



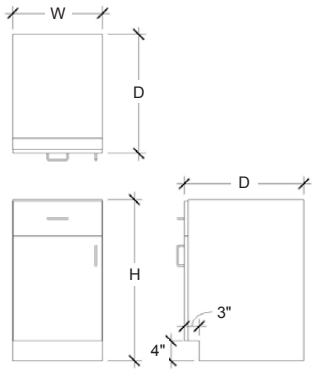
LB120			
Width	Height	Depth	Description
24"	28.5"	18"	Double Door Base Cabinet "Clear Span" (1-2) Adjustable Shelves*
27"	32.5"	21"	
30"	34.5"	24"	
33"		29"	
36"			

*Optional pull out shelves available.



LB121			
Width	Height	Depth	Description
24"	28.5"	18"	Double 1/4 Drawer Double Door Base Cabinet "Clear Span" (1) Adjustable Shelf
27"	32.5"	21"	
30"	34.5"	24"	
33"		29"	
36"			

COOPERWORKS INDUSTRIES



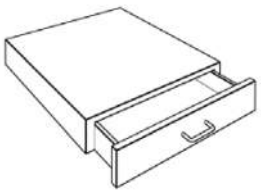
Base Cabinets



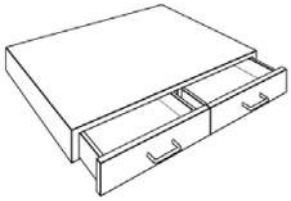
LB141			
Width	Height	Depth	Description
24"	32.5"	18"	Sink Base Cabinet (No Shelves)
27"	34.5"	21"	Optional Lock
30"		24"	
33"		29"	
36"			
39"			
42"			



LB142			
Width	Height	Depth	Description
24"	32.5"	18"	Double Door ADA Sink/Trash (24- and 27-inch Not ADA)
27"	34.5"	21"	No bottom in cabinet
30"		24"	Unfinished toe kick attached to door
33"		29"	Not available with loose toe kick option
36"			
39"			
42"			



LB150			
Width	Height	Depth	Description
21"	4"	18"	Drawer Housing Single Drawer
24"	4"		Optional Lock
30"	4"		



LB151			
Width	Height	Depth	Description
33"	4"	18"	Drawer Housing Double Drawer
36"	4"		Optional Locks
42"	4"		
48"	4"		



Wall Cabinets

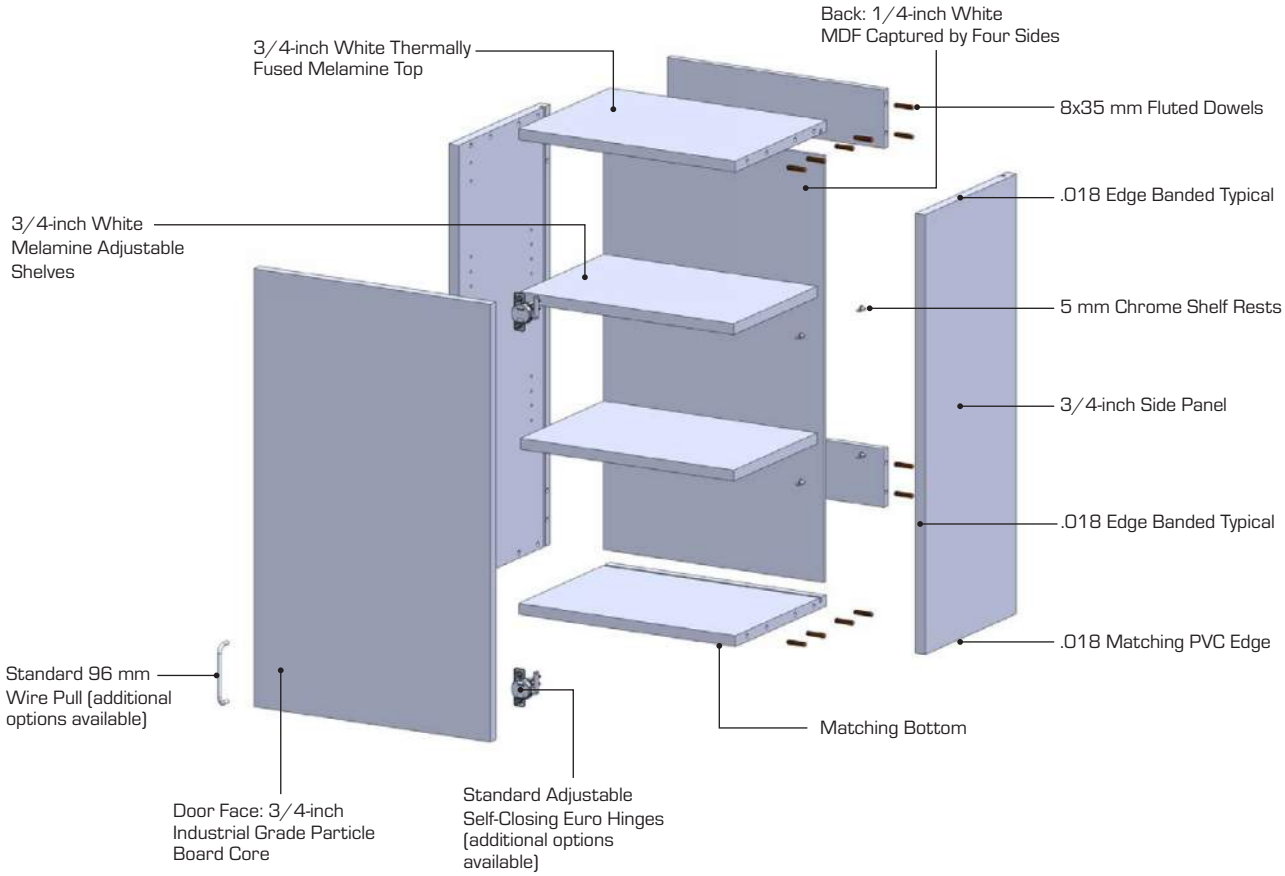
STANDARD FEATURES

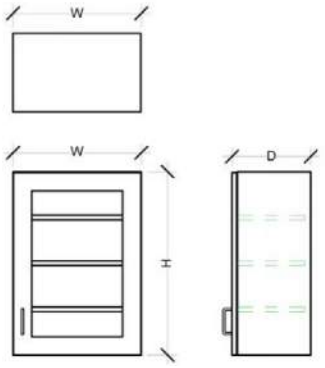
- Self-close hinges
- Matching finish on doors and bottoms
- White melamine finished tops

OPTIONS & ACCESSORIES

See pages 32-35.

- Locks
- Hinges
- Pulls
- Light Apron
- Slope Top
- Soffit
- Shelves



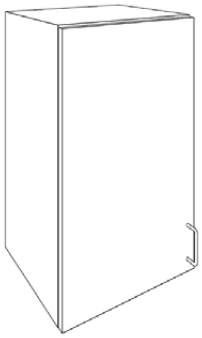


Wall Cabinets



LW100				
Width	Height	Depth*	Shelves	Description
12"	18"	13"	1	Open Wall Cabinet Interior Matches Exterior
15"	24"	15"	1	
18"	30"		2	
21"	36"		2	
24"	42"		3	
27"	48"		3	
30"				
33"				
36"				

*Actual depth dimension: 13"=12" and 15"=14.25"

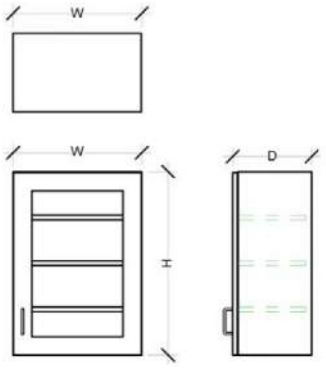


LW101 Left Hinge (shown) | LW102 Right Hinge				
Width	Height	Depth	Shelves	Description
12"	18"	13"	1	Single Solid Door Wall Cabinet
15"	24"	15"	1	
18"	30"		2	
21"	36"		2	
24"	42"		3	
	48"		3	

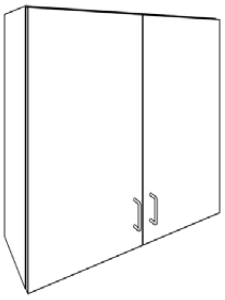


LW103 Left Hinge (shown) | LW104 Right Hinge				
Width	Height	Depth	Shelves	Description
12"	18"	13"	1	Single Glass Door Wall Cabinet Interior Matches Exterior
15"	24"	15"	1	
18"	30"		2	
21"	36"		2	
24"	42"		3	
	48"		3	

COOPERWORKS INDUSTRIES



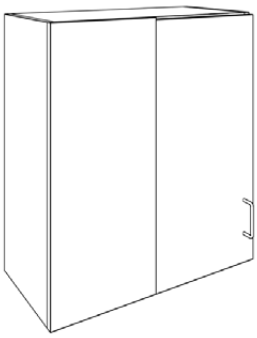
Wall Cabinets



LW110				
Width	Height	Depth	Shelves	Description
24"	12"	13"	0	Double Solid Door Wall Cabinet
27"	15"	15"	0	
30"	18"		1	
33"	24"		1	
36"	30"		2	
	36"		2	
	42"		3	
	48"		3	



LW111				
Width	Height	Depth	Shelves	Description
24"	12"	13"	0	Double Glass Door Wall Cabinet Interior Matches Exterior
27"	15"	15"	0	
30"	18"		1	
33"	24"		1	
36"	30"		2	
	36"		2	
	42"		3	
	48"		3	



LW112 Left Panel (shown) | LW113 Right Panel				
Width	Height	Depth	Shelves	Description
27"	12"	13"	0	Blind Corner Cabinet (Solid Door)
30"	15"	15"	0	
33"	18"		1	
36"	24"		1	
	30"		2	
	36"		2	
	42"		3	
	48"		3	

INTEGRATE™ HPL Cabinet Colors

Arctic White

Crisp Linen

White Cypress


Italian Silver Ash

Field Elm


Fusion Maple


Pasadena Oak


Uptown Walnut


River Cherry


Sap Walnut


Tuscan Walnut


Amber Cherry


Walnut Heights


Shaker Cherry


Colombian Walnut


French Pear


Studio Teak


Veranda Teak


Pewter Mesh

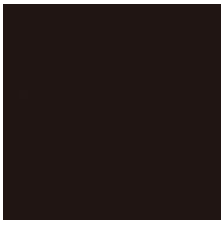

Satin Stainless


Sterling Ash


Portico Teak


Skyline Walnut

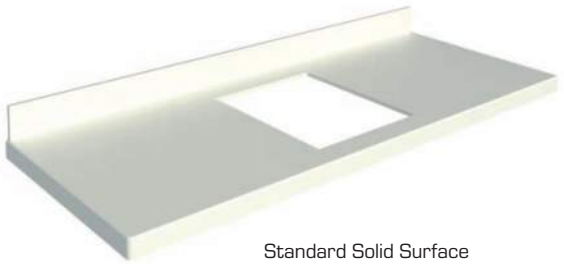

Ebony Recon


Black

For more color selections contact your sales representative.
All colors subject to availability.

Solid Surface Countertop Profiles

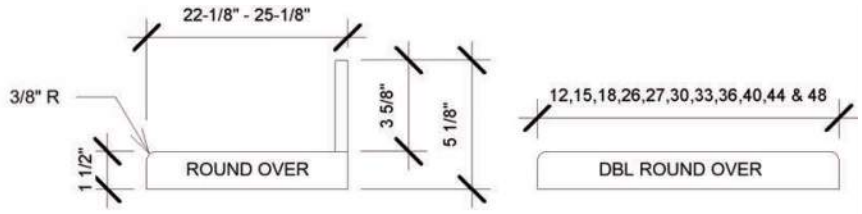
144" maximum length available.

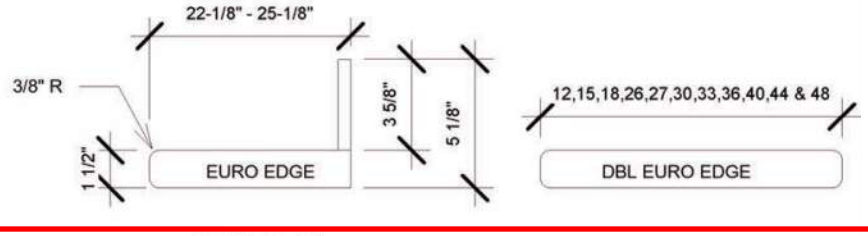


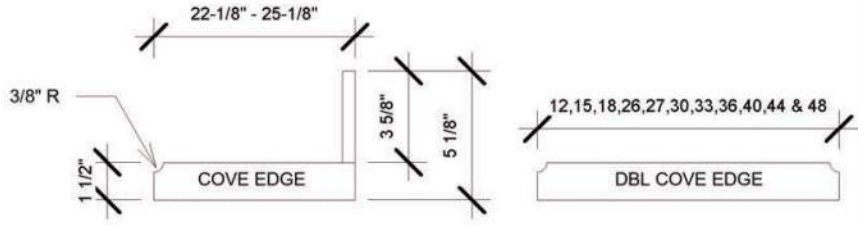
Standard Solid Surface Countertop

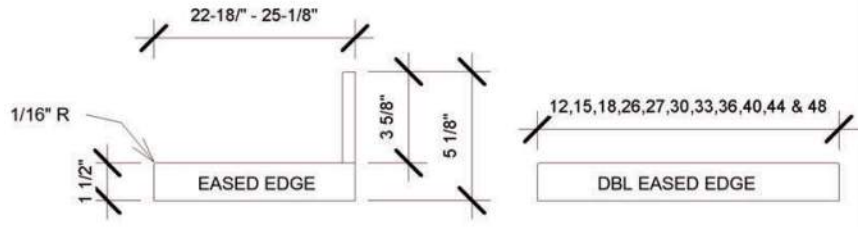


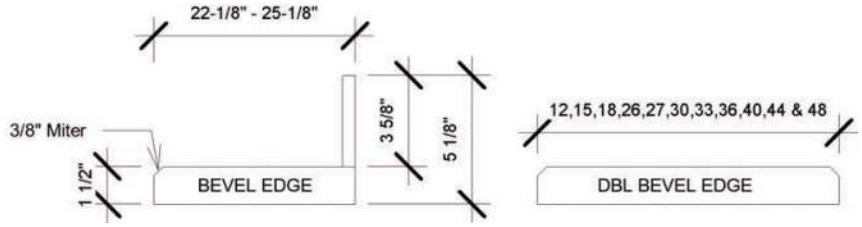
14 gauge (.075nom) 304 #4 Finish Stainless Steel Countertop with Integral Sink











WILSONART

Solid Surface Countertop Colors

Frosty White

Frosty White Mirage

Milk Glass Spectra


Chai Cream

Yukon Riverstone


Pearl Mirage


Arctic Melange


Chilled Earth


Cashmere Mirage


Marzipan Mirage


Grey Tempest


Zen Grey


Beige Travertine
(Premium)

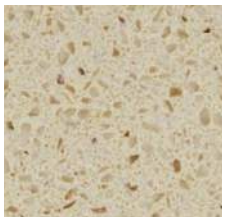

Whitewater
(Premium)


Iron Falls
(Premium)

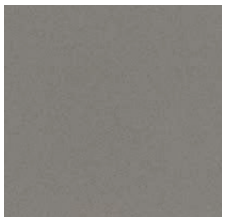
For more color selections contact your sales representative.
All colors subject to availability.

Premium Quartz Countertop Colors

Blizzard


Sand Dollar


Altantic Salt


Cement


Concrete

For more color selections contact your sales representative.
All colors subject to availability.

For questions or to place an order, contact our customer service department at **618-503-9171** or **877-302-7755** or by email at **sales@cooperworks.com**.

Options & Accessories

FAUCETS



Gooseneck Deck Mount with 8-in Center



Gooseneck Deck Mount with 4-in Center



Gooseneck Deck Mount with 8-in Center



Gooseneck Sensor Faucet



Standard Sensor Faucet

DOOR STYLES



Slab
(HPL and TFL)



Five-Piece Shaker
(TFL)



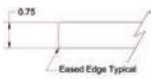
Classic
(Vinyl Foil)



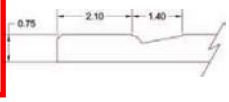
Shaker Shallow
(Vinyl Foil)

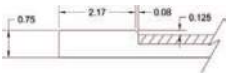


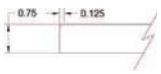
Elegante Smooth
Slab (Vinyl Foil)











Material and color selections vary by door style. For HPL color selections see page 27. For Vinyl Foil color selections see page 28. For TFL color selections see page 29.

HINGES



Self Close



Soft Close



Five Knuckle Stainless Steel
Hospital Grade

COOPERWORKS INDUSTRIES

Options & Accessories

DOOR PULLS

For additional styles and finishes contact your sales representative.



Bar
Brushed Nickel



Bow
Brushed Nickel



96 mm* (3-3/4") Wire
Brushed Nickel

*128 mm (5") Wire also available



Antimicrobial Copper
by Cuverro®

BASE CABINET OPTIONS

Custom base sizes available.



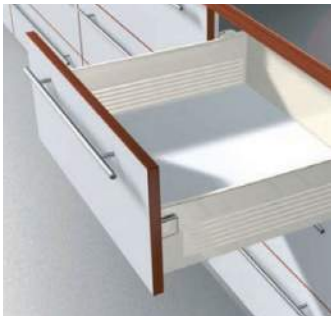
Loose Plywood Base



Loose Stainless Steel Base
(Fabricated to size)



Loose Stainless Steel Toe Kick Skin
(3-7/8" x 96" Field cut to size)



White Metal Drawer Slide

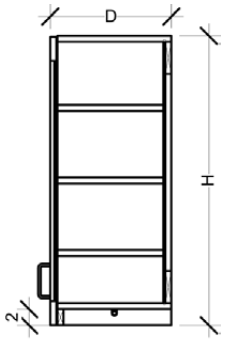


Full Extension Slide



Soft Close Slide

WALL CABINET OPTIONS

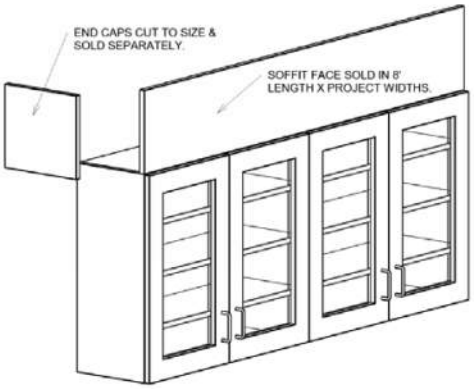


Light Apron



Bank or individual sloping top available upon request.

Slope Top



Soffit

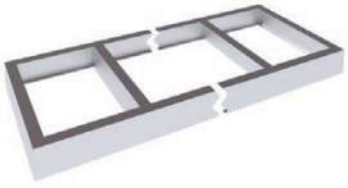
Options & Accessories

HIGH CABINET OPTIONS

Custom base sizes available.



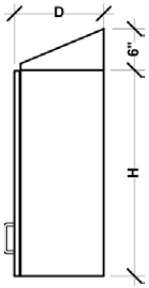
Loose Plywood Base



Loose Stainless Steel Base
(Fabricated to size)



Loose Stainless Steel Toe Kick Skin
(3-7/8" x 96" field cut to size)



Slope Top



Bank or individual sloping top available upon request.



Soffit

ACCESSORIES FOR CABINETS



Digital E-Lock



Cam Lock
(Keyed separately or keyed alike)

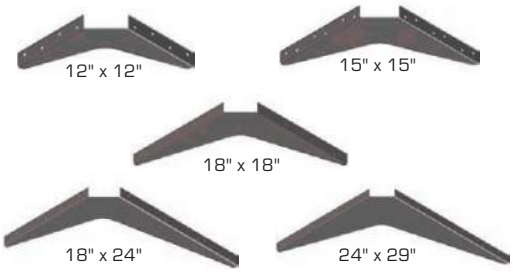


3/4-inch End Panel



End Panels with Attached 3-inch Filler, Left or Right
(Backside finished white)

ACCESSORIES FOR COUNTERTOPS



A&M Braces

Black
White
Almond
Gray
Brown Pionite



2-3/8" Wire
12" Stainless Steel Wire
6" Trash Wire

Grommets

TA-1

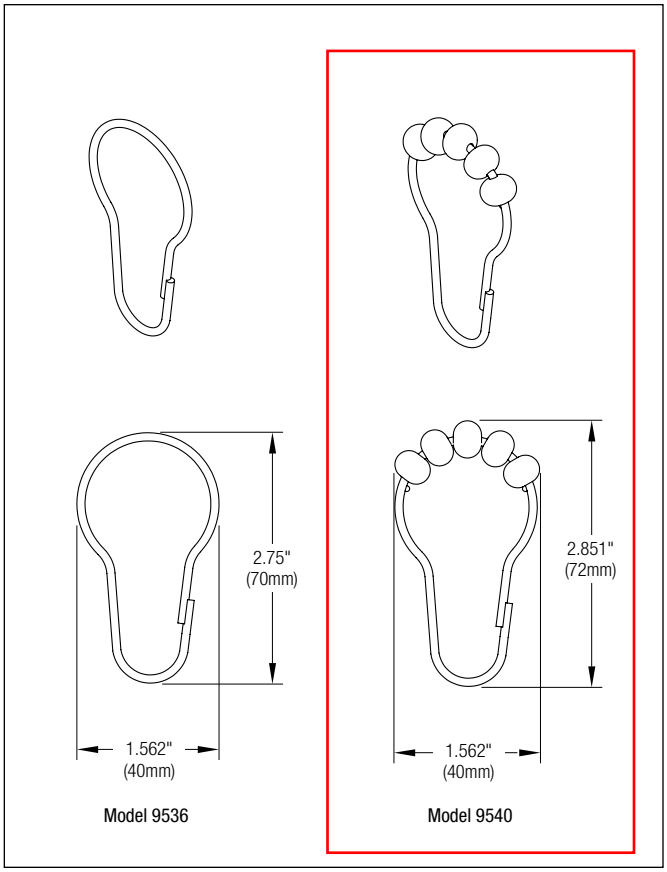
9536, 9540
Shower Curtain Hook

- ☑ Model 9536 – Shower Curtain Hook ***Bradex®***
- ☑ Model 9540 – Shower Curtain Hook with Rollers ***Bradex®***

Product Materials

Model 9536 Shower Curtain Hook: stainless steel spring wire with snap fastener. Can be used with 1" and 1¼" diameter curtain rods.

Model 9540 Shower Curtain Hook with Rollers: stainless steel wire with snap fastener. Rollers are brass with nickel plating. Five rollers per hook. Can be used with 1" and 1¼" diameter curtain rods.

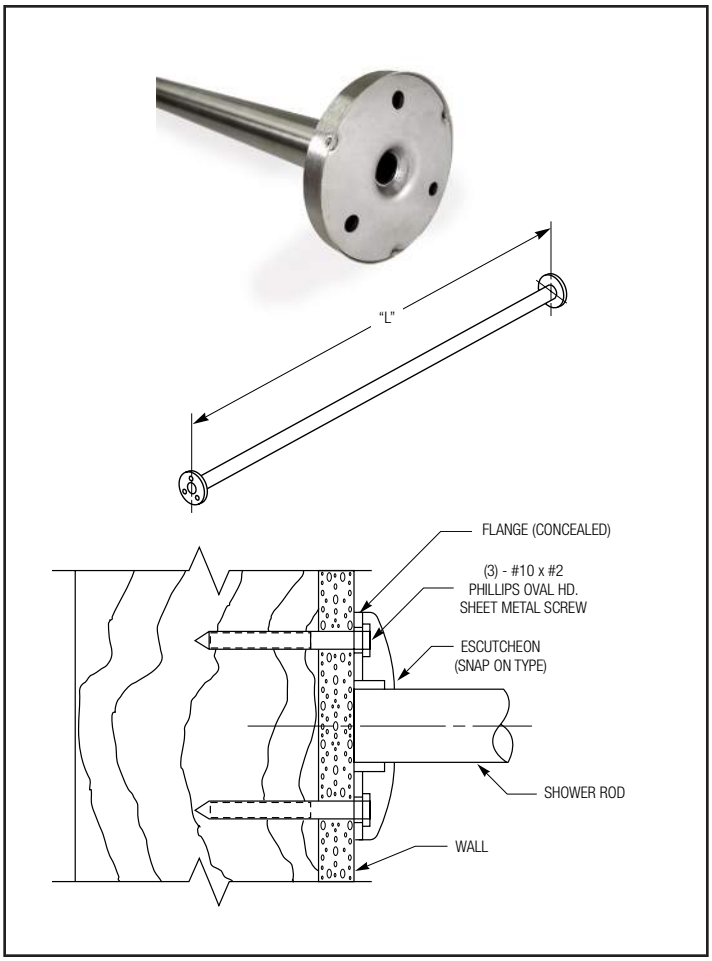


Orders composed of products indicated as ***Bradex®*** will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

© 2025 Bradley
P.O. Box 309, Menomonee Falls, WI 53052-0309
800 BRADLEY (800 272 3539) +1 262 251 6000
bradleycorp.com

9538, 9539
Shower Curtain Rod

- ☑ Concealed Mounting
- ☑ Model 9538 – 1" O.D.
  - ◉ (36" Long) ***Bradex***®
  - ○ (42" Long) ***Bradex***®
  - ○ (48" Long) ***Bradex***®
  - ○ (60" Long) ***Bradex***®
  - ○ (72" Long) ***Bradex***®
- ☑ Model 9539 – 1-1/4" O.D.
  - ○ (36" Long) ***Bradex***®
  - ○ (42" Long)
  - ○ (48" Long) ***Bradex***®
  - ○ (60" Long) ***Bradex***®
  - ○ (72" Long)



Product Materials

FLANGES: glass polypropylene, 3⅛" dia. Shower rod support sleeves formed with flange as one piece.

ESCUTCHEONS: 22 gauge stainless steel. One-piece drawn construction with exposed surfaces in architectural satin finish. Snap over flanges to conceal mounting screws.

TUBING: 18 gauge stainless steel, seamless construction with exposed surfaces in architectural satin finish.

Installation

Verify all rough-in dimensions prior to installation. To properly engage rod in support sleeves, rod length must be no less than approximately ¼" shorter than wall opening. Secure one flange to wall with mounting screws (included) at holes provided. Align mounting holes vertically. Slip opposite flange and both escutcheons into place. Secure flange to wall and snap escutcheons over mounting flanges.

Guide Specification

Concealed mounted shower rod shall be fabricated of 18 gauge stainless steel of seamless construction. Mounting flanges shall be of glass polypropylene with snap-on vandal-resistant protective escutcheons.

Orders composed of products indicated as ***Bradex***® will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

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◉ **Model 9533 – Antimicrobial Vinyl Shower Curtain (White) *BradEX®***

○ **Model 9537 – Antimicrobial Shower Curtain (White) *BradEX®***

Model 9533 Antimicrobial Vinyl Shower Curtain

Guide Specification

Shower curtain 6 gauge vinyl material with hemmed top edges and aluminum grommets on 6" centers. White only.

Vinyl Shower Curtain Model 9533 is available in widths of 36", 42", 48", 60", or 72" and heights of either 72" or 78". See charts below for dimensional information.

☑ **Model 9533 Shower Curtains have a tolerance of +/- 2" length and +/- 2" width, top edge hemmed.**

9533 Models *BradEX®*

Width (mm)	Height (mm)	Overall Dimensions (mm)	# of 9536 Shower Hooks Required (order separately)
36" (914)	72" (1829)	36" x 72" (914 x 1829)	6
42" (1067)	72" (1829)	42" x 72" (1067 x 1829)	7
48" (1219)	72" (1829)	48" x 72" (1219 x 1829)	8
60" (1524)	72" (1829)	60" x 72" (1524 x 1829)	10
72" (1829)	72" 1829)	72" x 72" (1829 x 1829)	12

Model 9537 Antimicrobial Shower Curtain

Guide Specification

Shower curtain is 9-oz. nylon-reinforced antimicrobial PVC vinyl fabric (flameproof, stain resistant, self-deodorizing) and furnished with aluminum grommets on 6" centers. Shower curtain is .014" thick with top edge hemmed. Ideal for hospital applications. Model 9537 is White.

Antimicrobial Shower Curtain Model 9537 is available in widths of 36", 42", 48", 60", or 72" and heights of either 72" or 78". See charts below for dimensional information.

9537 Width Tolerances

Width (mm)	Tolerance
36" (914)	+/- 2"
42" (1067)	+/-2"
48" (1219)	+/-2"
60" (1524)	+/-2"
72" (1829)	+/-2"

Length tolerance is +/-2"

9537 Models *BradEX®*

Width	Height	Overall Dimensions (mm)	# of 9536 Shower Hooks Required (order separately)
36" (914)	72" (1829)	36" x 72" (914 x 1829)	6
42" (1067)	72" (1829)	42" x 72" (1067 x 1829)	7
48" (1219)	72" (1829)	48" x 72" (1219 x 1829)	8
60" (1524)	72" (1829)	60" x 72" (1524 x 1829)	10
72" (1829)	72" (1829)	72" x 72" (1829 x 1829	12

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BOBRICK

Technical Data

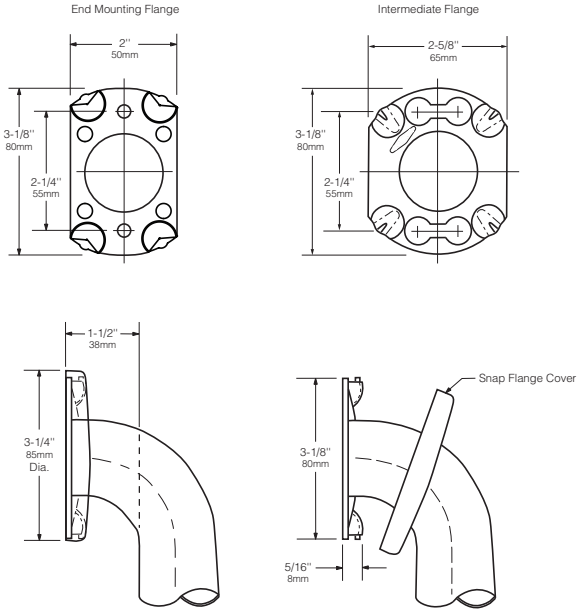
1½" (38mm) DIAMETER STAINLESS STEEL GRAB BARS WITH SNAP FLANGE

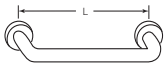
B-6806 SERIES

Specify Finish Required:

- ☐ Satin-finish, slip-resistant surface
- ☐ Peened surface; add suffix .99 to model number







TA-1A

TA-1B

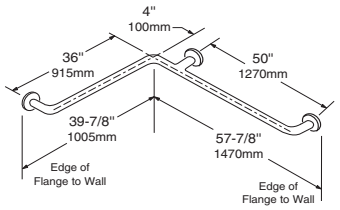
HORIZONTAL

B-6806 x 12, 18, 24, 30, 36, 42, 48



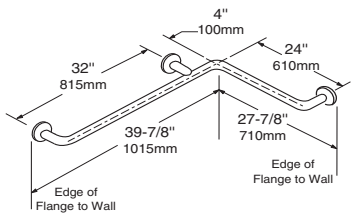
TA-1AC

VERTICAL



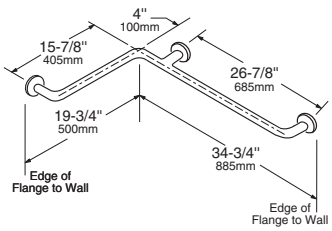
TWO-WALL WHEELCHAIR COMPARTMENT

B-68137



HORIZONTAL TUB / SHOWER COMPARTMENT BAR 24 x 36

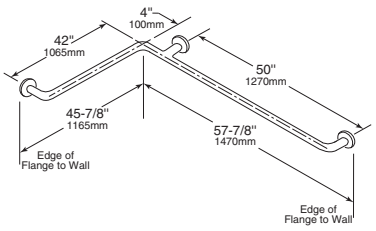
B-68616



HORIZONTAL TWO-WALL BAR for Shower Stall

B-6861

TA-1C



TWO-WALL TOILET COMPARTMENT BAR 42 x 54

B-6897

continued . . .

The illustrations and descriptions herein are applicable to production as of the date of this Technical Data Sheet.
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957, 9571

L-shaped Bariatric Shower Seat

☑ Folding Shower Seat, White Color

Product Materials

FRAME: stainless steel tubing, 1¼" x 18 gauge sq. main frame with 1" x 18 gauge rd. cross-members.

WALL FLANGES: stainless steel, 10 gauge x 3" dia. heliarc welded to 1" rd. x 18 gauge 90 degree leg supports, and to 1¼" rd. x 12 gauge frame hinge couplings. Three mounting holes in each flange.

SWING DOWN LEG: "H"-shaped yoke of stainless steel 1" dia. x 18 gauge rd. tubing, heliarc welded to 1¼" rd. x 12 gauge frame hinge couplings.

SEAT: ½" thick solid phenolic. White matte finish Melamine bonded onto the phenolic for color. All exposed edges are machined smooth to a uniform dark finish.

Operation

Seat is automatically held in a raised position by a stainless cross member attached to the front and rear support legs. When the seat is lowered into its down position the Swing Down Leg automatically aligns the front and rear support legs with the help of the stainless cross member. **NOTE:** When properly installed, the seat can support up to 1200 lbs. static load.

Installation

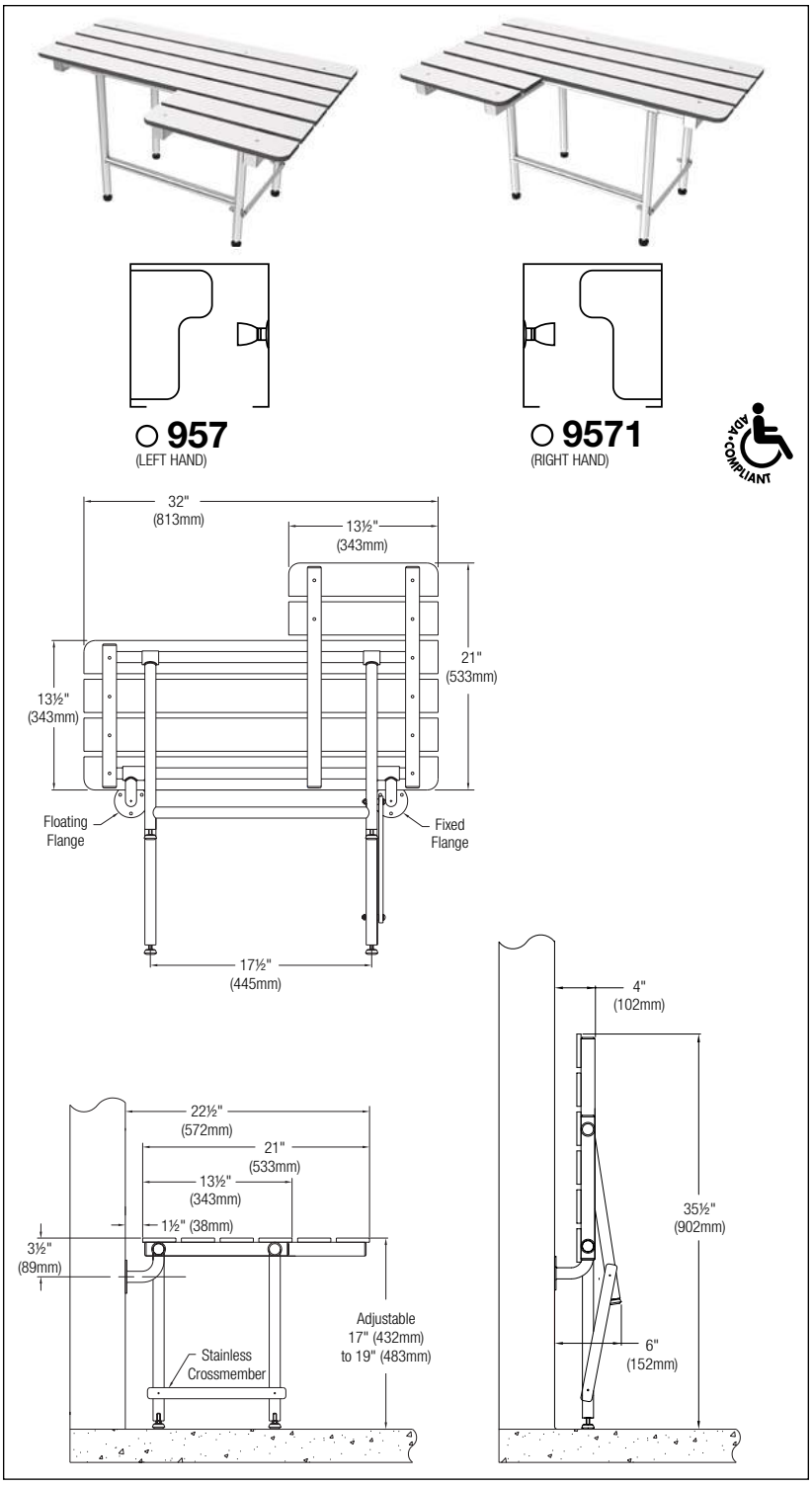
Verify all rough-in dimensions prior to installation. All shower seats must be installed using suitable fasteners and sufficient in-wall backing materials. Place the seat in an upright position with the mounting flanges placed firmly against the shower wall. Level the seat to the mounting height (17"–19") by modifying the adjustable rubber feet. After marking the three holes in each flange, drill appropriate holes. Secure the two flanges to the wall (mounting screws not included). Place the seat in the down position and make any final changes to the adjustable rubber feet.

WARNING: Be sure to use reinforced backing behind wall where mounting screws or anchoring devices are installed to ensure adequate support for the shower seat. All anchoring devices (supplied by installer) must be appropriate for specific wall construction. Severe personal injury and/or property damage may result from improper mounting.

Guide Specification

Bariatric Bench Seat frame shall be fabricated of stainless steel tube, 1¼" x 18 gauge sq. main frame with 1" x 18" gauge rd. cross members. The leg is "H"-shaped yoke of stainless steel tubing, 1" x 18 gauge rd. tubing, Heliarc welded to 1¼" rd. x 12 gauge frame hinge.

Overall dimensions: 32" x 22½".



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TE-2

MATERIALS:

Grab Bar — 18-8 S, type-304, 18-gauge (1.2mm) stainless steel tubing with satin-finish, slip-resistant surface. 1-1/2" (38mm) outside diameter. Ends are heliarc welded to flanges. Clearance between the grab bar and wall is 1-1/2" (38mm).

Concealed Mounting Flanges — 18-8 S, type-304, 11-gauge (3.2mm) thick, stainless steel plate; end flanges 2" x 3-1/8" (50 x 80mm) with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" (65 x 80mm) wide x 3-1/8" (80mm) diameter.

Snap Flange Covers — 18-8 S, type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 1/2" (13mm) deep. Each cover snaps over mounting flange to conceal mounting screws.

STRENGTH:

Bobrick grab bars that provide 1-1/2" (38mm) clearance from wall can support loads in excess of 900 pounds (408kg) if properly installed. Other grab bar configurations can support loads in excess of 250 pounds (113kg) if properly installed, complying with accessible design (including ADAAG in the U.S.A.) for structural strength

Safety Warning: Grab bars are no stronger than the anchors and walls to which they are attached and, therefore, must be firmly secured in order to support the loads for which they are intended. To avoid potential injury, the building owner or maintenance personnel should remove the grab bar from service if the grab bar is not adequately secured to wall or if there is any observed damage to the welds.

INSTALLATION:

Provide concealed anchor device or backing as specified or required in accordance with local building codes before wall is finished. Fasten concealed mounting flanges to anchor device or backing with at least two screws opposing each other in each flange. Snap flange covers over each mounting flange to conceal mounting screws. Concealed anchor devices and mounting screws are not included with Bobrick grab bars and must be specified as an accessory.

For Grab Bars with an Intermediate Flange(s), Pull Snap-Flange Covers away from mounting flanges. Place grab bar in desired mounting location. Use intermediate flange as a template to mark location of mounting screws at intermediate flange only. Mark screw locations at the center of the slot in the middle of the double-keyhole shaped mounting holes (2) in the intermediate flange. Remove grab bar from wall. Drive the intermediate flange mounting screws into wall at marked locations. **Note:** Make sure to leave a space of just over 1/8" (3.17mm) between the underside of the screw head and the wall. Install grab bar on the wall by placing the round ends of the intermediate flange double-keyhole shaped mounting holes over the mounting screws (2) are located in the middle of the flange slots. Install the mounting screws into the wall at the end flanges and secure tightly. Tighten the mounting screws at the intermediate flange. Press all snap-flange covers into place to conceal mounting flanges.

Note: Recommend use of 1/4" or #14 sheet metal or wood screws to install Intermediate Flange. #12 screws may also be used.

Important Notes:

1. **Mounting Kits —** Bobrick offers a mounting kit for installing grab bars; **one Bobrick mounting kit is required for each flange.**

Mounting Kit No.	Description
252-30	Consists of # (3) 14 x 2½" type-304 stainless steel, Phillips round-head, sheet-metal screws.

2. **Grab Bar Fastener —** Bobrick offers a grab bar fastening system that secures all Bobrick grab bar series; **one Bobrick fastener is required for each flange.** Install grab bar without backing in wall requires minimum 5/8" (16mm) thick painted or tiled drywall.

WingIt™ Fastener No.	Description
251-4	Consists of 10–32 x 5/16" round-head, Phillips 18/8 stainless steel screws. (1) WingIt grab bar fastener.

3. **Optional Anchor Device —** Bobrick grab bar anchor device includes stainless steel machine screws to be used for attaching grab bars to anchors. **one Bobrick concealed anchor device is required for each flange.**

Optional Anchor No.	Description
2583	Anchor for 3/4" to 1" (19-25mm) panel 1 anchor required for each flange.
2586	Anchor for 1/2" to 1" (13mm) panel 1 anchor required for each flange.

SPECIFICATION:

Grab bar shall be type-304 stainless steel with satin-finish, slip-resistant surface. Grab bar shall have 18-gauge (1.2mm) wall thickness and 1-1/2" (38mm) outside diameter. Clearance between the grab bar and wall shall be 1-1/2" (38mm). Concealed mounting flanges shall be 11-gauge (3.2mm) thick stainless steel plate, 2" x 3-1/8" (50 x 80mm), and equipped with at least two screw holes for attachment to wall. Flange covers shall be 22 gauge (0.8mm), 3-1/4" (85mm) diameter x 1/2" (13mm) deep, and shall snap over mounting flange to conceal mounting screws and/or WingIt fasteners. Ends of grab bar shall pass through concealed mounting flanges and be heliarc welded to form one structural unit. Grab bar shall comply with accessible design (including ADAAG in the U.S.A.) for structural strength.

Grab Bar shall be Model _____ (insert model number) of Bobrick Washroom Equipment, Inc., Clifton Park, New York; Jackson, Tennessee; Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment Limited, United Kingdom.

The illustrations and descriptions herein are applicable to production as of the date of this Technical Data Sheet.
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⦿ Model 5425 — Surface-Mounted *Bradex*®

☑ Jumbo Roll

Product Materials

CABINET & MOUNTING PLATE: 18 gauge satin finish stainless steel.

DOOR: 18 gauge satin finish stainless steel. Drawn one-piece construction. Furnished with tumbler lock and refill-indicator viewing slots.

DISPENSING MECHANISM: chemical- and flame-retardant ABS.

Operation

Cabinet holds two 9" diameter rolls of 3" or 2¼" diameter core toilet tissue (by using core adapters). When first roll is depleted, the bottom access panel level is slid to the other side, revealing the second roll. Refill indicator slot reveals tissue level. Tumbler-locked door swings down to replenish tissue rolls.

Installation

Verify all rough-in dimensions prior to installation. Secure unit to wall or toilet partition with five screws (included) through mounting holes.

Guide Specification

Jumbo roll toilet tissue dispenser shall be 18-gauge satin finish stainless steel. Dispensing mechanism shall be flame and chemical retardant ABS plastic. Unit shall dispense two 9" diameter toilet tissue rolls with 3" or 2¼" diameter core. Unit shall have a sliding access panel to allow dispensing from one roll at a time. Door shall be secured with a tumbler lock and shall have a refill indicator viewing slot.

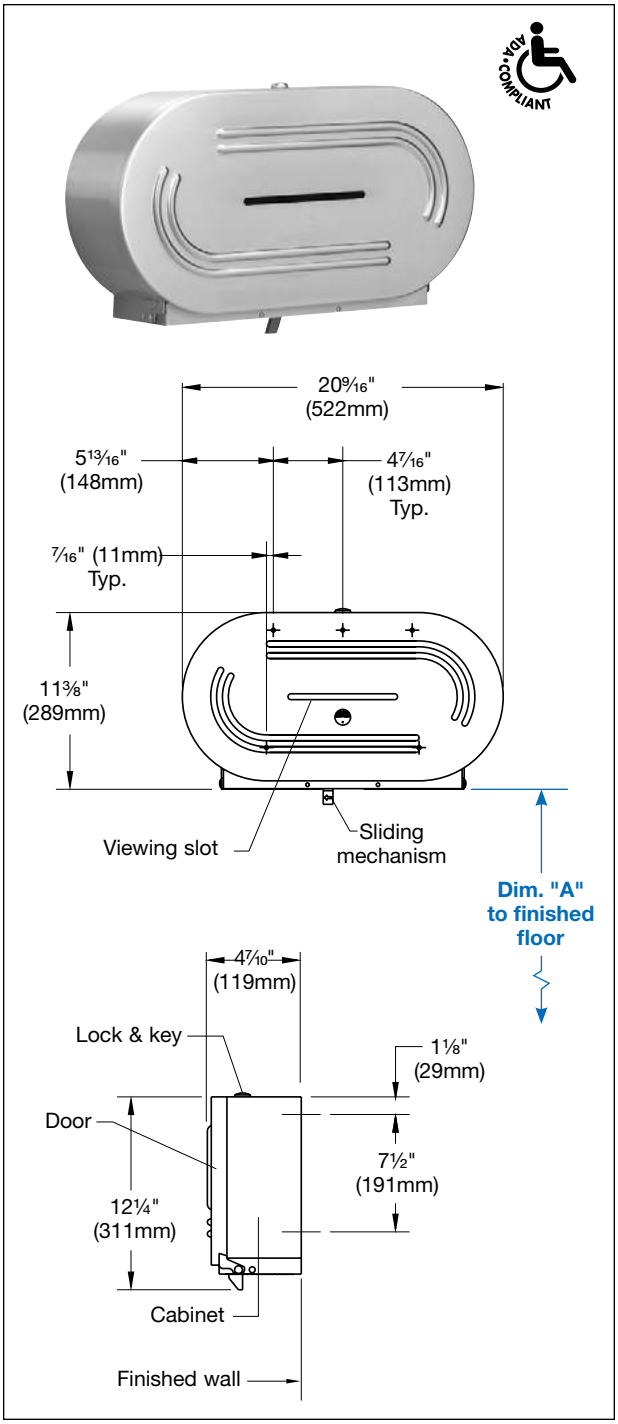
Overall dimensions: 20⁹⁄₁₆"W x 11⅜"H x 4⁷⁄₁₀"D.

ADA Compliant

☑ Consult local and national accessibility codes for proper installation guidelines.

☑ Conformity and compliance to local and national codes is the responsibility of the installer.

Dim. "A" Key Surface:	For Dim. "A"	Top of Unit	Bottom of Unit
Bottom of toilet paper opening to finished floor	20" (508mm)	31⁵⁄₁₆" (796mm)	20" (508mm)
	19" (483mm)	30⁵⁄₁₆" (770mm)	19" (483mm)
	18" (457mm)	29⁵⁄₁₆" (745mm)	18" (457mm)
	17" (432mm)	28⁵⁄₁₆" (720mm)	17" (432mm)
	16" (406mm)	27⁵⁄₁₆" (694mm)	16" (406mm)
	15" (381mm)	26⁵⁄₁₆" (669mm)	15" (381mm)
Rough wall opening:			
Surface Mount:	No rough wall opening, see overall dimensions		



Orders composed of products indicated as *Bradex*® will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

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KB300-SS

Unit Dimensions:
35 15⁄16″ x 20 3⁄4″
(897 mm x 527.5 mm)

Depth (closed):
4″ (101.6 mm)

Extension (open):
21 3⁄16″ (538mm)

Shipping Weight:
37 lbs

COLOR OPTIONS

- Grey-01
- White Granite-05



KB301-SS

Unit Dimensions:
20 3⁄4″ x 35 7⁄8″
(527.5 mm x 911 mm)

Depth (closed):
4″ (101.6 mm)

Extension (open):
36 5⁄8″ (930 mm)

Shipping Weight:
36 lbs

COLOR OPTIONS

- Grey-01
- White Granite-05



KB300

Unit Dimensions:
35 15⁄16″ x 20 3⁄4”
(897 mm x 527.5 mm)

Depth (closed):
4″ (101.6 mm)

Extension (open):
21 3⁄16″ (538mm)

Shipping Weight:
33 lbs

COLOR OPTIONS

- Beige-00
- Grey-01
- White Granite-05



KB301

Unit Dimensions:
20 3/4″ x 35 7/8″
(527.5 mm x 911 mm)

Depth (closed):
4″ (101.6 mm)

Extension (open):
36 5⁄8″ (930 mm)

Shipping Weight:
32 lbs

COLOR OPTIONS

- Beige-00
- Grey-01
- White Granite-05

○ Model 4722-15 — Surface-Mounted *Bradex®*

- ☑ Standard Series — Satin Finish
- ☑ Single End Compartment



Product Materials

CABINET: 22 gauge stainless steel with exposed surfaces in architectural satin finish. All welded construction.

PUSH FLAP DOOR: 22 gauge stainless steel with exposed surfaces in architectural satin finish. Heavy-duty stainless steel piano hinge. Self-closing flap door.

WASTE CONTAINER: 22 gauge stainless steel with tumbler locks keyed like other Bradley units.

Capacity

1.5 gal (0.2 cu. ft.)

Operation

Waste container removable from one side with finger grip. Furnished with waxed paper liner. Box of 500 waxed paper liners are available by ordering part number P11-022.

Installation

Verify all rough-in dimensions prior to installation. Secure unit to wall with mounting screws (included) at holes provided.

Guide Specification

Surface-mounted napkin disposal shall serve one toilet compartment and be fabricated of 22 gauge stainless steel with exposed surfaces in satin finish. Self-closing push flap door and stainless steel removable receptacle with tumbler lock.

Overall dimensions: 10¾"W x 15⅛"H x 4"D.

ADA Compliant

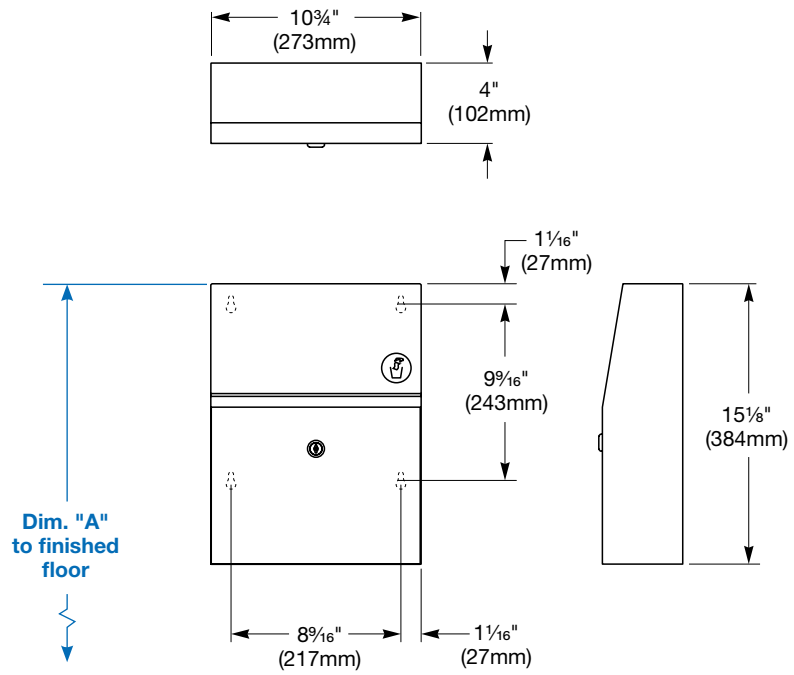
- ☑ Consult local and national accessibility codes for proper installation guidelines.
- ☑ Conformity and compliance to local and national codes is the responsibility of the installer.

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4722-15
Napkin Disposal

Dimensions



Dim. "A" Key Surface:	For Dim. "A"	Top of Unit	Bottom of Unit
Top of door (6" door opening) to finished floor	48" (1219mm)	48" (1219mm)	32⅝" (829mm)
	45" (1143mm)	45" (1143mm)	29⅝" (752mm)
	42" (1067mm)	42" (1067mm)	26⅝" (676mm)
	36" (914mm)	36" (914mm)	20⅝" (524mm)
	33" (838mm)	33" (838mm)	17⅝" (448mm)
Rough wall opening:			
Surface Mount:	No rough opening, see overall dimensions.		

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TA-5

6562, 6562-73

Soap Dispensers

○ **Model 6562 – Liquid Soap *Bradex*®**
○ **Model 6562-73 – Foam Soap *Bradex*®**

- ☑ Tank Type Vertical
- ☑ Surface-Mounted
- ☑ ADA Compliant



Product Materials

Body: 20 gauge stainless steel with exposed surfaces in architectural satin finish.

Back: 20 gauge stainless steel; heliarc welded to the body.

Wall Plate: stainless steel.

Liquid Soap Dispenser: chrome-plated brass housing with ABS plastic mechanism.

Foam Soap Dispenser: chrome-plated ABS mechanism.

Capacity

40-oz. liquid or bulk foam soap.

Operation

Push-in valve dispenses measured amount of vegetable or coconut oil liquid soaps, synthetic detergents, antiseptic solutions or foam soap with less than 5 lbs. of force. Sight gauge indicates refill time. Locked filler top opens with special key provided.

- ☑ Bradley liquid soap valves operate best with any vegetable oil or coconut oil hand soap having a 10–15% soap concentration.
- ☑ Bradley foam soap valves work with majority of bulk foam soap.

Installation

Verify all rough-in dimensions prior to installation. Secure separate mounting bracket to wall. Slide dispenser into place and secure locking screw through filler hole.

Guide Specification

Surface-mounted soap dispenser shall be fabricated of 20 gauge satin finish stainless steel. Dispenser shall have completely concealed mounting, vandal-resistant filler hole cover and sight gauge. Push-in corrosion-resistant soap valve. Capacity: 40-oz. liqiod or bulk foam soap. Requires less than 5 lbs. of force to dispense soap.

Overall dimensions: 4-13/16"W x 8-1/4"H x 2-7/8"D.

Service Kits

Liquid Soap Valve - P15-408
Foam Soap Valve - P15-510

ADA Compliant

- ☑ Consult local and national accessibility codes for proper installation guidelines.
- ☑ Conformity and compliance to local and national codes is the responsibility of the installer.

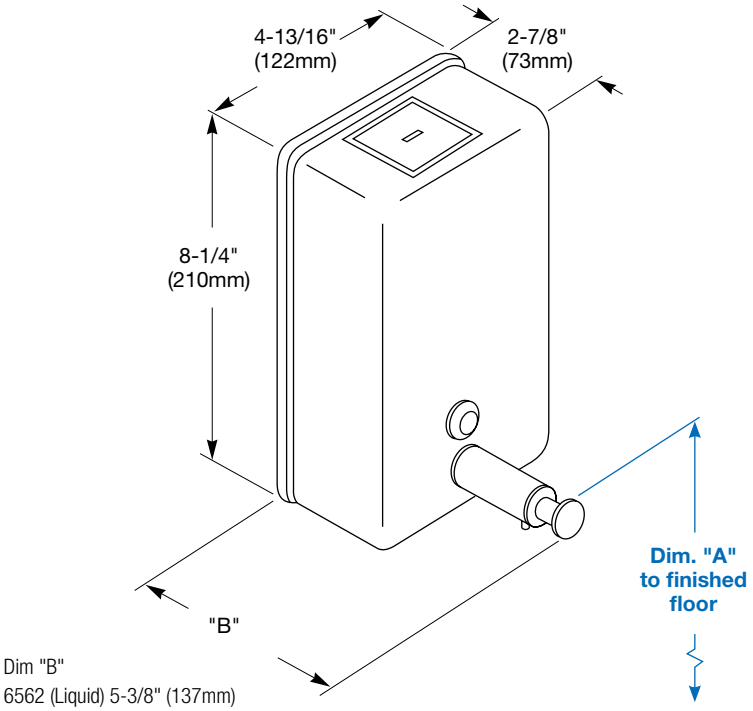
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6562, 6562-73

Soap Dispensers

Dimensions



Dim "B"
6562 (Liquid) 5-3/8" (137mm)
6562-73 (Foam) 4-9/16" (116mm)

Dim. "A" Key Surface:	For Dim. "A"	Top of Unit	Bottom of Unit
Push button top to finished floor	40" (1016mm)	46¾" (1187mm)	38½" (978mm)
	38" (965mm)	44¾" (1137mm)	36½" (927mm)
	36" (914mm)	42¾" (1086mm)	34½" (876mm)
	34" (864mm)	40¾" (1035mm)	32½" (826mm)
Rough wall opening:			
Surface Mount:	No rough wall opening, see overall dimensions		

Orders composed of products indicated as ***Bradex***® will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

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TA-6

7805
Angle-Frame Mirror Shelf

Product Materials

FRAME: One-piece, roll-formed stainless steel, ¾" x ¾" angle with corners welded, ground and polished smooth to a satin finish. Double strength continuous integral stiffener on all sides for added strength. Bevel on front of angle secures frame flush against mirror.

BACK: Galvanized steel, secured to frame with concealed screws, equipped with integral horizontal hanging brackets.

MIRROR: First quality ¼" float glass, thermosetting infrared-cured paint backing with Poly-Glaze protective finish. Manufactured in accordance with ASTM C 1036 and ASTM C 1503. All edges protected by shock-absorbing, neoprene tubing. The back of the mirror is protected by a sheet of ¼" extruded polystyrene, which is placed between the mirror and the galvanized steel.

SHELF: 18 gauge stainless steel with exposed surfaces in architectural satin finish. Flanged front and side, welded to frame.

Installation

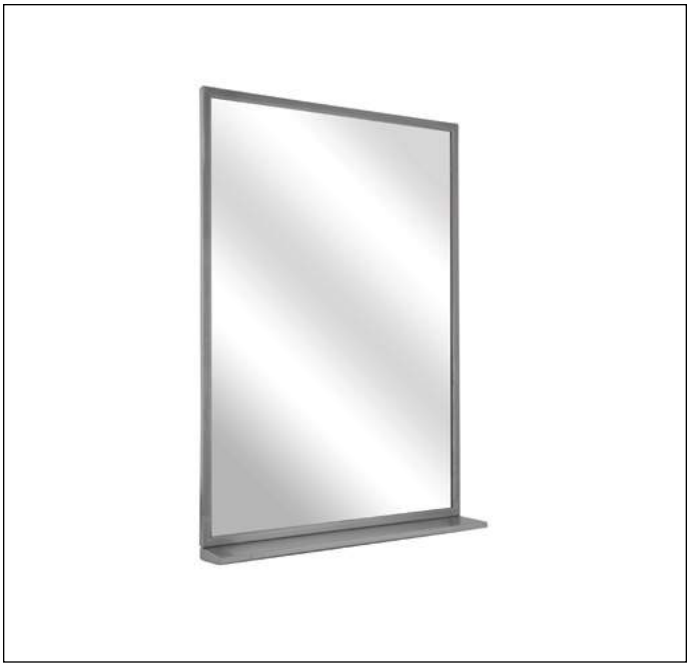
Verify all rough-in dimensions prior to installation. Secure concealed mounting bracket to wall with screws (not included) at holes provided. Mounting kits available through Bradley (ref. #899-026). Refer to technical data sheet #8880. Provide in-wall backing at mounting screw locations. Position mirror over mounting bracket to engage hanger tabs. Slide mirror down and lock into position.

Guide Specification

Mirror shall be framed with heavy gauge, one-piece, roll-formed, ¾" x ¾" stainless steel angle with double strength continuous integral stiffener. Welded corners shall be polished to a uniform satin finish. Integral 18 gauge stainless steel shelf shall have front and side flanges. Mirror shall be of first quality ¼" float glass guaranteed for 15 years against silver spoilage and protected by a shock-absorbing, neoprene tubing with Poly-Glaze protective finish. Back of unit shall be galvanized steel secured to frame with concealed screws, equipped with integral horizontal hanging brackets and separate wall hanger for concealed mounting.

ADA Compliant

- ☑ Consult local and national accessibility codes for proper installation guidelines.
- ☑ Conformity and compliance to local and national codes is the responsibility of the installer.



Models (Must select one)

○ **Model 7805-016360**	16" x 36" Mirror
○ **Model 7805-018240**	18" x 24" Mirror
◉ **Model 7805-018300**	18" x 30" Mirror
○ **Model 7805-018360**	18" x 36" Mirror ***BradEX®***
○ **Model 7805-024300**	24" x 30" Mirror
○ **Model 7805-024360**	24" x 36" Mirror ***BradEX®***

Optional Features

Features	Suffix
○ ¼" tempered glass mirror in lieu of polished float glass mirror[1]	-2

[1] Optional feature is only available for select styles: 18" x 30", 18" x 36" and 24" x 36".

- ☑ An inherent characteristic of a manufacturing process for tempered glass is distortion which may vary from mirror to mirror.
- ☑ Bradley mirrors are not field interchangeable from horizontal to vertical or vice versa. Always specify width first.

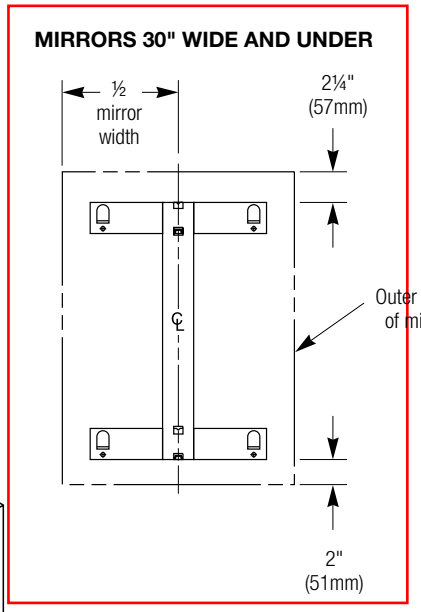
Orders composed of products indicated as ***BradEX®*** will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

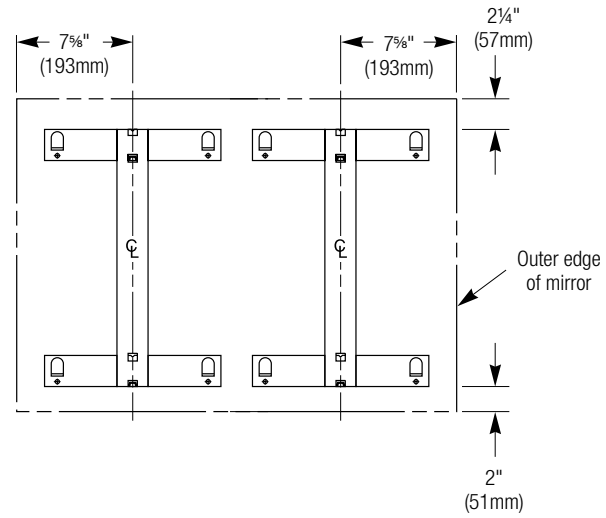
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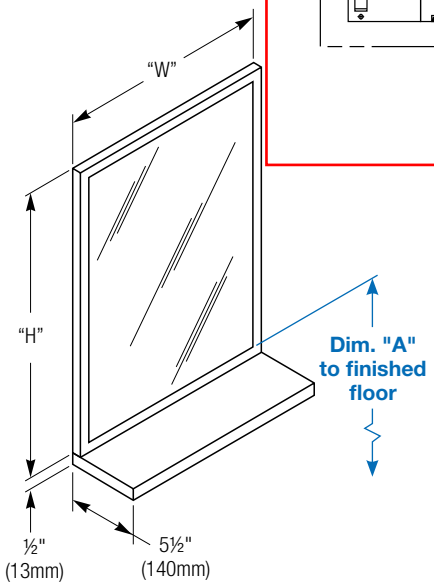
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7805
Angle-Frame Mirror Shelf

Dimensions







BradEX® Models

Width (Inches) W	Height (Inches) H	Overall Dimension (Inches)	Overall Dimensions (Millimeters)	Standard Model Number
18"	36"	18 x 36	457 x 914	7805-1836
24"	36"	24 x 36	610 x 914	7805-2436

Dim. "A" Key Surface:	For Dim. "A"	Bottom of Unit
Mirror's bottom edge of the reflecting surface to finished floor	40" (1016mm)	38¾" (984mm)
	37" (940mm)	35¾" (908mm)
	34" (864mm)	32¾" (832mm)
Rough wall opening:		
Surface Mount:	No rough wall opening, see overall dimensions	

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TA-7

250-15
Towel Dispenser

○ Model 250-15 — Surface-Mounted *BradEX*®

- ☑ C-Fold/Multi-Fold Towels
- ☑ Tumbler Lock



Product Materials

UNIT: 22-gauge stainless steel with exposed surfaces in architectural satin finish. Smooth corners, free of burrs and sharp edges. Tumbler lock keyed like other Bradley units. Cabinet hinged at bottom to allow easy filling. Refill indicator slot on face of cabinet. Rolled edge on dispenser opening.

Capacity

525 multi-fold or 400 C-fold paper towels.

Operation

Unit holds multi-fold or C-fold towels without use of special adapter.

Installation

Verify all rough-in dimensions prior to installation. Secure to wall with mounting screws (not included) at holes provided. Mounting kit (#899-027) available through Bradley. Visit bradleycorp.com for more information. Provide in-wall backing at mounting screw locations.

Guide Specification

Surface-mounted towel dispenser shall be fabricated of type heavy duty, 22-gauge stainless steel with exposed surfaces in satin finish. Refill indicator on face of cabinet. Tumbler lock to secure hinged front panel. Towel dispenser capacity 525 multi-fold or 400 C-fold towels.

Overall dimensions: 11"W x 15 5/16"H x 4"D.

ADA Compliant

- ☑ Consult local and national accessibility codes for proper installation guidelines.
- ☑ Conformity and compliance to local and national codes is the responsibility of the installer.

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TA-8

9B1 Series
Elvari™ Coat/Robe Hook

Key Features

- High quality and modern style complements other Elvari™ products
- Robust 14-gauge design
- 50 lb load rating
- No visible welds or mounting hardware
- Common mounting, interchangeable hardware between single and double hooks

Guide Specification

Surface-mounted hook shall be fabricated of 14-gauge, 300 series stainless steel in a brushed #3 satin finish or optional electrocoat finishes. Fasteners, set screws, and hex key included.

Overall Dimensions - Single Hook:
2-3/4" H x 1-3/16" W x 1-11/16" D (69mm x 30mm x 42mm)

Overall Dimensions - Double Hook:
5-3/8" H x 1-3/16" W x 1-3/4" D (136mm x 30mm x 44mm)

MasterFormat Title: Commercial Toilet Accessories
MasterFormat Number: 10 28 13.13

OmniClass Title: Toilet and Bath Specialties
OmniClass Code: 23.31.25.00

Complementary Bradley Products

- Euro Style Partitions – Highrise Series
- Euro Style Partitions – Skyline Series
- Euro Style Partitions – Float Series
- Euro Style Partitions – Lucent Series
- Euro Style Partitions – Loft Series



9B1-1100
Single Hook



9B1-1102
Double Hook

Finishes

☑ *Click on any color swatch to view as a larger image.*

- Brushed Black*
- Brushed Brass*
- Brushed Bronze*
- Brushed Nickel*
- Brushed Stainless*
- Satin Stainless

*Electrocoat Finishes, see Optional Electrocoat Finishes section on page 2.

Product Compliance

Listed by UL Environment to

- GreenGuard Gold

For information on Warranties, Maintenance and BAA/ARRA Compliance, visit our website at: bradleycorp.com/washroom-accessories-products

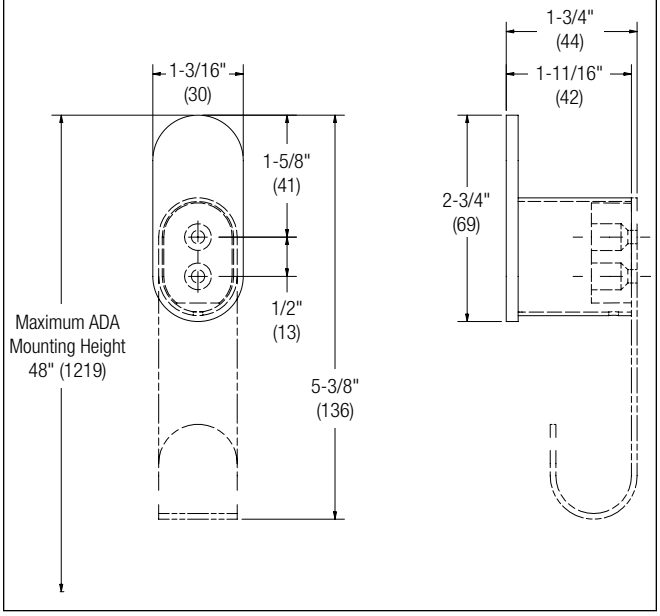
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9B1 Series
Elvari™ Coat/Robe Hook

Dimensions (mm)



Models (Must select one)	
◉ **9B1**	Elvari Coat/Robe Hook
Standard Selections (Must select one from each category)	
Mounting (select one)	
◉ **11**	Surface Mounted
Hooks (select one)	
◉ **00**	Single Hook
○ **02**	Double Hook
Hook Finish Type (Must select one)	
○ **BB**	Brushed Black
○ **BR**	Brushed Brass
○ **BZ**	Brushed Bronze
○ **BN**	Brushed Nickel
◉ **BS**	Brushed Stainless
○ **SS**	Satin Stainless [1]

[1] Models with Hook Finish Type SS are available with ***BradEX***® expedited shipping.

Optional Electrocoat Finishes

Bradley offers an exclusive, proprietary electrocoat color process on the Elvari coat/robe hook models. Unlike powder coating, color is applied to the entire stainless steel part using a submersion process with electrically charged particles. This process results in a precise film thickness across all surfaces, allowing the grain of the stainless steel to show through.

Electrocoat provides complete coverage to the part and has environmental advantages such as no or low-VOC and HAPs (Hazardous Air Pollutants), heavy metal-free products, and minimum waste discharge. Bradley's electrocoat is durable and easy to clean as well as fingerprint, stain and corrosion resistant. A UV light stabilizer additive enhances resistance to weathering and color fade.

Products are performance tested for adhesion following ASTM D3359-22 and impact resistance following ASTM D2794.

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TA-9

9933, 9934

Utility Shelf

- (●) Model 9933 – 4 Hooks/3 Holders **Bradex®**
- ( ) Model 9934 – 5 Hooks/4 Holders



Product Materials

SHELF AND BRACKET: 18 gauge stainless steel with exposed surfaces in architectural satin finish.

HOOKS: 14 gauge stainless steel

HOLDERS: spring-activated rubber cams on plated steel retainers. Will hold a mop or broom handle with a diameter between 5/8" and 1".

Operation

Weight of mop or broom holds handle in place.

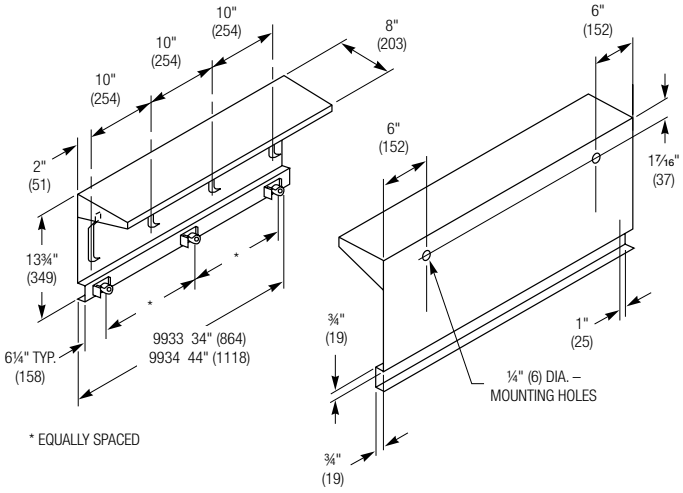
Installation

Verify all rough-in dimensions prior to installation. Secure to wall with mounting screws (included) at holes provided.

Guide Specification

Surface mounted utility shelf shall be fabricated of 18 gauge stainless steel in satin finish. Hooks shall be of 14 gauge stainless steel. Holders shall be with spring-activated rubber cams.

Dimensions (mm)



Orders composed of products indicated as **Bradex®** will be available to ship in three days after receipt of order at the factory. There is no pricing penalty for this service from Bradley.

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TA-11 TA-12

PHENOLIC PEDESTAL

Pedestal Bench – Phenolic

- Highly attractive design
- Phenolic stands up to extreme moisture and humidity
- Made from decorative laminate with solid black phenolic core
- Impact, water, and corrosion-resistent
- Wide range of sizes, tiers, colors, and options
- 10-year warranty against warping or delamination of material*



Construction - Standard Features

Bench Top

Constructed of ¾" thick solid Phenolic panels.

Pedestal

16¼" H, 16-gauge, black powder-coated steel, 2⅜" diameter. Anchored to floor and bench top with hardware provided.

ADA Back Support

Constructed of ¾" thick solid Phenolic panels. Available on 24" x 48" bench only for ADA compliance. Attached with ⅜" stainless steel L-angle brackets.

Length

24" to 96" in 1 foot increments (custom sizes available).

Width

9½", 12", 18" or 24" depth (custom sizes available).

Height

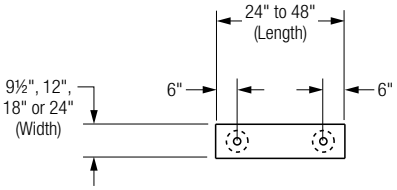
17" height (ADA compliant).

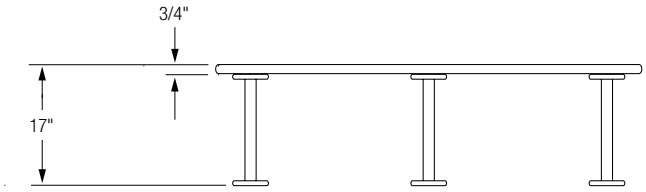
Product Compliance

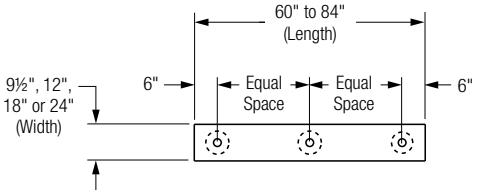
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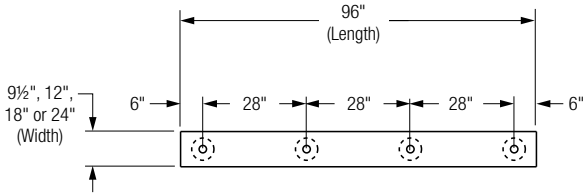
- GreenGuard Gold

Dimensions









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PHENOLIC PEDESTAL

Pedestal Bench – Phenolic

Model	Description
◉ **PHENOLICPEDESTAL**	Pedestal Bench

Required Selections (Must select one from each category)

Length (select one):

○ **24**	24" Long Bench	
○ **36**	36" Long Bench	NON-ADA
◉ **48**	48" Long Bench	ADA
○ **60**	60" Long Bench	
○ **72**	72" Long Bench	
○ **84**	84" Long Bench	
○ **96**	96" Long Bench	
○ **CUSTOM**	____" Long Bench (Min 24", Max 96", in 1" increments)	

Width (select one):

○ **0095**	9½" Wide Bench	NON-ADA
○ **0120**	12" Wide Bench	
○ **0180**	18" Wide Bench	
○ **0240**	24" Wide Bench	ADA
○ **CUSTOM**	____" Wide Bench (Min 10", Max 24", in 1" increments)	

Locker Color (select one):

NOTE: Click on any swatch to view as a larger image.

○ **7949 - ASIAN NIGHT**		○ **4623 - GRAPHITE NEBULA**	
○ **1595 - BLACK**		○ **7975 - RAW CHESNUT**	
○ **4820 - CARBON EV**		○ **D96 - SHADOW**	
○ **D381 - FASHION GRAY**		○ **4876 - SHEER MESH**	
○ **8229 - FRISTON ASHE**		○ **D91 - SLATE GRAY**	
◉ **1573 - FROSTY WHITE**			

○ **CUSTOM** _____Custom Wilsonart Phenolic Color

Hardware Type (select one):

◉ **STD**	Standard Pedestals and Hardware

Back Support Type (select one):

○ **NONE**	No Back Support	NON-ADA
◉ **ADA**	ADA Back Support [1]	ADA

[1] Only available with Length 48 and Width 24.

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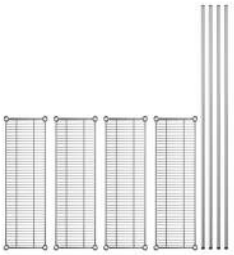
Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 460SW1236K64

Regency Spec Line

Regency Spec Line 12" x 36" x 64" NSF Stainless Steel 4-Shelf Kit

#460SW1236K64







Technical Data

Length	36 Inches
Width	12 Inches
Height	64 Inches
Post Height	64 Inches
Assembly Options	Assembly Required
Capacity	2800 lb.
Capacity (per Shelf)	700 lb.
Casters	Without Casters
Color	Silver
Features	NSF Listed

Features

- 304 stainless steel finish is corrosion resistant and suitable for both wet and dry environments
- (4) 12" x 36" shelves accommodate up to 700 lb. each of evenly distributed weight
- (4) 64" stationary posts allow for shelves to be adjusted; foot included and required for use
- Includes 16 pairs of split sleeves
- Wire design promotes proper air flow around stored products

Certifications

NSF Listed

© 2025 Regency Spec Line

Technical Data

Finish	Stainless Steel
Material	Stainless Steel
Number of Shelves	4 Shelves
Shelving Style	Office Storage
Stainless Steel Type	Type 304
Style	Stationary Wire
Type	Shelving Kits
Usage	All Environments Dry Environments Garage Kitchens Moist Environments Outdoor Stock Rooms Walk-Ins Warehouse

Notes & Details

Keep your storage area organized with this Regency Spec Line 12" x 36" NSF stainless steel 4-shelf kit with 64" posts. This kit includes (4) 12" x 36" wire shelves and (4) 64" posts, which allow you to create a convenient storage solution for your restaurant, hotel, bar, warehouse, or garage. Since this shelving unit has a sleek stainless steel finish that's corrosion-resistant for maximum versatility and increased longevity, it's the perfect choice for use in any dry or wet storage or display environment. Able to accommodate an impressive 700 lb. of evenly distributed weight, this unit's shelves can be used for displaying everything from lightweight boxes of pastries to heavier items like cans of ingredients. Plus, the posts include adjustable leveling feet to make it easy to accommodate slanted, uneven surfaces.

The kit boasts an attractive wire construction that works well in front-of-house merchandising as well as display spaces in your boutique, market, or other business venue. Its wire shelves also do a great job of facilitating proper air flow around your stored supplies, helping to prolong the shelf life of food. Plus, since the posts are marked in regularly-spaced intervals and use a split sleeve system of assembly, the shelves are easy to move higher or lower depending on your organizational needs. This kit is especially great for expanding businesses whose needs evolve as their product inventory expands!

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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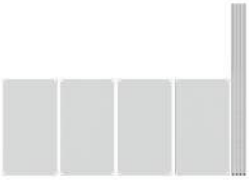
Project: _____ Date: _____ Approval: _____ Qty: ____ Item #: 460SS2442K74

Regency Spec Line

Regency Spec Line 24" x 42" x 74" NSF Solid Stainless Steel Stationary Shelving Starter Kit with 4 Shelves

#460SS2442K74







Technical Data

Length	42 Inches
Width	24 Inches
Height	74 Inches
Assembly Options	Assembly Required
Capacity	2800 lb.
Capacity (per Shelf)	700 lb.
Casters	Without Casters
Color	Silver
Features	NSF Listed
Finish	Stainless Steel

Features

- (4) 24" x 42" shelves with 16 pairs of split sleeves
- (4) 74" stationary posts allow for shelves to be adjusted with included feet
- 18 gauge, stainless steel finish is corrosion-resistant; suitable for both wet and dry environments
- Accommodates up to 700 lb. per shelf of evenly distributed weight
- Mix and match with Regency Spec Line accessories (sold separately) to personalize your kit

Certifications

NSF Listed

© 2025 Regency Spec Line

Technical Data

Gauge	18 Gauge
Material	Stainless Steel
Number of Shelves	4 Shelves
Style	Adjustable Solid Stationary
Type	Shelving Kits
Usage	All Environments Dry Environments Garage Kitchens Moist Environments Outdoor Stock Rooms Walk-Ins Warehouse

Notes & Details

Keep your storage area organized with this Regency Spec Line NSF solid stainless steel stationary shelving starter kit. This kit includes (4) 74" stationary posts, (4) 24" x 42" shelves, and (16) pairs of split sleeves. This versatile unit allows you to create a convenient storage solution for your janitorial closet, warehouse, or walk-in cooler. The 18 gauge stainless steel finish resists corrosion to ensure long-lasting use, and it is suitable for both wet and dry environments, making the unit a multi-purpose investment that's sure to accommodate your ever-evolving needs. Plus, the unit's high-quality design is commercial grade and delivers the reliable performance every business expects and needs.

Unlike wire shelving where small components may slip through the cracks or leaking packages may contaminate products on lower shelves, these solid shelves allow you to confidently store products of any type and size, and each shelf accommodates up to 700 lb. of evenly distributed weight. For your convenience, the shelves are also adjustable and can be moved higher or lower along the posts. Mix and match with Regency Spec Line accessories (sold separately) to personalize your kit! This shelving unit requires assembly.

⚠ **WARNING:** This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

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Standard Flammable Storage Cabinet - Manual Doors, Yellow, 45 Gallon



More Images & Video

Ensure safety and provide storage for your flammable liquids.

- Double wall 18-gauge steel.
- 350 lb. shelf capacity. Adjustable shelves.
- Sloped shelves safely direct spills away from containers.
- Recessed paddle handle, can be used with padlock.
- Continuous piano hinge provides smooth closure.
- Adjustable leveling feet for uneven surfaces.
- Meets NFPA, IFC and OSHA standards. FM approved.
- **Yellow** - For aerosols, gasoline and flammable liquids.
- Self-Closing Cabinet - Required in certain states and municipalities.

SPECIFY COLOR:

MADE IN THE USA - 10 YEAR WARRANTY

MODEL NO.	DESCRIPTION	OUTSIDE DIM. W x D x H	CAP. (GAL.)	NO. OF SHELVES	WT. (LBS.)	PRICE EACH 1	PRICE EACH 2+	COLOR	IN STOCK SHIPS TODAY
H-1564M-Y	Standard	43 x 18 x 65"	45	2	291	$1,260	$1,230	Yellow	1 ADD

SHIPS ASSEMBLED VIA MOTOR FREIGHT

Additional Info | Parts/Accessories | Shopping Lists | Request a Catalog

STOCK MOULDING PROFILES

Clear Pine – FJP

BED

APPROXIMATE COVERAGES

CEILING	1 1/8"	1"	1 1/2"	1 7/8"
WALL	1 3/8"	1 1/8"	1 11/16"	2 1/16"

8016 BED WM74 — 9/16 x 1 3/4
8017 BED — 9/16 x 1 1/2
8018 BED WM72 — 9/16 x 2 1/4
8019 BED WM70 — 9/16 x 2 3/4

CORNICE

APPROXIMATE COVERAGES

CEILING	1 1/2"	2 1/8"	1"
WALL	1 5/8"	2 1/2"	1 3/8"

8624 CORNICE — 9/16 x 2 1/4
8623 CORNICE — 9/16 x 3 1/4
8622 CORNICE — 9/16 x 1 3/4

CROWN

APPROXIMATE COVERAGES

CEILING	1 7/8"	2 1/4"	2 1/8"	2 1/16"	2 3/16"	3 3/4"
WALL	2"	2 1/4"	2 7/8"	3 11/16"	4 1/16"	3 11/16"

8003 CROWN — 9/16 x 2 3/4
8000 CROWN WM57 — 9/16 x 3 1/4
8002 CROWN — 9/16 x 3 5/8
8006 CROWN — 11/16 x 4 1/4
8005 CROWN — 11/16 x 4 5/8
8004 CROWN — 11/16 x 5 1/4

APPROXIMATE COVERAGES

CEILING	1 7/8"	2 7/16"	2 9/16"	3 11/16"
WALL	2"	2 5/8"	3 7/8"	3 1/2"

8010 CROWN WM52 — 9/16 x 2 3/4
8009 CROWN LWM49 — 9/16 x 3 5/8
8013 CROWN WM47 — 11/16 x 4 5/8
8027 CROWN FJP Only — 11/16 x 5 1/4
8047 CROWN — 1 1/16 x 2 1/2

CORNER

8238 CORNER WM204 — 1 5/16 x 1 5/16
8200 CORNER — 1 1/16 x 1 1/16
8240 WM206 — 3/4 x 3/4
8440 WM999 — 5/16 x 1

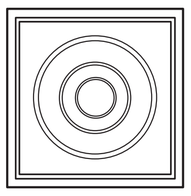
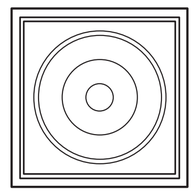
SCOTIA

8059B — 1/2 x 1/2
8059 — 1/2 x 7/8
8062 WM96 — 5/8 x 3/4
8060 WM95 — 11/16 x 7/8
8061 WM94 — 11/16 x 1 1/8
8052 WM100 — 11/16 x 11/16

PICTURE

8263 WM273 — 11/16 x 1 3/4
8288 — 11/16 x 1 3/8

CASING (Rosette)

B150B ROSETTE 1 1/16 x 2 7/8
B160A ROSETTE 1 1/16 x 3 1/2
B150A ROSETTE 1 1/16 x 3 1/2
B160 ROSETTE 1 1/16 x 4 1/2
B150 ROSETTE 1 1/8 x 4 5/8

COVE

APPROXIMATE COVERAGES

CEILING	1 3/16"	1 9/16"	1 7/8"
WALL	1 1/4"	1 5/8"	2"

8024 COVE WM85 — 9/16 x 1 3/4
8025 COVE — 11/16 x 2 1/4
8026 COVE — 11/16 x 2 3/4

DRIP CAP

923 DRIP CAP WM196 FJP Only — 11/16 x 1 3/4

CASING

37 CASING WM316 — 11/16 x 2 1/4
8730 CASING WM315 — 11/16 x 2 1/2
8731 CASING WM448 — 11/16 x 3 1/2
8308 1 ROUND CORNER CASING LWM412 — 11/16 x 3 1/2
8308 2 ROUND CORNER CASING WM412 — 11/16 x 3 1/2
8627 CASING WM472 — 9/16 x 2 1/2
8710 CASING WM351 — 11/16 x 2 1/2
8725 CASING — 11/16 x 2 1/2
8740 CASING WP320 — 11/16 x 2 1/2
1266 CASING WM366 — 11/16 x 2 1/4
8753 CASING WM361 — 11/16 x 2 1/2
8753A CASING — 11/16 x 3 1/2
8754 CASING WM444 — 11/16 x 3 1/2
B100 BELLY BAND CASING 11/16 x 4 1/4
B225 STAFFORD CASING 11/16 x 3 1/2
FJP Only B300 BABY WINDSOR CASING 3/4 x 2 1/2
B200 WINDSOR CASING 1 1/16 x 3 1/2

DENTIL

B39 DENTIL 7/16 x 2

PILASTERS

S14 PILASTER 1 1/8 x 5 1/2 FJP Only — 11/16
S15 PILASTER 1 1/8 x 7 1/4 FJP Only — 1 1/8

HAND RAIL

75 WM231 HAND RAIL 1 1/2 x 1 11/16
76 LWM240 HAND RAIL 1 1/4 x 2 1/4

CLOSET POLE

8911 CLOSET POLE 1 1/16
8912 WM233 CLOSET POLE 1 5/16
8913 CLOSET POLE 1 1/2

BAND

8180 BAND 11/16 x 2 1/2
B608 BAND 7/16 x 1 1/16
8462 BAND 11/16 x 1 1/8
8463 BAND 11/16 x 1 1/2
8465 BAND 11/16 x 1 3/4
8469 BAND 11/16 x 1 3/4
8470 BAND 11/16 x 1 1/2
8471 BAND 11/16 x 1 1/4

CASING (Mullion)

1310 CASING LWM972 — 5/16 x 2

SHELF CLEAT

8242 — 11/16 x 1 1/2

CHAIR RAIL

8308 2 ROUND CORNER CHAIR RAIL 11/16 x 3 1/2 WM412
8630 CHAIR RAIL 11/16 x 2 1/2
8627 CHAIR RAIL 9/16 x 2 1/2 WM472

T-ASTRAGAL

1 3/4" x 7' 1 1/4" x 2 1/4" ASTRAGAL — M4790 LWM1300
1 3/8" x 7' 1 1/4" x 2" ASTRAGAL — M4789 LWM1305

ASTRAGAL (Flat)

8171 WM133 ASTRAGAL (Flat) — 11/16 x 1 3/4

FLAT CASING

8993 — 1 1/16 x 3 1/2
8995 FJP Only — 1 1/16 x 5 1/4
8997 FJP Only — 1 1/16 x 7 1/4
Cape Cod Casing FJP Only — 11/16 x 4 1/2

PANEL

8035 — 11/16 x 7/8
8451 — 7/16 x 1 1/8
8161 — 3/8 x 1
8570 WM147 — 1/2 x 9/16
B636 PANEL — 5/8 x 2 1/4
8138 PANEL WM978 — 3/8 x 1 3/4
613 PANEL STOCK 7/16 x 3 1/2
612 PANEL STOCK 7/16 x 2 1/2

STAFF BEAD

908 STAFF BEAD WM180 BRICKMOULD — 1 1/4 x 2
B691 STAFF BEAD — 1 3/8 x 1 1/2

LATTICE

B638 LATTICE/PANEL — 3/8 x 1 3/4
8628 LATTICE/PANEL — 3/8 x 2 1/4
8280 LWM268 — 1/4 x 1 1/8
8281 LATTICE LWM267 — 1/4 x 1 5/16
8282 LATTICE LWM265 — 1/4 x 1 5/16

SCREEN STOCK and MOULDINGS

8139 — 5/16 x 5/8
8140 — 3/8 x 3/4
8610 WM142 — 1/4 x 3/4
8611 WM144 — 1/4 x 3/4
8770 SCREEN STOCK — 1 1/16 x 1 3/4
8767 SCREEN STOCK — 11/16 x 1 3/4

SHELF EDGE

8610 WM142 — 1/4 x 3/4
8611 WM144 — 1/4 x 3/4

GLASS BEAD

8590 — 3/8 x 1/2
B672 — 3/8 x 7/8

CLEAR STRIP (S4S)

8614 S4S — 11/16 x 1 3/4

BALUSTER STOCK

1 5/8	8902 WM236	
1 5/16	8901 WM237	
1 1/16	8900 WM238	

QUARTER ROUND

8057 WM110 — 1/4
8058 WM109 — 3/8
8063 WM108 — 1/2
8064 WM107 — 5/8
8065 WM105 — 3/4
8066 — 7/8
8067 WM104 — 11/16 x 1 3/8

HALF ROUND

8070 WM124 — 1/4 x 1/2
8076 WM123 — 5/16 x 5/8
8077 WM122 — 3/8 x 11/16
8078 WM120 — 1/2 x 1
8079 — 5/8 x 1 1/4
8080 — 11/16 x 1 5/8

STOPS

8093A STOP 3/8 x 2 1/2
8093B STOP 3/8 x 4 1/4
8093C STOP 3/8 x 3 5/8
8095 STOP 3/8 x 1 5/8
8096 STOP 3/8 x 1 5/16
8090 STOP WM945 3/8 x 1 5/8
8098 STOP WM947 3/8 x 1 1/4
8099 STOP 3/8 x 7/8
8104 STOP 3/8 x 1 3/4
8590 (glass bead) 3/8 x 1/2
8120 STOP 3/8 x 1 5/8
1287 STOP LWM856 3/8 x 1 5/16
1287A STOP 3/8 x 1 5/8
B877 STOP WM877 7/16 x 1 1/4

STOOL CAP

8669B STOOL CAP 11/16 x 4 1/4 for BROSCO Window Units 6 9/16 Wall
1268B STOOL CAP LWM1156 11/16 x 2 1/4
1275 STOOL CAP 11/16 x 2 for BROSCO Window Units 4 9/16 Wall
1268A STOOL CAP 11/16 x 3 1/2
1280 STOOL CAP 1 1/16 x 5 7/16 6 9/16 Wall
1274 STOOL CAP 11/16 x 5 3/16 6 9/16 Wall
1276 STOOL CAP 11/16 x 4 for BROSCO Window Units 6 9/16 Wall

BASE

8385A BASE 9/16 x 3 1/2 WM662
8385B BASE 9/16 x 4 1/2
8712 BASE 9/16 x 3 1/2 WM622
8712B BASE 9/16 x 4 1/4 WM620
8712A BASE 9/16 x 3 1/4 WM623
B688 BASE 9/16 x 4 1/4
8720 BASE 9/16 x 3 1/2 WM712
8721 BASE 9/16 x 4 1/2 WM709
B400 SPEED BASE 9/16 x 5 1/4 FJP Only

APRON

8645 APRON 9/16 x 2 1/2
1269 APRON 5/8 x 2 1/2
8642 APRON 5/8 x 3 1/2

WINDOW SILL (Treated & Primed A-Grade)

TRADITIONAL SILL 1 1/4 x 6 1/4
559 SILL 1 1/4 x 6 1/4

PARTING BEAD

8432 WM254 — 1/2 x 3/4
8436 — 3/8 x 3/4

WALL

8535 — 5/8 x 7/8

CHAMFER STRIP

B995 WM995 — 3/4 x 3/4

NOSING

8575 — 3/8 x 1/2
8144 NOSING — 11/16 x 1 3/4

OAK NOSING

OAK NOSING — 3/4 x 1 1/4
OAK NOSING — 3/4 x 4 1/4
OAK NOSING — 1 1/32 x 1 1/4
RABBETED OAK NOSING — 1 1/32 x 3 1/2
RABBETED OAK NOSING — 1 1/32 x 5 1/4

OAK BASE SHOE

OAK B-2007 — 3/4 x 1

OAK SCOTIA

OAK B-6124 — 1/2 x 11/16

BASE MOULDING

B660 — 11/16 x 1 1/2
B665 — 1/2 x 3/4
B658 — 9/16 x 1
8453 — 11/16 x 1 1/8
8455 WM163 — 11/16 x 1 3/8

BACK BAND

8313 WM280 BACK BAND — 11/16 x 1 1/16

CARPET STRIP

8427 — 5/8 x 3/4
8423 — 1/2 x 3/4
8422 LWM127 — 7/16 x 3/4

FENCE CAP

8276 FENCE CAP 1 1/8 x 1 3/4 — 3/4" Dado

CAP

B662 CAP — 11/16 x 1 3/8
B670 CAP WM294 — 11/16 x 1 1/8
B671 CAP — 3/4 x 3/4

KEY
✦ = Also Available Finger-Joint & Primed (FJP)

All Patterns are available clear unless otherwise indicated.

Building Our Futures Together

Hatfield, MA – Portland, ME – Wilmington, MA

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EKENA MILLWORK

Standard Diane Architectural Grade PVC Corbel, 3"W x 6"D x 10"H

Mfr # CORP03X06X10DIA Zoro # G004686375

0 ratings | Write a Review

$27.85 /ea

Size (Width x Depth x Height): 3"W x 6"D x 10"H

3"W x 6"D x 10"H

Delivering to 24501

Ships in 10 business days

In Stock

− 1 +

Add to Cart

Subtotal: **$27.85**

Free Shipping on orders over $50 after you sign in

Free 30-Day Returns

Shipping & Returns

Brand EKENA MILLWORK

MFR # CORP03X06X10DIA

Zoro # G004686375

Country of Origin United States

Category Architectural Brackets, Braces, Corbels & Outlookers

Dimensions

Size (Width x Depth x Height)	3"W x 6"D x 10"H

Details

Item	Corbel
Design	Standard Diane

Description

Whether it is new construction, remodeling, a historic restoration, or just adding a special touch, our PVC corbels offer a distinctive decorative element with impressive beauty. PVC offers crisp detail and durability for interior and exterior applications. Choose from authentic historical designs, popular classic profiles, or new modern silhouettes that are sure to fit any style. Custom product fabrication from photos, sketches or drawings; you dream it, we build it. PVC corbels can be used on both interior and exterior projects

- Durable PVC corbels are a great no-rot alternative to wood corbels
- They can easily be screwed, nailed, or glued for strong, secure installations
- Decorative PVC corbels come in a variety of different styles and sizes
- We can make any custom product working from a photo, sketch, or plans. Our PVC corbels arrive primed and ready to paint

Documents & Resources

Technical Guide 1

Technical Guide 2

Restrictions

WARNING: Cancer and Reproductive Harm For more information go to www.P65Warnings.ca.gov

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Need Help?

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Frequently Asked Questions

Contact Us

Ratings & Reviews

★★★★★ (0 ratings)

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Compare



EKENA MILLWORK

Thorton Architectural Grade PVC Outlooker with Block Ends, 5"W X 12"D X 14"H

Mfr # OUTP05X12X14THR05 Zoro # G104703552

0 ratings | Write a Review

$74.99 /ea

Size (Depth x Height): 12"D X 14"H

12"D X 14"H | 14"D X 14"H | 24"D X 24"H | 24"D X 32"H | 36"D X 36"H

Width: 5"W

5"W | 7"W

Delivering to 24501

Ships in 10 business days

In Stock

− 1 +

Add to Cart

Subtotal: **$74.99**

Free Shipping on orders over $50 after you sign in

Free 30-Day Returns

Shipping & Returns

Key Features

Size (Width x Depth x Height)	5"W X 12"D X 14"H
Design	Thorton

See all product information

Get a 10% off coupon
Join our email list

Free 30-day returns
Return Policy

Get 30 days to pay with Net 30
Apply Now

Real support from real people
Contact our U.S. based team

Product Information | **Reviews**

Product Information

Brand EKENA MILLWORK

MFR # OUTP05X12X14THR05

Zoro # G104703552

Country of Origin United States

Category Architectural Brackets, Braces, Corbels & Outlookers

Dimensions

Size (Width x Depth x Height)	5"W X 12"D X 14"H
Size (Depth x Height)	12"D X 14"H
Width	5"W

Details

Design	Thorton
Item	Outlooker

Description

Whether it is new construction, remodeling, a historic restoration, or just adding a special touch, our PVC outlookers offer a distinctive decorative element with impressive beauty. PVC offers crisp detail and durability for interior and exterior applications. Choose from authentic historical designs, popular classic profiles, or new modern silhouettes that are sure to fit any style. Add beautiful architectural details to your home with cellular PVC outlookers. Our PVC outlookers are solid to the touch and have the look and feel of real wood. Perfect for both residential and commercial applications.
PVC outlookers can be used just like wood, with no maintenance
Sturdy PVC outlookers are perfect for under your entryway, portico, or roof eves
Light, durable, and easy to install, PVC outlookers last a lifetime
Decorative PVC outlookers come in a variety of different styles and sizes
Will not rot, split, warp or crack and is impervious to moisture
Hand-assembled and sanded, our white outlookers arrive ready to paint

Documents & Resources

Technical Guide 1

Technical Guide 2

Restrictions

WARNING: Cancer and Reproductive Harm For more information go to www.P65Warnings.ca.gov

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Need Help?

Our customer service team is here for you.

Frequently Asked Questions

Contact Us

Ratings & Reviews

(0 ratings)

Write the First Review

Cobra® RidgeRunner® Exhaust Vent for Roof Ridge

Remove excess heat and moisture from your attic and protect your roof system from premature deterioration



Filtered version shown

- Help reduce excessive attic heat and moisture and the risk of ice dams in the winter
- Avoid premature roof system degradation
- Limit the growth of harmful mold and mildew

GAF Cobra® RidgeRunner® Exhaust Vent for Roof Ridge

Cobra® RidgeRunner® Exhaust Vent for Roof Ridge



Benefits:

- **Allows heat and moisture to escape** at the most effective location—the ridge
- **NEW 30' (9.1 m) RidgeRunner® roll features** smooth roll-out and reduced spring-back/recoil for installation ease and enhanced finished appearance on the ridge
- **Fully nail-gunnable** plastic roll design—simply roll out and fasten with included corrosion-resistant ring shank coil nails
- **Sleek, low-profile design** with external baffles and internal crush-resistant structure
- **Engineered for durability** with high-impact UV-resistant polymers
- **Model with Weather Fighter® Filter** helps resist snow, pine needle, and insect infiltration while avoiding dust clogging—meets the requirements of ICC dust exposure testing.[1] **Non-filtered model also available** in warmer climates.
- **Unique EasyTear® Sizing Feature** allows you to hand-tear the vent in 12" (305 mm) increments—less cutting and less waste
- **Eligible for up to a Lifetime† Limited Warranty.** It's also an eligible accessory product in the Attic Ventilation category of GAF residential enhanced warranties.

Balanced Attic Ventilation:

Balanced attic ventilation means an equal amount of air entering and exiting it. The amount of exhaust ventilation must **never** exceed the amount of intake ventilation at the soffits or eaves. GAF recommends a minimum of 1 sq. ft. of net free ventilation for every 300 sq. ft. of attic floor space. Always consult local building codes for specific ventilation requirements.

How Much Do I Need?

Measure the total square footage of attic floor space and then review the chart below to calculate how much Cobra® RidgeRunner® Exhaust Vent for Roof Ridge is needed:

Total attic sq. footage	Recommended length of Cobra® RidgeRunner® Exhaust Vent (ft.)	Minimum intake ventilation (net free area in sq. in.)
1600	31	388
1900	37	463
2200	43	533
2500	48	600
2800	54	675
3100	60	750
3400	66	825

Note: Chart above based on 1/300 rule. Always have a balanced attic ventilation system. In no case should the amount of exhaust ventilation at or near the ridge exceed the amount of intake ventilation at or near the soffits. **Visit gaf.com/ventcalculator** for more details.



To learn more about the Lifetime Roofing System visit **gaf.com/Lifetime**

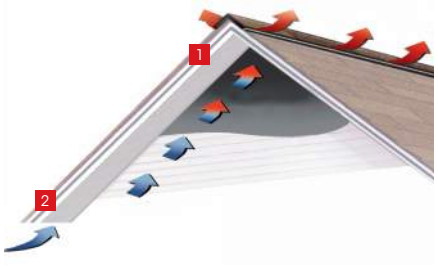
Product details:

Models for use in all climates

- Roll size: 11.5" x 30' (292 mm x 9.1 m)
- Model with WeatherFighter® Filter available in all areas (non-filtered model available in warm climates less prone to snow)
- For use with 12" (305 mm) width ridge caps shingles
- 12.5 sq. inches per linear foot (26,458 mm² per linear meter) of net free ventilating area
- Nail gun installation with included 1 ¾" (44 mm) corrosion-resistant ring shank coil nails
- For roof pitches 3:12 to 16:12

Code Approvals & Standards:

- Miami-Dade County Product Control Approved
- State of Florida Approved
- UL ER15072-01
- Texas Department of Insurance Product Evaluation RV-29
- CCMC14083-R (filtered model only)
- UL Listed to ANSI/UL 790 Class C[2]



1. Warm, moist air escapes attic through **Cobra® RidgeRunner® Exhaust Vent for Roof Ridge** (installed under ridge cap shingles)
2. Fresh air enters attic through intake vent at or near the soffit

† Lifetime refers to the length of warranty coverage provided and means as long as the original individual owner(s) of a single-family detached residence [or eligible second owner(s)] owns the property where the qualifying GAF products are installed. For other owners/structures, Lifetime coverage is not applicable. Lifetime coverage on shingles requires the use of GAF Lifetime Shingles only. See the *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions. Visit gaf.com/LRS for qualifying GAF products. Lifetime coverage on shingles and accessories requires the use of any GAF Lifetime Shingle and at least 3 qualifying GAF Accessories. See the *GAF Roofing System Limited Warranty* for complete coverage and restrictions. For installations not eligible for the *GAF Roofing System Limited Warranty*, see the *GAF Shingle & Accessory Limited Warranty*. Visit gaf.com/LRS for qualifying GAF products.

[1] Tested in accordance with ICC AC132, Section 4.2.

[2] Refer to UL Online Certification Directory for actual assemblies.

GAF LIFETIME LIMITED WARRANTY TERM

GAF AMERICAN OWNED

WINNER 9 OUT OF 10 RECOMMENDED WOMEN'S CHOICE AWARD 2012-2024

We protect what matters most™

GAF

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ELT

Stationary Louvers Triangular And Trapezoidal Shapes Extruded Aluminum

RUSKIN
AUTHORITY IN AIR CONTROL

STANDARD CONSTRUCTION

Frame	6063T6 extruded aluminum. ELT louvers are constructed with standard or flange frames. Drainable head and jambs are not utilized so water penetration may vary from tested performance. When sloped sill frames are standard construction they may be utilized in Shape C, D, F, J and K configuration ELT shapes only.
Blades	6063T6 extruded aluminum.
Screen	5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
Finish	Mill.
Minimum Size	20"w x 16"h (508 x 406).
Maximum Size	Typically shall be 75 ft^2 (7m^2) per section, not to exceed 120"w x 90"h (3048 x 2286) or 90"w x 120"h (2286 x 3048). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.
Supports	Louvers may be provided with rear mounted hidden vertical blade supports (HVBS) that increase louver depth. Support depth varies depending on louver size, assembly configuration or windload.
Performance	Blade styles offered in ELT louvers are only performance tested in square louver configuration. ELT louver performance may difffer from comparably sized louver in standard configuration. ELT models are not licensed to bear the AMCA Seal for performance. * **See individual louver model spec sheet for more detailed construction information.** * **Drainable ELT louvers are fabricated with non-drainable head and jambs. Water performance may differ from test.**

FEATURES

ELT models offer:

- Architecturally styled hidden mullions for attractive appearance
- All aluminum construction for low maintenance and high resistance to corrosion

VARIATIONS

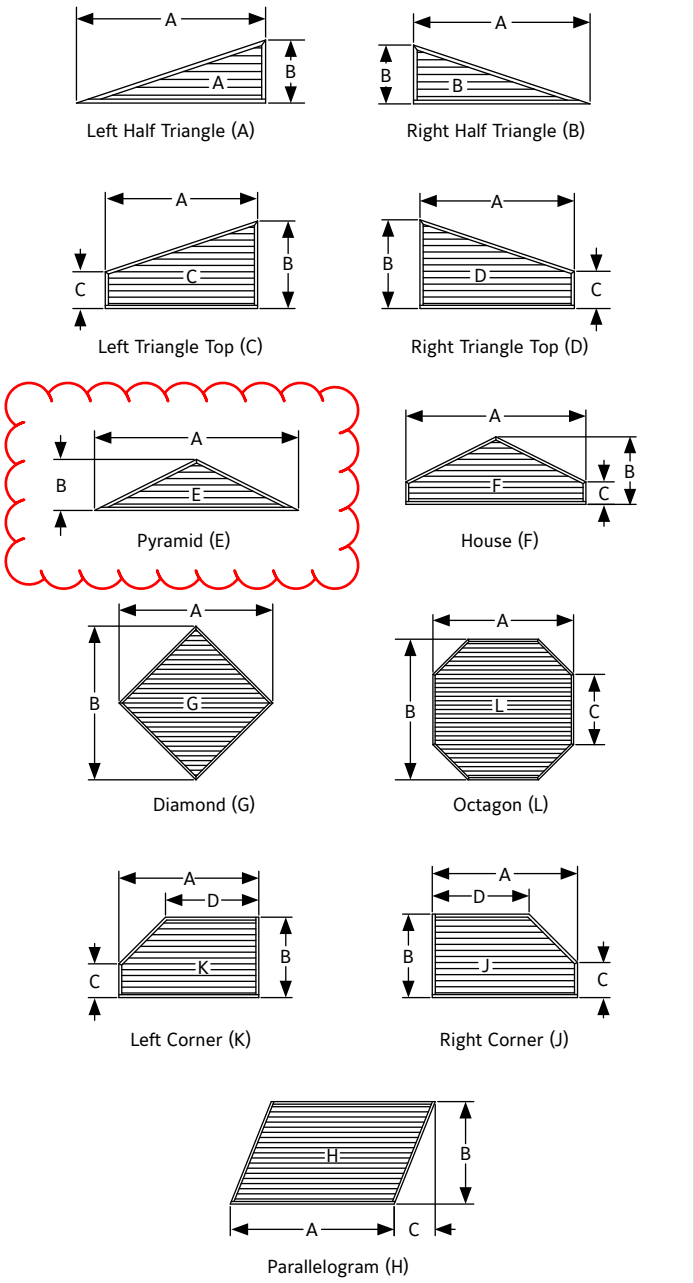
Variations to the basic louver design are available at additional cost. They include:

- Extended sill
- Glazing frames
- Flanged frame
- Hinged frame
- Filter racks
- Front or rear security bars
- A variety of bird and insect screens
- Optional finishes available at additional cost. Please see Paint Finishes and Color Guide and Finish Type Model Chart for more details. Contact louversales@ruskin.com with questions

NOTES:
- Dimensions in inches, parenthesis ( ) indicate millimeters.
- Units can be furnished actual size or with size deducts.

ALL STATED SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION.
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SHAPE OPTIONS



Louver Model	Frame Depth
ELF211	2″ (51)
ELF211D	2″ (51)
ELF375X/XH	4″ (102)
ELF375DX/DXH	4″ (102)
ELF445DX/DXH	4″ (102)
ELV40V	4″ (102)
ELF811DD	4″ (102)
ELF811SH	4″ (102)
ELF837	4″ (102)
ELF6350DMP	6″ (152)
ELF6375X/XH	6″ (152)
ELF6375DX/DXH	6″ (152)
ELF6811/6811S	6″ (152)
ELF6811DD	6″ (152)
EME220DD	2″ (51)
EME420DD	4″ (102)
EME3625	3″ (76)
EME6625	6″ (152)
EME6625D	6″ (152)
EME520MD	5″ (127)
EME420MD	4″ (102)
EME5625MD	5″ (127)

LINKS TO IMPORTANT DOCUMENTS

Document Title
Limited Warranty Document

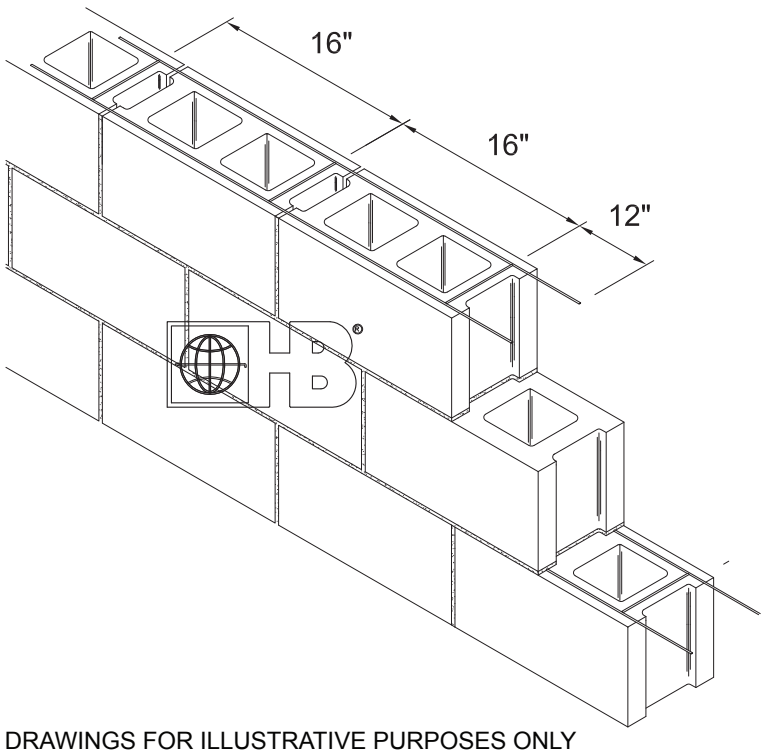
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Grandview, MO 64030
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Phone: (816) 761-7476

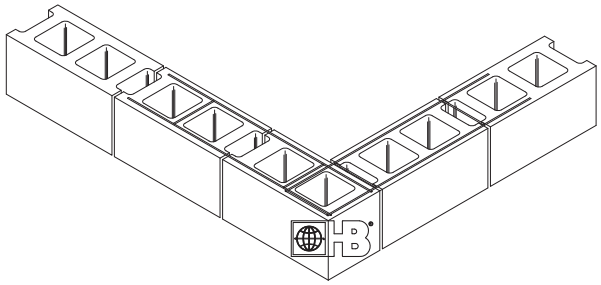
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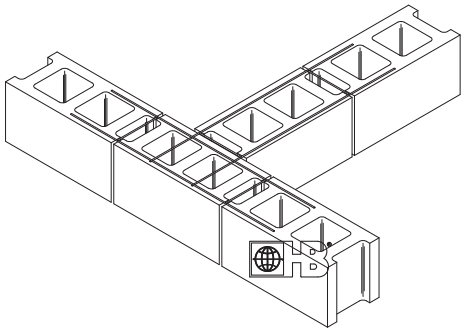
Lox♦All® Ladder Joint Reinforcement
220 Ladder-Mesh



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY



PREFABRICATED CORNER



PREFABRICATED TEE

MATERIAL CONFORMANCE
Hohmann & Barnard joint reinforcement products conform to:
ASTM A951/A951M (Standard Specification for Steel Wire for Masonry Joint Reinforcement)
ACI / ASCE 530 (Building Code Requirements for Masonry Structures)

Wire (Carbon Steel): Prefabricated from cold-drawn steel wire conforming to **ASTM A1064/A1064M**
Tensile Strength - 80,000 p.s.i. | Yield Point - 70,000 p.s.i. minimum
Zinc Coating:
Mill Galvanized coating: **ASTM A641/A641M** (0.1 oz/ft²)
Hot-Dip Galvanized after fabrication: **ASTM A153/A153M-B2** (1.5 oz/ft²)

Wire (Stainless Steel): **ASTM A580/ASTM 580M** - AISI Type 304 or Type 316

Wire Diameter:
9 gauge (.148" or W1.7) or 3/16"Ø (.187" or W2.8)
Side Rods and Cross Rods available in any combination of the above.
Cross welded 16" O.C.
First Cross Rods welded 12" in from each end to allow lap splices per code requirements.

H&B manufactures steel wire products from a minimum of 95% recycled material.

Finishes:

- ☐ Mill Galvanized Coating
- ☑ Hot-Dip Galvanized
- ☐ Stainless Steel - Type 304
- ☐ Stainless Steel - Type 316

Note: H&B recommends Stainless Steel for maximum protection against corrosion.

Wire Size (10' length standard, custom length available special order)**:**

- ☑ (S) Standard Weight: 9 Gauge Side Rods x 9 Gauge Cross Rods
- ☐ (EH) Extra Heavy: 3/16" Side Rods x 9 Gauge Cross Rods
- ☐ (SHD) Super Heavy Duty: 3/16" Side Rods x 3/16" Cross Rods

Block Size:

☐ 4"	☐ 6"	☑ 8"	☐ 10"
☐ 12"	☐ 14"	☐ 16"	

Note: For Corner or Tee, state width of block walls.

IMPORTANT: Since each construction project is unique, the appropriate selection and use of any product contained herein must be determined by competent architects, engineers and other appropriate professionals who are familiar with the specific requirements of the project in question.

HOHMANN & BARNARD, Inc.
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www.h-b.com

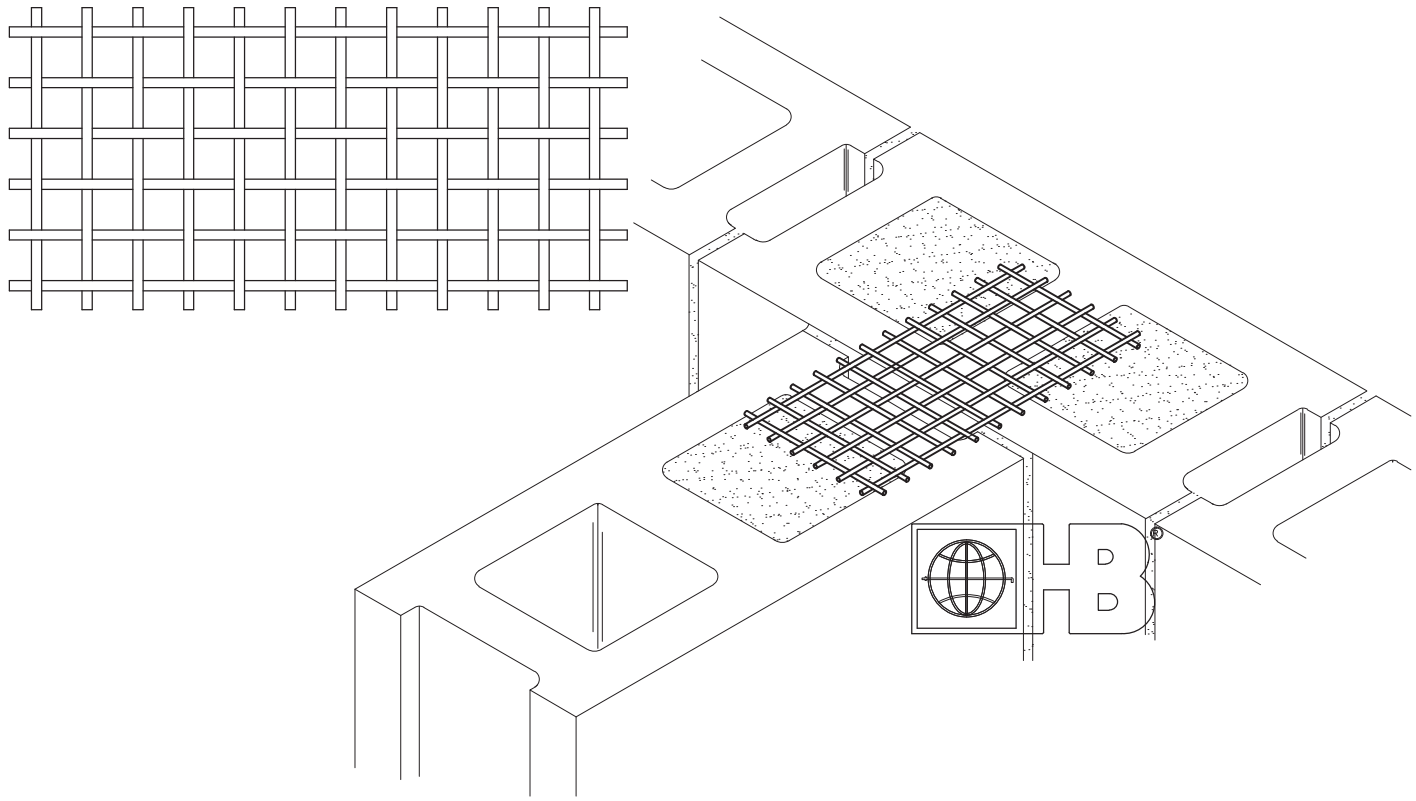
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A MiTek - BERKSHIRE HATHAWAY COMPANY

Ties & Anchors - Miscellaneous

MWT - Mesh Wall Tie



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

MWT - Mesh Wall Tie:
- For bonding intersecting masonry walls
- Conforms to ASTM A185

Dimensions:
- 1/2" square x 16 gauge
- Available in 100' rolls standard, width to suit
- Cut to any width or length required

Material Conformance
- Cold-drawn steel wire (ASTM A1064/A1064M)
- Hardware Cloth (ASTM A740)**:**
- Hot-Dip galvanized (ASTM A153/A153M-B2 Class B)
- Stainless Steel (ASTM E2016, Type 304)

Note: Hohmann & Barnard recommends Stainless Steel for maximum protection against corrosion.

FINISHES:
- ☑ Hot-Dip galvanized
- ☐ Stainless Steel

LENGTH (100' rolls standard,specify piece length below)**:**
- ☐ 8"
- ☑ 12"
- ☐ 100' roll (standard)
- ☐ Other _____

WIDTH (for roll or piece):
- ☐ 3" wide for 4" wall
- ☐ 4" wide for 6" wall
- ☐ 6" wide for 8" wall
- ☑ 8" wide for 10" wall
- ☐ 10" wide for 12" wall
- ☐ Other _____

GAUGES:
- ☑ 1/2" square x 16 ga. (Standard)
- ☐ 1/4" square x 23 ga.

IMPORTANT: Since each construction project is unique, the appropriate selection and use of any product contained herein must be determined by competent architects, engineers and other appropriate professionals who are familiar with the specific requirements of the project in question.

HOHMANN & BARNARD, Inc.
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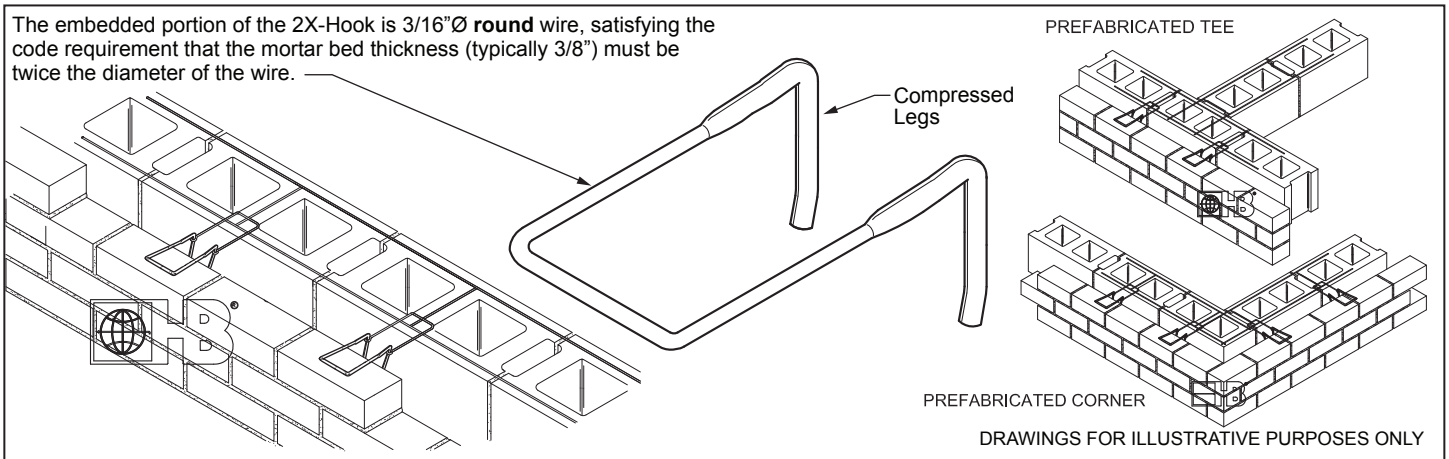
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Lox♦All® Adjustable Joint Reinforcement

270-2X Ladder Eye-Wire

Adjustable Reinforcement with 2X-Hook



Hohmann & Barnard's 2X-Hook has been tested and designed to withstand over 200-lbf, in tension or compression, at maximum allowed offset (TMS 402/ACI 530 6.2.2.5.5.4) of 1¼" (disengagement of the pintle from the veneer anchor). These results exceed BIA recommendations and the capabilities of standard "round wire" hooks/pintles by over 100%, while maintaining the ASTM A1064/1064M wire specification.

EYE-WIRE WITH 2X HOOKS (WORKING LOAD*)

CAVITY	0" OFFSET	⅝" OFFSET	1 ¼" OFFSET	TEST
4 ½"	807#	478#	237#	TENSION
4 ½"	709#	487#	288#	COMPRESSION
7 ½"	851#	488#	266#	TENSION
7 ½"	700#	463#	288#	COMPRESSION

* WORKING LOAD DETERMINED AT .05" DEFLECTION

Tests were completed for 3" and 6" insulation with 1 ½" air cavity.

MATERIAL CONFORMANCE
Hohmann & Barnard joint reinforcement products conform to:
ASTM A951/A951M (Standard Specification for Steel Wire for Masonry Joint Reinforcement)
ACI / ASCE 530 (Building Code Requirements for Masonry Structures)

Wire (Carbon Steel): Prefabricated from cold-drawn steel wire conforming to **ASTM A1064/A1064M**
Tensile Strength - 80,000 p.s.i. | Yield Point - 70,000 p.s.i. minimum
Zinc Coating:
Hot-Dip Galvanized after fabrication: **ASTM A153/A153M-B2** (1.5 oz/ft²)
Wire (Stainless Steel): **ASTM A580/ASTM 580M** - AISI Type 304 (Type 316 available on special order)

Eye-Wire Diameters/Dimensions:
9 gauge (.148" or W1.7) or 3/16"Ø (.187" or W2.8)
Side Rods and Cross Rods available in any combination of the above.
Eyes and Hooks are 3/16"Ø standard.
Cross Rods welded 16" O.C. First Cross Rods welded 12" in from each end to allow lap splices per code requirements.

2X-Hook: U.S. Pat. No. 8,613,175

H&B manufactures steel wire products from a minimum of 95% recycled material.

Eye-Wire Finish:
☑ Hot-Dip Galvanized | Stainless Steel ☐ Type 304 ☐ Type 316

Note: H&B recommends Stainless Steel for maximum protection against corrosion.

Eye-Wire Size (10' length std., custom length available special order)**:**
☑ (S) Standard Weight: 9 GA Side Rods x 9 GA Cross Rods
☐ (EH) Extra Heavy: 3/16"Ø Side Rods x 9 GA Cross Rods
☐ (SHD) Super Heavy Duty: 3/16"Ø Side Rods x 3/16"Ø Cross Rods

Block Size: (Std. sizes: 4" - 16" wall, other widths available on special request.)
☐ 4" ☐ 6" ☑ 8" ☐ 10" ☐ 12" ☐ 14" ☐ 16"

Note: State cavity and/or insulation thickness when ordering.

Compressed Leg 2X-Hook Finish:
☑ Hot-Dip Galvanized | Stainless Steel ☐ Type 304 ☐ Type 316

Compressed Leg 2X-Hook: Length (Model), 3/16"Ø (5mm) wire
☐ 3" (300H-2X) ☑ 4" (400H-2X) ☐ 5" (500H-2X)
☐ 6" (600H-2X) ☐ 7" (700H-2X)

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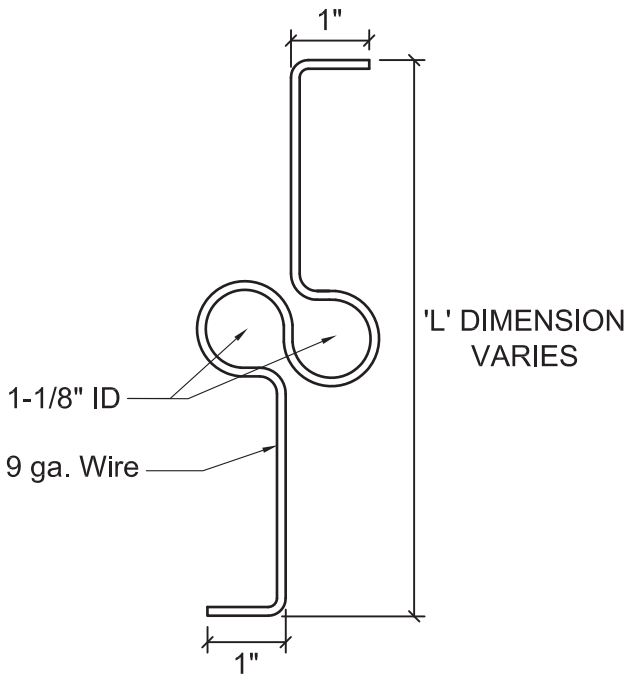
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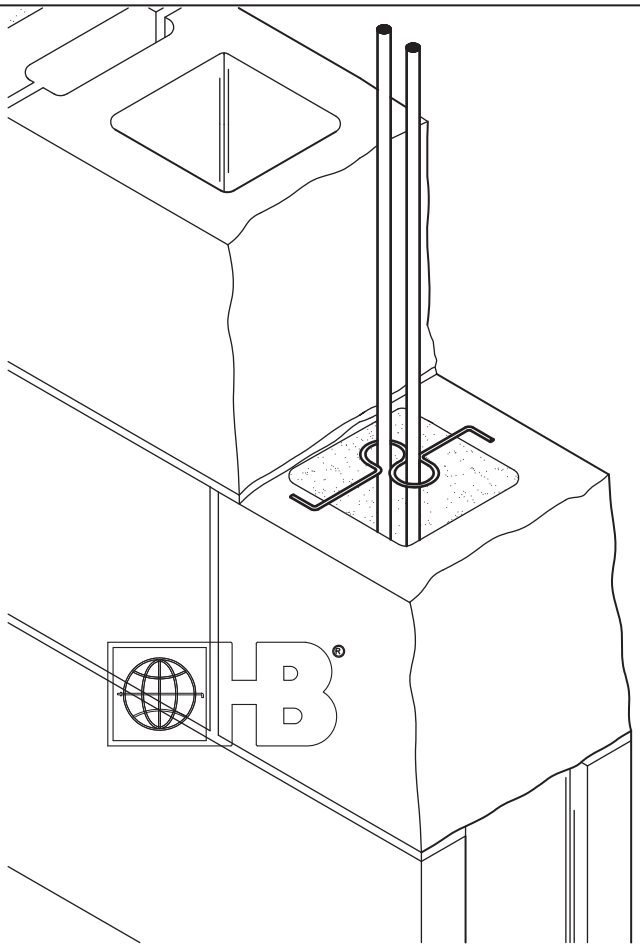
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Rebar Positioners

RB Rebar Positioner





DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

RB Rebar Positioner
For positioning rebar in center of block. The Z-shaped wire bridges cell of block while bends rest on shell.

Material Conformances:
Wire (Carbon Steel): Cold-drawn steel wire conforming to ASTM A1064/A1064M:
Tensile Strength - 80,000 p.s.i.
Yield Point - 70,000 p.s.i. minimum
Zinc coating:
Mill Galvanized: ASTM A641/A641M (0.1 oz/ft²)
Hot-Dip Galvanized after fabrication:
ASTM A153/A153M-B2 (1.5 oz/ft)

Wire (Stainless Steel): ASTM A580/A580M - AISI Type 304 (Type 316 available on special order)

Wire Diameter:
9 gauge (.148" or W1.7)

Finishes:
- ☐ Mill Galvanized
- ☑ Hot-Dip Galvanized
- ☐ Stainless Steel

Note: H&B recommends Stainless Steel for maximum protection against corrosion.

Product# (size)**:**
- ☐ RB-6 (L=4" for 6" block)
- ☐ RB-8 (L=6" for 8" block)
- ☑ RB-10 (L=8" for 10" block)
- ☐ RB-12 (L=10" for 12"block)

H&B manufactures steel wire products from a minimum of 95% recycled material.

IMPORTANT: Since each construction project is unique, the appropriate selection and use of any product contained herein must be determined by competent architects, engineers and other appropriate professionals who are familiar with the specific requirements of the project in question.

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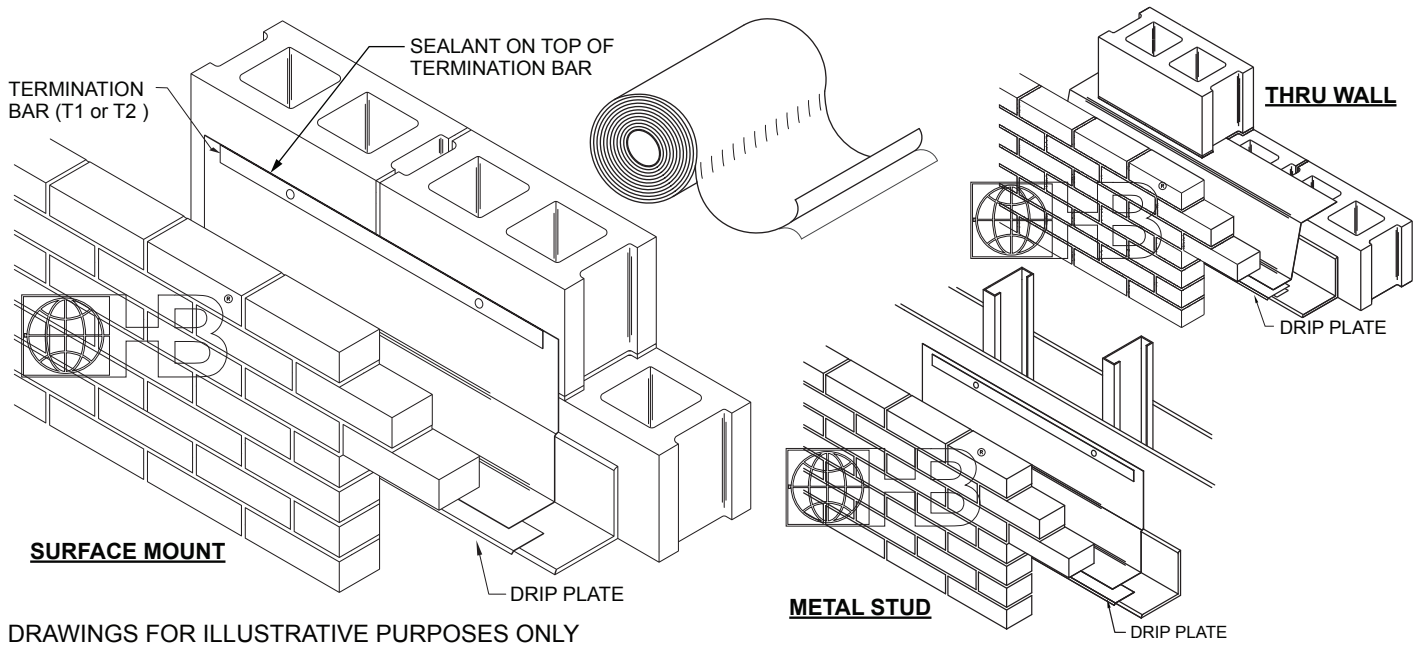
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Flashing and Reglets

Mighty-Flash™-SA

Self Adhering Stainless Steel Fabric Flashing



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Technical Data:

Puncture (PSI)	ASTM E154	2,500+
Tensile (PSF)	ASTM D412	100,000+
Fire Resistant	ASTM E84	Pass
Mold Resistant	ASTM D3273	Pass

Description & Benefits:

Mighty-Flash™-SA is a self-adhering stainless steel fabric flashing product with a removable release liner for easy application. The proprietary clear adhesive is factory-laminated to a Class A material consisting of a layer of polymeric fabric with a single sheet of Type 304 or 316 stainless steel bonded to one side. This innovative product is flexible and easy to form on the jobsite, features excellent puncture and tear resistance, and is designed to last for the life of the wall.

- Clear, non-asphaltic, pressure-sensitive, adhesive will not drool when exposed to UV or heat.
- An optional stainless steel drip edge is recommended to ensure diversion of moisture to outside of building (product can be cut flush with exterior wall)
- Surface mount applications should be attached with a stainless steel or aluminum termination bar
- Rolls are 60' long
- Membrane thickness .040 in. | Stainless Steel thickness: .030 in
- Available in 12",16", 18", 24" & 36" widths
- Fire resistant: ASTM E84 tested,a Class A material
- Mold resistant: ASTM D3273 tested
- Heat resistant: no degradation in high heat applications
- UV-resistant for up to 180 days.
- Recyclable product with 60% Recycled Content
- Lifetime Warranty

Mighty-Flash™ SA flashing should be installed with white woven, printed material facing out.

*** Please refer to Hohmann & Barnard installation instructions for more information.**

Select Flashing Stainless Steel Type:

- [x] Type 304 Stainless Steel
- [ ] Type 316 Stainless Steel (Special Marine Grade)

Width: (60 ft. rolls)

- [ ] 12"
- [ ] 16"
- [x] 18"
- [ ] 24"
- [ ] 36"

Stainless Steel Drip Plate: (Recommended)

- [ ] 1 ½"
- [x] 3"
- [ ] Other _____

Flex-Flash® Drip Edge:

- [ ] 3"

Termination Bar:

- [x] Stainless Steel (Type 304)
- [ ] Plastic

- [x] **Primer-SA** (5 gal. pail) (Water-Based Primer for Self-Adhering Flashing)
- [x] **HB Sealant 1-Quart Tube**
- [ ] **X-Seal Splice Tape** (4" wide)

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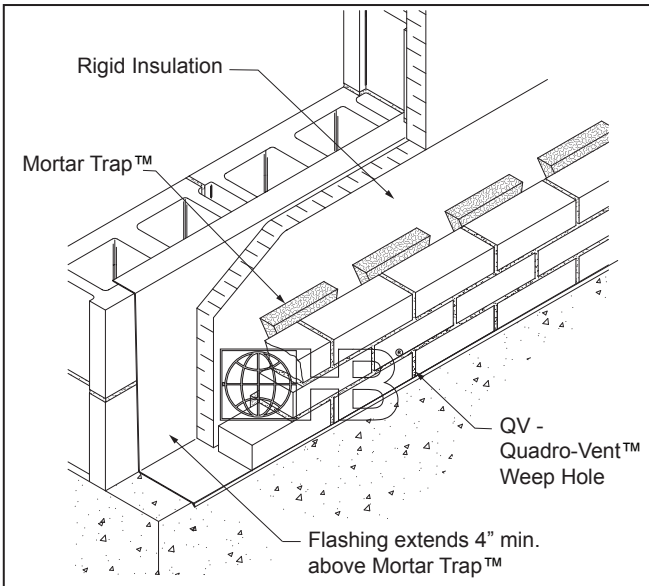
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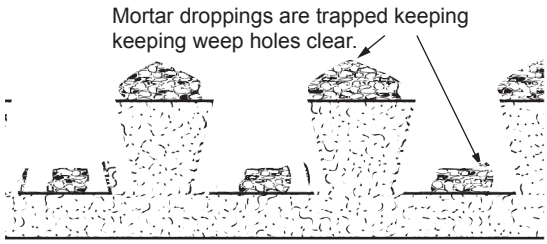
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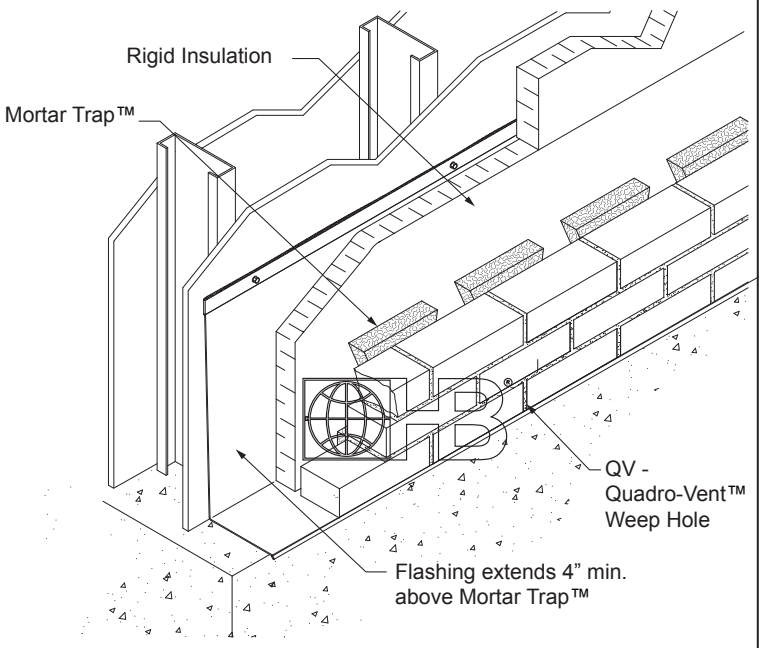
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Mortar Collection & Suspension Systems

Mortar Trap™







DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Mortar Trap™ is a mortar collection device manufactured from high-quality polypropylene strands woven into a 90% open mesh. When used with properly installed flashing, its unique shape breaks up mortar droppings and prohibits mortar from preventing the free flow of water to weep holes.

Features:

- High compressive strength promotes optimal product performance – will not deform or break apart
- Will not absorb or trap moisture, support mold or fungus
- Will not degrade as a result of temperature variations and is designed to last for the life of the building
- Keeps weep holes open - catches and permanently suspends mortardroppings so blockage can't occur
- Fast, easy installation - does not require fasteners or adhesives, no special skills or tools
- Slightly compressible to allow for cavity variations in the field
- UV Exposure 30 days

Sizes: (10" high x 5' long with 7" dovetail notches)

THICKNESS			
☐	.4"	x 10" x 5'	250 LF/BOX MTRAPHB10X.4-A
☐	1"	x 10" x 5'	100 LF/BOX MTRAPHB10X1.0-A
☐	1.5"	x 10" x 5'	100 LF/BOX MTRAPHB10X1.5-A
☑	2"	x 10" x 5'	100 LF/BOX MTRAPHB10X2.0-A

NOTE: When Mortar Trap™ is used with the Quadro-Vent™ Weep Hole additional insect screening is not required.

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PRINT FORM

RESET FORM SAVE FORM

SAVE FORM LOCK & HIDE BUTTONS

HOHMANN & BARNARD, INC.
a MiTek company

TECHNICAL DATA SHEET

HB SEALANT

Multi-Purpose Sealant – 25% Movement

1. Product Data

Date of Preperation: July 14, 2015
Product Name: HB SEALANT
Producer: Hohmann & Barnard, 30 Rasons Court, Hauppauge, NY 11788
Telephone: 800.645.0616 | **Fax:** 631.234.0683
Email: weanchor@h-b.com | **Web:** www.h-b.com

2. Product Description

HB SEALANT is a multi-purpose, resilient joint sealant that combines economy and high performance. It is ideal for a wide range of applications where joint movement requires compression and extension in excess of 25%. Because HB SEALANT is a moisture-curing polyether sealant, **it is effective in damp, dry or cold climates** and is free of solvents and isocyanates. It will not shrink upon curing, bubble on damp surfaces as polyurethanes sealants often do, or discolor when exposed to UV light. HB SEALANT has excellent elastomeric properties and adheres to most construction materials including difficult surfaces such as Kynar 500® PVDF and other anodized metals and coatings. HB SEALANT is effective in many difficult construction site conditions: **It can be applied to damp surfaces at temperatures as low as 32°F (0°C).**

Basic Uses:

- Expansion joints
- Pre-cast concrete
- Block and Masonry
- Curtain Walls
- Window and door frames
- Siding
- Parapets
- Cove Joints
- Transportation
- Weather Sealing

Compatible Substrates:
Test and evaluate to ensure adequate adhesion.

- Concrete
- Block & Brick
- Stone
- Masonry
- Aluminum & Galvanized Metal
- Wood
- Engineered Plastics, Vinyl, PVC
- Glass
- Fiberglass FRP
- EPS Foam

3. Applicable Performance Standards

- ASTM C920, Type S, Grade NS, Class 25, Uses NT, T_2, M, G, A & O
- Federal Specification TT-S-00230-C Type II, Class B
- Corps of Engineers CRD-C-541, Type II, Class B
- Canadian Standards Board CAN 19, 13-M82

4. Regulatory Compliance

- Conforms to OTC Rule for Sealants
- Meets requirements of California Regs: CARB, BAAQMD and SCAQMD
- Conforms to California Proposition 65
- Conforms to USDA Requirements for Non-food Contact

5. Green Standards

- LEED 2.2 for New Construction and Major Renovations: Low Emitting Materials (Section 4.1): **1 Point**
- NAHB Model Green Home Building Guidelines: **5 Global Impact Points**
- VOC Content: less than 19 grams / liter ASTM D2369 EPA Method 24 (tested at 240°F / 115°C)

6. Advantages

- Solvent free, 100% solids will not shrink
- 30 minute skin over
- No outgassing on damp surfaces
- Non-slump, applies vertically and overhead
- Color stability, will not suntan
- Paintable within 24 hours (See limitations)
- Bonds to Kynar 500® PVDF coated metal

7. Preparatory Work

Joint Preparation: Joint surfaces should be clean, dry and free from all contamination including: dirt, oils, grease, tar, wax, rust and any other substance that may inhibit the sealant's performance.

Joint Design: Install all joint applications per ASTM and SWRI recommendations and guidelines. Joints shall be designed with a depth to width ratio of 1:2 (joint depth one-half the width). Control the depth of the sealant by using a polyethylene backer rod that is 25% larger than the joint opening at standard temperature. To prevent three-point adhesion use a backer rod or bond breaker tape to ensure proper joint movement and a long lasting weatherproof seal. Where the joint configuration will not permit a backer rod, HOHMANN & BARNARD recommends that an alternative bond breaker be used.

Joint Width Inches (mm)	Joint Depth Inches (mm)
1/4 - 1/2 (6-13)	1/4 (6)
1/2 - 3/4 (13-19)	1/4 - 3/8 (6-10)
3/4 - 1 (19-25)	3/8 - 1/2 (10-13)

HOHMANN & BARNARD recommends an appropriate substrate primer to be used on high moving joints or dissimilar substrates which require increased adhesion properties.

Primer: In most instances HB SEALANT will not require a primer. However, certain applications or substrates may require a primer to ensure a long lasting bond and weatherproof seal. It is the applicator's responsibility to determine the need for a primer. **HOHMANN & BARNARD recommends a primer be used for any application where prolonged immersion is anticipated.**

Typical physical Properties		
Gun Grade	Zero Slump	
Viscosity	862,100 cp	Brookfield RVF TF Spindle, 4 RPM, 73°F (23°C)
Density	13.2 +/- 0.2 lbs per gallon	ASTM D1475
Tack Free Time	30 min +/- 10 min	45 +/- 5 % R.H.
Elongation at Break	375%	ASTM C679
Hardness Shore A	25 +/- 3	ASTM C661

Typical physical Properties		
Shear Strength	157 psi	ASTM D1002
Tensile Strength	172 psi	ASTM D412
Low temp. flex	Pass -10°F (-23°C) 1/4 inch mandrel	ASTM D816
Shrinkage	No visible shrinkage after 14 days	
Service Temperature	-40°F to 200°F (-40°C to 93°C)	

8. Application Guidelines

Concrete: Prior to application remove any residual contamination by mechanical abrasion, sand blasting or power washing. On green concrete, remove all release agents, friable and loose concrete. Dry all visible and standing water prior to applying HB SEALANT. Install an appropriate backer rod to avoid three-point bonding.

Metal: Prepare all metal to ensure maximum adhesion. Remove all rust, scale and residue by wire brushing to a bright metal sheen. Remove films, loose or inappropriate coatings and oils with an appropriate solvent such as alcohol.*

**HOHMANN & BARNARD recommends that coated substrates be tested for adhesion prior to starting a project. Please contact our Technical Department for specific application guidelines and recommendations.*

Wood: Material should be clean, sound and dry prior to sealant application. Allow treated wood to weather for six months prior to application. Remove all coatings and paint (or test for compatibility) to ensure proper bonding. Do not use on fire retardant lumber.

Primer: In most instances HB SEALANT will not require a primer. However, certain applications or substrates may require a primer to ensure a long lasting bond and weatherproof seal. It is the applicator's responsibility to determine the need for a primer. **HOHMANN & BARNARD recommends a primer be used for any application where prolonged immersion is anticipated.**

Application: Remove all dirt, oil, loose paint, frost and other contamination from all working surfaces with alcohol. ***DO NOT USE petroleum solvents such as mineral***

spirits or xylene. Maintain HB SEALANT at room temperature before applying to ensure easy gunning and tooling. Test and evaluate to ensure adequate adhesion. Carefully gun the sealant with a smooth, continuous bead. If tooling is needed, do so within fifteen minutes of application.

Clean-Up: Wet sealant can be removed using a solvent such as alcohol. Cured HB SEALANT can be removed by abrading or scraping the substrate.

9. Other Information

Storage: Store original, unopened containers in a cool, dry area. Protect unopened containers from water, heat and direct sunlight. *Elevated temperatures will reduce shelf life.* HB SEALANT will not freeze.

Shelf Life: Twelve months from date of manufacture when stored at 70°F / 21°C with 50% relative humidity. ***High temperature and high relative humidity may significantly reduce shelf life.*** Pails have a shelf life of six months.

Caution: *Avoid prolonged contact with skin. Uncured adhesive irritates eyes. In case of contact with eyes immediately flush with water. Call a physician. Please refer to the SDS for First Aid information.* ***Contact Hohmann & Barnard for most current SDS .***

KEEP OUT OF REACH OF CHILDREN.

Limitations:

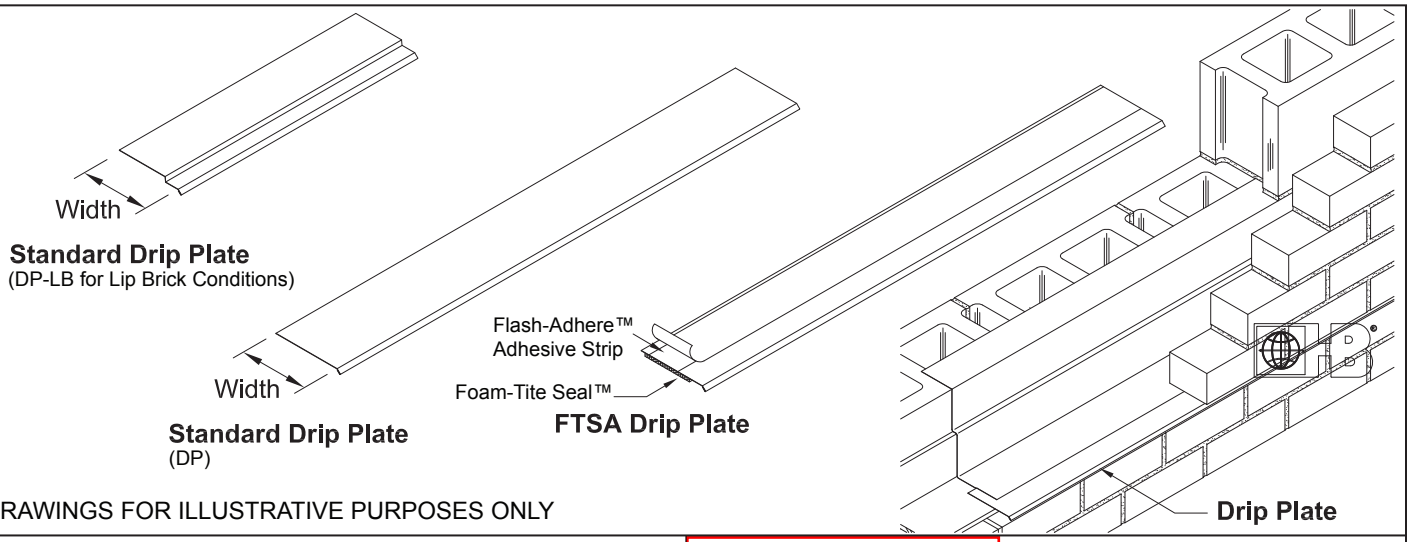
- Horizontal applications will require tooling.
- In areas where prolonged chemical exposure is anticipated, contact us for recommendations.
- Allow treated wood to “cure” for six months prior to application per APA guidelines.
- Do not use in areas subject to continuous immersion.
- Do not store in elevated temperatures.
- Allow asphalt to cure a minimum of six months before applying HB SEALANT
- Remove all coatings and sealers before application.
- For applications below 32°F (0°C) contact Hohmann & Barnard for more information.
- Test and evaluate all paints before application. Polyurethane and oil based paints may dry slowly.
- Do not use on TPO without priming first.

WARRANTY: Contact the manufacturer for complete information on product warranty conditions, duration and remedies. Hohmann & Barnard, Inc. makes no warranties, either expressed or implied, of correctness and fitness for use for any particular purpose. The recipient agrees that any use of product information and electronic files is at their own risk. In no event shall Hohmann & Barnard, Inc., be liable for direct, indirect or consequential damages as a result of the recipient use or reuse of product information or electronic files. Hohmann & Barnard, Inc., shall be held harmless against all damages, liabilities or costs, including reasonable attorney fees and defense costs, arising out of or resulting from use of product information or electronic files.
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Flashing and Reglets

Drip Plate



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Material Conformance:

Stainless Steel Type 304 & 316: ASTM A240/A240M, ASTM A666, and ASTM A480/A480M

Copper: ASTM B370 - #110 Alloy
Lead-Coated Copper: ASTM B370 - #110 Alloy

DP Our Standard Drip Plate, furnished with a smooth, factory-formed hemmed edge for installation safety and uniform appearance. **Standard DP Drip Plates** are compatible with all H&B flashing products.

DP-LB Same as above, for lip brick conditions.

FTS Optional **Foam-Tite Seal**™ offers unique added protection against the ingress of water in cavity wall construction. It is a continuous 1/8" thick strip of factory-installed compressible foam to act as a bond-break and help prevent air and moisture infiltration.

FTS-LB Same as above, for lip brick conditions.

FTSA Adds our optional **Flash-Adhere™Adhesive Strip*** to the FTS Drip Plate (as described above). This adhesive strip (with tear-off release paper) is factory-installed on the top side of the drip plate to aid in the precise and permanent placement of the flashing.

FTSA-LB Same as above, for lip brick conditions.

NOTE:
- For corner pieces, reference **"inside"** or **"outside"** with above productnumbers.
- H&B does **NOT** recommend galvanized sheet as a drip plate/edge.

* **When cleaning the exterior veneer, the cleaner's manufacturer recommendations for protecting metal MUST be followed.**

U.S. Pat. No. 6,584,746 *Other Patents Pending*

Installation Instructions:

DP Series Drip Plates: Install onto a continuous bead of HB Sealant. ALL laps must be 3" min. with a bead of HB Sealant between and tooled bead of sealant on top of the edges of the overlap.

FTS Series Drip Plates: Must be overlapped 3" min. with a bead of HB Sealant between and tooled bead of HB Sealant on top of the edges of the overlap. (NOTE: 2" of foam must be removed from each side at laps)

- [x] DP - Standard Drip Plate
- [ ] DP-LB - Standard Drip Plate (Lip Brick)
- [ ] DP-FTS - Drip Plate with Foam-Tite Seal™*
- [ ] DP-FTS-LB - Drip Plate with Foam-Tite Seal™(Lip Brick)*
- [ ] DP-FTSA - Drip Plate with Foam-Tite Seal™* and Flash-Adhere™ Adhesive Strip**
- [ ] DP-FTSA-LB - Drip Plate with Foam-Tite Seal™* and Flash-Adhere™ Adhesive Strip* (Lip Brick)**

* **FTS (**Foam-Tite Seal™) state width of foam _____

** **Flash-Adhere™ Adhesive Strip** is NOT suitable for use with PVC or asphaltic flashing products. Works with all non-asphaltic H&B and Sandell flashing products

Optional Corner Pieces:

- [ ] Inside
- [ ] Outside
- [ ] End Dam

Width:

- [ ] 1 ½"
- [ ] 2"
- [ ] 2 ½"
- [x] 3"
- [ ] 3 ½"
- [ ] Other _____

Material:

- [x] Type 304 Stainless Steel (26 gauge standard)
- [ ] Type 304 Stainless Steel _____ gauge (enter custom gauge)
- [ ] Type 316 Stainless Steel (26 gauge standard)
- [ ] Type 316 Stainless Steel _____ gauge (enter custom gauge)
- [ ] Copper 20 oz.
- [ ] Copper 16 oz.
- [ ] Copper 12 oz.
- [ ] Lead-Coated Copper 16 oz
- [ ] Lead-Coated Copper 12 ounce

IMPORTANT: Since each construction project is unique, the appropriate selection and use of any product contained herein must be determined by competent architects, engineers and other appropriate professionals who are familiar with the specific requirements of the project in question.

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www.h-b.com

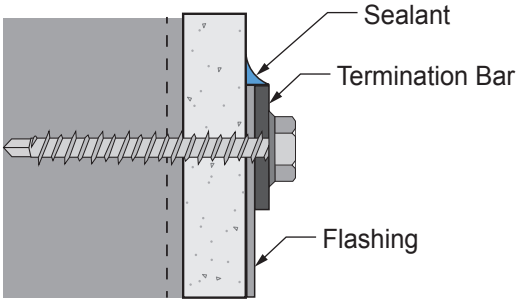
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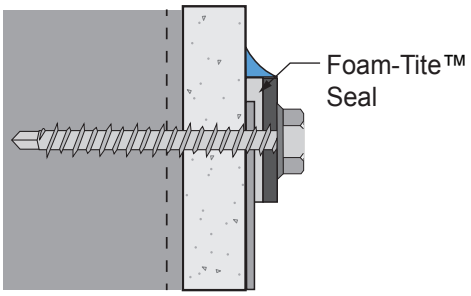
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Flashing and Reglets

T1 - Termination Bar

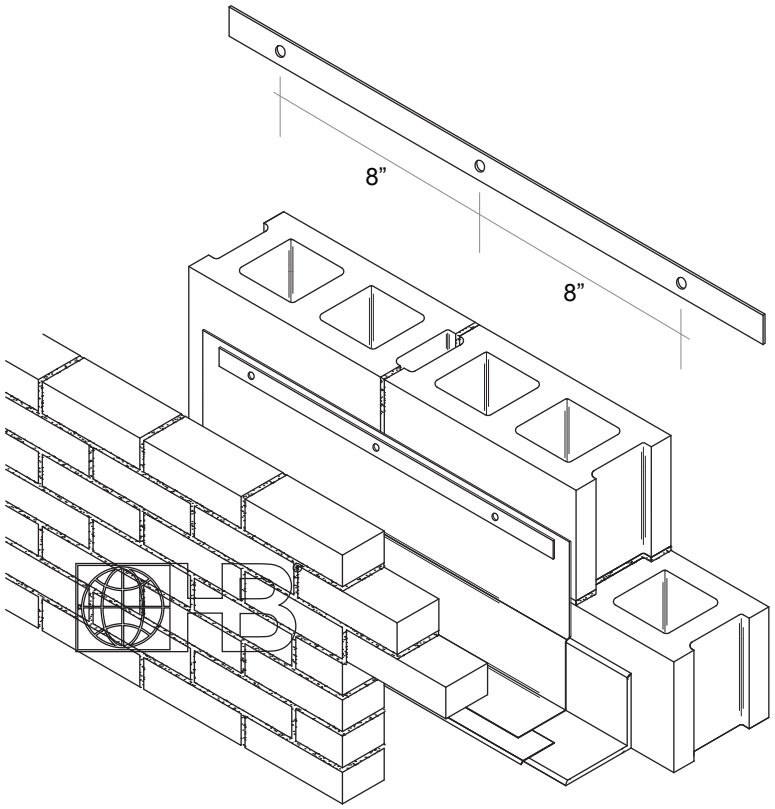


STANDARD



WITH OPTIONAL FTS

DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY



T1 - Termination Bar
Used at top of flashing to mechanically secure it to the backup.

- Compatible with all H&B Surface-Mount flashings.
- Available with optional Foam-Tite Seal™ to aid in inhibiting moisture infiltration.

U.S. Pat. No. 6,945, 000
Other Patents Pending

Size:
1/8" thick x 1" wide x 8' long
with 1/4" diameter holes, spaced 8" O.C.

Finishes:

- [x] Stainless Steel (Type 304)
- [ ] Stainless Steel (Type 316 - *special order*)
- [ ] Aluminum
- [ ] Plastic (PVC) - ***PVC MUST be fastened 8” o.c.***

NOTE: H&B recommends termination bars be fastened 8" o.c.
(Metal term bars can be fastened 16” o.c. for metal stud backup)

Optional:

- [ ] FTS (Foam-Tite Seal™)

Foam-Tite Seal™ is a factory-installed foam strip designed to help seal small voids occurring between the termination bar and any irregular surfaces of the substrate, while offering added protection against water penetration due to deterioration of the sealant.

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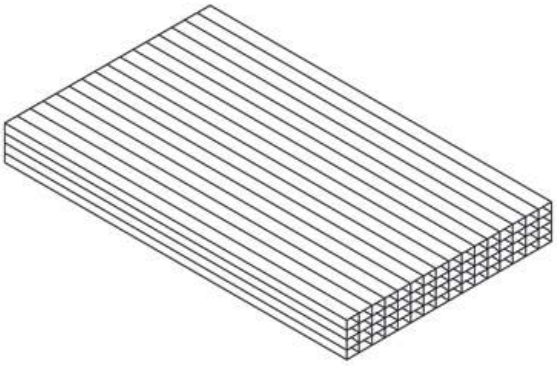
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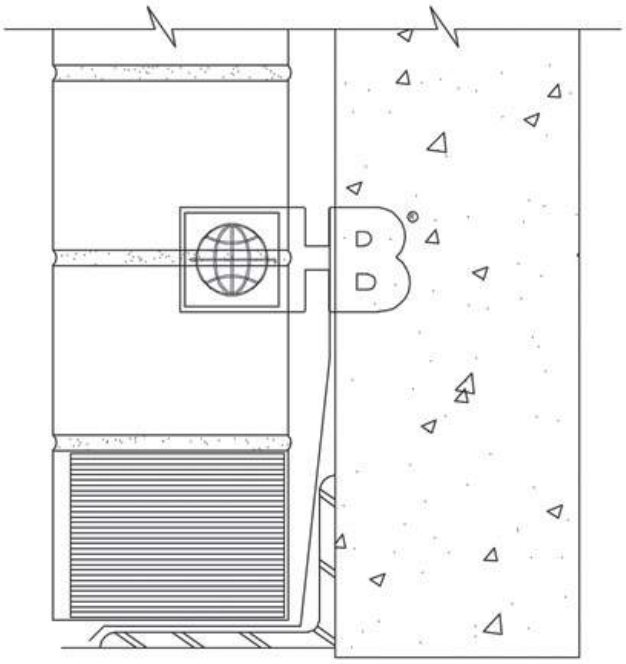
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Weep Holes/Vents

QV - Quadro-Vent™





DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Quadro-Vent's honeycomb design allows passage of moisture from cavity to the building exterior while restricting ingress of insects and other debris.

- Allows passage of moisture up to its 2 ½" height, important in the event of mortar droppings at bottom of cavity.
- Is suitable for top of wall venting.
- Polypropylene tested in conformance with ASTM D2240, ASTM D790B, ASTM D638, and ASTM D1238B.

Color:

- ☐ Gray
- ☑ Clear
- ☐ Buff
- ☐ Black
- ☐ Almond
- ☐ Cocoa
- ☐ White

Size:

- ☑ Standard (3/8" thick x 3 ⅜" wide x 2 ½" tall)
- ☐ Jumbo (3/8" thick x 3 ⅜" wide x 3 ½" tall)
- ☐ Custom 3/8" x _____ x _____

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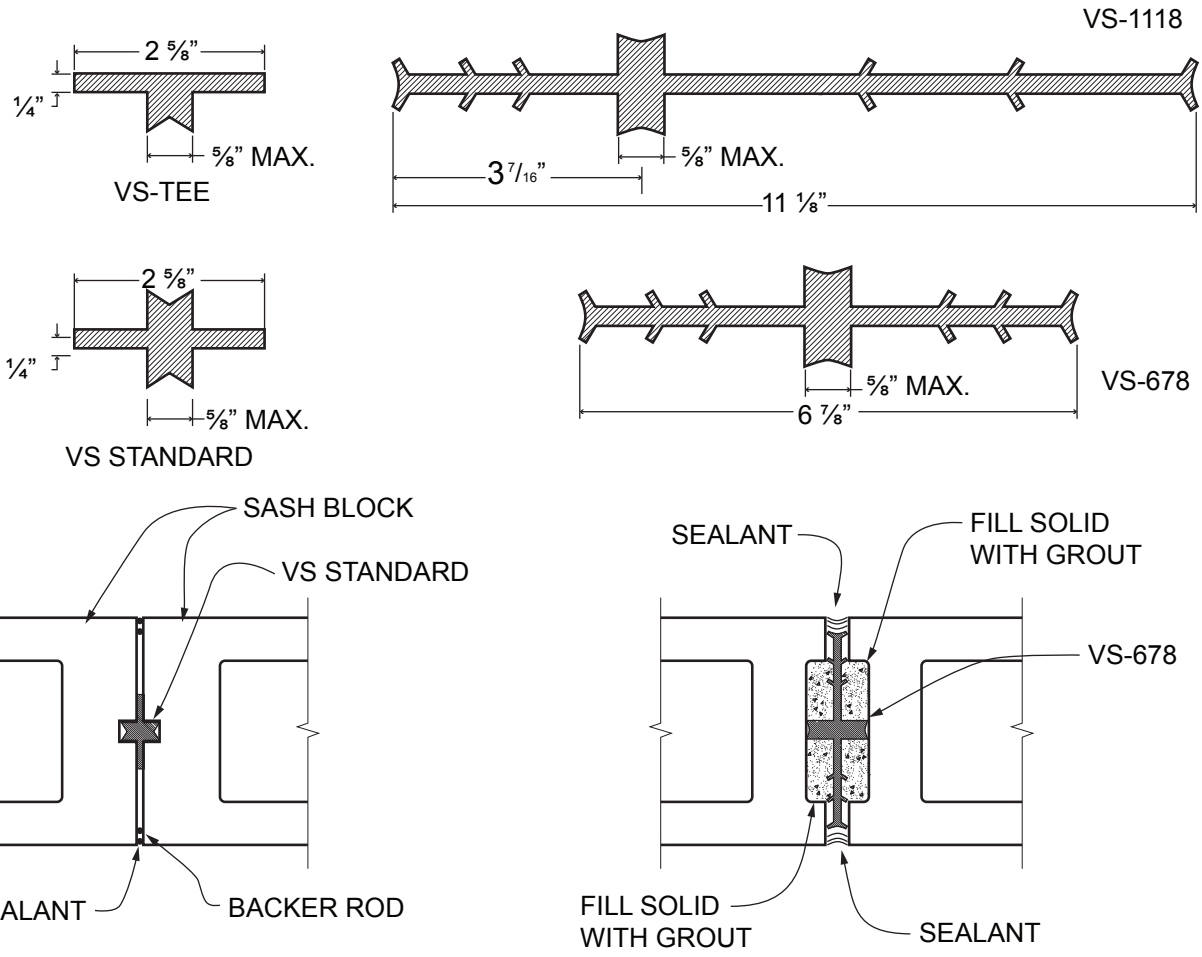
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Control Joints / Expansion Joints

VS Series - PVC Control Joint



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Features:

- The VS Series is a complete line of polyvinyl chloride control joints suitable for various wall conditions. The PVC material conforms to ASTM D2287-684 with a durometer hardness of 85 (+ or - 5) when tested in conformance with ASTM D2240.
- VS Series PVC control joints are manufactured from 50% recycled material.

TEST DATA

	Typical Values	Test Method
Tensile Strength	2200	ASTM D-412
Ultimate Elongation	350	ASTM D-412
Shore A Hardness	85	ASTM D-2240
Low Temp Brittleness	-35	ASTM D-746

VS Series:
(Length per piece is 4 ft.)

- [x] VS-STANDARD
- [ ] VS-TEE
- [ ] VS-678
- [ ] VS-1118

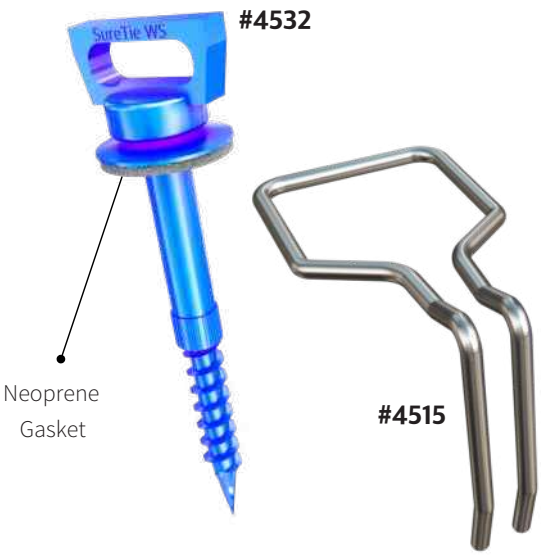
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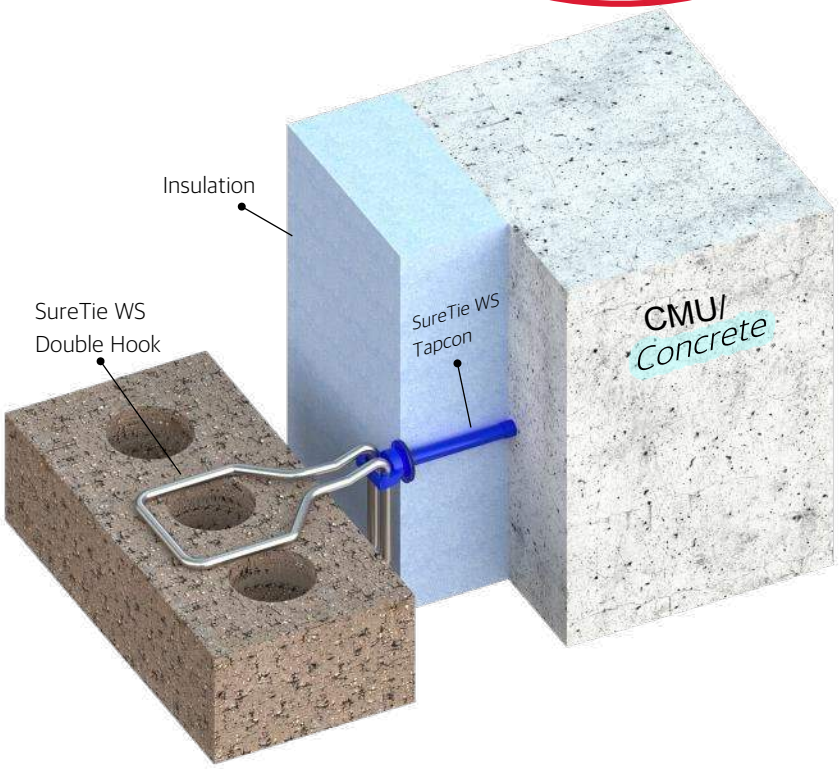
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PRODUCT SUBMITTAL

Sure Tie WS Tapcon Thermal





"Sure-Tie fasteners do not create any significant thermal bridging effects on the wall system."

Test Results Available Upon Request

MATERIAL CONFORMANCE

ASTM A1064/A1064M, A82 / A82M - (Cold drawn steel wire)
Tensile Strength - 80,000 psi
Yield Point - 70,000 psi

ACI / ASCE 530 - (Building code requirements for masonry structures)

Hot Dip Galvanized after fabrication / Zinc Coating
ASTM A153 / A153M-B2 (1.50 oz per sq ft)

Stainless Steel **ASTM 580 / ASTM 580M Type 304** (Type 316 available on special order)

Recycled Content:
Mill Galvanized & Hot Dipped,
82.8% Post-Consumer
17% Post Industrial / Pre-Consumer,

Stainless Steel,
60% Post Consumer
V O C Content - 0%

SIZES / FINISHES

 # 4532 SureTie WS Tapcon

Blue climaseal finish resulted in 0% red rust at 1000 hours exposure to ASTM B-117 salt spray testing.

.

Insulation:

☐ 0" ☐ 1" ☑ 1-1/2" ☐ 2"
☐ 2-1/2" ☐ 3" ☐ 3-1/2" ☐ 4" ☐ 4-1/2"

#4515 SureTie WS Double Hook 3/16" dia.

☐ 3" ☑ 4" ☐ 5"

FINISH : (SureTie WS Double Hook)

☐ Hot Dip Galvanized
☑ Stainless Steel

MASONPRO, Inc.
43300 Seven Mile Road
Northville, MI 48167
1-800-659-4731
www.masonpro.com

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ARCHITECTURAL SPECIFICATION INFORMATION

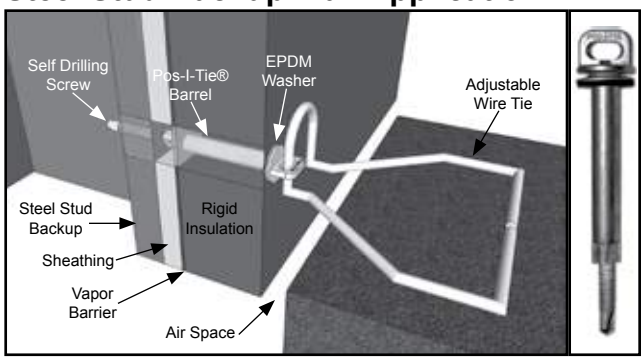
THE ORIGINAL Pos-I-Tie®

BRICK VENEER ANCHORING SYSTEM

1. Provides positive connections. The Barrel Section actually penetrates sheathing and makes a Positive Lateral Connection with the backup for transfer of compression and tension loads to structural backup.
2. EPDM washer completely seals the hole blocking ALL air and moisture penetration.
3. Offers speedy cost-saving installation. The screw is built-in to the barrel. No inferior screws can be substituted. Only one barrel needs to be installed, unlike other systems which require two screws for installation.
4. Slotted Barrel allows for differential movement due to temperature variations. Tie design provides for allowable ACI 530 code vertical adjustment of 1-1/4" above & below the barrel.
5. Allows for use of 4' x 8' insulation sheets. The Pos-I-Tie® holds the insulation in place!
6. Pos-I-Tie® Barrel section is made of highly corrosion resistant Zamac 3, a 92% zinc alloy.
7. Pos-I-Tie® system fully complies with the ACI 530 Code. The barrel and screw install as one unit. No more plates, screws and gaskets. Installs in seconds.
8. The Pos-I-Tie® conforms with the Energy Conservation Requirements of the Massachusetts State Building Code (780 CMR 13 Envelope).

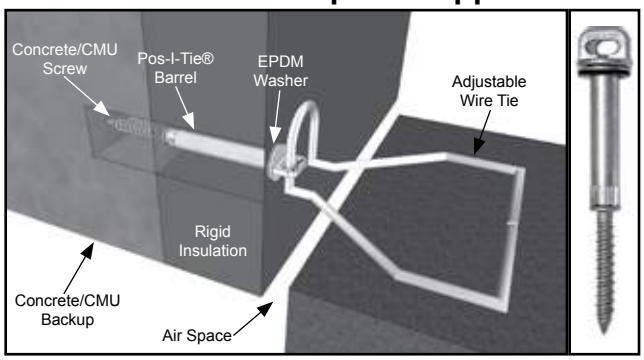
Pos-I-Tie® Products are ONLY Available Through Heckmann Building Products!

Steel Stud Backup Wall Application



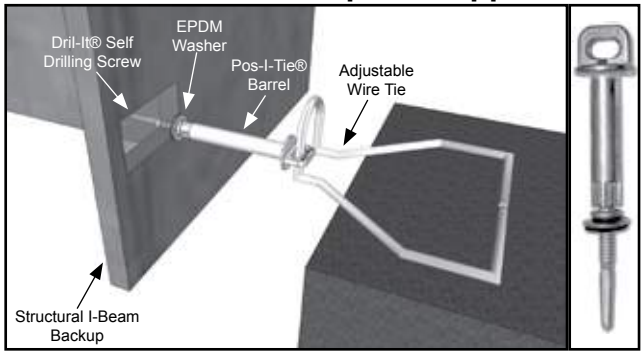
- Drills directly through insulation, vapor barrier and dens glass to the steel stud backup.
- EPDM washer completely seals the hole blocking ALL air and moisture penetration.

Concrete/CMU Backup Wall Application



- This application can be used with Concrete, CMU, ICF, Wood, and Brick backup walls.
- Pre-drill pilot hole using the Con-Drive® Adapter and drill bit as explained on the reverse side of information sheet.

Structural Steel Backup Wall Application



- Use the Dril-It® Self Drilling Screw for Structural Steel I-Beams. No pre-drilling required for up to 1/2" thick steel. Steel Thicker than 1/2" may require a pre-drilled pilot hole.

MASONPRO, Inc.
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Northville, MI 48167
1-800-659-4731
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WIRE TIES


Triangular Wire Tie


Seismic Wire Tie


Single Wire Tie

- Ties are 3/16" diameter x 3", 3 1/2", 4" or 5" Long in Hotdip Galvanized, Mill Galvanized and Stainless Steel. Special Lengths available.
- 2011 ACI 530 Code allows for the use of single pintle ties.
- Due to the limitations on adjustable anchor tolerances in the ACI-530 Masonry Code, 1/4" diameter wire ties are not available for the Pos-I-Tie® system.

BARRELS

Nine Barrel lengths available for insulation/ gypsum board sizes and combinations:
1/2", 5/8", 1", 1-1/2", 2", 2-1/2", 3", 3-1/2", 4", and 4-1/2"



SCREWS

Three screw types available for backup walls of steel stud, concrete, CMU, ICF, wood, brick and structural steel. Screws and Barrels are factory-assembled.

EASY INSTALLATION

Use a drill with a depth sensitive nose piece or a variable clutch adjustment. The barrel end of the Pos-I-Tie® is placed into the reusable chuck adapter.

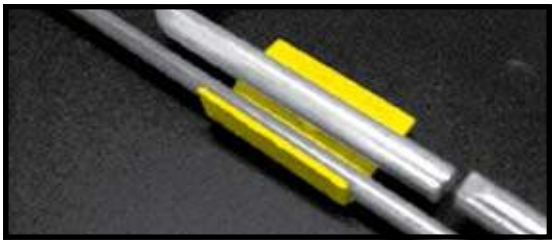
For steel studs, drill the Pos-I-Tie® through the exterior insulation and into the metal stud. Use a drill with 1500 - 2000 RPM.

For structural steel, center punch prior to drilling. (High tensile steel or very thick steel may require pre-drilling a 3/16" (4.76 mm) hole.)

For concrete, CMU or brick, use the Con-Drive® Adapter with drill bit. Pre-drill a 3/16" (4.76 mm) hole to a depth of 2" (51 mm). Slide the Con-Drive® Sleeve over the drill bit and insert the CMU/Concrete Screw into the chuck adapter. Torque screw into the pre-drilled hole. The reusable chuck adapter and sleeve tool are available from Heckmann.

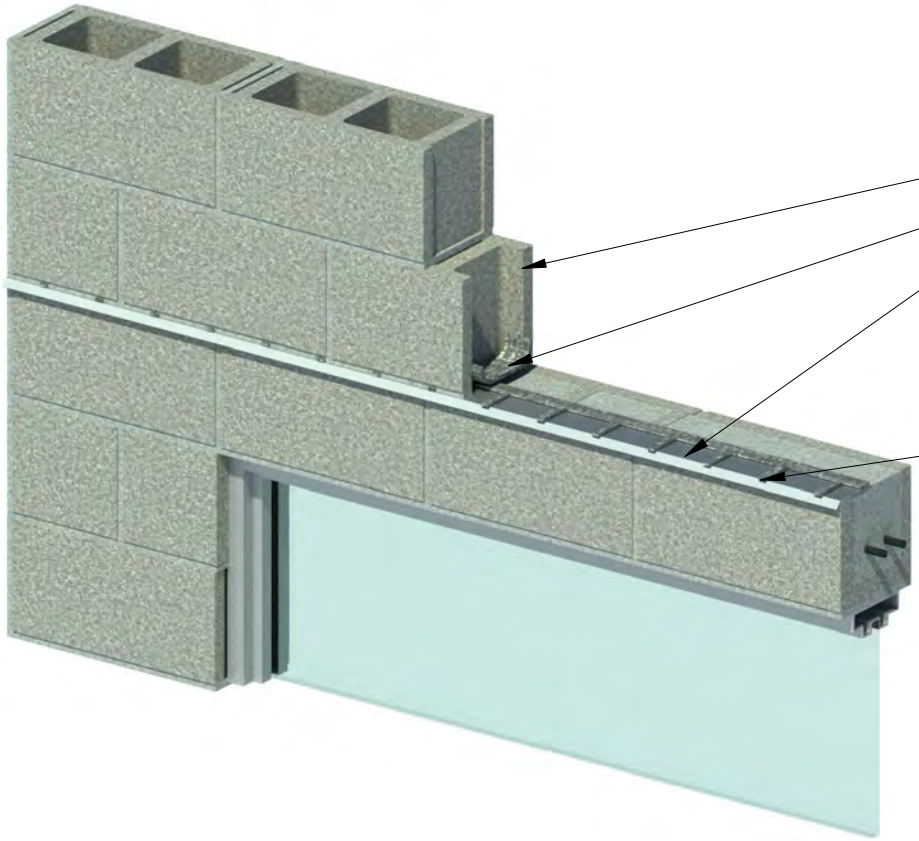

Chuck Adapter


Sleeve Tool


16 Gage welded **Seismic Hook Tab** available for Single and Triangle Pos-I-Tie® Wires for areas in Seismic Zones.


Stainless Steel Pos-I-Tie® Stone Anchors: Available 3/16" or 1/8" thick. Specify length, width, and bend type (Split-bend shown above, straight bend, or pin type available).

All stone anchors should be engineered by a licensed structural engineer on a job-by-job basis.



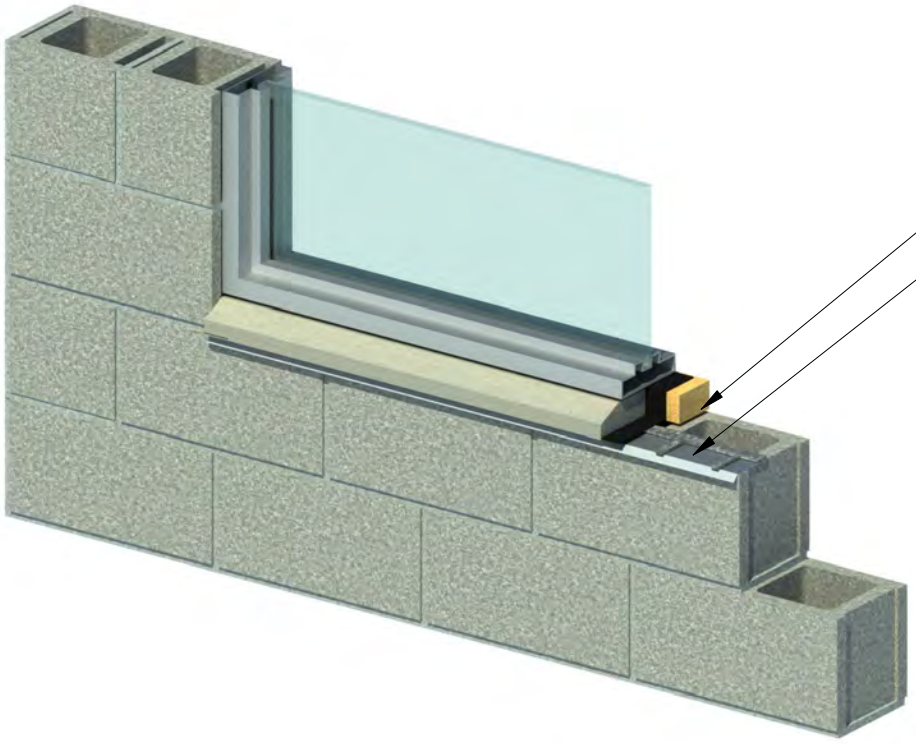
SINGLE-WYTHE MASONRY LINTEL

CMU

7" X 7" MESH SLEEVE

BlockNet
- REAR WATER DAM
- FACTORY-ATTACHED MESH
- WEEP TABS
- DRIP EDGE, 26 GAUGE STAINLESS STEEL

REMOVABLE WEEP TAB ENDS PREVENT TABS FROM CLOGGING WHEN JOINTS ARE STRUCK, KEEP TABS FLUSH WITH THE WALL AND CREATE A SMOOTH APPERANCE



SINGLE-WYTHE SILL

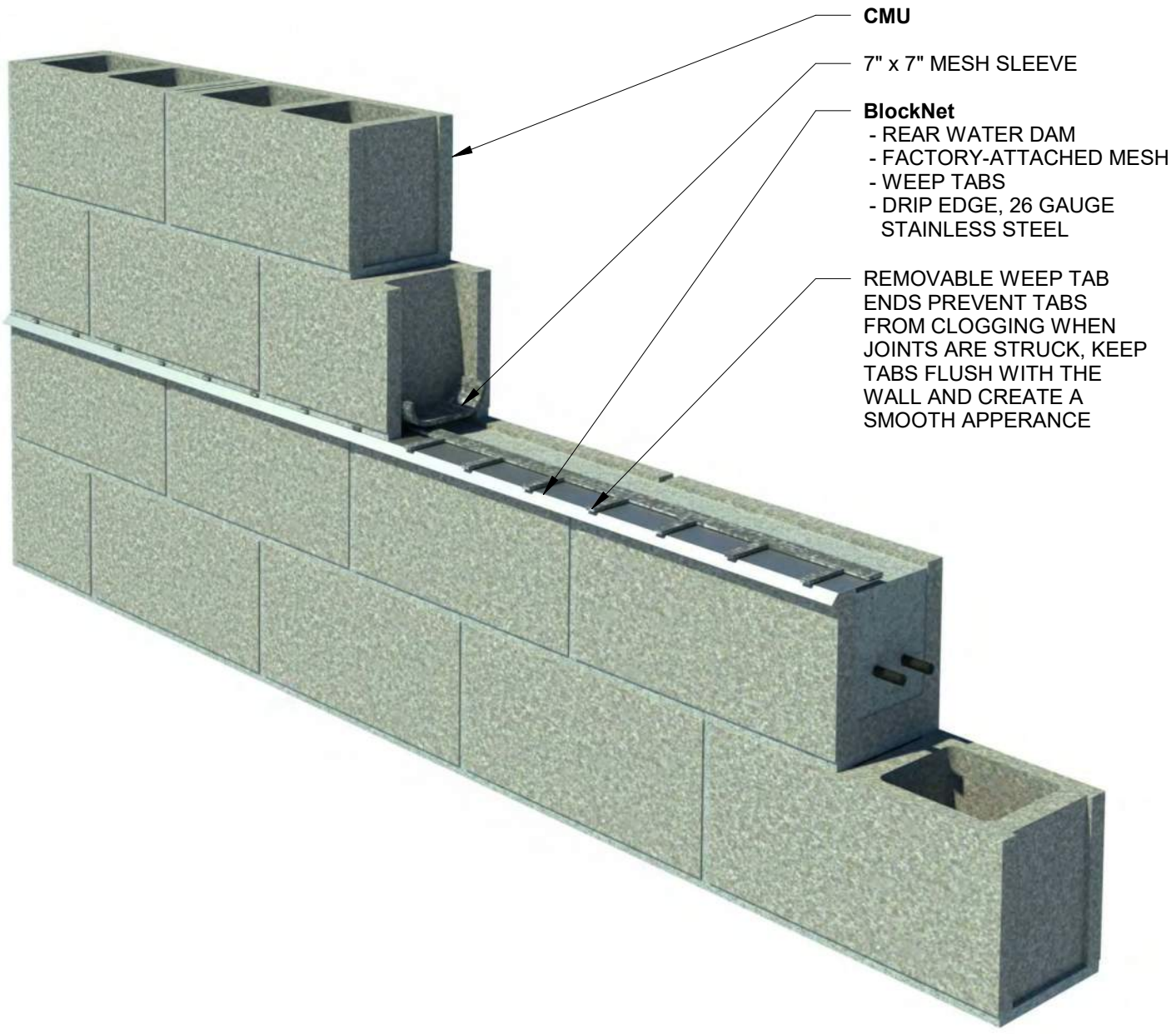
CMU

BlockNet
- REAR WATER DAM
- FACTORY-ATTACHED MESH
- WEEP TABS
- DRIP EDGE, 26 GAUGE STAINLESS STEEL

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Moisture Management for Masonry
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www.mortarnet.com

BlockNet®

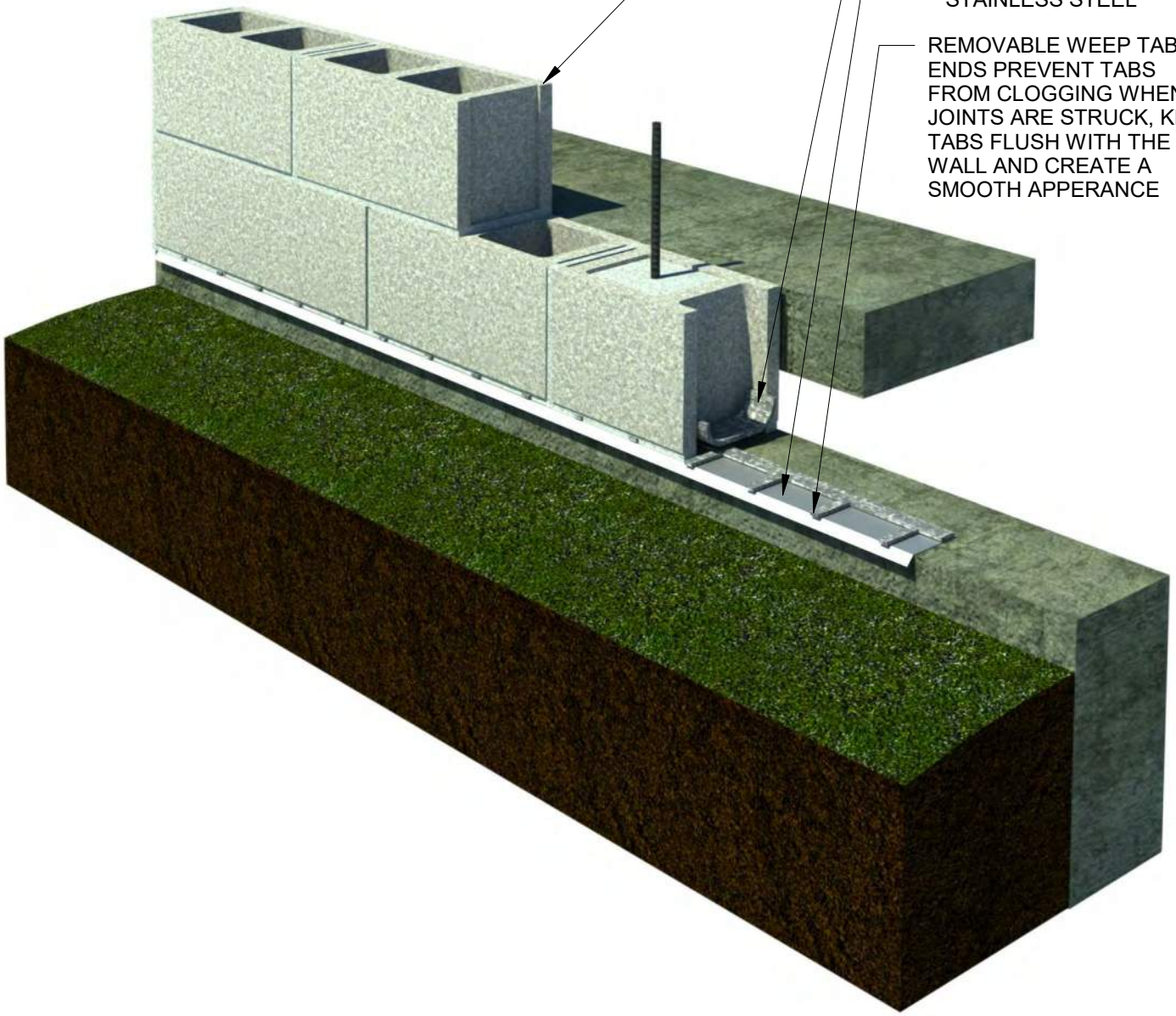
WINDOW HEAD AND SILL DETAIL



Mortar Net SOLUTIONS
Moisture Management for Masonry
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BlockNet®

BOND BEAM DETAIL



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BlockNet®

WALL BASE DETAIL

PRODUCT DATA SHEET

Sikasil®-728 SL

Self-leveling, ultra low-modulus, highway/parking garage, neutral cure silicone sealant

PRODUCT DESCRIPTION

Sikasil®-728 SL is a self-leveling, one-component, ultra low modulus, elastomeric, neutral cure silicone sealant. Meets the requirements of ASTM D-5893; ASTM C-920, Type S, Grade P, Class 100/50; Use T, M, G, A, O with an ultra low Shore Hardness; TT-S-00230C, Type I, Class A; TT-S-001543A, Class A.

USES

Construction Application

- Highway joints
- Bridges
- Stadiums
- Parking garages
- Plaza decks
- Driveways
- Decks
- Expansion joints
- Saw cut joints

Substrate

- Concrete, steel, glass, aluminum, tile, ceramic, masonry, asphalt, brick, stone and granite

CHARACTERISTICS / ADVANTAGES

- No tooling, less labor
- Durable
- Ideal for cold climates
- Excellent flexibility for extreme high and low temperature conditions
- Excellent flexibility for dynamic joint movement
- Bonds to most substrates without priming including aged asphalt and concrete
- Ready to use
- All season ease of application
- Good contact/adhesion with hard to reach areas
- Excellent for use on runways and tarmacs
- Jet fuel resistant
- Resistant to road salts

PRODUCT INFORMATION

Chemical Base	Neutral cure silicone
Packaging	4.5 gal (17 L) in a 5 gal pail 52 gal (197 L) in 55 gal drum 29 oz. cartridges/12 per case.
Color	Limestone and Charcoal Gray.
Shelf Life	12 months in original unopened container. A product skin may form in pails and drums, remove prior to use.

Storage Conditions	Store in unopened containers at temperatures at or below 90 °F (32 °C).
Volatile organic compound (VOC) content	2.27 % by wt., 29 g/L, 0.24 lb./gal.

TECHNICAL INFORMATION

Shore Hardness	3-5	Shore A (after 7 days)	(ASTM C-661, ASTM D-2240)
	40	Shore OO (after 7 days)	
Shore A Hardness	3–5		(after 7 days) (ASTM C-661, ASTM D-2240)
Tensile Strength	100 psi (0.69 MPa)		(ASTM D-412)
Tensile Stress at Specified Elongation	30 psi (0.21 MPa) at 100 % elongation		(ASTM D-412)
Elongation at Break	1100 %		(ASTM D-412)
Adhesion in Peel	25 pli		(ASTM C-794)
Movement Capability	+100 % / –50 %		(ASTM C-719)
Resistance to Weathering	Excellent		(ASTM C-793)
Service Temperature	-80 °F min. / +350 °F max. (-60 °C min. / 175 °C max.)		

APPLICATION INFORMATION

Coverage

1 gallon: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	307.9		
3/8"	205.3	136.8	
1/2"	153.9	102.6	77.0
3/4"	102.6	68.4	51.3
1"			38.5
1.25"			30.8
1.5"			25.7

29 oz Cartridge: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	69.8		
3/8"	46.5	31.0	
1/2"	34.9	23.3	17.4
3/4"	23.3	15.5	11.6
1"			8.7
1.25"			7.0
1.5"			5.8

Skin Time	60 minutes	(77 °F (25 °C), 50 % R.H) (MNA Method)
Tack Free Time	115 minutes	(77 °F (25 °C), 50 % R.H.) (ASTM C-679)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Joint Design: The number of joints and the joint width should be designed for a recommended joint movement of +25 % and -25 % at time of installation. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 inch (13 mm) and the minimum is 3/8 inch (10 mm). For joints greater than 1 inch (25.4 mm), do not exceed 1/2 inch (13 mm) in depth.

Joint Backing: To control joint depth, use closed cell polyethylene or non-gassing polyolefin backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion. Closed cell backer rod should be 25 % larger than joint width; do not compress more than 40 %.

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.

Porous Substrates – clean by mechanical methods to expose a sound surface free of contamination and laitance.

Non-porous substrates – for cleaning non-porous substrates, use two rag wipe method using xylene or an approved commercial solvent. Allow solvent to evaporate prior to sealant application.

Sikasil®-728 SL is designed to obtain adhesion without the use of a primer; however, best results are obtained when horizontal joints are primed. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Technical Data Sheet for Sikasil Primer and contact Technical Service for additional information.

APPLICATION METHOD / TOOLS

Ready to use, apply using professional caulking gun or dispensing equipment. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Apply the sealant so that it is recessed 1/8 inch (3 mm) below the surface. For parking deck joints, recess 1/4 inch (6 mm). For highway joints, recess 1/2 inch (13 mm). Sikasil®-728 SL is self leveling therefore, no tooling is needed. It is typical that Sikasil®-728 SL may retain some residual surface tack in its first 10–14 days of cure. This condition does not affect the time the surface joint can be open to service in a properly recessed sealant joint. Sikasil®-728 SL will obtain adhesion to aged, cured asphalt. Never use on newly poured asphalt. Conduct a field test to document and confirm adhesion under actual jobsite conditions.

Removal

Remove excess sealant from substrate while uncured using a commercial solvent, such as xylene. Strictly follow solvent manufacturer's instructions for use and warnings. Cured sealant may be removed by mechanical means. Cured sealant can only be removed by mechanical means.

LIMITATIONS

- Do not allow sealant to come in contact with solvent during cure.
- Do not allow sealant to come in contact with curing polyurethane sealants during cure.
- Not intended for immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.
- Not intended for structural glazing.
- Test recommended for absorptive surfaces such as granite, limestone or marble where staining may occur.
- Do not apply to surfaces that will be painted.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may be discolored. Test apply prior to application.
- Test sensitive substrates for compatibility before use.
- Due to the very low tensile strength of asphalt and possibility that asphalt may fail cohesively within itself, Sikasil®-728 SL is not recommended for asphalt to asphalt joints.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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LEGAL DISCLAIMER

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Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Product Data Sheet
Version 12/29/2014

Sikasil®-N Plus US

Neutral Cure Silicone Assembly Sealant

Technical Product Data (typical values)

Chemical Base		1-C silicone	
		Pigmented	**Translucent**
Cure mechanism		Moisture	Moisture
Cure type		Oxime	Oxime
Density (uncured)		11.6 lbs./gal.	8.4 lb/gal
VOC		37 g/L (0.31 lb./gal.)	36 g/L, 0.30 lbs/gal
Non-sag properties	(ASTM C-639)	Non-sag	Non-sag
Slump		Nil	Nil
Skin Time	(MNA Method)	15 minutes	20 minutes
Tack free time[2]	(ASTM D-679)	30 minutes	30 minutes
Extrusion Rate g/min (ASTM C-1183 modified)	1/8" orifice @ 90 psi	230	360
Curing speed	(MNA Method)	1/8 inch 24 hours	1/8 inch 24 hours
Shrinkage		Nil	Nil
Shore A-hardness	(ASTM C-661)	30 ± 5	15 ± 5
Tensile strength psi (mpa)	(ASTM D-412)	300 psi (2.07)	190 psi (1.31)
Elongation at break	(ASTM D-412)	430%	430 %
Bond durability - glass/ aluminum / concrete	(ASTM-C793)	± 25 %	± 25 %
Movement capability	(ASTM C-719)	± 25 %	± 25 %
Application Temperature[1]	product only	-35° to 140°F (-32 to 40°C)	
Service temperature		- 80° to 350°F (-62° to 176°C)	
Weathering Resistance		Excellent	
Shelf life (storage below 90°F (32°C))	Cartridge and Unipac	12 months	12 months
	Drum and Pail	12 months	12 months

[1] Substrate and Air Temperature must be between 40° - 105°F (5 - 40°C). See "Application" Section for details.
[2] 77°F (25°C) / 50% r.h.

Industry

Description

Sikasil®-N Plus US is a general purpose, one-component, non-sag, elastomeric, 100% RTV neutral cure silicone sealant. Meets the requirements of ASTM C-920, Type S, Grade NS, Class 25, Use NT, T, M, G, A, O; TT-S-00230C, Type II, Class A; TT-S-001543A, Class A; CAN/CGSB-19.13-M87, AAMA 802.3 Type II, AAMA 803.3, AAMA 805.2, AAMA 808.3 and California Air Resources Board 2003 requirements for Volatile Organic Compound content.

Product Benefits

- Extremely long service life
- Excellent flexibility for dynamic joint movement
- Bonds to most substrates without priming
- Ready to use, no mixing required
- AAMA Certified component for window backbedding / glazing
- All season ease of application
- Fungicide additive for mildew resistance

Areas of Application

- Window and door fabrication
- Conventional glazing
- Back bedding and cap, toe and heel beads
- Perimeter sealing of windows, doors and skylights
- Expansion and control joints
- HVAC, White goods assembly
- Kitchen and bath countertops/solid surfaces, Sanitary Seals
- Marine cabins
- Truck/trailer/auto/RV

Typical Substrates

- Glass, aluminum, tile, fiberglass, plastic, ceramic, masonry, concrete, brick and wood

Coverage
Cartridge: Approximately 12.2 linear ft. (3.7 lin. m) for ½ x ¼ in (13 x 6 mm) bead.

Cure Mechanism
Sikasil®-N Plus US cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly (see diagram below).

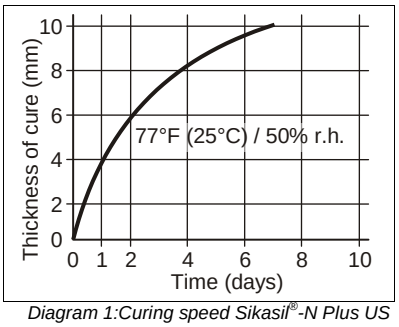


Diagram 1:Curing speed Sikasil®-N Plus US

Chemical Resistance
Sikasil®-N Plus US is resistant to UV radiation, fresh water, seawater and proprietary aqueous cleaning agents; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; no resistance to organic acids, concentrated mineral acids, caustic solutions and solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request. Contact Technical Service at (tsmh@sika-corp.com).

Method of Application
Surface preparation
The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.

POROUS SUBSTRATES – clean by mechanical methods to expose a sound surface free of contamination.

NON-POROUS SUBSTRATES – for cleaning non-porous substrates, use two cloth cleaning method using isopropyl alcohol, xylene or an approved, clean, pure non-diluted industrial grade solvent.. Allow solvent to evaporate completely prior to sealant application. Strictly follow solvent manufacturer's instructions for safe handling.

PRIMING Sikasil®-N Plus US is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Product Data Sheet for primers **Sikasil® 2100**, or **Sikasil® 2300** available at www.sikausa.com or by contacting Technical Service for additional information and recommendations at (tsmh@sika-corp.com).

Application
In all cases, make sure the joint design is correct. Proper joint design minimizes stresses on the sealant. Use masking tape if desired for areas adjacent to the joint to be sealed to prevent surface contamination. Apply sealant to dry, clean surfaces. An air operated or hand operated cartridge gun may be used. Do not break cartridge seal until just before use. Surfaces should be dried before the sealant is applied. Normally sealant skins in 8 minutes, dries to touch in 1 hour, and bonds in 24 hours.

This product is suitable for bulk dispensing straight from drums or pails by means of a pneumatic or hydraulic pump system. For recommendations on selecting and setting up a suitable pump system please contact our Technical Service Department at (tsmh@sika-corp.com).

Expansion Joint
Apply using professional caulking gun. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Tool sealant to create a concave joint shape and ensure maximum adhesion. Dry tooling is recommended.

Adhesive Joint
Apply using professional caulking gun, dispensing equipment or trowel. Use sufficient quantity of adhesive to one or both substrates to provide designed contact area. Surfaces may be moved up to one hour after application without loss of adhesive strength.

Tooling and finishing
Tool joint, if necessary, and remove masking tape. Tooling should be completed in one continuous stroke. Tool immediately after sealant is applied and before a skin begins to form. Dry tool - DO NOT use soap, water or oil as a tooling aid. Remove masking tape immediately after tooling is completed. Complete tooling of product within 5 minutes of sealant application.

Removal
Uncured sealant may be removed from tools and equipment with solvents such as isopropyl alcohol or xylene, if cleaned before sealant has begun to cure. Strictly follow solvent manufacturer's instructions for use and warning statements. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed with soap and water immediately after use. Do not use solvents on skin!

Overpainting
Sikasil®-N Plus US cannot be overpainted.

Limitations
- Do not allow sealant to come in contact with solvent during cure.
- Do not allow sealant to come in contact with curing polyurethane sealants during cure.
- Not intended for immersion.
- Not intended for structural glazing.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.
- Not recommended for horizontal traffic.
- Not recommended for absorptive surfaces such as natural stone, particularly limestone or marble where staining may occur. Test before use.
- Do not apply to surfaces that will be painted.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may be discolored. Test prior to application.
- Test sensitive substrates, such as mirror backings for compatibility before use.

WARNING: IRRITANT, SENSITIZER. Contains Methyl ethyl ketoxime (CAS: 96-29-7), Oximino Silane (Trade Secret). Direct eye contact may cause irritation. Eye contact may cause conjunctivitis, corneal damage, or severe chemical burns. May cause skin irritation and sensitization. May be absorbed through the skin. May cause irritation to respiratory system. May cause drowsiness. May be harmful if swallowed. If heated, silicones can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant

Further information available at:
www.sikausa.com

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MADE IN USA

to the eyes, nose, throat, skin, and digestive system. Product contains oximes, possible skin sensitizers.

HMIS

Health	*1
Flammability	1
Reactivity	0
Personal Protection	C

FIRST AID

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, remove from skin and flush with water for 15 minutes. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. Get medical attention if irritation develops or ill effcts persist. Treat according to persons condition and specifics of exposure.

Further Information

Copies of the following publications are available on our website **www.sikausa.com** or by contacting (tsmh@sika-corp.com)

- Material Safety Data Sheet
- Product Data Sheet

In case of emergency call:
Chemtrec: 800-424-9300
International: 703-527-3887

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety related data. It is highly recommended to read the actual Material Safety Data Sheet before using the product.

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Packaging Information

Cartridge	10 fl. oz. (295ml)
Pail	4.5 gal (17 L) in a 5 gal pail
Drum	52 gal (197 L) in 55 gal drum

Value Basis

All technical data stated on this Product Data Sheet are based on the results of laboratory tests only. Actual measured data in the field may vary due to site specific conditions which are not known to Sika and beyond our control.

Handling and Storage

Use with adequate ventilation. Product evolves Methyl ethyl ketoxime (MEKO) and methanol when exposed to water or humid air. Provide adequate ventilation to control MEKO within exposure guidelines. Keep container closed and store away from water or moisture or oxidizing materials.

Storage: When stored in the original, unopened containers at or below 90°F (32°C), shelf life is one year. A product skin may form in pails and drums, remove prior to use.

Clean Up

Observe personal protective equipment recommendations described in MSDS. Disposal of collected product, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Wipe up and contain for disposal. Final cleaning may require use of steam, solvents, or detergents.

Limited Material Warranty

Manufacturer / Distributor warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Further information available at:
www.sikausa.com

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PRODUCT DATA SHEET

SikaHyflex®-150 LM

ONE PART, LOW MODULUS, HYBRID SEALANT

PRODUCT DESCRIPTION

SikaHyflex®-150 LM is a premium-grade, high movement, fast curing, one component, non-sag, elastomeric, hybrid sealant. Meets ASTM C-920, Type S, Grade NS, Class 50, use NT, M, A, G, O.

USES

- For joints or gaps connecting dissimilar substrates – e.g. vinyl to concrete, aluminum to EIFS.
- Window Perimeter
- Expansion joints
- Curtain Wall construction
- For applications that require both paintability and adhesion to non-porous substrates
- When easy cold weather application is desired

CHARACTERISTICS / ADVANTAGES

- Fast skin time (~60 min)
- Excellent adhesion to porous and nonporous substrates
- Superior UV resistance and weathering
- Color retention – white stays white
- Can be over-painted immediately after application.
- Very low VOC
- Non-staining

PRODUCT INFORMATION

Packaging	10.1 fl. oz. (300 ml) cartridge 20 fl. oz. (600 ml) uni-pac sausage
Shelf Life	12 months
Storage Conditions	Store dry between 40 °F (5 °C) and 80 °F (27 °C) at 50 % R.H. Condition Material to 65–75 °F (18–24 °C) before using.
Color	White, Limestone, Off-white, Tan, Stone, Aluminum Gray, Redwood Tan, Medium Bronze, Special Bronze, & Black
Volatile organic compound (VOC) content	See Product Safety Data Sheet

TECHNICAL INFORMATION

Shore A Hardness	20		(at 73 °F (23 °C) and 50 % R.H) (ASTM C-661)
Tensile stress at specified elongation	60 psi at 100 %		(at 73 °F (23 °C) and 50 % R.H) (ASTM D-412)
Elongation at Break	800 %		(at 73 °F (23 °C) and 50 % R.H) (ASTM D-412)
Movement Capability	± 50 %		(at 73 °F (23 °C) and 50 % R.H.) (ASTM C-719)
Adhesion in peel	Aluminum	36.5 pli	(at 73 °F (23 °C) and 50% R.H.) (ASTM C-794)
	Glass	33.8 pli	
	Concrete	31.0 pli	
Service Temperature	-40–170 °F (-40–77 °C)		
Resistance to Weathering	Excellent		
Color	Stain and color change: None		(ASTM C-510)

APPLICATION INFORMATION

Coverage

10.1 oz (300 ml) Cartridge: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	24.3		
3/8"	16.2	10.8	
1/2"	12.1	8.1	6.1
3/4"	8.1	5.4	4.0
1"			3.0
1.25"			2.4
1.5"			2.0

20 oz (600 ml) Sausage: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	48.1		
3/8"	32.1	21.4	
1/2"	24.1	16.0	12.0
3/4"	16.0	10.7	8.0
1"			6.0
1.25"			4.8
1.5"			4.0

Ambient Air Temperature	40–100 °F (4–38 °C). Sealant should be installed when joint is at midrange of its anticipated movement.
Tack Free Time	~ 1 h (at 73 °F (23 °C) and 50 % R.H.) (ASTM C-679)

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- SikaHyflex®-150 LM can be overpainted immediately after sealant is applied.
- When overcoating with water, oil and rubber based paints, compatibility and adhesion testing is essential. Rigid paints and coatings may lose adhesion to elastomeric sealants due to their inability to accommodate joint movement.
- Maximum depth of sealant must not exceed 1/2 in. (12.7 mm); minimum depth is 1/4 in. (6.3 mm).

- Do not cure in the presence of curing silicone or polyurethane sealants.
- Use opened cartridges and uni-pac sausages the same day.
- When applying sealant, avoid air-entrapment.
- Since system is moisture-cured, permit sufficient exposure to air.
- Light colors can yellow if exposed to direct gas fired heating element before final sealant cure.
- Do not tool with detergent or soap solutions.
- Do not use in contact with bituminous/asphaltic materials.
- Not intended for immersion.
- Not intended for structural glazing applications
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.
- Do not apply when substrate temperatures are below -20 °F (-4 °C) or above 130 °F (54 °C).
- Not recommended for horizontal vehicular traffic.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- The ultimate performance of SikaHyflex®-150 LM depends on good joint design and proper application with joint surfaces properly prepared.

ENVIRONMENTAL, HEALTH AND SAFETY

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APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.
POROUS SUBSTRATES – clean by mechanical methods to expose a sound surface free of contamination and laitance.
NON-POROUS SUBSTRATES – for cleaning non-porous substrates, use two rag wipe method using alcohol, xylene or an approved commercial solvent. Allow solvent to evaporate prior to sealant application.

Priming

SikaHyflex®-150 LM is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. *In the situation where primer is needed on porous surfaces use Sika® Primer 429. For non-porous surfaces contact Technical Services for proper recommendation.

APPLICATION METHOD / TOOLS

The number of joints and the joint width should be designed for a maximum of ± 25 % movement of joint width at time of installation. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 in. (13 mm) and the minimum is 1/4 in. (6 mm). To control joint depth, use closed cell polyethylene, non-gassing polyolefin or open cell polyurethane backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion. Closed cell backer rod should be 25 % larger than joint width; do not compress more than 40 %. Open cell should be compressed 40 %. Do not use open cell rod in horizontal on grade joints or with E.I.F.S. Ready to use, apply using professional caulking gun. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Tool sealant to create a concave joint shape and achieve maximum adhesion. Dry tooling is recommended. DO NOT use soapy water or other liquids when tooling.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

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SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

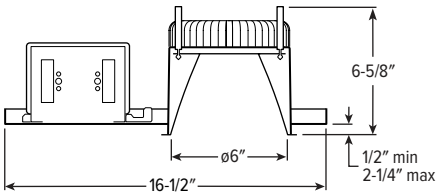
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Lighting Cutsheets

6DR LED
6" Downlight – Round





L30 – L40 Lumens shown

CATALOG #:

TYPE:

PROJECT:

NEW CONSTRUCTION AND REMODEL

BUY AMERICAN ACT COMPLIANT | ENERGY STAR | CCEA Approved | Low UGR | IP65 Rated | JA8 Compliant | TITLE 24 | WET/CC | TrimLock

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(HOUSING | TRIM | MOUNT.)

HOUSING

SERIES
- **6DR - TL** TrimLock

LUMENS [1]
- **L10** 1,000lm [2]
- **L15** 1,500lm
- **L20** 2,000lm
- **L30** 3,000lm
- **L40** 4,000lm
- **L50** 5,000lm
- **L60** 6,000lm
- **L70** 7,000lm
- **L80** 8,000lm

CRI
- **8** 80
- **9** 90

CCT
- **27** 2700K
- **30** 3000K
- **35** 3500K
- **40** 4000K
- **50** 5000K

OPTIONS
See page 3 for EMERGENCY BATTERY OPTIONS.
- **SCA__** Sloped ceiling adapter [3]
- **ATH** Airtight construction
- **F** Fuse
- **CP** Chicago plenum (CCEA) [4]
- **SDT** Stepdown transformer [5]

CONTROL
See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.
- **–** None
- **AVI-LVFA** Avi-on wireless fixture control [6]
- **AWNR** Lutron Athena wireless node integral fixture control, RF only [7]

DRIVER
See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.
- **DIM** Dimming driver, 0-10V
- **DIM1** 1% Dimming driver, 0-10V
- **DA** Driver with 12V auxiliary power, without external dimming wires [8]

VOLTAGE
- **UNV** 120-277V
- **347** 347V [9]

TRIM [10]

TRIM TYPE
- **O** Open reflector
- **F** Open reflector with frosted top diffuser [11]
- **L** Flush lens
- **R** Regressed lens
- **A** Angled lens [12]
- **S** Non-conductive flush lens for shower applications [13]

DISTRIBUTION
See page 2 for BEAM ANGLE.
- **W** Wide
- **M** Medium [14]
- **N** Narrow [15]
- **WW** Wall wash [16]

FLANGE TYPE
- **OF** 1/2" standard flange
- **SF** 1/4" mud-in flange [17]

REFLECTOR FINISH

Open trim types
- **CS** Clear semi-specular anodize
- **SG** Satin-glow anodize
- **GD** Gold anodize
- **CG** Champagne gold anodize
- **PW** Pewter anodize
- **SPC** Clear specular anodize
- **RG** Rose gold anodize
- **WH** White texture powder coat
- **BL** Black texture powder coat

Lens trim types
- **CS** Clear semi-specular powder coat
- **WH** White texture powder coat
- **BL** Black texture powder coat
- **MB** Black texture splay with white flange [18]

TRIM OPTIONS
- **MWT** Smooth matte white trim flange [19]
- **IP** IP65 rated trim [20]
- **AD** Diffuse acrylic lens [21]
- **PD** Diffuse 1/8" polycarbonate lens [22]
- **WET/CC** Wet location, covered ceiling listed [23]
- **AM** Anti-microbial [24]

MOUNTING

MOUNTING TYPE [25]
- **N** Open pan for new construction
- **I** IC-rated enclosure for new construction [27]
- **R** Remodel kit [28]

MOUNTING HARDWARE [26]
- **F1** Integral 2-position fixed pan bracket, universal bar hanger included [29]
- **BA1** Adjustable butterfly pan bracket, bar hanger not included [30]
- **CA1** Adjustable caterpillar pan bracket, universal bar hanger included [31]

NOTES

1 Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 Not available with EM/10W emergency batteries.
3 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
4 I Mounting Type required.
5 May be required for 347V, see product builder at hew.com/product-builder
6 DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
7 DA Driver only.
8 Avi-on and Lutron Athena Controls only.
9 Not available with EM batteries, DA or DMX Drivers.
10 Trim ships separately.
11 WET/CC standard unless ordered with EM/RTS or SCA Options. L50 lumen package max.
12 Available with WW Distribution only.
13 W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD, IP and WET/CC Trim Options.
14 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
15 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
16 O and A Trim Types only.
17 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP Options.
18 R Trim Type only. Not available with MWT.
19 Not available with WH Reflector Finish, L or S Trim Types.
20 L and R trim types only.
21 Not available with O or F Trim Types. W and WW Distributions only.
22 Not available with O or F Trim Types. W and WW Distributions only.
23 L50 lumen package max with O Trim Type.
24 WH and BL Reflector Finishes only. Not available with S Trim Type.
25 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
26 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
27 L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
28 Also used in new construction sheetrock ceilings. Pan-less installation.
29 N and I Mounting Types only. I Mounting requires external brackets.
30 N Mounting Type only.
31 N Mounting Type only.

6DR LED
6" Downlight – Round

FEATURES

- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Wide range of lumen options for general illumination
- Beam angles ranging from 10° narrow to 65° wide for tailored performance
- Industry-leading efficacies as high as 116 lm/W
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Fully room-side accessible
- Die-cast trim includes flush, regressed or angled lens
- Sloped adapter accommodates vaulted ceilings
- Optional non-conductive lens for shower applications
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Open reflector with nine finishes complements any interior style
- Available on QuickShip
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms field adjust for ceiling thickness from 1/2" – 2-1/4".
- TRIMLOCK – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM – Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90>55,000 hours. Estimated L70 = 200,000 hours.
- MOUNTING – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L60 - L80 lumen packages.
- LISTINGS –
  - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and damp locations. LED light assembly conforms to UL 2108 for remote installation.
  - Suitable for wet location under covered ceiling when specified with WET/CC option or F trim type.
  - ENERGY STAR® certified in select configurations, see energystar.gov
  - IC-rated for direct contact with insulation when specified with I Mounting Type.
  - City of Chicago Environmental Air approved when specified with CP option.
  - IP65 rated trim when specified with IP option.
  - Complies with ASTM-E283 when specified with ATH option.
  - RoHS compliant.
  - Title 24 (JA8) compliant in select configurations, see cacertappliances.energy.ca.gov
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1014	8.7	117
	M	982	8.7	113
	N	1003	8.7	115
L15	W	1497	13.8	109
	M	1495	13.8	108
	N	1528	13.8	111
L20	W	1988	19.0	105
	M	1983	19.1	104
	N	2026	19.1	106
L30	W	3062	26.9	114
	M	3003	26.9	112
	N	3000	26.9	112
L40	W	4094	36.5	112
	M	4016	36.4	110
	N	4011	36.4	110
L50	W	5014	43.9	114
	M	4935	43.9	112
	N	5047	43.9	115
L60	W	6043	54.0	112
	M	5948	54.0	110
	N	6083	54.0	113
L70	W	7008	67.8	103
	M	6898	67.8	102
	N	7055	67.8	104
L80	W	8018	79.8	101
	M	7891	79.8	99
	N	8071	79.8	101

FLUSH LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	774	8.7	89
	M	910	8.7	105
	N	909	8.7	105
L15	W	1178	13.8	85
	M	1385	13.8	100
	N	1384	13.8	100
L20	W	1562	19.5	80
	M	1837	19.1	96
	N	1836	19.5	94
L30	W	2335	26.9	87
	M	2782	26.9	103
	N	2718	26.9	101
L40	W	3122	36.5	86
	M	3720	36.4	102
	N	3635	36.4	100
L50	W	3824	43.9	87
	M	–	–	–
	N	–	–	–
L60	W	4609	54.0	85
	M	–	–	–
	N	–	–	–
L70	W	5345	67.8	79
	M	–	–	–
	N	–	–	–
L80	W	6115	79.8	77
	M	–	–	–
	N	–	–	–

REGRESSED LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	716	8.7	82
	M	883	8.7	102
	N	897	8.7	103
L15	W	1090	13.8	79
	M	1344	13.8	97
	N	1366	13.8	99
L20	W	1445	19.5	74
	M	1782	19.1	93
	N	1812	19.5	93
L30	W	2160	26.9	80
	M	2699	26.9	100
	N	2683	26.9	100
L40	W	2889	36.5	79
	M	3609	36.4	99
	N	3587	36.4	99
L50	W	3537	43.9	81
	M	–	–	–
	N	–	–	–
L60	W	4264	54.0	79
	M	–	–	–
	N	–	–	–
L70	W	4945	67.8	73
	M	–	–	–
	N	–	–	–
L80	W	5657	79.8	71
	M	–	–	–
	N	–	–	–

MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.92
	3000K	0.98
	3500K	1.00
	4000K	1.01
	5000K	1.02
90 CRI	2700K	0.76
	3000K	0.79
	3500K	0.82
	4000K	0.84
	5000K	0.88

	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG [1]	0.92
	GD	0.93
	CG	0.96
	PW	0.86
	SPC	1.02
	RG	0.88
	WH [1]	0.89
	BL [1]	0.47
R TRIM	WH	1.00
	CS	0.98
	BL	0.79

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
F	0.75
S	0.85
AD	0.85
PD	0.85
WET/CC	0.85

BEAM ANGLE

	TRIM TYPE [2]			
	O	F	L	R
W	65°	70°	55°	55°
M	35°	35°	35°	35°
N	10°	20°	25°	25°

1 Distribution will also be affected, consult factory.
2 Beam angle based on CS or WH Reflector Finish.

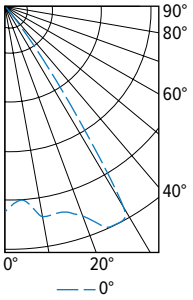
- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K CCT, wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

PHOTOMETRY CONTINUED ON NEXT PAGE.

6DR LED
6" Downlight – Round

PHOTOMETRY

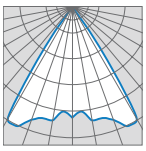
6DR-TL-L20/835-DIM-UNV-OW-OF-CS Report #: 20687; 12/12/18 | Total Luminaire Output: 1988 lumens; 19.0 Watts | Efficacy: 104.6 lm/W | 80 CRI; 3500K CCT

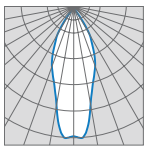


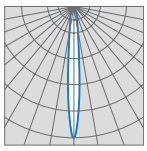
CANDLEPOWER DISTRIBUTION		
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	1672	
5	1579	151
15	1735	492
25	1982	917
35	604	380
45	46	36
55	13	12
65	2	2
75	0	0
85	0	0
90	0	

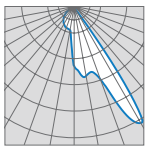
LUMEN SUMMARY		
ZONE	LUMENS	% FIXTURE
0 - 40	1939	98
0 - 60	1987	100
0 - 90	1988	100
0 - 180	1988	100

OPEN (O)

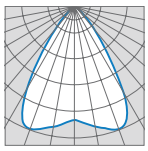

65° Wide

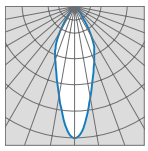

35° Medium

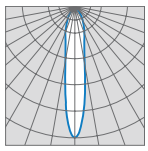

10° Narrow


Wall Wash

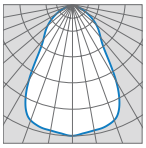
OPEN TOP DIFFUSER (F)

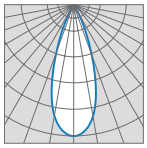

70° Wide

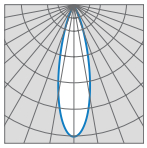

35° Medium


20° Narrow

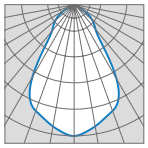
FLUSH (L)

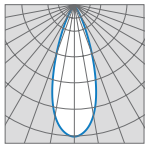

55° Wide

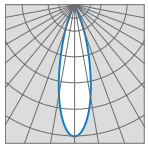

35° Medium


25° Narrow

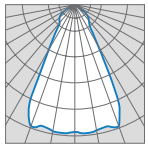
REGRESSED (R)


55° Wide


35° Medium


25° Narrow

ANGLED (A)


Wall Wash

EMERGENCY BATTERY OPTIONS

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required.

CATALOG NUMBER	DESCRIPTION
EM/7W	7-watt emergency battery [1]
EM/7W/RTS	7-watt emergency battery with regressed test switch [2]
EM/7W/IPRTS	7-watt emergency battery with IP65 rated regressed test switch [3]
EM/10W	10-watt emergency battery [1]
EM/10W/RTS	10-watt emergency battery with regressed test switch [2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch [3]

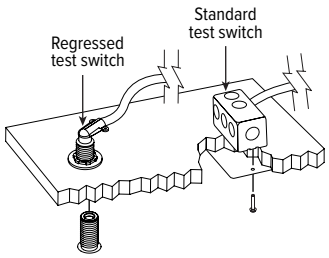
1 Not available with S Trim Type or IP Trim Option.
2 Not available with S Trim Type, IP or WET/CC Trim Options.
3 Must specify IP Trim Option.

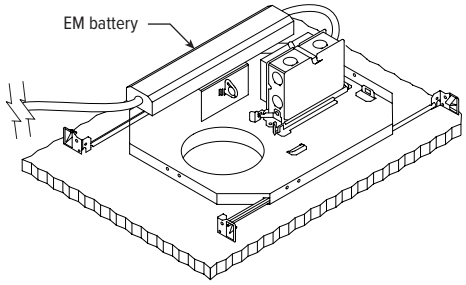
MOUNTING DETAILS


Regressed test switch
ø1-3/4"


Standard test switch
2-3/4" x 4-1/2"

Max remote distance is 50', connection by others.





APERTURE ADAPTOR ORDERING INFO

ORDERING EXAMPLE: 4DR - GR - 0575 - WHT			
SERIES	CATALOG NUMBER	CEILING CUTOUT	FINISH
4AR 6AR 4DR 6DR 4DS 6DS 4PR 6PR 4PS 6PS 8DR	GR	Specify ceiling cutout in 1/8" increments. Example: 5.75" = **0575** See Kit Components for application limits.	**CS** Clear semi-specular powder coat **WH** White texture powder coat **BL** Black texture powder coat

Adaptor (goof ring) corrects ceiling cutout errors during remodel downlight installation.

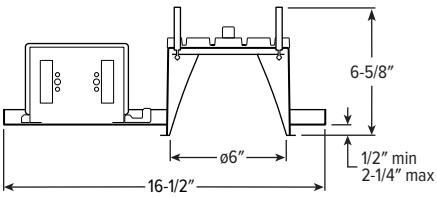
Additional finishes available, consult factory.

For limitations and instructions, see hew.com/aperture-adaptor.pdf

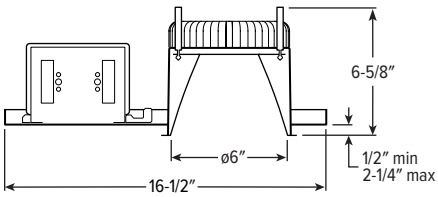
6DR LED
6" Downlight – Round

CROSS SECTIONS

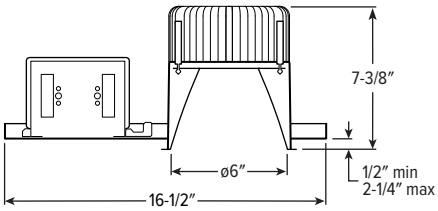
L10 – L20 LUMENS



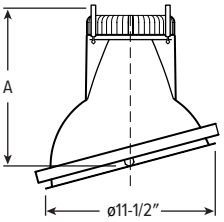
L30 – L40 LUMENS



L50 – L80 LUMENS



SLOPED CEILING ADAPTOR DETAILS



Ceiling cutout: ø11-7/8"

	A (HEIGHT)						PLENUM HEIGHT
LUMENS	5°	10°	15°	20°	25°	30°	
L10 - L40	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L50 - L80	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

15° Shown

TRIMLOCK DETAILS

TWIST



PULL

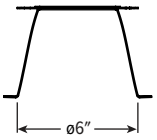


RELEASE

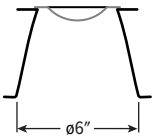


TRIM TYPE DETAILS

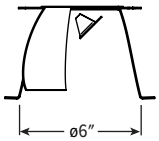
OPEN



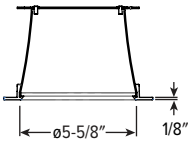
OPEN TOP DIFFUSER



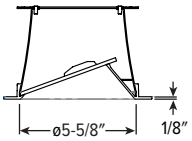
OPEN (WALL WASH)



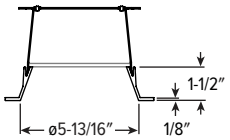
FLUSH | SHOWER



ANGLED

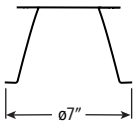


REGRESSED



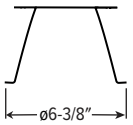
FLANGE TYPE DETAILS

1/2" STANDARD



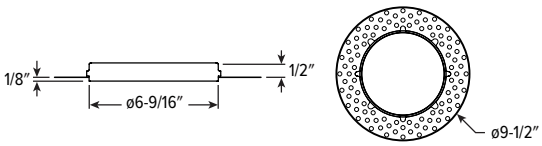
Ceiling Cutout: ø6-1/2"

1/4" MUD-IN



Ceiling cutout: ø7"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



REFLECTOR FINISH DETAILS

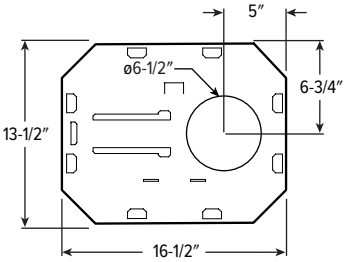
SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black



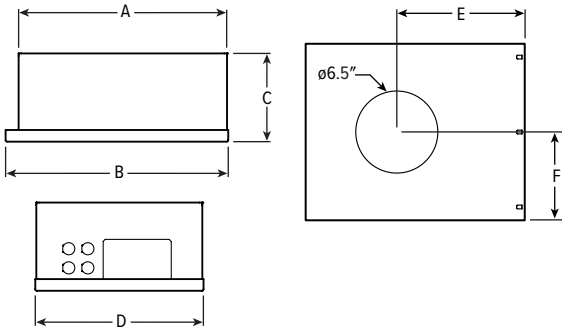
6DR LED
6" Downlight – Round

MOUNTING TYPE DETAILS

NEW CONSTRUCTION



IC-RATED

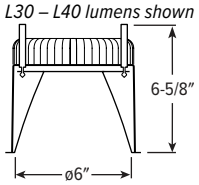


	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16"	16"	6-3/8"	12-1/8"	9-1/2"	6-1/16"
L30	16-5/8"	17-1/2"	7-7/8"	14"	10-1/4"	7"

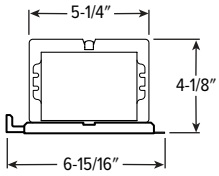
REMODEL

CROSS SECTION

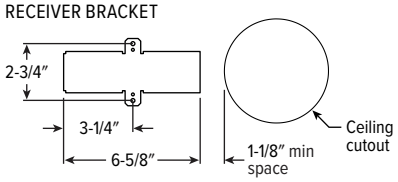
L30 – L40 lumens shown



DRIVER & JUNCTION BOX

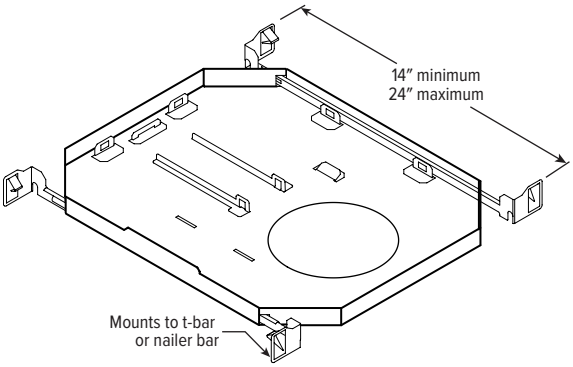


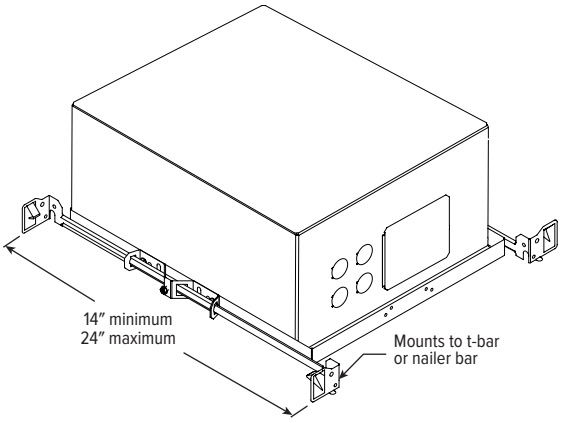
RECEIVER BRACKET



MOUNTING HARDWARE DETAILS

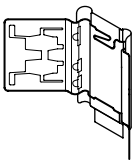
F1 Integral 2-position fixed pan bracket, universal bar hanger included



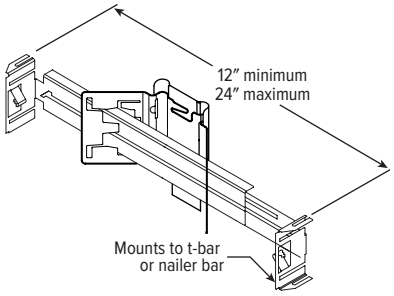


F1 with I Mounting Type

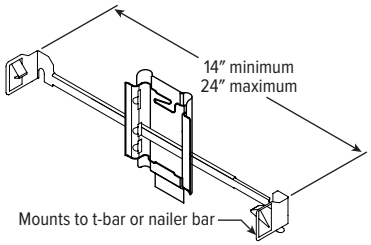
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



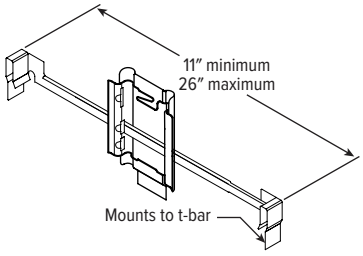
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



6DR LED
6" Downlight – Round

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

WALL STATIONS	
AVI-B-2401AC-1	Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC
AVI-B-2402BAT-1	Scene controller - buttons numbered 1-4 and up/down/off, battery powered
AVI-B-2401AC-2	Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC
AVI-B-2402BAT-2	Dimmer with presets - buttons with percentages and up/down/off, battery powered
AVI-B-2401AC-3	Two button control on/off or hold to dim up/down, 120-277VAC
AVI-B-2402BAT-3	Two button control on/off or hold to dim up/down, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

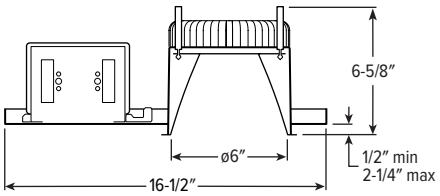
ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron drivers, L15 min to L60 max for DIM LINE driver. R mounting type requires top access with DMX controls. R Mounting Type requires 12" minimum plenum depth when specified with VRF/DBI controls. 347V may require stepdown transformer, see product builder at hew.com/product-builder. I Mounting Type not available with Lutron controls.

CATALOG NUMBER	DESCRIPTION
AVI-LVFA/DA	Avi-on wireless fixture control for use with driver with 12V auxiliary power
AWNR/DA	Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power
VRF/DBI/LDE1	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, with Lutron Hi-lume 1% EcoSystem dimming LED driver
FCJS/DIM	Lutron Vive PowPak wireless fixture control with dimming driver
FCJS/DIM1	Lutron Vive PowPak wireless fixture control with 1% dimming driver
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
DALI	DALI dimming driver
DMX	0.1% dimming driver for DMX controls
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

6DR LED
6" Downlight – Round





L30 – L40 Lumens shown

CATALOG #:

TYPE: TYPE D2

PROJECT:

NEW CONSTRUCTION AND REMODEL

BUY AMERICAN ACT COMPLIANT | ENERGY STAR | CCEA Approved | Low UGR | IP65 Rated | JA8 Compliant | TITLE 24 | WET/CC | TrimLock

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
HOUSING — TRIM — MOUNT.

HOUSING

(L2)

SERIES	LUMENS [1]	CRI	CCT
6DR - TL TrimLock	**L10** 1,000lm [2]	**8** 80	**27** 2700K
	L15 1,500lm	**9** 90	**30** 3000K
	L20 2,000lm		**35** 3500K
	L30 3,000lm		**40** 4000K
	L40 4,000lm		**50** 5000K
	L50 5,000lm		
	L60 6,000lm		
	L70 7,000lm		
	L80 8,000lm		

OPTIONS

See page 3 for EMERGENCY BATTERY OPTIONS.

SCA__	Sloped ceiling adapter [3]
ATH	Airtight construction
F	Fuse
CP	Chicago plenum (CCEA) [4]
SDT	Stepdown transformer [5]

CONTROL

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

–	None
AVI-LVFA	Avi-on wireless fixture control [6]
AWNR	Lutron Athena wireless node integral fixture control, RF only [7]

DRIVER

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

DIM	Dimming driver, 0-10V
DIM1	1% Dimming driver, 0-10V
DA	Driver with 12V auxiliary power, without external dimming wires [8]

VOLTAGE

UNV	120-277V
347	347V [9]

TRIM [10]

TRIM TYPE

O	Open reflector
F	Open reflector with frosted top diffuser [11]
L	Flush lens
R	Regressed lens
A	Angled lens [12]
S	Non-conductive flush lens for shower applications [13]

DISTRIBUTION

See page 2 for BEAM ANGLE.

W	Wide
M	Medium [14]
N	Narrow [15]
WW	Wall wash [16]

FLANGE TYPE

OF	1/2" standard flange
SF	1/4" mud-in flange [17]

REFLECTOR FINISH

Open trim types

CS	Clear semi-specular anodize
SG	Satin-glow anodize
GD	Gold anodize
CG	Champagne gold anodize
PW	Pewter anodize
SPC	Clear specular anodize
RG	Rose gold anodize
WH	White texture powder coat
BL	Black texture powder coat

Lens trim types

CS	Clear semi-specular powder coat
WH	White texture powder coat
BL	Black texture powder coat
MB	Black texture splay with white flange [18]

TRIM OPTIONS

MWT	Smooth matte white trim flange [19]
IP	IP65 rated trim [20]
AD	Diffuse acrylic lens [21]
PD	Diffuse 1/8" polycarbonate lens [22]
WET/CC	Wet location, covered ceiling listed [23]
AM	Anti-microbial [24]

MOUNTING

MOUNTING TYPE [25]

N	Open pan for new construction
I	IC-rated enclosure for new construction [27]
R	Remodel kit [28]

MOUNTING HARDWARE [26]

F1	Integral 2-position fixed pan bracket, universal bar hanger included [29]
BA1	Adjustable butterfly pan bracket, bar hanger not included [30]
CA1	Adjustable caterpillar pan bracket, universal bar hanger included [31]

NOTES

1 Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 Not available with EM/10W emergency batteries.
3 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
4 I Mounting Type required.
5 May be required for 347V, see product builder at hew.com/product-builder
6 DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
7 DA Driver only.
8 Avi-on and Lutron Athena Controls only.
9 Not available with EM batteries, DA or DMX Drivers.
10 Trim ships separately.
11 WET/CC standard unless ordered with EM/RTS or SCA Options. L50 lumen package max.
12 Available with WW Distribution only.
13 W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD, IP and WET/CC Trim Options.
14 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
15 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
16 O and A Trim Types only.
17 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP Options.
18 R Trim Type only. Not available with MWT.
19 Not available with WH Reflector Finish, L or S Trim Types.
20 L and R trim types only.
21 Not available with O or F Trim Types. W and WW Distributions only.
22 Not available with O or F Trim Types. W and WW Distributions only.
23 L50 lumen package max with O Trim Type.
24 WH and BL Reflector Finishes only. Not available with S Trim Type.
25 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
26 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
27 L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
28 Also used in new construction sheetrock ceilings. Pan-less installation.
29 N and I Mounting Types only. I Mounting requires external brackets.
30 N Mounting Type only.
31 N Mounting Type only.

6DR LED
6" Downlight – Round

FEATURES

- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Wide range of lumen options for general illumination
- Beam angles ranging from 10° narrow to 65° wide for tailored performance
- Industry-leading efficacies as high as 116 lm/W
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Fully room-side accessible
- Die-cast trim includes flush, regressed or angled lens
- Sloped adapter accommodates vaulted ceilings
- Optional non-conductive lens for shower applications
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Open reflector with nine finishes complements any interior style
- Available on QuickShip
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms field adjust for ceiling thickness from 1/2" – 2-1/4".
- TRIMLOCK – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM – Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90>55,000 hours. Estimated L70 = 200,000 hours.
- MOUNTING – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L60 - L80 lumen packages.
- LISTINGS –
  - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and damp locations. LED light assembly conforms to UL 2108 for remote installation.
  - Suitable for wet location under covered ceiling when specified with WET/CC option or F trim type.
  - ENERGY STAR® certified in select configurations, see energystar.gov
  - IC-rated for direct contact with insulation when specified with I Mounting Type.
  - City of Chicago Environmental Air approved when specified with CP option.
  - IP65 rated trim when specified with IP option.
  - Complies with ASTM-E283 when specified with ATH option.
  - RoHS compliant.
  - Title 24 (JA8) compliant in select configurations, see cacertappliances.energy.ca.gov
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1014	8.7	117
	M	982	8.7	113
	N	1003	8.7	115
L15	W	1497	13.8	109
	M	1495	13.8	108
	N	1528	13.8	111
L20	W	1988	19.0	105
	M	1983	19.1	104
	N	2026	19.1	106
L30	W	3062	26.9	114
	M	3003	26.9	112
	N	3000	26.9	112
L40	W	4094	36.5	112
	M	4016	36.4	110
	N	4011	36.4	110
L50	W	5014	43.9	114
	M	4935	43.9	112
	N	5047	43.9	115
L60	W	6043	54.0	112
	M	5948	54.0	110
	N	6083	54.0	113
L70	W	7008	67.8	103
	M	6898	67.8	102
	N	7055	67.8	104
L80	W	8018	79.8	101
	M	7891	79.8	99
	N	8071	79.8	101

FLUSH LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	774	8.7	89
	M	910	8.7	105
	N	909	8.7	105
L15	W	1178	13.8	85
	M	1385	13.8	100
	N	1384	13.8	100
L20	W	1562	19.5	80
	M	1837	19.1	96
	N	1836	19.5	94
L30	W	2335	26.9	87
	M	2782	26.9	103
	N	2718	26.9	101
L40	W	3122	36.5	86
	M	3720	36.4	102
	N	3635	36.4	100
L50	W	3824	43.9	87
	M	–	–	–
	N	–	–	–
L60	W	4609	54.0	85
	M	–	–	–
	N	–	–	–
L70	W	5345	67.8	79
	M	–	–	–
	N	–	–	–
L80	W	6115	79.8	77
	M	–	–	–
	N	–	–	–

REGRESSED LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	716	8.7	82
	M	883	8.7	102
	N	897	8.7	103
L15	W	1090	13.8	79
	M	1344	13.8	97
	N	1366	13.8	99
L20	W	1445	19.5	74
	M	1782	19.1	93
	N	1812	19.5	93
L30	W	2160	26.9	80
	M	2699	26.9	100
	N	2683	26.9	100
L40	W	2889	36.5	79
	M	3609	36.4	99
	N	3587	36.4	99
L50	W	3537	43.9	81
	M	–	–	–
	N	–	–	–
L60	W	4264	54.0	79
	M	–	–	–
	N	–	–	–
L70	W	4945	67.8	73
	M	–	–	–
	N	–	–	–
L80	W	5657	79.8	71
	M	–	–	–
	N	–	–	–

MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.92
	3000K	0.98
	3500K	1.00
	4000K	1.01
	5000K	1.02
90 CRI	2700K	0.76
	3000K	0.79
	3500K	0.82
	4000K	0.84
	5000K	0.88

	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG [1]	0.92
	GD	0.93
	CG	0.96
	PW	0.86
	SPC	1.02
	RG	0.88
	WH [1]	0.89
	BL [1]	0.47
R TRIM	WH	1.00
	CS	0.98
	BL	0.79

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
F	0.75
S	0.85
AD	0.85
PD	0.85
WET/CC	0.85

BEAM ANGLE

	TRIM TYPE [2]			
	O	F	L	R
W	65°	70°	55°	55°
M	35°	35°	35°	35°
N	10°	20°	25°	25°

1 Distribution will also be affected, consult factory.
2 Beam angle based on CS or WH Reflector Finish.

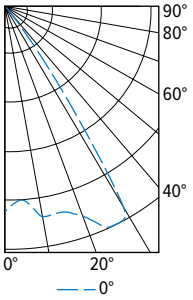
- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K CCT, wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

PHOTOMETRY CONTINUED ON NEXT PAGE.

6DR LED
6" Downlight – Round

PHOTOMETRY

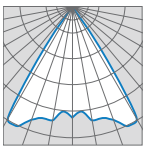
6DR-TL-L20/835-DIM-UNV-OW-OF-CS Report #: 20687; 12/12/18 | Total Luminaire Output: 1988 lumens; 19.0 Watts | Efficacy: 104.6 lm/W | 80 CRI; 3500K CCT

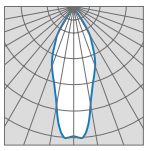


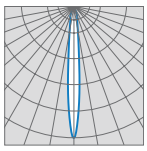
CANDLEPOWER DISTRIBUTION		
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	1672	
5	1579	151
15	1735	492
25	1982	917
35	604	380
45	46	36
55	13	12
65	2	2
75	0	0
85	0	0
90	0	

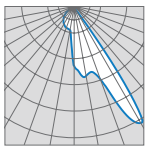
LUMEN SUMMARY		
ZONE	LUMENS	% FIXTURE
0 - 40	1939	98
0 - 60	1987	100
0 - 90	1988	100
0 - 180	1988	100

OPEN (O)

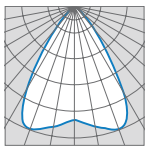

65° Wide

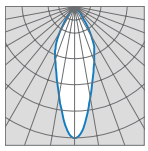

35° Medium

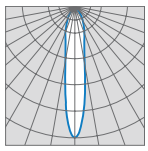

10° Narrow


Wall Wash

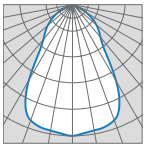
OPEN TOP DIFFUSER (F)

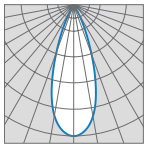

70° Wide

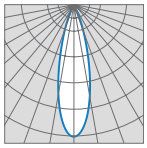

35° Medium


20° Narrow

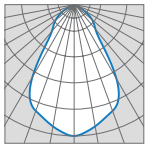
FLUSH (L)

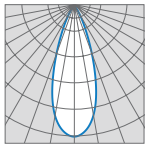

55° Wide

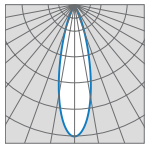

35° Medium


25° Narrow

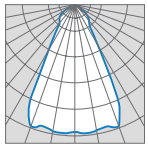
REGRESSED (R)


55° Wide


35° Medium


25° Narrow

ANGLED (A)


Wall Wash

EMERGENCY BATTERY OPTIONS

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required.

CATALOG NUMBER	DESCRIPTION
EM/7W	7-watt emergency battery [1]
EM/7W/RTS	7-watt emergency battery with regressed test switch [2]
EM/7W/IPRTS	7-watt emergency battery with IP65 rated regressed test switch [3]
EM/10W	10-watt emergency battery [1]
EM/10W/RTS	10-watt emergency battery with regressed test switch [2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch [3]

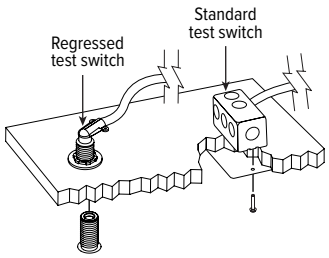
1 Not available with S Trim Type or IP Trim Option.
2 Not available with S Trim Type, IP or WET/CC Trim Options.
3 Must specify IP Trim Option.

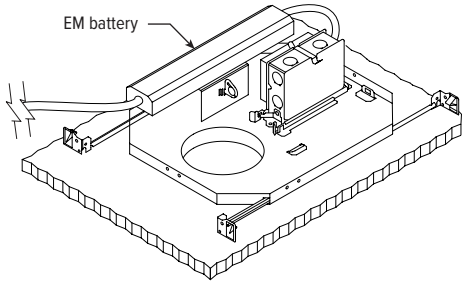
MOUNTING DETAILS


Regressed test switch
ø1-3/4"


Standard test switch
2-3/4" x 4-1/2"

Max remote distance is 50', connection by others.





APERTURE ADAPTOR ORDERING INFO

ORDERING EXAMPLE: 4DR - GR - 0575 - WHT			
SERIES	CATALOG NUMBER	CEILING CUTOUT	FINISH
4AR 6AR 4DR 6DR 4DS 6DS 4PR 6PR 4PS 6PS 8DR	GR	Specify ceiling cutout in 1/8" increments. Example: 5.75" = **0575** See Kit Components for application limits.	**CS** Clear semi-specular powder coat **WH** White texture powder coat **BL** Black texture powder coat

Adaptor (goof ring) corrects ceiling cutout errors during remodel downlight installation.

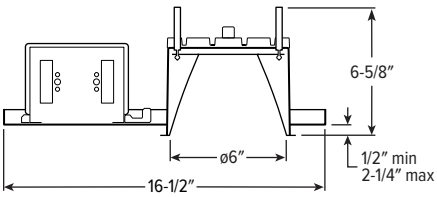
Additional finishes available, consult factory.

For limitations and instructions, see hew.com/aperture-adaptor.pdf

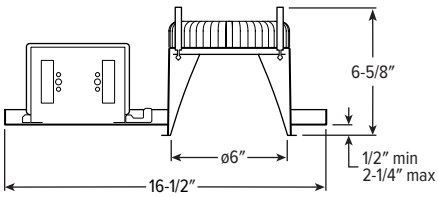
6DR LED
6" Downlight – Round

CROSS SECTIONS

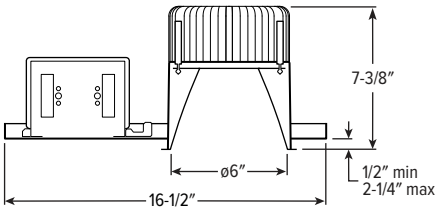
L10 – L20 LUMENS



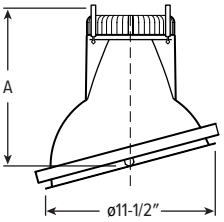
L30 – L40 LUMENS



L50 – L80 LUMENS



SLOPED CEILING ADAPTOR DETAILS



Ceiling cutout: ø11-7/8"

	A (HEIGHT)						PLENUM HEIGHT
LUMENS	5°	10°	15°	20°	25°	30°	
L10 - L40	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L50 - L80	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

15° Shown

TRIMLOCK DETAILS

TWIST



PULL

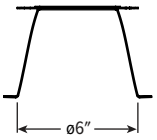


RELEASE

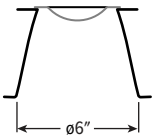


TRIM TYPE DETAILS

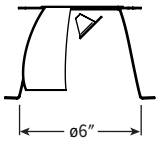
OPEN



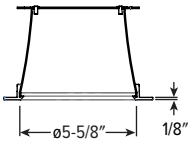
OPEN TOP DIFFUSER



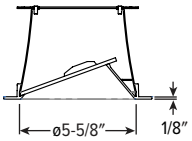
OPEN (WALL WASH)



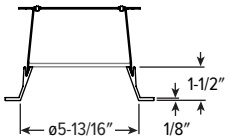
FLUSH | SHOWER



ANGLED

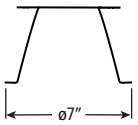


REGRESSED



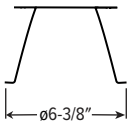
FLANGE TYPE DETAILS

1/2" STANDARD



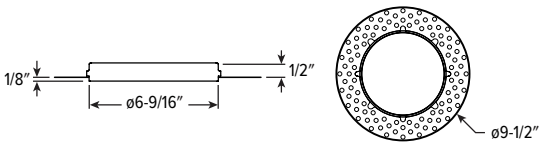
Ceiling Cutout: ø6-1/2"

1/4" MUD-IN



Ceiling cutout: ø7"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



REFLECTOR FINISH DETAILS

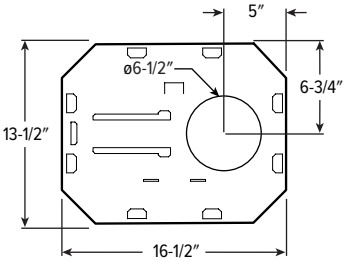
SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black



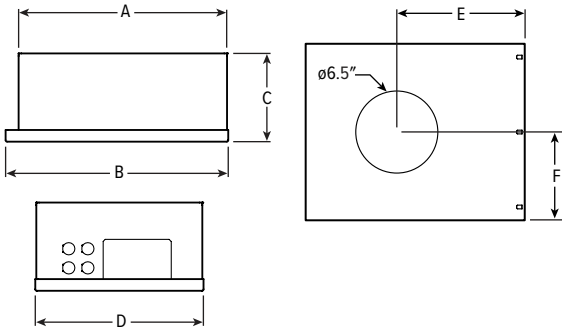
6DR LED
6" Downlight – Round

MOUNTING TYPE DETAILS

NEW CONSTRUCTION



IC-RATED

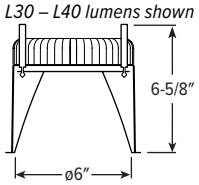


	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16"	16"	6-3/8"	12-1/8"	9-1/2"	6-1/16"
L30	16-5/8"	17-1/2"	7-7/8"	14"	10-1/4"	7"

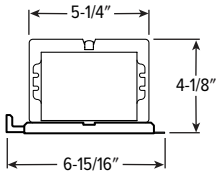
REMODEL

CROSS SECTION

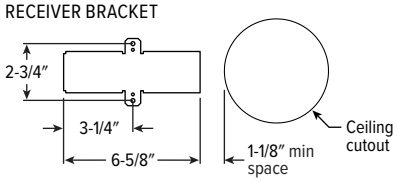
L30 – L40 lumens shown



DRIVER & JUNCTION BOX

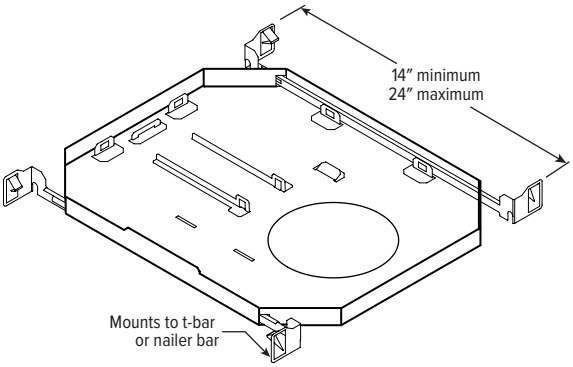


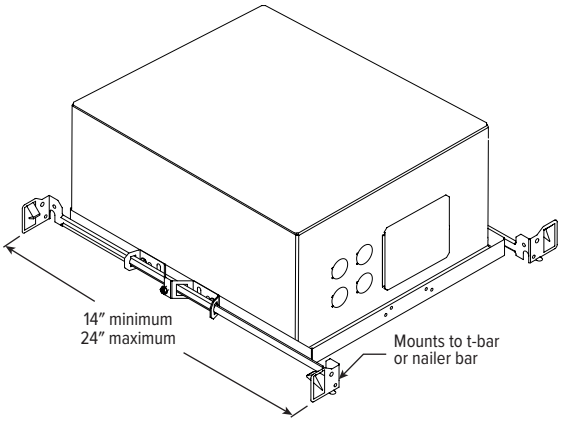
RECEIVER BRACKET



MOUNTING HARDWARE DETAILS

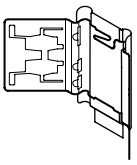
F1 Integral 2-position fixed pan bracket, universal bar hanger included



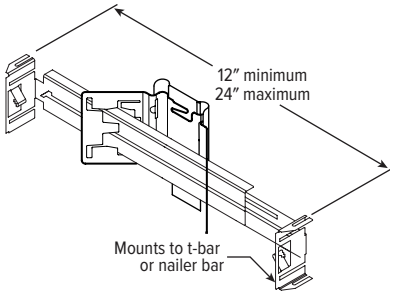


F1 with I Mounting Type

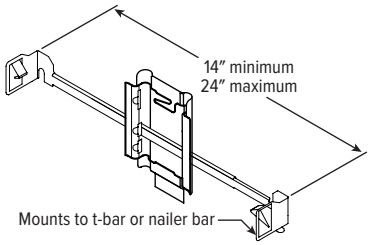
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



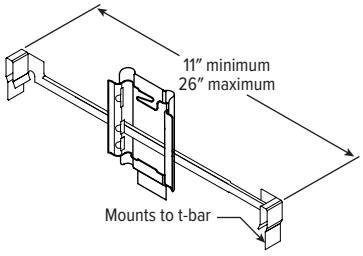
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



6DR LED
6" Downlight – Round

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

WALL STATIONS	
AVI-B-2401AC-1	Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC
AVI-B-2402BAT-1	Scene controller - buttons numbered 1-4 and up/down/off, battery powered
AVI-B-2401AC-2	Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC
AVI-B-2402BAT-2	Dimmer with presets - buttons with percentages and up/down/off, battery powered
AVI-B-2401AC-3	Two button control on/off or hold to dim up/down, 120-277VAC
AVI-B-2402BAT-3	Two button control on/off or hold to dim up/down, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

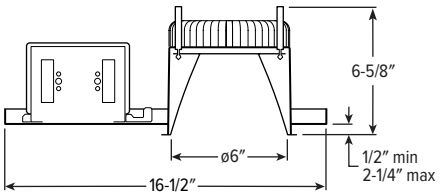
ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron drivers, L15 min to L60 max for DIM LINE driver. R mounting type requires top access with DMX controls. R Mounting Type requires 12" minimum plenum depth when specified with VRF/DBI controls. 347V may require stepdown transformer, see product builder at hew.com/product-builder. I Mounting Type not available with Lutron controls.

CATALOG NUMBER	DESCRIPTION
AVI-LVFA/DA	Avi-on wireless fixture control for use with driver with 12V auxiliary power
AWNR/DA	Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power
VRF/DBI/LDE1	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, with Lutron Hi-lume 1% EcoSystem dimming LED driver
FCJS/DIM	Lutron Vive PowPak wireless fixture control with dimming driver
FCJS/DIM1	Lutron Vive PowPak wireless fixture control with 1% dimming driver
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
DALI	DALI dimming driver
DMX	0.1% dimming driver for DMX controls
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

6DR LED
6" Downlight – Round





L30 – L40 Lumens shown

CATALOG #:

TYPE: TYPE D2E

PROJECT:

NEW CONSTRUCTION AND REMODEL

BUY AMERICAN ACT COMPLIANT | ENERGY STAR | CCEA Approved | Low UGR | IP65 Rated | JA8 Compliant | TITLE 24 | WET/CC | TrimLock

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(HOUSING) (TRIM) (MOUNT.)

HOUSING

(L2)

SERIES	LUMENS [1]	CRI	CCT
6DR - TL TrimLock	**L10** 1,000lm [2]	**8** 80	**27** 2700K
	L15 1,500lm	**9** 90	**30** 3000K
	L20 2,000lm		**35** 3500K
	L30 3,000lm		**40** 4000K
	L40 4,000lm		**50** 5000K
	L50 5,000lm		
	L60 6,000lm		
	L70 7,000lm		
	L80 8,000lm		

OPTIONS

See page 3 for EMERGENCY BATTERY OPTIONS.

SCA__	Sloped ceiling adapter [3]
ATH	Airtight construction
F	Fuse
CP	Chicago plenum (CCEA) [4]
SDT	Stepdown transformer [5]

CONTROL

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

–	None
AVI-LVFA	Avi-on wireless fixture control [6]
AWNR	Lutron Athena wireless node integral fixture control, RF only [7]

DRIVER

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

DIM	Dimming driver, 0-10V
DIM1	1% Dimming driver, 0-10V
DA	Driver with 12V auxiliary power, without external dimming wires [8]

VOLTAGE

UNV	120-277V
347	347V [9]

TRIM [10]

TRIM TYPE

O	Open reflector
F	Open reflector with frosted top diffuser [11]
L	Flush lens
R	Regressed lens
A	Angled lens [12]
S	Non-conductive flush lens for shower applications [13]

DISTRIBUTION

See page 2 for BEAM ANGLE.

W	Wide
M	Medium [14]
N	Narrow [15]
WW	Wall wash [16]

FLANGE TYPE

OF	1/2" standard flange
SF	1/4" mud-in flange [17]

REFLECTOR FINISH

Open trim types

CS	Clear semi-specular anodize
SG	Satin-glow anodize
GD	Gold anodize
CG	Champagne gold anodize
PW	Pewter anodize
SPC	Clear specular anodize
RG	Rose gold anodize
WH	White texture powder coat
BL	Black texture powder coat

Lens trim types

CS	Clear semi-specular powder coat
WH	White texture powder coat
BL	Black texture powder coat
MB	Black texture splay with white flange [18]

TRIM OPTIONS

MWT	Smooth matte white trim flange [19]
IP	IP65 rated trim [20]
AD	Diffuse acrylic lens [21]
PD	Diffuse 1/8" polycarbonate lens [22]
WET/CC	Wet location, covered ceiling listed [23]
AM	Anti-microbial [24]

MOUNTING

MOUNTING TYPE [25]

N	Open pan for new construction
I	IC-rated enclosure for new construction [27]
R	Remodel kit [28]

MOUNTING HARDWARE [26]

F1	Integral 2-position fixed pan bracket, universal bar hanger included [29]
BA1	Adjustable butterfly pan bracket, bar hanger not included [30]
CA1	Adjustable caterpillar pan bracket, universal bar hanger included [31]

NOTES

1 Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 Not available with EM/10W emergency batteries.
3 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
4 I Mounting Type required.
5 May be required for 347V, see product builder at hew.com/product-builder
6 DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
7 DA Driver only.
8 Avi-on and Lutron Athena Controls only.
9 Not available with EM batteries, DA or DMX Drivers.
10 Trim ships separately.
11 WET/CC standard unless ordered with EM/RTS or SCA Options. L50 lumen package max.
12 Available with WW Distribution only.
13 W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD, IP and WET/CC Trim Options.
14 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
15 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
16 O and A Trim Types only.
17 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP Options.
18 R Trim Type only. Not available with MWT.
19 Not available with WH Reflector Finish, L or S Trim Types.
20 L and R trim types only.
21 Not available with O or F Trim Types. W and WW Distributions only.
22 Not available with O or F Trim Types. W and WW Distributions only.
23 L50 lumen package max with O Trim Type.
24 WH and BL Reflector Finishes only. Not available with S Trim Type.
25 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
26 Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
27 L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
28 Also used in new construction sheetrock ceilings. Pan-less installation.
29 N and I Mounting Types only. I Mounting requires external brackets.
30 N Mounting Type only.
31 N Mounting Type only.

6DR LED
6" Downlight – Round

FEATURES

- Innovative TrimLock reflector retention system ensures trim remains flush with ceiling plane
- Wide range of lumen options for general illumination
- Beam angles ranging from 10° narrow to 65° wide for tailored performance
- Industry-leading efficacies as high as 116 lm/W
- New construction mounting pan, IC-rated, or pan-less remodel kit available
- Fully room-side accessible
- Die-cast trim includes flush, regressed or angled lens
- Sloped adapter accommodates vaulted ceilings
- Optional non-conductive lens for shower applications
- IP65-rated die-cast trim includes easy-to-clean flush lens
- Open reflector with nine finishes complements any interior style
- Available on QuickShip
- Low UGR meets LEED and WELL requirements
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms field adjust for ceiling thickness from 1/2" – 2-1/4".
- TRIMLOCK – Innovative TrimLock reflector retention system ensures the trim remains flush with the ceiling plane.
- OPEN REFLECTOR – Low-iridescent anodized aluminum. Clear semi-specular finish standard.
- LENSED TRIM – Die-cast aluminum frame with micro-prismatic, acrylic lens.
- ELECTRICAL – High-performance Class 2 C.O.B. LED array. Modular quick-connect plug for easy field-connection of LED light assembly to driver. Reported L70>55,000 hours. Reported L90>55,000 hours. Estimated L70 = 200,000 hours.
- MOUNTING – Recessed. 20 ga. galvanized steel mounting pan for new construction or IC-rated enclosure. Remodel kit option includes receiver bracket hardware. Minimum 24" O.C. marked spacing required for L60 - L80 lumen packages.
- LISTINGS –
  - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for dry and damp locations. LED light assembly conforms to UL 2108 for remote installation.
  - Suitable for wet location under covered ceiling when specified with WET/CC option or F trim type.
  - ENERGY STAR® certified in select configurations, see energystar.gov
  - IC-rated for direct contact with insulation when specified with I Mounting Type.
  - City of Chicago Environmental Air approved when specified with CP option.
  - IP65 rated trim when specified with IP option.
  - Complies with ASTM-E283 when specified with ATH option.
  - RoHS compliant.
  - Title 24 (JA8) compliant in select configurations, see cacertappliances.energy.ca.gov
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	1014	8.7	117
	M	982	8.7	113
	N	1003	8.7	115
L15	W	1497	13.8	109
	M	1495	13.8	108
	N	1528	13.8	111
L20	W	1988	19.0	105
	M	1983	19.1	104
	N	2026	19.1	106
L30	W	3062	26.9	114
	M	3003	26.9	112
	N	3000	26.9	112
L40	W	4094	36.5	112
	M	4016	36.4	110
	N	4011	36.4	110
L50	W	5014	43.9	114
	M	4935	43.9	112
	N	5047	43.9	115
L60	W	6043	54.0	112
	M	5948	54.0	110
	N	6083	54.0	113
L70	W	7008	67.8	103
	M	6898	67.8	102
	N	7055	67.8	104
L80	W	8018	79.8	101
	M	7891	79.8	99
	N	8071	79.8	101

FLUSH LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	774	8.7	89
	M	910	8.7	105
	N	909	8.7	105
L15	W	1178	13.8	85
	M	1385	13.8	100
	N	1384	13.8	100
L20	W	1562	19.5	80
	M	1837	19.1	96
	N	1836	19.5	94
L30	W	2335	26.9	87
	M	2782	26.9	103
	N	2718	26.9	101
L40	W	3122	36.5	86
	M	3720	36.4	102
	N	3635	36.4	100
L50	W	3824	43.9	87
	M	–	–	–
	N	–	–	–
L60	W	4609	54.0	85
	M	–	–	–
	N	–	–	–
L70	W	5345	67.8	79
	M	–	–	–
	N	–	–	–
L80	W	6115	79.8	77
	M	–	–	–
	N	–	–	–

REGRESSED LENS TRIM TYPE

	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L10	W	716	8.7	82
	M	883	8.7	102
	N	897	8.7	103
L15	W	1090	13.8	79
	M	1344	13.8	97
	N	1366	13.8	99
L20	W	1445	19.5	74
	M	1782	19.1	93
	N	1812	19.5	93
L30	W	2160	26.9	80
	M	2699	26.9	100
	N	2683	26.9	100
L40	W	2889	36.5	79
	M	3609	36.4	99
	N	3587	36.4	99
L50	W	3537	43.9	81
	M	–	–	–
	N	–	–	–
L60	W	4264	54.0	79
	M	–	–	–
	N	–	–	–
L70	W	4945	67.8	73
	M	–	–	–
	N	–	–	–
L80	W	5657	79.8	71
	M	–	–	–
	N	–	–	–

MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.92
	3000K	0.98
	3500K	1.00
	4000K	1.01
	5000K	1.02
90 CRI	2700K	0.76
	3000K	0.79
	3500K	0.82
	4000K	0.84
	5000K	0.88

	REFLECTOR FINISH	
	CATALOG NUMBER	CONVERSION FACTOR
O TRIM	CS	1.00
	SG [1]	0.92
	GD	0.93
	CG	0.96
	PW	0.86
	SPC	1.02
	RG	0.88
	WH [1]	0.89
	BL [1]	0.47
R TRIM	WH	1.00
	CS	0.98
	BL	0.79

TRIM OPTIONS	
CATALOG NUMBER	CONVERSION FACTOR
F	0.75
S	0.85
AD	0.85
PD	0.85
WET/CC	0.85

BEAM ANGLE

	TRIM TYPE [2]			
	O	F	L	R
W	65°	70°	55°	55°
M	35°	35°	35°	35°
N	10°	20°	25°	25°

1 Distribution will also be affected, consult factory.
2 Beam angle based on CS or WH Reflector Finish.

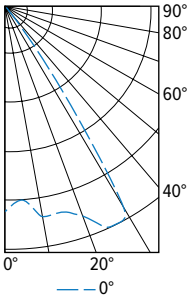
- Photometrics tested in accordance with IESNA LM-79. Results based on O trim type, W distribution, CS finish, 80 CRI/3500K CCT, wattage for 120V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

PHOTOMETRY CONTINUED ON NEXT PAGE.

6DR LED
6" Downlight – Round

PHOTOMETRY

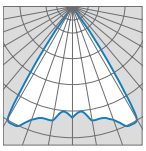
6DR-TL-L20/835-DIM-UNV-OW-OF-CS Report #: 20687; 12/12/18 | Total Luminaire Output: 1988 lumens; 19.0 Watts | Efficacy: 104.6 lm/W | 80 CRI; 3500K CCT

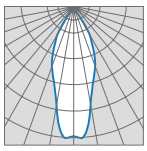


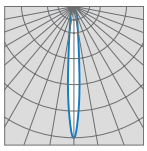
CANDLEPOWER DISTRIBUTION		
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	ZONAL LUMENS
0	1672	
5	1579	151
15	1735	492
25	1982	917
35	604	380
45	46	36
55	13	12
65	2	2
75	0	0
85	0	0
90	0	

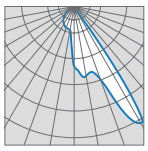
LUMEN SUMMARY		
ZONE	LUMENS	% FIXTURE
0 - 40	1939	98
0 - 60	1987	100
0 - 90	1988	100
0 - 180	1988	100

OPEN (O)

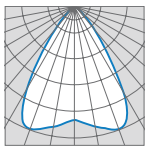

65° Wide

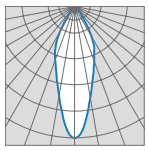

35° Medium

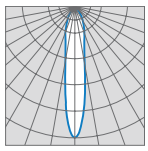

10° Narrow


Wall Wash

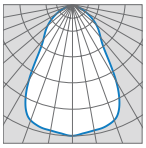
OPEN TOP DIFFUSER (F)

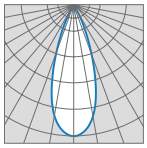

70° Wide

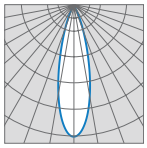

35° Medium


20° Narrow

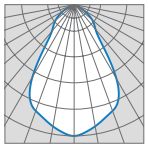
FLUSH (L)

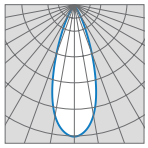

55° Wide

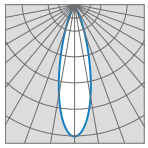

35° Medium


25° Narrow

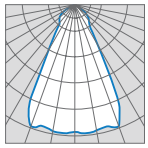
REGRESSED (R)


55° Wide


35° Medium


25° Narrow

ANGLED (A)


Wall Wash

EMERGENCY BATTERY OPTIONS

Additional limitations apply, see page 1. Specify CEC in the option code when California Energy Commission regulations are required.

CATALOG NUMBER	DESCRIPTION
EM/7W	7-watt emergency battery [1]
EM/7W/RTS	7-watt emergency battery with regressed test switch [2]
EM/7W/IPRTS	7-watt emergency battery with IP65 rated regressed test switch [3]
EM/10W	10-watt emergency battery [1]
EM/10W/RTS	10-watt emergency battery with regressed test switch [2]
EM/10W/IPRTS	10-watt emergency battery with IP65 rated regressed test switch [3]

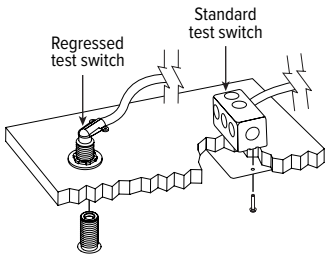
1 Not available with S Trim Type or IP Trim Option.
2 Not available with S Trim Type, IP or WET/CC Trim Options.
3 Must specify IP Trim Option.

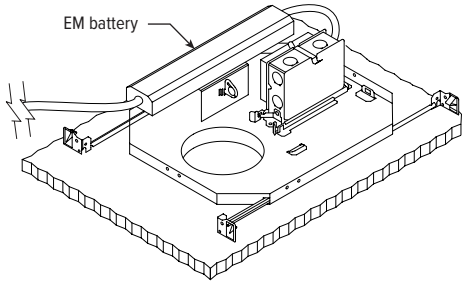
MOUNTING DETAILS


Regressed test switch
ø1-3/4"


Standard test switch
2-3/4" x 4-1/2"

Max remote distance is 50', connection by others.





APERTURE ADAPTOR ORDERING INFO

ORDERING EXAMPLE: 4DR - GR - 0575 - WHT			
SERIES	CATALOG NUMBER	CEILING CUTOUT	FINISH
4AR 6AR 4DR 6DR 4DS 6DS 4PR 6PR 4PS 6PS 8DR	GR	Specify ceiling cutout in 1/8" increments. Example: 5.75" = **0575** See Kit Components for application limits.	**CS** Clear semi-specular powder coat **WH** White texture powder coat **BL** Black texture powder coat

Adaptor (goof ring) corrects ceiling cutout errors during remodel downlight installation.

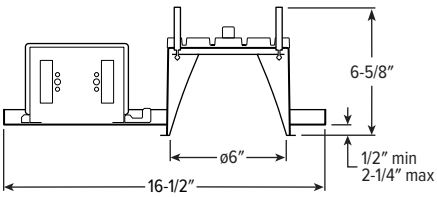
Additional finishes available, consult factory.

For limitations and instructions, see hew.com/aperture-adaptor.pdf

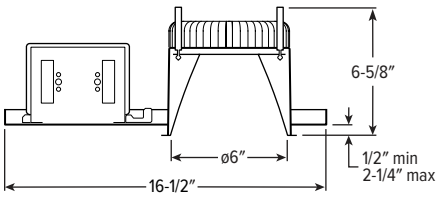
6DR LED
6" Downlight – Round

CROSS SECTIONS

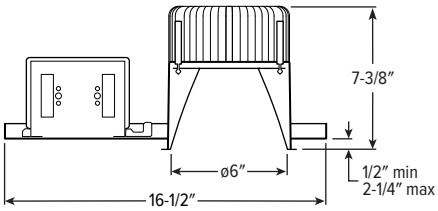
L10 – L20 LUMENS



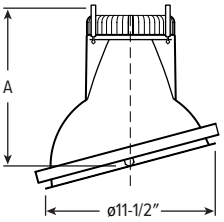
L30 – L40 LUMENS



L50 – L80 LUMENS



SLOPED CEILING ADAPTOR DETAILS



Ceiling cutout: ø11-7/8"

	A (HEIGHT)						PLENUM HEIGHT
LUMENS	5°	10°	15°	20°	25°	30°	
L10 - L40	10-11/16"	10-7/8"	10-15/16"	10-7/8"	10-13/16"	10-5/8"	11-1/4"
L50 - L80	11-7/16"	11-9/16"	11-5/8"	11-5/8"	11-1/2"	11-1/4"	12"

15° Shown

TRIMLOCK DETAILS

TWIST



PULL

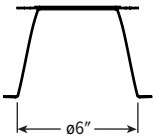


RELEASE

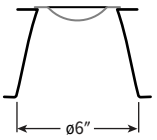


TRIM TYPE DETAILS

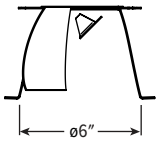
OPEN



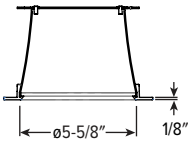
OPEN TOP DIFFUSER



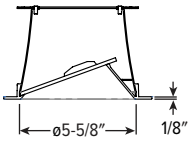
OPEN (WALL WASH)



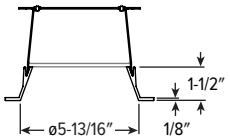
FLUSH | SHOWER



ANGLED

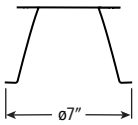


REGRESSED



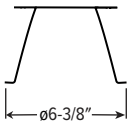
FLANGE TYPE DETAILS

1/2" STANDARD



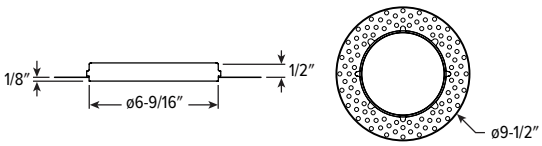
Ceiling Cutout: ø6-1/2"

1/4" MUD-IN



Ceiling cutout: ø7"

MUD FLANGE MOUNTING KIT (SLIM FLANGE TYPE)



REFLECTOR FINISH DETAILS

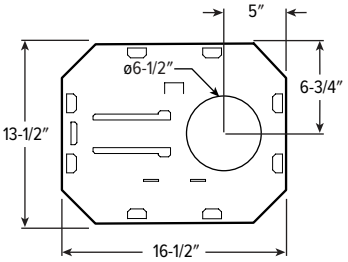
SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black



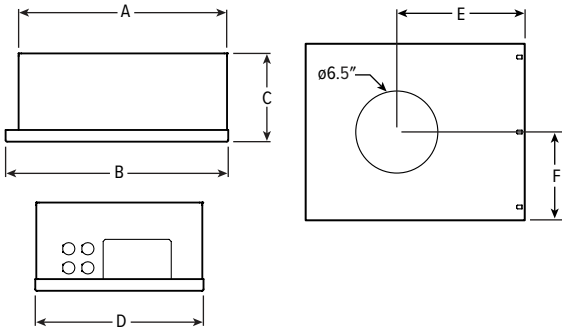
6DR LED
6" Downlight – Round

MOUNTING TYPE DETAILS

NEW CONSTRUCTION



IC-RATED

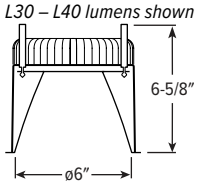


	LENGTH					
LUMENS	A	B	C	D	E	F
L10 - L20	15-3/16"	16"	6-3/8"	12-1/8"	9-1/2"	6-1/16"
L30	16-5/8"	17-1/2"	7-7/8"	14"	10-1/4"	7"

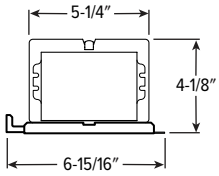
REMODEL

CROSS SECTION

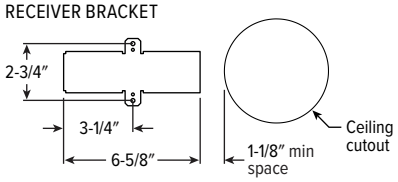
L30 – L40 lumens shown



DRIVER & JUNCTION BOX

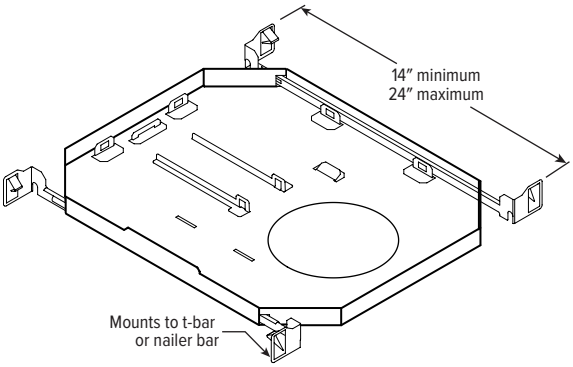


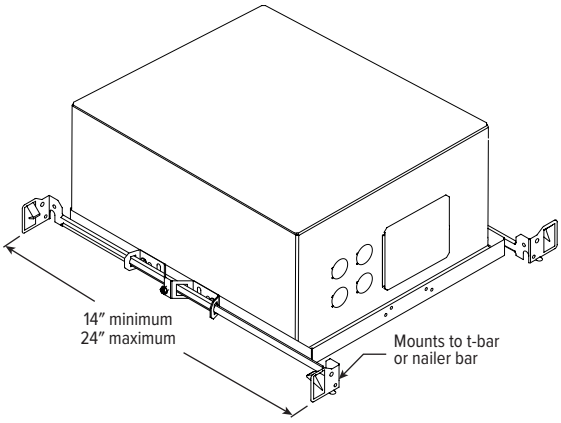
RECEIVER BRACKET



MOUNTING HARDWARE DETAILS

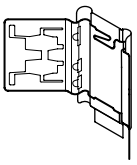
F1 Integral 2-position fixed pan bracket, universal bar hanger included



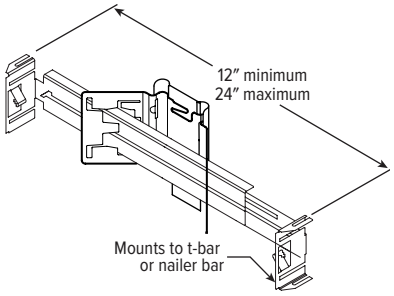


F1 with I Mounting Type

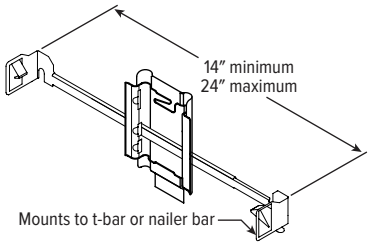
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



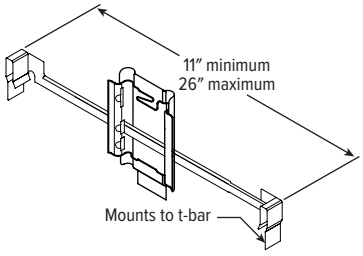
BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)



6DR LED
6" Downlight – Round

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

WALL STATIONS	
AVI-B-2401AC-1	Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC
AVI-B-2402BAT-1	Scene controller - buttons numbered 1-4 and up/down/off, battery powered
AVI-B-2401AC-2	Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC
AVI-B-2402BAT-2	Dimmer with presets - buttons with percentages and up/down/off, battery powered
AVI-B-2401AC-3	Two button control on/off or hold to dim up/down, 120-277VAC
AVI-B-2402BAT-3	Two button control on/off or hold to dim up/down, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

ADDITIONAL CONTROL/DRIVER OPTIONS

Lumen restrictions apply: L40 max for DMX driver, L40 max for Lutron drivers, L15 min to L60 max for DIM LINE driver. R mounting type requires top access with DMX controls. R Mounting Type requires 12" minimum plenum depth when specified with VRF/DBI controls. 347V may require stepdown transformer, see product builder at hew.com/product-builder. I Mounting Type not available with Lutron controls.

CATALOG NUMBER	DESCRIPTION
AVI-LVFA/DA	Avi-on wireless fixture control for use with driver with 12V auxiliary power
AWNR/DA	Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power
VRF/DBI/LDE1	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, with Lutron Hi-lume 1% EcoSystem dimming LED driver
FCJS/DIM	Lutron Vive PowPak wireless fixture control with dimming driver
FCJS/DIM1	Lutron Vive PowPak wireless fixture control with 1% dimming driver
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible at 120V only)
DALI	DALI dimming driver
DMX	0.1% dimming driver for DMX controls
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

New product

N3B Series

Compact wet location LED battery unit



Housing
- Thermoplastic housing
- Standard off-white finish

Mounting
- End mount
- Wall mount
- Universal J-box mounting
- Canopy included

Type of battery
- NI-MH Battery 3.6V 1500mAH

Lamp head source
- 1W white LED, 100 lumens

Electronics
- 120/277V, 50/60Hz
- Test switch and charge indicator

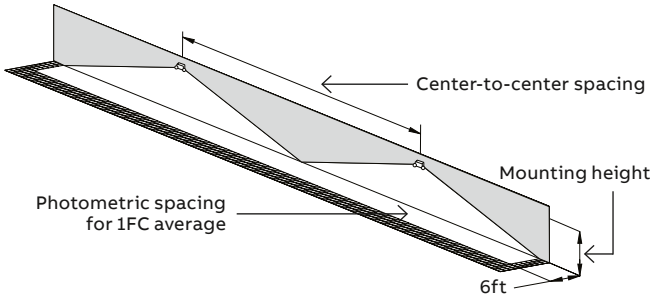
Approvals
- UL 924 listed
- Wet location -13°F to 104°F (-25°C to 40°C)
- UL 94 V-0 flame rating, fire-resistant
- IP65 rated
- Meets NEMA 3R specifications

Warranty (subject to proper installation and maintenance)
- Unit has a three year limited warranty
- Detailed warranty terms located at: **www.emergi-lite.com/usa/files/EL_Warranty.pdf**

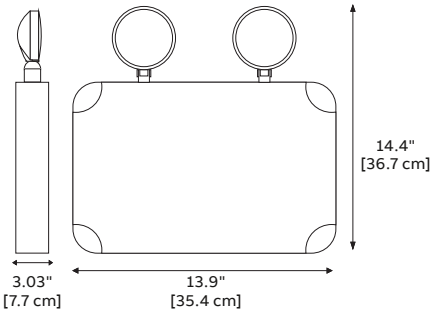
DISTRIBUTOR SELECT

Photometric performance

Spacing center-to-center (feet)	
7' mounting height	**15' mounting height**
34.5'	28.25'



Dimensions
Dimensions are approximate and subject to change.



Power consumption

Model	Current (A) / Power (W) 120/277VAC, 60Hz
N3B-2	0.062/3

How to order

Series	Lamp
N3B= Battery unit	**-2**= 2 LED heads
Example: N3B-2	

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TYPE E2

EL-2LED Series

Low energy, low maintenance emergency lighting for moderate budget applications



Construction
- UV stabilized thermoplastic body
- Fully adjustable Cluster™ LED glare-free heads
- Choice of white or black housing

Mounting
- Ceiling or wall mount
- Universal J-box mounting

Lamp type
- White LED 3.6V-1.8W each, 70 lumens per head

Electronics
- Pulse plus charger
- Low voltage disconnect
- Automatic brownout protection
- Battery lock-out installation
- Fused output circuit
- Optional Advanced Diagnostics
- 120/277 60Hz

Sealed maintenance-free battery
- 3.6V nickel-cadmium battery

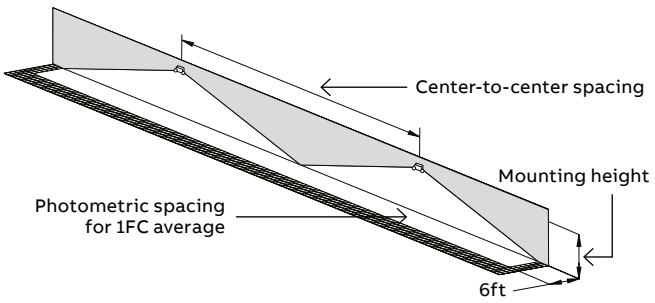
Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°F)
- UL 94, 5VA flame rated (68°F to 86°F, 20°C to 30°C)
- EL-2LED is circle BC to meet CEC. Title 20

Warranty (subject to proper installation and maintenance)
- Unit has a three-year warranty
  Detailed warranty terms located on page 202 or online at:
  www.emergi-lite.com/usa/files/EL_Warranty.pdf

DISTRIBUTOR SELECT

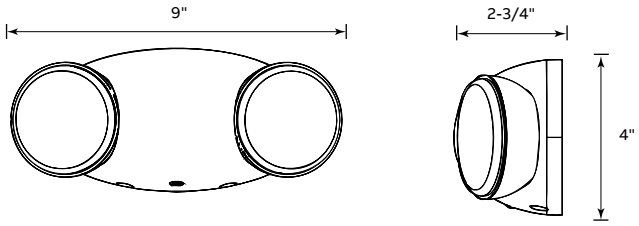
Photometric performance

Spacing center-to-center (feet)	
7' mounting height	**15' mounting height**
15'	4'



Dimensions

Dimensions are approximate and subject to change.



Power consumption

Model	Current (A) / Power (W) 120/277VAC, 60Hz
EL-2LED	0.103/0.10A
EL-2LEDR	0.13/0.16A
EL-2LEDR-AD	0.058/0.029A

How to order

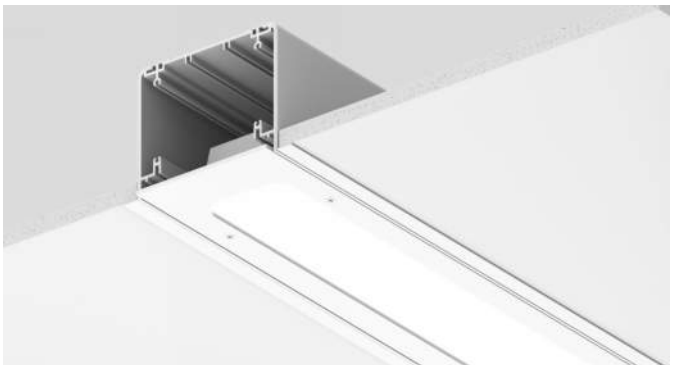
Color	Series	Lamp option	Options
Blank= White **B**= Black	**EL**	**-2LED**= round LED array	**Blank**= No option **R**= 3.6W remote capacity to power one double head remote[1] **R-AD**= 3.6W remote capacity to power one double head dedicated remote with Advanced-Diagnostics[1]

Example: EL-2LEDR

[1]Remote capacity can only be used to power the EF43D or EF44D remote fixtures or to extend the battery units emergency run time beyond the standard 90 minutes.

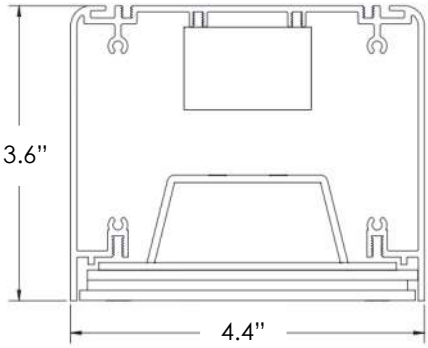
Type:	TYPE R1A
Project:	
REP/Agent:	
Order #:	

RECESSED HYDRO BEAM





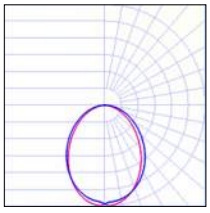
DIMENSIONS



FEATURES

- ★ 2', 3', 4', 6' and 8' individual units
- ★ Fixtures can be linked together for continuous rows
- ★ Soft diffused direct lighting
- ★ Outdoor powder coat finishes available in white, black, silver and bronze
- ★ Premium finishes also available
- ★ 0-10V dimming is standard
- ★ Dim to 10% of output current is standard
- ★ 90 CRI (R9 50min) available
- ★ CA Title 24 / JA8 installation compatible
- ★ Wet Location rated
- ★ IC Rated
- ★ IP66
- ★ Impact Protection Rating (IK10)

DISTRIBUTION



SD= SatinIce Diffuse

LUMEN PACKAGES

Based on 3500K CCT. Other CCT available.

MODEL	LUMENS	INPUT WATTS	Lm/W
RHYDRO-4-1000-SD-35K	4,000	36	110
RHYDRO-8-1000-SD-35K	8,000	67	120

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STARTEK LIGHTING AMERICA

Type:	
Project:	
REP/Agent:	
Order #:	

RECESSED HYDRO BEAM

RHYDRO

SERIES	LENGTH	LUMENS PER FOOT	DISTRIBUTION	CCT	CRI
RHYDRO	**2**= 2FT **3**= 3FT **4**= 4FT **6**= 6FT **8**= 8FT **xx**= Run length **Sxx**= Symmetric Run length	**350**= 350 LPF **500**= 500 LPF **750**= 750 LPF **1000**= 1000 LPF **xxx**= Custom LPF	**SD**= Satinlce Diffuse	**30K**= 3000K **35K**= 3500K **40K**= 4000K **50K**= 5000K	**80**= 80 **90**= 90 *(R9 50 min)*

FINISH	MOUNTING	POWER ENTRY	VOLTAGE	ELECTRICAL
STANDARD **PW**= Powder Coat White **PB**= Powder Coat Black **PS**= Powder Coat Silver **PBR**= Powder Coat Bronze **PREMIUM** **RALxxxx**= Powder Coat RAL xxxx **CUSTOM** **PO**= Powder Other See pg. 7 for options.	**COSMETIC BEZEL** **CB**= Cosmetic Bezel (Screw/ Rod Mount) **CBY**= Cosmetic Bezel (Yoke Mount) *NOTE: Bezel color will match fixture color unless otherwise specified, consult factory for options. **SPACKLE FLANGE** **SF**= Spackle Flange (Screw/ Rod Mount) **SFY**= Spackle Flange (Yoke Mount) **TRIMLESS** **TR**= Trimless (Screw/ Rod Mount)	**T**= Top Feed **E**= End Feed **S**= Side Feed	**U**= 120-277	**1C**= Single Circuit **MC**= Multiple Circuits *(multiple switch legs across run length)* **EC**= Emergency Circuit *(separate power drops for EC fixtures)*

OPTIONS

BATTERIES
#EMB10= 10W EM Battery

SURGE PROTECTOR
SRG= Surge Protector

SENSORS
MLR= Motion Sensor Large Range[1]

EXAMPLE: **RHYDRO-40-750-SD-35K-80-PW-CB-T-U-1C-1EMB10**

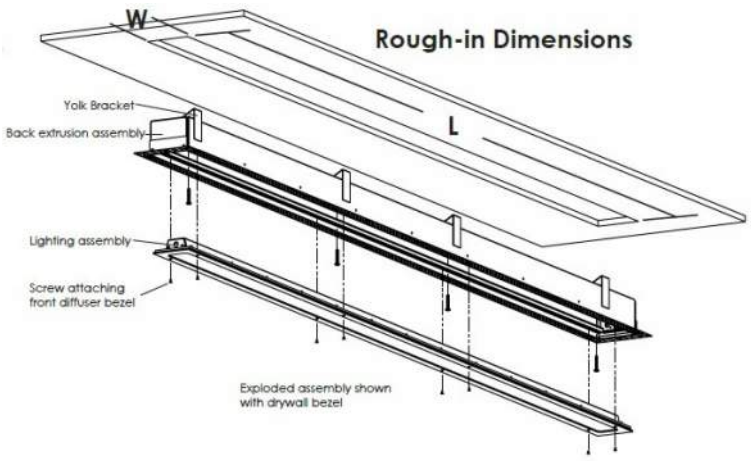
[1]***Motion sensor option removes dimming ability***

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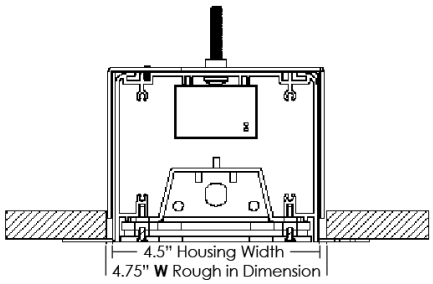
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RECESSED HYDRO BEAM

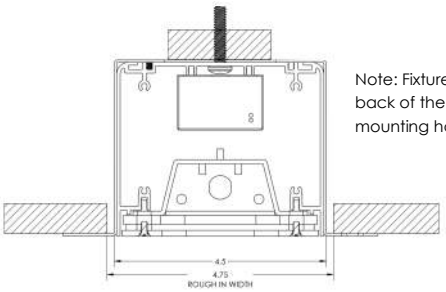
MOUNTING OPTIONS



SFY - Spackle Flange (Yoke Mount)

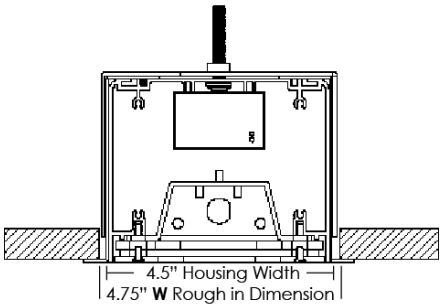


SF - Spackle Flange (Screw/ Rod Mount)

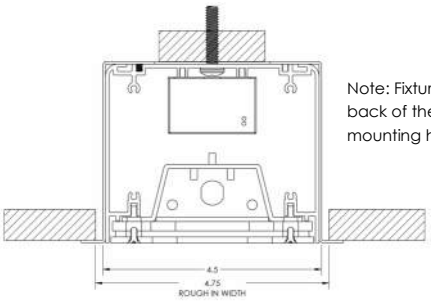


Note: Fixture has to be mounted through the back of the extruded housing into structure, mounting hardware provided by others

CBY - Cosmetic Bezel (Yoke Mount)

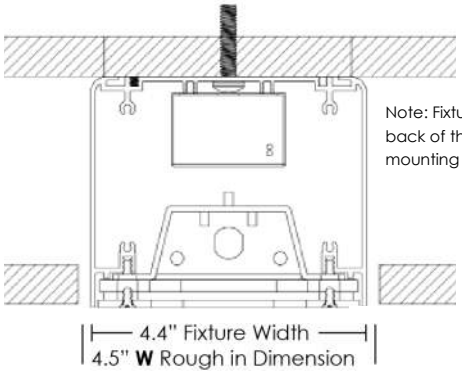


CB - Cosmetic Bezel (Screw/ Rod Mount)



Note: Fixture has to be mounted through the back of the extruded housing into structure, mounting hardware provided by others

TR - Trimless



Note: Fixture has to be mounted through the back of the extruded housing into structure, mounting hardware provided by others

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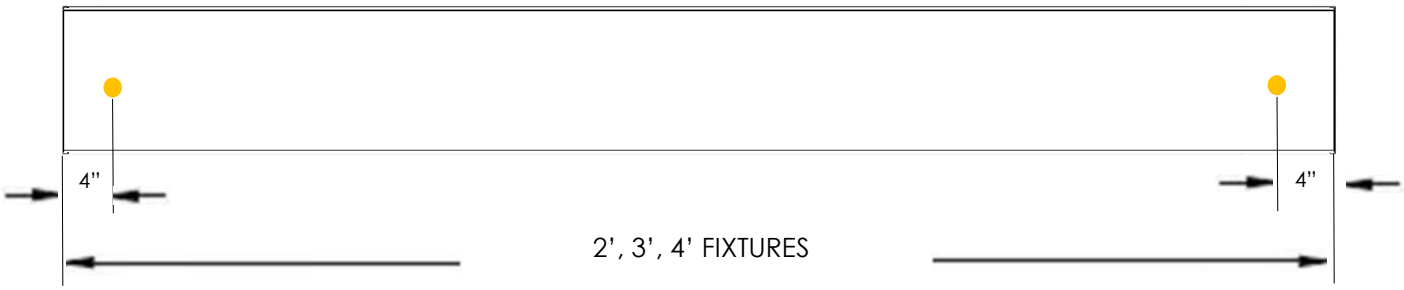
RECESSED HYDRO BEAM

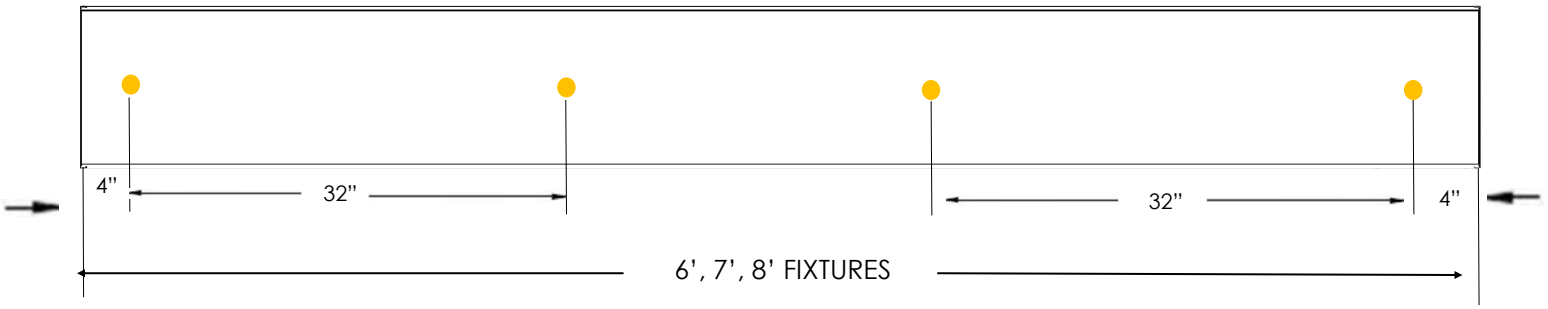
MOUNTING OPTIONS

The number of mounting locations (●) increase as fixtures get longer. Views below show top of fixtures.

Mounting locations (●) vary between SM(T) option and others due to length and power location. Views below show top of fixtures.

USE PROPER MOUNTING HARDWARE





NOTE: Hole size at mounting locations is Ø.266".

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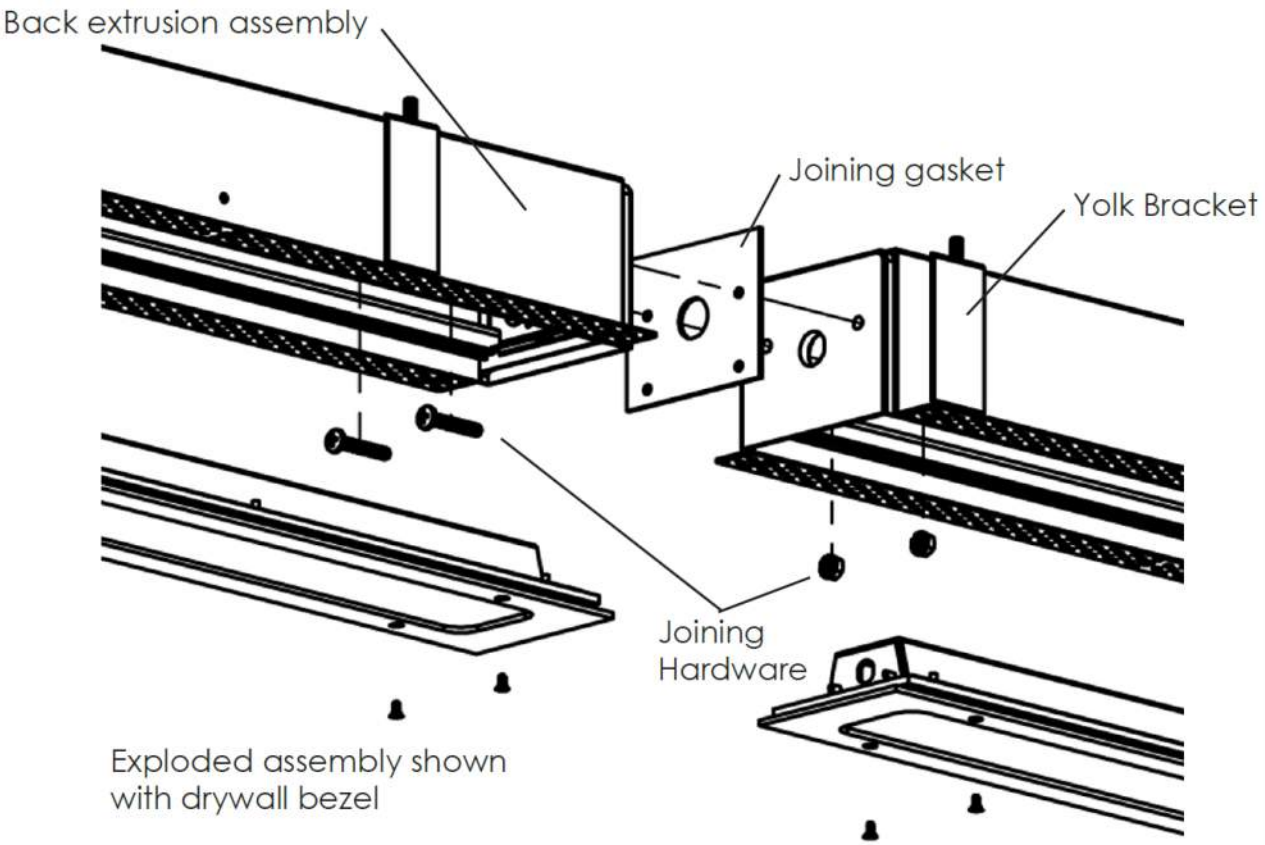
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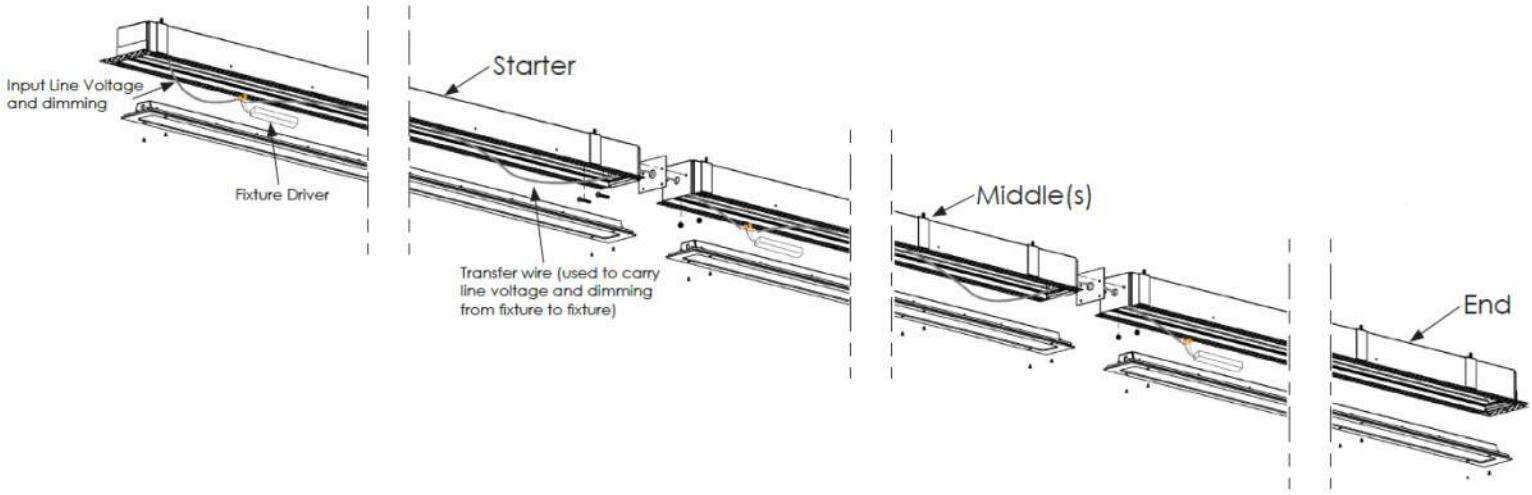
RECESSED HYDRO BEAM

CONTINUOUS RUN

Continuous runs are configured with 2', 3', 4', 6' and 8' sections up to 50' in total length.

| # of Sections | Total Length | | |





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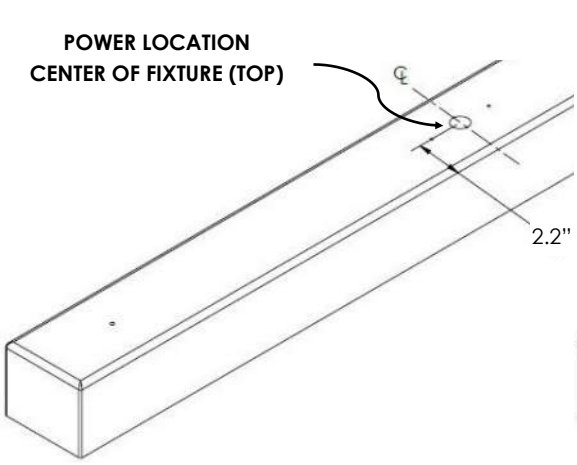
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RECESSED HYDRO BEAM

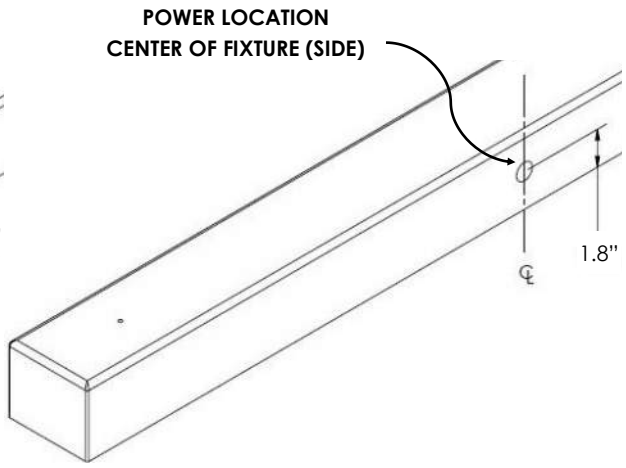
POWER ENTRY

Power Locations

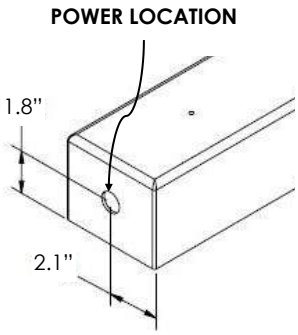
Power to be fed through one (1) 7/8" hole created in the top—SM(T), side—SM(S), or end—SM(E) of the lighting fixture. Hole can accommodate 1/2" conduit. Lighting fixture is to be wired with UL listed wet location fittings per NEC requirements, supplied by others.



T (Top Feed)



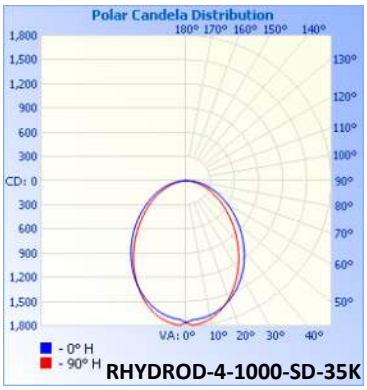
S (Side Feed)



E (End Feed)

PERFORMANCE

RHYDROD-X-1000-SD (80+ CRI)



RHYDROD-4-1000-SD-35K

Model	Lumens	Watts	LPW
RHYDROD-4-1000-SD-30K	4000	37	107
RHYDROD-4-1000-SD-35K	4000	36	110
RHYDROD-4-1000-SD-40K	4000	36	112
RHYDROD-4-1000-SD-50K	4000	35	115

Model	Lumens	Watts	LPW
RHYDROD-8-1000-SD-30K	8000	68	117
RHYDROD-8-1000-SD-35K	8000	67	120
RHYDROD-8-1000-SD-40K	8000	66	122
RHYDROD-8-1000-SD-50K	8000	64	125

FINISHES

STANDARD FINISHES



WHITE MINI TEXTURE



BLACK MINI TEXTURE



SILVER



BRONZE

Custom finishes (PO) will incur a set up fee and will add an extended lead time to your project.

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RECESSED HYDRO BEAM

SPECIFICATIONS

Housing
Nominal 3.6" x 4.4" x 0.090 thick aluminum housing

Color
Colors for the housing are available in a powder coated white, black silver and bronze. Consult factory for custom colors.

Luminaire Length
2', 3', 4', 6' or 8' lengths are available for a single stand-alone section. Using contractor provided conduit, sections can be joined to form longer rows up to 50'.

Lensing
0.125" Thick Impact resistant outdoor (F1) rated polycarbonate lensing.

Source
Variable lumen packages are available in four color temperature options (3000K, 3500K, 4000K and 5000K) — all within 3 MacAdam ellipses.

Certification
Intertek cETLus Wet Location Listed. RoHS (Restriction of Hazardous Substances) and Buy American Act Compliant.

Battery
Bodine battery providing up to 1200lm(10W) for 90 minutes. UL924 listed. Class 2 compliant. Meets Title 20 CEC (California Energy Commission) efficiency standards.

Environment
Suitable for dry, damp, and wet locations.
Operating temp.: -40°C to +50°C
-40°F to +122°F

Dimming Driver
Osram Optotronic Outdoor LED Driver allows tunable output currents to achieve infinite configurations of output. UL Class P recognized. 0-10v interface can be wired as Class 1 or Class 2 circuit.

Packaging
Sustainably manufactured outside cardboard box and biodegradable, protective poly-foam luminaire inserts.

WARRANTY

5-year limited warranty. Complete warranty terms can be located at:

https://starteklightingamerica.com/wp-content/uploads/2019/11/Hydro_Beam_Warranty.pdf

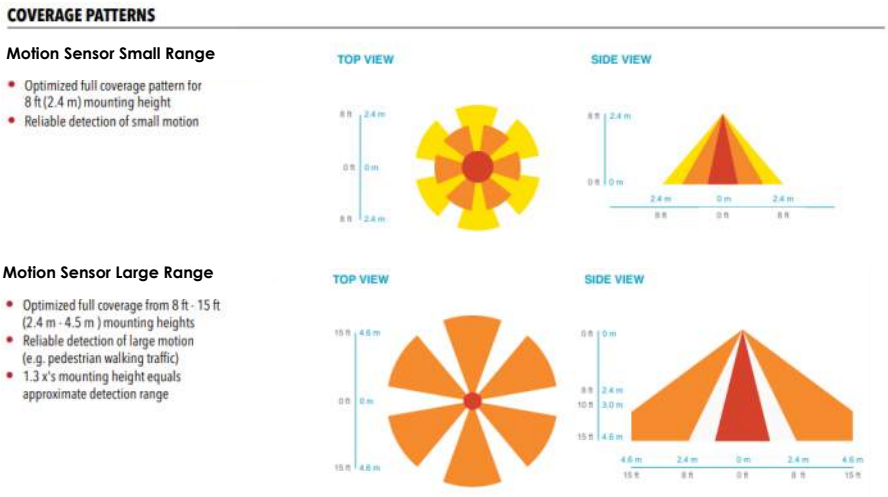
Note: Actual performance may differ as a result of installation environment and final application.
All values are design or typical values, measured under laboratory conditions, at 25°C (77°F) .

CONTROL

Sensor

VERTEX Fixture Integrated Occupancy Sensor with Dimming Photocell. Ideal for standalone or network lighting control applications. Its ultra-small footprint enables seamless integration into an indoor or outdoor luminaires without disrupting aesthetics or requiring additional mounting space. Its versatility allows for mounting at various heights up to 15ft detecting major and minor motion movement.





Specification

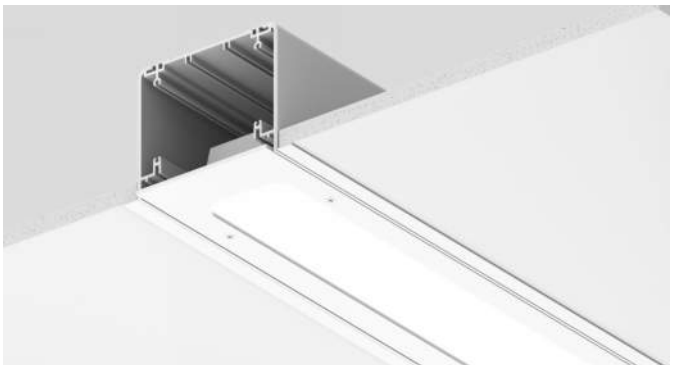
Input Rating : 3.3V-5V(Voltage), 5mW (Mega Power)
Environmental Specification : -10°C - 70°C (Std. Operating Temp.), -40°C - 70°C (LT Operating Temp)
Output Rating : Not Applicable

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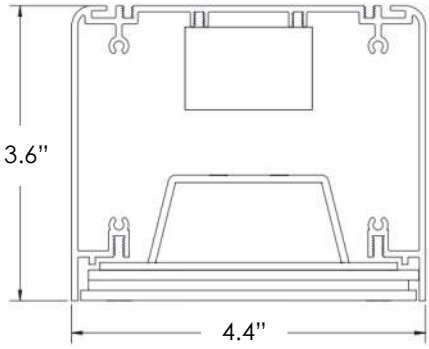
Type:	TYPE R1B
Project:	
REP/Agent:	
Order #:	

RECESSED HYDRO BEAM





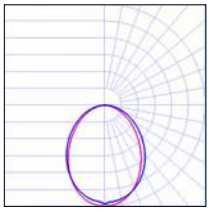
DIMENSIONS



FEATURES

- ★ 2', 3', 4', 6' and 8' individual units
- ★ Fixtures can be linked together for continuous rows
- ★ Soft diffused direct lighting
- ★ Outdoor powder coat finishes available in white, black, silver and bronze
- ★ Premium finishes also available
- ★ 0-10V dimming is standard
- ★ Dim to 10% of output current is standard
- ★ 90 CRI (R9 50min) available
- ★ CA Title 24 / JA8 installation compatible
- ★ Wet Location rated
- ★ IC Rated
- ★ IP66
- ★ Impact Protection Rating (IK10)

DISTRIBUTION



SD= SatinIce Diffuse

LUMEN PACKAGES

Based on 3500K CCT. Other CCT available.

MODEL	LUMENS	INPUT WATTS	Lm/W
RHYDRO-4-1000-SD-35K	4,000	36	110
RHYDRO-8-1000-SD-35K	8,000	67	120

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STARTEK LIGHTING AMERICA

Type:	
Project:	
REP/Agent:	
Order #:	

RECESSED HYDRO BEAM

RHYDRO

SERIES	LENGTH	LUMENS PER FOOT	DISTRIBUTION	CCT	CRI
RHYDRO	**2**= 2FT **3**= 3FT **4**= 4FT **6**= 6FT **8**= 8FT **xx**= Run length **Sxx**= Symmetric Run length	**350**= 350 LPF **500**= 500 LPF **750**= 750 LPF **1000**= 1000 LPF **xxx**= Custom LPF	**SD**= SatinIce Diffuse	**30K**= 3000K **35K**= 3500K **40K**= 4000K **50K**= 5000K	**80**= 80 **90**= 90 *(R9 50 min)*

FINISH	MOUNTING	POWER ENTRY	VOLTAGE	ELECTRICAL
STANDARD **PW**= Powder Coat White **PB**= Powder Coat Black **PS**= Powder Coat Silver **PBR**= Powder Coat Bronze **PREMIUM** **RALxxxx**= Powder Coat RAL xxxx **CUSTOM** **PO**= Powder Other See pg. 7 for options.	**COSMETIC BEZEL** **CB**= Cosmetic Bezel (Screw/ Rod Mount) **CBY**= Cosmetic Bezel (Yoke Mount) *NOTE: Bezel color will match fixture color unless otherwise specified, consult factory for options. **SPACKLE FLANGE** **SF**= Spackle Flange (Screw/ Rod Mount) **SFY**= Spackle Flange (Yoke Mount) **TRIMLESS** **TR**= Trimless (Screw/ Rod Mount)	**T**= Top Feed **E**= End Feed **S**= Side Feed	**U**= 120-277	**1C**= Single Circuit **MC**= Multiple Circuits *(multiple switch legs across run length)* **EC**= Emergency Circuit *(separate power drops for EC fixtures)*

OPTIONS

BATTERIES
#EMB10= 10W EM Battery

SURGE PROTECTOR
SRG= Surge Protector

SENSORS
MLR= Motion Sensor Large Range[1]

EXAMPLE: **RHYDRO-40-750-SD-35K-80-PW-CB-T-U-1C-1EMB10**

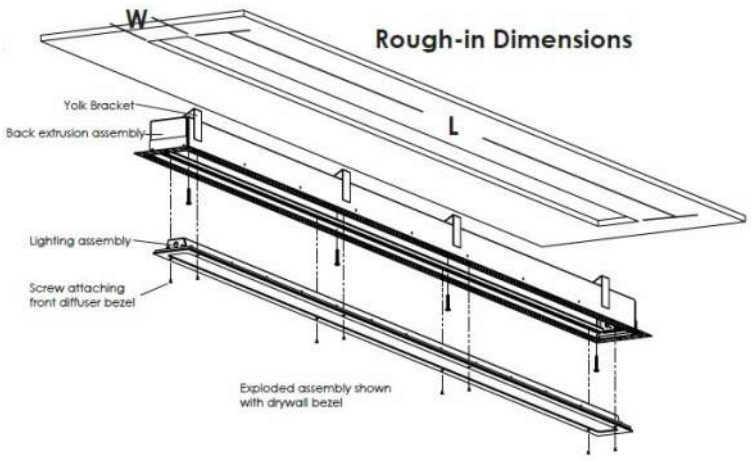
[1]***Motion sensor option removes dimming ability***

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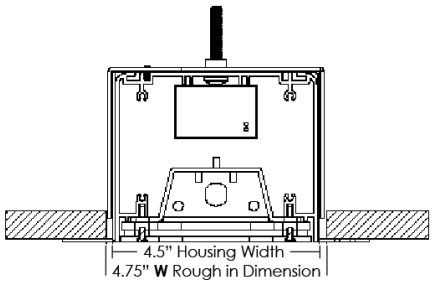
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RECESSED HYDRO BEAM

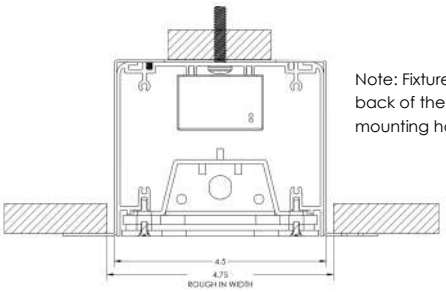
MOUNTING OPTIONS



SFY - Spackle Flange (Yoke Mount)

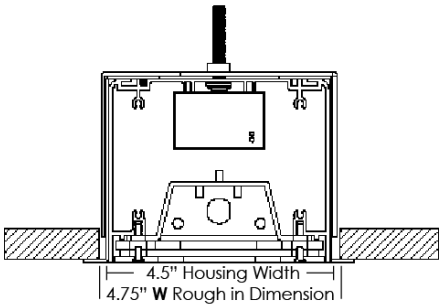


SF - Spackle Flange (Screw/ Rod Mount)

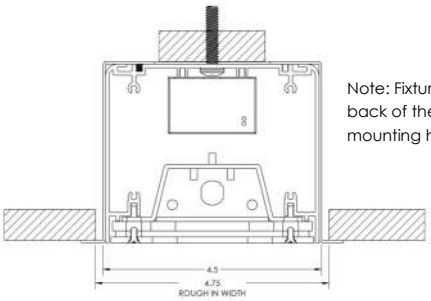


Note: Fixture has to be mounted through the back of the extruded housing into structure, mounting hardware provided by others

CBY - Cosmetic Bezel (Yoke Mount)

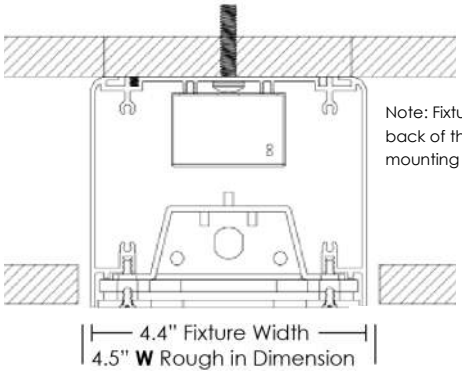


CB - Cosmetic Bezel (Screw/ Rod Mount)



Note: Fixture has to be mounted through the back of the extruded housing into structure, mounting hardware provided by others

TR - Trimless



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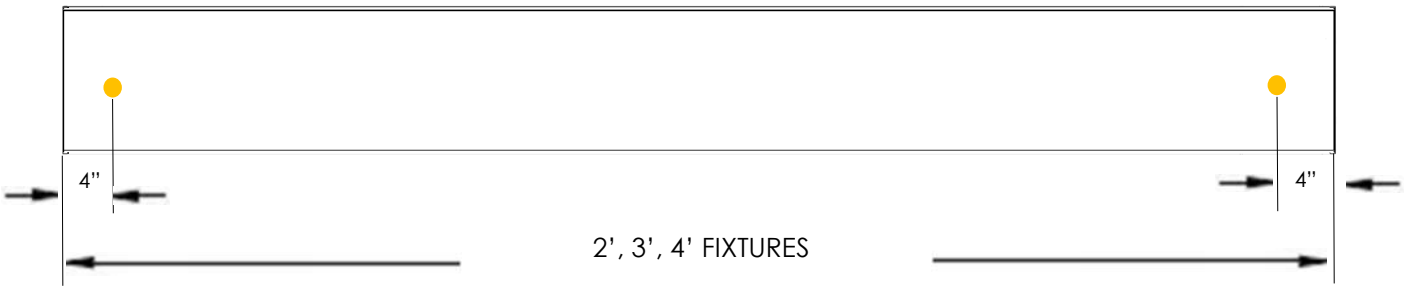
RECESSED HYDRO BEAM

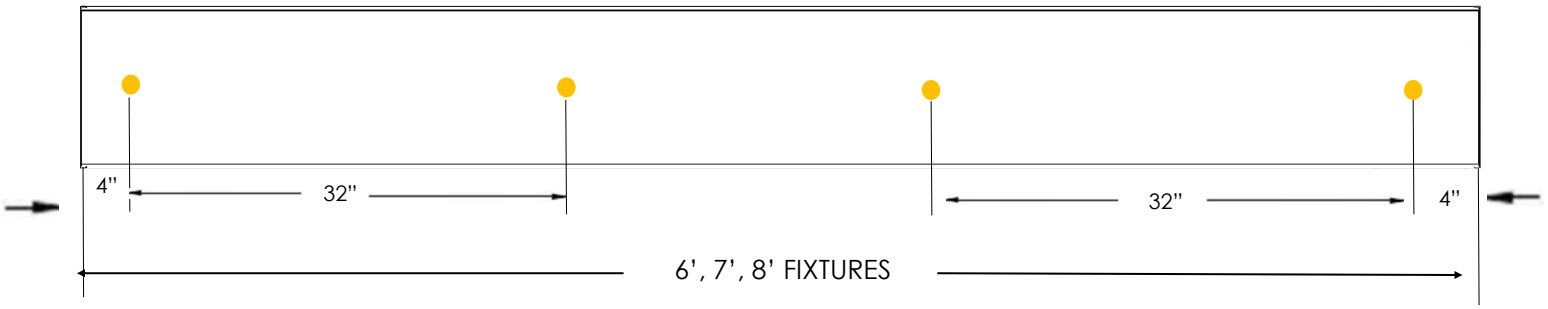
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Mounting locations (●) vary between SM(T) option and others due to length and power location. Views below show top of fixtures.

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NOTE: Hole size at mounting locations is Ø.266".

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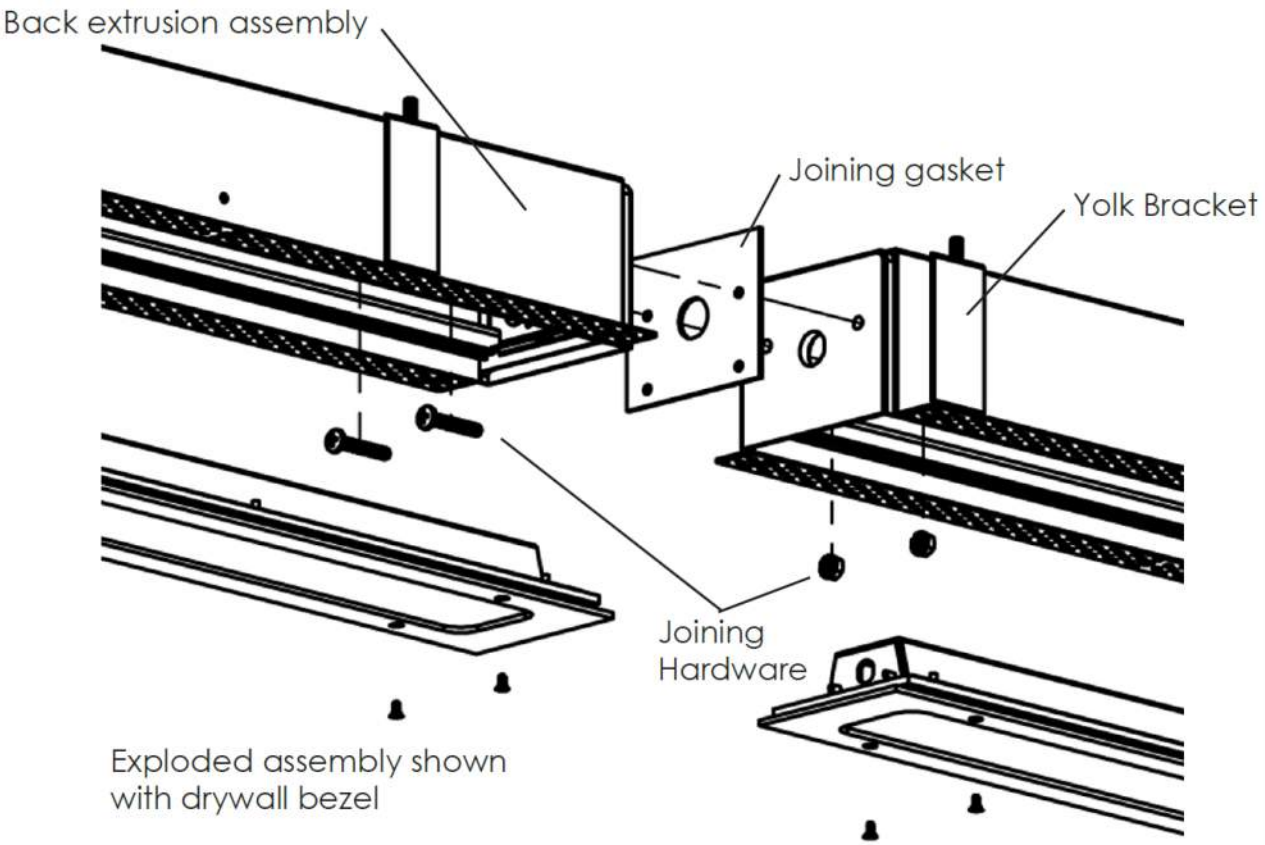
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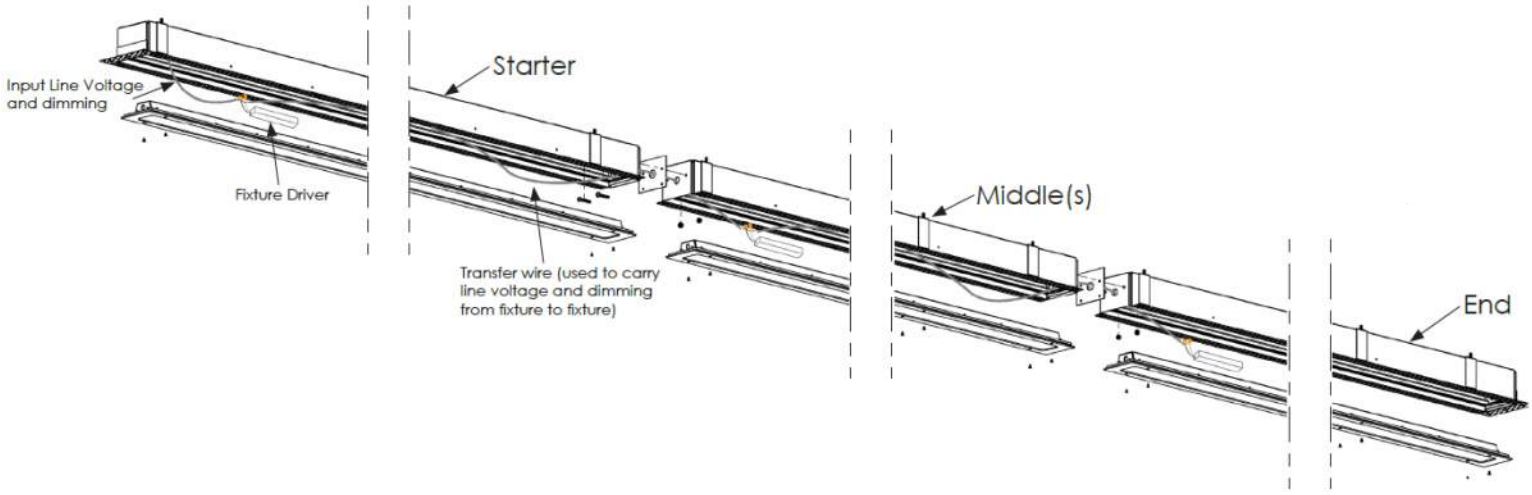
RECESSED HYDRO BEAM

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| # of Sections | Total Length | | |





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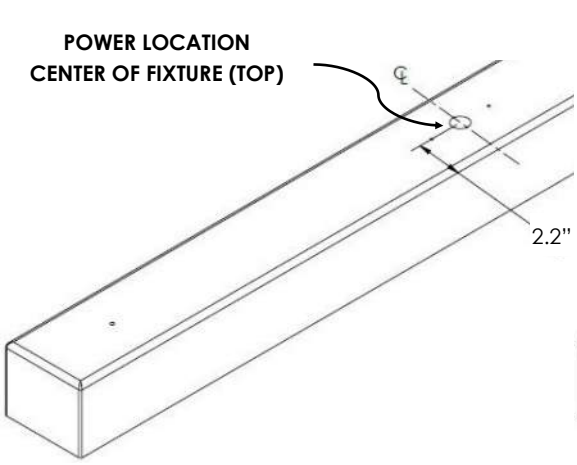
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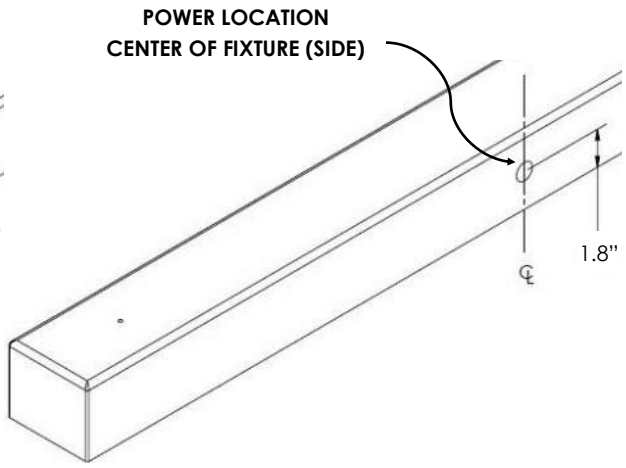
POWER ENTRY

Power Locations

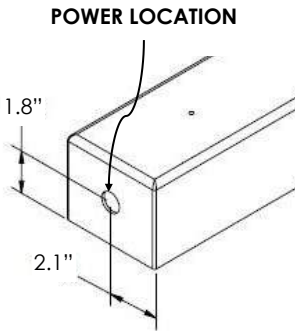
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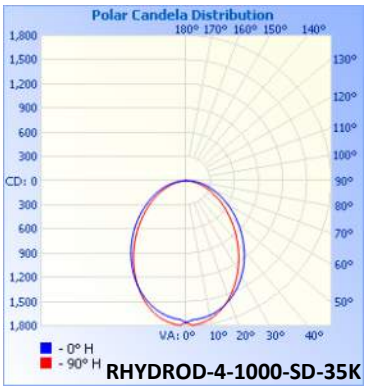
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E (End Feed)

PERFORMANCE

RHYDROD-X-1000-SD (80+ CRI)



RHYDROD-4-1000-SD-35K

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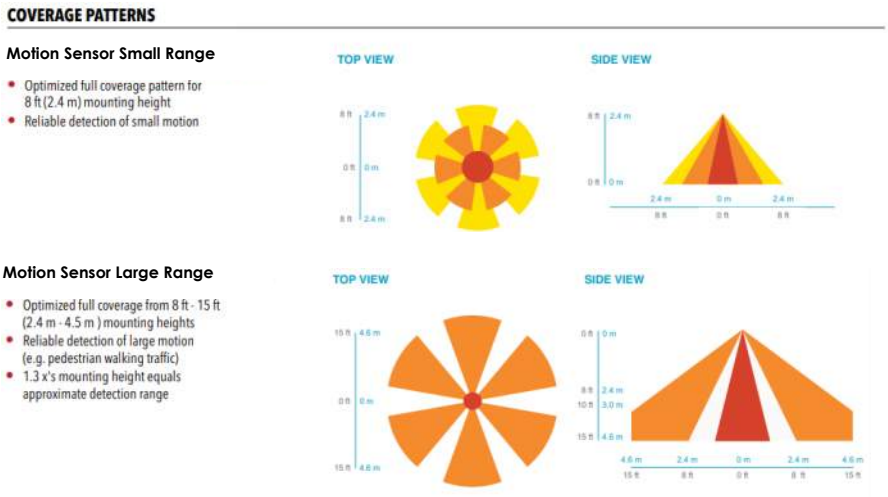
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Specification

Input Rating : 3.3V-5V(Voltage), 5mW (Mega Power)
Environmental Specification : -10°C - 70°C (Std. Operating Temp.), -40°C - 70°C (LT Operating Temp)
Output Rating : Not Applicable

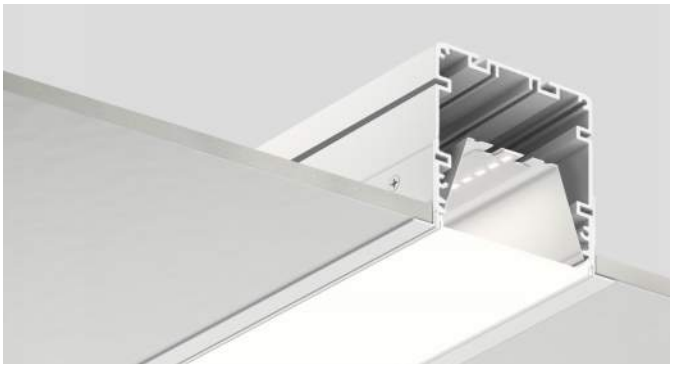
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STARTEK LIGHTING AMERICA

Type:	TYPE R2
Project:	
REP/Agent:	
Order #:	

RECESSED BEAM

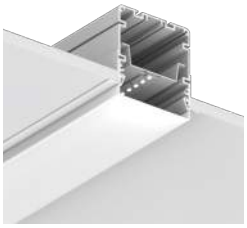




DIFFUSING



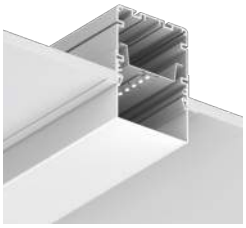
FLUSH, H: 3.5"



DL05, H: 4.0"

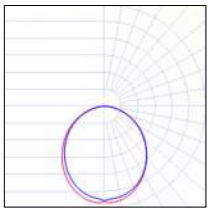


DL10, H: 4.5"

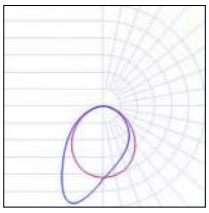


DL15, H: 5.0"

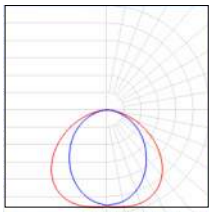
DISTRIBUTION



SD= SatinIce Diffuse



WW= Wall Wash

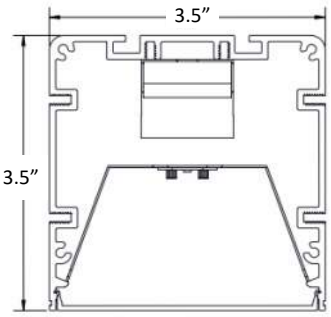


WD= Wide Diffuse

FEATURES

- ★ Continuous lensing - runs up to 100'
- ★ Standard 2', 4', 6' and 8'units or continuous rows
- ★ Fixture/run length increments down to 1/16"
- ★ Single piece aluminum extrusion housing
- ★ Linear runs with proprietary joiner design
- ★ Snap-in lens and reflector for easy installation
- ★ Compatible with wall-to-wall applications
- ★ 3 Step MacAdam ellipse binning
- ★ Efficacy up to 130 lm/W
- ★ Soft diffuse direct lighting
- ★ Approved for dry and damp locations
- ★ 0-10v dimming is standard
- ★ Dim to 1% of output current is standard
- ★ 90 CRI (R9 50min) available
- ★ CA Title 24 / JA8 installation compatible
- ★ Consult factory for TM21, TM30, LM79 and LM80
- ★ IC Rated
- ★ Chicago Plenum available
- ★ L70 > 50,000 hours

DIMENSIONS



*Consult factory for DLC listed catalog #'s

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STARTEK LIGHTING AMERICA

Type:	
Project:	
REP/Agent:	
Order #:	

RECESSED BEAM

RBEAM

SERIES	LENGTH	LUMENS PER FOOT	DISTRIBUTION	CCT	CRI
RBEAM	4 = Run Length **_x_RECT**= Rectangle **_x_L**= L-Shape	**350**= 350 LPF **500**= 500 LPF **750**= 750 LPF **1000**= 1000 LPF **XXX**= Custom LPF	**SD**= SatinIce Diffuse **WW**= Wall Wash **WD**= Wide Diffuse **GRZ**= Wall Graze **DLE05**= 0.5" Drop Lens w/ Lit Ends **DLE10**= 1.0" Drop Lens w/ Lit Ends **DLE15**= 1.5" Drop Lens w/ Lit Ends *Seamless Continuous Lensing Unavailable for Drop Lens Options.*	**30K**= 3000K **35K**= 3500K **40K**= 4000K **50K**= 5000K **TW**= Tunable White[1] *(2700-6500K)*	**80**= 80 **90**= 90 *(R9 50 min)*

FINISH	MOUNTING	VOLTAGE	ELECTRICAL
STANDARD **PW**= Powder Coat White **PB**= Powder Coat Black **PREMIUM** **RALxxxx**= Powder Coat RAL xxxx (Gloss Finish) **CUSTOM** **PO**= Powder Other	**T-GRID** **TBX**= 9/16" Grid 15/16" Grid 9/16" Grid (Tegular Tile) 15/16" Grid (Tegular Tile) 9/16" Screw Slotted T-Grid 15/16" Prelude **TBO**= T-BAR Other (Specify Type of T-BAR) **COSMETIC BEZEL** **CB**= Cosmetic Bezel (Screw/ Rod Mount) **CBY**= Cosmetic Bezel (Yoke Mount) *NOTE: Bezel color will match fixture color unless otherwise specified, consult factory for options. **SPACKLE FLANGE** **SF**= Spackle Flange (Screw/ Rod Mount) **SFY**= Spackle Flange (Yoke Mount) **TRIMLESS** **TR**= Trimless (Screw/ Rod Mount)	**U**= 120-277 **C**= 347	**1C**= Single Circuit **MC**= Multiple Circuits *(multiple switch legs across run length)* **EC**= Emergency Circuit *(separate power drops for EC fixtures)* **GTD**= Generator Transfer Device

OPTIONS

SPECIALTY DRIVERS ***(Standard driver is 0-10V, dim to 1% output current)***
DT1= eldoLED EcoDrive Dim to 1% (0-10V)
DTZ= eldoLED SoloDrive Dim to 0.1% (0-10V)
PSRD= Philips Sensor Ready (DALI) Driver
LDE1= Lutron Hi-Lume EcoSystem LED driver w/ Soft-on, Fade-to-Black
TW-A= Tunable White, 0-10v[2]
TW-EL= eldoLED DUALdrive Tunable White (DALI)[2]
LD2=Lutron DALI 2 Digital Tunable White driver with 1% dimming[2]
RD-xx'-xxxxx= Remote Driver 120V-277V
Consult Factory

BATTERIES ***("#" indicates quantity)***
#EMB6= 6W EM Battery (Bodine)
#EMB10= 10W EM Battery (Bodine)
#FCEMB10= 10W EM Battery (Factory Choice)
#FCEMB14= 14W EM Battery (Factory Choice)

SENSORS
DMxx%= Daylight/Motion Sensor (xx%= % Min. Dimming)
AWNR-W= Lutron Athena Wireless Node (RF only)[3] - White Finish
AWNR-B= Lutron Athena Wireless Node (RF only)[3] - Black Finish
AWNS-W= Lutron Athena Wireless Node with Sensor - White Finish
AWNS-B= Lutron Athena Wireless Node with Sensor - Black Finish
NLA= Acuity nLight Air
WVL= Cooper Wavelinx

OTHER
CP= Chicago Plenum (CCEA)
CFW= Conduit Flex Whip
OTD= Outdoor

[1] ***Tunable White Driver must be specified in options***
[2] ***50 Watt Max. Dual driver required for higher fixture wattage***
[3] **D4i driver for static & DALI-2 Type 8 for tunable.**

EXAMPLE: RBEAM-20-500-SD-35K-80-PW-TBX-U-1C-1EMB10

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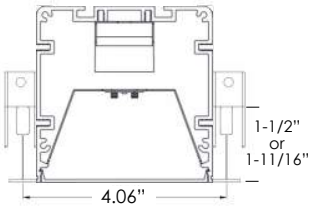
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RECESSED BEAM

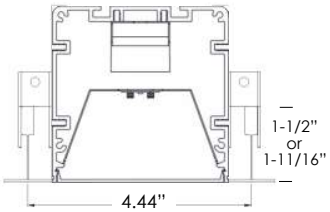
MOUNTING OPTIONS AND DIMENSIONS

T-BAR/T-GRID Options - TBX

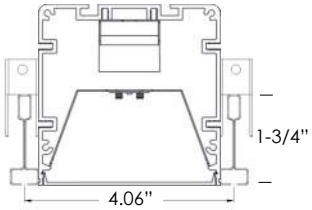
9/16" T-Bar (Flush)



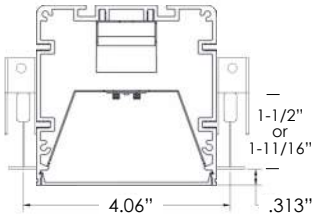
15/16" T-Bar (Flush)



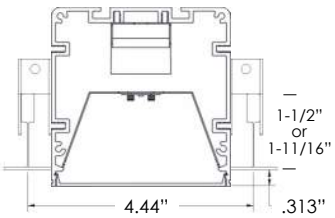
9/16" T-Bar (Bolt Slotted)

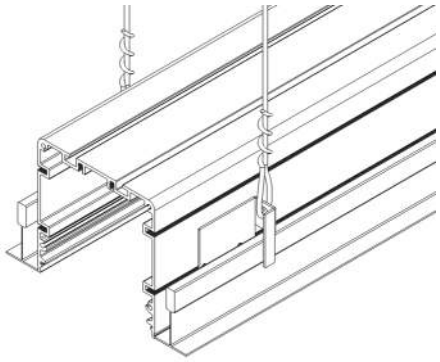


9/16" T-Bar (Tegular)



15/16" T-Bar (Tegular)

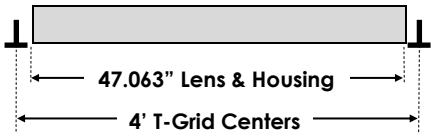




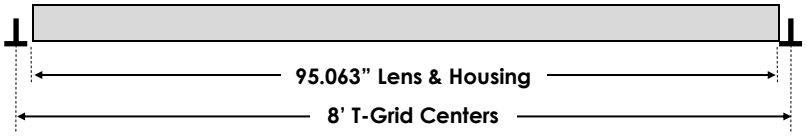
The lengths of individual fixtures and run lengths specified in the ordering logic is the distance between the centers of the T-Grids (See Page 4). The actual length of the fixtures and the lens will be shorter from that specified length. In a run, the last fixture compensates for the T-Grid. If a different configuration is needed to meet an aesthetic requirement, please indicate this on your P.O. when placing your order.

Examples of the standard construction of T-Grid configurations are as follows:

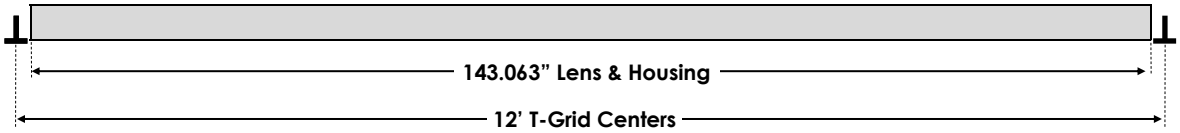
4' FIXTURE

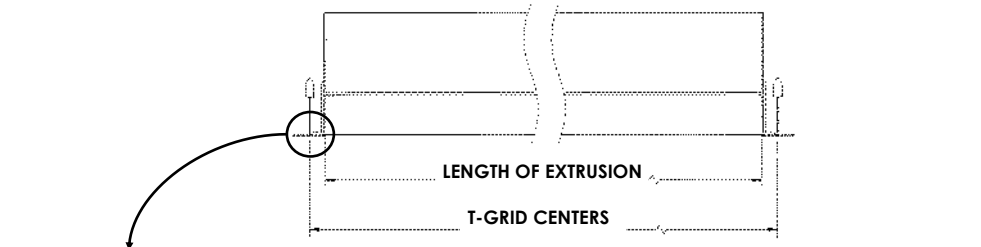


8' FIXTURE

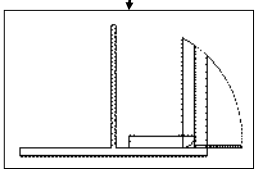


12' RUN

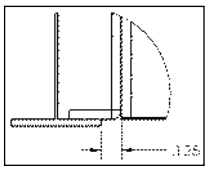




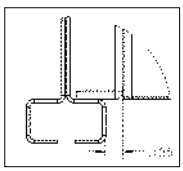
Detailed View
15/16" T-BAR



Detailed View
9/16" T-BAR



Detailed View
9/16" SCREW SLOT



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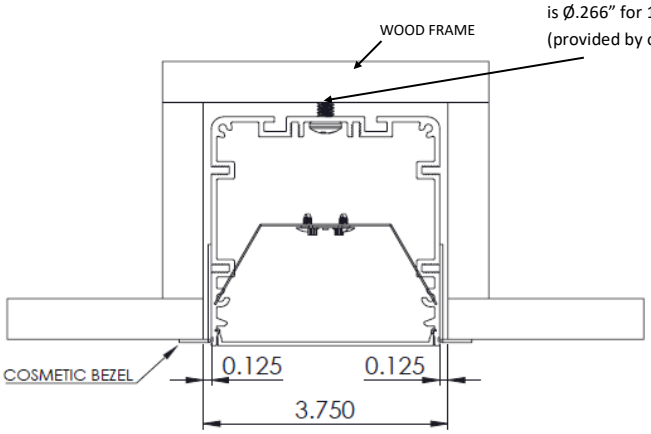
RECESSED BEAM

MOUNTING OPTIONS AND ROUGH-IN DIMENSIONS

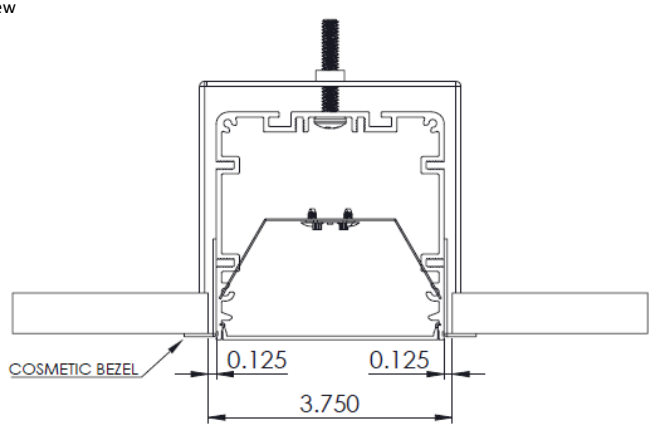
CB - Cosmetic Bezel

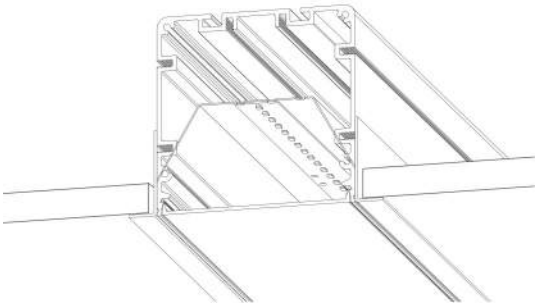
(CB)
SCREW/ROD MOUNT

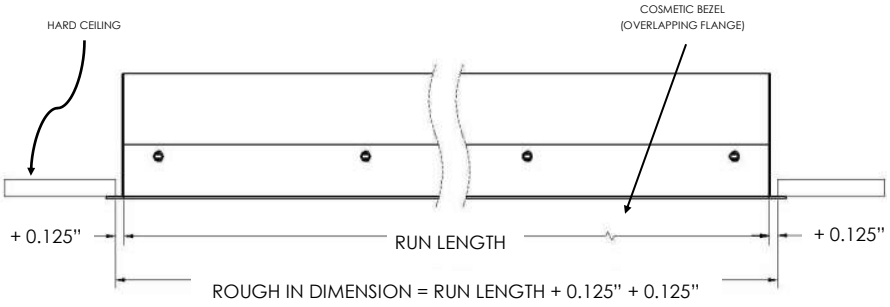
NOTE: Hole size at mounting locations is Ø.266" for 1/4" Rod or Screw (provided by others)



(CBY)
YOKE MOUNT



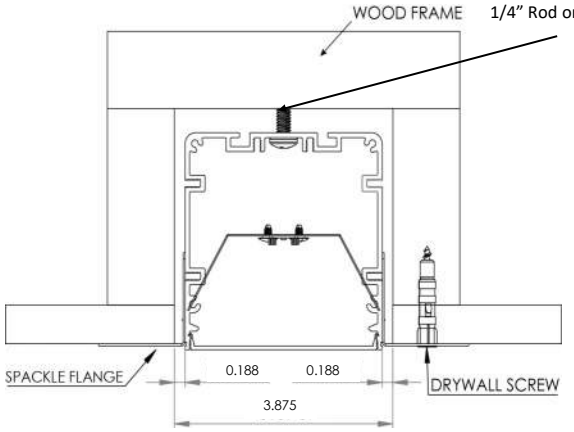




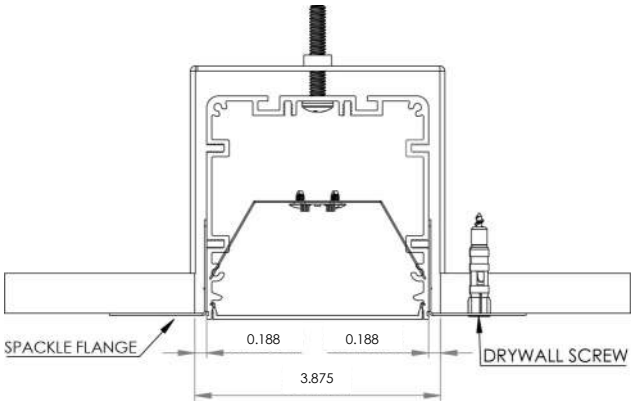
SF– Spackle Flange

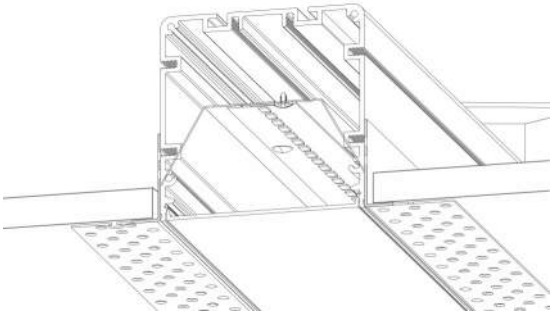
(SF)
SCREW/ROD MOUNT

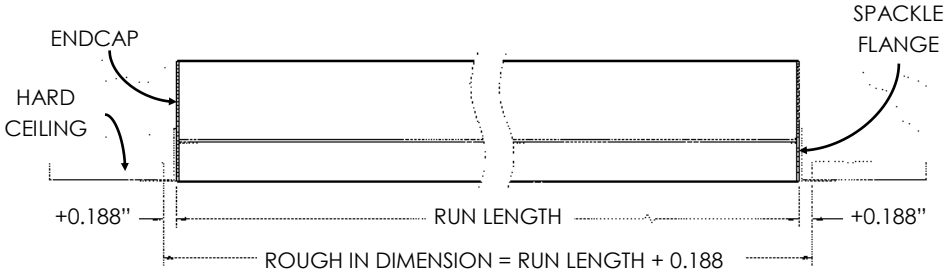
NOTE: Hole size at mounting locations is Ø.266" for 1/4" Rod or Screw (provided by others)



(SFY)
YOKE MOUNT







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RECESSED BEAM

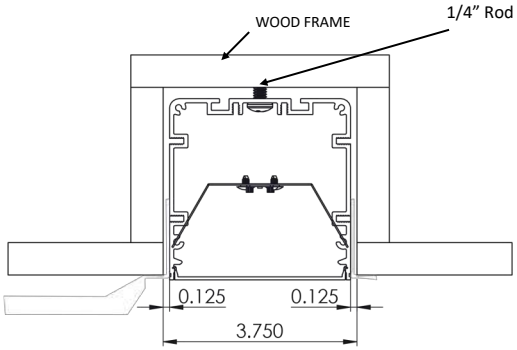
MOUNTING OPTIONS AND ROUGH-IN DIMENSIONS

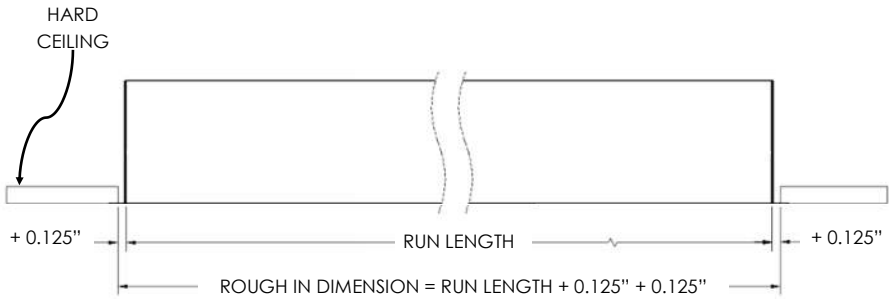
TR– Trimless

(TR)

SCREW/ROD MOUNT

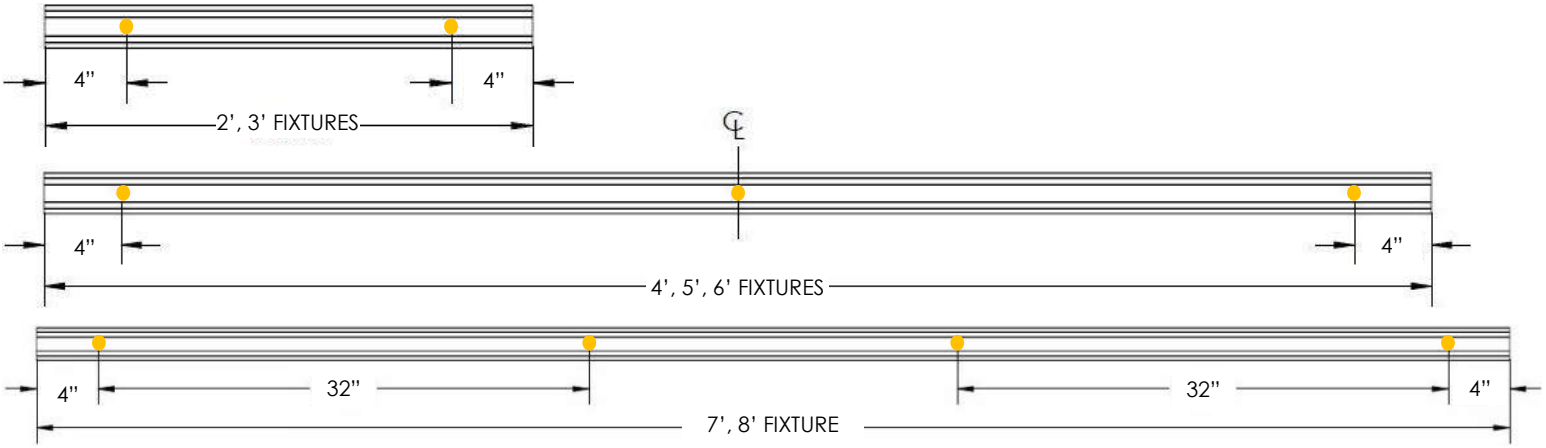
NOTE: Hole size at mounting locations is Ø.266" for 1/4" Rod or Screw (provided by others)





MOUNTING LOCATIONS: SF, CB, & TR

Mounting locations (●) vary due to length. Views below show top of fixtures and their hole location. For hard ceilings, we offer two types of options. A threaded rod mount, or a screw mount. Please see below of mounting locations as these vary based on length of the fixture.



NOTE: Hole size at mounting locations is Ø.266".

ROW CONFIGURATIONS

xx (Run Length)

The standard construction of run lengths follows the logic of the table below. Consult factory for additional information.

# of Sections	Total Length																																															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
2	1																																															
3		1																																														
4			1					1	1	1	1					1	1	1	1					1	1	1	1					1	1	1	1										
5				1				1				1				1				1				1				1				1				1									
6					1				1				1				1				1				1				1				1				1								
7						1				1				1				1				1				1				1				1				1							
8							1				1	1	1	1	2	1	1	1	2	2	2	2	3	2	2	2	3	3	3	3	4	3	3	3	4	4	4	4	5					

NOTE: Fixtures in continuous runs are available in 6" increments. Consult factory for smaller increments.

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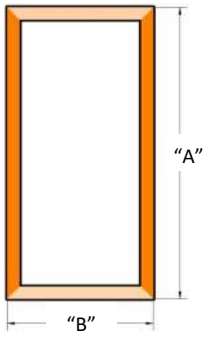
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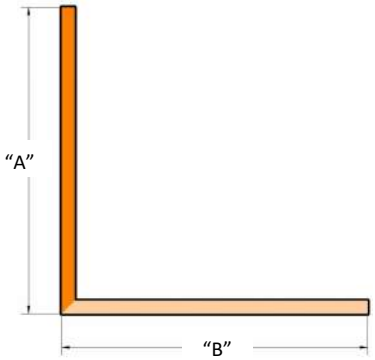
SHAPE CONFIGURATION WITH MITER CUTS

Specify the configuration and overall dimensions. Note the overall dimension is for the fixture and does not include any mounting brackets or accessories. For the "L" shape, the standard construction is to build with as many 8' sections as possible or use the longest sections first and finish the shapes with a shorter length fixture if necessary.

_x_RECT
RECTANGLE
SUPPLY AxB DIMENSIONS



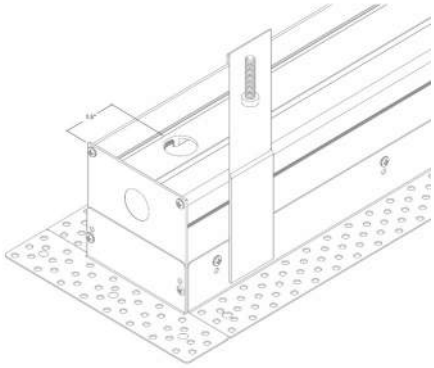
_x_L
L-SHAPE
SUPPLY AxB DIMENSIONS



POWER LOCATION & WIRING DIAGRAMS

POWER LOCATION

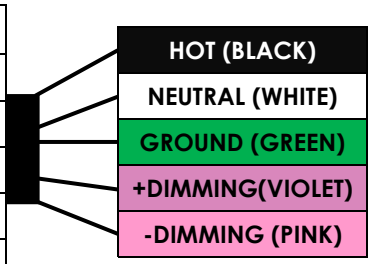
The standard power location is out the top on the fixture. If a different configuration is needed to meet an aesthetic or placement requirement, please consult the factory.



WIRING DIAGRAMS

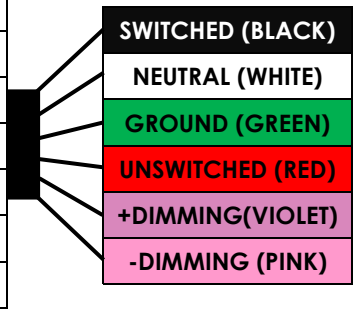
Wiring configurations are dependent on the options chosen. Below are a few examples of our standard wiring that is used to power the fixture.

WIRING	
HIGH VOLTAGE	***LOW VOLTAGE***
18 GA	
H = HOT	**+D(V)** = +DIMMING
N = NEUTRAL	**-D(G)** = -DIMMING
GND = GROUND	



This wiring diagram is showing a standard set of wires for a basic fixture.

WIRING	
HIGH VOLTAGE	***LOW VOLTAGE***
18 GA	
S = SWITCHED	**+D(V)** = +DIMMING
N = NEUTRAL	**-D(G)** = -DIMMING
U = UNSWITCHED	
GND = GROUND	



This wiring diagram is showing a set of wires for a fixture with a emergency battery.

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RECESSED BEAM

PERFORMANCE

WD Wide Diffuse		WW Wall Wash	
PW	**W/ft.**	**LPW**	**W/ft.**
24	3	125	3
24	4	125	4
24	6	125	6
24	8	125	8

p. Delivered lumens may vary +/- 5%. Actual wattage may vary +/- 5%.

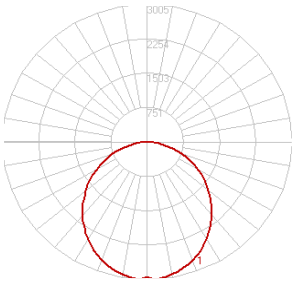
Multiplier How-To

To determine CRI/CCT configuration wattage:

Choose wattage from Power matrix for desired optic and lumen output for 8' fixture length.

Wattage x Multiplier = New Configuration Wattage

PHOTOMETRICS



Model Tested

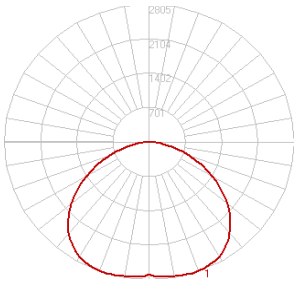
RBEAM-8-1000-SD-35K-80

Luminance Data (cd/sq.m)

Angle in Degrees	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	10586	10610	10819
55	10136	10045	10256
65	9464	9278	9548
75	8153	8214	8591
85	6139	6705	7191

Candela Table

Vert. Angle	Horizontal Angle				
	0	**22.5**	**45**	**67.5**	**90**
0	2955	2955	2955	2955	2955
5	2922	2910	2927	2961	2993
10	2877	2859	2878	2912	2945
15	2800	2778	2797	2831	2864
20	2692	2669	2690	2722	2753
25	2555	2533	2560	2587	2616
30	2396	2376	2404	2430	2457
35	2218	2202	2231	2253	2277
40	2032	2014	2042	2062	2085
45	1838	1818	1842	1858	1878
50	1640	1613	1633	1647	1664
55	1427	1400	1414	1430	1444
60	1210	1179	1190	1204	1218
65	982	954	963	978	991
70	746	727	738	753	765
75	518	504	522	537	546
80	307	300	321	336	341
85	131	126	143	149	154
90	0	0	0	0	0



Model Tested

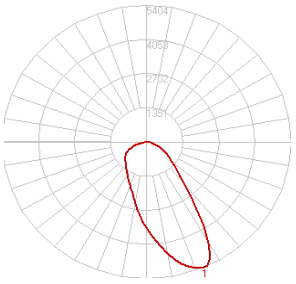
RBEAM-8-1000-WD-35K-80

Luminance Data (cd/sq.m)

Angle in Degrees	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	10149	13009	14522
55	9349	12588	13771
65	8460	11631	12333
75	7128	9857	10097
85	4894	6673	6869

Candela Table

Vert. Angle	Horizontal Angle				
	0	**22.5**	**45**	**67.5**	**90**
0	2698	2698	2698	2698	2698
5	2668	2662	2682	2719	2757
10	2626	2625	2669	2730	2780
15	2541	2554	2649	2741	2802
20	2425	2461	2602	2729	2801
25	2281	2342	2535	2696	2769
30	2115	2204	2442	2615	2698
35	1933	2044	2317	2503	2587
40	1743	1867	2164	2350	2423
45	1548	1679	1984	2157	2215
50	1354	1477	1781	1931	1973
55	1157	1272	1558	1680	1704
60	966	1057	1313	1408	1416
65	771	841	1060	1130	1124
70	577	630	800	846	836
75	398	427	550	575	564
80	228	244	317	330	324
85	92	94	125	131	129
90	0	0	0	0	0



Model Tested

RBEAM-8-1000-WW-35K-80

Luminance Data (cd/sq.m)

Angle in Degrees	Avg. 0-Deg	Avg. 45-Deg	Avg. 90-Deg
45	5250	10930	11206
55	3258	6364	9613
65	2098	3674	7896
75	1078	1854	5864
85	235	387	2659

Candela Table

Vert. Angle	Horizontal Angle				
	0	**22.5**	**45**	**67.5**	**90**
0	3379	3379	3379	3379	3379
5	3913	3894	3703	3487	3278
10	4475	4392	4035	3615	3211
15	4991	4840	4383	3731	3100
20	5306	5105	4614	3826	2939
25	5392	5177	4708	3849	2742
30	4632	4647	4675	3767	2518
35	3262	3510	4350	3597	2277
40	2192	2449	3696	3361	2034
45	1602	1748	2889	3042	1771
50	1232	1317	2169	2651	1511
55	979	1021	1612	2209	1251
60	784	797	1183	1763	1004
65	602	606	861	1326	776
70	438	434	605	933	563
75	285	277	387	599	372
80	150	145	208	319	205
85	55	45	68	108	71
90	0	0	0	0	0

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RECESSED BEAM

SPECIFICATIONS

Housing
Nominal 3 1/2" x 3 1/2" square housing of continuous extruded 6063 T5 aluminum.

Luminaire Length
2', 4', 6' or 8' lengths are available for a single stand-alone section. Using internal joiners, sections can be joined to form longer rows.

Battery
Philips Bodine lithium ion battery providing up to 720lm (6W) or up to 1200lm(10W) for 90 minutes. UL924 listed. Class 2 compliant. Meets Title 20 CEC (California Energy Commission) efficiency standards.

Lensing
Snap-in .080" thick acrylic lensing with impact modifier

Source
Lumen packages are available in four color temperature options (3000K, 3500K, 4000K and 5000K) — all within 3 MacAdam ellipses.

Certification
Intertek cETLus Listed. RoHS (Restriction of Hazardous Substances) and Buy American Act compliant.

Environment
Suitable for dry and damp locations.
Operating temp.: -40°C to +45°C

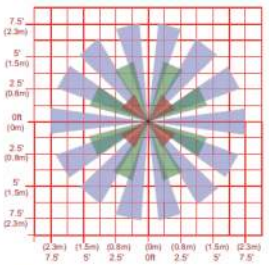
Dimming Driver
eldoLED OPTOTRONIC (OTi) series of LED drivers allow tunable output currents to maximize efficiency. UL Class 2 recognized. 0-10v interface can be dimmed down to true 1% dimming. Included 2.5Kw ring and wave overcurrent protection. OTi drivers boast <20% THD, >.9 power factor and 87% efficiency at max load.

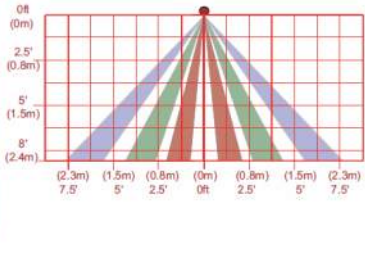
Packaging
Sustainably manufactured outside cardboard box and biodegradable, protective poly-foam luminaire inserts.

CONTROL

Sensor

Wattstopper FS-205 v2 Low Voltage PIR. Integrated photosensor for hold-off daylighting control. 24VDC operating voltage. Adjustable time delay (30 seconds to 30 minutes).

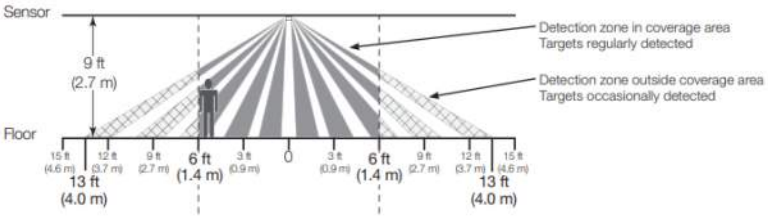








Wireless Node



COMPANION PRODUCTS

Beam Direct



Beam Direct/Indirect



WARRANTY

5-year limited warranty. Complete warranty terms can be located at:

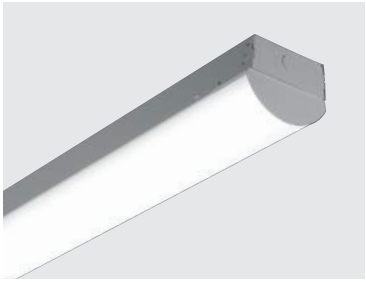
http://www.starteklightingamerica.com/images/pdf/warranty/Beam_Series_Warranty.pdf

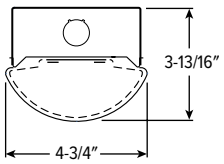
Note: Actual performance may differ as a result of installation environment and final application.
All values are design or typical values, measured under laboratory conditions, at 25°C (77°F) .

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76R LED Round Lens Strip





CATALOG #:

TYPE:

PROJECT:

FEATURES

- Diffuse acrylic lens enhances uniformity and minimizes glare
- High-performance up to 154 lm/W
- 40°C max ambient operating temperature
- Diverse selection of mounting accessories for surface and suspended applications
- Channel connector furnished for continuous row applications (included with 8′ units only)
- Special reflectors are available for precise light distribution
- Optional wireguard provides added protection
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 22-gauge die-formed C.R.S.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- SHIELDING – Linear ribbed diffuse acrylic
- ELECTRICAL – High-quality mid-power LED boards. L70 at 60,000 hours. 40°C maximum ambient operating temperature. 50°C maximum ambient operating temperature with HA Option, lumen restrictions apply.
- MOUNTING – Surface (ceiling or wall) or suspended (hanging hardware required).
- LISTINGS –
  - cETLus conforms to UL STD 1598. Certified to CAN/CSA STD C22.2 No. 250.0. Suitable for damp locations.
  - DesignLights Consortium qualified product. Not all versions of this product may be DLC qualified, see the DLC Qualified Products List at designlights.org/QPL.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: 76R - 4 - L52/840 - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES
76R

LENGTH [1]
4 4′
8 8 [4]

LUMENS [2]
4′
L30 3,000lm
L52 5,200lm
L72 7,200lm
L94 9,400lm [5]
8′
L60 6,000lm
L104 10,400lm
L144 14,400lm
L188 18,800lm [6]

CRI
8 80
9 90 [7]

CCT
27 2700K
30 3000K
35 3500K
40 4000K
50 5000K

OPTIONS [3]
See page 3 for SPECIAL REFLECTOR OPTIONS.
See page 3 for FINISH OPTIONS.

EM/10W	10-watt emergency battery [8]
(L__)	Additional lower lumen packages available.[9] Example: 8,000 nominal lumens = 76R-8-L104/835-**(L80)**
QC__	Quick-connect wiring harness. [10]
WG-76R11	11-gauge white powder coat wireguard
WG-76R14	14-gauge white powder coat wireguard
SS-12	Single stem and canopy, 12″ [11]
SWS-12	Swivel stem and canopy, 12″ [12]
GAT	GAT fastener (T-bar clip)
VBY	(2) Y-hangers
VBY-2	(2) Y-hangers with 2′ chains
SMH-76R	Surface mount hanger
SHS-76R	Surface mount hanger for grid ceilings
HA	High ambient operating temperature, 50°C [13]

(L20)

AIRCRAFT CABLES (EXAMPLE: ACFL/D48) [14]

Prefix		Type		Length	
ACFL/	Feeder	**D**	1″ grid & hardpan	**24**	24″
ACJL/	Joiner	**N**	9/16″ grid	**48**	48″
		S	Slot grid	**96**	96″

CONTROL [15]
See page 5 for ADDITIONAL CONTROL OPTIONS.

–	None
AVI-LVFA	Avi-on wireless fixture control [16]
AVI-LVFA-PIR-ELB	Avi-on wireless fixture control with PIR motion and daylight sensor, end mount [17]
AWNR	Lutron Athena wireless node integral fixture control, RF only [18]

DRIVER
See page 6 for ADDITIONAL DRIVER OPTIONS.

DIM	Driver with external dimming wires
DRV	Driver without external dimming wires
DA	Driver with 12V auxiliary power, without external dimming wires [19]
DSR	Sensor-ready driver without external dimming wires [20]

VOLTAGE
120 120V
277 277V
UNV 120-277V
480 480V with stepdown transformer [21]

NOTES
1. For actual length, see page 2 for FIXTURE DETAILS.
2. Lumen output based on 80 CRI/4000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
3. See page 3 for MOUNTING DETAILS.
4. Ships with (2) 4′ lenses.
5. 30°C maximum ambient operating temperature.
6. 30°C maximum ambient operating temperature.
7. Extended lead times may apply. Consult factory for availability.
8. 30° maximum ambient operating temperature.
9. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
10. See page 2 for QUICK-CONNECT OPTIONS.
11. Two stem sets required. One additional stem set required for each row mounted fixture.
12. Two stem sets required. One additional stem set required for each row mounted fixture.
13. L72 max for 4′, L144 max for 8′. Not available with EM batteries.
14. VBY hanger(s) included. Units specified with aircraft cable require cord. See page 3 for MOUNTING DETAILS.
15. See page 3 for SENSOR & NODE PLACEMENT DETAILS. See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
16. DA Driver only.
17. DA Driver only.
18. DA and DSR Drivers only.
19. Avi-on and Lutron Athena Controls only.
20. Lutron Vive and Athena Controls only.
21. Not available with EM batteries, DA, or DSR driver.

76R LED Round Lens Strip

FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
4'	L30	3067	20.3	151
	L52	5261	35.8	147
	L72	7212	50.2	144
	L94	9418	68.6	137
8'	L60	6134	39.8	154
	L104	10523	69.5	151
	L144	14425	100.5	144
	L188	18836	137.1	137

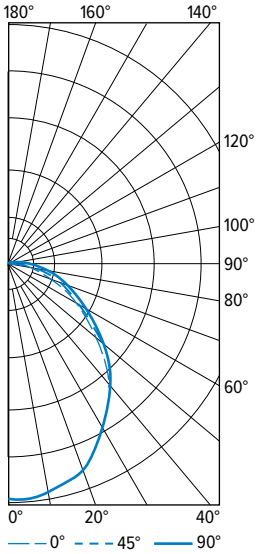
MULTIPLIER TABLE

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.94
	3000K	0.96
	3500K	0.97
	4000K	1.00
	5000K	1.03
90 CRI	2700K	0.77
	3000K	0.79
	3500K	0.80
	4000K	0.83
	5000K	0.86

- Photometrics tested in accordance with IESNA LM-79. Results based on 80 CRI/4000K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

PHOTOMETRY

76R-4-L94/840 Total Luminaire Output: 9418 lumens; 68.6 Watts | Efficacy: 137.3 lm/W | 80 CRI; 4000K CCT

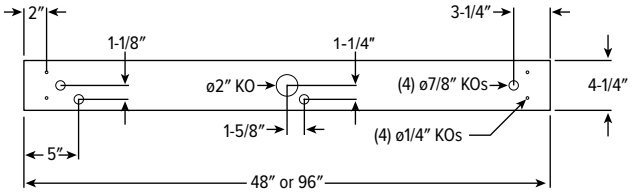


CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
	0	3041	3041	3041	
	5	3067	3019	3010	288
	15	2910	2905	2926	821
	25	2599	2674	2746	1231
	35	2171	2340	2469	1458
	45	1676	1928	2113	1478
	55	1177	1490	1706	1311
	65	715	1046	1284	1023
	75	358	701	908	711
	85	71	445	633	446
	90	0	347	516	
	95	0	274	442	273
	105	0	166	305	168
	115	0	105	210	102
	125	0	65	141	58
	135	0	41	90	31
	145	0	8	50	13
	155	0	0	37	6
	165	0	0	12	1
	175	0	0	0	0
	180	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2339	25
	0 - 40	3798	40
	0 - 60	6586	70
	0 - 90	8766	93
	90 - 120	543	6
	90 - 150	645	7
	90 - 180	652	7
	0 - 180	9418	100

FIXTURE DETAILS

BACKVIEW



QUICK-CONNECT OPTIONS

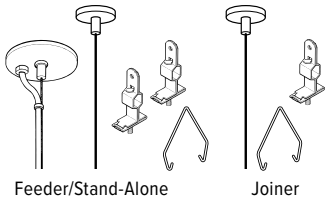
Note: Quick-connect wiring required for row mounting. All QC harnesses contain (5) 16ga conductors plus ground.

DESIGNATION	NUMBER OF 16GA WIRES FACTORY CONNECTED (EXCLUDING GROUND)	WIRE COLOR/POWER SUPPLY FACTORY CONNECTIONS	TYPICAL USE
QCBW	2	Black, White	On/off switching (DRV) or line voltage dimming (DIM LINE)
QCRW	2	Red, White	Alternating circuits on/off switching (DRV) or line voltage dimming (DIM LINE)
QCBRW	3	Black, Red, White	On/off switching (DRV) or line voltage dimming when equipped with EM battery packs
QCBW/PK	4	Black, White, Purple, Pink	Single circuit with 0-10V low voltage dimming (DIM)
QCRW/PK	4	Red, White, Purple, Pink	Alternating circuits on/off switching with 0-10V low voltage dimming (DIM)
QCBRW/PK	5	Black, Red, White, Purple, Pink	On/off switching when equipped with EM battery packs and 0-10V dimming (DIM)
QCBW/RPK	5	Black, White, Red, Purple, Pink	On/off switching with 0-10v dimming and 0-10v tunable using shared common
QCUU	N/A	N/A	QC harness passes through fixture, but is not connected to it

76R LED Round Lens Strip

MOUNTING DETAILS

STANDARD HARDWARE FOR SUSPENDED PRODUCT (Grid and Hardpan)



Notes:

- Fixtures are provided with adjustable length aircraft cables, (2) VBY hangers and mounting hardware, must specify.
- Electrical supply is brought into the feeder fixture, either as part of a row or as a stand-alone unit. Joiner fixtures complete the row.
- The feeder kits are standard with a 5″ canopy to cover the junction box and a 2″ canopy at the non-feed point. No J-box is required at non-feed points.

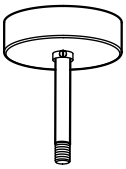
CORD FOR SUSPENDED PRODUCT

Units specified with aircraft cable require cord. Please specify cord type using ordering information below. Long fixture rows may require multiple feed points based on 18ga conductor size.

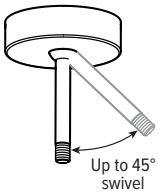
EXAMPLE: S2438D/W				
CORD TYPE	LENGTH	# OF COND. [1]	WIRE SIZE	COLOR
S	**24** 24″ **48** 48″ **96** 96″	**3** **4** **5** **6**	**8D** 18ga	**/W** White **/B** Black

[1] Includes (2) 22ga purple & pink dimming conductors

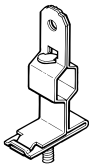
SS-12



SWS-12



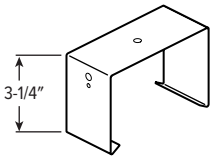
GAT



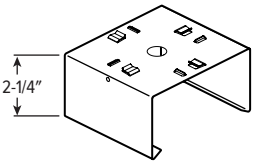
VBY OR VBY 2



SMH-76R

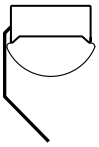


SHS-76

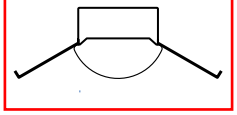


SPECIAL REFLECTOR OPTIONS

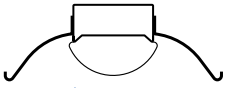
R1015



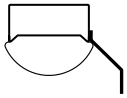
R1172



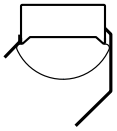
R1240



R1324



R1684



Clear polycarbonate reflector aligners for continuous row applications are supplied with reflectors.

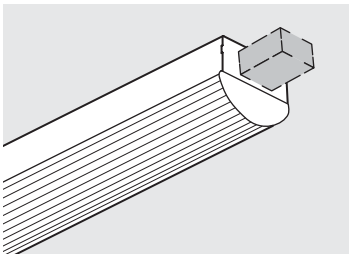
FINISH OPTIONS

WHITE BLACK BRONZE NICKEL SILVER ALUM



For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

SENSOR & NODE PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS.

76R LED Round Lens Strip

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small areas to large garages
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Avi-on is under license. Other trademarks and trade names are those of their respective owners.

ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

AVI-LVFA-PIR-ELB Avi-on wireless fixture control with PIR motion and daylight sensor, end mount. DA Driver only.

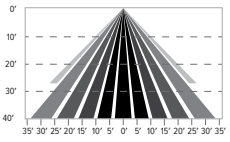
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 45′
LENS	Single lens detects high and low bay motion.
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 70°C
RELATIVE HUMIDITY	90 to 95% at 30°C
COMMISSIONING	App (iOS or Android)
SYSTEM REQUIREMENTS	Avi-On wireless fixture controls plus desktop and mobile apps
MANUFACTURER	Avi-On

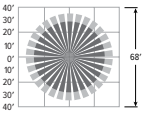
Bluetooth® Lighting Controls

SENSOR COVERAGE PATTERNS

Large motion

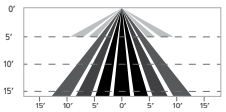
40′ height: ø68′ coverage

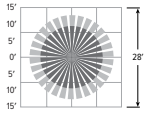




Small motion

15′ height: ø28′ coverage





SENSOR DETAIL



76R LED Round Lens Strip

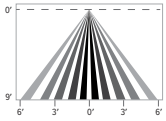
ADDITIONAL CONTROL OPTIONS

VDO Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC). DSR or LDE Drivers only. LDE drivers require driver interface

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 12′
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9′ height: ø12′ coverage



Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8′	114
9′	144
10′	178
12′	256

SENSOR DETAIL



Dimensions: 2-11/16″ x 1″

VIVE CONTROL OPTIONS

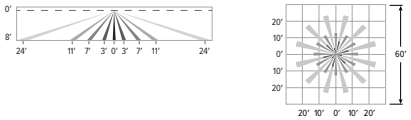
CATALOG NUMBER	DESCRIPTION
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), for use with sensor-ready driver
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC), for use with sensor-ready driver
VRF/DBI	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver
VDO/DBI	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver

OCCWS-FSP-311B-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277V. Must specify lens: L2, L3, or L7

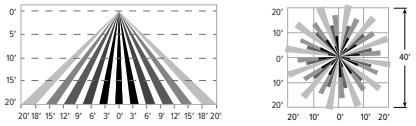
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 40′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	App (iOS or Android)

SENSOR COVERAGE PATTERNS

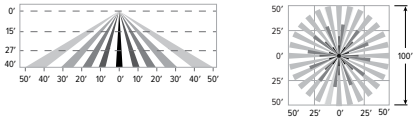
L2 8′ height: ø48′ coverage



L3 20′ height: ø40′ coverage



L7 40′ height: ø100′ coverage



SENSOR DETAIL

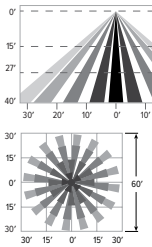


OCCLV-OSFHU-ITW-120-347 Leviton PIR motion sensor, 120-347V.

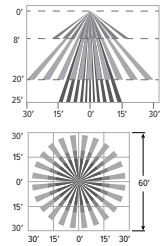
SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	8′ – 40′
LENS	Interchangeable high bay, low bay or aisle mask
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 71°C
RELATIVE HUMIDITY	20% to 90% non-condensing

SENSOR COVERAGE PATTERNS

High bay
40′ height: ø60′ coverage



Low bay
25′ height: ø60′ coverage



SENSOR DETAIL



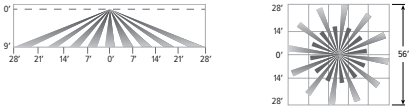
76R LED Round Lens Strip

OCCSS LSXR-10-120-277 Sensor Switch PIR motion sensor, 120-277V
OCCSS LSXR-10-347/480 Sensor Switch PIR motion sensor, 347/480V

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	7′ – 15′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 60°C
RELATIVE HUMIDITY	Up to 90% non-condensing

SENSOR COVERAGE PATTERNS

9′ height: ø56′ coverage



SENSOR DETAIL

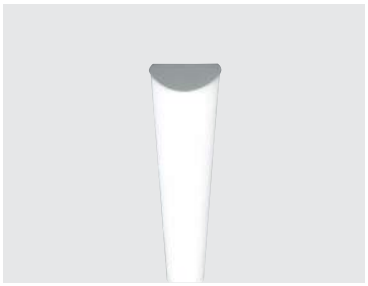


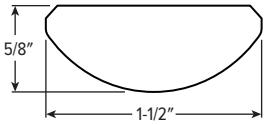
ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Driver with 12V auxiliary power
DSR	Sensor-ready driver (D4i DALI-2)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming driver

SL LED Slimline Architectural





CATALOG #:

TYPE:

PROJECT:

FEATURES

- Ultra-low profile design blends with architectural environments
- Flexible mounting for walls, grid and hard surface ceilings
- Installs inconspicuously in confined spaces such as cove or under cabinet applications
- Wide distribution and diffuse lens provides smooth, ambient illumination
- Invisible lens seams with diffuser film
- Extruded aluminum rail for pin-straight lines in seamless, continuous rows
- Quick and easy installation
- Fixture and driver kits are boxed together for easy installation
- ADA compliant for wall mount applications
- Maximize energy savings with efficacies up to 111 lm/W
- Wireless control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Extruded aluminum.
- SHIELDING – Frosted, matte acrylic.
- FINISH – Clear anodized white injection molded end caps.
- ELECTRICAL – High-quality mid-power LED boards. L70 > 60,000 hours per IES TM-21. See fixture performance data for lumen maintenance.
- MOUNTING – Surface, wall, or ceiling grid mount.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - ADA Compliant
  - City of Chicago Environmental Air approved when specified with CP option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited fixture warranty, see hew.com/warranty.

ORDERING EXAMPLE: SL - S - 4 - L5/835 - RD - WB - PC10 - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES
SL

STYLE [1]
S Stand-alone, 2-8′
P Multi-fixture pattern powered by one driver
C Continuous row powered by one driver

TOTAL LENGTH
Lengths specified in 2′ increments
Example: **16** = 16′
2

Product Builder
Easily build rows & patterns with the Williams Product Builder at hew.com/product-builder

Stand-alone
Continuous Row
Pattern

LUMENS [2]
L3 300lm [3]
L5 500lm [4]
L10 1,000lm [5]

CRI
8 80
9 90

CCT
27 2700K
30 3000K
35 3500K
40 4000K
50 5000K

SHIELDING
RD Round frosted acrylic

MOUNTING [6]
WB 15/16″ T-bar bracket
NB 9/16″ T-bar bracket
SM Surface clip [7]
SB 1/4″ Slotted t-bar bracket

CONFIGURATION
For multi-fixture patterns or continuous rows, see the product builder

CABLE LENGTH
PC10 10′ plenum-rated cable(s) to driver box [8]
PC20 20′ plenum-rated cable(s) to driver box [9]

OPTIONS
EM/10WRM Remote mount 10-watt emergency battery [10]
(L__) Additional lower lumen packages available. **Example:** 800 lumens = SL-4-L10/835-RD-WB-**(L8)** [11]
CP Chicago Plenum (CCEA)

CONTROL
– None
AVI-LVFA Avi-on wireless fixture control [13]
AWNR Lutron Athena wireless node integral fixture control, RF only [14]

REMOTE DRIVER [12]
DIM Dimming driver prewired for 0-10V low voltage applications
DRV Driver prewired for non-dimming applications
DA Driver with 12V auxiliary power, without external dimming wires [15]
DSR Sensor-ready driver without external dimming wires (D4i DALI-2) [16]

VOLTAGE
120 120V
277 277V
UNV 120-277V

NOTES

1 Length restrictions apply for P and C styles, see product builder for available configurations.
2 Lumens per foot output based on 80 CRI/3500K. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
3 32′ maximum Total Length.
4 24′ maximum Total Length.
5 10′ maximum Total Length.
6 See page 3 for MOUNTING DETAILS.
7 Stainless steel.
8 Standard for lengths up to 16′.
9 Standard for lengths 16′ and above, can be specified for lengths under 16′.
10 See page 2 for FIXTURE DETAILS.
11 Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
12 Drivers must be remote mount. See page 2 for FIXTURE DETAILS. 10′ fixture cable provided, see options for additional lengths.
13 DA Driver only. See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
14 DA and DSR Drivers only.
15 Avi-on and Lutron Athena Controls only.
16 Lutron Athena Controls only.
17 Consult factory.

FIXTURE PERFORMANCE DATA

PER FOOT			
LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L3	312	2.8	111
L5	506	4.7	108
L10	990	8.9	111

LUMEN MAINTENANCE [1]			
L70	L80	L85	L90
>60000	>60000	>60000	56000
>60000	>60000	>60000	56000
>60000	>60000	>60000	56000

- Photometrics tested in accordance with IESNA LM-79. Results based on 80 CRI/3500K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

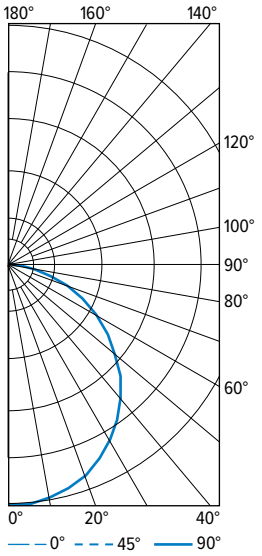
[1] Predicted lumen maintenance calculated in accordance with IES TM-21 per Energy Star (R) TM-21 Calculator rev. 02.08.16.

MULTIPLIER TABLE

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.97
	3000K	0.99
	3500K	1.00
	4000K	1.03
	5000K	1.06
90 CRI	2700K	0.80
	3000K	0.82
	3500K	0.83
	4000K	0.86
	5000K	0.89

PHOTOMETRY

SL-4-L5/835-RD Total Luminaire Output: 2022 lumens; 17.3 Watts | Efficacy: 117 lm/W | 80 CRI; 3500K CCT

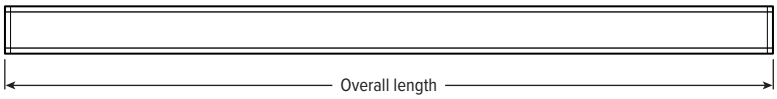


CANDLEPOWER DISTRIBUTION				
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	636	636	636	
5	639	631	631	60
15	616	608	609	172
25	569	565	570	261
35	502	502	509	315
45	416	422	433	327
55	320	334	354	300
65	211	242	273	240
75	110	155	198	165
85	22	89	132	94
90	0	66	103	
95	0	45	81	48
105	0	22	47	24
115	0	9	25	11
125	0	4	10	4
135	0	0	4	1
145	0	0	0	0
155	0	0	0	0
165	0	0	0	0
175	0	0	0	0
180	0	0	0	

LUMEN SUMMARY			
ZONE	LUMENS	% FIXTURE	
0 - 30	494	24	
0 - 40	809	40	
0 - 60	1435	71	
0 - 90	1934	96	
90 - 120	83	4	
90 - 150	88	4	
90 - 180	88	4	
0 - 180	2022	100	

FIXTURE DETAILS

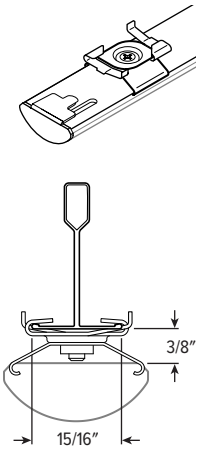
BACKVIEW



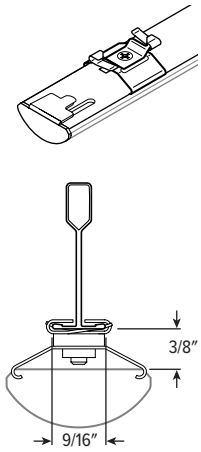
	OVERALL LENGTH
2′	24-1/4″
4′	48-1/4″
6′	72-1/4″
8′	96-1/4″

MOUNTING DETAILS

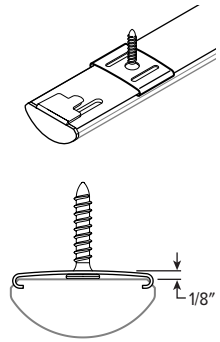
WB | 15/16" T-BAR



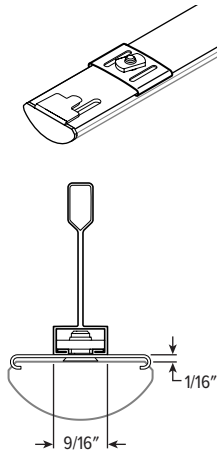
NB | 9/16" T-BAR



SM | SURFACE CLIP

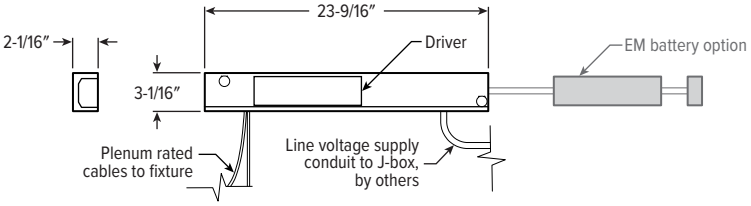


SB | 1/4" SLOTTED T-BAR

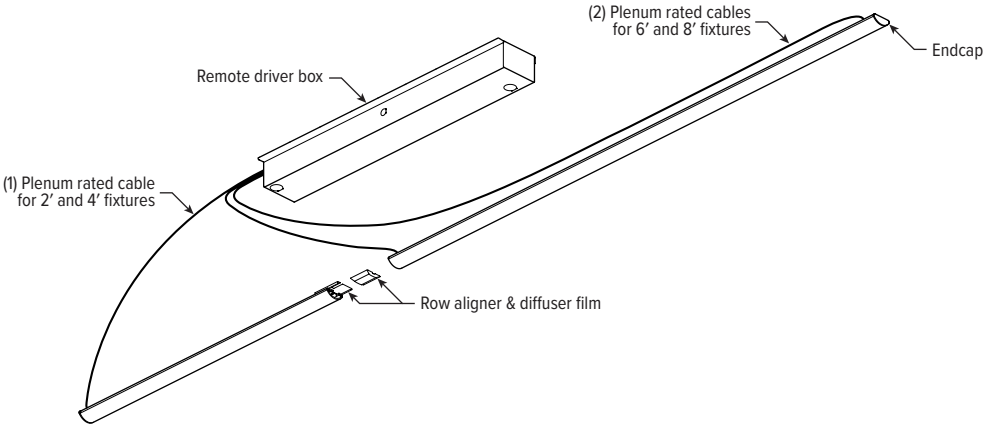


FIXTURE DETAILS

REMOTE DRIVER BOX



CONTINUOUS ROW ASSEMBLY



AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

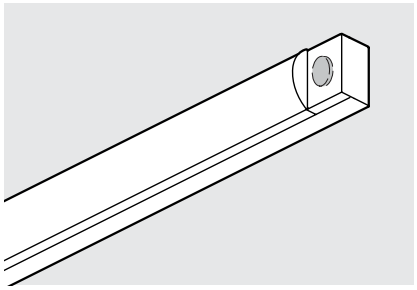
WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

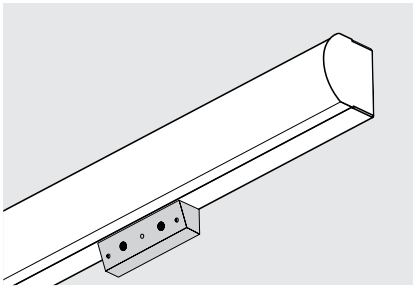
For load controllers and additional accessory info, see hew.com/avi-on

SENSOR PLACEMENT DETAILS

AVI-LVFA | AWNS | WS-FSP-311 | WS FSP-321 | VDO



WS-FS-505



ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

CATALOG NUMBER	DESCRIPTION
DRV	Driver without external dimming wires prewired for non-dimming applications
DIM	Driver with external dimming wires prewired for 0-10V low voltage applications
DIM1	1% driver with external dimming wires prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Driver with 12V auxiliary power, without external dimming wires
DSR	Sensor-ready driver without external dimming wires (D4i DALI-2)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming driver

SEE NEXT PAGE FOR CONTROL DETAILS.

SLF LED
Surface or Wall Mount Light

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small areas to large garages
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

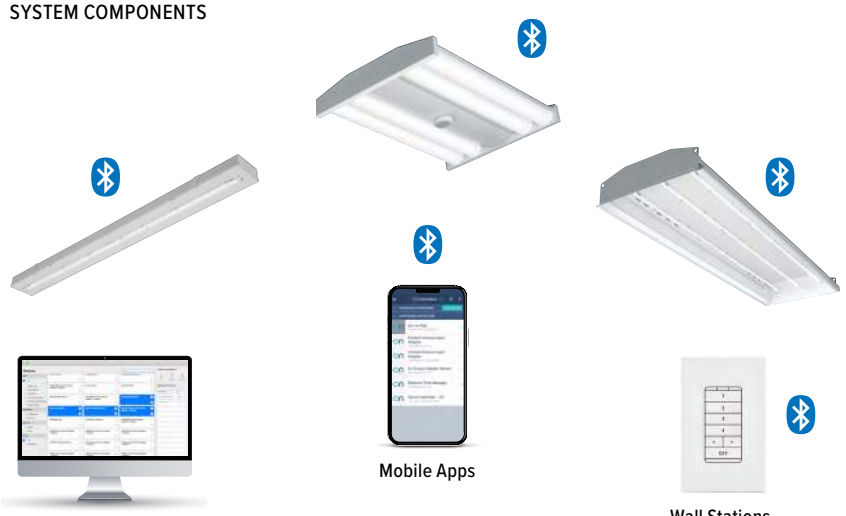
Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



Remote Management & Monitoring

Mobile Apps

Wall Stations

Remote Access Bridge

Ceiling Sensors

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ACCESSORIES

WALL STATIONS	
AVI-B-2401AC-1	Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC
AVI-B-2402BAT-1	Scene controller - buttons numbered 1-4 and up/down/off, battery powered
AVI-B-2401AC-2	Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC
AVI-B-2402BAT-2	Dimmer with presets - buttons with percentages and up/down/off, battery powered
AVI-B-2401AC-3	Two button control on/off or hold to dim up/down, 120-277VAC
AVI-B-2402BAT-3	Two button control on/off or hold to dim up/down, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

AVI-LVFA-PIR Avi-on wireless fixture control with high bay PIR motion and daylight sensor, bottom mount. DA Driver only.

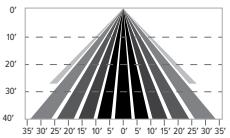
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 45′
LENS	Single lens detects high and low bay motion.
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 70°C
RELATIVE HUMIDITY	90 to 95% at 30°C
COMMISSIONING	App (iOS or Android)
SYSTEM REQUIREMENTS	Avi-On wireless fixture controls plus desktop and mobile apps
MANUFACTURER	Avi-On

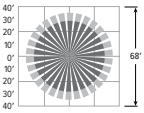
Bluetooth® Lighting Controls

SENSOR COVERAGE PATTERNS

Large motion

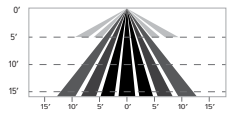
40′ height: ø68′ coverage

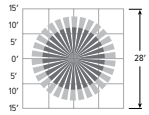




Small motion

15′ height: ø28′ coverage





SENSOR DETAIL



Dimensions: 2-5/16″ x 1-7/16″

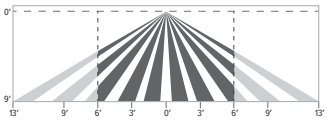
ADDITIONAL CONTROL OPTIONS

AWNS Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing. DA and DSR Drivers only.

SPECIFICATIONS	
TYPE	Radio Frequency
MOUNTING HEIGHT	8′ – 12′
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	Clear Connect gateway – Type X with app (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9′ height: ø12′ coverage



Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8′	114
9′	144
10′	178
12′	256

SENSOR DETAIL



Dimensions: ø1-1/8″

ATHENA CONTROL OPTIONS

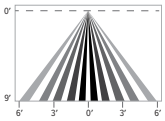
CATALOG NUMBER	DESCRIPTION
AWNR	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNS	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNR-BL	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.
AWNS-BL	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.

VDO Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC). DSR or LDE Drivers only. LDE drivers require driver interface

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 12′
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9′ height: ø12′ coverage



Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8′	114
9′	144
10′	178
12′	256

SENSOR DETAIL



Dimensions: 2-11/16″ x 1″

VIVE CONTROL OPTIONS

CATALOG NUMBER	DESCRIPTION
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), for use with sensor-ready driver
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC), for use with sensor-ready driver
VRF/DBI	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver
VDO/DBI	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver

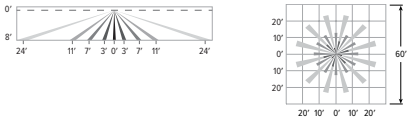
SLF LED
Surface or Wall Mount Light

OCCWS-FSP-311-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-321-L_-120-480 Wattstopper PIR motion and daylight sensor using 0-10V internal control, 120V-480V. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-211-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-221-L_-120-480 Wattstopper PIR motion and daylight sensor using 0-10V internal control, 120V-480V. Must specify lens: L2, L3, or L7. Factory installed.
FSIR-100 Remote controller for 211 and 221 sensors. Please specify quantity required per project. Ordered and shipped separately.

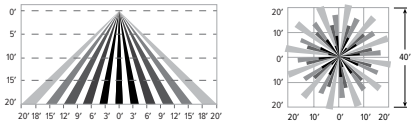
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 40′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	311 I 321 Sensors: App (iOS or Android) 211 I 221 Sensors: FSIR-100 Remote

SENSOR COVERAGE PATTERNS

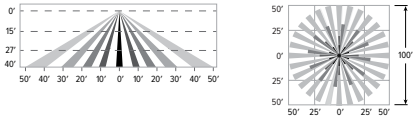
L2 8′ height: ø48′ coverage



L3 20′ height: ø40′ coverage



L7 40′ height: ø100′ coverage



SENSOR DETAIL

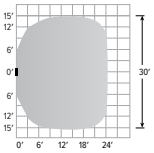


OCCWS-FS-505-PP-___ Wattstopper low voltage ultrasonic motion sensor with power pack. Must specify voltage: 120, 277, or 347V.

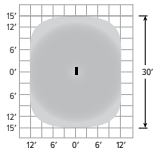
SPECIFICATIONS	
TYPE	Ultrasonic Motion
MOUNTING HEIGHT	8′ – 10′
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	5 to 95%, non-condensing

SENSOR COVERAGE PATTERNS

8′ height: ø27′ coverage
20° from vertical



Parallel to floor



SENSOR DETAIL

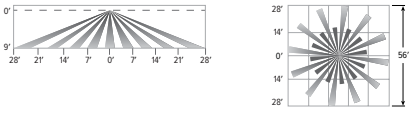


OCCSS LSXR-10-120-277 Sensor Switch PIR motion sensor, 120-277V
OCCSS LSXR-10-347/480 Sensor Switch PIR motion sensor, 347/480V

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	7′ – 15′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 60°C
RELATIVE HUMIDITY	Up to 90% non-condensing

SENSOR COVERAGE PATTERNS

9′ height: ø56′ coverage

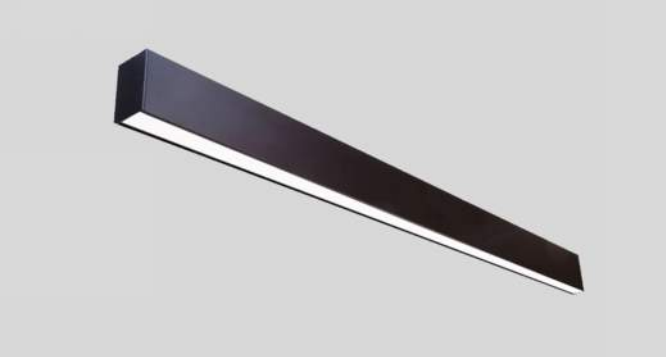


SENSOR DETAIL



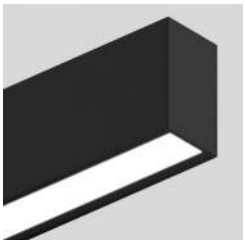
Type:	TYPE WL1
Project:	
REP/Agent:	
Order #:	

SLIM BEAM DIRECT





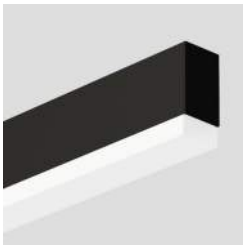
DIFFUSING



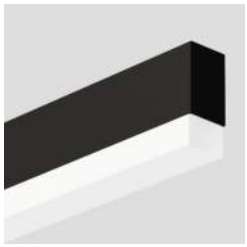
FLUSH, H: 3.5"



DLE05, H: 4.0"



DLE10, H: 4.5"

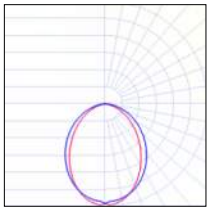


DLE15, H: 5.0"

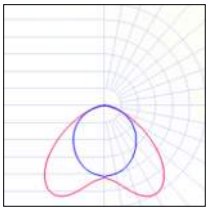
FEATURES

- ★ Continuous lensing standard– runs up to 200'
- ★ Extruded aluminum single piece housing
- ★ Standard 2', 4', 6' and 8' units, or continuous rows
- ★ Linear runs with proprietary joiner design
- ★ Light levels can be set at the factory
- ★ Efficacy up to 135 lm/W
- ★ Soft diffuse direct lighting
- ★ Textured powder coat finishes available in white, black and silver
- ★ Premium finishes also available
- ★ Approved for dry and damp locations
- ★ 0-10v dimming is standard
- ★ Dim to 1% of output current is standard
- ★ 90 CRI (R9 50min) available
- ★ CA Title 24 / JA8 installation compatible
- ★ Consult factory for TM21, TM30, LM79 and LM80

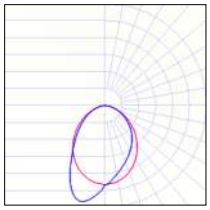
DISTRIBUTION



SD= SatinIce Diffuse

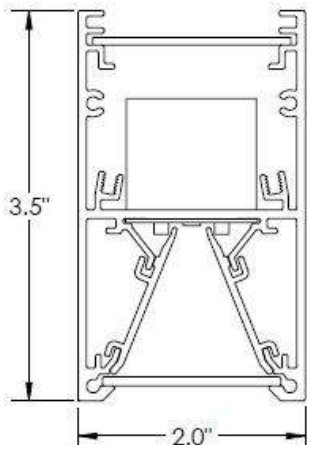


WD= Wide Diffuse



WW= Wall Wash

DIMENSIONS



*Consult factory for DLC listed catalog #'s

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STARTEK LIGHTING AMERICA

Type:	
Project:	
REP/Agent:	
Order #:	

SLIM BEAM DIRECT

SLIMD

SERIES	LENGTH	LUMENS PER FOOT	DISTRIBUTION	CCT	CRI
SLIMD	**xx**= Run Length	**350**= 350 LPF	**SD**= SatinIce Diffuse	**30K**= 3000K	**80**= 80
3FT	**Sxx**= Symmetric Run Length	**500**= 500 LPF	**WD**= Wide Diffuse	**35K**= 3500K	**90**= 90 *(R9 50 min)*
	_x_RECT= Rectangle	**750**= 750 LPF	**WW**= Wall Wash	**40K**= 4000K	
	_x_L= L-Shape	**1000**= 1000 LPF	**DLE05**= 0.5" Drop Lens w/ Lit Ends	**50K**= 5000K	
	_x_x_U= U-Shape	**XXX**= Custom LPF	**DLE10**= 1.0" Drop Lens w/ Lit Ends	**TW**= Tunable White[1]	
			DLE15= 1.5" Drop Lens w/ Lit Ends	*(2700-6500K)*	
			Seamless Continuous Lensing Unavailable for Drop Lens Options.		

FINISH

STANDARD
PW= Powder Coat White
PB= Powder Coat Black
PS= Powder Coat Silver

PREMIUM
RALxxxx= Powder Coat
RAL xxxx (Gloss Finish)
PSFx= Prem Stock Finish

CUSTOM
PO= Powder Other

See pg. 8 for standard and premium options.

MOUNTING

CABLES WITH CANOPY KITS
ACW05= White Cord 5'
ACW10= White Cord 10'
ACB05= Black Cord 5'
ACB10= Black Cord 10'

CABLES WITH LOOPS
ALW10= White Cord 10'
ALB10= Black Cord 10'

WALL MOUNTS
WM= Wall Mount
AWM= Architectural Wall Mt
EWM= Extruded Wall Mount

STEM WITH CANOPY KITS
STEMWxx= Stem White, xx"
STEMBxx= Stem Black, xx"

VOLTAGE

U= 120-277
C= 347

ELECTRICAL

1C= Single Circuit
MC= Multiple Circuits
(multiple switch legs across run length)
EC= Emergency Circuit
(separate power drops for EC fixtures)
GTD= Generator Transfer Device

OPTIONS

SPECIALTY DRIVERS *(Standard driver is 0-10V, dim to 1% output current)*
DT1= eldoLED EcoDrive Dim to 1% (0-10V)
DTZ= eldoLED SoloDrive Dim to 0.1% (0-10V)
PSRD= Philips Sensor Ready (DALI) Driver
LDE1= Lutron Hi-Lume EcoSystem LED driver with Soft-on, Fade-to-Black
TW-A= Tunable White, 0-10v[2]
TW-EL= eldoLED DUALdrive Tunable White (DALI)[2]
LD2=Lutron DALI 2 Digital Tunable White driver with 1% dimming[2]
RD-xx'-xxxxx= Remote Driver 120V-277V
Consult Factory

BATTERIES
#EMB6= 6W EM Battery (Bodine)
#EMB10=10W EM Battery (Bodine)
#FCEMB10= 10W EM Battery (Factory Choice)
#FCEMB14= 14W EM Battery (Factory Choice)

SENSORS
DMxx%= Daylight/Motion Sensor (xx%= % Min. Dimming)
VDO= Lutron Vive Integral fixture control (RF w/ daylight and occupancy)
AWNR-W= Lutron Athena Wireless Node (RF only)[3] - White Finish
AWNR-B= Lutron Athena Wireless Node (RF only)[3] - Black Finish
AWNS-W= Lutron Athena Wireless Node with Sensor - White Finish
AWNS-B= Lutron Athena Wireless Node with Sensor - Black Finish
NLA= Acuity nLight Air
WVL= Cooper Wavelinx

ENDCAPS
RD = Round Endcap (not available with Drop Lens options)

EXAMPLE: SLIMD-40-750-WD-35K-80-PW-ACW10-U-1C-1EMB10

[1] ***Tunable White Driver must be specified in options***
[2] ***50 Watt Max. Dual driver required for higher fixture wattage***
[3] **D4i driver for static & DALI-2 Type 8 for tunable.**

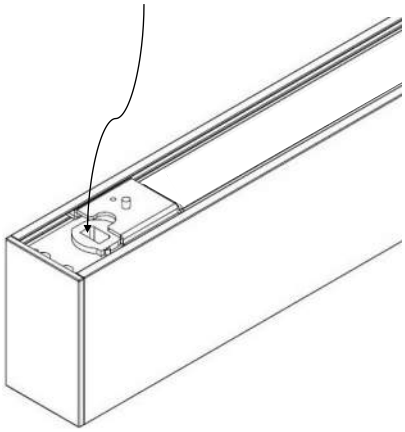
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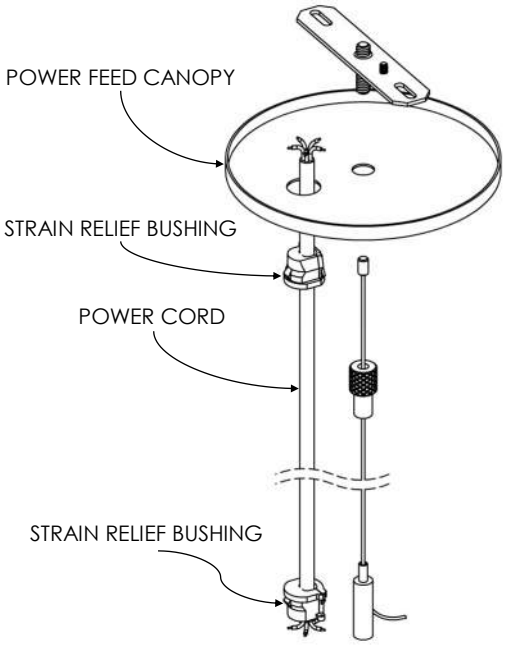
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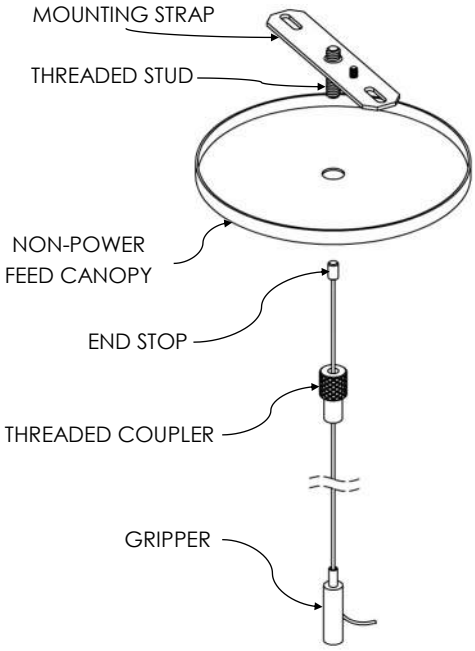
SLIM BEAM DIRECT

MOUNTING OPTIONS

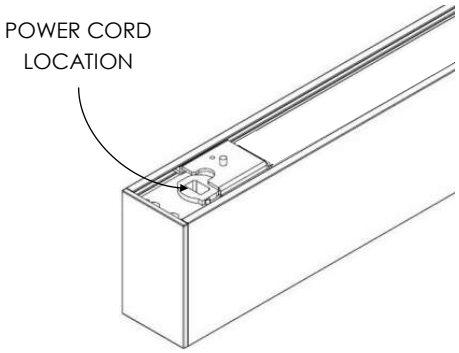
ACxxx (Aircraft Cable with Canopy) - Drywall, Solid, Tile (On-Grid), Tile (Off-Grid)





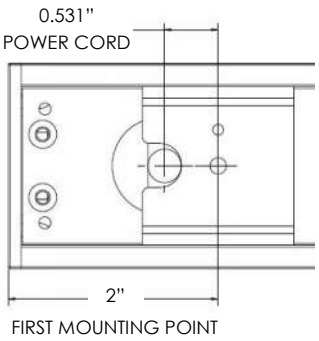


ALxxx (Aircraft Cable with Loops)

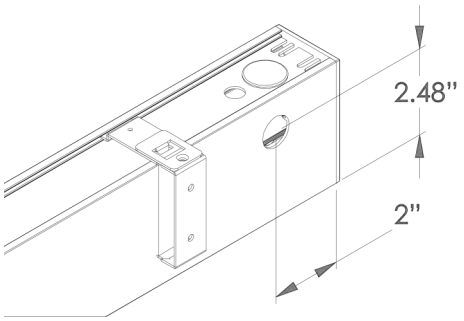




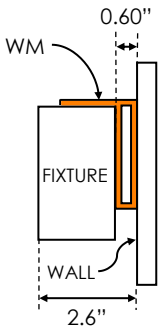
POWER CORD & FIRST MOUNT DETAIL



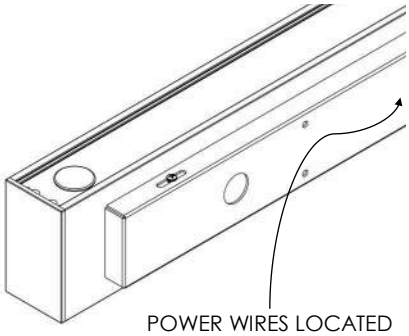
WM (Wall Mount)



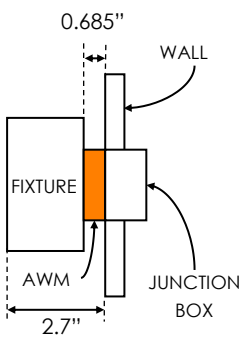
STANDARD POWER LOCATION
PLEASE CONSULT FACTORY FOR
CUSTOM LOCATION



AWM (Architectural Wall Mount)

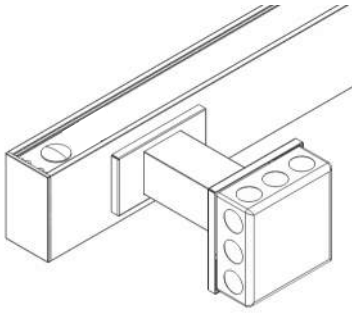


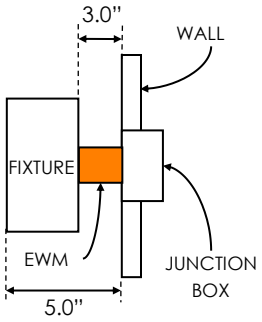
POWER WIRES LOCATED
AT CENTER OF FIXTURE

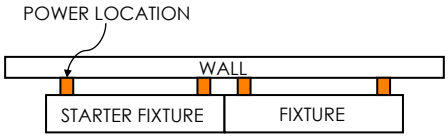


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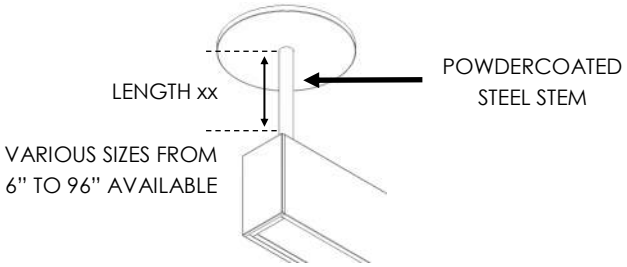
EWM (Extruded Wall Mount)

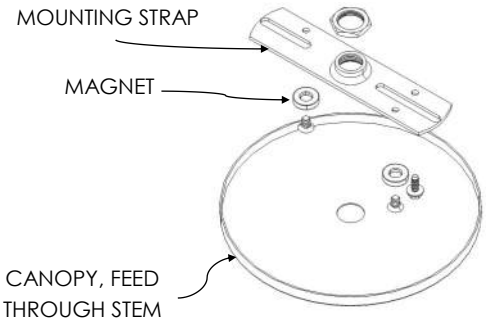






STEMWxx, STEMBxx (Stem Mount)





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SLIM BEAM DIRECT

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ROW CONFIGURATIONS

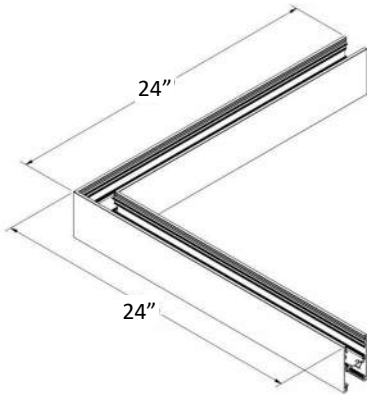
xx (Run Length)

The standard construction of run lengths follows the logic of the table below. Consult factory for additional information.

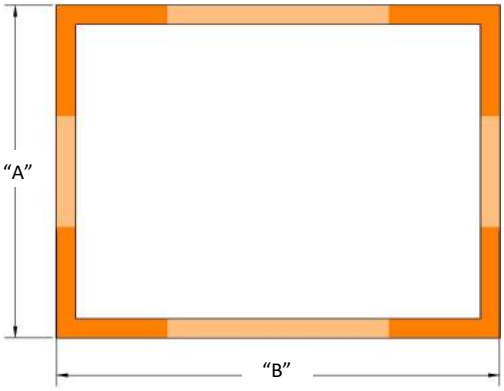
| # of Sections | Total Length | | |

JOINT SHAPE CONFIGURATION WITH MITER CUTS

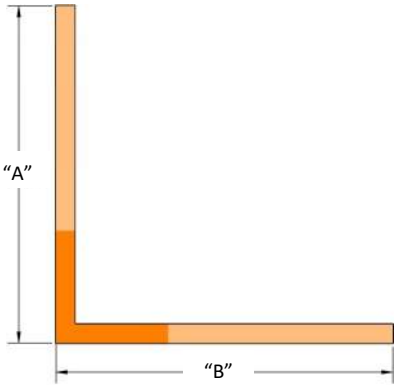
We provide joint configurations in the stock size of 24" X 24" as shown below.



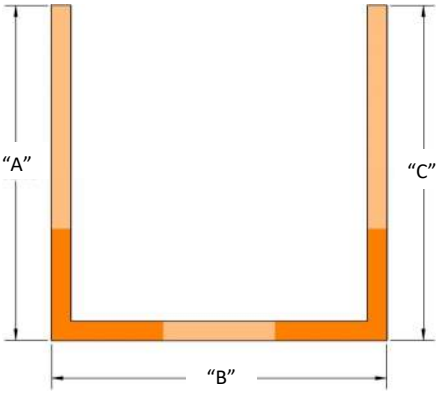
_x_RECT
Rectangle
Supply AxB dimensions



_x_L
L-Shape
Supply AxB dimensions



_x_ x_U
U-Shape
Supply AxBxC dimensions



ENDCAP OPTIONS

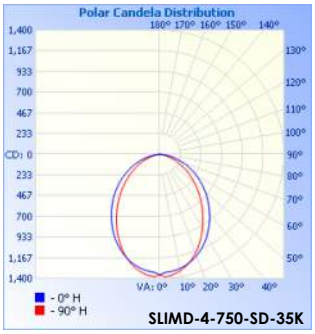


RD, H: 3.5"

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PERFORMANCE

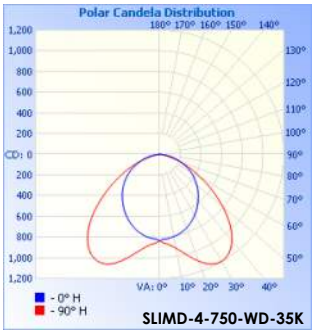
SLIMD-X-750-SD (80+ CRI)



Model	Lumens	Watts	LPW
SLIMD-4-750-SD-30K	3,000	26	116
SLIMD-4-750-SD-35K	3,000	25	120
SLIMD-4-750-SD-40K	3,000	24	123
SLIMD-4-750-SD-50K	3,000	24	127

Model	Lumens	Watts	LPW
SLIMD-8-750-SD-30K	6,000	48	124
SLIMD-8-750-SD-35K	6,000	47	128
SLIMD-8-750-SD-40K	6,000	46	131
SLIMD-8-750-SD-50K	6,000	44	135

SLIMD-X-750-WD (80+ CRI)



Model	Lumens	Watts	LPW
SLIMD-4-750-WD-30K	3,000	26	116
SLIMD-4-750-WD-35K	3,000	25	120
SLIMD-4-750-WD-40K	3,000	24	123
SLIMD-4-750-WD-50K	3,000	24	127

Model	Lumens	Watts	LPW
SLIMD-8-750-WD-30K	6,000	48	124
SLIMD-8-750-WD-35K	6,000	47	128
SLIMD-8-750-WD-40K	6,000	46	131
SLIMD-8-750-WD-50K	6,000	44	135

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SLIM BEAM DIRECT

FINISHES

STANDARD FINISHES



WHITE MINI TEXTURE



BLACK MINI TEXTURE



SILVER SPARKLE TEXTURE

PREMIUM STOCK FINISHES



PSF001 (WOOD#1)



PSF002 (WOOD#2)



PSF003 (WOOD#3)



PSF004 (WOOD#4)



PSF005 (WOOD#5)



PSF006 (WOOD#6)



PSF007 (STONE #1)



PSF008 (STONE #2)



PSF009 (METAL #1)

NOTE: A minimal impact to lead times will apply to products specified with Premium Stock Finishes (PSF). It is not to be assumed that these finishes are stocked in our warehouse, but rather, are readily available to us for your project.

All other custom finishes (PO) will incur a set up fee and will add an extended lead time to your project.

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SPECIFICATIONS

Housing
Nominal 2.0" x 3.5" x .075" thick housing of continuous extruded 6063 T5 aluminum.

Color
Colors for the housing are available in a powder coated white, black, silver and woodgrain with end cap to match. Consult factory for custom colors.

Luminaire Length
2', 4', 6' or 8' lengths are available for a single stand-alone section. Using internal joiners, these sections can be joined to form longer rows.

End Caps
Injection molded flat end caps are mechanically attached with no exposed fasteners to enhance architectural aesthetic and prevent light leak.

Source
Lumen packages are available in four color temperature options (3000K, 3500K, 4000K and 5000K) — all within 3 MacAdam ellipses.

Certification
Intertek cETLus Listed. RoHS (Restriction of Hazardous Substances) and Buy American Act compliant.

Battery
Philips Bodine lithium ion battery providing up to 780lm (6W) or up to 1300lm(10W) for 90 minutes. UL924 listed. Class 2 compliant. Meets Title 20 CEC (California Energy Commission) efficiency standards.

Lensing
0.080" thick impact resistant acrylic lensing.

Environment
Suitable for dry and damp locations.
Operating temp.: -40°C to +50°C
-40°F to +122°F

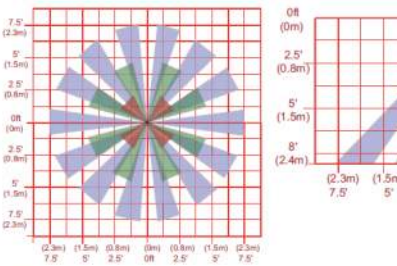
Dimming Driver (Integral Driver)
Constant current programmable LED driver. UL listed, class P, 0-10V, dim to 1% of output current. 2.5KV ring wave surge protection and >.90 power factor.

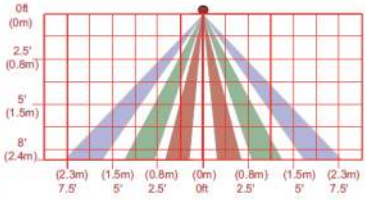
Packaging
Sustainably manufactured outside cardboard box and biodegradable, protective poly-foam luminaire inserts.

CONTROL

Sensor

Wattstopper FS-205 v2 Low Voltage PIR. Integrated photosensor for hold -off daylighting control. 24VDC operating voltage. Adjustable time delay (30 seconds to 30 minutes).

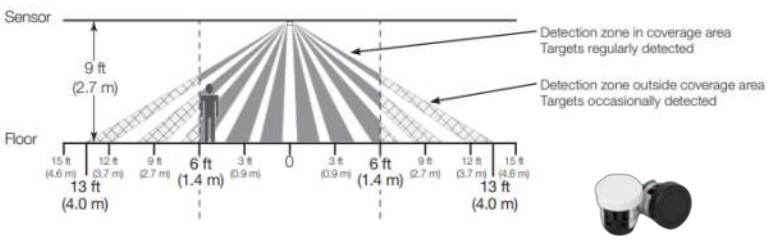








Wireless Node



COMPANION PRODUCTS

Slim Beam Direct/Indirect



Slim Beam Surface Mount



Recessed Slim Beam



WARRANTY

5-year limited warranty. Complete warranty terms can be located at:

http://www.starteklightingamerica.com/images/pdf/warranty/Beam_Series_Warranty.pdf

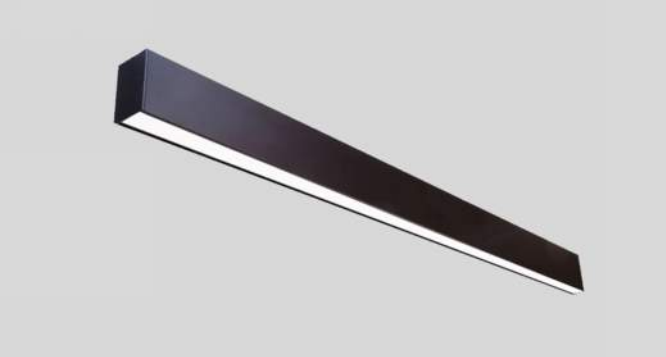
Note: Actual performance may differ as a result of installation environment and final application.
All values are design or typical values, measured under laboratory conditions, at 25°C (77°F) .

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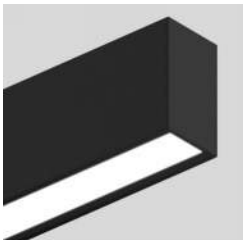
Type:	TYPE WL2
Project:	
REP/Agent:	
Order #:	

SLIM BEAM DIRECT





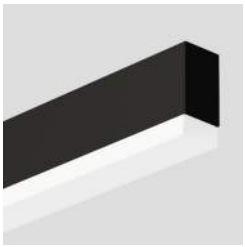
DIFFUSING



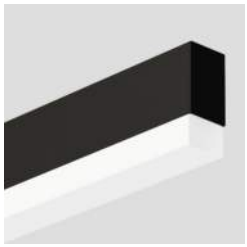
FLUSH, H: 3.5"



DLE05, H: 4.0"



DLE10, H: 4.5"

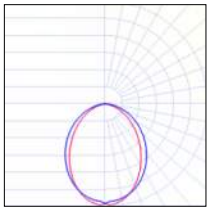


DLE15, H: 5.0"

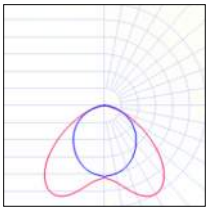
FEATURES

- ★ Continuous lensing standard– runs up to 200'
- ★ Extruded aluminum single piece housing
- ★ Standard 2', 4', 6' and 8' units, or continuous rows
- ★ Linear runs with proprietary joiner design
- ★ Light levels can be set at the factory
- ★ Efficacy up to 135 lm/W
- ★ Soft diffuse direct lighting
- ★ Textured powder coat finishes available in white, black and silver
- ★ Premium finishes also available
- ★ Approved for dry and damp locations
- ★ 0-10v dimming is standard
- ★ Dim to 1% of output current is standard
- ★ 90 CRI (R9 50min) available
- ★ CA Title 24 / JA8 installation compatible
- ★ Consult factory for TM21, TM30, LM79 and LM80

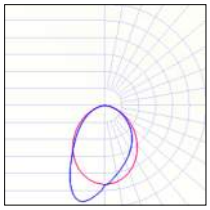
DISTRIBUTION



SD= SatinIce Diffuse

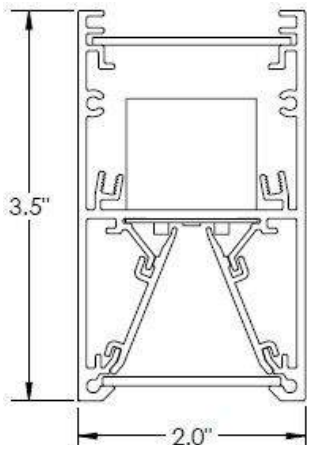


WD= Wide Diffuse



WW= Wall Wash

DIMENSIONS



*Consult factory for DLC listed catalog #'s

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Type:	
Project:	
REP/Agent:	
Order #:	

SLIM BEAM DIRECT

SLIMD

SERIES	LENGTH	LUMENS PER FOOT	DISTRIBUTION	CCT	CRI
SLIMD	**xx**= Run Length	**350**= 350 LPF	**SD**= SatinIce Diffuse	**30K**= 3000K	**80**= 80
5FT	**Sxx**= Symmetric Run Length	**500**= 500 LPF	**WD**= Wide Diffuse	**35K**= 3500K	**90**= 90 *(R9 50 min)*
	_x_RECT= Rectangle	**750**= 750 LPF	**WW**= Wall Wash	**40K**= 4000K	
	_x_L= L-Shape	**1000**= 1000 LPF	**DLE05**= 0.5" Drop Lens w/ Lit Ends	**50K**= 5000K	
	_x_x_U= U-Shape	**XXX**= Custom LPF	**DLE10**= 1.0" Drop Lens w/ Lit Ends	**TW**= Tunable White[1]	
			DLE15= 1.5" Drop Lens w/ Lit Ends	*(2700-6500K)*	
			Seamless Continuous Lensing Unavailable for Drop Lens Options.		

FINISH

STANDARD
PW= Powder Coat White
PB= Powder Coat Black
PS= Powder Coat Silver

PREMIUM
RALxxxx= Powder Coat RAL xxxx (Gloss Finish)
PSFx= Prem Stock Finish

CUSTOM
PO= Powder Other

See pg. 8 for standard and premium options.

MOUNTING

CABLES WITH CANOPY KITS
ACW05= White Cord 5'
ACW10= White Cord 10'
ACB05= Black Cord 5'
ACB10= Black Cord 10'

CABLES WITH LOOPS
ALW10= White Cord 10'
ALB10= Black Cord 10'

WALL MOUNTS
WM= Wall Mount
AWM= Architectural Wall Mt
EWM= Extruded Wall Mount

STEM WITH CANOPY KITS
STEMWxx= Stem White, xx"
STEMBxx= Stem Black, xx"

VOLTAGE

U= 120-277
C= 347

ELECTRICAL

1C= Single Circuit
MC= Multiple Circuits
(multiple switch legs across run length)
EC= Emergency Circuit
(separate power drops for EC fixtures)
GTD= Generator Transfer Device

OPTIONS

SPECIALTY DRIVERS *(Standard driver is 0-10V, dim to 1% output current)*
DT1= eldoLED EcoDrive Dim to 1% (0-10V)
DTZ= eldoLED SoloDrive Dim to 0.1% (0-10V)
PSRD= Philips Sensor Ready (DALI) Driver
LDE1= Lutron Hi-Lume EcoSystem LED driver with Soft-on, Fade-to-Black
TW-A= Tunable White, 0-10v[2]
TW-EL= eldoLED DUALdrive Tunable White (DALI)[2]
LD2=Lutron DALI 2 Digital Tunable White driver with 1% dimming[2]
RD-xx'-xxxxx= Remote Driver 120V-277V Consult Factory

BATTERIES
#EMB6= 6W EM Battery (Bodine)
#EMB10=10W EM Battery (Bodine)
#FCEMB10= 10W EM Battery (Factory Choice)
#FCEMB14= 14W EM Battery (Factory Choice)

SENSORS
DMxx%= Daylight/Motion Sensor (xx%= % Min. Dimming)
VDO= Lutron Vive Integral fixture control (RF w/ daylight and occupancy)
AWNR-W= Lutron Athena Wireless Node (RF only)[3] - White Finish
AWNR-B= Lutron Athena Wireless Node (RF only)[3] - Black Finish
AWNS-W= Lutron Athena Wireless Node with Sensor - White Finish
AWNS-B= Lutron Athena Wireless Node with Sensor - Black Finish
NLA= Acuity nLight Air
WVL= Cooper Wavelinx

ENDCAPS
RD = Round Endcap (not available with Drop Lens options)

EXAMPLE: SLIMD-40-750-WD-35K-80-PW-ACW10-U-1C-1EMB10

[1] ***Tunable White Driver must be specified in options***
[2] ***50 Watt Max. Dual driver required for higher fixture wattage***
[3] **D4i driver for static & DALI-2 Type 8 for tunable.**

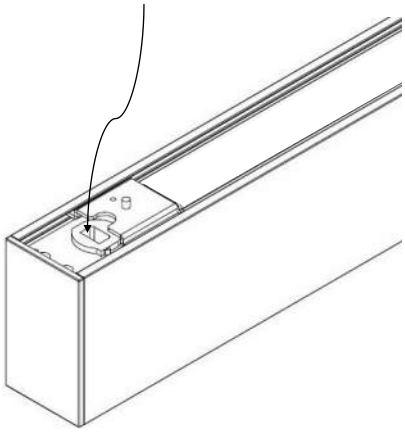
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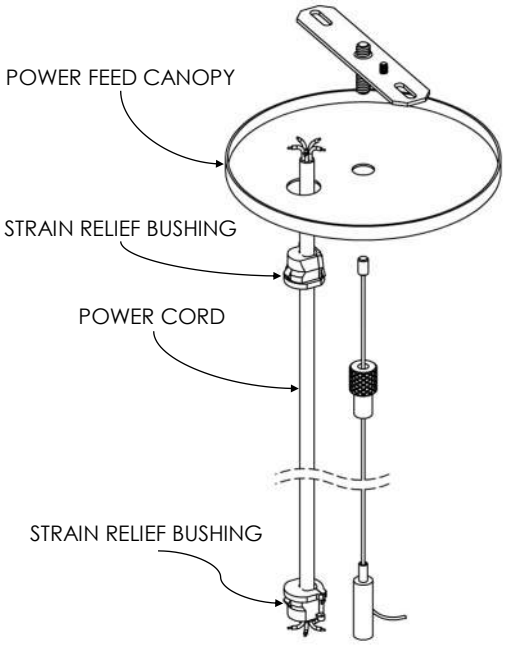
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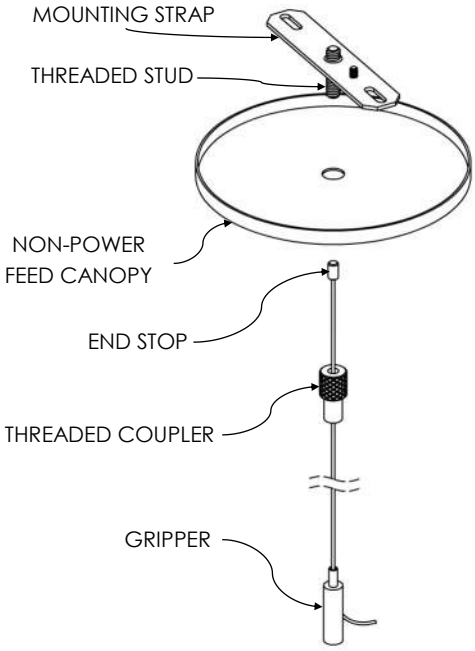
SLIM BEAM DIRECT

MOUNTING OPTIONS

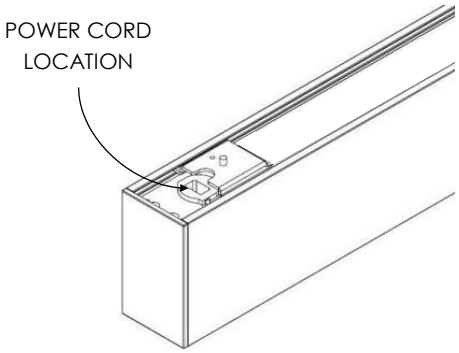
ACxxx (Aircraft Cable with Canopy) - Drywall, Solid, Tile (On-Grid), Tile (Off-Grid)





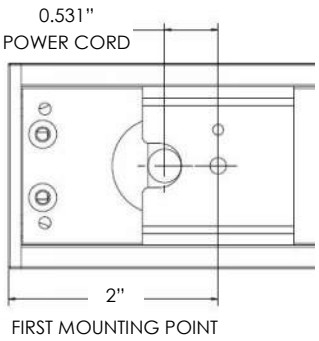


ALxxx (Aircraft Cable with Loops)

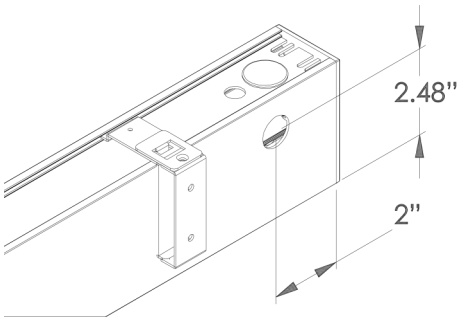




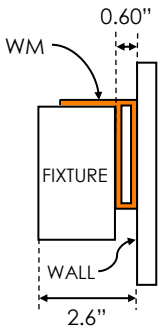
POWER CORD & FIRST MOUNT DETAIL



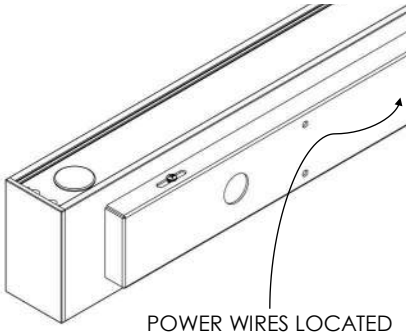
WM (Wall Mount)



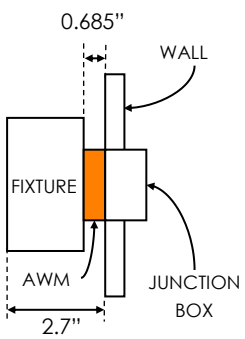
STANDARD POWER LOCATION
PLEASE CONSULT FACTORY FOR
CUSTOM LOCATION



AWM (Architectural Wall Mount)

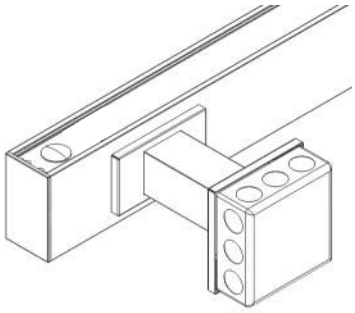


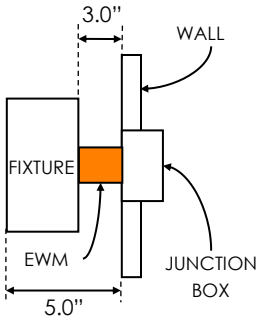
POWER WIRES LOCATED
AT CENTER OF FIXTURE

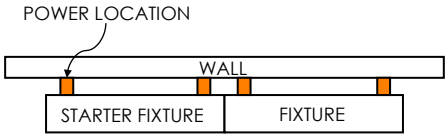


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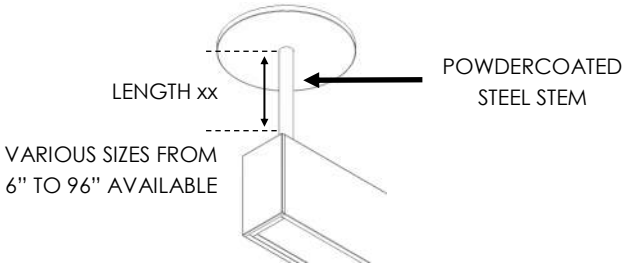
EWM (Extruded Wall Mount)

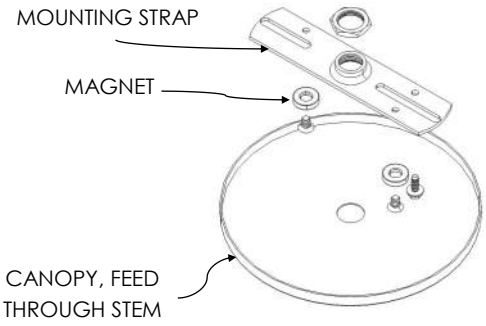






STEMWxx, STEMBxx (Stem Mount)





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SLIM BEAM DIRECT

STARTEK LIGHTING AMERICA

ROW CONFIGURATIONS

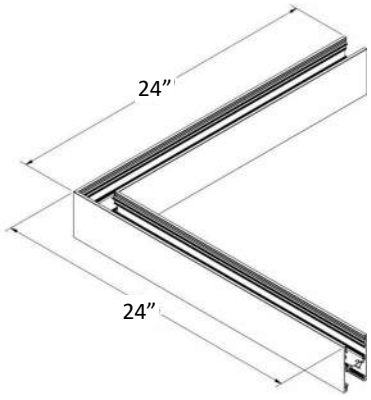
xx (Run Length)

The standard construction of run lengths follows the logic of the table below. Consult factory for additional information.

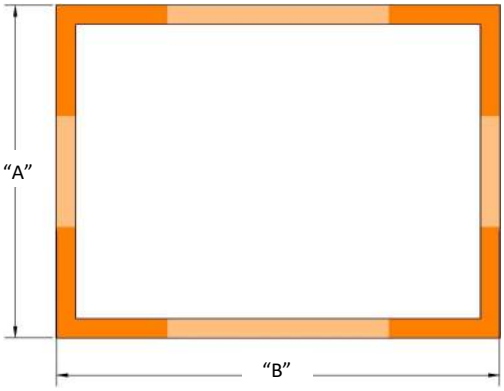
| # of Sections | Total Length | | |

JOINT SHAPE CONFIGURATION WITH MITER CUTS

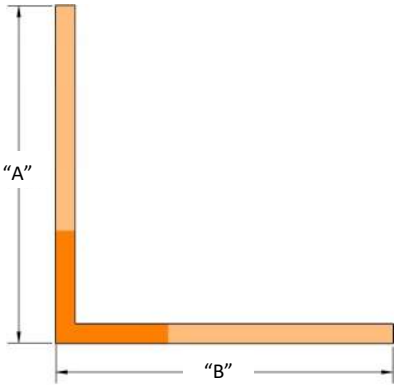
We provide joint configurations in the stock size of 24" X 24" as shown below.



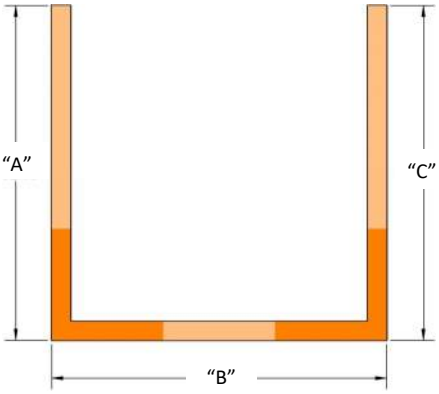
_x_RECT
Rectangle
Supply AxB dimensions



_x_L
L-Shape
Supply AxB dimensions



_x_ x_U
U-Shape
Supply AxBxC dimensions



ENDCAP OPTIONS

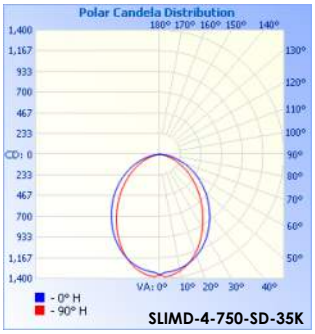


RD, H: 3.5"

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PERFORMANCE

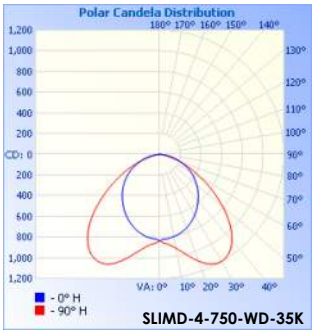
SLIMD-X-750-SD (80+ CRI)



Model	Lumens	Watts	LPW
SLIMD-4-750-SD-30K	3,000	26	116
SLIMD-4-750-SD-35K	3,000	25	120
SLIMD-4-750-SD-40K	3,000	24	123
SLIMD-4-750-SD-50K	3,000	24	127

Model	Lumens	Watts	LPW
SLIMD-8-750-SD-30K	6,000	48	124
SLIMD-8-750-SD-35K	6,000	47	128
SLIMD-8-750-SD-40K	6,000	46	131
SLIMD-8-750-SD-50K	6,000	44	135

SLIMD-X-750-WD (80+ CRI)



Model	Lumens	Watts	LPW
SLIMD-4-750-WD-30K	3,000	26	116
SLIMD-4-750-WD-35K	3,000	25	120
SLIMD-4-750-WD-40K	3,000	24	123
SLIMD-4-750-WD-50K	3,000	24	127

Model	Lumens	Watts	LPW
SLIMD-8-750-WD-30K	6,000	48	124
SLIMD-8-750-WD-35K	6,000	47	128
SLIMD-8-750-WD-40K	6,000	46	131
SLIMD-8-750-WD-50K	6,000	44	135

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SLIM BEAM DIRECT

FINISHES

STANDARD FINISHES



WHITE MINI TEXTURE



BLACK MINI TEXTURE



SILVER SPARKLE TEXTURE

PREMIUM STOCK FINISHES



PSF001 (WOOD#1)



PSF002 (WOOD#2)



PSF003 (WOOD#3)



PSF004 (WOOD#4)



PSF005 (WOOD#5)



PSF006 (WOOD#6)



PSF007 (STONE #1)



PSF008 (STONE #2)



PSF009 (METAL #1)

NOTE: A minimal impact to lead times will apply to products specified with Premium Stock Finishes (PSF). It is not to be assumed that these finishes are stocked in our warehouse, but rather, are readily available to us for your project.

All other custom finishes (PO) will incur a set up fee and will add an extended lead time to your project.

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SPECIFICATIONS

Housing
Nominal 2.0" x 3.5" x .075" thick housing of continuous extruded 6063 T5 aluminum.

Color
Colors for the housing are available in a powder coated white, black, silver and woodgrain with end cap to match. Consult factory for custom colors.

Luminaire Length
2', 4', 6' or 8' lengths are available for a single stand-alone section. Using internal joiners, these sections can be joined to form longer rows.

End Caps
Injection molded flat end caps are mechanically attached with no exposed fasteners to enhance architectural aesthetic and prevent light leak.

Source
Lumen packages are available in four color temperature options (3000K, 3500K, 4000K and 5000K) — all within 3 MacAdam ellipses.

Certification
Intertek cETLus Listed. RoHS (Restriction of Hazardous Substances) and Buy American Act compliant.

Battery
Philips Bodine lithium ion battery providing up to 780lm (6W) or up to 1300lm(10W) for 90 minutes. UL924 listed. Class 2 compliant. Meets Title 20 CEC (California Energy Commission) efficiency standards.

Lensing
0.080" thick impact resistant acrylic lensing.

Environment
Suitable for dry and damp locations.
Operating temp.: -40°C to +50°C
-40°F to +122°F

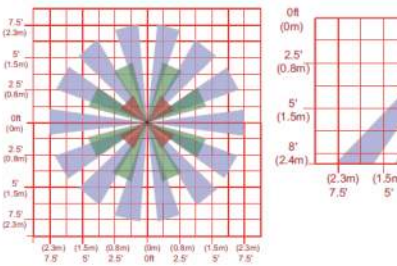
Dimming Driver (Integral Driver)
Constant current programmable LED driver. UL listed, class P, 0-10V, dim to 1% of output current. 2.5KV ring wave surge protection and >.90 power factor.

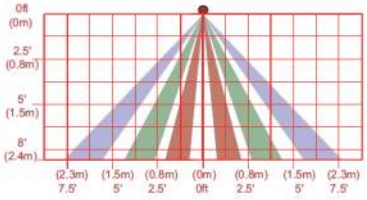
Packaging
Sustainably manufactured outside cardboard box and biodegradable, protective poly-foam luminaire inserts.

CONTROL

Sensor

Wattstopper FS-205 v2 Low Voltage PIR. Integrated photosensor for hold -off daylighting control. 24VDC operating voltage. Adjustable time delay (30 seconds to 30 minutes).

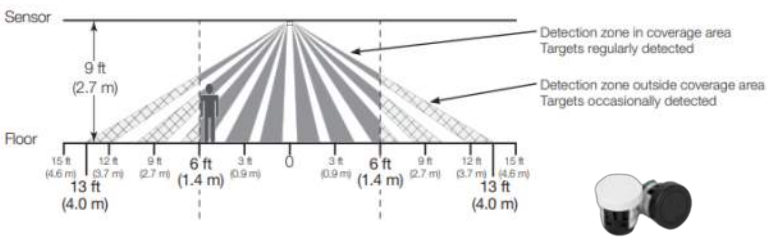








Wireless Node



COMPANION PRODUCTS

Slim Beam Direct/Indirect



Slim Beam Surface Mount



Recessed Slim Beam



WARRANTY

5-year limited warranty. Complete warranty terms can be located at:

http://www.starteklightingamerica.com/images/pdf/warranty/Beam_Series_Warranty.pdf

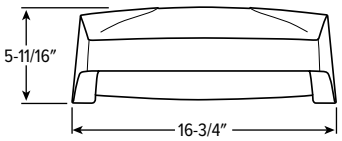
Note: Actual performance may differ as a result of installation environment and final application.
All values are design or typical values, measured under laboratory conditions, at 25°C (77°F) .

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VWP LED
Voltaire Architectural Wall Pack





VWPH Front View

CATALOG #:

TYPE:

PROJECT:

FEATURES

- Designed to illuminate sidewalks, entryways, perimeters or facades
- Intended for use in both uplight and downlight applications
- Optional tamper-resistant screws for vandal-prone areas
- Blends seamlessly with a variety of architectural styles
- Purposefully modeled to allow runoff of dirt and water for an always-clean appearance
- Precision optics provide multiple distribution options
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum enclosure.
- THERMAL MANAGEMENT – Integral die-cast aluminum heatsink and LED assembly provide passive thermal management. Rated -30°C to 40°C ambient operating temperature (-20°C to 40°C with EM/10WC; 0°C to 35°C VWPV, 0°C to 37°C VWPH with EM/10CEC; 0°C to 39°C with EM/4W).
- OPTICAL SYSTEM – Precision, injection-molded, refractive acrylic lensing produces standard IES distributions.
- LED ASSEMBLY – ANSI 3000K, 4000K, or 5000K CCT, minimum 70 CRI.
- LED DRIVER – 0-10V dimming.
- ELECTRICAL – 120-277, 347, and 480 VAC input range; 50-60Hz; power factor >.90; THD <20% at full load. 10kA/10kV surge protection standard. Quick-disconnect wiring provided. L70 >60,000 hours per IES TM-21.
- FINISH – Super durable polyester powder coat bonded to phosphate-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.
- MOUNTING – Surface mounts directly over a 4″ maximum outlet box. Must be anchored to adequate structure that can safely support fixture weight (VWPH = 15 lbs, VWPV = 23 lbs).
- LISTINGS –
  - cCSAus certified as luminaire suitable for wet locations.
  - FCC Class A compliant.
  - IDA Dark-Sky approved (downlight applications only).
  - RoHS compliant.
  - IP65 rated.
  - Title 24 compliant with OCCWS FSP-311-L_ option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: VWPH - L30/740 - T3 - DBZ - SDGL - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	LUMENS [1]	CRI	CCT	DISTRIBUTION [2]
VWPH Horizontal	**L30** 3,000lm	**7** 70	**30** 3000K	**T2** Type II
VWPV Vertical	**L60** 6,000lm	**8** 80	**40** 4000K	**T3** Type III
	L85 8,500lm [3]		**50** 5000K	**TFT** Type forward throw

FINISH OPTIONS [4]

BLK Black (RAL #9004)
DBZ Dark bronze
DBR Medium bronze
GRAY Standard gray
GRN Green (RAL #6005)
SLV Satin aluminum (RAL #9006)
WHT White (RAL #9003)

SHIELDING

CGL Clear tempered glass lens
SDGL Micro-prismatic tempered glass lens

OPTIONS [5]

EM/4W 4-watt integral emergency battery [6]
EM/10WC 10-watt emergency, low temperature battery [7]
EM/10CEC 10-watt emergency CEC qualified battery [8]
SF Single fuse [9]
DF Double fuse [10]
PC Factory-installed button-style photocell [11]
HSGX Empty housing extension used to match units with EM batteries, control sensors, or conduit entry options
TP Tamper-resistant Torx head screws [12]

CONDUIT ENTRY [13]

CR Right side conduit entry
CL Left side conduit entry
CD Dual conduit entry
CTOP Top conduit entry [14]

CONTROL

See page 4 for ADDITIONAL CONTROL OPTIONS.

– None
AVI-IFAC-OA Avi-on wireless fixture control with outdoor antenna [15]

DRIVER

DIM Driver with external dimming wires prewired for 0-10V low voltage applications

VOLTAGE

120 120V
208 208V
240 240V
277 277V
UNV 120-277V
347 347V [16]
480 480V [17]

ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx head screws. [18]

NOTES

1 Lumen output based on 70 CRI/4000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2 See page 2 for DISTRIBUTION DETAILS.
3 Not available with EM batteries when specified with VWPV.
4 See page 2 for FINISH OPTIONS.
5 See page 2 for FIXTURE DETAILS.
6 120-277V only. VWPV includes housing extension, increases fixture depth.
7 VWPH and 120-277V only. Includes housing extension, increases fixture depth.
8 120-277V only.
9 120V, 277V, or 347V only; must specify voltage
10 208V, 240V, or 480V only; must specify voltage.
11 120V, 208V, or 277V only; must specify voltage. Right side when viewed from behind fixture.
12 Silver finish only. Safety screws providing added support to the lens are not tamper-resistant (lens is sealed to the fixture via adhesion). Requires a tamper-resistant tool, see Accessories.
13 Housing extension included, increases fixture depth. Left and right sides when viewed from behind fixture. Provided with 1/2″ NPT tapered pipe thread and plug, increases fixture height. Conduit fitting supplied by others. See page 2 for FIXTURE DETAILS.
14 VWPH only.
15 See page 3 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
16 Includes stepdown transformer. Not available with Avi-on Controls.
17 Includes stepdown transformer. Not available with Avi-on Controls.
18 Ordered separately. Please specify quantity required per project.

VWP LED
Voltaire Architectural Wall Pack

FIXTURE PERFORMANCE DATA

	DISTRIBUTION	FLUX (lm)	WATTAGE	EFFICACY (lm/W)	BUG RATING
L30	T2	3489	27	129.2	B2-UO-G1
	T3	3468		128.4	B1-UO-G1
	TFT	3325		123.1	B1-UO-G1
L60	T2	6414	49	130.9	B2-UO-G1
	T3	6470		132.0	B1-UO-G1
	TFT	6391		130.4	B2-UO-G1
L85	T2	8931	72	124.0	B2-UO-G1
	T3	8953		124.3	B2-UO-G2
	TFT	8665		120.3	B3-UO-G1

MULTIPLIER TABLES

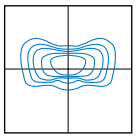
	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
70 CRI	3000K	0.95
	4000K	1.00
	5000K	1.03
80 CRI	3000K	0.86
	4000K	0.91
	5000K	0.94

SHIELDING	CONVERSION FACTOR
CGL	1.00
SDGL	0.98

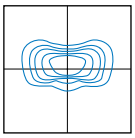
- Photometrics tested in accordance with IESNA LM-79. Results based on 70 CRI/4000K CCT, wattage average for 120V through 277 input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

DISTRIBUTION DETAILS

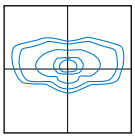
T2 | CGL



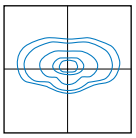
T2 | SDGL



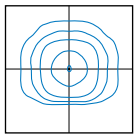
T3 | CGL



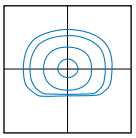
T3 | SDGL



TFT | CGL



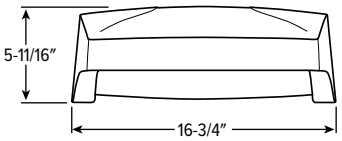
TFT | SDGL



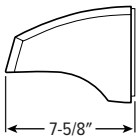
FIXTURE DETAILS

VWPH Weight: 15 lbs. Max weight with EM/10WC or HSGX: 27 lbs.

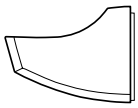
Front View



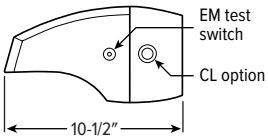
Side View



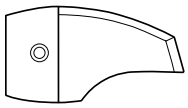
Uplight Application



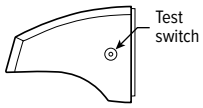
EM/10WC | HSGX | CL Options



CR Option

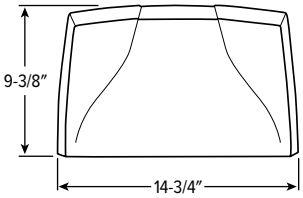


EM/4W | EM10CEC Options

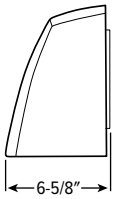


VWPV Weight: 23 lbs

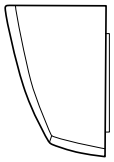
Front View



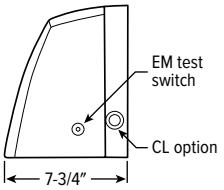
Side View



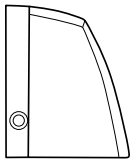
Uplight Application



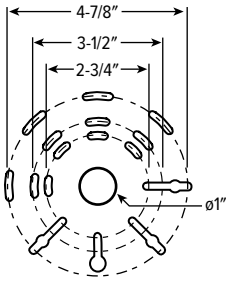
EM/4W | EM/10CEC | HSGX | CL Options



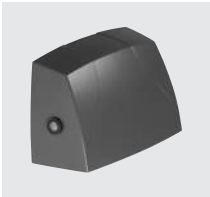
CR Option



MOUNTING BOLT PATTERN



PC OPTION



FINISH OPTIONS

WHITE



BLACK



GREEN



MEDIUM BRONZE



DARK BRONZE



SATIN ALUMINUM

GRAY

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

VWP LED
Voltaire Architectural Wall Pack

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small areas to large garages
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



Mobile Apps

Remote Management & Monitoring

Remote Access Bridge

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Avi-on is under license. Other trademarks and trade names are those of their respective owners.

ACCESSORIES

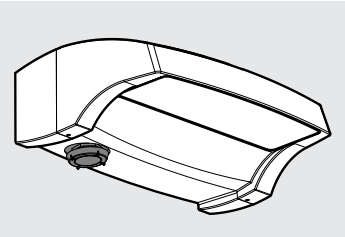
NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup

For load controllers and additional accessory info, see hew.com/avi-on

SEE NEXT PAGE FOR ADDITIONAL CONTROL OPTIONS

VWP LED
Voltaire Architectural Wall Pack

SENSOR PLACEMENT DETAILS



ADDITIONAL CONTROL OPTIONS

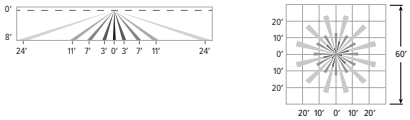
VWPH only, includes housing extension (increases fixture depth).

OCCWS-FSP-311-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-211-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
FSIR-100 Remote controller for 211 sensor. Please specify quantity required per project. Ordered and shipped separately.

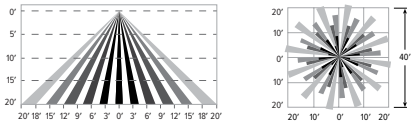
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 40′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	311 Sensor: App (iOS or Android) 211 Sensor: FSIR-100 Remote

SENSOR COVERAGE PATTERNS

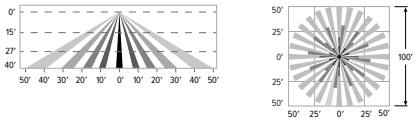
L2 8′ height: ø48′ coverage



L3 20′ height: ø40′ coverage



L7 40′ height: ø100′ coverage



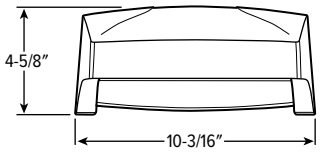
SENSOR DETAIL



Dimensions
L2/L3: ø2-3/8″ | L7: ø3-1/4″

VWM LED
Voltaire Mini Architectural Wall Pack





VWMH Front view

CATALOG #:

TYPE:

PROJECT:

BUY AMERICAN ACT COMPLIANT · DARKSKY APPROVED · IP65 Rated · TITLE 24

FEATURES

- Designed to illuminate sidewalks, entryways, perimeters or facades
- Intended for use in both uplight and downlight applications
- Optional tamper-resistant screws for vandal-prone areas
- Blends seamlessly with a variety of architectural styles
- Purposefully modeled to allow runoff of dirt and water for an always-clean appearance
- Available on QuickShip
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum enclosure.
- THERMAL MANAGEMENT – Integral die-cast aluminum heatsink and LED source provide passive thermal management. Rated ambient operating temperature -30°C to 50°C (L10, L17), -30°C to 45°C (L20).
- OPTICAL SYSTEM – General output provides full cutoff.
- LED SOURCE – ANSI 3000K, 4000K, or 5000K CCT; 70 or 80 CRI LEDs. L20: circuit board design. L10 & L17: Chip on board.
- LED DRIVER – 0-10V dimming.
- ELECTRICAL – 120-277 VAC input range; 50-60Hz; power factor >.90; THD <20% at full load. FCC Class A compliant. Quick-disconnect wiring provided. See fixture performance data for lumen maintenance.
- FINISH – Super durable polyester powder coat bonded to phosphate-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.
- MOUNTING – Surface mounts directly over a 4″ maximum outlet box. Must be anchored to adequate structure that can safely support fixture weight (6.5 Lbs).
- LISTINGS –
  - cCSAus certified as luminaire suitable for wet locations.
  - IDA Dark-Sky approved (downlight applications only).
  - RoHS compliant.
  - IP65 rated.
  - Title 24 compliant with PC option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: VWMH - L20/740 - T3 - DBZ - SDGL - OPTIONS - DIM - UNV

ORDERING INFO

SERIES
- **VWMH** Horizontal
- **VWMV** Vertical

LUMENS [1]
- **70 CRI**
  - **L17** 1,700lm [4]
  - **L20** 2,000lm
- **80 CRI**
  - **L10** 1,000lm
  - **L17** 1,700lm

CRI/CCT
- **70 CRI**
  - **730** 3000K
  - **740** 4000K
  - **750** 5000K
- **80CRI**
  - **830** 3000K
  - **840** 4000K

DISTRIBUTION [2]
- **TL** Lambertian distribution [5]
- **T3** Type III [6]

FINISH OPTIONS [3]
- **BLK** Black (RAL #9004)
- **DBZ** Dark bronze
- **DBR** Medium bronze
- **GRAY** Standard gray
- **GRN** Green (RAL #6005)
- **SLV** Satin aluminum (RAL #9006)
- **WHT** White (RAL #9003)

SHIELDING
- **SDGL** Micro-prismatic tempered glass lens
- **CGL** Clear tempered glass lens

OPTIONS
- **PC** Button-style photocell [7]
- **SP10** 10kA/10kV surge protection
- **TP** Tamper-resistant Torx head screws [8]

CONTROL
- **DIM** Dimming driver prewired for 0-10V low voltage applications

VOLTAGE
- **120** 120V
- **208** 208V
- **277** 277V
- **UNV** 120-277V

ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx head screws. [9]

QUICKSHIP

VWMH-L10/840-TL-DBZ-CGL-QS-DIM-UNV
VWMH-L17/840-TL-DBZ-CGL-QS-DIM-UNV

NOTES

1. Lumen output based on 70 CRI/5000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2. See page 2 for DISTRIBUTION DETAILS.
3. See page 3 for FINISH OPTIONS.
4. Available with 750 CRI/CCT only.
5. L10 & L17 only.
6. L20 only.
7. Factory-installed. 120V, 208V, or 277V only; must specify voltage. See page 3 for FIXTURE DETAILS. Left side when viewed from behind fixture.
8. Silver finish only. Safety screws providing added support to the lens are not tamper-resistant (lens is sealed to the fixture via adhesion). Requires a tamper-resistant tool, see Accessories.
9. Ordered separately. Please specify quantity required per project.

VWM LED
Voltaire Mini Architectural Wall Pack

FIXTURE PERFORMANCE DATA

	LED PACKAGE	DISTRIBUTION	CRI	CCT	WATTAGE	CLEAR GLASS (CGL)		SOLITE GLASS (SDGL)		BUG RATINGS
						DELIVERED LUMENS	EFFICACY(lm/W)	DELIVERED LUMENS	EFFICACY (lm/W)	
VWMH	L10	TL	80	3000	13	1307	101	1297	100	B1-U0-G0
			80	4000		1375	106	1365	105	
			70	5000		1484	114	1473	113	
	L17		80	3000	16	1825	114	1811	113	
			80	4000		1921	120	1907	119	
			70	5000		2037	127	2022	126	
	L20	T3	70	3000	27	2864	106	2831	105	B1-U0-G1
			70	4000		2868	106	2834	105	
			70	5000		3050	113	3014	112	
VWMV	L10	TL	80	3000	13	1107	85	1105	85	B1-U0-G0
			80	4000		1165	90	1164	90	
			70	5000		1321	102	1320	102	
	L17		80	3000	16	1672	105	1670	104	
			80	4000		1760	110	1758	110	
			70	5000		1864	117	1862	116	
	L20	T3	70	3000	26	2524	97	2486	96	B1-U0-G1
			70	4000		2702	104	2661	102	
			70	5000		2721	105	2680	103	

- Photometrics tested in accordance with IESNA LM-79. Results based on 70 CRI/5000K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- Reported L70 hours in accordance with IES TM-21.

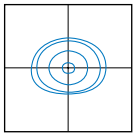
[1] Predicted lumen maintenance calculated from LED manufacturer IES LM-80 data and in-situ temperature measurement.

LUMEN MAINTENANCE [1]

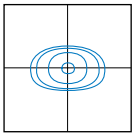
	AMBIENT TEMP.	REPORTED L70 HOURS (TM-21)
L20	25ºC	>60,000
	35ºC	>60,000
	45ºC	>60,000
L10/L17	25ºC	>55,000
	35ºC	>55,000
	45ºC	>55,000

DISTRIBUTION DETAILS

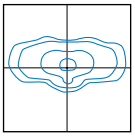
TL | VWMH



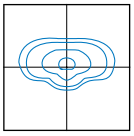
TL | VWMV



T3 | CGL



T3 | SDGL



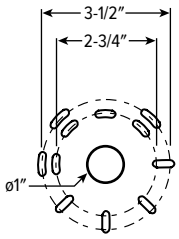
SEE NEXT PAGE FOR FIXTURE DETAILS

VWM LED
Voltaire Mini Architectural Wall Pack

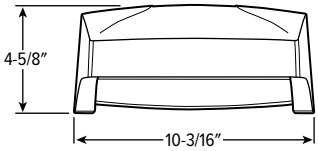
FIXTURE DETAILS

VWMH Weight: 6.5 lbs

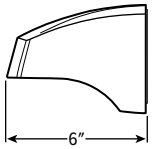
Mounting Bolt Pattern



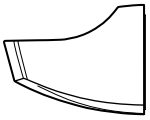
Front View



Side View

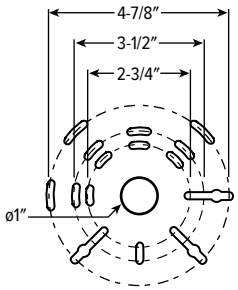


Uplight Application

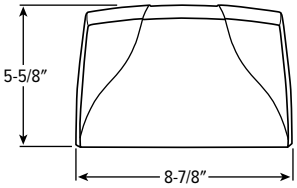


VWMV Weight: 6.5 Lbs

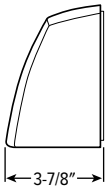
Mounting Bolt Pattern



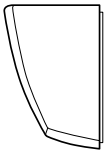
Front View



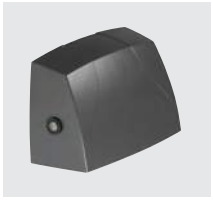
Side View



Uplight Application



PC OPTION



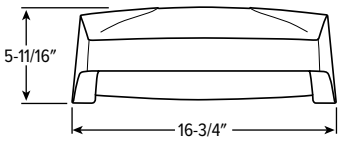
FINISH OPTIONS

WHITE	BLACK	GREEN	MEDIUM BRONZE	DARK BRONZE	SATIN ALUMINUM	GRAY

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

VWP LED
Voltaire Architectural Wall Pack





VWPH Front View

CATALOG #:

TYPE:

PROJECT:

FEATURES

- Designed to illuminate sidewalks, entryways, perimeters or facades
- Intended for use in both uplight and downlight applications
- Optional tamper-resistant screws for vandal-prone areas
- Blends seamlessly with a variety of architectural styles
- Purposefully modeled to allow runoff of dirt and water for an always-clean appearance
- Precision optics provide multiple distribution options
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum enclosure.
- THERMAL MANAGEMENT – Integral die-cast aluminum heatsink and LED assembly provide passive thermal management. Rated -30°C to 40°C ambient operating temperature (-20°C to 40°C with EM/10WC; 0°C to 35°C VWPV, 0°C to 37°C VWPH with EM/10CEC; 0°C to 39°C with EM/4W).
- OPTICAL SYSTEM – Precision, injection-molded, refractive acrylic lensing produces standard IES distributions.
- LED ASSEMBLY – ANSI 3000K, 4000K, or 5000K CCT, minimum 70 CRI.
- LED DRIVER – 0-10V dimming.
- ELECTRICAL – 120-277, 347, and 480 VAC input range; 50-60Hz; power factor >.90; THD <20% at full load. 10kA/10kV surge protection standard. Quick-disconnect wiring provided. L70 >60,000 hours per IES TM-21.
- FINISH – Super durable polyester powder coat bonded to phosphate-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.
- MOUNTING – Surface mounts directly over a 4″ maximum outlet box. Must be anchored to adequate structure that can safely support fixture weight (VWPH = 15 lbs, VWPV = 23 lbs).
- LISTINGS –
  - cCSAus certified as luminaire suitable for wet locations.
  - FCC Class A compliant.
  - IDA Dark-Sky approved (downlight applications only).
  - RoHS compliant.
  - IP65 rated.
  - Title 24 compliant with OCCWS FSP-311-L_ option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: VWPH - L30/740 - T3 - DBZ - SDGL - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	LUMENS [1]	CRI	CCT	DISTRIBUTION [2]
VWPH Horizontal	**L30** 3,000lm	**7** 70	**30** 3000K	**T2** Type II
VWPV Vertical	**L60** 6,000lm	**8** 80	**40** 4000K	**T3** Type III
	L85 8,500lm [3]		**50** 5000K	**TFT** Type forward throw

FINISH OPTIONS [4]

BLK	Black (RAL #9004)
DBZ	Dark bronze
DBR	Medium bronze
GRAY	Standard gray
GRN	Green (RAL #6005)
SLV	Satin aluminum (RAL #9006)
WHT	White (RAL #9003)

SHIELDING

CGL	Clear tempered glass lens
SDGL	Micro-prismatic tempered glass lens

OPTIONS [5]

EM/4W	4-watt integral emergency battery [6]
EM/10WC	10-watt emergency, low temperature battery [7]
EM/10CEC	10-watt emergency CEC qualified battery [8]
SF	Single fuse [9]
DF	Double fuse [10]
PC	Factory-installed button-style photocell [11]
HSGX	Empty housing extension used to match units with EM batteries, control sensors, or conduit entry options
TP	Tamper-resistant Torx head screws [12]

CONDUIT ENTRY [13]

CR	Right side conduit entry
CL	Left side conduit entry
CD	Dual conduit entry
CTOP	Top conduit entry [14]

CONTROL

See page 4 for ADDITIONAL CONTROL OPTIONS.

–	None
AVI-IFAC-OA	Avi-on wireless fixture control with outdoor antenna [15]

DRIVER

DIM	Driver with external dimming wires prewired for 0-10V low voltage applications

VOLTAGE

120	120V
208	208V
240	240V
277	277V
UNV	120-277V
347	347V [16]
480	480V [17]

ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx head screws. [18]

NOTES

1. Lumen output based on 70 CRI/4000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2. See page 2 for DISTRIBUTION DETAILS.
3. Not available with EM batteries when specified with VWPV.
4. See page 2 for FINISH OPTIONS.
5. See page 2 for FIXTURE DETAILS.
6. 120-277V only. VWPV includes housing extension, increases fixture depth.
7. VWPH and 120-277V only. Includes housing extension, increases fixture depth.
8. 120-277V only.
9. 120V, 277V, or 347V only; must specify voltage
10. 208V, 240V, or 480V only; must specify voltage.
11. 120V, 208V, or 277V only; must specify voltage. Right side when viewed from behind fixture.
12. Silver finish only. Safety screws providing added support to the lens are not tamper-resistant (lens is sealed to the fixture via adhesion). Requires a tamper-resistant tool, see Accessories.
13. Housing extension included, increases fixture depth. Left and right sides when viewed from behind fixture. Provided with 1/2″ NPT tapered pipe thread and plug, increases fixture height. Conduit fitting supplied by others. See page 2 for FIXTURE DETAILS.
14. VWPH only.
15. See page 3 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
16. Includes stepdown transformer. Not available with Avi-on Controls.
17. Includes stepdown transformer. Not available with Avi-on Controls.
18. Ordered separately. Please specify quantity required per project.

VWP LED
Voltaire Architectural Wall Pack

FIXTURE PERFORMANCE DATA

	DISTRIBUTION	FLUX (lm)	WATTAGE	EFFICACY (lm/W)	BUG RATING
L30	T2	3489	27	129.2	B2-UO-G1
	T3	3468		128.4	B1-UO-G1
	TFT	3325		123.1	B1-UO-G1
L60	T2	6414	49	130.9	B2-UO-G1
	T3	6470		132.0	B1-UO-G1
	TFT	6391		130.4	B2-UO-G1
L85	T2	8931	72	124.0	B2-UO-G1
	T3	8953		124.3	B2-UO-G2
	TFT	8665		120.3	B3-UO-G1

MULTIPLIER TABLES

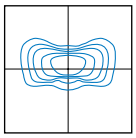
	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
70 CRI	3000K	0.95
	4000K	1.00
	5000K	1.03
80 CRI	3000K	0.86
	4000K	0.91
	5000K	0.94

SHIELDING	CONVERSION FACTOR
CGL	1.00
SDGL	0.98

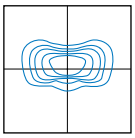
- Photometrics tested in accordance with IESNA LM-79. Results based on 70 CRI/4000K CCT, wattage average for 120V through 277 input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

DISTRIBUTION DETAILS

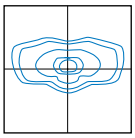
T2 | CGL



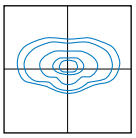
T2 | SDGL



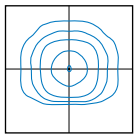
T3 | CGL



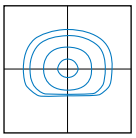
T3 | SDGL



TFT | CGL



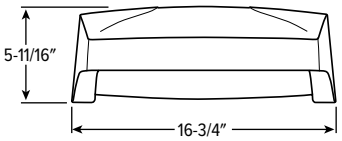
TFT | SDGL



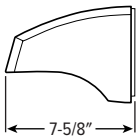
FIXTURE DETAILS

VWPH Weight: 15 lbs. Max weight with EM/10WC or HSGX: 27 lbs.

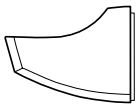
Front View



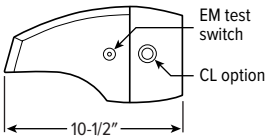
Side View



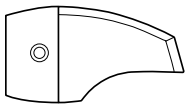
Uplight Application



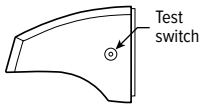
EM/10WC | HSGX | CL Options



CR Option

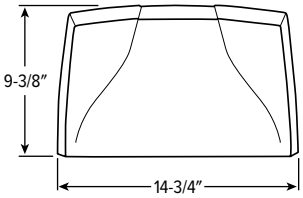


EM/4W | EM10CEC Options

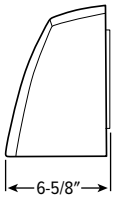


VWPV Weight: 23 lbs

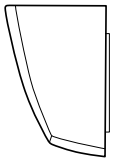
Front View



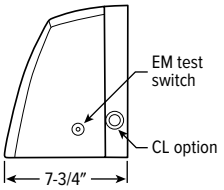
Side View



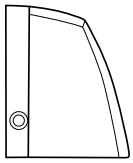
Uplight Application



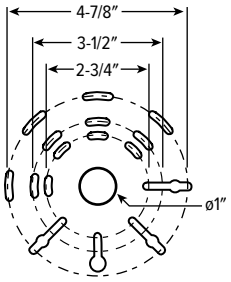
EM/4W | EM/10CEC | HSGX | CL Options



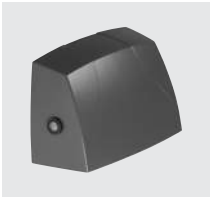
CR Option



MOUNTING BOLT PATTERN



PC OPTION



FINISH OPTIONS

WHITE



BLACK



GREEN



MEDIUM BRONZE



DARK BRONZE



SATIN ALUMINUM

GRAY

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

VWP LED
Voltaire Architectural Wall Pack

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small areas to large garages
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



Mobile Apps

Remote Management & Monitoring

Remote Access Bridge

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ACCESSORIES

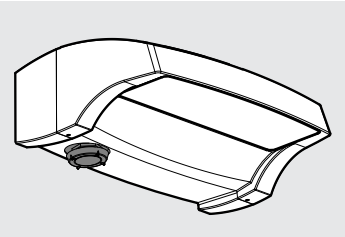
NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup

For load controllers and additional accessory info, see hew.com/avi-on

SEE NEXT PAGE FOR ADDITIONAL CONTROL OPTIONS

VWP LED
Voltaire Architectural Wall Pack

SENSOR PLACEMENT DETAILS



ADDITIONAL CONTROL OPTIONS

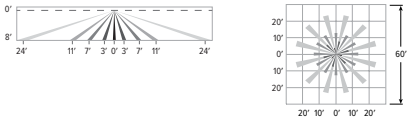
VWPH only, includes housing extension (increases fixture depth).

OCCWS-FSP-311-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-211-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
FSIR-100 Remote controller for 211 sensor. Please specify quantity required per project. Ordered and shipped separately.

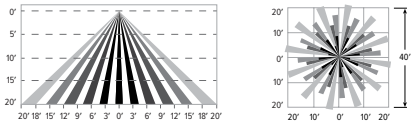
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 40′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	311 Sensor: App (iOS or Android) 211 Sensor: FSIR-100 Remote

SENSOR COVERAGE PATTERNS

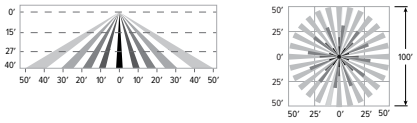
L2 8′ height: ø48′ coverage



L3 20′ height: ø40′ coverage



L7 40′ height: ø100′ coverage



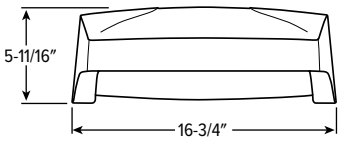
SENSOR DETAIL



Dimensions
L2/L3: ø2-3/8″ | L7: ø3-1/4″

VWP LED
Voltaire Architectural Wall Pack





VWPH Front View

CATALOG #:

TYPE:

PROJECT:

BUY AMERICAN ACT COMPLIANT | DARKSKY APPROVED | IP65 Rated | TITLE 24

FEATURES

- Designed to illuminate sidewalks, entryways, perimeters or facades
- Intended for use in both uplight and downlight applications
- Optional tamper-resistant screws for vandal-prone areas
- Blends seamlessly with a variety of architectural styles
- Purposefully modeled to allow runoff of dirt and water for an always-clean appearance
- Precision optics provide multiple distribution options
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum enclosure.
- THERMAL MANAGEMENT – Integral die-cast aluminum heatsink and LED assembly provide passive thermal management. Rated -30°C to 40°C ambient operating temperature (-20°C to 40°C with EM/10WC; 0°C to 35°C VWPV, 0°C to 37°C VWPH with EM/10CEC; 0°C to 39°C with EM/4W).
- OPTICAL SYSTEM – Precision, injection-molded, refractive acrylic lensing produces standard IES distributions.
- LED ASSEMBLY – ANSI 3000K, 4000K, or 5000K CCT, minimum 70 CRI.
- LED DRIVER – 0-10V dimming.
- ELECTRICAL – 120-277, 347, and 480 VAC input range; 50-60Hz; power factor >.90; THD <20% at full load. 10kA/10kV surge protection standard. Quick-disconnect wiring provided. L70 >60,000 hours per IES TM-21.
- FINISH – Super durable polyester powder coat bonded to phosphate-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.
- MOUNTING – Surface mounts directly over a 4″ maximum outlet box. Must be anchored to adequate structure that can safely support fixture weight (VWPH = 15 lbs, VWPV = 23 lbs).
- LISTINGS –
  - cCSAus certified as luminaire suitable for wet locations.
  - FCC Class A compliant.
  - IDA Dark-Sky approved (downlight applications only).
  - RoHS compliant.
  - IP65 rated.
  - Title 24 compliant with OCCWS FSP-311-L_ option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: VWPH - L30/740 - T3 - DBZ - SDGL - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	LUMENS [1]	CRI	CCT	DISTRIBUTION [2]
VWPH Horizontal	**L30** 3,000lm	**7** 70	**30** 3000K	**T2** Type II
VWPV Vertical	**L60** 6,000lm	**8** 80	**40** 4000K	**T3** Type III
	L85 8,500lm [3]		**50** 5000K	**TFT** Type forward throw

FINISH OPTIONS [4]

BLK	Black (RAL #9004)
DBZ	Dark bronze
DBR	Medium bronze
GRAY	Standard gray
GRN	Green (RAL #6005)
SLV	Satin aluminum (RAL #9006)
WHT	White (RAL #9003)

SHIELDING

CGL	Clear tempered glass lens
SDGL	Micro-prismatic tempered glass lens

OPTIONS [5]

EM/4W	4-watt integral emergency battery [6]
EM/10WC	10-watt emergency, low temperature battery [7]
EM/10CEC	10-watt emergency CEC qualified battery [8]
SF	Single fuse [9]
DF	Double fuse [10]
PC	Factory-installed button-style photocell [11]
HSGX	Empty housing extension used to match units with EM batteries, control sensors, or conduit entry options
TP	Tamper-resistant Torx head screws [12]

CONDUIT ENTRY [13]

CR	Right side conduit entry
CL	Left side conduit entry
CD	Dual conduit entry
CTOP	Top conduit entry [14]

CONTROL

See page 4 for ADDITIONAL CONTROL OPTIONS.

–	None
AVI-IFAC-OA	Avi-on wireless fixture control with outdoor antenna [15]

DRIVER

DIM	Driver with external dimming wires prewired for 0-10V low voltage applications

VOLTAGE

120	120V
208	208V
240	240V
277	277V
UNV	120-277V
347	347V [16]
480	480V [17]

ACCESSORIES

TPTX-25 TOOL Tamper-resistant tool for Torx head screws. [18]

NOTES

1. Lumen output based on 70 CRI/4000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2. See page 2 for DISTRIBUTION DETAILS.
3. Not available with EM batteries when specified with VWPV.
4. See page 2 for FINISH OPTIONS.
5. See page 2 for FIXTURE DETAILS.
6. 120-277V only. VWPV includes housing extension, increases fixture depth.
7. VWPH and 120-277V only. Includes housing extension, increases fixture depth.
8. 120-277V only.
9. 120V, 277V, or 347V only; must specify voltage
10. 208V, 240V, or 480V only; must specify voltage.
11. 120V, 208V, or 277V only; must specify voltage. Right side when viewed from behind fixture.
12. Silver finish only. Safety screws providing added support to the lens are not tamper-resistant (lens is sealed to the fixture via adhesion). Requires a tamper-resistant tool, see Accessories.
13. Housing extension included, increases fixture depth. Left and right sides when viewed from behind fixture. Provided with 1/2″ NPT tapered pipe thread and plug, increases fixture height. Conduit fitting supplied by others. See page 2 for FIXTURE DETAILS.
14. VWPH only.
15. See page 3 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
16. Includes stepdown transformer. Not available with Avi-on Controls.
17. Includes stepdown transformer. Not available with Avi-on Controls.
18. Ordered separately. Please specify quantity required per project.

VWP LED
Voltaire Architectural Wall Pack

FIXTURE PERFORMANCE DATA

	DISTRIBUTION	FLUX (lm)	WATTAGE	EFFICACY (lm/W)	BUG RATING
L30	T2	3489	27	129.2	B2-UO-G1
	T3	3468		128.4	B1-UO-G1
	TFT	3325		123.1	B1-UO-G1
L60	T2	6414	49	130.9	B2-UO-G1
	T3	6470		132.0	B1-UO-G1
	TFT	6391		130.4	B2-UO-G1
L85	T2	8931	72	124.0	B2-UO-G1
	T3	8953		124.3	B2-UO-G2
	TFT	8665		120.3	B3-UO-G1

MULTIPLIER TABLES

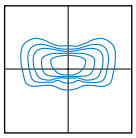
	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
70 CRI	3000K	0.95
	4000K	1.00
	5000K	1.03
80 CRI	3000K	0.86
	4000K	0.91
	5000K	0.94

SHIELDING	CONVERSION FACTOR
CGL	1.00
SDGL	0.98

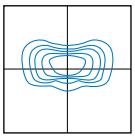
- Photometrics tested in accordance with IESNA LM-79. Results based on 70 CRI/4000K CCT, wattage average for 120V through 277 input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

DISTRIBUTION DETAILS

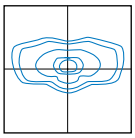
T2 | CGL



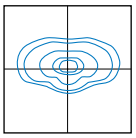
T2 | SDGL



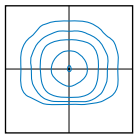
T3 | CGL



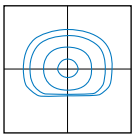
T3 | SDGL



TFT | CGL



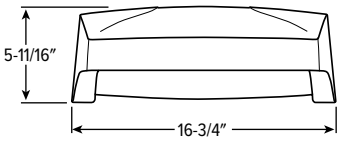
TFT | SDGL



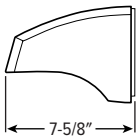
FIXTURE DETAILS

VWPH Weight: 15 lbs. Max weight with EM/10WC or HSGX: 27 lbs.

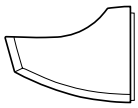
Front View



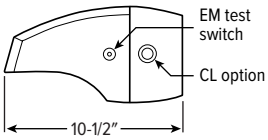
Side View



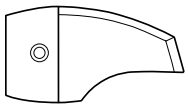
Uplight Application



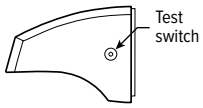
EM/10WC | HSGX | CL Options



CR Option

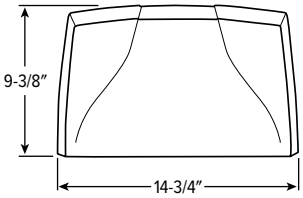


EM/4W | EM10CEC Options

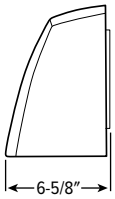


VWPV Weight: 23 lbs

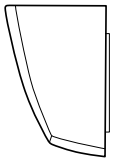
Front View



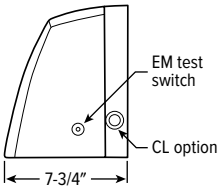
Side View



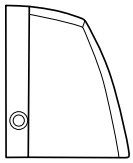
Uplight Application



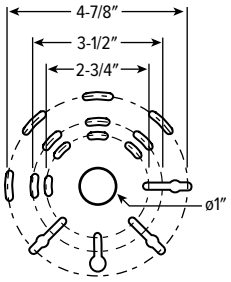
EM/4W | EM/10CEC | HSGX | CL Options



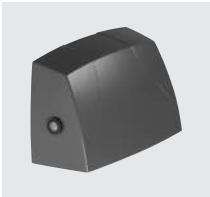
CR Option



MOUNTING BOLT PATTERN



PC OPTION



FINISH OPTIONS

WHITE



BLACK



GREEN



MEDIUM BRONZE



DARK BRONZE



SATIN ALUMINUM

GRAY

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1″ square.

VWP LED
Voltaire Architectural Wall Pack

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small areas to large garages
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



Mobile Apps

Remote Management & Monitoring

Remote Access Bridge

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ACCESSORIES

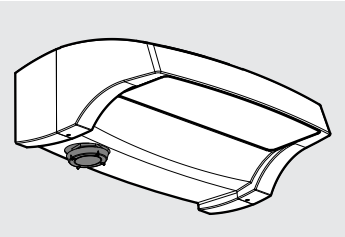
NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup

For load controllers and additional accessory info, see hew.com/avi-on

SEE NEXT PAGE FOR ADDITIONAL CONTROL OPTIONS

VWP LED
Voltaire Architectural Wall Pack

SENSOR PLACEMENT DETAILS



ADDITIONAL CONTROL OPTIONS

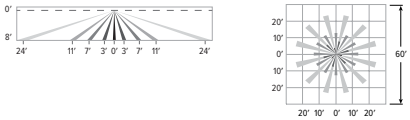
VWPH only, includes housing extension (increases fixture depth).

OCCWS-FSP-311-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
OCCWS-FSP-211-L_-120/277 Wattstopper PIR motion and daylight sensor, 120/277. Must specify lens: L2, L3, or L7. Factory installed.
FSIR-100 Remote controller for 211 sensor. Please specify quantity required per project. Ordered and shipped separately.

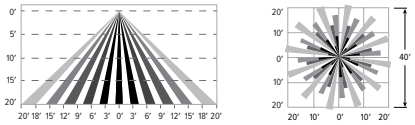
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 40′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	311 Sensor: App (iOS or Android) 211 Sensor: FSIR-100 Remote

SENSOR COVERAGE PATTERNS

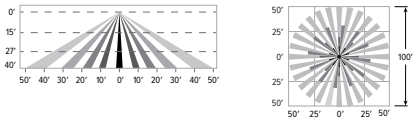
L2 8′ height: ø48′ coverage



L3 20′ height: ø40′ coverage



L7 40′ height: ø100′ coverage



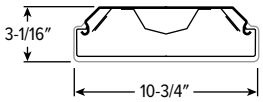
SENSOR DETAIL



Dimensions
L2/L3: ø2-3/8″ | L7: ø3-1/4″

17 LED Low-Profile Wrap





CATALOG #:

TYPE:

PROJECT:

BUY AMERICAN ACT COMPLIANT

FEATURES

- Low-profile wrap-around provides uniform downward light distribution and subtle side illumination
- Shallow depth provides low-profile appearance
- Diffuser is secured continuously along luminaire sides
- Mounts easily as a single fixture or in continuous row installations
- Wireway is accessible without the use of tools
- High-performance up to 141 lm/W
- Available on QuickShip
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed C.R.S. End plates constructed of 19-gauge die-formed C.R.S.
- SHIELDING – Frosted prismatic acrylic diffuser with 15% DR additive, .100″ nominal thickness. Prismatic bottom and continuous wrap sides.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High-quality mid-power LED boards. See fixture performance data for lumen maintenance.
- MOUNTING – Surface or suspended.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: 17 - 4 - L55/835 - AF - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	LENGTH	LUMENS [1]	CRI	CCT	SHIELDING
17	**2** 2′	2′	**8** 80	**30** 3000K	**AF** Frosted prismatic acrylic diffuser
	4 4′	**L27** 2,700lm	**9** 90 [4]	**35** 3500K	
	8 8′ [3]	4′		**40** 4000K	
		L55 5,500lm			
		8′			
		L110 11,000lm			

OPTIONS [2]

EM/10WLP	Low-profile 10-watt emergency battery [5]
EM/10WRM	Remote mount 10-watt emergency battery
GAT	T-bar fastener for 320 ceiling spacer
SS-12	Single stem & canopy, 12″ [6]
SWS-12	Stem & swivel canopy, 12″ [7]
VBY	(2) Y-hangers
VBY-2	(2) Y-hangers and (2) 2′ chains
(L__)	Additional lower lumen packages available. Example: 4,000 lumens = 17-4-L55/835-**(L40)** [8]

(L17)

CONTROL [9]

See page 5 for ADDITIONAL CONTROL OPTIONS.

–	None
AVI-LVFA	Avi-on wireless fixture control [10]
AVI-LVFA-CS2-PIR	Avi-on wireless fixture control with PIR motion and daylight sensor [11]
AWNR	Lutron Athena wireless node integral fixture control, RF only [12]
AWNS	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing [13]

DRIVER

See page 5 for ADDITIONAL DRIVER OPTIONS.

DIM	Driver with external dimming wires
DRV	Driver without external dimming wires
DA	Driver with 12V auxiliary power, without external dimming wires [14]
DSR	Sensor-ready driver without external dimming wires (D4i DALI-2). [15]

VOLTAGE

120	120V
277	277V
UNV	120-277V
347	347V [16]

QUICKSHIP

17-4-L55/835-AF-QS-DIM-UNV

NOTES

1. Lumen output based on 80 CRI/3500K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2. See page 3 for FINISH OPTIONS. Custom colors available upon request. See page 2 for MOUNTING DETAILS.
3. Ships with (2) 4′ lenses.
4. Extended lead times may apply. Consult factory for availability.
5. Not available with 2′ units.
6. Two stem sets required. One additional stem set required for each row mounted fixture.
7. Two stem sets required. One additional stem set required for each row mounted fixture.
8. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
9. See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 3 for SENSOR & NODE PLACEMENT DETAILS.
10. DA Driver only.
11. DA Driver only.
12. DA and DSR Drivers only.
13. DA and DSR Drivers only.
14. Avi-on and Lutron Athena Controls only.
15. Lutron Athena Controls only.
16. Not available with EM batteries, DA or DSR drivers.

17 LED Low-Profile Wrap

FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	LUMEN MAINTENANCE [1]		
					L80	L85	L90
2′	L27	2915	21.3	137	>72000	58,000	36,000
4′	L55	5947	42.3	141	>72000	58,000	36,000
8′	L110	11065	78.3	141	>72000	58,000	36,000

[1] Predicted lumen maintenance calculated in accordance with IES TM-21 per Energy Star (R) TM-21 Calculator rev. 02.08.16.

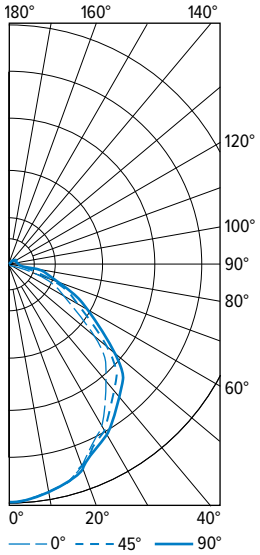
- Photometrics tested in accordance with IESNA LM-79. Results based on 80 CRI/3500K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

MULTIPLIER TABLE

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	3000K	0.99
	3500K	1.00
	4000K	1.03
90 CRI	3000K	0.82
	3500K	0.83
	4000K	0.86

PHOTOMETRY

17-4-L55/835-AF-DRV-UNV Total Luminaire Output: 5947 lumens; 42.3 Watts | Efficacy: 140.6 lm/W | 80 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION

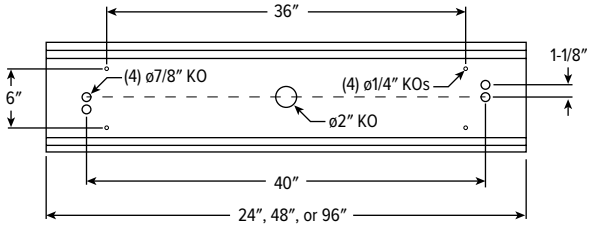
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2131	2131	2131	
5	2155	2111	2102	201
15	2072	2032	2022	575
25	1900	1867	1872	865
35	1635	1622	1658	1023
45	1275	1310	1361	1011
55	869	952	1023	846
65	513	618	692	605
75	249	342	421	362
85	51	130	201	155
90	0	72	137	
95	0	70	130	75
105	0	67	113	66
115	0	62	101	57
125	0	54	85	45
135	0	44	66	31
145	0	34	53	18
155	0	27	34	9
165	0	0	27	3
175	0	0	0	0
180	0	0	0	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	1641	28
0 - 40	2665	45
0 - 60	4521	76
0 - 90	5643	95
90 - 120	198	3
90 - 150	292	5
90 - 180	305	5
0 - 180	5947	100

FIXTURE DETAILS

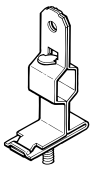
BACKVIEW



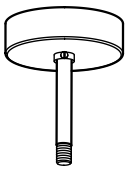
Note: Midsection punching for 4′ and 8′ only.
8′ consists of duplicate 4′ punching.

MOUNTING DETAILS

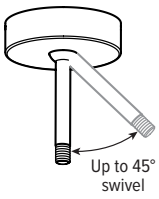
GAT



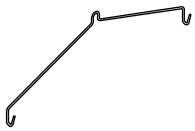
SS-12



SWS-12



VBY | VBY-2



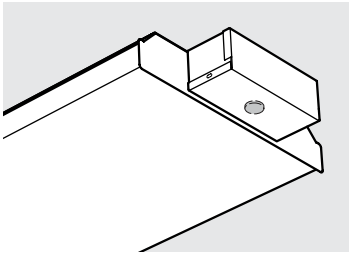
17 LED Low-Profile Wrap

FINISH OPTIONS

WHITE | BLACK | BRONZE | NICKEL | SILVER | ALUM

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1" square.

SENSOR & NODE PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS



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ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor. DA Driver only.

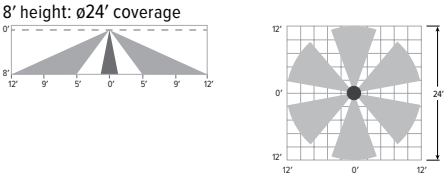
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 10′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 50°C
RELATIVE HUMIDITY	10 to 80% non-condensing
IP RATING	IP20
MANUFACTURER	Avi-On

Bluetooth® Lighting Controls

SENSOR COVERAGE PATTERNS

Side View

8′ height: ø24′ coverage



SENSOR DETAIL



Dimensions: 13/16″ x 2-1/4″

17 LED Low-Profile Wrap

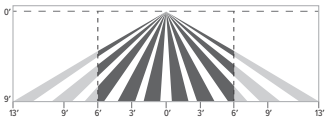
ADDITIONAL CONTROL OPTIONS

AWNS Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing. DA and DSR Drivers only.

SPECIFICATIONS	
TYPE	Radio Frequency
MOUNTING HEIGHT	8′ – 12′
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	Clear Connect gateway – Type X with app (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9′ height: ø12′ coverage



Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8′	114
9′	144
10′	178
12′	256

SENSOR DETAIL



Dimensions: ø1-1/8″

ATHENA CONTROL OPTIONS

CATALOG NUMBER	DESCRIPTION
AWNR	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNS	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNR-BL	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.
AWNS-BL	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.

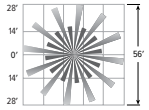
OCCSS LSXR-10-120-277 Sensor Switch PIR motion sensor, 120-277V
OCCSS LSXR-10-347/480 Sensor Switch PIR motion sensor, 347/480V

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	7′ – 15′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 60°C
RELATIVE HUMIDITY	Up to 90% non-condensing

SENSOR COVERAGE PATTERNS

9′ height: ø56′ coverage





SENSOR DETAIL



ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Driver with 12V auxiliary power
DSR	Sensor-ready driver (D4i DALI-2)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

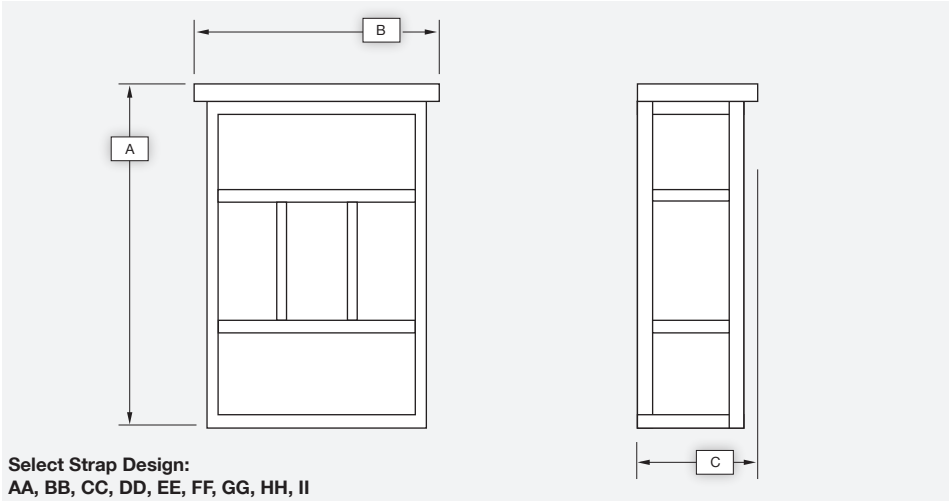
EVERGREEN LIGHTING

Catalog #		Type
Project		TYPE WS1
Description		Date

SERIES 20

WALL MOUNT





Select Strap Design:
AA, BB, CC, DD, EE, FF, GG, HH, II

Standard Features

Material
Paintlok sheet; Standard Powdercoat Finish, White Acrylic Lens; .125 thickness, ETL Wet Location.

Installation
Mounting/wireway hole in center of backplate. Supplied with standard mounting hardware to mount to a 4" J-box or plaster ring.

Optics*
Contact Evergreen Lighting for complete photometrics.

LED Features

LED
Alta LED #AL-R-1W-30LED array to be mounted onto an Aluminum MPCB Board configured to the proper wattage. The LED arrays will be centered within the Lens area and mounted on a white aluminum reflective plate.

Driver
Specific Drivers will be matched with each different LED array configuration/wattage. Standard Driver Features:

- Constant Current
- 3 / 5 year warranty
- 120/277 multi-voltage power supplies
- Kelvin - 2700K, 3000K, 3500K, 4100K, 5000K

Fluorescent Features

Ballast
SC programmed electronic high power factor ballast, multivoltage 120V/277V. Lamps not included

Finishes

Ballast

Architectural Bronze (AB)	Textured Gold (TG)
Textured Bronze (TBR)	Metallic Nickel (MN)
Matte Black (MBK)	Textured Verde Patina (TVP)
Semi Gloss Black (GBK)	Satin Brass (SB)
Textured Black (TBK)	Copper Vein (CV)
Textured Rust (TR)	Gold Vein (GV)
Matte White (MW)	Silver Vein (SV)
Textured White (TW)	Chrome (CH)
Gloss White (GW)	Oil Rubbed Bronze (ORB)
Metallic Grey (MG)	

Options*

Emergency (EMR)	Special Lens
Photocell (PC)	Incandescent
Lamp Sources	
Size Modifications	
Vandal Proof Enclosure (VPE)	

Sample Spec Number: 201103Q-AB-A-HH

Part #	Lamp/Watts	Lumens	A	B	C
201103Q	13Q	800	10 1/2	7	4
201105T	26T	1800	10 1/2	7	4
201204Q	2-13Q	1600	13 1/2	8 1/2	4
201205	26Q	1800	13 1/2	8 1/2	4
201211	32T	2200	13 1/2	8 1/2	4
201304Q	2-13Q	1600	16	10	5 1/2
201306	2-26Q	3600	16	10	5 1/2
201322	42T	3200	16	10	5 1/2
201106L	6LED	600	10 1/2	7	4
201110L	10LED	1000	10 1/2	7	4
201212L	12LED	1200	12	8 1/2	4
201220L	20LED	2000	12	8 1/2	4
201324L	24LED	2400	13 1/2	10	6 1/2
201340L	40LED	4000	13 1/2	10	6 1/2
DARK SKY					
201109LS	9LED	900	10	7	4
201215LS	15LED	1500	12	8 1/2	4
201320LS	20LED	2000	13 1/2	10	6 1/2

*Consult Factory

MADE IN CALIFORNIA

Evergreen Lighting
1379 Ridgeway Street, Pomona, CA 91768
Ph: 909-865-5599 Fax: 909-865-5539
www.evergreenlighting.com

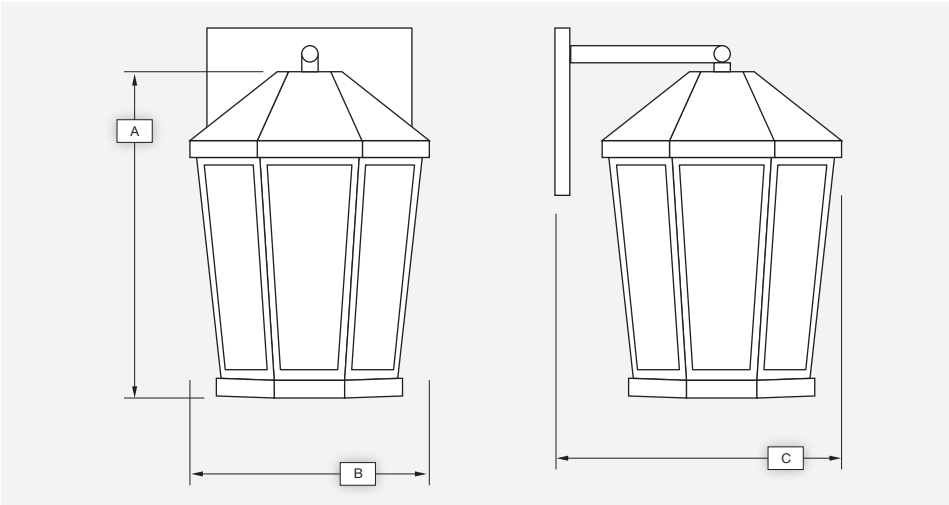
EVERGREEN LIGHTING

Catalog #		Type
Project		TYPE WS2
Description		Date

SICILY

ARM MOUNT





Standard Features

Material
Paintlok sheet; Standard Powdercoat Finish, White Acrylic Lens; .125 thickness, ETL Wet Location.

Installation
Mounting/wireway hole in center of backplate. Supplied with standard mounting hardware to mount to a 4" J-box or plaster ring.

Optics*
Contact Evergreen Lighting for complete photometrics.

LED Features

LED
Alta LED #AL-R-1W-30LED array to be mounted onto an Aluminum MPCB Board configured to the proper wattage. The LED arrays will be centered within the Lens area and mounted on a white aluminum reflective plate.

Driver
Specific Drivers will be matched with each different LED array configuration/wattage. Standard Driver Features:

- Constant Current
- 3 / 5 year warranty
- 120/277 multi-voltage power supplies
- Kelvin - 2700K, 3000K, 3500K, 4100K, 5000K

Fluorescent Features

Ballast
SC programmed electronic high power factor ballast, multivoltage 120V/277V. Lamps not included

Sample Spec Number: SIC2103Q-AB-A

Part #	Lamp/Watts	Lumens	A	B	C
SIC2103Q	13Q	800	16	12	13
SIC2105T	26T	1800	16	12	13
SIC2104Q	2-13Q	1600	16	12	13
SIC2105	26Q	1800	16	12	13
SIC2211	32T	2200	20	14	15
SIC2204Q	2-13Q	1600	20	14	15
SIC2206	2-26Q	3600	20	14	15
SIC2222	42T	3200	20	14	15
SIC2106L	6LED	600	16	12	13
SIC2110L	10LED	1000	16	12	13
SIC2112L	12LED	1200	16	12	13
SIC2220L	20LED	2000	20	14	15
SIC2224L	24LED	2400	20	14	15
SIC2240L	40LED	4000	20	14	15
DARK SKY					
SIC2109LS	9LED	900	16	12	13
SIC2115LS	15LED	1500	16	12	13
SIC2220LS	20LED	2000	20	14	15

Finishes

Ballast

Architectural Bronze (AB)	Textured Gold (TG)
Textured Bronze (TBR)	Metallic Nickel (MN)
Matte Black (MBK)	Textured Verde Patina (TVP)
Semi Gloss Black (GBK)	Satin Brass (SB)
Textured Black (TBK)	Copper Vein (CV)
Textured Rust (TR)	Gold Vein (GV)
Matte White (MW)	Silver Vein (SV)
Textured White (TW)	Chrome (CH)
Gloss White (GW)	Oil Rubbed Bronze (ORB)
Metallic Grey (MG)	

Options*

Emergency (EMR)	Special Lens
Photocell (PC)	Incandescent
Lamp Sources	
Size Modifications	
Vandal Proof Enclosure (VPE)	

*Consult Factory

MADE IN CALIFORNIA

Evergreen Lighting
1379 Ridgeway Street, Pomona, CA 91768
Ph: 909-865-5599 Fax: 909-865-5539
www.evergreenlighting.com

ELX Remote Capable Exit Series

Economical, thermoplastic LED exit sign

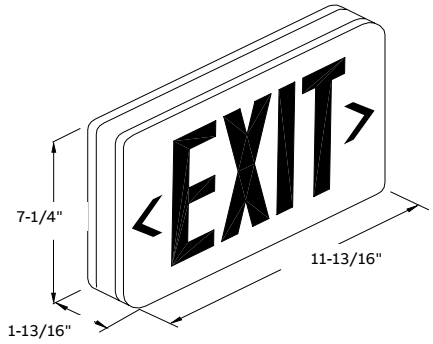


Construction
- UV stabilized thermoplastic body
- 6 inch exit lettering legend, available in red or green
- Field selectable chevrons
- Standard universal faces

Mounting
- Surface mount
- Canopy included for end or ceiling mount applications
- Universal J-box mounting

Finishes
- White

Dimensions
Dimensions are approximate and subject to change.



Electronics
- Optional Advanced Diagnostics
- 120/277 60Hz
- Sealed maintenance free Nickel-Cadmium battery for self-powered models

Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°F)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)
- Unit has a three-year warranty
  Detailed warranty terms located on page 202 or online at:
  www.emergi-lite.com/usa/files/EL_Warranty.pdf

Power consumption

Description
120/277VAC, 60Hz maximum 2.5W

Accessories (order as a separate item)

Description	Suffix
Wire guard (wall mount)	WG1-E
Wire guard (ceiling mount and end mount)	WG5-E
Battery	820.0106-E
Pendant white	P*WT
Pendant black	P*BK

How to order

Series	Legend color	Options
ELX400= AC only	**RN**= Red	**Blank**= No options
ELXN400= Self powered	**GN**= Green	**-AD**= Advanced Diagnostics
		-RAD= Advanced Diagnostics with 3.6V-3.6W remote capacity[1]

Example: ELXN400RN-RAD

[1]Available with red legend only, compatible with EF47DSQL or EF12D-LED

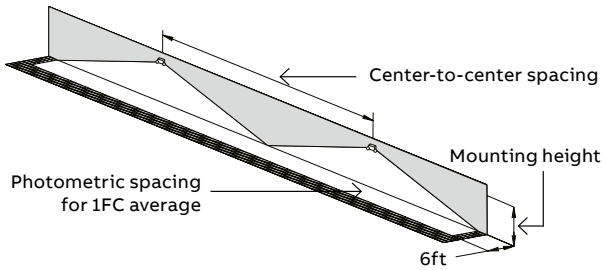
EF47DSQL Series

Thermoplastic square LED
Indoor remote heads



Photometric performance

	Spacing center-to-center (feet)	
Lamp	**7' mounting height**	**15' mounting height**
EF47	13'	4'



Features

- Thermoplastic dual head remote
- LED 3.6V, 2W total
- 6000K LED color
- Wall or ceiling mount
- Damp location 50°F to 104°F (10°C to 40°F)
- UL 924 listed

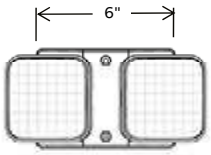
Warranty (subject to proper installation and maintenance)

- Unit has a three-year warranty
  Detailed warranty terms located on page 202 or online at:
  www.emergi-lite.com/usa/files/EL_Warranty.pdf

Dimensions

Dimensions are approximate and subject to change.

EF47DSQL Series



How to order – EF47DSQL Series

Series	No. of lamp	Options
EF47	**D**= Double head	**SQL**= Thermoplastic square LED head

Example: EF47DSQL

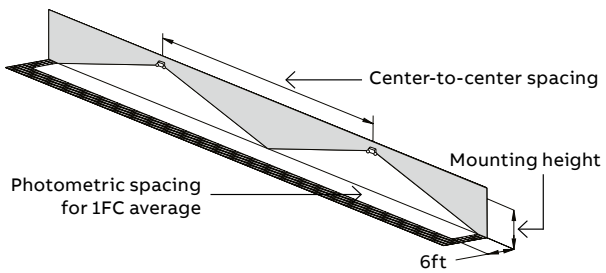
EF12D-LED Series

Thermoplastic square LED
Outdoor remote heads



Photometric performance

	Spacing center-to-center (feet)	
Lamp	**7' mounting height**	**15' mounting height**
EF12	13'	4'



Features

- Multi-volt 3.6, 6 or 12V, 3W in total
- Thermoplastic housing and aluminum canopy with fully adjustable LED heads
- Available only in gray 2-heads configuration
- Suitable for outdoor, wet location applications
- Wall or ceiling mount
- -4°F to 122°F
- UL 924 Listed

Warranty (subject to proper installation and maintenance)

- Unit has a three-year warranty
  Detailed warranty terms located on page 202 or online at:
  www.emergi-lite.com/usa/files/EL_Warranty.pdf

Dimensions

Dimensions are approximate and subject to change.

EF12-LED Series



How to order – EF12D-LED Series

Series	# of lamp	Options
EF12	**Blank**= Single head **D**= Double head	**-LED**= Thermoplastic square LED head

Example: EF12D-LED

TYPE X2

ELXN400 LED Series

Low energy and low maintenance for moderate budget application



ESCORT II

Housing
- UV stabilized thermoplastic body
- Fully adjustable and reversible Cluster™ LED glare-free heads
- 6 inch EXIT lettering legend, available in red or green
- Universal faces (2 faceplates, 1 backplate)
- Field selectable chevrons

Mounting
- Surface mount
- Canopy included for ceiling mount applications
- Universal J-box mounting finishes

Type of battery
- 3.6V nickel-cadmium battery

Lamp head source
- White LED 3.6V-1.8W each

Electronics
- Optional Advanced Diagnostics
- 120/277 60Hz

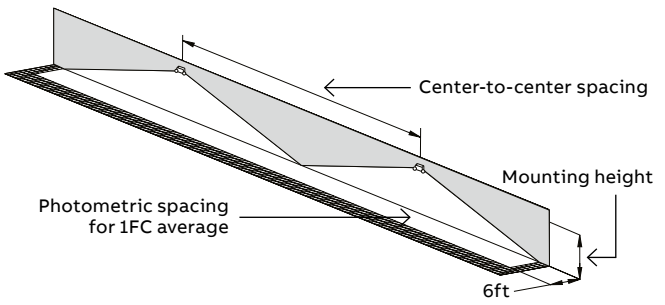
Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°F)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)
- Unit has a three-year warranty
  Detailed warranty terms located on page 202 or online at:
  www.emergi-lite.com/usa/files/EL_Warranty.pdf

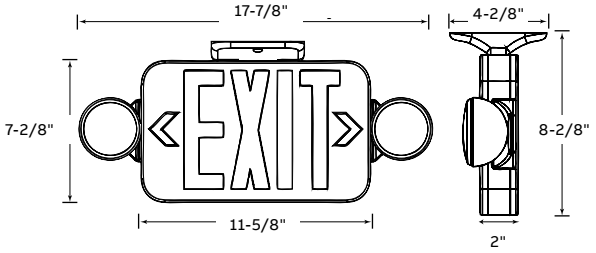
DISTRIBUTOR SELECT

Photometric performance

Spacing center-to-center (feet)	
7' mounting height	**15' mounting height**
15'	4'



Dimensions
Dimensions are approximate and subject to change.



Power consumption

Model	Current (A) / Power (W) 120/277VAC, 60Hz
ELXN400R-2LED	0.044/0.017A
ELXN400G-2LED	0.032/0.015A
ELXN400R-2LEDR	0.037/4.06A
ELXN400G-2LEDR	0.036/3.8A
ELXN400R_2LEDR-AD	0.038/0.017A
ELXN400G_2LEDR-AD	0.038/0.017A

Accessories (order as a separate item)

Description	Suffix
Wire guard	WG10-E
Battery	850.0110-E

How to order

Series	Legend color	Lamp	Options	Color
ELXN400= ELX Combo Series	**R**= Red exit **G**= Green exit	**-2LED**= Round LED array	**Blank**= No option **R**= 3.6W remote capacity to power one double head remote[1] **R-AD**= 3.6W remote capacity to power one double head dedicated remote with Advanced-Diagnostics[1]	**Blank**= White **B**= Black

Example: ELXN400R-2LED

[1]Remote capacity can only be used to power the EF43D or EF44D remote fixtures or to extend the battery units emergency run time beyond the standard 90 minutes.

EF43D & EF44D Series

Low energy and low maintenance for moderate budget application

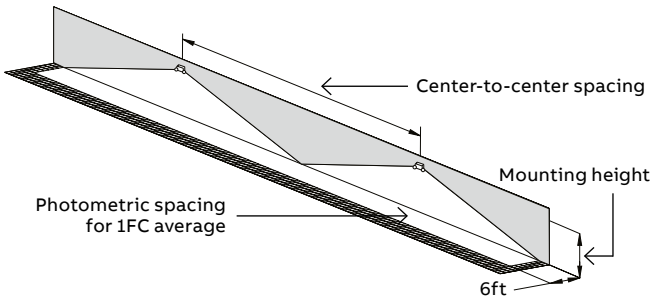


The Cluster™ LED EF43D-LED or EF44D-LEDWP

The Cluster™ LED EF43D-LED or EF44D-LEDWP Remote head can ONLY be powered from the ELXN400 LED series combo or EL-2LED battery units of the same family. Used for internal or external applications, the indoor remote head draws 3.6V-3.6W and Weather-Proof head draws 3.6V-3.8W.

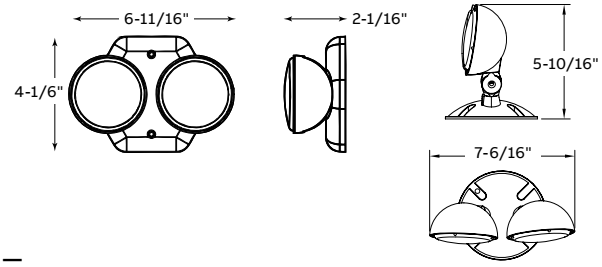
Photometric performance

Spacing center-to-center (feet)	
7' mounting height	15' mounting height
15'	4'



Dimensions

Dimensions are approximate and subject to change.



How to order

Series	# of lamps	Lamp	Option
EF43= Indoor series **EF44**= Outdoor weather-proof series	**D**= 2	**-LED**= round LED array	**Blank**= Indoor remote **WP**= Outdoor weather proof remote

Example: EF43D-LED

CONSTANT PROGRESS