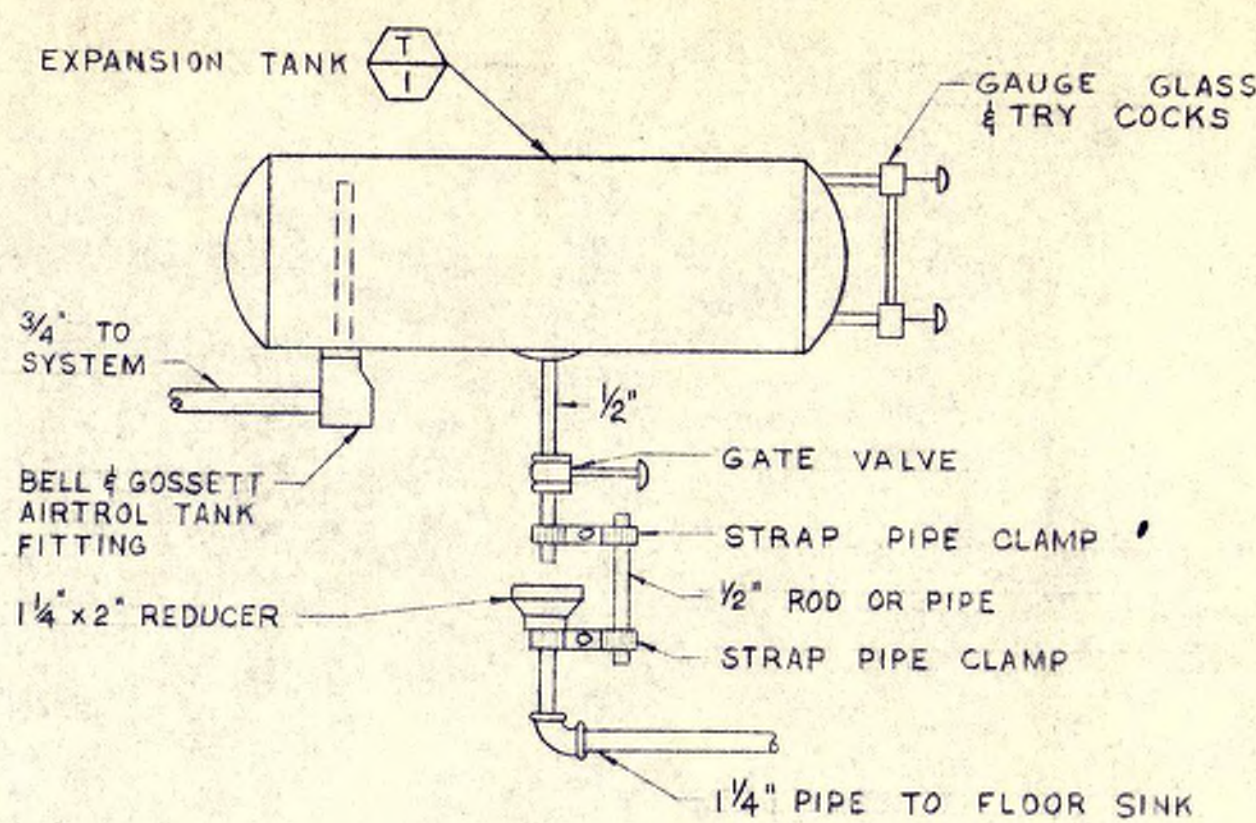


BOILER PIPING DIAGRAM

SCALE  
NONE

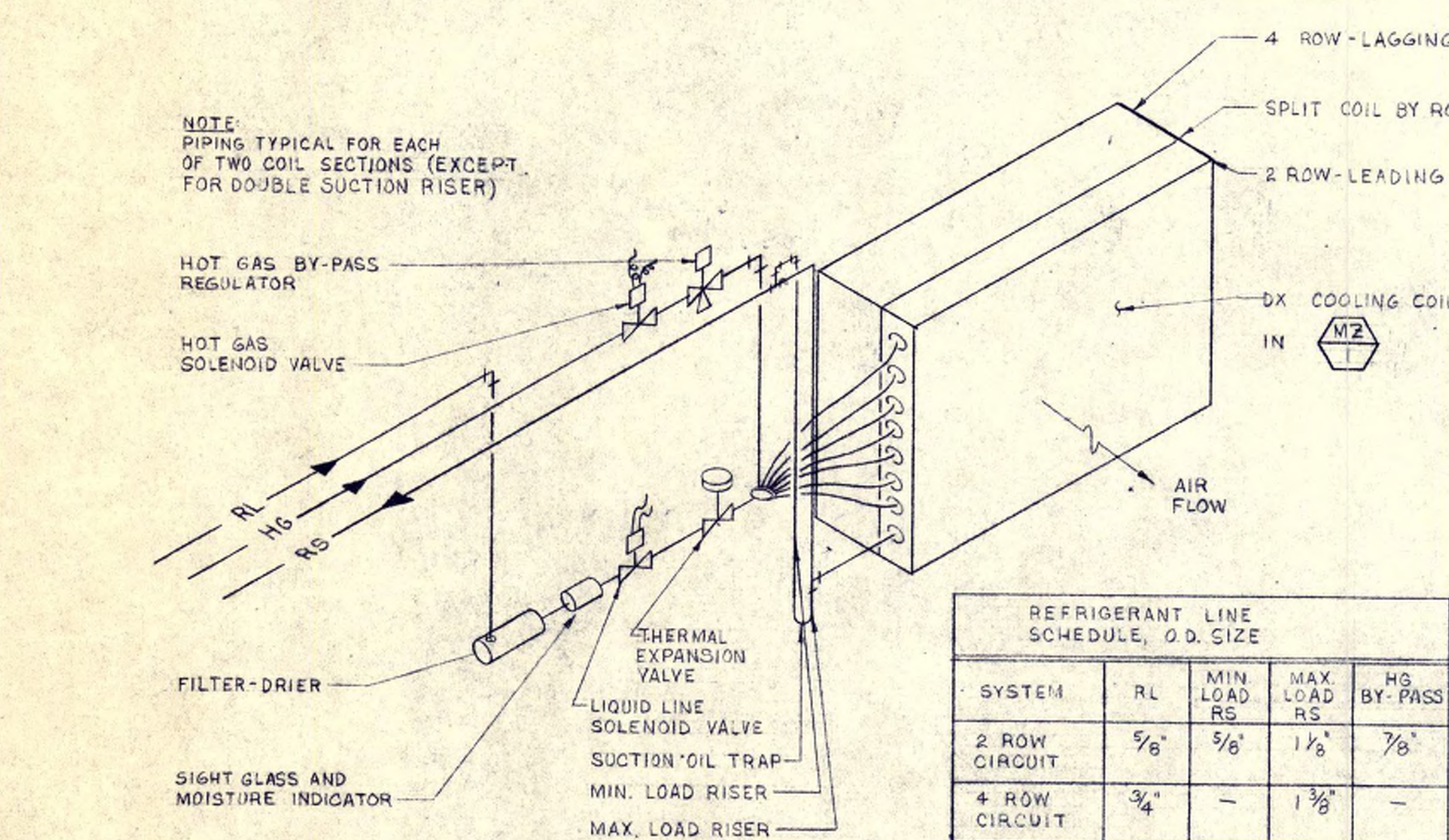
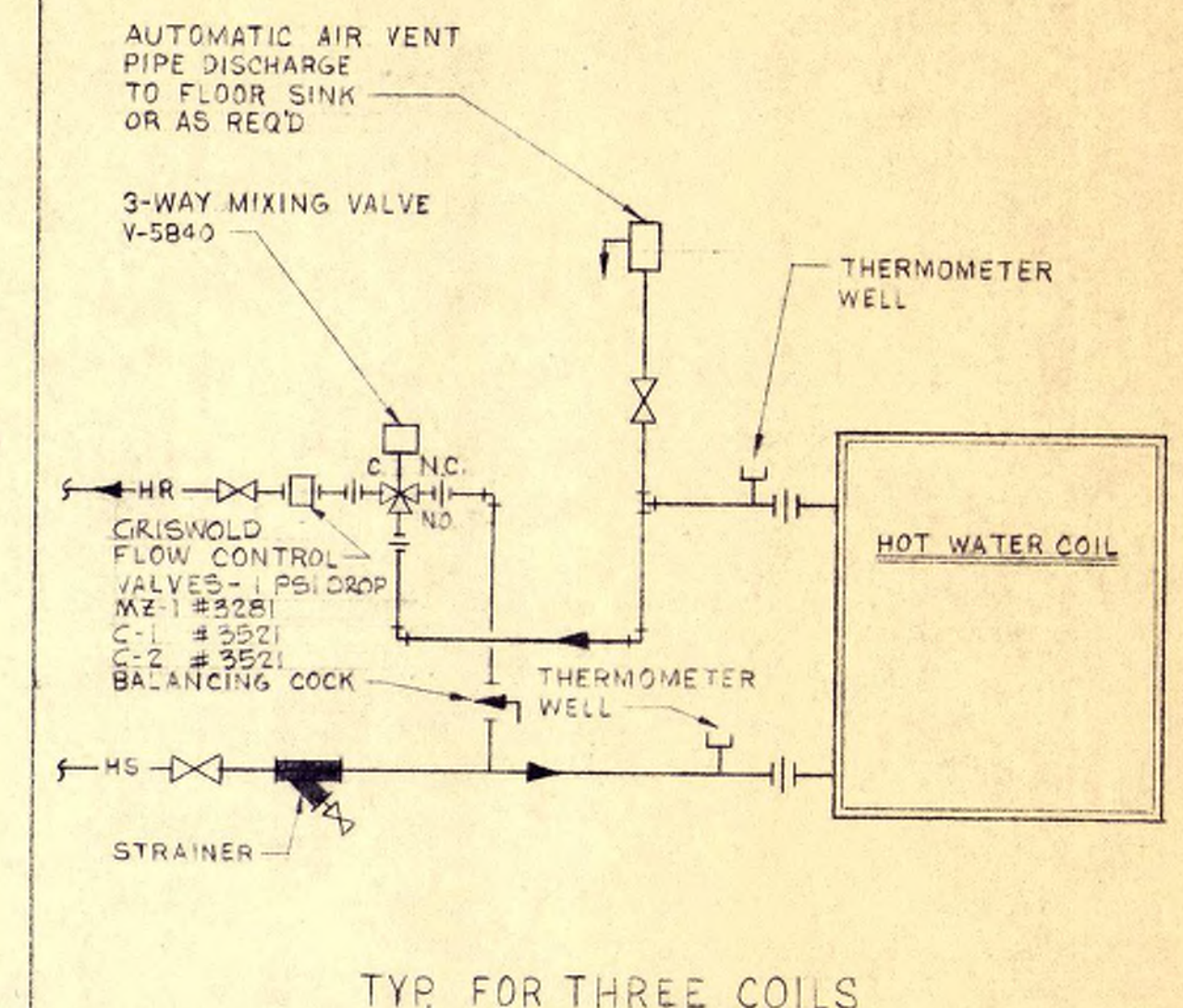


EXPANSION TANK DETAIL

SCALE  
NONE

HOT WATER COIL PIPING DIAGRAM

SCALE  
NONE



DX COIL PIPING DIAGRAM

SCALE  
NONE

CONTROL WIRING DIAGRAM FOR

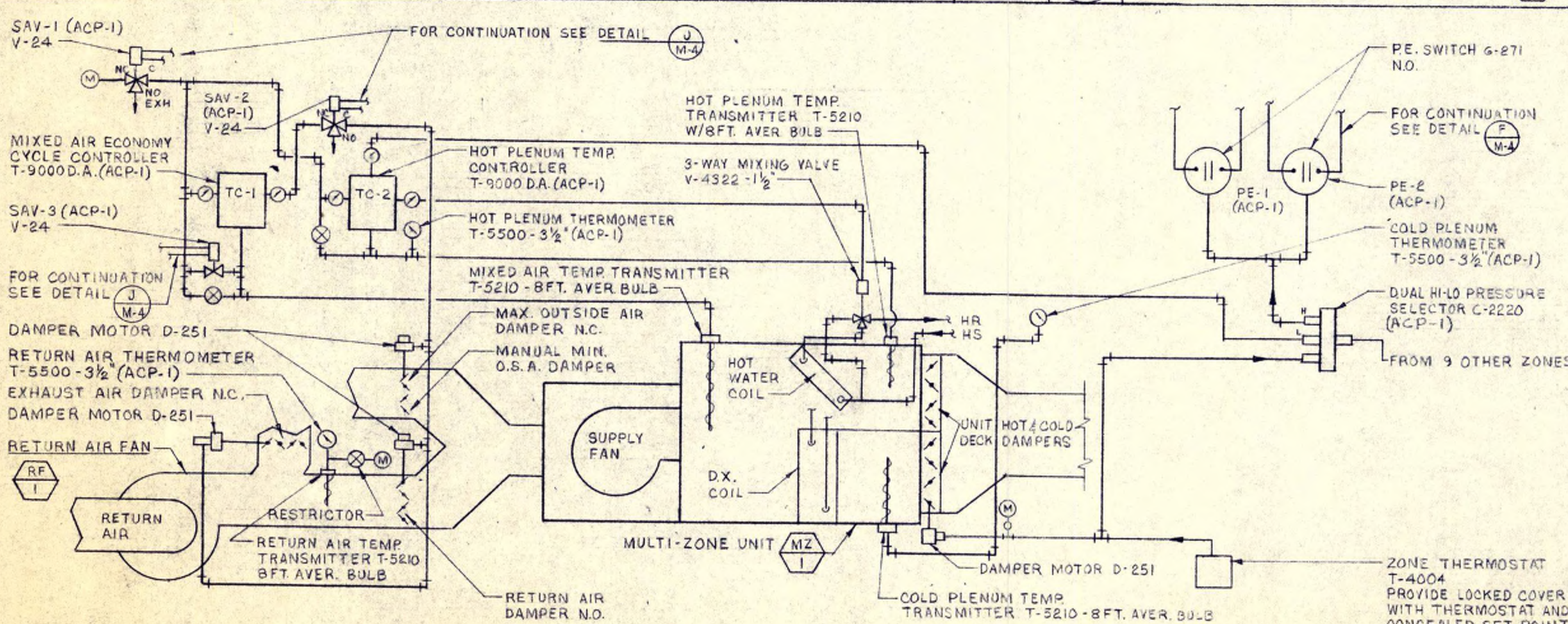
SCALE  
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CONTROL WIRING DIAGRAM FOR

SCALE  
NONE

PIPING DIAGRAM FOR

SCALE  
NONE



PNEUMATIC CONTROL DIAGRAM

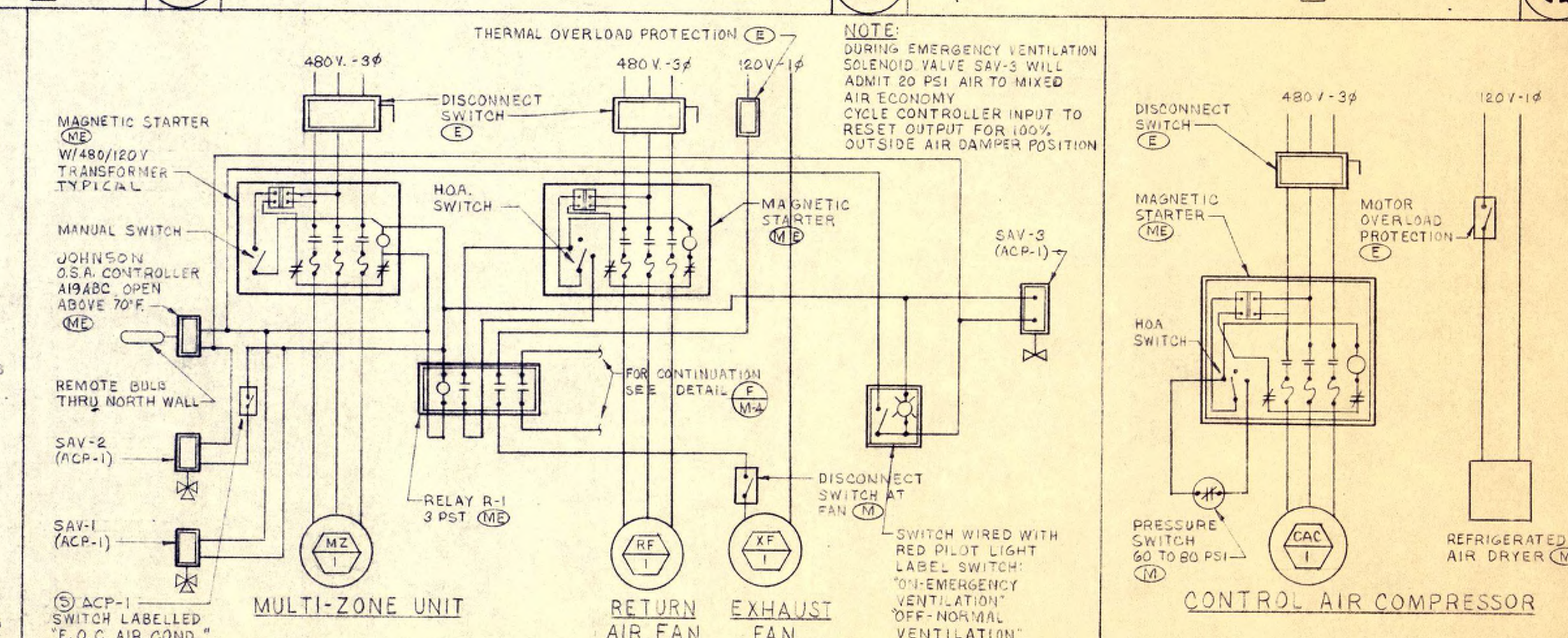
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CONTROL WIRING DIAGRAM FOR

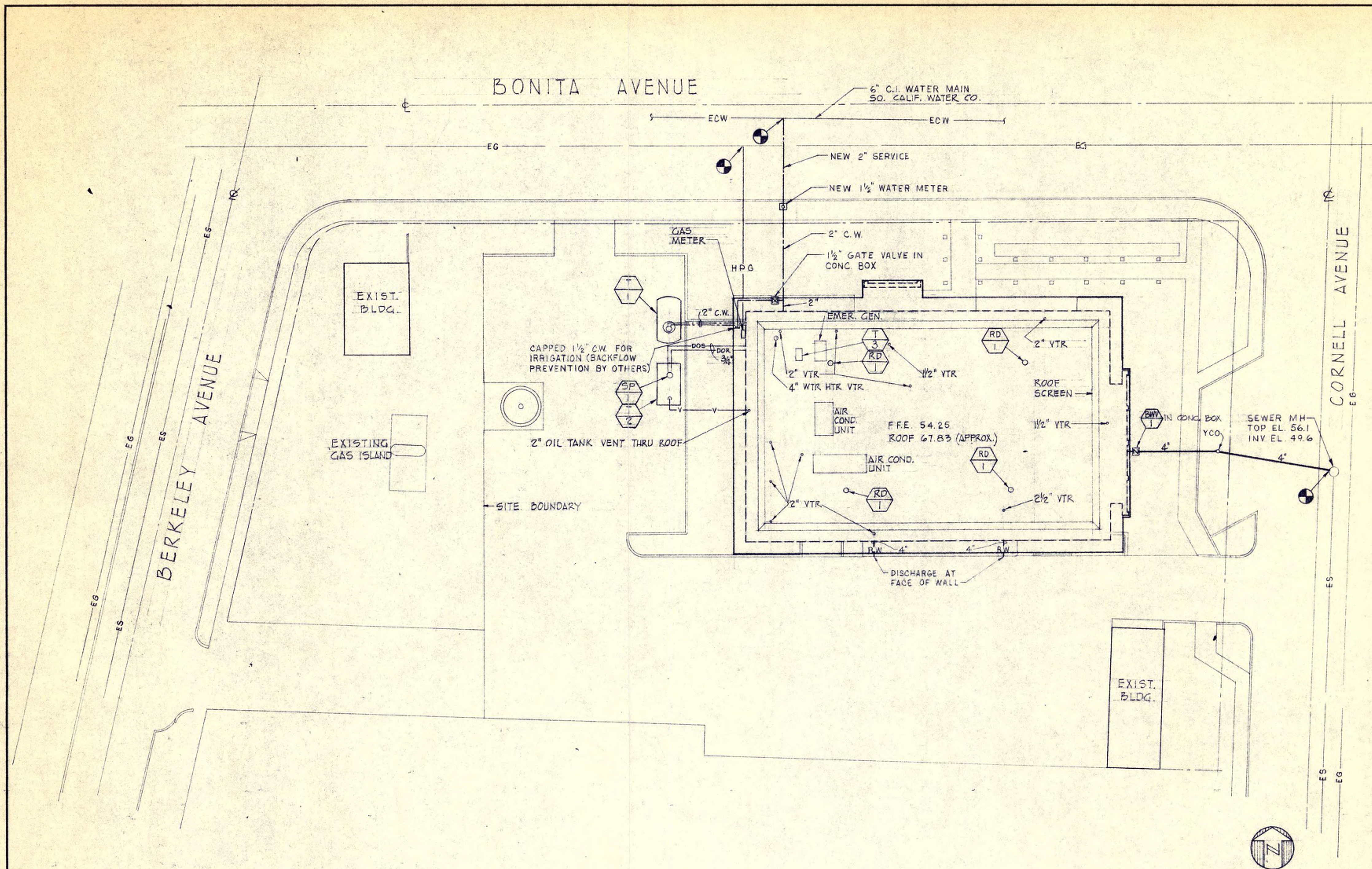
SCALE  
NONE

CONTROL WIRING DIAGRAM FOR

SCALE  
NONE







COMBINED PLUMBING PLOT PLAN & ROOF PLAN

SCALE  
1" = 20 FT

SEWER (FIXTURE UNITS)			
	NEW	FUTURE	TOTAL
	132	0	132

WATER (FIXTURE UNITS & GPM)			
MIN. PRES. 90 PSI		MAX. PRES. 140 PSI	
DOMESTIC	191/90	0	191/90
IRRIGATION	30 (NOT SIMULTANEOUS)	0	30
FIRE PROTECTION	70 GPM @ 25 PSI (NOT SIMULTANEOUS)	0	70
TOTAL	191/90	0	191/90

GAS (CFH)			
MAX. RUN 40 FT.			
SPACE HEATING	477	0	477
WATER HEATING	55	0	55
TOTAL	532	0	532

PLUMBING LOADS			

ABBREVIATION	DESCRIPTION	SYMBOL
ECW	EXISTING COLD WATER LINE	— ECW —
EHW	EXISTING HOT WATER LINE	— EHW —
EG	EXISTING GAS LINE	— EG —
ES	EXISTING SEWER MAIN	— ES —
SW	SEWER, WASTE, CAST IRON	— SW —
SAW	SEWER, WASTE, VITRIFIED CLAY	— SAW —
RAW	RAINWATER, CAST IRON	— RAW —
VWTH	RAINWATER, VITRIFIED CLAY	— VWTH —
CW	VENT, VENT THRU ROOF	— CW —
SCW	COLD WATER	— SCW —
HW	SOFT COLD WATER	— HW —
HWR	HOT WATER	— HWR —
THW	HOT WATER RETURN	— THW —
HPG	TEMPERED HOT WATER	— HPG —
F	NATURAL GAS, LOW PRESSURE	— F —
AFS	NATURAL GAS, HIGH PRESSURE	— AFS —
DS	FIRE PROTECTION LINE	— DS —
INDW	AUTOMATIC FIRE SPRINKLER HEAD	— INDW —
TP	DOWNSPOUT LEADER	— TP —
DOS	INDIRECT WASTE	— DOS —
DOR	TRAP PRIMER	— DOR —
	DIESEL OIL SUPPLY	— DOS —
	DIESEL OIL RETURN	— DOR —

ABBREVIATION	DESCRIPTION	SYMBOL
PT	PLUGGED TEE (LINE SIZE)	— PT —
CO	CLEAN OUT	— CO —
YCO	YARD CLEAN-OUT (TO GRADE)	— YCO —
WCO	WALL CLEAN-OUT	— WCO —
FCO	FLOOR OR FLUSH CLEANOUT	— FCO —
HB	HOSE BIBB	— HB —
SF	SILL FAUCET	— SF —
GAV	GARDEN VALVE	— GAV —
INT.DS	INTERIOR DOWNSPOUT	— INT.DS —
EXT.DS	EXTERIOR DOWNSPOUT	— EXT.DS —
P.O.C.	POINT OF CONNECTION	— P.O.C. —
	DETAIL, PLAN DESIGNATION	— A —
	SHEET OR DRAWING NUMBER	— P-1 —
	MARK NUMBER FOR EQUIPMENT DESIGNATION	— 2 —
	UNDER GENERAL WORK SECTIONS	— 4 —
	UNDER PLUMBING WORK SECTIONS	— 6 —
	UNDER HEATING AND AIR CONDITIONING WORK SECTIONS	— 8 —
	UNDER FIRE PROTECTION CONTRACTOR WORK SECTIONS	— 10 —

VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF WORK.

REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.

COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION AND HEIGHTS OF GAS AND WATER CONNECTIONS TO MECHANICAL EQUIPMENT AND FLOOR SINKS IN MECHANICAL EQUIPMENT ROOMS.

MARK NO.	DESCRIPTION	CONNECTIONS					REMARKS
		SW	V	CW	HW	TW	
WC 1	WATER CLOSET PUBLIC	4	2	1 1/2	—	—	FLOOR MOUNTED FLUSH VALVE
WC 2	WATER CLOSET HANDICAPPED	4	2	1 1/2	—	—	FLOOR MOUNTED FLUSH VALVE-20" TO SEAT
WC 3	WATER CLOSET PRIVATE	4	2	1/2	—	—	FLOOR MOUNTED TANK TYPE
WC 4	WATER CLOSET AND LAVATORY COMBINATION - JAIL	4	2	1 1/2	—	1/2	JAIL TYPE, WALL OUTLET STAINLESS STEEL
U 1	URINAL	2	1 1/2	1	—	—	WALL HUNG W/CARRIER FLUSH VALVE
L 1	LAVATORY PUBLIC	2	1 1/2	1/2	1/2	—	22"x19" WALL HUNG W/CARRIER 31" TO RIM
L 2	LAVATORY HANDICAPPED	2	1 1/2	1/2	1/2	—	22"x19" WALL HUNG W/CARRIER - 34" TO RIM
L 3	LAVATORY STAFF	2	1 1/2	1/2	1/2	—	20"x18" COUNTERTOP
L 4	LAVATORY PRIVATE	2	1 1/2	1/2	1/2	—	20"x18" WALL HUNG W/CARRIER 31" TO RIM
SS 1	SERVICE SINK	3	2	3/4	3/4	—	24"x24" x 6 3/4" FLOOR TYPE
SH 1	SHOWER STAFF	2	2	1/2	1/2	—	MIXING VALVE ADJUSTABLE HEAD
SH 2	SHOWER JAIL	2	2	1/2	—	1/2	MIXING VALVE IN CABINET W/ PUSH BUTTON CONTROL
DF 1	DRINKING FOUNTAIN	2	1/2	1/2	—	—	WALL HUNG SURFACE MOUNTED
EW 1	ELECTRIC WATER COOLER	2	1 1/2	1/2	—	—	WALL HUNG 1/2 HP 120V. SURFACE MOUNTED
S 1	LUNCH ROOM SINK	2	1 1/2	1/2	1/2	—	STAINLESS STEEL 30"x21"
S 2	DARK ROOM SINK	2	1 1/2	3/4	3/4	—	48"x24" W/ STAND ACID RESISTANT W & V
S 3	DARK ROOM SINK	2	1 1/2	3/4	3/4	—	87 1/2"x32" W/ STAND ACID RESISTANT W & V
GD 1	GRABAGE DISPOSER	2	1/2	—	—	—	FOR S-1 1/2 HP, 120V., 1 PH.
FD 1	FLOOR DRAIN PUBLIC	2	2	—	—	—	5"x5" STRAINER
FD 2	FLOOR DRAIN JAIL	2	2	—	—	—	5" DIA. VANDALPROOF STRAINER
FS 1	FLOOR SINK	2	2	—	—	—	12 x 12 x 8
RD 1	ROOF DRAIN	—	—	—	—	—	3" SIZE
WH 1	WATER HEATER - GAS NORMAL USE	—	—	1/4	1/4	—	50 GAL. STORAGE 45,000 BTUH INPUT
WH 2	WATER HEATER - ELEC. E.O.C. USE	—	—	1/2	1/4	—	52 GAL. STORAGE 9 KW., 208V., 1 PH.
CP 1	CIRCULATING PUMP	—	—	—	3/4	—	5 GPM @ 19 FT. HD 1/2 HP, 120V., 1 PH.
T 1	EMERG. WATER STORAGE TANK	—	—	2	—	—	5,000 GAL. NOM. 95" x 14'-0"
T 2	DIESEL OIL STORAGE TANK	—	—	—	—	—	5,000 GAL. NOM. 95" x 14'-0"
T 3	DIESEL OIL DAY TANK	—	—	—	—	—	25 GAL. CAP'Y.
SP 1	SUBMERSIBLE PUMP DIESEL OIL	—	—	—	—	—	5 GPM @ 23 PSI 1/3 HP, 208V., 1 PH.
FHC 1	FIRE HOSE CABINET	—	—	2	—	—	SEMI-RECESSED
FHC 2	FIRE HOSE CABINET	—	—	2	—	—	FULLY RECESSED
F 1	WATER FILTER	—	—	3/4	—	—	LINE MOUNTED CARTRIDGE TYPE
F 2	WATER FILTER	—	—	3/4	—	—	LINE MOUNTED CARTRIDGE TYPE
BWV 1	BACKWATER VALVE	4	—	—	—	—	IN CONC. BOX
PRV 1	PRESSURE RED. VALVE	—	—	2	—	—	90 GPM @ 12 PSI DROP
TV 1	TEMPERING VALVE	—	—	3/4	3/4	1	15 GPM @ 5 PSI DROP

PLUMBING LEGEND AND NOTES

PLUMBING SCHEDULE

THOMAS H. PARRY & ASSOCIATES  
CONSULTING MECHANICAL ENGINEERS  
1301 N. INDIAN HILL BLVD.  
CLAREMONT, CALIF. 91711  
TELEPHONE (714) 954-3225

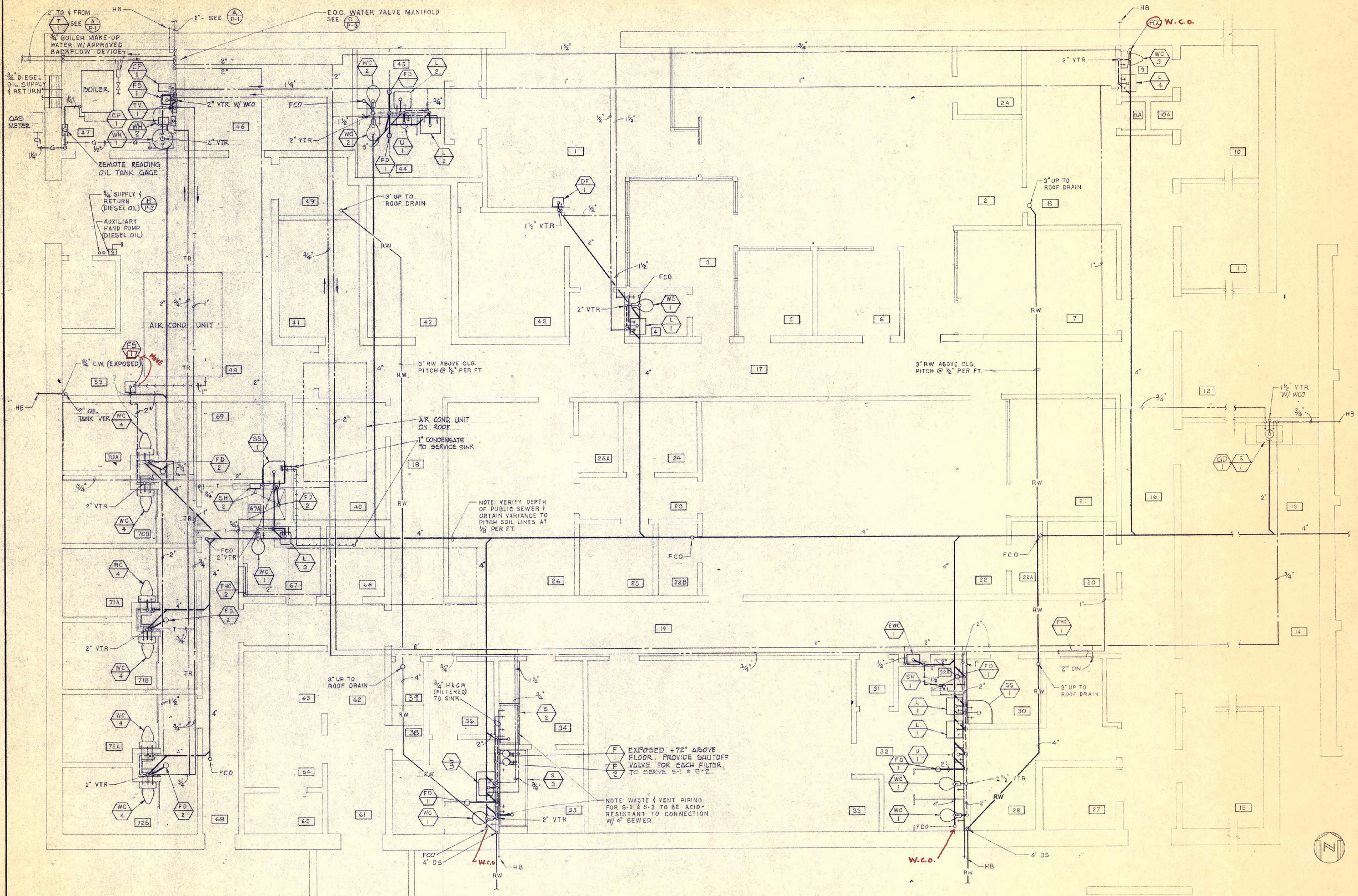
CRILEY & MC DOWELL  
ARCHITECTS & ASSOCIATES  
ARCHITECTURE - PLANNING

PLUMBING PLOT PLAN, SCHEDULES & LEGEND  
FOR THE CITY OF CLAREMONT  
520 W. BONITA AVE. CLAREMONT, CAL.

JOHN LESONDAK 983-2626  
983-2626

SHEET NO. 877





# PLUMBING PLAN

SCALE  
1/4" = 1'-0"

**A** **P2**

THOMAS H. PARRY & ASSOCIATES  
CONSULTING MECHANICAL ENGINEERS  
1505 NORTH LAKE AVENUE  
PASADENA, CALIFORNIA 91104

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1301 N. INDIAN HILL BLVD.  
CLAREMONT, CALIF. 91715  
TELEPHONE (714) 924-3525

CHECKED BY  
DRAWN BY

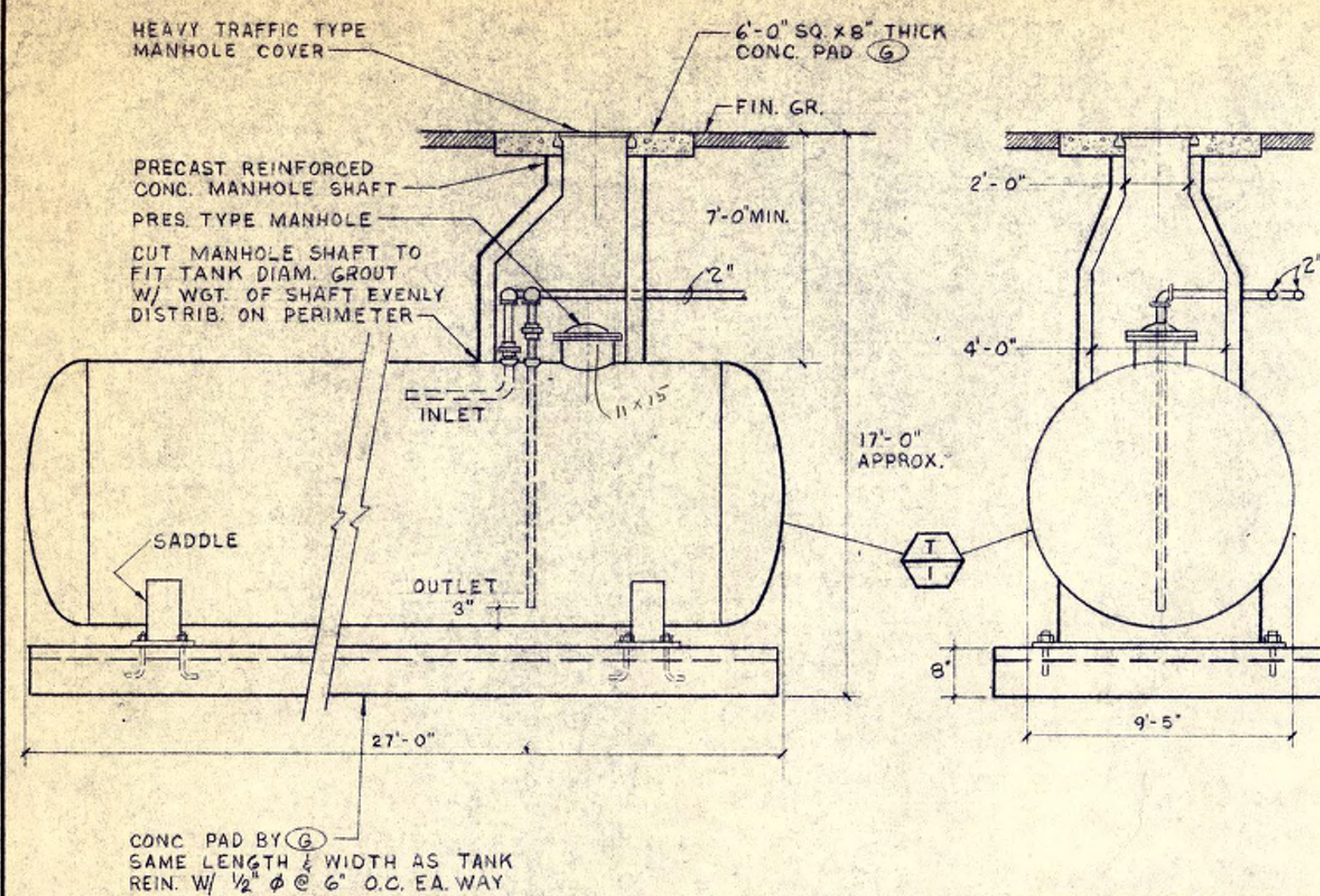
**CRILEY & MC DOWELL**  
ARCHITECTS & ASSOCIATES  
ARCHITECTURE - PLANNING

**TC**

PLUMBING PLAN  
POLICE FACILITY BUILDING  
FOR THE CITY OF CLAREMONT  
520 W. BONITA AVE. CLAREMONT, CAL.

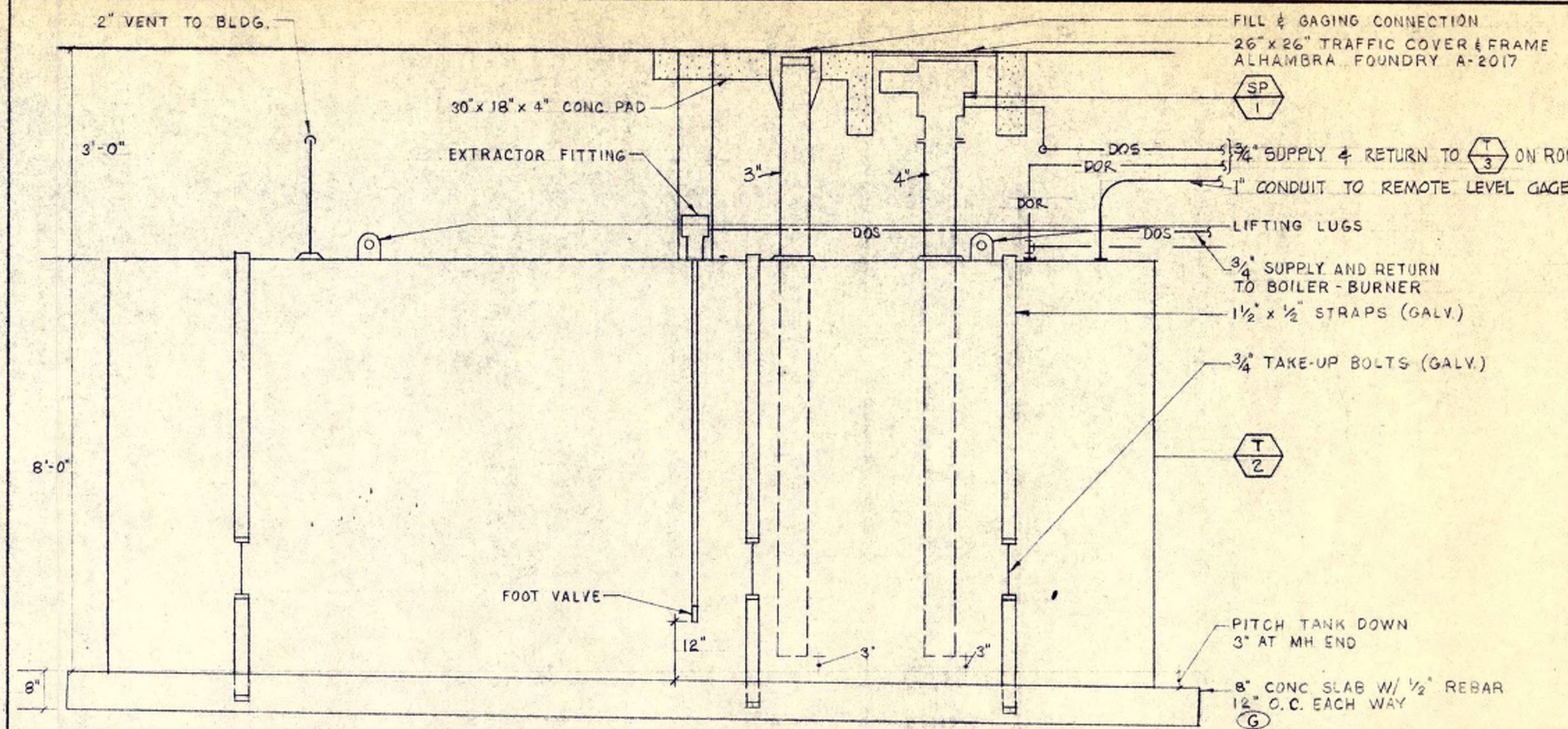
DATE 6-22-73  
JOB NO. 877  
SHEET NO.





EMERGENCY WATER STORAGE TANK DETAIL

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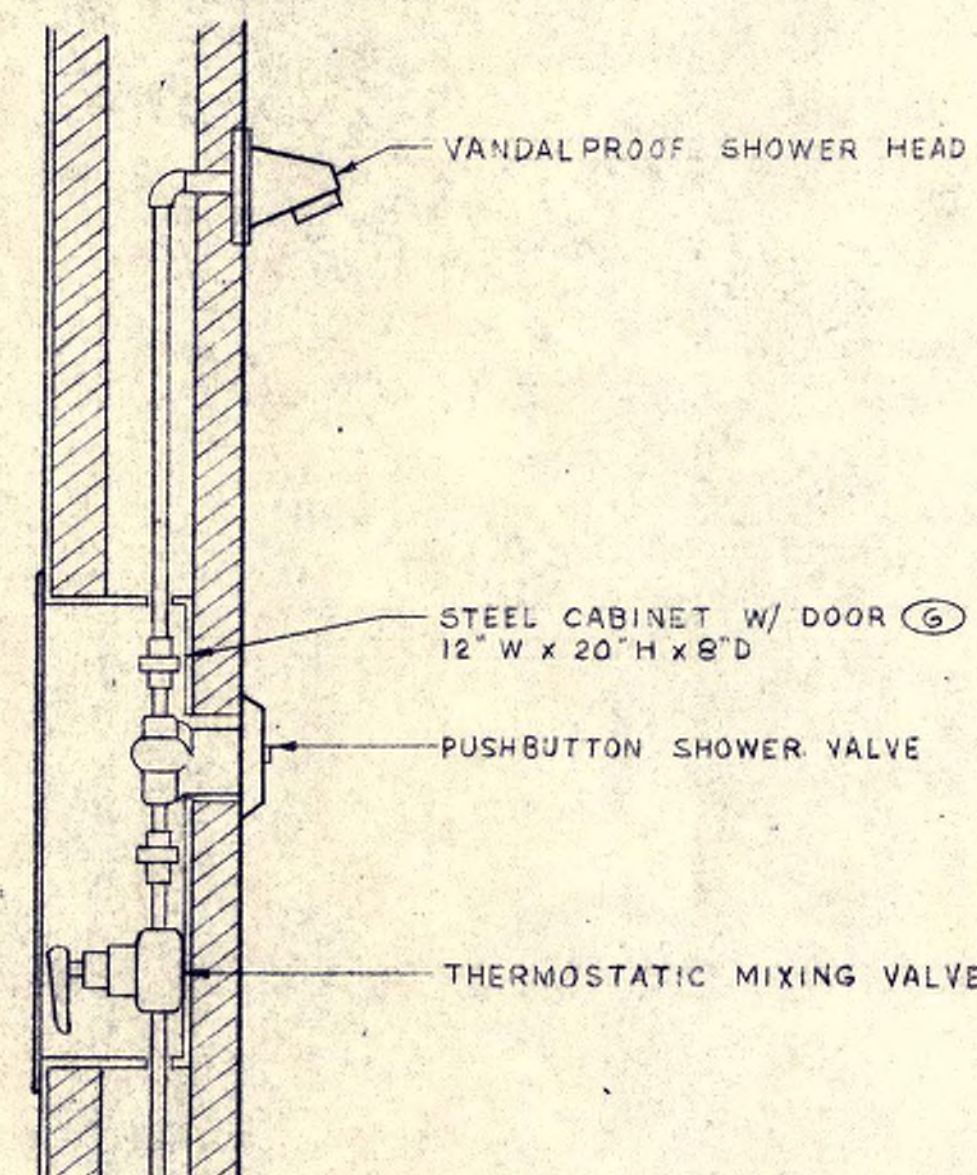


DIESEL OIL STORAGE TANK DETAIL

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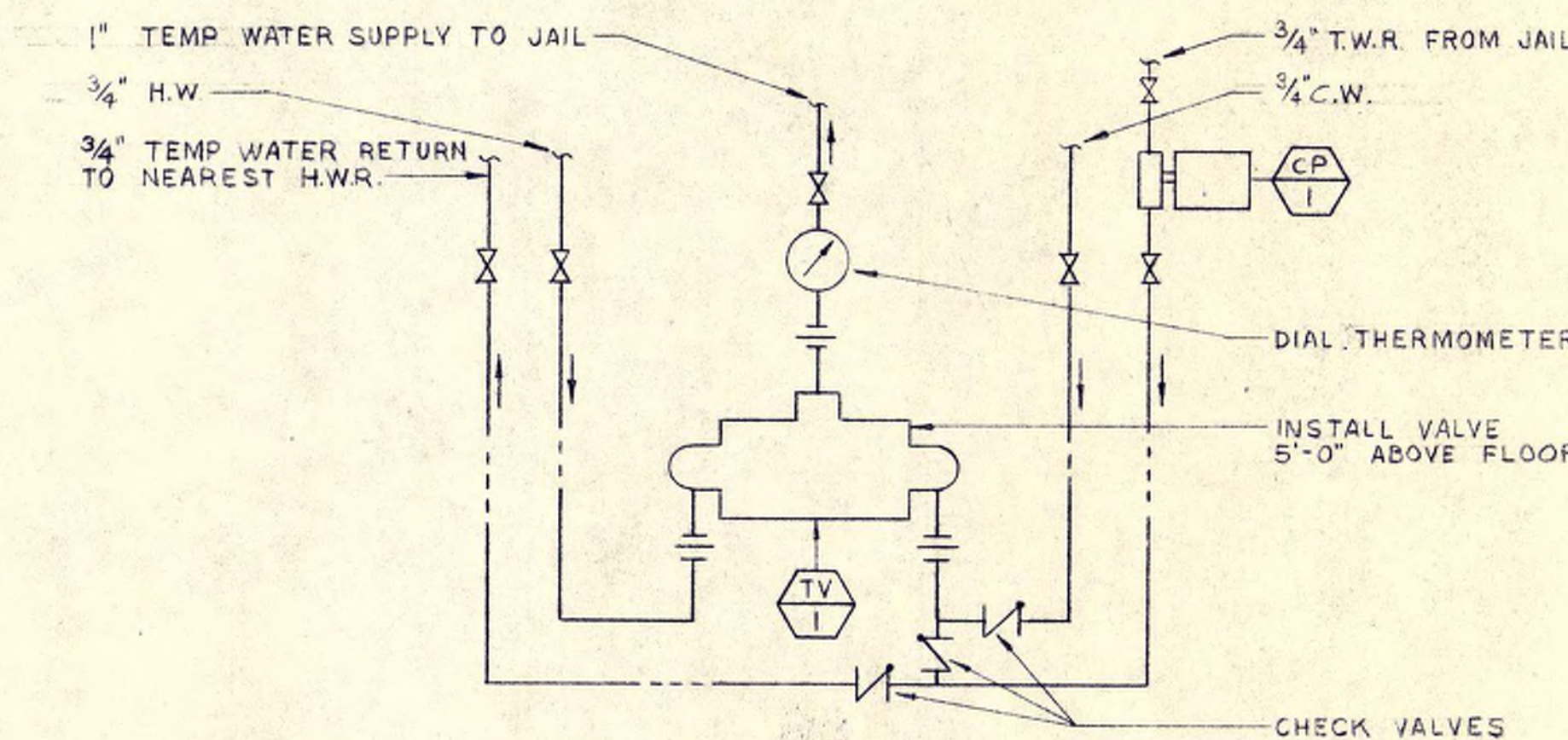
E.O.C. WATER VALVE MANIFOLD

SCALE  
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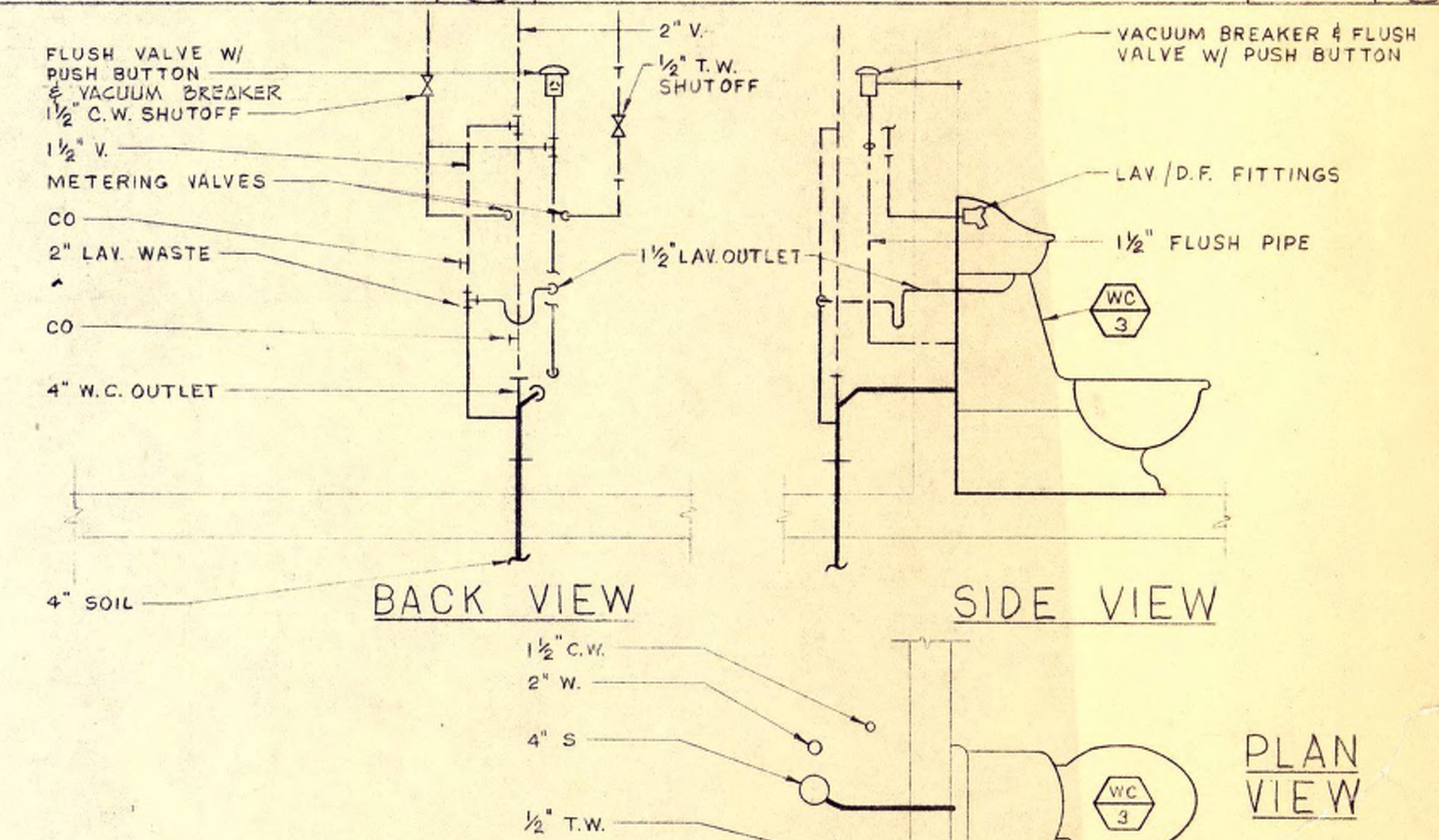
JAIL SHOWER DETAIL

SCALE  
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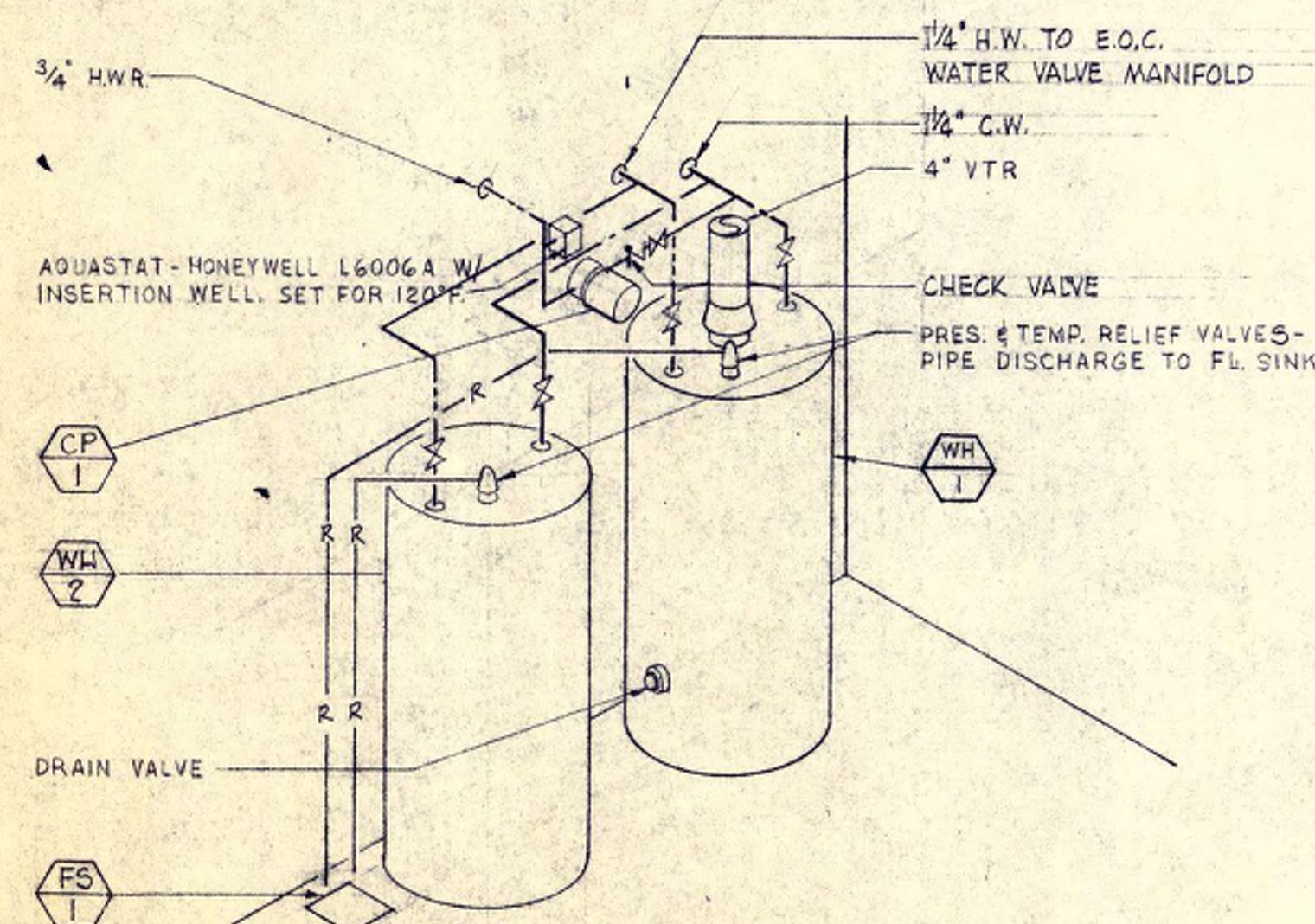
JAIL TEMPERED WATER DETAIL

SCALE  
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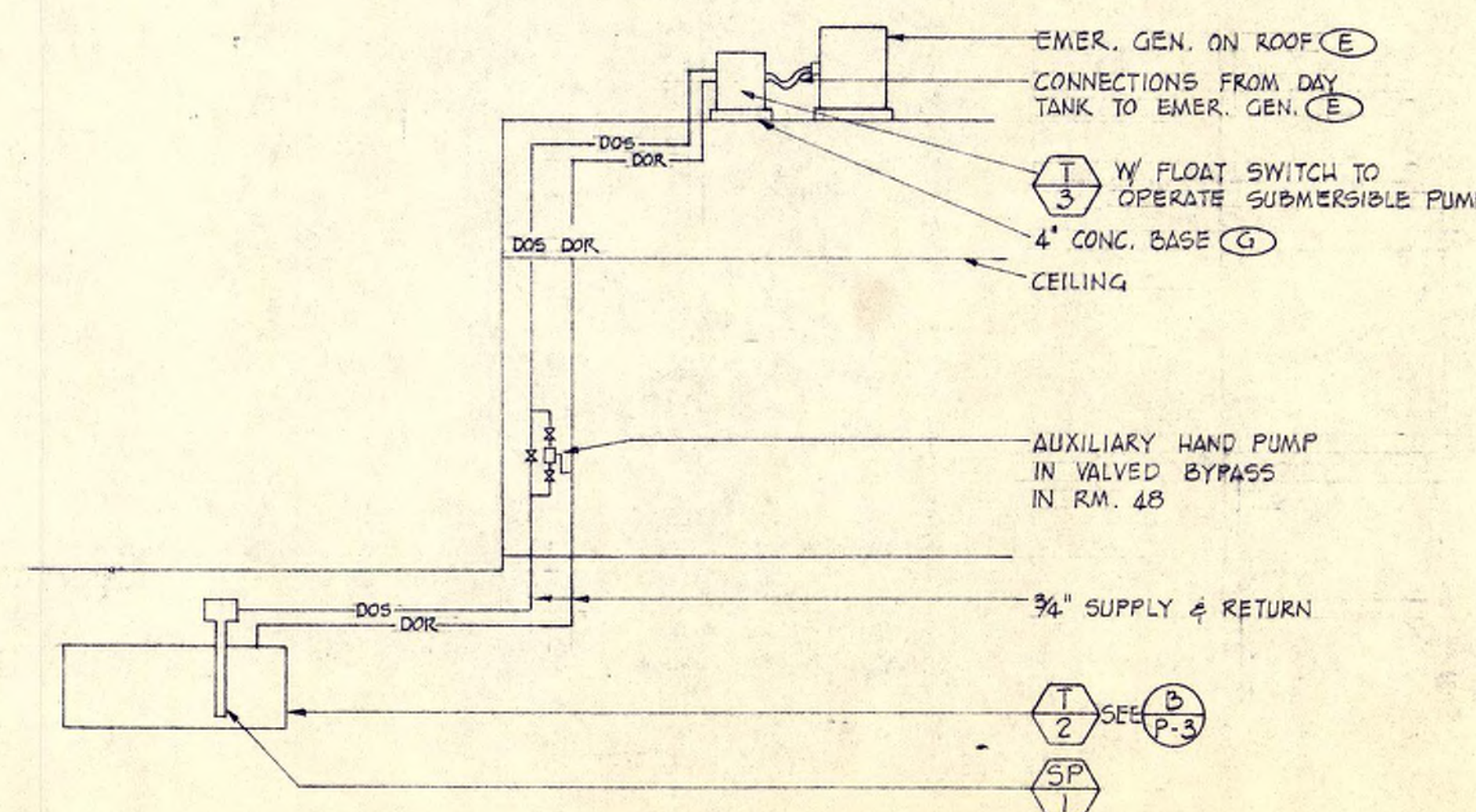
PIPING DETAIL OF COMBINATION WATER CLOSET & LAVATORY

SCALE  
NONE



WATER HEATER DETAIL

SCALE  
NONE



DIESEL OIL PIPING DIAGRAM

SCALE  
NONE



## F. FINISH PRESENTATION



**CLAREMONT POLICE DEPARTMENT  
WOMEN'S LOCKER ROOM ADDITION**

*INTERIOR FINISHES, FIXTURES &  
EQUIPMENT*

**September 2024**

Prepared by:  
Dunbar Architecture



**DUNBAR ARCHITECTURE**  
ARCHITECTURE & DESIGN | HISTORIC ARCHITECTURE | INTERIORS





MATERIAL PALETTE



PAINT



WALL TILE



CABINETS & DOORS



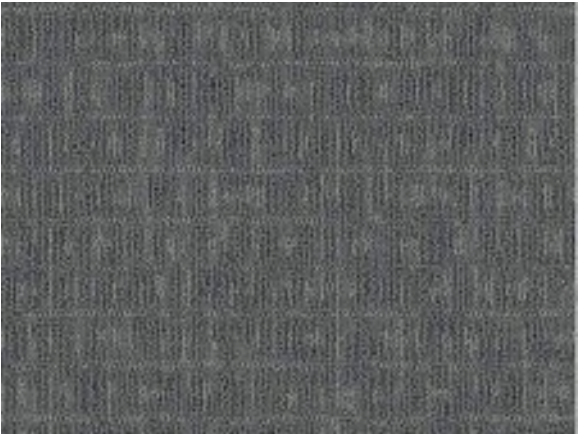
COUNTERTOPS



VINYL TILE



FLOOR TILE



CARPET

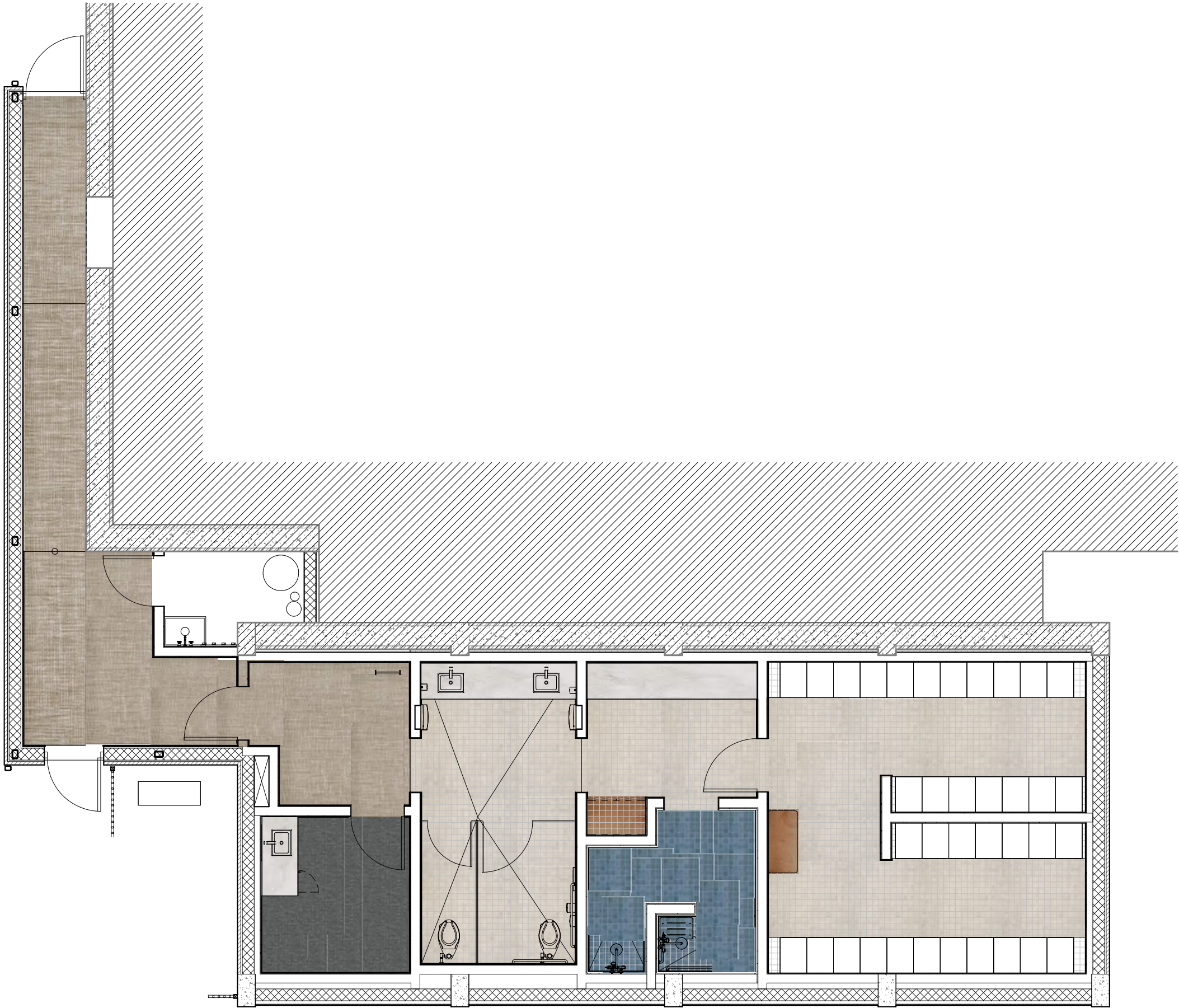
SHOWER FLOOR TILE



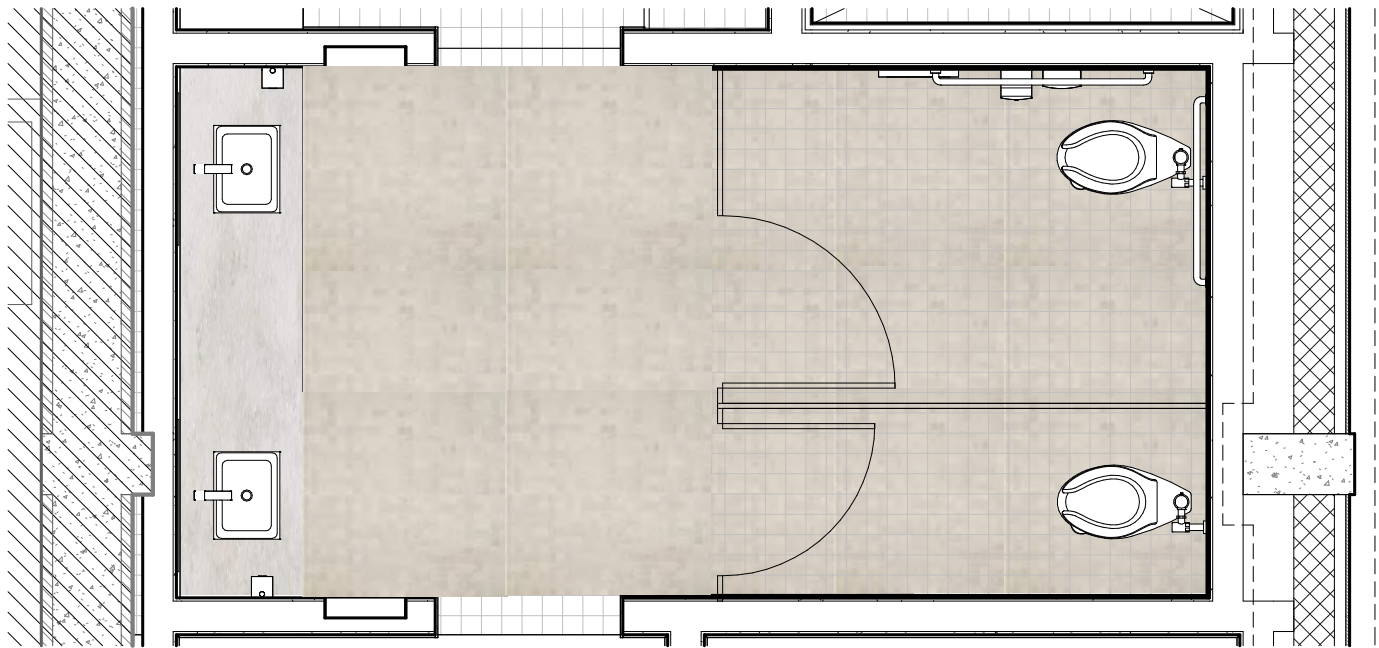
SHOWER WALL TILE





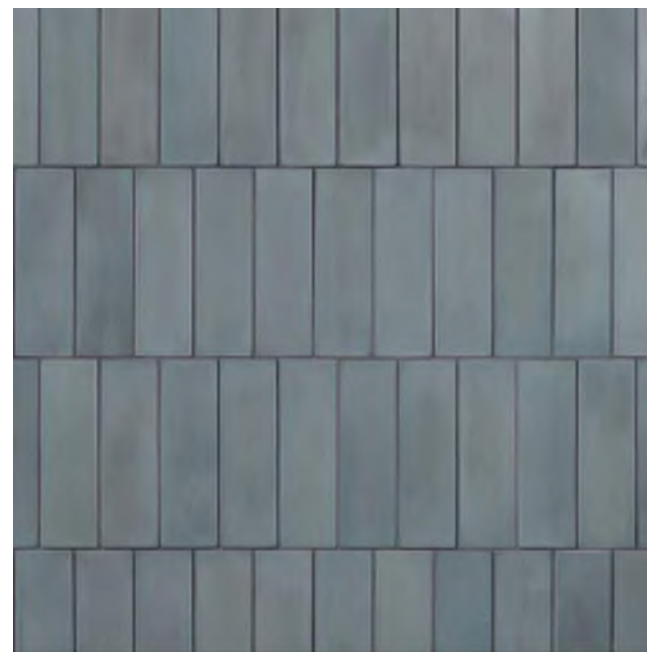
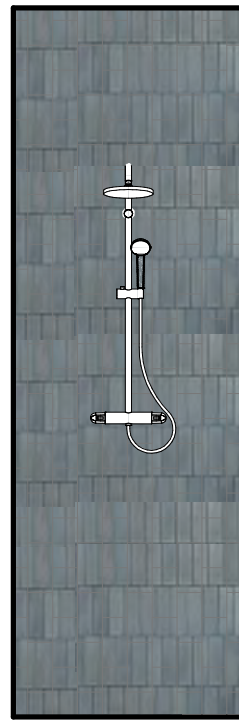
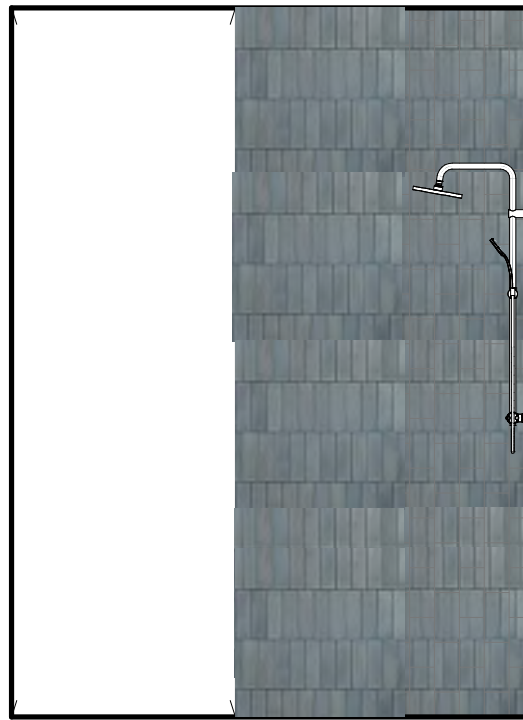








# SHOWERS





## G. PRODUCT CUT SHEETS

- Materials
- Plumbing Accessories
- Equipment
- Lighting
- Mechanical
- Plumbing



FINISHES					
ID	Description	Location	Specification	Color/Finish	Notes
ALUM					
ALUM-1	WINDOW AND DOOR FRAME - STORERONT SYSTEM	EXTERIOR	BOD: ARCADIA AG451T (2" x 4 ½") centered glazed system WS512HD Wide Stile door	Standard Dark Bronze	
CARPT					
CPT-1	CARPET TILE	QUIET ROOM	24x24 Mohawk Group "Squared" pattern		
CERAMC TILE					
CT-01	FLOOR TILE	Toilet Room, Locker Room	Dal Tile 2x2 Keystones	White D617	
CT-02	Wall Tile Base	Toilet Room, Locker Room	4x8 Natural Hues	Pearl White NH63 Matte	
CT-03	Wall Tile	Shower Room	FireClay Natural Press Ceramic Tile 3x9	Azurite Satin	running bond, vertical
CT-04	Wall Tile	Toilet Room, Locker Room	FireClay Natural Press Ceramic Tile 3x9	Cloud Cover Satin	running bond, horizontal
CT-05	Floor Tile	Shower Room	Dal Tile 2x2 Keystones	Navy D189	
CONCRETE					
CON-1	Structural columns	EXTERIOR	TBD		
GLASS					
GL-1	Typical window glazing 1" insulated unit		TBD		
Plastic Laminate					

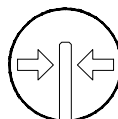


PL-1	Plastic Laminate at base and wall cabinets	Restroom Vanity, Changing area Tall cabinet, Quiet Room base cabinet	PeliLam: Kanika Apple - W0053ALA		
PL-2					
PAINT					
PT-01	Wall paint, typical	Interior			
PT-02	Ceiling paint, typical	Interior			
PT-03	HM door frames	Interior			
PT-10	Fencing	Exterior			
PT-11	Architecturally Exposed Structural Steel	Exterior			
PT-12	Plaster Soffit	Exterior			
SOLID SURFACE / STONE					
SS-01	Countertops	Restroom Vanity, Changing Area Vanity	Corian	Rain Cloud	
VCT					
VCT-1	FLOOR TILE	ENTRY HALLWAY & JANITOR	Shaw Industries Group, item #R011Z00170	color: 00170	Match to owner's existing stock.

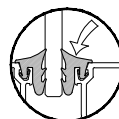


VCT - 2	FLOOR TILE	WOMEN'S LOCKER ROOM VESTIBULE	Mohawk Group: Large and Local Collection, Rendered Flax C0192	color: 128 Beach Grass
WOOD				
WD-1	Plank Siding 1x8 Clear Kebony Cladding Board Clip in system, diagonal pattern	Exterior		
WD-2	Doors & Trim - stain grade soild wood	interior		

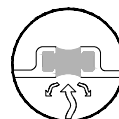




Center Glazed



Top Load



Thermal

# AG451T Series **ALUM-1**

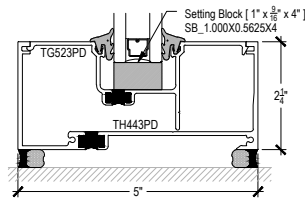
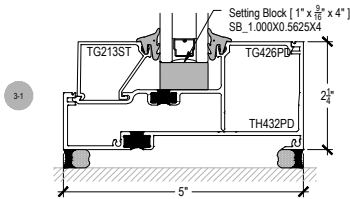
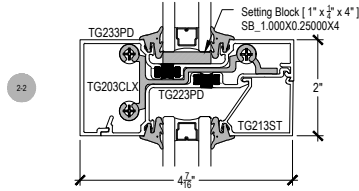
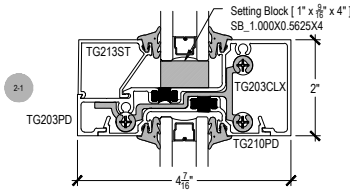
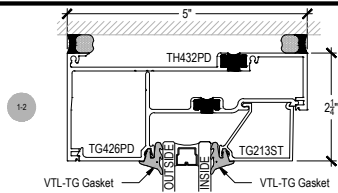
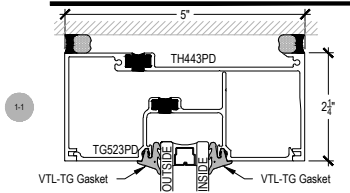
Description: 2" x 4 1/2" Center Glazed for 1" Glass

Function: Storefront

Detail: Horizontals

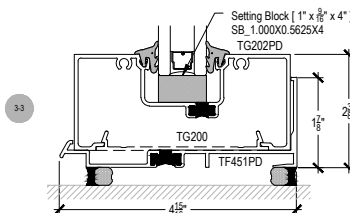
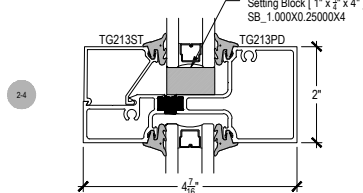
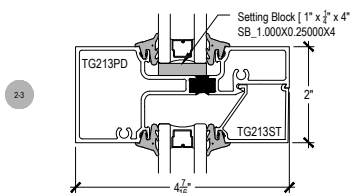
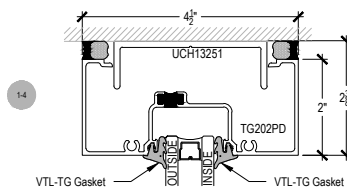
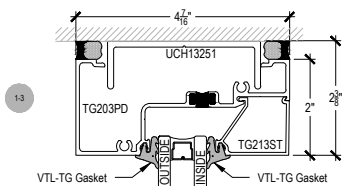
Scale: 3" = 1'-0"

SHEET 1 OF 5

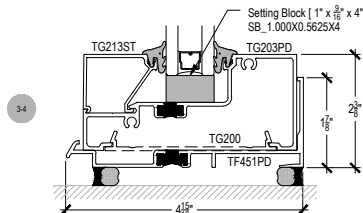


COMPENSATING STICK  
OUTSIDE SET

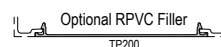
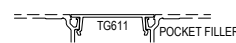
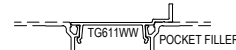
COMPENSATING STICK  
INSIDE SET



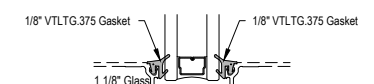
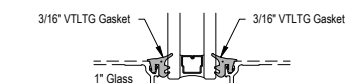
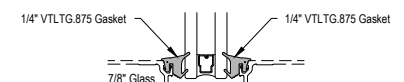
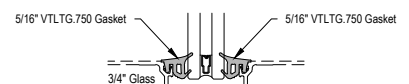
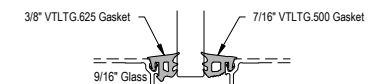
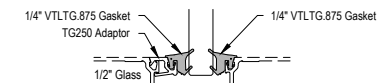
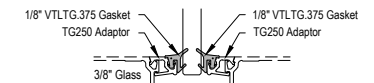
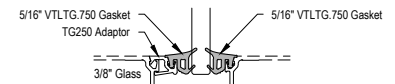
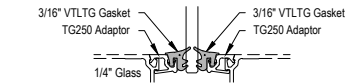
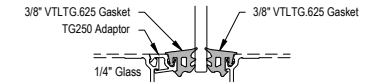
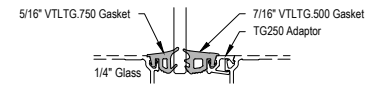
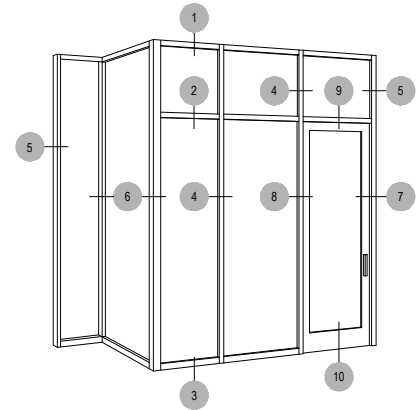
SCREW SPLINE  
INSIDE SET



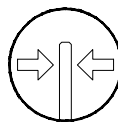
SCREW SPLINE  
OUTSIDE SET



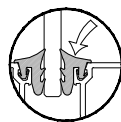
\* SPECIAL ORDER  
CALL FOR  
AVAILABILITY



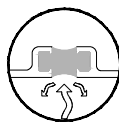




Center Glazed



Top Load



Thermal

# AG451T Series

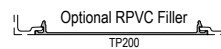
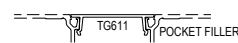
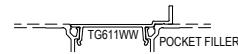
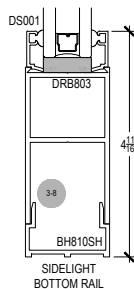
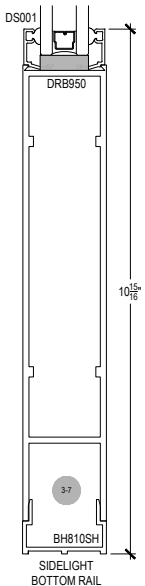
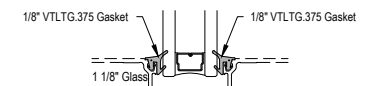
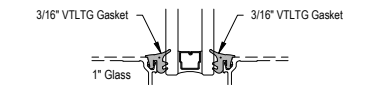
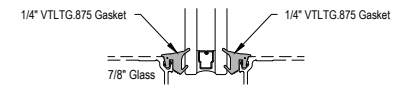
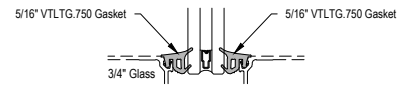
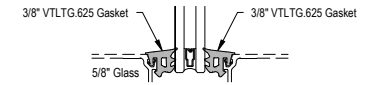
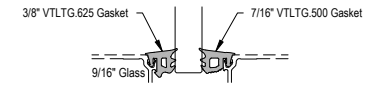
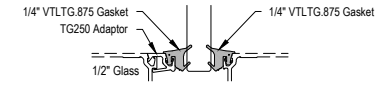
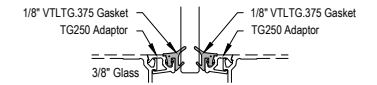
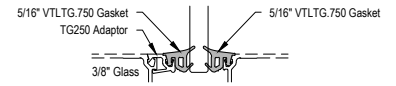
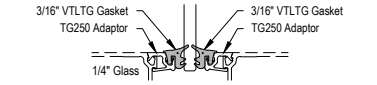
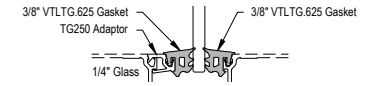
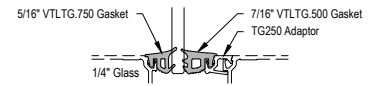
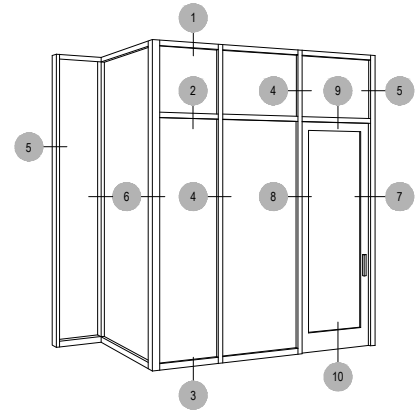
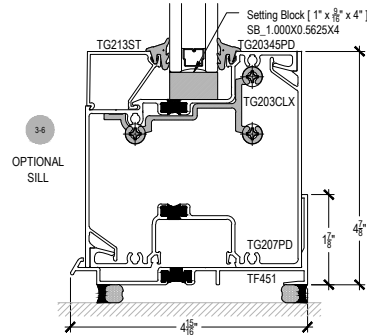
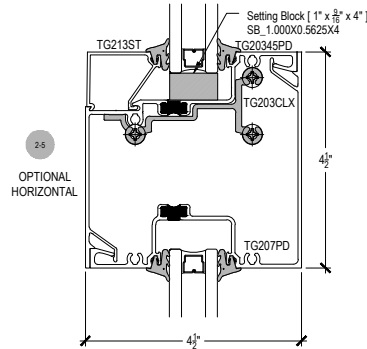
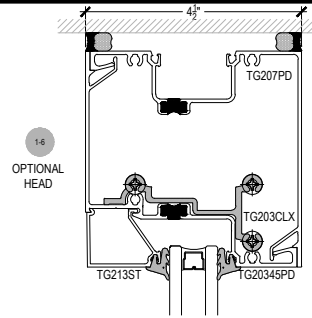
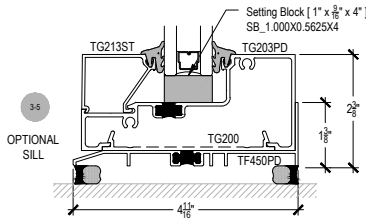
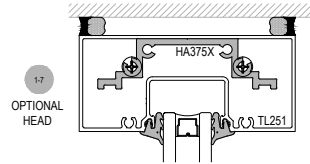
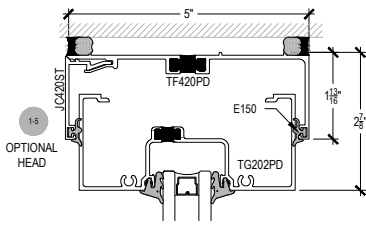
Description: 2" x 4 1/2" Center Glazed for 1" Glass

Function: Storefront

Detail: Horizontals

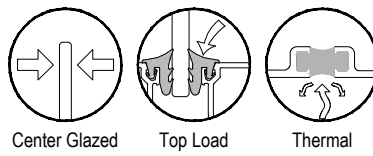
Scale: 3" = 1'-0"

SHEET 2 OF 2



\* SPECIAL ORDER  
CALL FOR  
AVAILABILITY





# AG451T Series

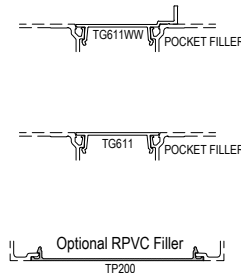
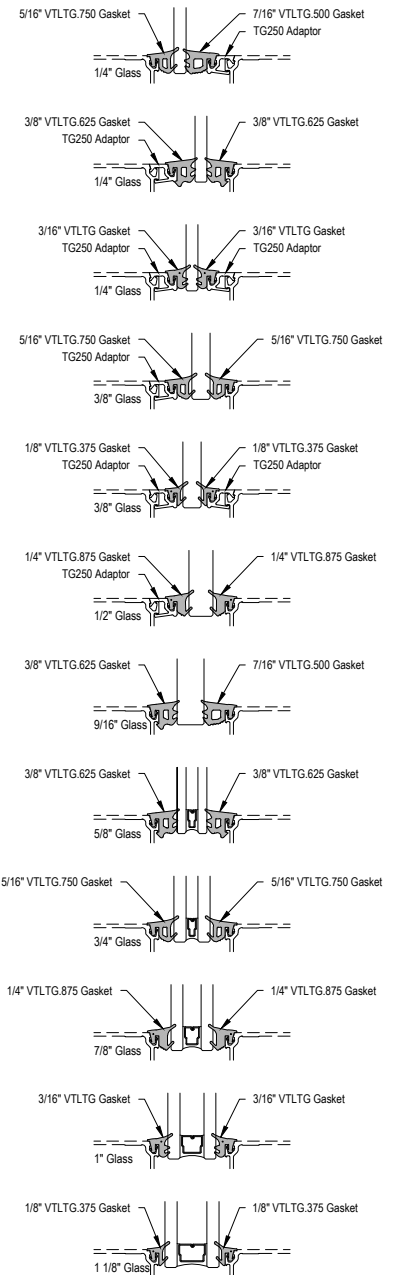
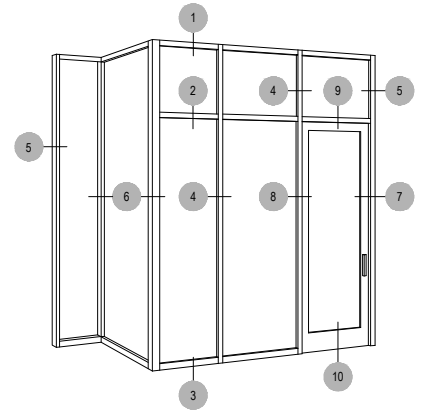
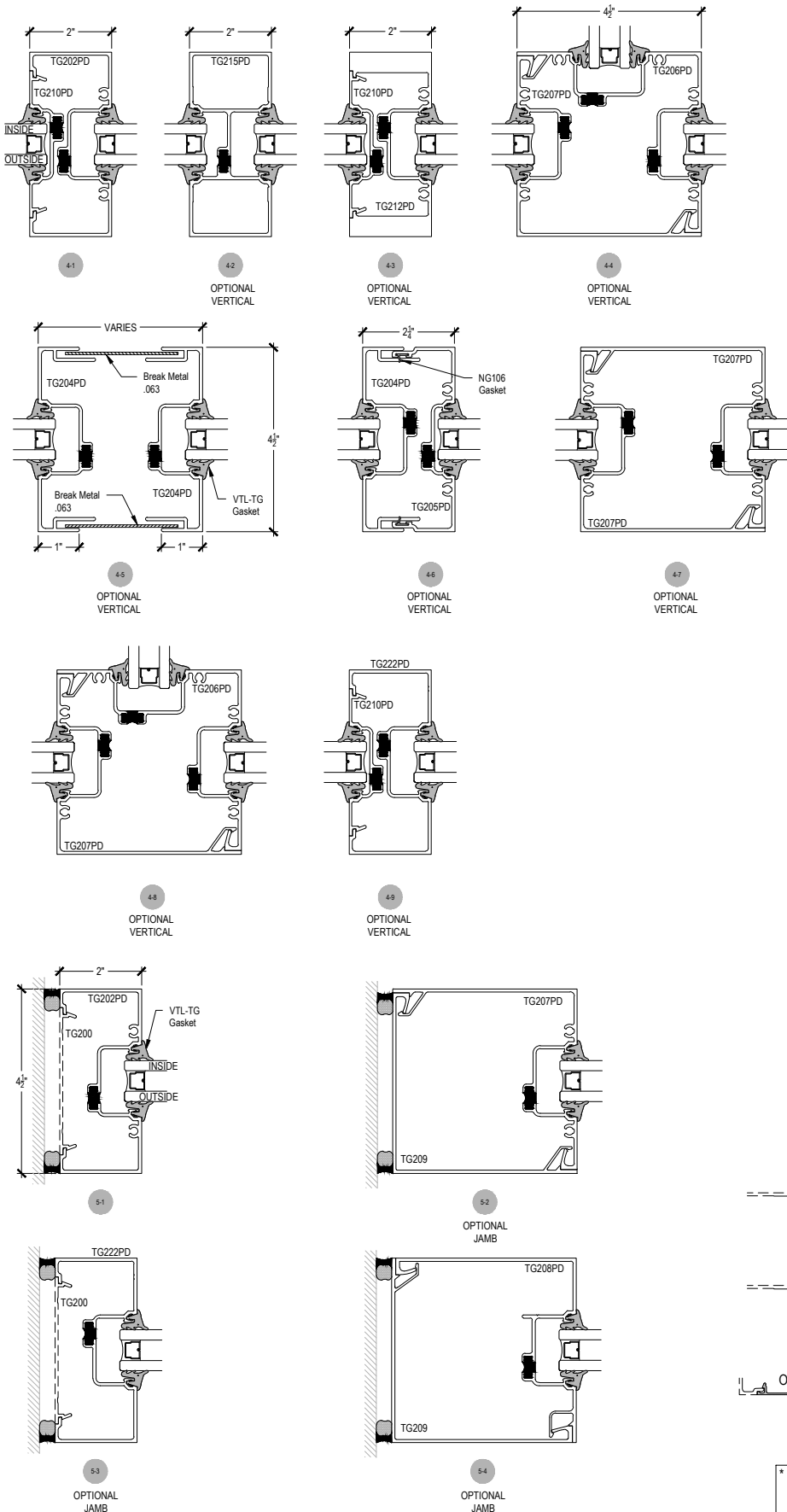
Description: 2" x 4 1/2" Center Glazed for 1" Glass

Function: Storefront

Detail: Verticals, Jamb

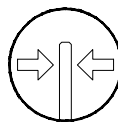
Scale: 3" = 1'-0"

SHEET 3 OF 5

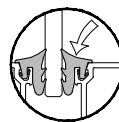


\* SPECIAL ORDER  
CALL FOR  
AVAILABILITY

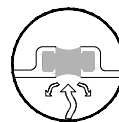




Center Glazed



Top Load



Thermal

# AG451T Series

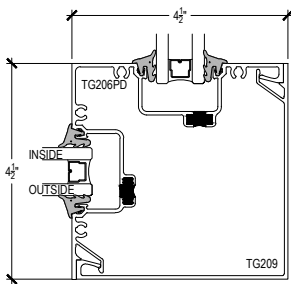
Description: 2" x 4 1/2" Center Glazed for 1" Glass

Function: Storefront

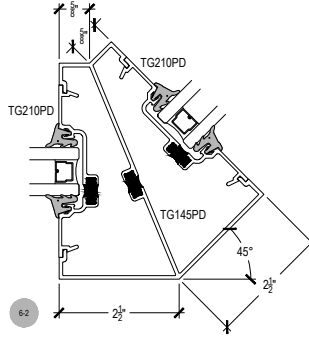
Detail: Corners

Scale: 3" = 1'-0"

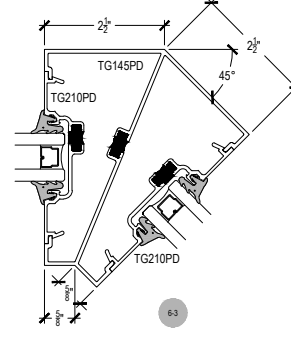
SHEET 4 OF 5



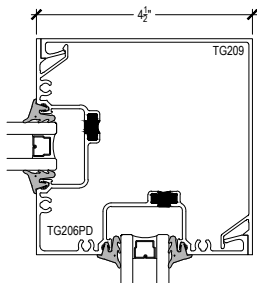
90° CORNER ASSEMBLY



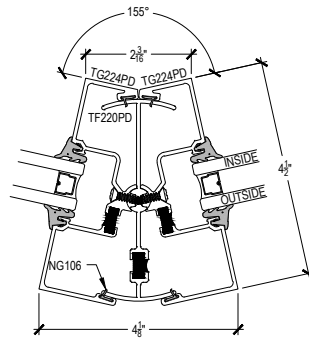
135° CORNER ASSEMBLY



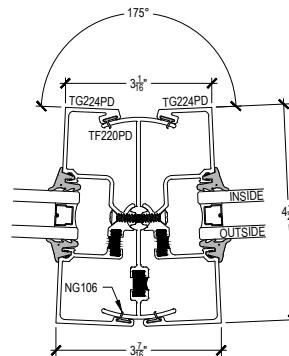
135° CORNER ASSEMBLY



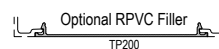
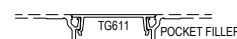
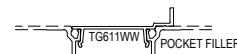
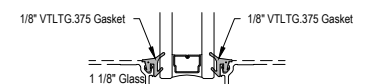
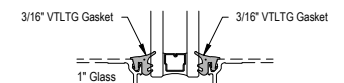
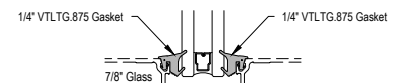
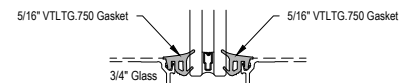
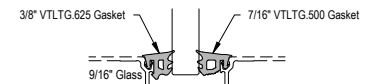
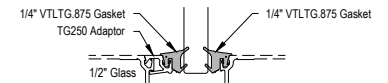
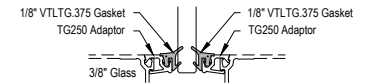
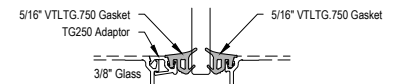
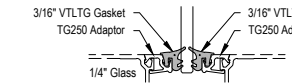
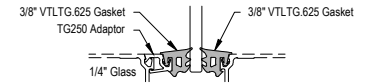
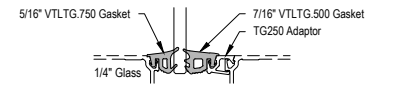
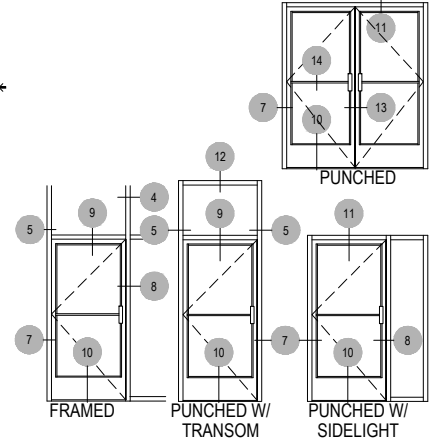
90° CORNER ASSEMBLY



ADJUSTABLE CORNER  
12.5° MAX ANGLE EACH WAY FROM CL

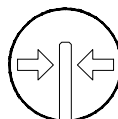


ADJUSTABLE CORNER  
2.5° MIN ANGLE EACH WAY FROM CL

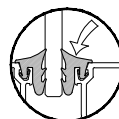


\* SPECIAL ORDER  
CALL FOR  
AVAILABILITY

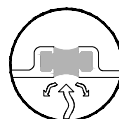




Center Glazed



Top Load



Thermal

# AG451T Series

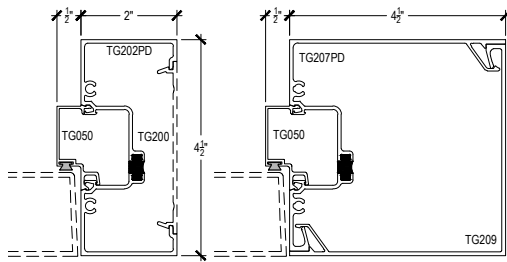
Description: 2" x 4 1/2" Center Glazed for 1" Glass

Function: Storefront

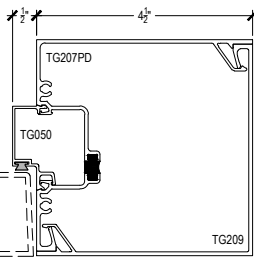
Detail: Doors

Scale: 3" = 1'-0"

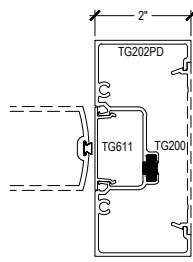
SHEET 5 OF 5



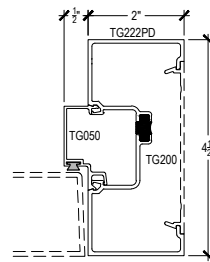
7-1  
JAMB @  
OFFSET DOOR



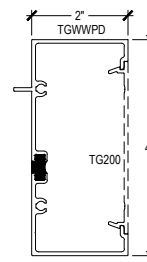
7-2  
OPTIONAL JAMB @  
OFFSET DOOR



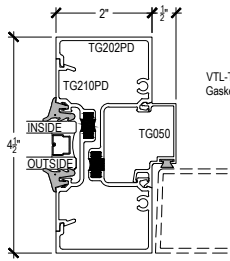
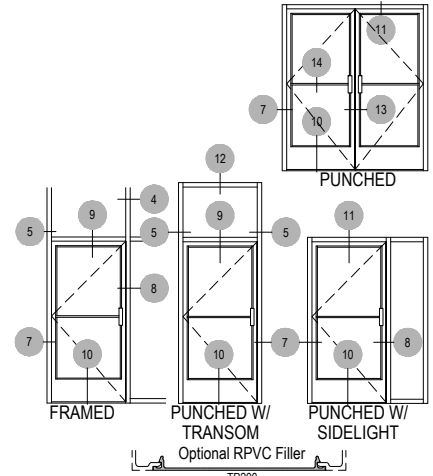
7-3  
JAMB @ CENTER  
DOOR



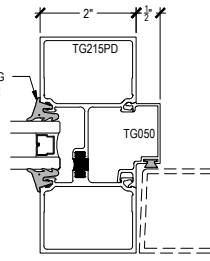
7-4  
JAMB @  
OFFSET DOOR



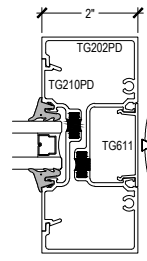
7-5  
OPTIONAL  
JAMB @ CENTER  
DOOR



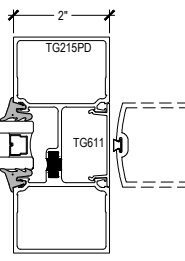
8-1  
VERTICAL @  
OFFSET DOOR



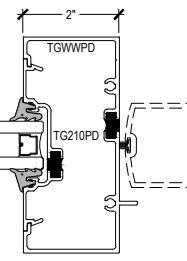
8-2  
OPTIONAL  
VERTICAL @  
OFFSET DOOR



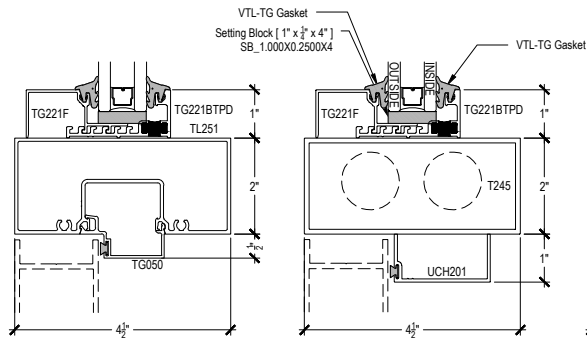
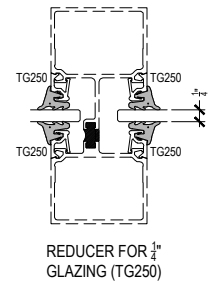
8-3  
VERTICAL @  
CENTER  
DOOR



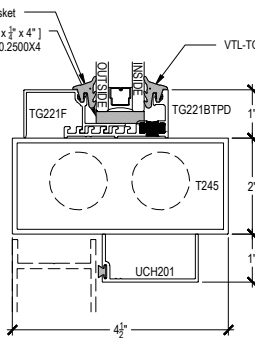
8-4  
OPTIONAL  
VERTICAL @  
CENTER DOOR



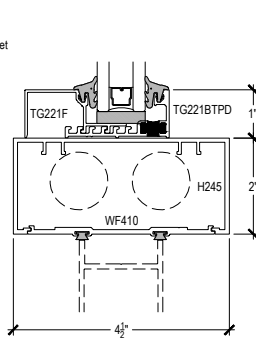
8-5  
OPTIONAL  
VERTICAL @  
CENTER DOOR



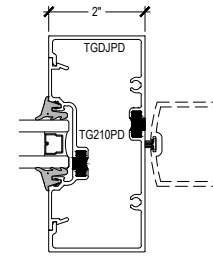
9-1  
HORIZONTAL @  
OFFSET DOOR



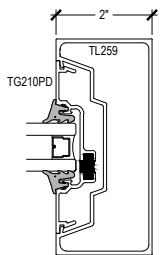
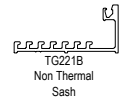
9-2  
HORIZONTAL @  
OFFSET DOOR  
W/ CONCEALED  
CLOSURE



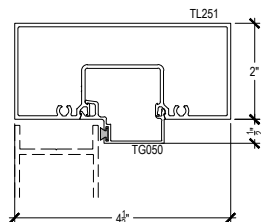
9-3  
HORIZONTAL @  
CENTER DOOR  
W/ CONCEALED  
CLOSURE



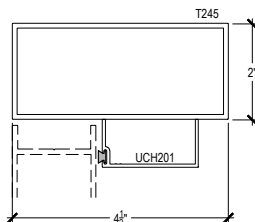
9-4  
OPTIONAL  
VERTICAL @  
CENTER DOOR



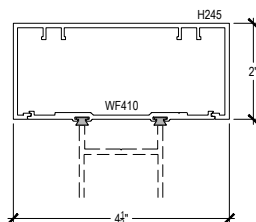
9-6  
OPTIONAL @  
CENTER DOOR



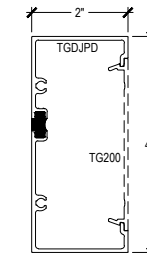
11-1  
HEAD @ PUNCHED  
OFFSET DOOR



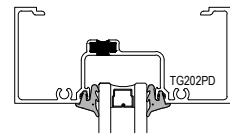
11-2  
HEAD @ PUNCHED  
OFFSET DOOR



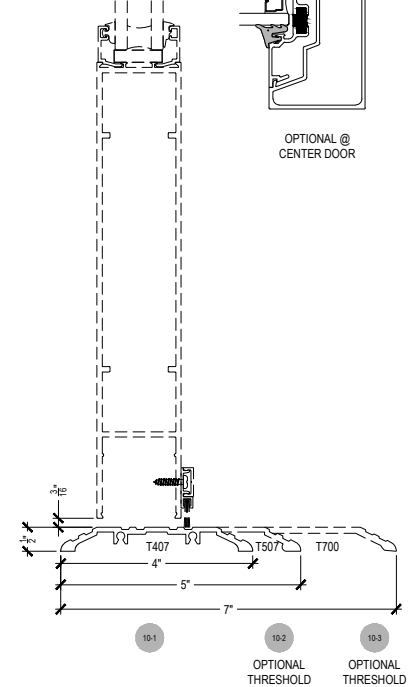
11-3  
HEAD @ PUNCHED  
CENTER DOOR



7-6  
OPTIONAL  
JAMB @ CENTER  
DOOR



12-1  
HEAD @  
PUNCHED/TRANSOM



12-1  
OPTIONAL  
THRESHOLD

12-2  
OPTIONAL  
THRESHOLD





42" A.F.F. TO CENTER OF PUSH/PULL  
34" TO CENTER OF LOCKSET

# WS512HD Series

Description: Wide Style - Heavy Duty

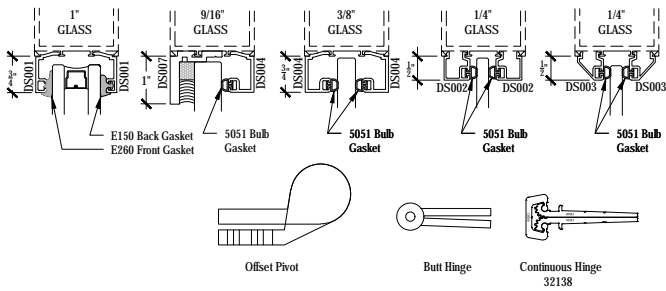
Function: Entrance

Detail: ALL

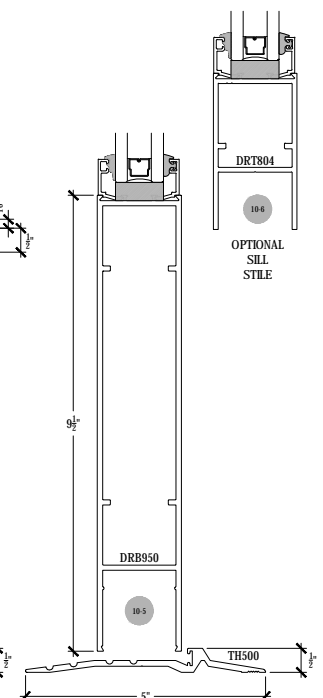
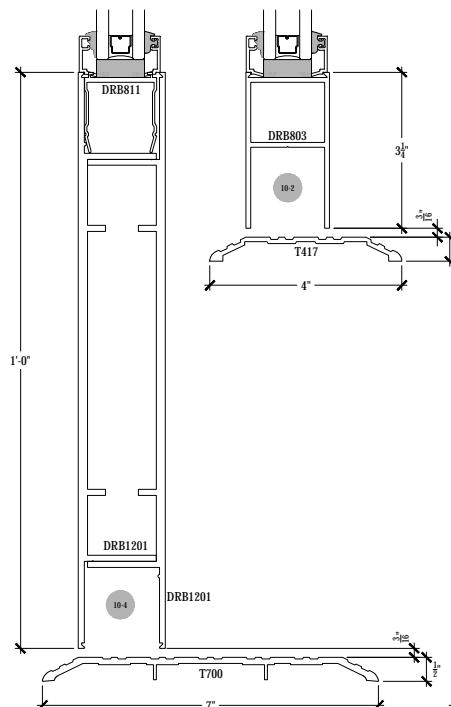
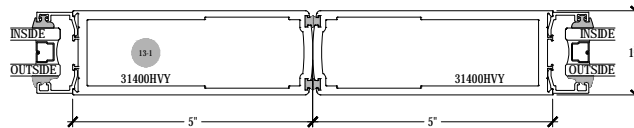
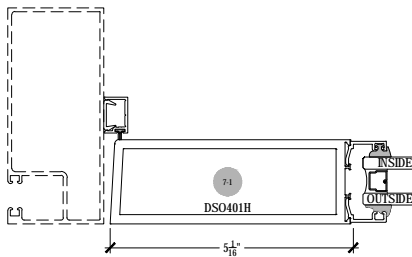
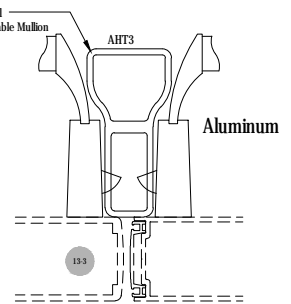
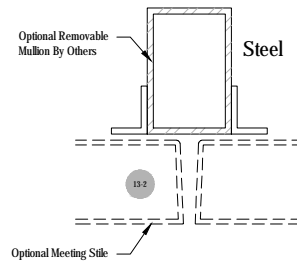
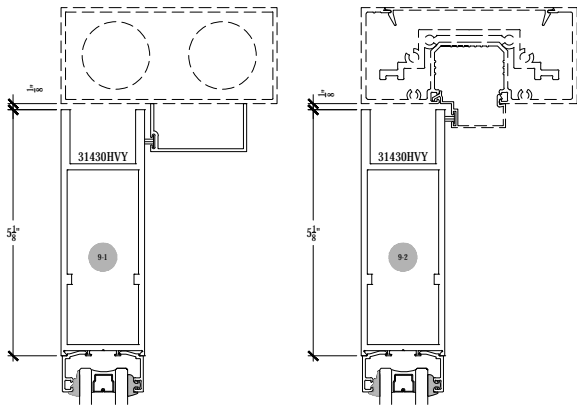
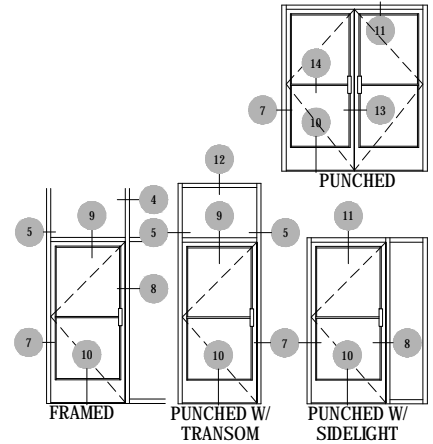
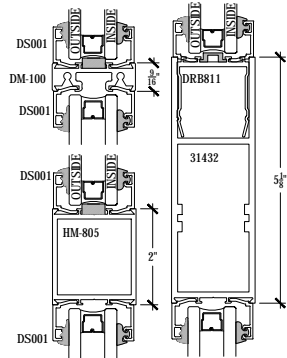
Scale: 3" = 1'-0"

SHEET 1 OF 1

## OPTIONAL GLASS STOP FOR 1/4" OR 1" GLASS



## OPTIONAL HORIZONTAL MUNTIN







**Anodized Aluminum**  
© Colornodic

3225 E. Washington Blvd. • Vernon, CA 90023

(323) 269-7300 • (323) 269-7053 Fax

[www.arcadiainc.com](http://www.arcadiainc.com)

Note: Colors may vary and are limited to commercial tolerances

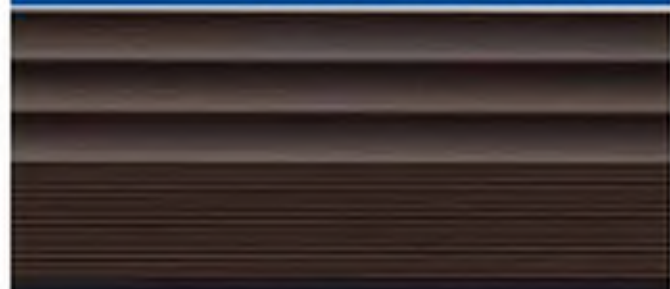
**Clear AC-2**



**Light Champagne AB-1**



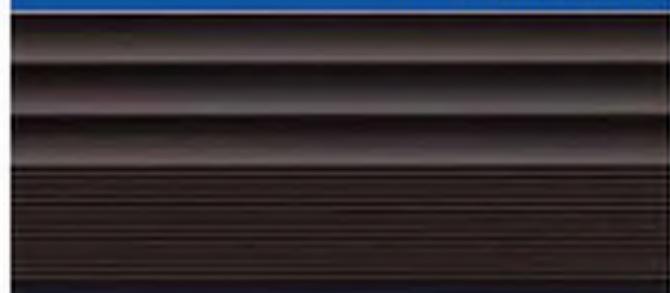
**Dark Medium Bronze AB-5**



**Champagne AB-2**



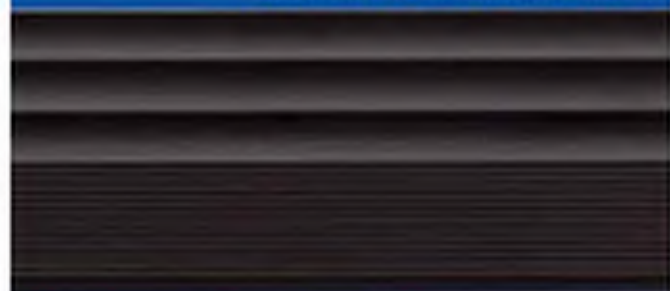
**Dark Bronze AB-6**



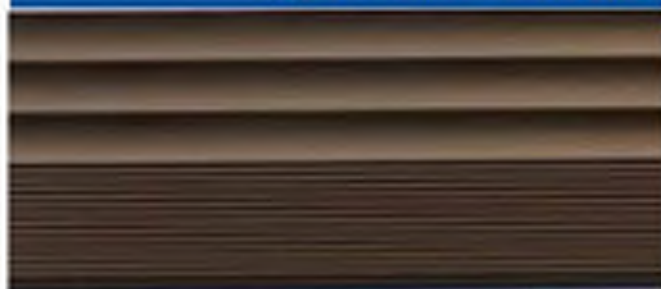
**Light Bronze AB-3**



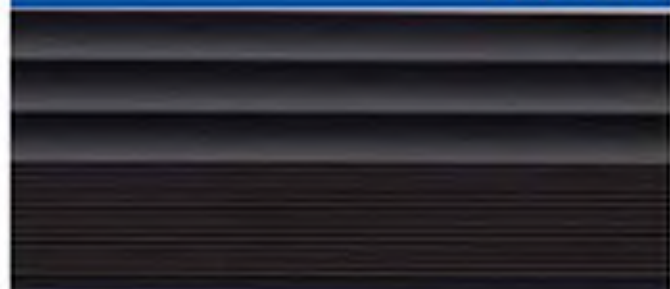
**Standard Dark Bronze AB-7**



**Light Medium Bronze AB-4**



**Black AB-8**





# Arcadia Inc. - Guide Specifications

ARCADIA INC DESIGNATION	TYPE	FINISH DESCRIPTION DESIGNATION	ALUMINUM ASSOCIATION DESIGNATION	AAMA SPECIFICATION
AC-3	COMMERCIAL CLEAR	CLEAR	AA-M12C22A21	
AC-2	CLASS II CLEAR	CLEAR	AA-M12C22A31	AAMA 611
AC-1	CLASS I CLEAR	CLEAR	AA-M12C22A41	AAMA 611
AB-1	COMMERCIAL BRONZE	LIGHT CHAMPAGNE	AA-M12C22A24	AAMA 611
AB-1	CLASS II BRONZE	LIGHT CHAMPAGNE	AA-M12C22A34	AAMA 611
AB-1	CLASS I BRONZE	LIGHT CHAMPAGNE	AA-M12C22A44	AAMA 611
AB-2	COMMERCIAL BRONZE	CHAMPAGNE	AA-M12C22A24	AAMA 611
AB-2	CLASS II BRONZE	CHAMPAGNE	AA-M12C22A34	AAMA 611
AB-2	CLASS I BRONZE	CHAMPAGNE	AA-M12C22A44	AAMA 611
AB-3	COMMERCIAL BRONZE	LIGHT BRONZE	AA-M12C22A24	AAMA 611
AB-3	CLASS II BRONZE	LIGHT BRONZE	AA-M12C22A34	AAMA 611
AB-3	CLASS I BRONZE	LIGHT BRONZE	AA-M12C22A44	AAMA 611
AB-4	COMMERCIAL BRONZE	LIGHT MEDIUM BRONZE	AA-M12C22A24	AAMA 611
AB-4	CLASS II BRONZE	LIGHT MEDIUM BRONZE	AA-M12C22A34	AAMA 611
AB-4	CLASS I BRONZE	LIGHT MEDIUM BRONZE	AA-M12C22A44	AAMA 611
AB-5	COMMERCIAL BRONZE	DARK MEDIUM BRONZE	AA-M12C22A24	AAMA 611
AB-5	CLASS II BRONZE	DARK MEDIUM BRONZE	AA-M12C22A34	AAMA 611
AB-5	CLASS I BRONZE	DARK MEDIUM BRONZE	AA-M12C22A44	AAMA 611
AB-6	COMMERCIAL BRONZE	DARK BRONZE	AA-M12C22A24	AAMA 611
AB-6	CLASS II BRONZE	DARK BRONZE	AA-M12C22A34	AAMA 611
AB-6	CLASS I BRONZE	DARK BRONZE	AA-M12C22A44	AAMA 611
AB-7	COMMERCIAL BRONZE	STANDARD DARK BRONZE	AA-M12C22A24	AAMA 611
AB-7	CLASS II BRONZE	STANDARD DARK BRONZE	AA-M12C22A34	AAMA 611
AB-7	CLASS I BRONZE	STANDARD DARK BRONZE	AA-M12C22A44	AAMA 611
AB-8	CLASS II BLACK	BLACK	AA-M12C22A34	AAMA 611
AB-8	CLASS I BLACK	BLACK	AA-M12C22A44	AAMA 611

**NOTE:** Class II Anodic finishes have a minimum thickness of .4 mils, Class I Anodic finishes have a minimum thickness of .7 mils

## QUALITY CONTROL FOR ARCADIA INC.'S ANODIZED FINISHES (Applies to Class II and I anodic finishes only)

The following parameters are tested in accordance with ASTM or ISO test methods:

- A. Anodic Coating Thickness: ASTM B244 or ISO 2360
- B. Anodic Coating Density (applies to exterior architectural applications only) : ASTM B137
- C. Anodic Seal Integrity (ADT) : ASTM B680 or ISO 3210



## ARCADIA INC.'S ANODIZED FINISH SPECIFICATIONS

**Finish:** All exposed surfaces of aluminum shall receive an architectural anodized finish (unless a commercial finish is specified) in conformance with Aluminum Association Standard #45. Processing shall be sulfuric acid anodizing with electrolytic deposition of inorganic pigmentation in the coating. The resulting coating shall be continuous, fully sealed and free of powdery surfaces, smut and blemishes.

**Etching:** Standard etch - medium matte, C22; unless otherwise specified.

**Alloy:** 6063-T6 is the standard alloy used for extruded architectural aluminum; 5005-H34 must be supplied for sheet and brake metal applications. Arcadia Inc. will not guarantee finish or color range for any other alloys processed. For all other alloys a "best effort" applies.

## ARCADIA INC.'S TERMS AND CONDITIONS

**Extrusions:** Prices are computed per lineal foot and are based on producing finish on exposed areas only. It is our option to process sections back to back unless otherwise specified by the customer and priced accordingly. A minimum perimeter of 5.0 inches is used for price determination. Any perimeter less than 5.0 inches a minimum per foot charge applies, otherwise a solid or hollow inch factor is used.

Lengths processed are 8 through 28 feet, special pricing is used for lengths less than 8 feet and greater than 28 feet (maximum is 30 feet), ask for a quotation.

Racking -Standard end rack within 1" of each end or twist rack, our option. If end racking is used, any damage to the section within the 1" area is acceptable. Twist rack marks will be away from the ends and two or more contacts will be required. Not all sections will accept the pressure of end racking and not all section are adaptable to twist racking. Such sections should be reviewed for an acceptable racking method, special pricing may apply.

Packing - Repack bundles as received, bundles are to be bare, with layer separation, wood battens, steel straps and forklift protection. Bundle size to be 300 lbs. or more. Special packing requires separate pricing.

**Sheet, Brake: Metal, and Fabricated Parts** Prices are computed per square foot or per item where applicable. The anodized finish is on exposed surfaces only. Arcadia Inc., is not liable for costs involved in replacement material resulting from loss or damage sustained from the anodizing process. Replacement material supplied by the customer will be processed at no additional cost.

Size- The maximum width Arcadia Inc. can process is 12", the depth 60" and the length 24'. Any part over 12' long may require additional racking due to its flimsiness. For sheet and brake metal a minimum thickness of 50 mils (0.05 inches) is required for processing.

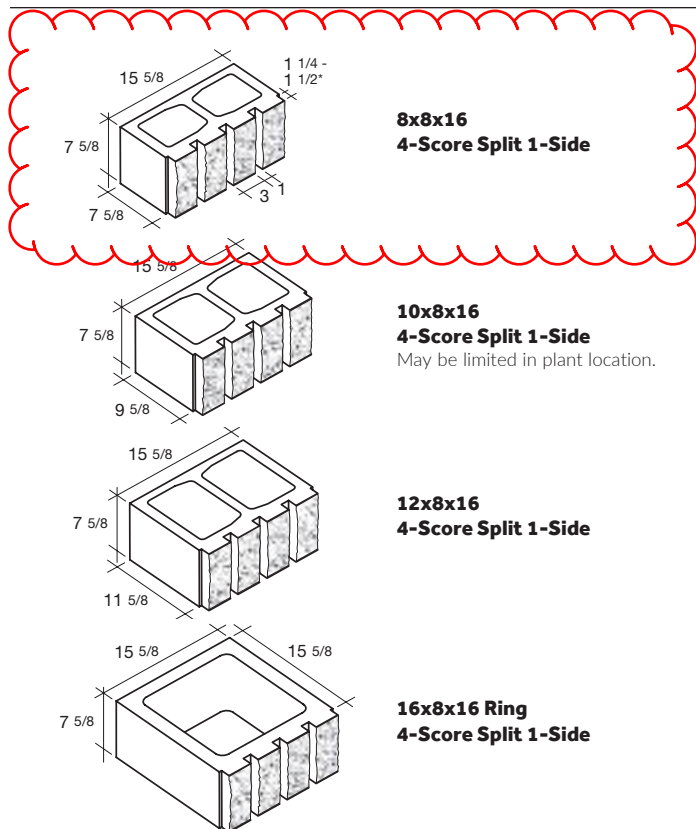
Racking -Standard 1" rack marks on the ends of the material, some shapes may require additional rack marks due to the configuration of the part or due to the anodizing process itself. Arcadia Inc. is not responsible for lost or damaged material that requires special racking (which includes all rack marks other than the standard 1" end or twist rack marks). The color range is "best effort" only when special racking is required.

Packing - Material will be repacked as received if possible with paper or cardboard separation. Special packing is available upon request at additional cost.

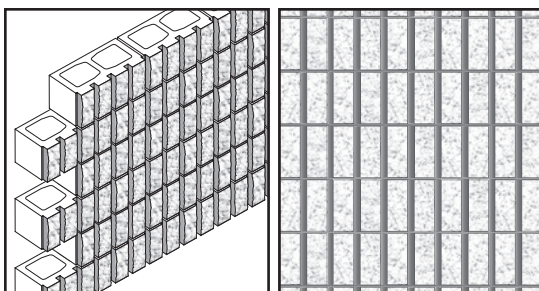


# 4-Score Split Face

## CONCRETE MASONRY UNITS



4-Score Split  
Running Bond



\*Depth may differ by plant.  
Aggregate exposure in all deep scored and fluted units will vary across the unit face, but is not discernable when viewing the entire field.

Cells and web configurations as shown are representational only, and actual configurations may differ.

### Corporate Office & Plants:

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Sun Valley, CA 91352  
(818) 767-8576

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Fontana, CA  
Gardena, CA

Oxnard, CA  
Indio, CA  
Bakersfield, CA

[www.AngelusBlock.com](http://www.AngelusBlock.com)

[info@AngelusBlock.com](mailto:info@AngelusBlock.com)

## Features

Deep, narrow scores and a projected split face provide mass and accent with the character of inlaid stone.

Add relief and depth of texture to fields and bands; create visual anchoring to lower elevations or striking accent to top of walls.

## Availability

**Special order only.** Configurations such as open ends and open end bond beams may be available. Multiple-sided units are available. Units can be made in any of our integral color options.

## Standards

Concrete masonry units manufactured by Angelus Block Co., Inc. meet ASTM C90 Standard Specification for Loadbearing Concrete Masonry Units.

## Fire Rating

Solid grouted walls 8-in wide and greater are rated at 4 hours, per CBC Table 721.1(2). For partially grouted walls, depending on the specified weight classification, 8-inch wide units are 1 hour to 2 hours, and 12-inch wide units are 2 hours to 3 hours.

## Sustainable Features

- This product is included in Type III Environmental Product Declarations for Angelus Block Concrete Masonry Units, specific to location and mix designs, and in one of six *Health Product Declarations*, as applicable for its weight classification.
- Contributes to green rating systems calculations, including Regional Materials, EPDs, and Material Ingredient Reporting.
- Angelus Block CMU help facilitate and support many more strategies and credits, including Optimize Energy Performance, Construction Waste Management, and several within Indoor Environmental Quality. Angelus Block CMU contain no VOCs.

See *Sustainable & Resilient Design: Angelus Block Products' Application to Rating Systems and Code* for detailed information. A copy is available from your representative, or as a download at [www.AngelusBlock.com](http://www.AngelusBlock.com).

**CarbonKind**™  
by Angelus Block

This is a low impact CarbonKind™ product which substantially reduces CO<sub>2</sub>e. Learn more at Angelus Block/CarbonKind.

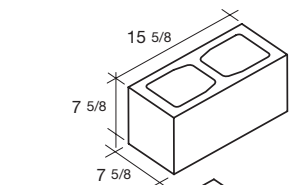


**WARNING:** This product can expose you to Silica, crystalline (airborne particles of respirable size) which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

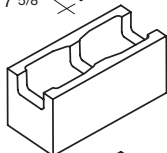
©2023 Angelus Block Co., Inc.



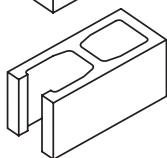
# 8x8x16 Precision CMU



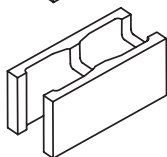
**8x8x16  
Standard**



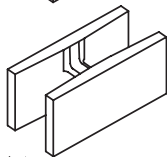
**8x8x16  
Bond Beam**



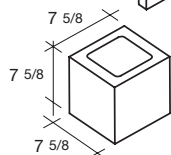
**8x8x16  
Open End Standard**



**8x8x16  
Open End Bond Beam**



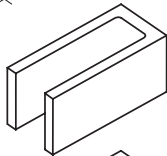
**8x8x16  
Double Open End Bond Beam**



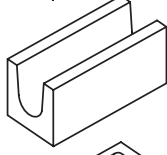
**8x8x8  
Half**



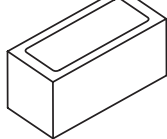
**8x8x8  
U-Lintel**



**8x8x16  
U-Lintel**



**8x8x16  
Solid Bottom U-Lintel**



**8x8x16  
No Center Web**

## Availability

Basic configurations are stocked in Natural Gray and a stock color. Some items may be limited in inventory. Units may be made in any of our integral color options on special order.

## Standards

Concrete masonry units manufactured by Angelus Block Co., Inc. meet ASTM C90 Standard Specification for Loadbearing Concrete Masonry Units.

## Fire Rating

Solid grouted walls 8-in wide and greater are rated at 4 hours, per CBC Table 721.1(2). For partially grouted walls, depending on the specified weight classification, 8-inch wide units are 1 hour to 2 hours, and 12-inch wide units are 2 hours to 3 hours.

## Sustainable Features

- This product is included in Type III Environmental Product Declarations for Angelus Block Concrete Masonry Units, specific to location and mix designs, and in one of six *Health Product Declarations*, as applicable for its weight classification.
- Contributes to green rating systems calculations, including Regional Materials, EPDs, and Material Ingredient Reporting.
- Angelus Block CMU help facilitate and support many more strategies and credits, including Optimize Energy Performance, Construction Waste Management, and several within Indoor Environmental Quality. Angelus Block CMU contain no VOCs.

See *Sustainable & Resilient Design: Angelus Block Products' Application to Rating Systems and Code* for detailed information. A copy is available from your representative, or as a download at [www.AngelusBlock.com](http://www.AngelusBlock.com).

Cells and web configurations as shown are representational only, and actual configurations may differ.

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**CarbonKind**™  
by Angelus Block

This is a low impact CarbonKind™ product which substantially reduces CO<sub>2</sub>e. Learn more at Angelus Block/CarbonKind.

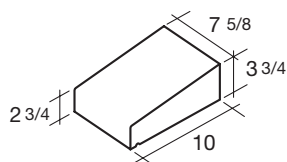


**WARNING:** This product can expose you to Silica, crystalline (airborne particles of respirable size) which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

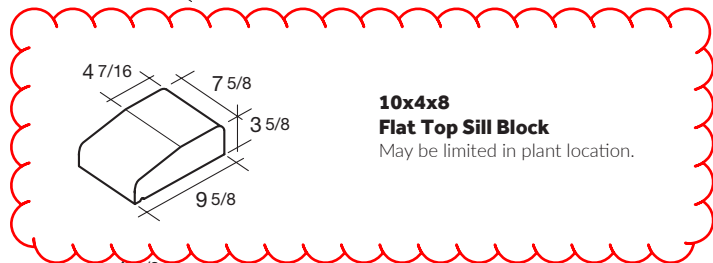
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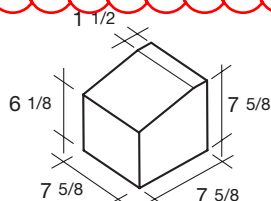
# Sill Units Precision



**10x4x8  
Sill Block**



**10x4x8  
Flat Top Sill Block**  
May be limited in plant location.



**8x8x8  
Sill Block**  
May be limited in plant location.

## Availability

Special order only.

## Standards

Concrete masonry units manufactured by Angelus Block Co., Inc. meet ASTM C90 Standard Specification for Loadbearing Concrete Masonry Units.

## Sustainable Features

- This product is included in Type III Environmental Product Declarations for Angelus Block Concrete Masonry Units, specific to location and mix designs, and in one of six *Health Product Declarations*, as applicable for its weight classification.
- Contributes to green rating systems calculations, including Regional Materials, EPDs, and Material Ingredient Reporting.
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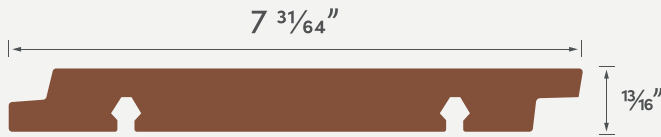


**WARNING:** This product can expose you to Silica, crystalline (airborne particles of respirable size) which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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## 1x8 Clear Kebony Cladding Board / #2683



Actual Dimensions:  $1\frac{3}{16}" \times 7\frac{31}{64}"$   
Lengths: 10', 12', 14', 16'

Moisture Content\* 4-8%

Cupping\* Max. 1% of width

Density  
(12% mc) 41.8 lb/ft<sup>3</sup>  
670 kg/m<sup>3</sup>

Crook\* 10' 12': Max. 10mm ( $2\frac{5}{64}"$ )  
14' 16': Max. 13mm ( $3\frac{3}{64}"$ )

Cracks Surface cracks and checks may be visible

Wane May occur on the back

### Fire Rating

Class B as per ASTM Designation E84-15a, "Standard Method of Test for Surface Burning Characteristics of Building Materials".

Hardness (Janka) 1618 lb  
7.2 kN

### Knots/Pitch pockets

May be visible and are a natural occurrence in wood

### Dimensional Stability (Swelling/Shrinkage)

Maximum Swelling (dry to wet, tangential direction): 4%

\*upon delivery

NOTE: There may be defects on the back side. These will not affect the technical quality of the product. This board is not reversible.

### CERTIFICATIONS

FSC® SCS-COC-008513 - [www.fsc.org](http://www.fsc.org)

EPD: NEPD-407-287-EN - [www.epd-norge.no](http://www.epd-norge.no)

ICC ESR-3756 - [www.icc-es.org](http://www.icc-es.org)



### EXAMPLE OF WEATHERING



### DISCLAIMER

Kebony products will change in appearance when exposed to rain and sun. Color changes and surface cracks will occur due to natural weathering. Kebony cannot be held liable for any such variations in colour and surface appearance. This will not influence durability and overall performance of the product.

Kebony is continuously working on product development. Information in this datasheet may be changed without further notice.

Up to 5% of the delivered boards may be outside this specification and must be accepted.



ID	Description	Location	Specification	Color/Finish	Notes
PA-1	Grab bars	restrooms and showers	Bobrick, B-5806	Stainless steel, satin-finish	Length per drawings
PA-2	Sanitary napkin disposal	restroom	Bobrick, B270	Stainless steel, satin-finish	
PA-3	Toilet paper dispenser	restroom	Bobrick, B-4288	Stainless steel, satin-finish	
PA-4	Seat cover dispenser	restroom	Bobrick, B-221	Stainless steel, satin-finish	
PA-5	Accessible shower bench	Showers	Bobrick, B-5192	Ivory Phelolic and Satin Finish	Confirm width of bench meets code requirements with field conditions
PA-6	Paper towel dispenser and waste receptacle	restroom	Bobrick, B-43944	Stainless steel, satin-finish	
PA-7	Soap dispenser	restroom	Bobrick, B-2012	Stainless steel, satin-finish	
PA-8	Shower curtain and rod	showers	Bobrick B-6107, B-204-1, & B-204-x	Stainless steel, satin-finish and white vinyl curtain	Confirm shower curtain width

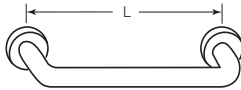
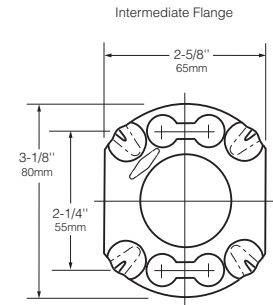
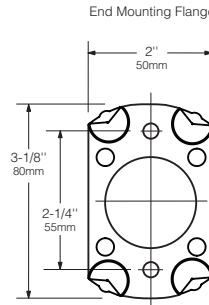
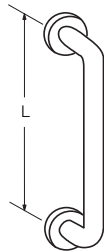
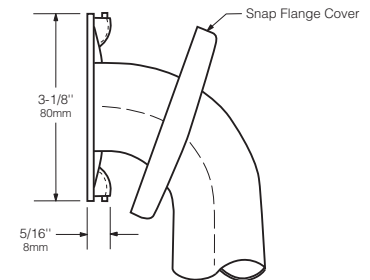
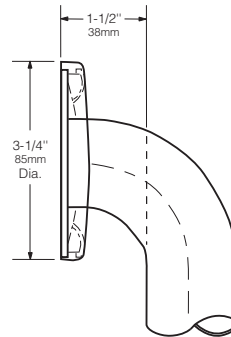


PA-9	Towel Hook	Showers	Bobrick, B-9542	Stainless steel, satin-finish	Verify locations in the field with owner and architect
PA-10	Toilet Partition	Restroom	BobrickDuraline Series, Overhead braced; B-1082G.67DS - Gapless, Continuous Hinge, Constinuous Bracket, Door stop and privacy indicator	Satin Stainless with Dove Grey Core, 4830-SC-60SC	



**BOBRICK****Technical Data****STRAIGHT GRAB BARS,  
1¼" (32mm) DIAMETER****B-5806  
SERIES**

**Specify Finish Required:** ☒ Satin-finish, slip-resistant surface.  
☐ Peened surface; add suffix .99 to model number

**HORIZONTAL****VERTICAL**

<b>Standard B-5806 Series Grab Bars</b>		
<b>Satin Finish Model</b>	<b>Peened Surface Model</b>	<b>Length</b>
B-5806x12	B-5806.99x12	12" (305mm)
B-5806x18	B-5806.99x18	18" (455mm)
B-5806x24	B-5806.99x24	24" (610mm)
B-5806x30	B-5806.99x30	30" (760mm)
B-5806x36	B-5806.99x36	36" (915mm)
B-5806x42	B-5806.99x42	42" (1065mm)
B-5806x48	B-5806.99x48	48" (1220mm)

Length per drawings

**ADA/ICC/CBC Installation Guidance****Horizontal Grab Bars****Recommended Mounting Heights:**

\*ADA/ICC/CBC: 33" min. to 36" above finished floor (AFF)

**Vertical Grab Bars****Toilet Compartments Recommended Mounting Heights:**

\*\*ADA/ICC/CBC: Centerline of lower flange 39" min. to 41" above finished floor (AFF)

**Shower Compartments Recommended Mounting Heights:**

\*\*ADA/ICC/CBC: Centerline of lower vertical grab bar 3" to 6" above gripping surface of horizontal grab bar. Centerline of vertical grab bar is 4" maximum from compartment entry.

\*For more information regarding recommended mounting heights, please refer to Bobrick Planning Guide for Accessible Restrooms, page 21.

\*\*For more information regarding recommended mounting heights, please refer to Bobrick Planning Guide for Accessible Restrooms, pages 21, 30, and 32.

continued . . .



**MATERIALS:**

**Grab Bar** — 18-8, Type-304, 18-gauge (1.2mm) stainless steel tubing with a satin-finish, slip-resistant surface. 1-1/4" (32mm) outside diameter. Ends are heliarc welded to concealed mounting flanges. Clearance between the grab bar and wall is 1-1/2" (38mm).

**Concealed Mounting Flanges** — 18-8, 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, Type-304, 22-gauge (0.8mm) drawn stainless steel with satin-finish. 3-1/4" (85mm) diameter x 5/8" (16mm) 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.**

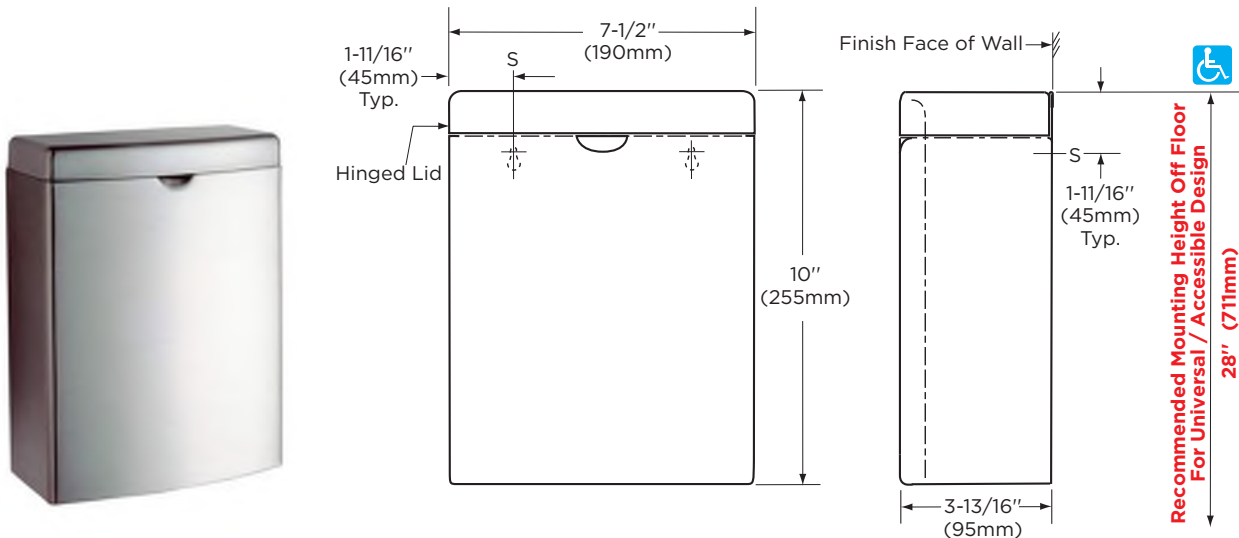
Optional Anchor No.	Description
2583	Anchor for 3/4" to 1" (19-25mm) panel 1 anchor required for each flange.
2586	Anchor for 1/2" to 1" (13mm) panel 1 anchor required for each flange.

**SPECIFICATION:**

Grab bar shall be Type-304 stainless steel with a satin-finish, slip-resistant surface. Grab bar shall have 18-gauge (1.2mm) wall thickness and 1-1/4" (32mm) outside diameter. Clearance between the grab bar and wall shall be 1-1/2" (38mm). Concealed mounting flanges shall be 11-gauge (3.2 mm) 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) stainless steel, 3-1/4" (85mm) diameter, and shall snap over mounting flanges 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; and Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment Limited, United Kingdom.**



**BOBRICK****Technical Data****ConturaSeries®  
SURFACE-MOUNTED  
SANITARY NAPKIN DISPOSAL****B-270****MATERIALS:**

**Container** — 18-8, type-304, 22-gauge (0.8mm) stainless steel. All-welded construction. Exposed surfaces have satin finish. Integral finger depression for opening cover. Front of container has same degree of arc as front of cover and other Bobrick ConturaSeries washroom accessories. Radius on side edges of container match corners and edges of cover and other ConturaSeries accessories.

**Cover** — 18-8, type-304, 22-gauge (0.8mm) stainless steel with satin finish. Drawn, one-piece, seamless construction. Front of cover has same degree of arc as front of container and other Bobrick Contura Series washroom accessories. Radius on corners and edges of cover match side edges of container and other Contura Series accessories. Secured to container with a full-length stainless steel piano-hinge.

**OPERATION:**

Cover flips up for disposal of sanitary napkins and for servicing container.

**INSTALLATION:**

For partitions with particle-board or other solid core, secure with two #8 x 3/4" (4.2 x 19mm) sheet-metal screws (not furnished) at all points indicated by an S, or provide through-bolts, nuts, and washers.

For hollow-core metal partitions, provide solid backing into which sheet-metal screws can be secured. If two units are installed back-to-back, then provide threaded sleeves and machine screws for the full thickness of partition.

For masonry walls, provide fiber plugs or expansion shields for use with sheet-metal screws, or provide 3/16" (5mm) toggle bolts or expansion bolts.

For plaster or dry wall construction, provide concealed backing to comply with local building codes, then secure unit with sheet-metal screws.

**SPECIFICATION:**

Surface-mounted sanitary napkin disposal shall be type-304 stainless steel with all-welded construction; exposed surfaces shall have satin finish. Front of sanitary napkin disposal shall have same degree of arc and match other Bobrick ConturaSeries accessories in the washroom. Radius on corners and edges of sanitary napkin disposal shall complement other Bobrick ConturaSeries washroom accessories. Cover shall be drawn, one-piece, seamless construction and secured to container with a full-length stainless steel piano-hinge. Container shall have integral finger depression for opening cover.

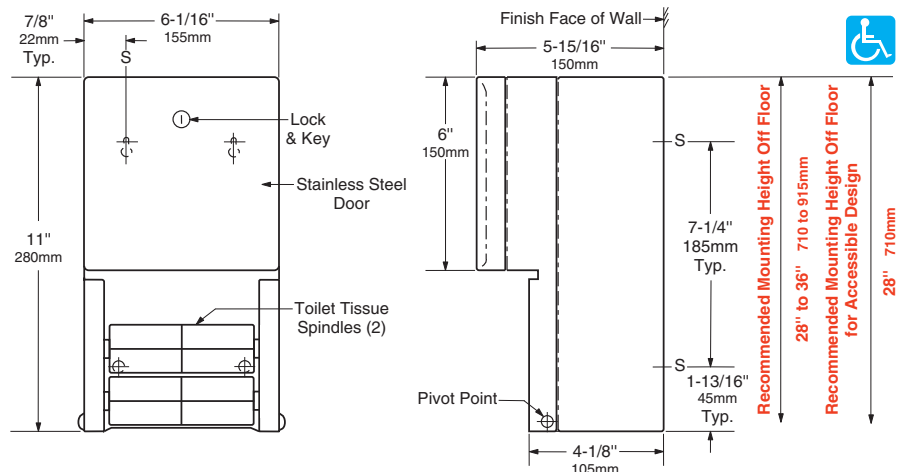
**Surface-Mounted Sanitary Napkin Disposal shall be Model B-270 of Bobrick Washroom Equipment, Inc., Clifton Park, New York; Jackson, Tennessee; Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment Limited, United Kingdom.**





# ConturaSeries® SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER

# B-4288



## MATERIALS:

**Cabinet** — 18-8, type-304, 22-gauge (0.8mm) stainless steel. All-welded construction. Exposed surfaces have satin finish. Radius on top corners of cabinet match corners and edges of door.

**Door** — 18-8, type-304, 22-gauge (0.8mm) stainless steel with 18-gauge (1.2mm) stainless steel door frame. Exposed surfaces have satin finish. Front of door is drawn, one-piece, seamless construction and has same degree of arc as other Bobrick ConturaSeries washroom accessories. Radius on corners and edges of door match top corners of cabinet and other ConturaSeries accessories. Secured to cabinet with two rivets. Equipped with a flush tumbler lock keyed like other Bobrick washroom accessories.

**Dispensing Mechanism, Inner Housing and Cam** — 18-8, type-304, 18-gauge (1.2mm) stainless steel.

**Spindles (2)** — Heavy-duty, one-piece, molded ABS. Theft-resistant. Retained in dispensing mechanism when door is locked.

## OPERATION:

Unit holds two standard-core toilet tissue rolls up to 5-1/4" (133mm) diameter (1800 sheets). Tissue rolls are loaded and locked into dispensing mechanism. Extra roll automatically drops in place when bottom roll is depleted. Depleted rolls can only be removed after unlocking door.

## INSTALLATION:

For partitions with particleboard or other solid core, secure with four #10 x 5/8" (4.8 x 16mm) sheet-metal screws (not furnished) at points indicated by an S, or provide through-bolts, nuts, and washers.

For hollow-core metal partitions, provide solid backing into which the sheet-metal screws can be secured. If two units are installed back-to-back, then provide threaded sleeves and machine screws for the full thickness of partition.

For plaster or dry wall construction, provide concealed backing to comply with local building codes, then secure unit with sheet-metal screws.

For other wall surfaces, provide fiber plugs or expansion shields for use with sheet-metal screws, or provide 3/16" (5mm) toggle bolts or expansion bolts.

## SPECIFICATION:

Surface-mounted multi-roll toilet tissue dispenser shall be type-304 stainless steel with all-welded construction, including dispensing mechanism, inner housing and cam; exposed surfaces shall have satin finish. Front of toilet tissue dispenser door shall be drawn, one-piece, seamless construction and shall have same degree of arc and match other Bobrick ConturaSeries® accessories in the washroom. Radius on corners and edges of door and cabinet shall complement other Bobrick ConturaSeries® washroom accessories. Door shall be secured to cabinet with two rivets and equipped with a flush tumbler lock keyed like other Bobrick washroom accessories. Unit shall dispense two standard-core toilet tissue rolls up to 5-1/4" (133mm) diameter (1800 sheets). Extra roll shall automatically drop in place when bottom roll is depleted. Unit shall be equipped with two theft-resistant, heavy-duty, one-piece, molded ABS spindles.

**Surface-Mounted Multi-Roll Toilet Tissue Dispenser shall be Model B-4288 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.**

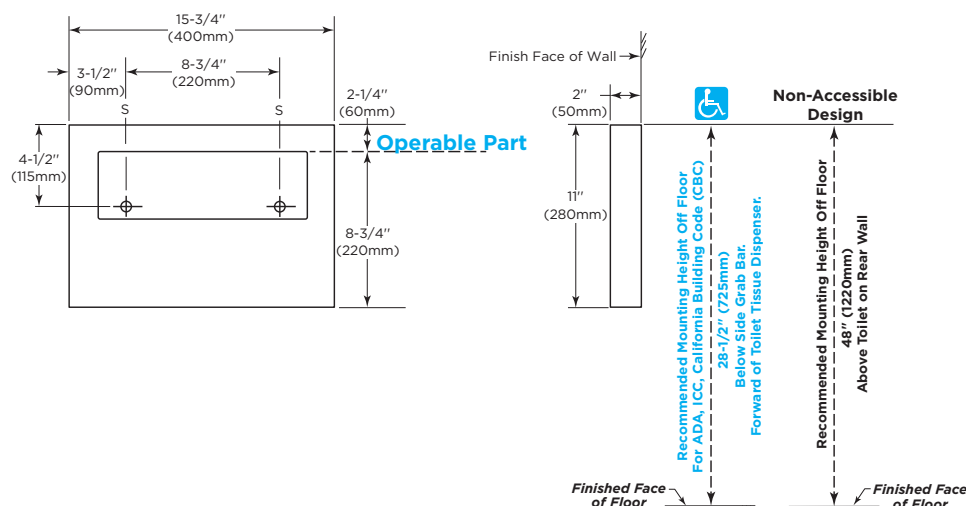


**BOBRICK****Technical Data**

# ClassicSeries® SURFACE-MOUNTED SEAT-COVER DISPENSER

**B-221****Specify Finish Required**

- ☐ Stainless Steel, Satin Finish  
☐ Matte Black Finish, please use model no. B-221.MBLK

**ADA/ICC and CBC Installation Guidance**

**\*Operable Part:** Top of toilet seat cover dispenser opening.

**Maximum mounting height of Operable Part:**

ADA/ICC: 48" maximum above finished floor (AFF)

CBC: 40" maximum above finished floor (AFF)

\*For more information regarding operable parts, please refer to Bobrick Planning Guide for Accessible Restrooms, page 9.

**MATERIALS:**

18-8, type-304, 22-gauge (0.8mm) stainless steel with satin finish or matte black, as specified. All-welded construction with beveled opening.

**OPERATION:**

Dispenses single- or half-fold paper toilet seat covers from beveled opening. Dispenser fills from bottom through concealed opening. Capacity: 250 toilet seat covers or one box.

**INSTALLATION:**

Mount unit on wall or toilet partition with two flat-head screws, not furnished by manufacturer, at points indicated by an S. For plaster or dry wall construction, provide concealed backing that complies with local building codes, then secure unit with flat-head screws not furnished. For other wall surfaces, provide fiber plugs or expansion shields for use with screws, not furnished, or provide 1/8" (3mm) toggle bolts or expansion bolts.

Note: Provide a 5" (125mm) minimum clearance from bottom of dispenser to top of any horizontal projection to provide room for filling dispenser from bottom.

**SPECIFICATION:**

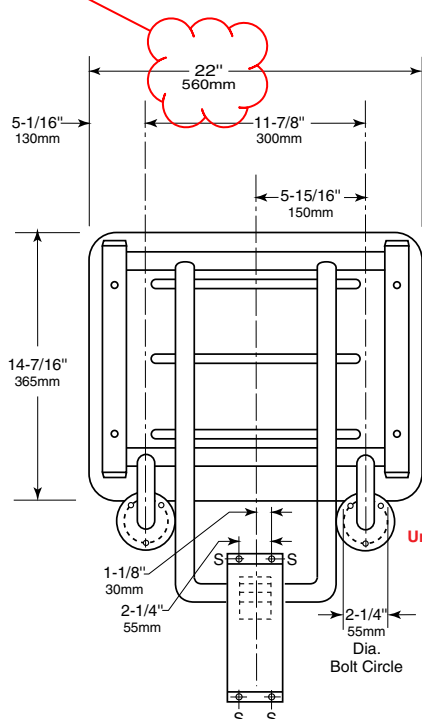
Surface-mounted toilet-seat-cover dispenser shall be type-304, 22-gauge (0.8mm) stainless steel with all-welded construction; exposed surfaces shall have satin finish or matte black, as specified. Dispenser shall have a concealed opening in bottom for filling. Capacity shall be 250 paper toilet seat covers or one box.

**Surface-Mounted Seat-Cover Dispenser shall be Model B-221 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.**

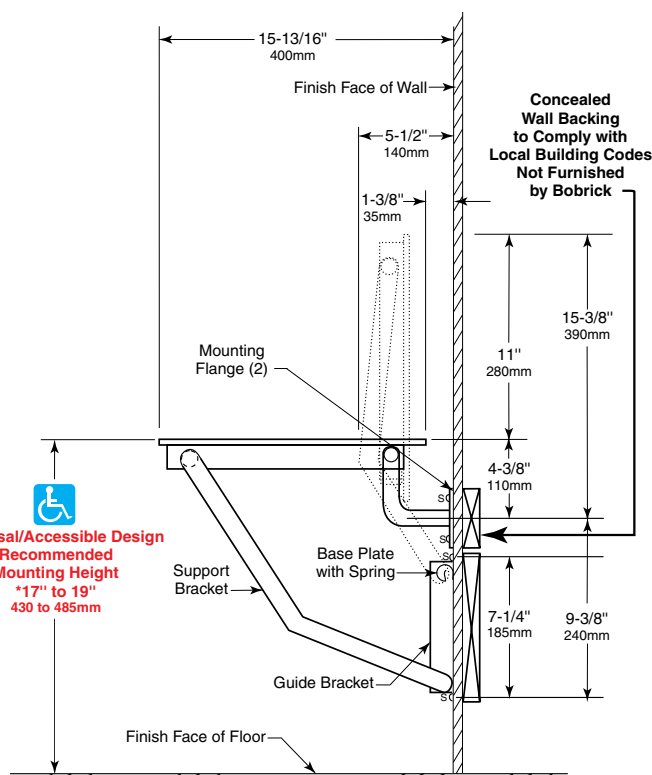




Confirm width  
meets code  
requirements with  
field conditions



 **Universal/Accessible Design  
Recommended  
Mounting Height  
\*17" to 19"  
430 to 485mm**



\*Consult local building codes

#### MATERIALS:

**Seat** — One-piece, 5/16" (8mm) thick, solidly fused plastic laminate with matte-finish melamine surfaces, ivory-colored face sheets, and black phenolic-resin core that are integrally bonded — cannot delaminate. Integral slots for water drainage. Secured to frame with stainless steel carriage bolts and acorn nuts.

**Frame** — 18-8, Type-304, stainless steel with satin finish. 16-gauge (1.6mm), 1-1/4" (30mm) square tubing and 18-gauge (1.2mm), 1" (25mm) diameter seamless tubing.

**Mounting Flanges (2)** — 18-8, Type-304, 3/16" (5mm) thick stainless steel with satin finish. 3" (75mm) diameter with three mounting screw holes.

**Baseplate** — 18-8, Type-304, heavy-gauge stainless steel.

**Spring** — 17-7, Type-301, 24-gauge (0.6mm) stainless steel. Spot-welded to baseplate.

**Guide Bracket** — 18-8, Type-304, 16-gauge (1.6mm) stainless steel with satin finish.

continued . . .



## OPERATION:

Shower seat can be folded up against the wall when not in use. The spring at the top of baseplate holds seat into upright position until released by pulling the top of seat away from wall. Bobrick Folding Shower Seats are not spring-loaded. The seats do not return automatically to the upright position after use. Support system with guide bracket allows varying mounting heights and leaves floor clear for easier cleaning. Nonporous solid phenolic seat has slots to permit water to drain, does not splinter or require oiling, and will not support growth of bacteria. Slotless round-head carriage bolts and acorn nuts provide additional safety to user. Bobrick shower seats, when properly installed, have sufficient strength to support 500 lbs., (227 kg) complying with accessible design guidelines (including ADAAG in the U.S.A.).

## INSTALLATION:

Secure unit to wall at points indicated by an S, with the two mounting flanges located at top and the baseplate and guide bracket below. The bottom of support bracket must be positioned between the baseplate and guide bracket before they are secured to wall or partition. Mounting height of shower seat must comply with local building codes.

For stud walls, provide concealed backing to comply with local building codes and secure with #14 x 2-1/2" (6.3 x 65mm) stainless steel sheet-metal screws furnished by manufacturer.

For prefabricated shower stalls, provide adequate backing by the shower stall manufacturer. Secure with #14 x 2-1/2" (6.3 x 65mm) stainless steel mounting screws furnished by manufacturer. Bobrick offers a mounting kit for installing shower seats. For additional mounting kits please order 252-30. One mounting kit is required for each flange.

For masonry walls, provide fiber plugs or expansion shields for use with furnished sheet-metal screws, or provide 1/4" (6mm) toggle bolts or expansion bolts.

## INSTALL SAFETY PLATE TO WALL:

Safety Plate is to be mounted on wall near Shower Seat in order to properly advise users of the Seat's weight restrictions. Correct installation of the Safety Plate will ensure that the Shower Seat meets A.N.S.I. Standards.

Permanently affix Safety Plate to wall on either side of the Shower Seat at a minimum height of 30" (760mm). If mounted above Seat, the Plate must be high enough so that it is not covered when Seat is on the up position. Mounting screws (4) are recommended, but double-sided tape on rear of Plate may be used for very smooth, non-porous surfaces.

**SAFETY WARNING: Shower seats are no stronger than the anchors and walls to which they are attached and must be firmly secured in order to support the loads for which they are intended. Consult and comply with local building codes. To avoid potential injury, the building owner or maintenance personnel should remove the shower seat from service if the shower seat is not adequately secured to the wall. Unit shall support static loads of up to 500 lbs (227 kg) when properly installed and used. To avoid potential seat malfunction, DO NOT use seat if weight exceeds 500 lbs (227 kg).**

## SPECIFICATION:

Folding shower seat shall have a frame constructed of Type-304, satin-finish stainless steel that consists of 16-gauge (1.6mm), 1-1/4" (30mm) square tubing and 18-gauge (1.2mm), 1" (25mm) diameter seamless tubing. Seat shall be one-piece, 5/16" (8mm) thick, solidly fused plastic laminate with matte-finish melamine surfaces, ivory-colored face sheets, and black phenolic-resin core; secured to frame with stainless steel carriage bolts and acorn nuts. Shower seat shall be equipped with two 3" (75mm) diameter mounting flanges constructed of Type-304, 3/16" (5mm) thick, satin-finish stainless steel; a guide bracket constructed of Type-304, 16-gauge (1.6mm), satin-finish stainless steel; and a spring constructed of Type-301, 24-gauge (0.6mm) stainless steel that is spot-welded to a baseplate of Type-304, heavy-gauge stainless steel. Seat shall be able to lock in upright position when not in use. Shower seat shall comply with accessible design guidelines (including ADAAG in the U.S.A.).

**Folding Shower Seat shall be Model B-5192 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.**

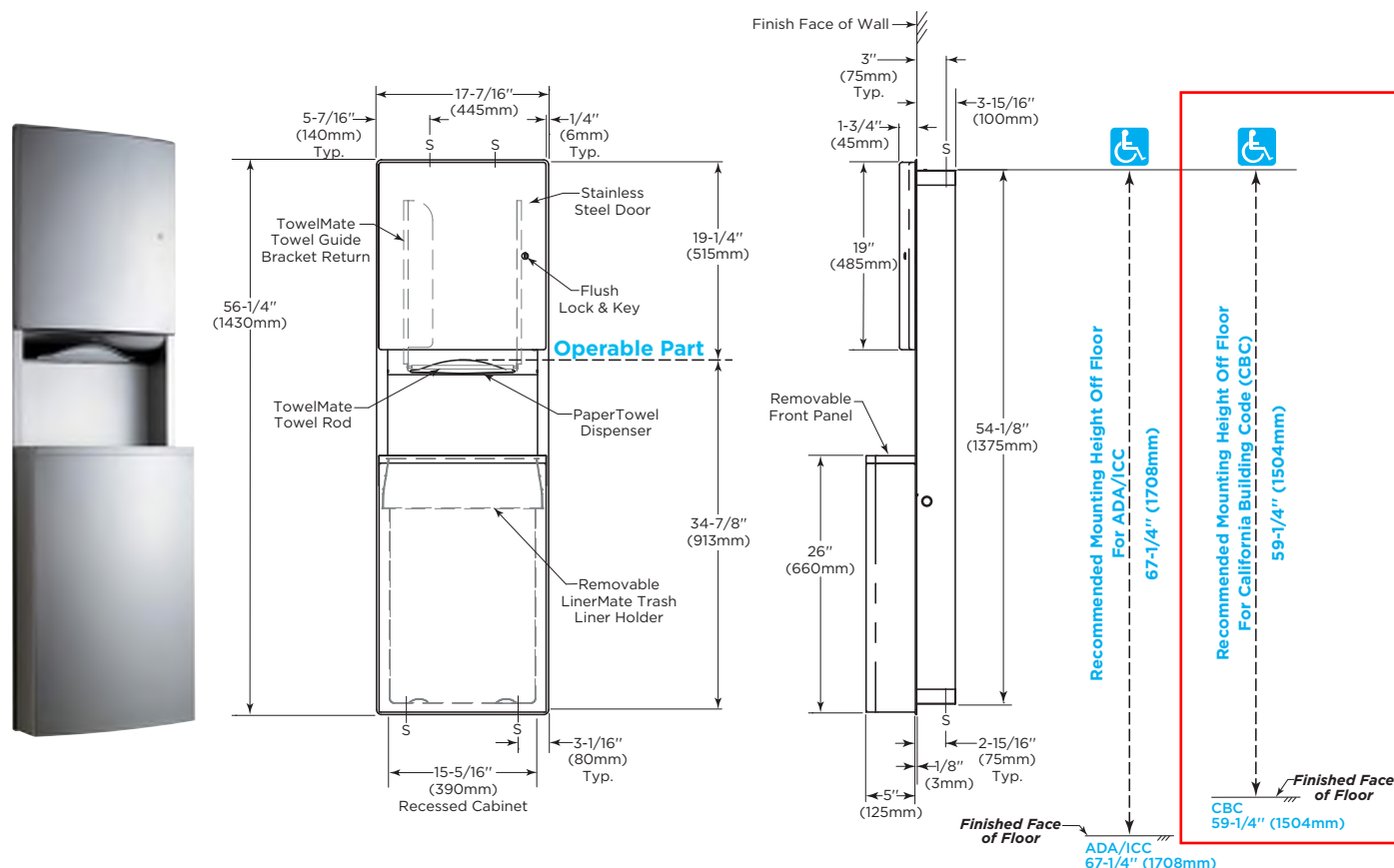


BOBRICK

## Technical Data

# ConturaSeries® RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE

B-43944

**Rough Wall Opening**

16" (405mm) wide  
54-3/4" (1390mm) high  
4" (100mm) minimum  
recessed depth

**ADA/CBC Installation Guidance**

**\*Operable Part:** Top of paper towel dispenser opening

**Maximum mounting height of Operable Part:**

ADA/ICC: 48" above finished floor (AFF)

CBC: 40" above finished floor (AFF)

*\*For more information regarding operable parts, please refer to Bobrick Planning Guide for Accessible Restrooms, page 9.*

**MATERIALS:**

**Cabinet** — 18-8, type-304, 22-gauge (0.8mm) stainless steel. All-welded construction. Exposed surfaces have satin finish.

**Flange** — 18-8, type-304, 22-gauge (0.8mm) stainless steel with satin finish. Drawn, one-piece, seamless construction. Radius on corners and return edges complement corners and edges of door and waste receptacle.

**Door** — 18-8, type-304, 18-gauge (1.2mm) stainless steel with satin finish. Drawn, one-piece, seamless construction. Front of door has same degree of arc as front of waste receptacle and other Bobrick ConturaSeries washroom accessories. Radius on corners and edges of door match side edges of waste receptacle and other ConturaSeries accessories. Secured to cabinet with a full-length stainless steel piano-hinge. Equipped with a stainless steel cable door-swing limiter and flush tumbler lock keyed like other Bobrick washroom accessories.

continued . . .



**Paper Towel Dispenser** — 18-8, type-304, 22-gauge (0.8mm) stainless steel with satin finish. Cabinet inside equipped with 90° return towel guide angle to prevent paper towels from falling forward out when door is opened for servicing. Rounded towel tray has hemmed opening to dispense paper towels without tearing. Unit equipped with TowelMate consisting of a 90° return towel guide angle inside cabinet to prevent paper towels from falling forward out when door is opened for servicing and a Nylon Rod across the center of the towel tray to dispense paper towels one at a time. Waste receptacle shall have a formed, 18-gauge (1.2mm), one-piece, seamless, removable front panel with top edge hemmed. Capacity: 600 C-fold or 800 multifold paper towels.

**TowelMate® Towel Rod Assembly** — Consisting of a round Nylon Rod and (2) stainless steel Rod Screws for attachment, is field replaceable. Stainless steel Stop Screws (2) lock TowelMate Towel Rod assembly in place.

To retrofit TowelMate into existing installed units manufactured prior to April 2010, order TowelMate Accessory Bobrick Part No. 3944-130

**Waste Receptacle** — 18-8 S, type-304, 18-gauge (1.2mm) stainless steel with satin finish. Formed, one-piece, seamless construction. Removable front panel has same degree of arc as front of paper towel dispenser door and other Bobrick ConturaSeries washroom accessories. Top edge hemmed for safe handling. Radius on side edges of waste receptacle match corners and edges of door and other ConturaSeries accessories. Secured to cabinet with two keyholes over studs on bottom and two tamper-resistant setscrews on top. Capacity: 15.0-gal. (56.8-L).

**LinerMate® Trash Liner Holder** — Unit equipped with LinerMate trash liner holder fabricated with molded plastic trash liner holder sleeve and a 20-gauge (0.91mm), U-shaped support strap; riveted construction. Liner holder shall have an arc at front and same shape as inside of waste receptacle area. LinerMate facilitates installation and removal of disposable trash liners and retains liner inside waste receptacle.

To retrofit LinerMate into existing installed units manufactured prior to December 2009, order LinerMate Accessory Bobrick Part No. 43944-134

#### **OPERATION:**

Paper towel dispenser will dispense C-fold or multifold paper towels without adjustment or use of adapters. Cable door-swing limiter prevents damage to washroom accessories and walls. Load paper towels in towel tray, and then pull one sheet of paper towel over the TowelMate towel rod and out to conceal rod and start dispense. Front of waste receptacle panel is removable for cleaning cabinet interior. To insert disposable trash liner, lift LinerMate trash liner holder up and forward and rest over edge of waste receptacle front panel with the bottom notches of LinerMate engaged on top front edge of receptacle. Place disposable trash liner inside LinerMate and fold disposable trash liner over molded sleeve. Tie a knot in the corner of the disposable trash liner, then place LinerMate with disposable trash liner back into receptacle. To empty, gather disposable trash liner from LinerMate liner holder sleeve and lift disposable trash liner up.

#### **INSTALLATION:**

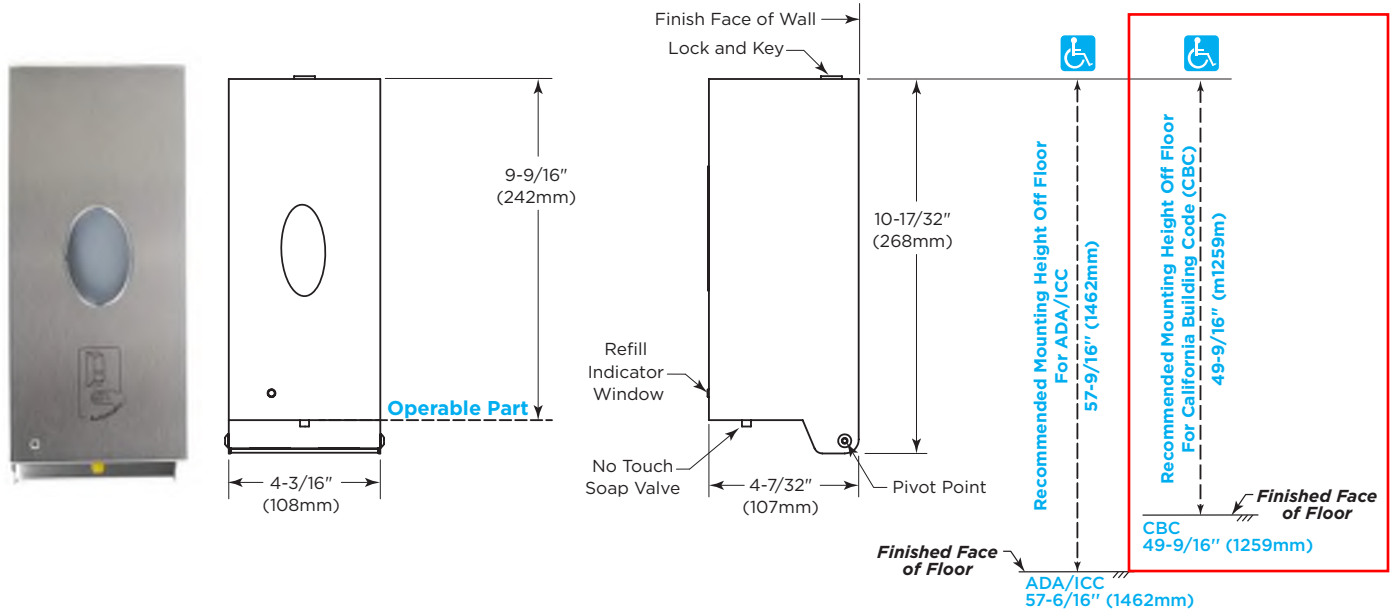
Provide framed rough wall opening 16" wide x 54-3/4" high (405 x 1390mm). Minimum recessed depth required to finish face of wall is 4" (100mm). Allow clearance for construction features that may protrude into rough wall opening from opposite wall. Coordinate with mechanical engineer to avoid pipes, vents, and conduits. If unit projects above top of wainscot, provide aluminum channel or other filler to eliminate gap between flange and finish face of wall. Mount unit in wall opening with shims between framing and cabinet at all points indicated by an S, then secure unit with #8 x 1-1/4" (4.2 x 32mm) screws (not furnished).

#### **SPECIFICATION:**

Recessed paper towel dispenser and waste receptacle shall be type-304 stainless steel with all-welded construction; exposed surfaces shall have satin finish. Front of paper towel dispenser door and waste receptacle shall have same degree of arc and match other Bobrick ConturaSeries accessories in the washroom. Radius on corners and edges of flange, door, and waste receptacle shall complement other Bobrick ConturaSeries washroom accessories. Flange shall be drawn, one-piece, seamless construction. Paper towel dispenser door shall be drawn, 18-gauge (1.2mm), one-piece, seamless construction; secured to cabinet with a full-length stainless steel piano-hinge; and equipped with a stainless steel cable door-swing limiter and flush tumbler lock keyed like other Bobrick washroom accessories. Paper towel dispenser shall dispense 600 C-fold or 800 multifold paper towels. Unit equipped with TowelMate consisting of a 90° return towel guide angle inside cabinet to prevent paper towels from falling forward out when door is opened for servicing and a Nylon Rod across the center of the towel tray to dispense paper towels one at a time. Waste receptacle shall have a formed, 18-gauge (1.2mm), one-piece, seamless, removable front panel with top edge hemmed. Unit equipped with LinerMate trash liner holder fabricated with molded plastic trash liner holder sleeve and a 20-gauge (0.91mm), U-shaped support strap; riveted construction. Liner holder shall have an arc at front and same shape as inside of waste receptacle area. LinerMate facilitates installation and removal of disposable trash liners and retains liner inside waste receptacle. Capacity of waste receptacle shall be 15.0-gal. (56.8-L).

**Recessed Paper Towel Dispenser And Waste Receptacle shall be Model B-43944 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.**



**BOBRICK****Technical Data****AUTOMATIC  
WALL-MOUNTED  
SOAP DISPENSER****B-2012****Specify Finish Required**☒ Stainless Steel, Satin Finish☐ Matte Black Finish, please use model no. B-2012.MBLK**ADA/CBC Installation Guidance****\*Operable Part:** Soap dispenser sensor**Maximum mounting height of Operable Part:**

ADA/ICC: 48" above finished floor (AFF)

CBC: 40" above finished floor (AFF)

\*For more information regarding operable parts, please refer to Bobrick Planning Guide for Accessible Restrooms, page 9.

**MATERIALS:**

**Housing** — Welded 18-8, Type-304, 18-gauge (1.0 mm) stainless steel with satin finish or matte black as specified. Plastic back plate incorporates mounting screw holes and mounting tape. Equipped with concealed mounting, clear acrylic refill-indicator window and key lock. Refillable, plastic container. Capacity: 850 ml (30-fl oz).

**Valve** — No-touch, sensor-activated valve suitable for liquid soap, alcohol gel, liquid alcohol, hand sanitizers and iodine.

**Spare Part** — Replace 2012-18-S silicone tube pump every three to six months, depending on usage, if using the dispenser with alcohol-based solutions.

**OPERATION:**

To fill the dispenser, remove the lid and fill with liquid hand soap. Dispenses liquid hand soaps of viscosities ranging from 1-3,000 cps. After filling soap container, DO NOT TIGHTEN lid. Air flow is necessary inside the container for dispensing. To activate the dispenser, place hand under spout for approximately one second. Sensing range comes at factory setting of 60mm (2-1/2"). The sensing range set by the factory is recommended for optimal performance. Window indicates when refill is required. The locked, hinged housing opens for re-filling only with special key provided. Requires three (3) Alkaline "C" Cell Batteries, 1.5V (not included). Blue indicator light signals "IN USE". Flashing blue light signals "LOW BATTERY." CE Certified.

continued . . .



## INSTALLATION:

Install dispenser at least 200 mm (8") from any projection or horizontal surface which may interfere with the operation of the automatic sensor (see Mounting Location Notes below for exception to the 8" minimum). Mount the dispenser to the wall by using the enclosed screws and wall plugs. The prepared mounting tape may also be used. Make sure the wall surface is cleaned and in good condition to ensure proper mating of the dispenser to the wall. Install three (3) Alkaline "C" Cell Batteries, 1.5V and replace battery cover. After filling soap container, DO NOT TIGHTEN lid. Air flow is necessary inside the container for dispensing. Remove and discard plastic cap from nozzle tip. Plastic dispensing tube may require massaging to prime the unit. Housing must be closed for dispenser to function.

### ***Mounting Location Notes:***

- 1. Height of dispenser limits mounting dispenser alongside, not under, mirrors mounted above individual lavatories and countertops.*
- 2. The dispenser should be mounted with 8" clearance between sensor and shiny, bright, matte metal reflective lavatory, countertop surface below to avoid sensor malfunction.*
- 3. The dispenser can be mounted with 6" minimum clearance below sensor when a non-reflective countertop surface is used.*

## SPECIFICATION:

Automatic wall-mounted soap dispenser shall be Type-304 stainless steel with satin finish or matte black as specified. Corrosion-resistant valve shall dispense a variety of liquid soaps, iodine based soaps, and alcohol based liquid or gel hand sanitizers. Valve shall be sensor-activated and not require contact with the dispenser to function. Lockable housing shall be equipped with a clear acrylic refill-indicator window and be hinged for refilling and maintenance. Container shall have a capacity of 850 ml (30-fl oz). Unit shall have CE Certification.

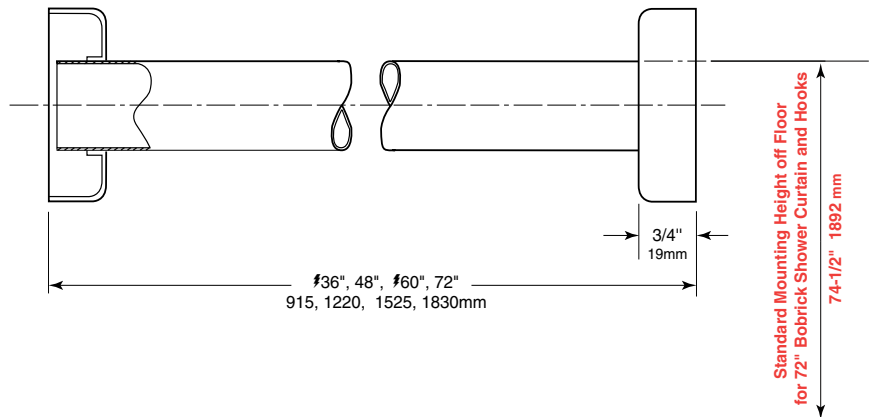
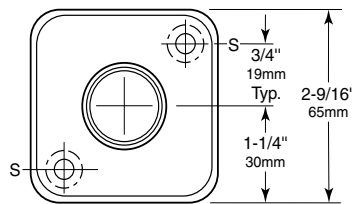
**Surface-Mounted Sensor-Operated Soap Dispenser shall be Model B-2012 of Bobrick Washroom Equipment, Inc., Clifton Park, New York; Jackson, Tennessee; Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment Limited, United Kingdom.**




**Technical Data**

# ClassicSeries® HEAVY-DUTY SHOWER CURTAIN ROD

# B-6107



## MATERIALS:

**Curtain Rod** — 18-8, Type-304, 20-gauge (1.0mm) stainless steel tubing with satin finish. 1" (25mm) outside diameter. Available in lengths 36" (915mm) up to 72" (1830mm).

**Flanges** — 18-8, Type-304, 20-gauge (1.0mm) stainless steel with satin finish. Drawn, one-piece, seamless construction.

## INSTALLATION:

Slide flanges onto curtain rod. Position flanges against wall and secure with sheet-metal screws, furnished by manufacturer, at points indicated by an S. For plaster or dry wall construction, provide concealed backing to comply with local building codes and secure flanges with screws furnished. For other wall surfaces, provide fiber plugs or expansion shields for use with screws furnished or provide 1/8" (3mm) toggle bolts or expansion bolts.

## SPECIFICATION:

Shower curtain rod shall be Type-304, 20-gauge (1.0mm) stainless steel tubing with satin finish and 1" (25mm) outside diameter. Flanges shall be Type-304, 20-gauge (1.0mm) stainless steel with satin finish and drawn, one-piece, seamless construction.

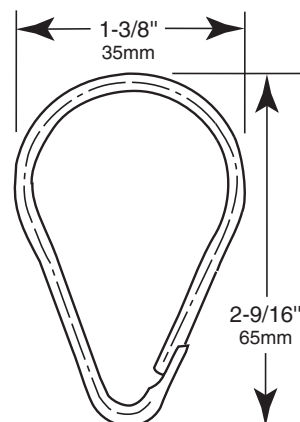
Shower Curtain Rod shall be Model B-6107 x \_\_\_\_\_ (insert length) of Bobrick Washroom Equipment, Inc., Clifton Park, New York; Jackson, Tennessee; Los Angeles, California; Bobrick Washroom Equipment Company, Scarborough, Ontario; Bobrick Washroom Equipment Pty. Ltd., Australia; and Bobrick Washroom Equipment, Limited, United Kingdom.





# STAINLESS STEEL SHOWER CURTAIN HOOK

## 204-1



### MATERIALS:

18-8, Type-304, 0.09" (2.28mm) diameter stainless steel.

### OPERATION:

Shower curtain hooks can be used with 1" and 1-1/4" (25 and 32mm) diameter shower curtain rods.

*Designer's Note:* 72" (1830mm) high shower curtains of opaque white vinyl are available from Bobrick as an optional accessory. Order Part No. 204-2 for 42" (1065mm) wide curtains (requires 7 hooks) or Part No. 204-3 for 70" (1780mm) wide curtains (requires 12 hooks).

### INSTALLATION:

Hooks snap open to allow placement on 1" (25mm) or 1-1/4" (32mm) diameter shower curtain rods. Recommended for use with Bobrick Models B-207, B-4207, B-6047, and B-6107 stainless steel shower curtain rods.

### SPECIFICATION:

Shower curtain hooks shall be 0.09" (2mm) diameter, type-304 stainless steel. Hooks shall be usable with 1" and 1-1/4" (25 and 32mm) diameter shower curtain rods.

**Stainless Steel Shower Curtain Hooks shall be Part No. 204-1 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.**



# VINYL SHOWER CURTAINS

**204-2**  
**204-3**

Specify Part Required:

- ☐ 204-2 42" wide x 72" high (1065 x 1830mm)  
☐ 204-3 70" wide x 72" high (1780 x 1830mm)

Width, TBD



## MATERIALS:

Opaque, matte white vinyl 0.008" (0.2mm) thick, containing antibacterial and flame-retardant agents. White HDPE grommets along top, one every 6" (150mm). Bottom and sides are hemmed.

## OPERATION:

Hooks available as optional accessory: order Bobrick Part No. 204-1. 204-2 shower curtain, 42" wide x 72" high (1065 x 1830mm), requires 7 hooks. 204-3 shower curtain, 70" wide x 72" high (1780 x 1830mm), requires 12 hooks.

## INSTALLATION:

Recommended for use with Bobrick stainless steel shower curtain hooks on Bobrick stainless steel shower curtain rods: Models B-207, B-4207, B-6047 and B-6107.

## SPECIFICATION:

Shower curtains shall be opaque, matte white vinyl 0.008" (0.2mm) thick, containing antibacterial and flame-retardant agents (Formulated to meet CFMS Title 19.13115), and shall have white HDPE grommets along top. Bottom and sides shall be hemmed.

NFPA-701 certified.

**Vinyl Shower Curtains 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.**



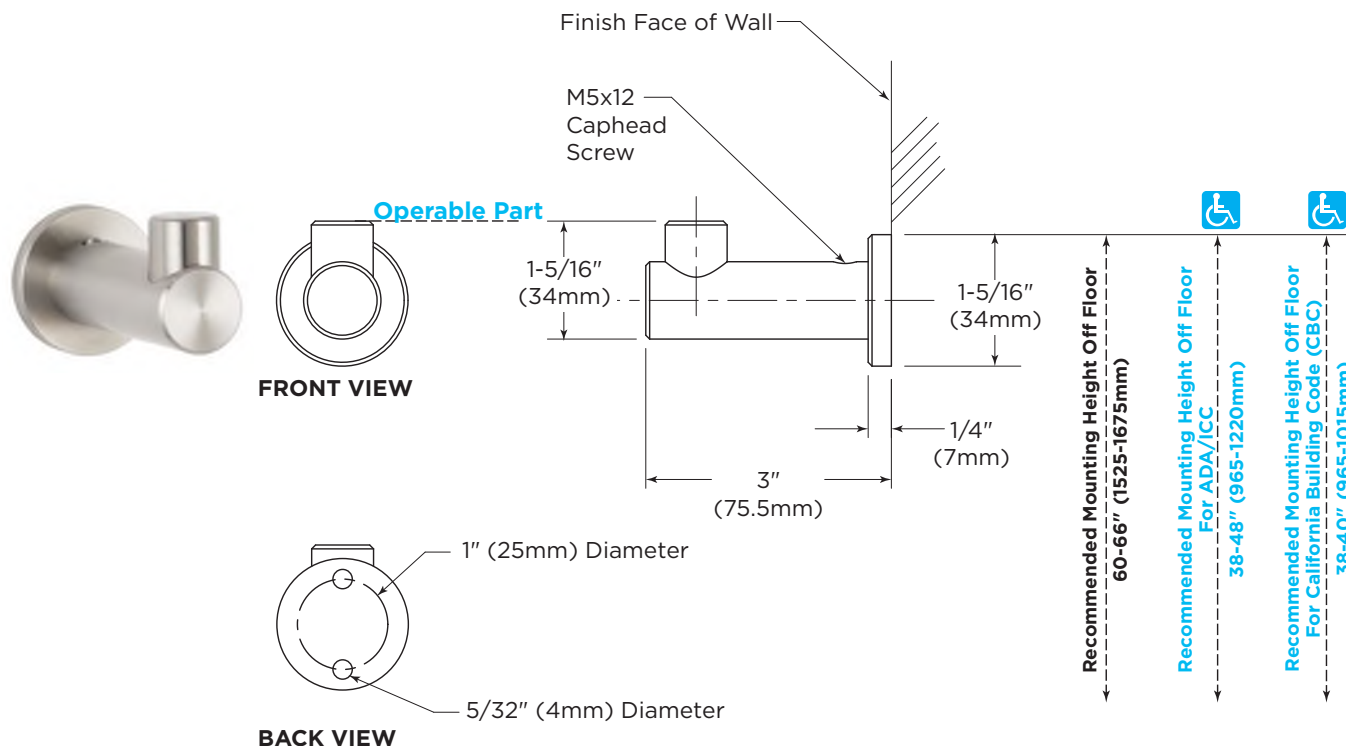
**BOBRICK****Technical Data**

# *fino* collection

## COAT HOOK

**B-9542****Specify Finish Required**

- ☐ Stainless Steel, Satin Finish  
☐ Matte Black Finish, please use model no. B-9542.MBLK

**ADA/CBC Installation Guidance**

**\*Operable Part:** Top of hook pin.

**Maximum mounting height of Operable Part:**

ADA/ICC: 48" above finished floor (AFF)

CBC: 40" above finished floor (AFF)

\*For more information regarding operable parts, please refer to Bobrick Planning Guide for Accessible Restrooms, page 9.

**MATERIAL:**

**Post** — Type 303, solid machined stainless steel in satin finish, 3/4" (20mm) diameter, 2-31/32" (76mm) long. Post is fastened to the flange via set screw, securing the flange cover.

**Hook Pin** — Type 303, solid machined stainless steel in satin finish, 5/8" (16mm) diameter integrated into the post.

**Flange Cover** — Type 303, solid machined stainless steel in satin finish, 1/16" (2mm) thick, 1-5/16" (34mm) diameter.

**Concealed Mounting Flange** — Type 303, solid machined stainless steel, 5/32" (4mm) thick, 1-5/16" (34mm) diameter, equipped with two mounting holes for attachment to wall.

**STRENGTH:**

Bobrick coat hook B-9542 can support loads of up to 150lbs. (68kg.) if properly installed.

continued . . .



**5-Year Limited Warranty** — In addition to Bobrick's one-year guarantee, Bobrick extends a limited 5-year warranty from the date of purchase on all parts for model B-9542. This warranty is limited to the repair or exchange of defective parts at the option of Bobrick and is only extended to the original owner of the installed unit against defects in factory workmanship or material under normal use and service.

**SAFETY WARNING:**

**COAT HOOK IS 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 COAT HOOK FROM SERVICE IF THE COAT HOOK IS NOT ADEQUATELY SECURED TO WALL.**

**INSTALLATION:**

For plaster or dry wall construction, provide concealed backing to comply with local building codes, then secure unit with sheet-metal screws (not furnished). For other wall surfaces, provide fiber plugs or expansion shields for use with sheet-metal screws (not furnished), or provide 1/8" (3mm) toggle bolts or expansion bolts.

For partitions with particle-board or other solid core, secure with sheet-metal screws (not furnished), or provide through-bolts, nuts, and washers. For hollow-core metal partitions, provide solid backing into which the sheet-metal screws (not furnished) can be secured.

**SPECIFICATION:**

Coat Hook shall be type 303 machined solid stainless steel in satin finish or matte black, as specified. Coat Hook shall have 3/4" (20mm) diameter post with integrated 16mm diameter Hook Pin. Concealed mounting flange shall be 5/32" (4mm) thick machined solid stainless steel plate, 1-5/16" (34mm) diameter and equipped with two screw holes for attachment. Machined solid flange cover shall be 1/16" (2mm) thick stainless steel in satin finish or matte black, as specified, 1-5/16" (34mm) diameter. Set screw shall fasten the post to the flange and secures the flange cover.

**Coat Hook shall be Model B-9542 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.**



**BOBRICK****Technical Data****DuraLineSeries®**  
Compact Grade Laminate  
Partition and Screens**1080  
SERIES****SPECIFICATION****Height:** 58" (1473mm) Doors and Panels with 12"(305mm) Floor Clearance**MATERIAL****Stiles\*** — 3/4" (19mm) thick, solidly fused compact grade laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded. Edges are black.*Standard Size Stiles:*

- For compartments — 3", 4", 5", 6", 7", 8", 10", 12", 16", 18", 20", or 24" (76, 102, 127, 152, 179, 203, 254, 305, 406, 457, 508, 610mm) wide.
- For screens — 6" (152mm) wide.
- Floor-anchored — 69" (1753mm) high.
- Overhead-braced — 83" (2108mm) high.
- Floor-to-ceiling anchored — Up to 120" (3048mm) ceiling height.
- Ceiling-hung — 83" (2108mm) high for 96" (2438mm) ceilings or as required up to 120" (3048mm) ceilings.

**Panels** — 1/2" (13mm) thick, solidly fused compact grade laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded. Edges are black.*Standard Size Panels:*

- For compartments — Up to 84" (2134mm) wide; 58"(1473mm) high.

**Urinal Screens** — 1/2" (13mm) thick, solidly fused compact grade laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded. Edges are black.*Standard Size Urinal Screens:*

- For wall-hung screens — Up to 24" (610mm) wide; 42" to 54" (1067 to 1372mm) high.
- For ceiling-hung, floor anchored and post-to-ceiling screens — Up to 60" (1524mm) wide; 58" (1473mm) high.

**Doors** — 3/4" (19mm) thick, solidly fused compact grade laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded. Edges are black.*Standard Size Doors:*

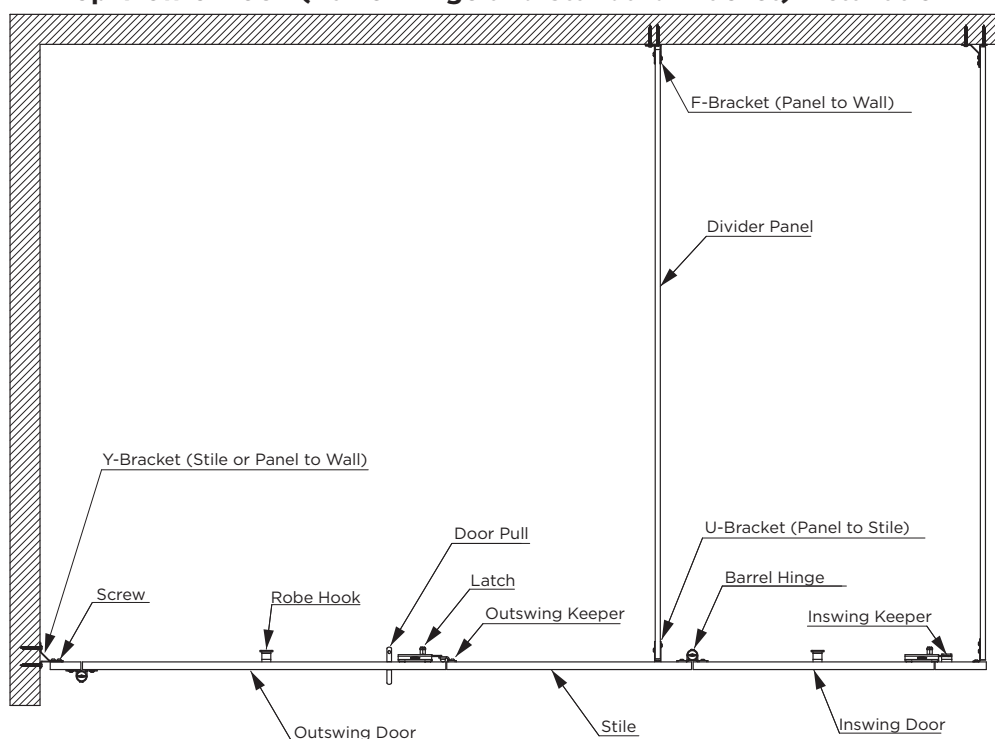
- Inswing and outswing doors are standard 22" to 37" (559 to 940mm) wide; 58" (1473mm) high.

**Posts (for 1083 Series screens only)** — 1 1/4" (32mm) square tubing; 18-8, Type-304, 18-gauge (1.2mm) stainless steel with satin finish. Floor and ceiling connections are constructed of 18-8, Type-304, heavy-gauge stainless steel. Furnished in 120" (3048mm) lengths; to be cut in field to job specifications.*Standard Size Post:*

- For 1083 Series post-to-ceiling screens only. 1 1/4" (32mm) square. 120" (3048mm); cut to required height in field.

**Headrail (for 1082 Series compartments only)** — Extruded anodized aluminum. Enclosed construction with sloping top. Face has raised grip-resistant edge.*Designer's Notes:*

- Headrails with integral curtain tracks and hooks are available for compartments without doors. Optional vinyl curtains are available.

**Wall Posts** — 1" by 1 1/2" (25 by 38mm) wide tubing; 18-8, Type-304, 16-gauge (1.6mm) stainless steel with satin-finish. 58" (1473mm) high, pre-drilled for door hardware.**Gapless Wall Posts** — 2-3/4" by 1-15/16" (70 by 49mm) wide extrusion; Anodized aluminum finish. 58" (1473mm) high, pre-drilled mounting holes, hinge drilling to be done in the field (detailed instructions included with wall post packet). Gapless wall posts enable the attachment of a routed gapless door to eliminate sightlines.**Top View of 1082 (Barrel Hinge and Standard Bracket) Installation.**

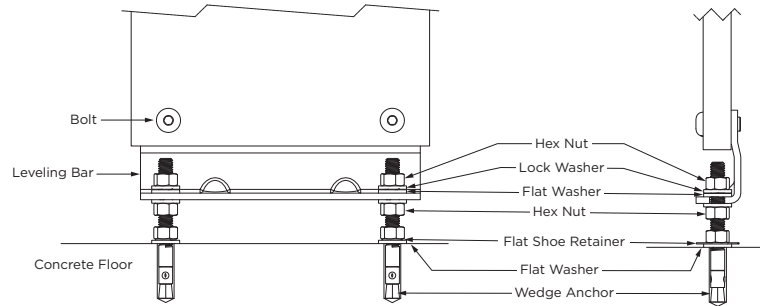


## ANCHORING DEVICE:

**Leveling Device** — 3/16" (5mm) thick, corrosion-resistant, chromate-treated, double zinc-plated steel angle leveling bar bolted to stile; furnished with 3/8" (10mm) diameter threaded rods, hex nuts, lock washers, flat washers, spacer sleeves, expansion anchors, and shoe retainers.

**Shoe** — 18-8, Type-304, 22-gauge (0.8mm) stainless steel with satin finish; 4" (102mm) high. \*Stiles for 1086 Series floor-to-ceiling anchored have a leveling device at each end.

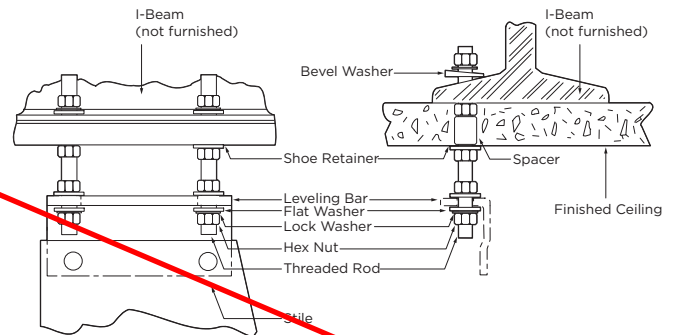
## #1002701 Floor Anchor



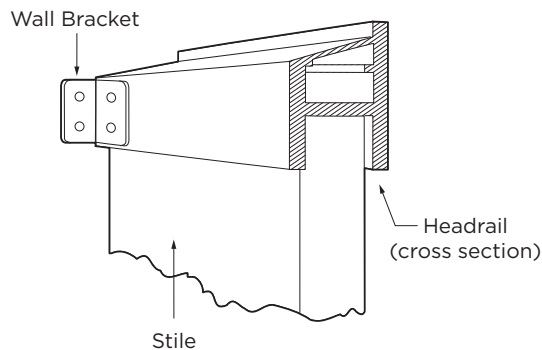
## CEILING LEVELING DEVICE

Provisions must be in the construction of the building to support ceiling-hung toilet partitions. Structure in ceiling, not furnished by Bobrick, must support at least 275 lbs. per compact grade laminate toilet compartment, and must be sufficiently rigid to withstand swinging motion of toilet partition doors and impact of doors against stiles. Actual mounting system, including lateral bracing, if required, must be designed by the architect or structural engineer, and furnished by others. Wood beams are not recommended for ceiling hung application. **Note:** If adequate ceiling support cannot be provided, the floor-anchored or overhead-braced toilet compartments are recommended.

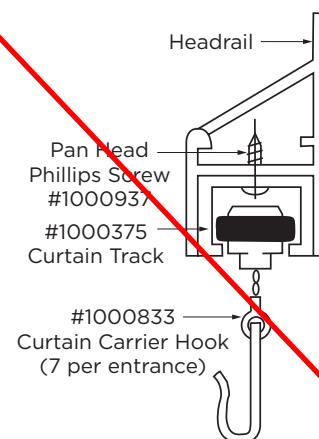
**Approximate Weight:** Compact Grade Laminate Toilet Compartment - 275 lbs.



## HEADRAIL INSTALLATION DETAIL



## CURTAIN TRACK INSTALLATION DETAIL





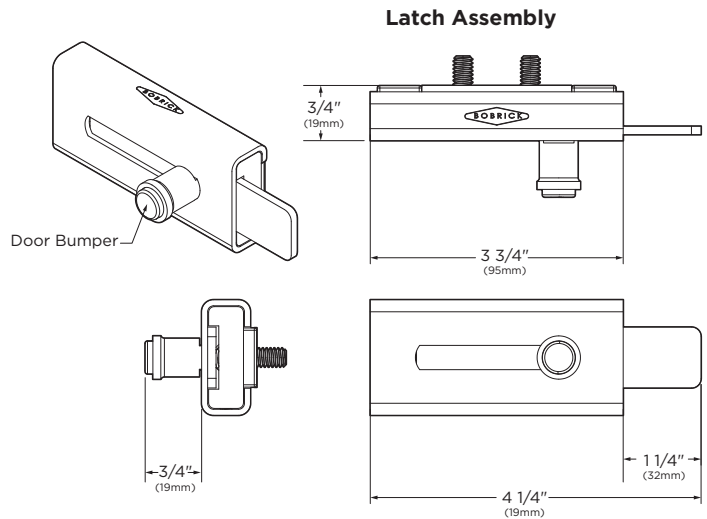
## COMMERCIAL HARDWARE (STANDARD)

Hinges, door latch, door keepers, clothes hooks, mounting brackets and door handles are constructed of 18-8, Type-304, heavy-gauge stainless steel with satin finish.

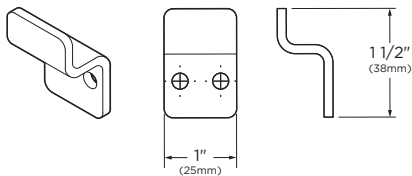
Threaded inserts are factory installed for securing hinges and door latch. Theft-resistant, stainless steel pin-in-head, torx screws are furnished for door hardware and all mounting brackets.

Balanced hinge is adjustable to hold door of unoccupied toilet compartment partially open or fully closed.

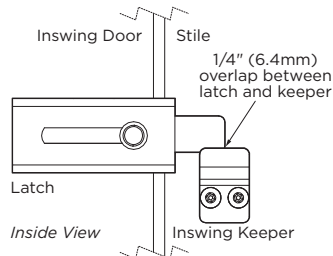
Toilet compartment door is locked from inside by sliding door latch into keeper. A locked compartment may be opened from outside by lifting door to disengage latch from keeper. Track of door latch prevents inswing door from swinging out beyond stile; on outswing door, the door keeper prevents it from swinging in beyond stile. Door handles and latch have operable parts that are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist; and comply with ADA Sections 404.2.7 and 309.4. The force required to activate the operable parts shall be 5 pounds (22.2N) maximum. Black rubber bumper on the latch serves as door bumper for inswing door.



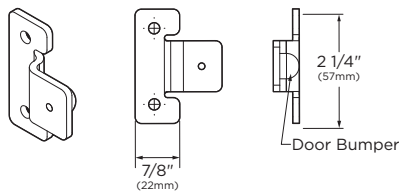
**#1040-114**  
**Latch & Keeper Packet,**  
**(Inswing Door)**



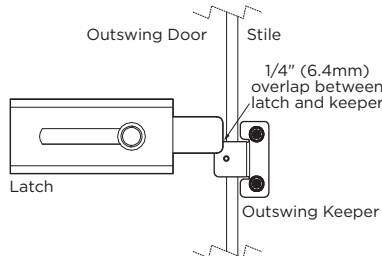
**#1040-35**  
**Keeper, inswing**  
**(Available as a Spare Part)**



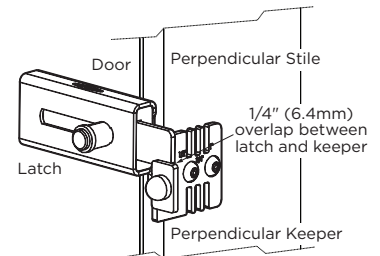
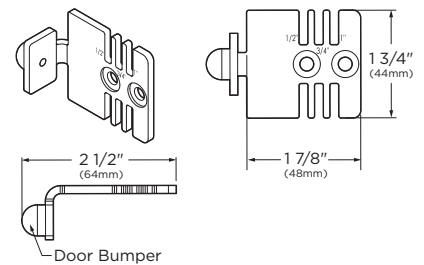
**#1040-115**  
**Latch & Keeper Packet,**  
**(Outswing Door)**



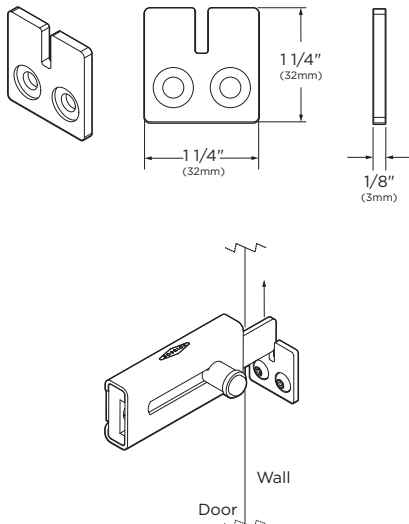
**#1040-36**  
**Keeper, Outswing**  
**(Available as a Spare Part)**



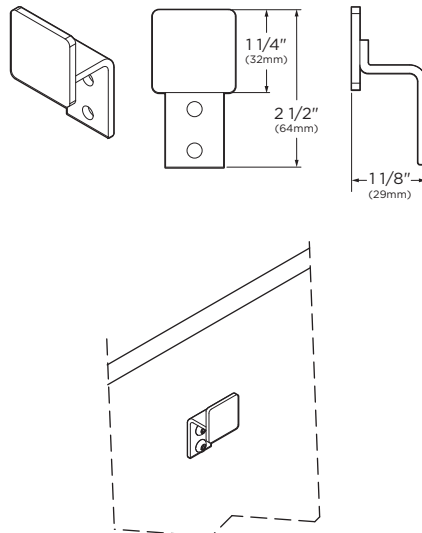
**#1040-39**  
**Perpendicular**  
**Keeper**



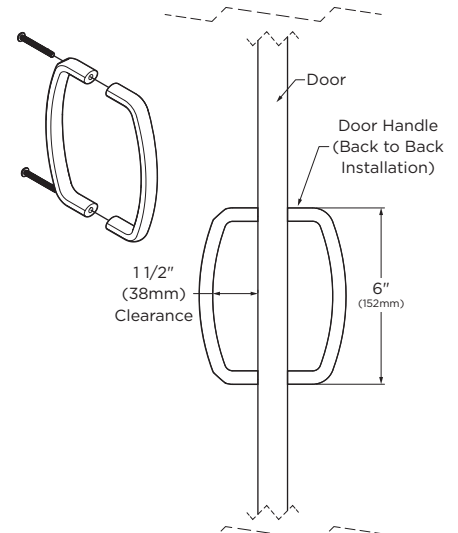
**#1040-56 Wall Mounted**  
**keeper inswing**



**#1000869**  
**Coat Hook**

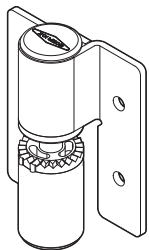
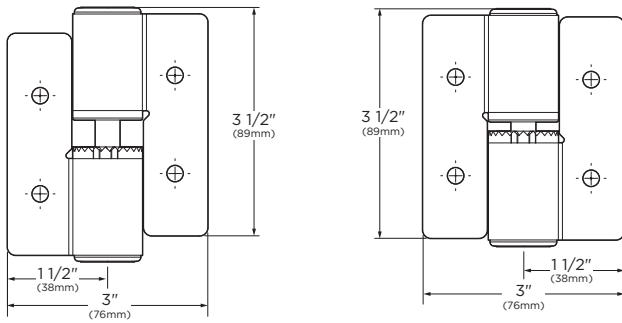


**#1000312**  
**Door Pull Handle**





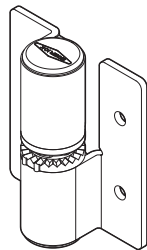
**#1040-230  
L & J Hinge Set Packet  
(Includes Hinge Cam)**



**#1002330  
Barrel Hinge Set, L  
(Includes Hinge Cam)**



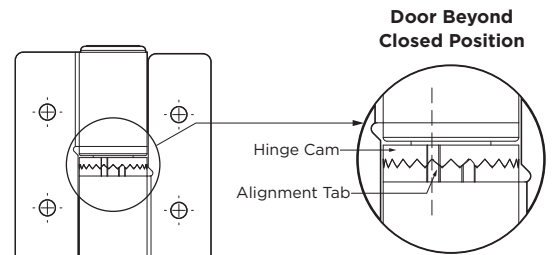
**#1002156  
Hinge Cam**



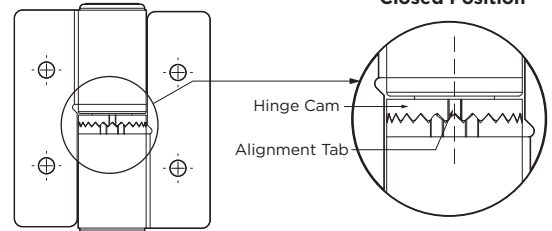
**#1002331  
Barrel Hinge Set, J  
(Includes Hinge Cam)**

Hinges are constructed of 18-8, Type-304, heavy-gauge stainless steel with satin finish. Threaded inserts are factory installed for securing hinges. Theft-resistant, stainless steel pin-in-head, torx screws are furnished for door hardware. Balanced hinge is adjustable to hold door of unoccupied toilet compartment partially open or fully closed.

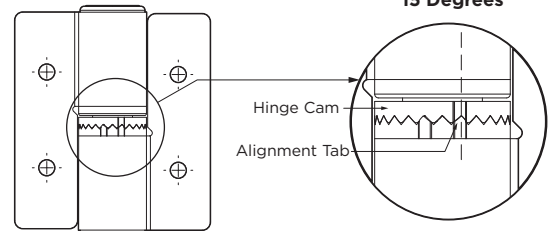
**Cam Settings**



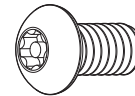
**Door Beyond  
Closed Position**



**Door Normal  
Closed Position**



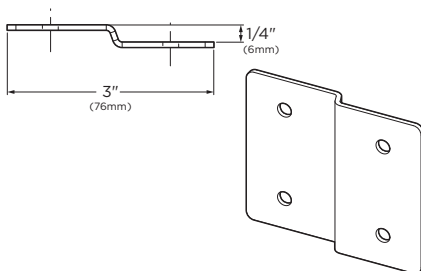
**Door Remain Open  
15 Degrees**



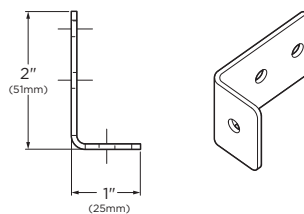
**#1002491  
1/4-20 x 1/2" (M6-1 x13mm)  
Pin-in-Head Torx Screw**

**BRACKETS (STANDARD):**

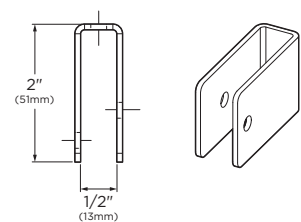
**#1000282  
Alcove Bracket  
(1/2" Panel to 3/4" Stile)**



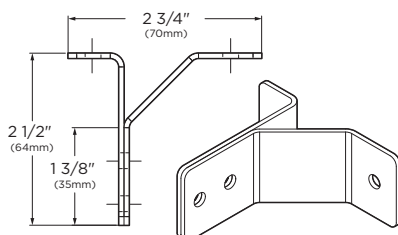
**#1000351  
L-Bracket  
(Panel to Corner Stile)**



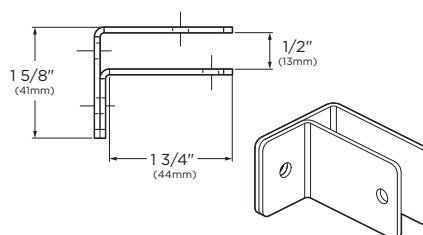
**#1000972  
U-Bracket  
(Panel to Perp. Stile)**



**#1000974  
Y-Bracket  
(Stile to Wall)**



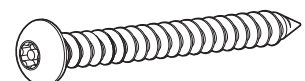
**#1000975  
F-Bracket  
(Panel to Wall)**



**#1002499  
#12 x 7/16" Pin-in-Head Torx Screw  
(M5.5 x 11mm)**

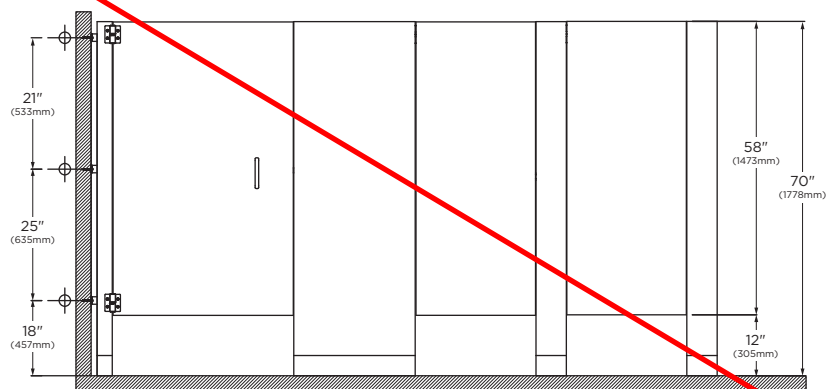


**#1002495  
#12 x 2" Pin-in-Head Torx Screw  
(M5.5 x 50mm) Wall Screw**

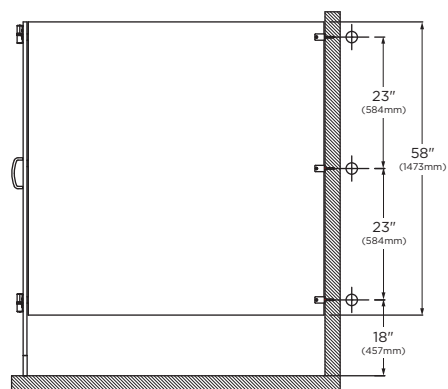




## 1081 SERIES FLOOR ANCHORED



Front View



Side View

### STANDARD:

- ☐ #1081 - Barrel Hinge and Standard Bracket

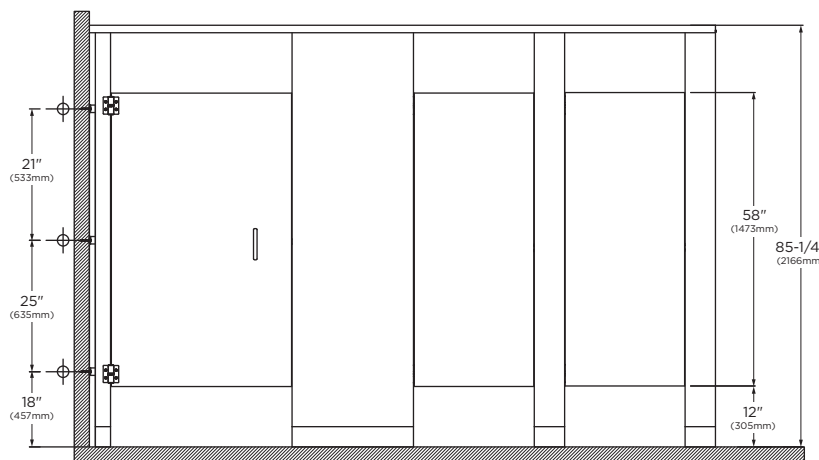
### MODEL OPTIONS:

- ☐ #1081.67 - Continuous Hinge and Continuous Bracket
- ☐ #1081.67D - Continuous Hinge and Standard Bracket
- ☐ #1081.67DDS - Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1081.67DS - Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1081.67P - Barrel Hinge and Continuous Bracket

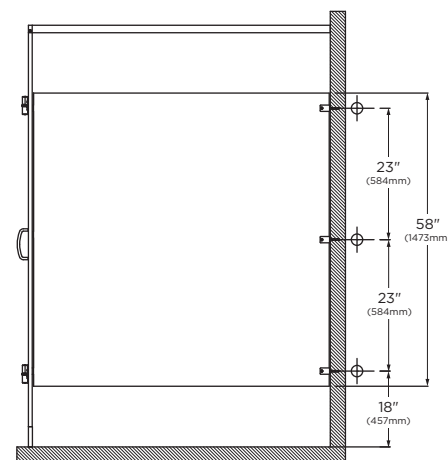
### GAPLESS MODEL OPTIONS:

- ☐ #1081G - Gapless, Barrel Hinge and Standard Bracket
- ☐ #1081G.67 - Gapless, Continuous Hinge and Continuous Bracket
- ☐ #1081G.67D - Gapless, Continuous Hinge and Standard Bracket
- ☐ #1081G.67DDS - Gapless, Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1081G.67DS - Gapless, Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1081G.67P - Gapless, Barrel Hinge and Continuous Bracket

## 1082 SERIES OVERHEAD-BRACED



Front View



Side View

### STANDARD:

- ☐ #1082 - Barrel Hinge and Standard Bracket

### MODEL OPTIONS:

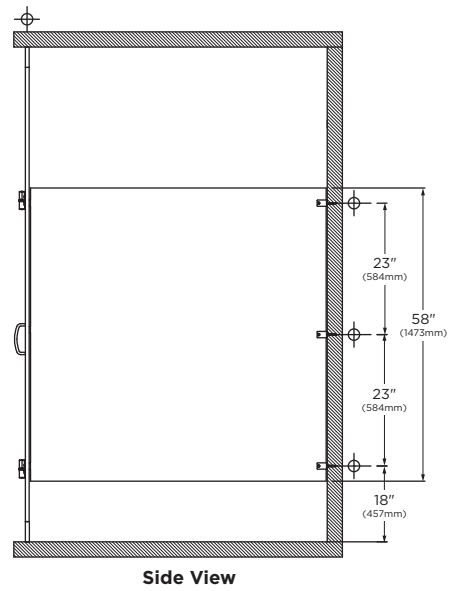
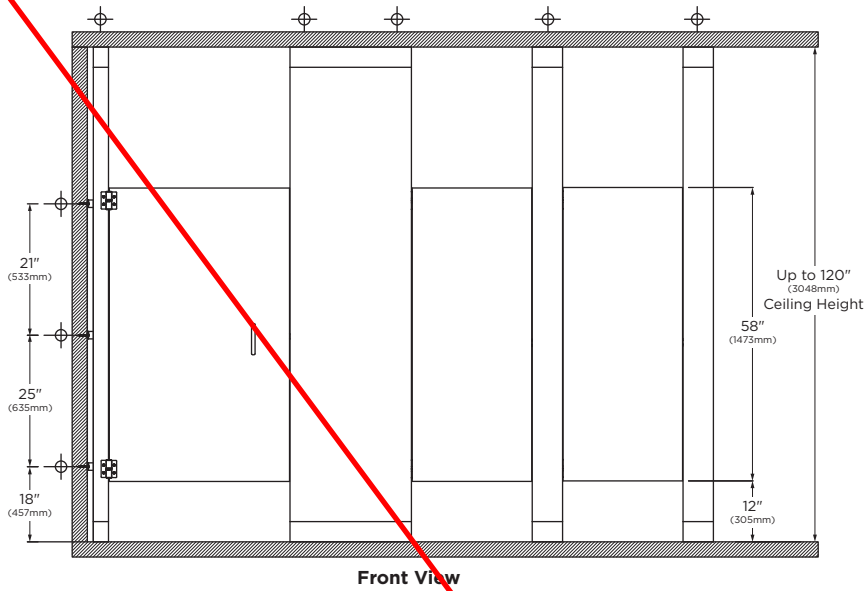
- ☐ #1082.67 - Continuous Hinge and Continuous Bracket
- ☐ #1082.67D - Continuous Hinge and Standard Bracket
- ☐ #1082.67DDS - Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1082.67DS - Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1082.67P - Barrel Hinge and Continuous Bracket

### GAPLESS MODEL OPTIONS:

- ☐ #1082G - Gapless, Barrel Hinge and Standard Bracket
- ☐ #1082G.67 - Gapless, Continuous Hinge and Continuous Bracket
- ☐ #1082G.67D - Gapless, Continuous Hinge and Standard Bracket
- ☐ #1082G.67DDS - Gapless, Continuous Hinge, Standard Bracket and Door Stop
- ☒ #1082G.67DS - Gapless, Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1082G.67P - Gapless, Barrel Hinge and Continuous Bracket



## 1086 SERIES FLOOR-TO-CEILING



### STANDARD:

- ☐ #1086 - Barrel Hinge and Standard Bracket

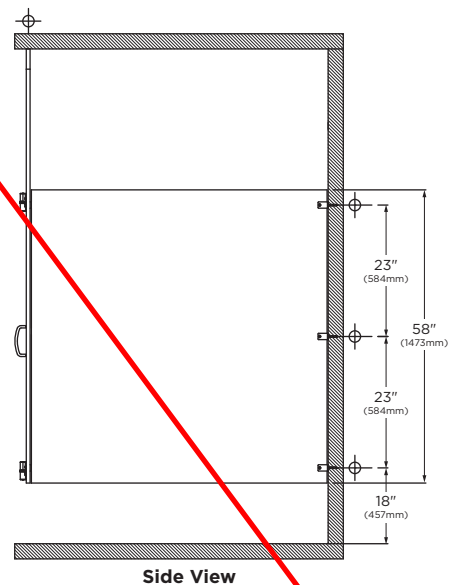
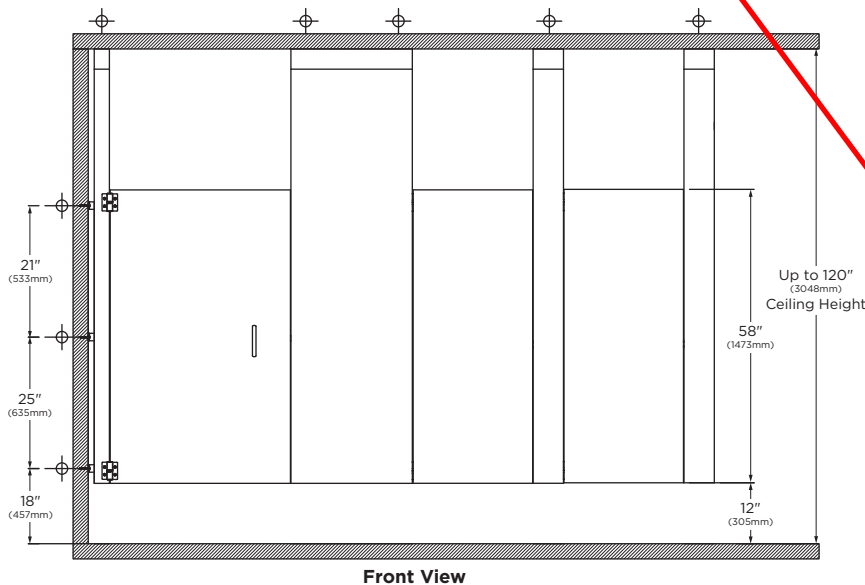
### MODEL OPTIONS:

- ☐ #1086.67 - Continuous Hinge and Continuous Bracket
- ☐ #1086.67D - Continuous Hinge and Standard Bracket
- ☐ #1086.67DDS - Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1086.67DS - Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1086.67P - Barrel Hinge and Continuous Bracket

### GAPLESS MODEL OPTIONS:

- ☐ #1086G - Gapless, Barrel Hinge and Standard Bracket
- ☐ #1086G.67 - Gapless, Continuous Hinge and Continuous Bracket
- ☐ #1086G.67D - Gapless, Continuous Hinge and Standard Bracket
- ☐ #1086G.67DDS - Gapless, Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1086G.67DS - Gapless, Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1086G.67P - Gapless, Barrel Hinge and Continuous Bracket

## 1088 SERIES CEILING HUNG



### STANDARD:

- ☐ #1088 - Barrel Hinge and Standard Bracket

### MODEL OPTIONS:

- ☐ #1088.67 - Continuous Hinge and Continuous Bracket
- ☐ #1088.67D - Continuous Hinge and Standard Bracket
- ☐ #1088.67DDS - Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1088.67DS - Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1088.67P - Barrel Hinge and Continuous Bracket

### GAPLESS MODEL OPTIONS:

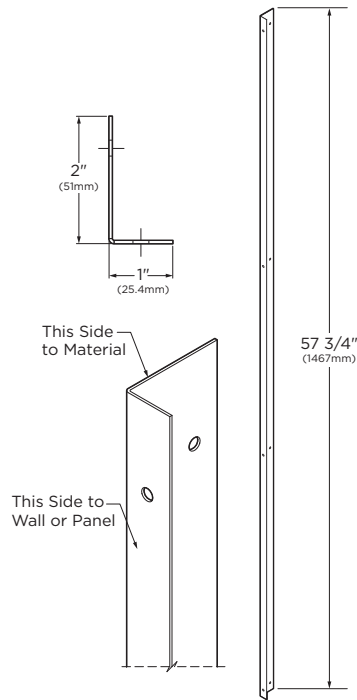
- ☐ #1088G - Gapless, Barrel Hinge and Standard Bracket
- ☐ #1088G.67 - Gapless, Continuous Hinge and Continuous Bracket
- ☐ #1088G.67D - Gapless, Continuous Hinge and Standard Bracket
- ☐ #1088G.67DDS - Gapless, Continuous Hinge, Standard Bracket and Door Stop
- ☐ #1088G.67DS - Gapless, Continuous Hinge, Continuous Bracket and Door Stop
- ☐ #1088G.67P - Gapless, Barrel Hinge and Continuous Bracket



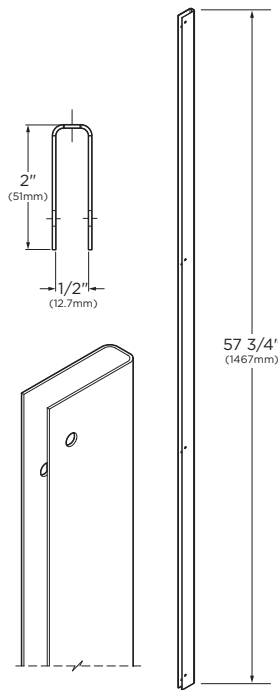
### CONTINUOUS .67 BRACKET (OPTION):

Mounting brackets are constructed of 18-8, Type-304, heavy-gauge stainless steel with satin finish: one-piece, full-height U-channels and angle brackets are 18 gauge (1.2mm). U-channels secure panels to stiles, and angle brackets secure panels and stiles to walls. Theft-resistant, stainless steel pin-in-head, torx screws are furnished for U-channels, Z-bracket and angle brackets.

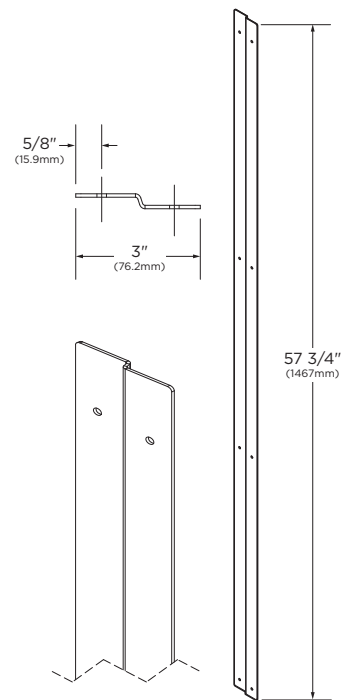
**#1001371 Angle Bracket**



**#1001368 U-Channel**



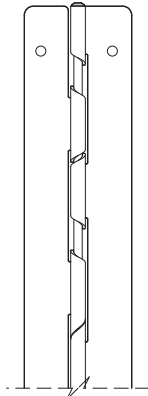
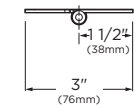
**#1080-76 Z-Bracket**



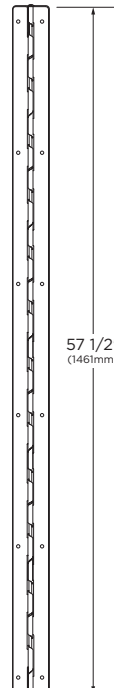
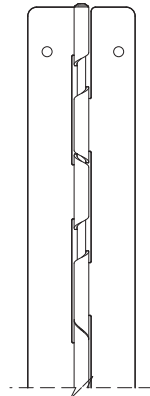
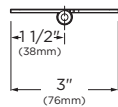
### CONTINUOUS .67 HINGES (OPTION):

Hinges are constructed of 18-8, Type-304, heavy-gauge stainless steel with satin finish: one-piece, full-height hinge is 16 gauge (1.6mm); Theft-resistant, stainless steel pin-in-head, torx screws are furnished for door hardware. Doors are equipped with a gravity type self-closing hinge. Threaded inserts are factory installed to secure door hinge. **The continuous hinge (.67 option) depends on the weight of the door to return the hinge to its closed position, which may result in door slamming.**

**#1002920  
Left-Hand Inswing or  
Right-Hand Outswing**

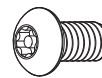


**#1002921  
Right-Hand Inswing  
or Left-Hand Outswing**



### HINGE CAM MAINTENANCE:

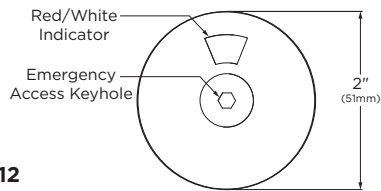
Cleaning and lubricating hinge is required to avoid failure of hinge mechanism. Must use a Teflon type based lubricant such as Tri-Flow Superior Lubricant with P.T.F.E. It is not recommended to use machine oil or WD-40 which will collect dust and dirt.



**#1002491  
1/4-20 x 1/2" (M6-1 x13mm)  
Pin-in-Head Torx Screw**

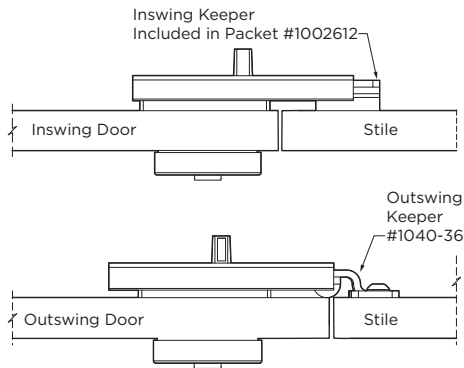


☐ **OCCUPANCY INDICATOR LATCH (OPTION):**

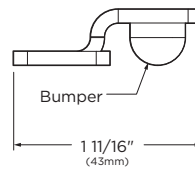


**#1002612**  
**Occupancy Indicator**  
**Latch Packet**

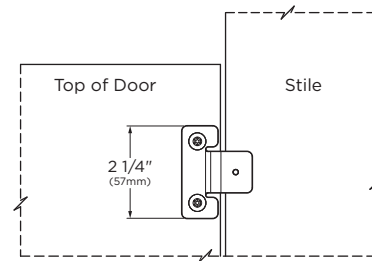
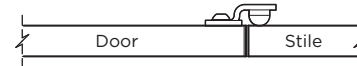
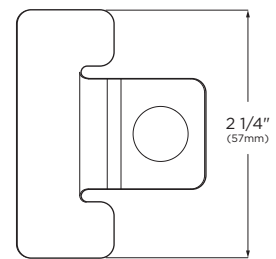
**Emergency Access** - The latch allows the door to be opened from the exterior of the toilet compartment by inserting a 3mm Allen key into the keyhole in the center of the cover plate and turning the key to release the latch.



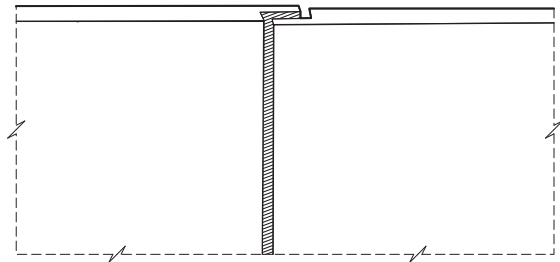
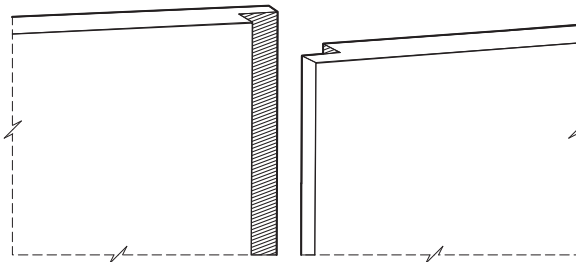
☐ **DOOR STOP (OPTION):**



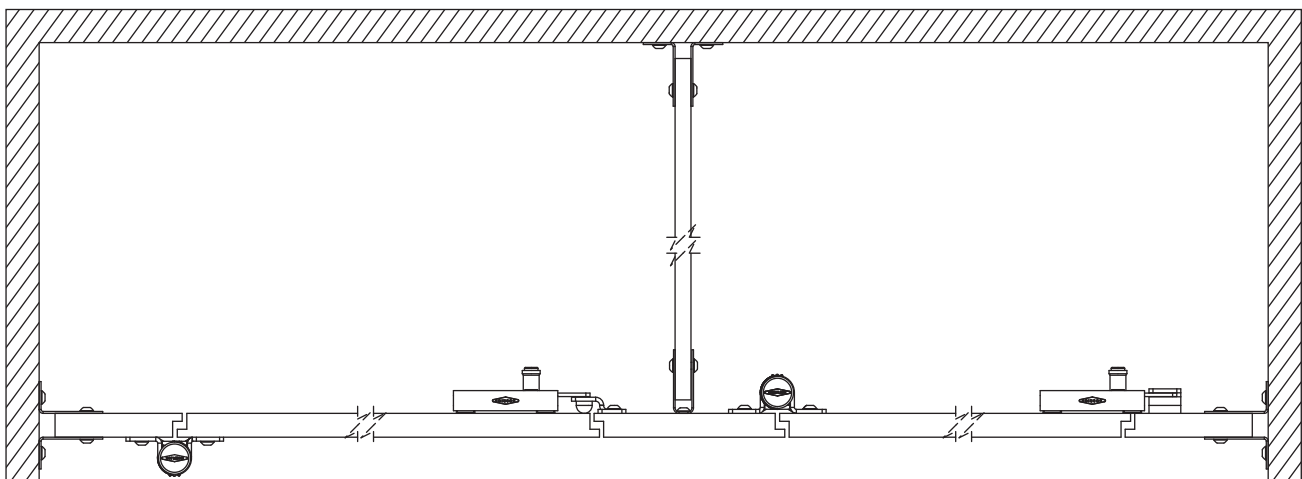
**#1040-110**  
**Door Stop Packet**



**GAP FREE DOORS & STILES (OPTION):**

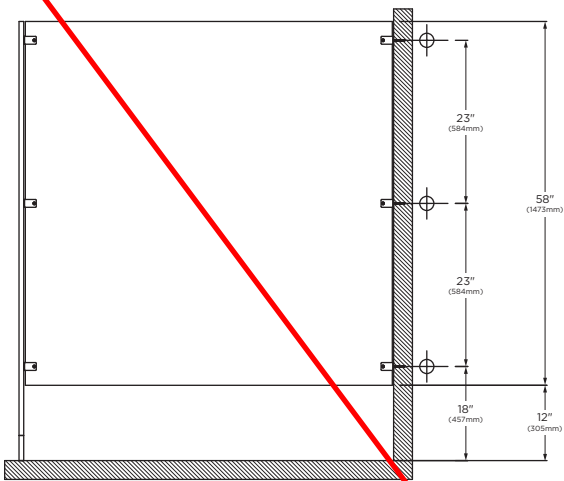


**Features: Interlocking, sightline-free design (Gapless).**





## 1080 URINAL SCREENS:



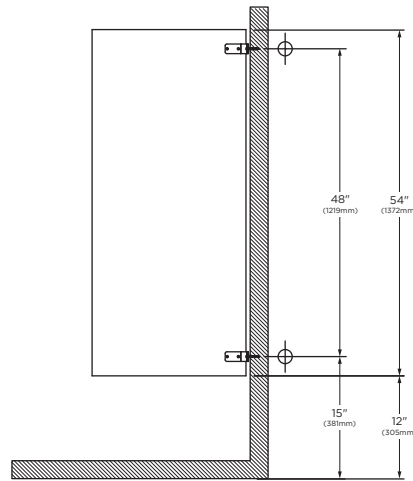
**Floor Anchored Urinal Screen**

### STANDARD:

□ #1081 - Standard Bracket

### MODEL OPTIONS:

□ #1081.67 - Continuous Bracket



**Wall Mounted Urinal Screen**  
Up to 54" (1372mm) high.

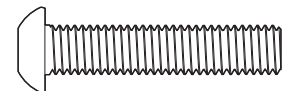
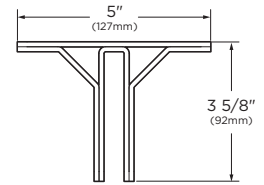
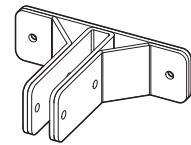
### STANDARD:

□ #1085 - Standard Bracket

### MODEL OPTIONS:

□ #1085.67 - Continuous Bracket

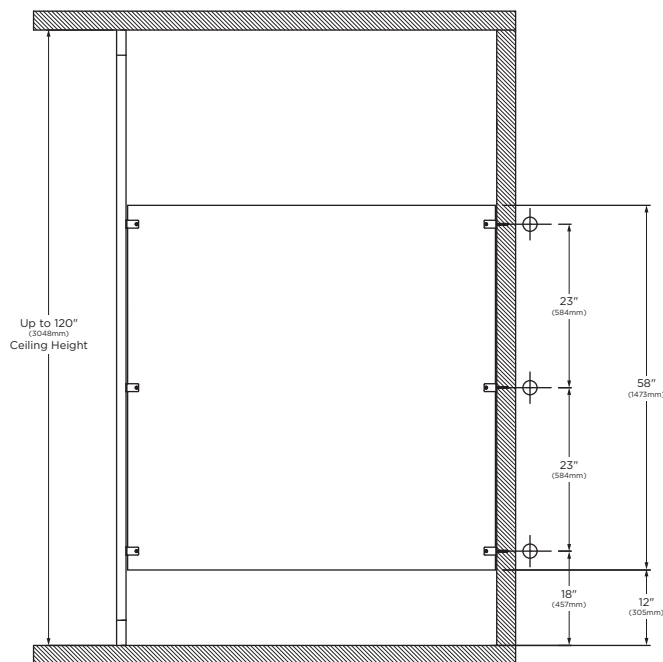
## #1002956 W/H Urinal Screen Bracket



**#1002966**  
**#10-32 x 1-1/4" (38mm)**  
**Pin-in-Head**  
**Torx Screw**



**#1000133**  
**Acorn Nut #10-32**  
**Through-Bolt**  
**Urinal Screen**



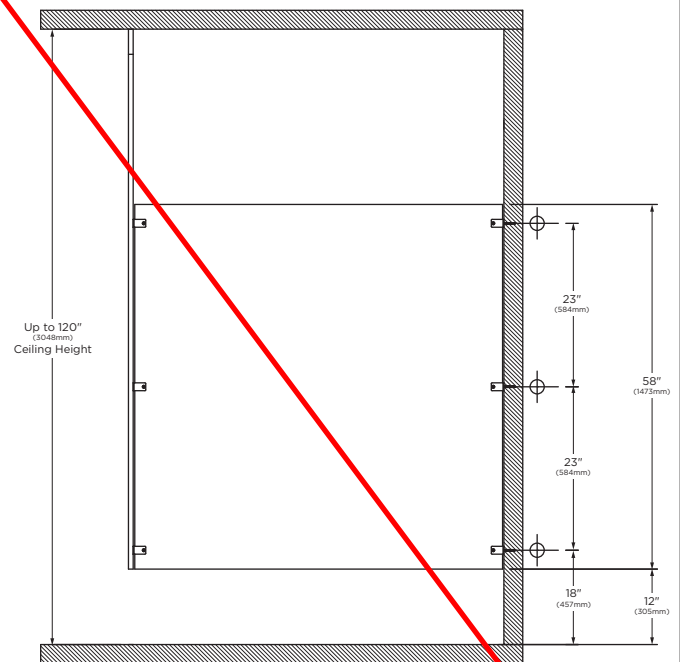
**Post-to-Ceiling Urinal Screen**

### STANDARD:

□ #1083 - Standard Bracket

### MODEL OPTIONS:

□ #1083.67 - Continuous Bracket



**Ceiling-Hung Urinal Screen**

### STANDARD:

□ #1088 - Standard Bracket

### MODEL OPTIONS:

□ #1088.67 - Continuous Bracket



## INSTALLATION:

Refer to Bobrick installation instructions packed with each shipment. Also available on [bobrick.com](http://bobrick.com). Form No. 1080-69.

## NOTES:

1. Ceiling-hung and floor-to-ceiling toilet compartments require structural members (not furnished by Bobrick) in ceiling. For suggested types of ceiling support systems, see Bobrick Advisory Bulletin TB-32.
2. Wall backing is required to secure the mounting brackets of panels, stiles, and wall posts. For suggested wall backing, see Bobrick Advisory Bulletin TB-46.
3. Floor-anchored stiles are furnished with expansion shields and threaded rods. The expansion shields require minimum 2" (50mm) penetration into minimum 3" (75mm) thick structural concrete.
4. Bobrick stainless steel partition-mounted washroom accessories are available for mounting in panels between two compartments. See current Bobrick Catalog for description of accessories. Cutouts in panels can be pre-cut for Bobrick models at factory if location and size of all cutouts and Bobrick model numbers are furnished at time of order.
5. When the hinge cam has been set at the desired free resting position, "either closed or open" the top of the affixed components will be aligned.

## GUARANTEE:

Bobrick toilet partitions including all hardware and mounting brackets are guaranteed to be free from defects in material and workmanship for a period of one year from date of purchase. Any products returned to Bobrick under this guarantee will be repaired or replaced at no charge. **25-Year Warranty:** Bobrick extends a twenty-five-year limited warranty from date of purchase for DuraLineSeries Compact Grade Laminate partition panels, doors, and stiles against breakage, corrosion, delamination, and defects in factory workmanship when materials are properly installed, then used and serviced normally.

## SPECIFICATION:

Compact Grade Laminate (Solid Phenolic) \_\_\_\_\_ (insert one: toilet partitions, dressing compartments, shower dividers, urinal screens, entrance screens) shall be \_\_\_\_\_ (insert one: floor-anchored, overhead-braced, floor-to-ceiling anchored, ceiling-hung, wall-hung, post-to-ceiling). Stiles, panels and doors shall be constructed of solidly fused Compact Grade Laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded; and covered by a 25-year limited warranty against breakage, corrosion, and delamination. Stiles and doors shall be 3/4" (19mm) thick; panels shall be 1/2" (13mm) thick. All units shall meet ICC, NFPA Class B, ASTM E-84 Interior Wall and Ceiling Finish Classification. Stiles shall have leveling device that is concealed by a one-piece, type-304, satin-finish stainless steel shoe that is 4" (102mm) high. Stiles, panels and doors shall be \_\_\_\_\_ (insert color name and number from current Bobrick Catalog). Headrails for overhead-braced compartments shall be anodized aluminum with satin finish. \*\*All door hardware and mounting brackets shall be Type-304 stainless steel. No door hardware or mounting brackets shall be exposed on exterior of compartments, except on outswing doors. All doors shall be supplied with two hinges. Threaded inserts shall be factory installed for securing hinges and door latch. Theft-resistant, stainless steel pin-in-head, torx screws shall be furnished for door hardware and all mounting brackets. A clothes hook shall be furnished for each door. Hinges shall be adjustable to hold doors of unoccupied compartments partially open or fully closed, and shall allow a locked compartment to be opened from outside by lifting door to disengage latch from keeper.

\*To specify Gapless door and stile option, add suffix "G" to series number. Example: specify 1082G.

\*\*To specify Continuous hardware, replace end of specification paragraph with: .67 option. All door hardware, U-channels, and angle brackets shall be Type-304 stainless steel with satin finish: one-piece, full-height hinges shall be 16 gauge (1.6mm); one-piece, full-height U-channels and angle brackets shall be 18 gauge (1.2mm). U-channel shall be furnished to secure panels to stiles, and angle brackets furnished to secure panels and stiles to walls. Theft-resistant, stainless steel pin-in-head, torx screws shall be furnished for door hardware, U-channels, and angle brackets. A clothes hook shall be furnished for each door. Hinges shall allow locked compartment to be opened in emergency from outside by lifting door to disengage latch from keeper. Doors shall be equipped with a self-closing hinge. Threaded inserts shall be factory installed to secure all door hinges and latch.

\*\*\*Addendum: Units fabricated with FunderMax or Abet Laminati Compact Grade Laminate will meet ICC, NFPA Class A, ASTM E-84 Interior Wall and Ceiling Finish Classification.

\_\_\_\_\_ (insert one: Toilet Partitions, Dressing Compartments, Shower Dividers, Urinal Screens, Entrance Screens) shall be \_\_\_\_\_ Series (insert series 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.



## COMPACT GRADE LAMINATE (CGL) STANDARD COLORS & PATTERNS

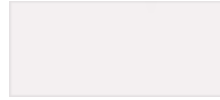
### Single Piece Panels Available Up To 5'



Satin Stainless with  
Dove Grey Core  
4830-SC-60SC <sup>1</sup>



Satin Stainless with  
Black Core  
4830-60



White  
949-58



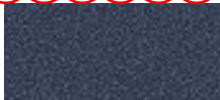
Grey Grit  
P-886-CA



Pewter Mesh  
4878-60



Citadel Warp  
5882-58



Navy Grafix  
7018-58



Graphite Grafix  
515-58



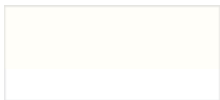
Black Stone  
P-500-CA



Black  
909-58

<sup>1</sup> Wilsonart® SOLICOR™ is a specialty laminate with a solid color core to match the surface. Color upcharge premium applies.

### Single Piece Panels Available Up To 6' <sup>2</sup>



Ice White  
410-SEI



Sand  
414-SEI



Light Grey  
478-SEI



Pearl Grey  
475-SEI



Brushed Aluminum  
0328-FH



Charcoal  
0077-FH



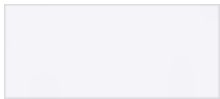
Silvretta  
0229-FH



Cello  
0811-FH

### Additional Colors: Solid Color CGL - Wilsonart® Solicor™ Colors & Patterns

Non-stock; made to order, lead times and color upcharge premiums apply. Samples can be requested from the manufacturer.



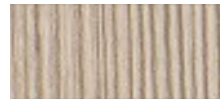
Designer White with  
White Core  
D354-SC-60SC



Dove Grey with  
Dove Grey Core  
D92-SC-60SC <sup>3</sup>



Pressed Linen  
4991-SC-60SC



High Line  
7970-SC-60SC



Phantom Ecru  
8212-SC-60SC



Field Elm  
7999-SC-60SC

<sup>1</sup> Wilsonart® SOLICOR™ is a specialty laminate with a solid color core to match the surface. Color upcharge premium applies.

<sup>2</sup> Standard color by ABET LAMINATI and FUNDERMAX® allows for single panel width up to 72", eliminating use of additional hardware. Meets Class A fire rating without upcharge.

<sup>3</sup> Available for the Rapid Response program starting September 15, 2025.

Hundreds of additional CGL colors are available from our partners; additional lead time will apply. Please consult with ABET LAMINATI®, ARBORITE®, FORMICA®, Wilsonart® or FUNDERMAX for color options. Non-stock Abet Laminati or FUNDERMAX colors carry a significant lead time of 10-14 weeks.













ABET LAMINATI is a trademark of ABET Inc. and ABET LAMINATI S.p.A. ARBORITE and Wilsonart are registered trademarks of Wilsonart Engineered Surfaces and Wilsonart International, Inc. SOLICOR is a trademark of Wilsonart Engineered Surfaces and Wilsonart International, Inc. FORMICA and the FORMICA Anvil logo are registered trademarks of The Diller Corporation. © 2015 The Diller Corporation. FUNDERMAX is a registered trademark of FUNDERMAX GmbH.



# MATERIAL OVERVIEW

## Scratch, Dent and Graffiti Resistance

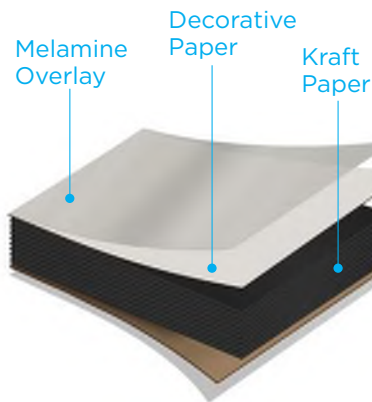
Compared to competitive materials, Bobrick materials perform exceptionally well for scratch, dent and graffiti resistance when subjected to industry-standard ASTM test protocols. Consider the relative price of Bobrick’s high performance substrates and it’s clear: Bobrick materials are the pinnacle of value.

	Material	Price Index	Scratch Resistance ASTM D 2197 Weight Required to Scratch	Impact Resistance ASTM D 2794 Visible Damage, Inches-Pounds Per Force (lbf)	Graffiti Resistance ASTM D 6578 Marks Removed (Out of 6)	Interior Finish Classification ASTM E 84
Bobrick Material	Compact Grade Laminate (CGL) (Black Core)	\$\$-\$\$\$\$	 >10kg	168"  -lbf	5 	Class A or B
Other Manufacturers' Materials	Powder-Coated Metal	\$	 <0.5kg	2"  -lbf	4 	Class A
	Plastic (HDPE)	\$\$	 <0.5kg	<1"  -lbf	3 	In 48 states and Washington, D.C., ASTM E 84 is not the relevant test. Must pass an unmodified NFPA 286 test.
	Stainless Steel	\$\$\$\$\$	 1.0kg	2"  -lbf	5 	Class A

### Bobrick Material



Compact Grade Laminate (CGL)



### Material Specification:

Solidly fused plastic laminate with matte-finish melamine surfaces; integrally bonded colored face sheets and black phenolic-resin core.

- Scratch, moisture, impact and graffiti resistant
- Class A or B ASTM E 84 classification
- Wide selection of colors and patterns

**Available on:** Evolve Cubicles, Traditional DuraLineSeries®

### Other Manufacturers' Materials



Powder-Coated Metal



Plastic (HDPE)



Stainless Steel



EQUIPMENT					
ID	Description	Location	Specification	Color/Finish	Notes
EQ-1	Law engforcemt lockers	locker room	Lyon; Valor Law Enforcement Gear Locker, 18" wide VL5104ASM1	X2 Antique Vellum, final color to be confirmed	Rep Contact: Catherine Martin, Account Manager (504)940-8908 cmartin@lyonworkspace.com
EQ-2	Accessible bench	locker room	WB Manufacturer, ADA locker bench seat kit with wall brackets; 48" min long x 20" max deep	Natural hardwood	
EQ-3	Under counter refrigerator	quiet room	TBD: Owner Furnished, Contractor Installed		15" Wide; Confirm equipment will fit underneath counter
EQ-4	Gun Trap	Locker room	Action Target, Wall mountable handgun clearing trap		
EQ-5	Mop Holder	Janitor Room	Uline, Mop/Broom Holder 24" long Or equal	Stainless steel	



DELUXE COLLEGIATE & COLLEGIATE LOCKERS
SPECIALTY LOCKERS
SPECIALTY LOCKERS & LOCKER BENCHES
PDQ LOCKERS SHIPS IN 6 WEEKS OR LESS
PDQ LOCKERS
EMPLOYEE LOCKERS
VALOR LOCKERS
VICTORY SPORTS LOCKERS
COLLEGIATE LOCKERS
LOCKERS ANCHORING
LOCKERS ACCESSORIES
LOCKERS ACCESSORIES
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FINISH GUIDE



### Valor Law Enforcement Locker

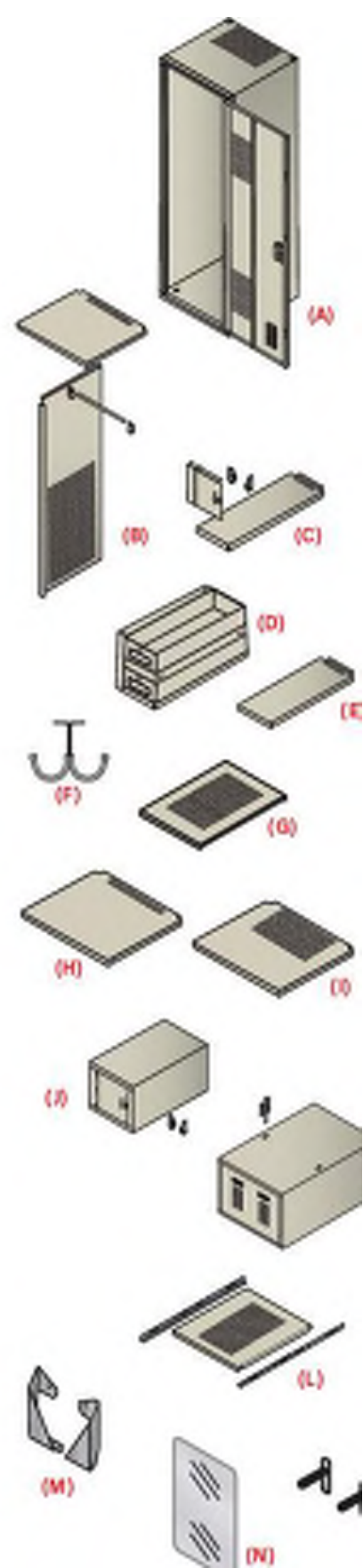
- All-welded locker construction
- 14-gauge door with 16-gauge frame
- 16-gauge body with 18-gauge back
- Stainless steel recessed handles
- Upper unit shell includes drawer latch to unlock lower drawer unit



Upper unit shell ships separate from lower drawer unit and must be assembled in the field. Select a pre-configured unit, or build your own Valor configuration. Build your own components ship loose inside the shell unless factory installation is requested.

Description	For Use With	W	D	H	Item No.	Qty
Complete Locker Assembly	for 18" Wide	18"	24"	72"	VL5104ASM1	1
	for 24" Wide	24"	24"	72"	VL5578ASM1	1
Build Your Own						P
Upper Unit Shell (A)	for 18" Wide	18"	24"	72"	VL5104	1
	for 24" Wide	24"	24"	72"	VL5578	1
Partition Kit (B)	for 18" Wide	18"	24"	58"	VL1858PT	1
	for 24" Wide	24"	24"	58"	VL2458PT	1
Security Compartment Door Kit (C)	18" & 24" Wide	8"	-	8"	VL0808LU	1
2 Drawer/Shelf Kit (D)	18" & 24" Wide	8"	-	8"	VL0808DRW	1
Compartment Shelf (E)	18" & 24" Wide	8"	24"	-	VL0808	1
Double Prong Hook (F)	18" & 24" Wide	-	-	-	NF6712	1
Boot Tray (G)	for 18" Wide	10"	24"	-	VL184BT	1
	for 24" Wide	16"	24"	-	VL244BT	1
Full Width Shelf (H)	for 18" Wide	18"	24"	-	VL184SS	1
	for 24" Wide	24"	24"	-	VL244SS	1
Vest Shelf for Drawer (I)	for 18" Wide	18"	24"	-	VL184VS	1
	for 24" Wide	24"	24"	-	VL244VS	1
Stand Alone Security Compartment (J)	for 18" Wide	8"	12"	11"	VL081211	1
	for 24" Wide	12"	24"	11"	VL122411	1
Lower Drawer Unit (K)	for 18" Wide	18"	24"	-	VL1836DRW	1
	for 24" Wide	24"	36"	-	VL2436DRW	1
Wood Locker Bench	for 18" Wide	18"	12"	3/4"	NF100760-18X.75	1
	for 24" Wide	24"	12"	3/4"	NF100760-24X.75	1
Vest Shelf (L)	for 18" Wide	12-5/8"	21"	-	VL1836DV	1
	for 24" Wide	18-5/8"	21"	-	VL2436DV	1
Clip Board Holder (M)	18" & 24" Wide	-	-	-	VL0808CB	1
Magnetic Mirror (N)	18" & 24" Wide	7"	-	11"	NFVLMIRROR	1
Belt Hooks (O)	18" & 24" Wide	-	-	-	NFVLHOCK	3









## VALOR LAW ENFORCEMENT LOCKER SPECIFICATIONS

(ALL-WELDED)

**Upper Unit** - Prime, high grade Class 1 mild annealed, cold-rolled A.S.T.M.-1008 steel free from surface imperfections. Optional A.S.T.M.-A653 Galvannealed steel is available for high humidity atmospheres. 16 gauge sides, top, and bottom. 18 gauge back.

**Frame** - 16-gauge formed steel channels. Vertical members shall have an additional flange to form continuous door strike. Corners shall be lapped and welded into a rigid assembly. Bottom cross members shall have a tang at each end that fits through slot in rear flange of upright frame member to prevent twisting out of alignment. The top and bottom cross members shall provide support for front edge of locker top and locker bottom.

**Hinges** – 16 gauge continuous hinges secured with rivets to door frame and to door. Hinge to have ½" knuckles and 0.235" diameter.

**Locker Door** – One-piece, 14 gauge steel with both vertical edges formed into channel-shaped formation; top and bottom shall be flanged at 90 degree angle. The door includes a 7-1/2" wide full height 18 gauge pan reinforcement welded to inside of door with peg board area for user supplied peg board style hooks. Two groups of 6 - 3-1/2" wide louvers located at bottom of door.

**Handles** – Upper unit door recess handle to be Nickel plated, zinc alloy with a tensile strength of not less than 40,000 psi. No moving parts are to operate against outside surface of locker. Padlock attachment to be integral part of lift which shall be attached directly to the locking bar.

**Quiet Locking Device** – Upper door locking device shall engage frame at three points. Channel shaped locking device with full length reinforcing ribs shall be a quiet design utilizing nylon guide inserts to reduce metal to metal contact. The locking device shall include a Zinc alloy latch finger with a nano roller at point of contact with the door jamb. Lock bar shall be enclosed on three sides and operate within the channel formation of the door. Locking device shall be pre-locking so mechanism can be locked in open position with door locking automatically when closed. Security box shall have one-point locking device with a 14 gauge lock clip for attaching padlock. Doors include lock-hole to permit use of built in key or combination lock.

**Electrical Cutout** – 1-1/4" square cutout in each rear corner of top and shelves for electrical feed.

**Options:** All lockers shall be pre-assembled, with all seams and joints of basic unit welded for rigidity and durability. Accessory components and options are to be bolted into position using zinc plated or subjected to other rust-retardant treatment nuts and bolts. The following options are available.

**Optional Partition Kit:** The partition kit consists of one partition and one full shelf. The partition is formed from 16-gauge material, formed on all four sides for rigidity, and has a double thickness safety edge front flange. Shelf is 16 gauge and located 13" from the top. The partitions run from the shelf to the locker bottom and are to be located 8" from the left side of the unit. Shelf is flanged on all four sides for strength with the front flange turned 45 degrees for safety and attached at no less than two points through each side flange. The rear two inches perforated with ½" diameter holes for air flow and venting.

**Optional Full Shelves:** Shelf punching located 5", 8", or 13" from the top and all shelves bolted in as accessory options. The shelf is 16-gauge material. Shelf is flanged on all four sides for strength with the front flange turned 45 degrees for safety and attached at no less than two points through each side flange. The shelf depth is formed to match the depth of the partition. The 13" shelf location is required for use with partitions. The rear two inches perforated with ½" diameter holes for air flow and venting.

**Optional Compartment Shelf:** 8" wide compartment shelf is located on the left side of the partition wall and can be located 9", 18", 27", 36", or 45" down from the full width shelf. Shelf is 16-gauge with same formations as the full shelf.

**Optional Security Compartment:** A security door with a continuous hinge and a 14-gauge padlock attachment may be secured into any of the 5 upper openings between the partition and the compartment shelves.

**Optional Shelf Box Kit:** A heavy duty shelf box may be used in any of the 5 upper openings between the partition and the compartment shelves.

**Optional Boot Tray:** One shelf located on the bottom of upper unit located between partition wall and side wall. Tray is shipped loose and is removable for cleaning. Tray perforated with ½" diameter holes. The tray is 16-gauge material. Shelf is flanged on all four sides for strength with the front flange turned 45 degrees for safety and attached at no less than two points through each side flange. An optional plastic tray may be purchased to collect the drip water from the boot tray.

**Optional Document Holder:** The document holder is 14 gauge and designed to hold clipboards and file folders. The document holder mounts easily to the peg-board feature on the inside of the door.





## VALOR LAW ENFORCEMENT LOCKER SPECIFICATIONS

(ALL-WELDED)

**Optional Security Box** – Security box is a welded unit 8" wide x 12" deep x 11" high when partitions are not used and may be installed on either the right side or the left side of a full width shelf. The body is constructed of 16-gauge integral frame sides, and 16-gauge integral frame tops and bottoms and a 16-gauge back. The security box door is constructed of 16-gauge material and formed with one flange on top and bottom, channel formation on the hinge side, and secured with a continuous hinge. The padlock attachment is 14-gauge and allows for built-in locks and a 7/16" diameter hole for padlocks.

**Optional Drawer Vest Shelf:** Shelf is flanged on all four sides for strength. The vest shelf is 18-5/8" wide and 21" deep with perforated with 1/2" diameter holes for air flow and venting. The shelf is supported with bracket that bolts on so the shelf is located 10-1/2" from the bottom of the drawer.

**Optional Locker benches** - 12" x 3/4" hardwood benches can also be provided as an option to mount to front of case in 10' or 12' lengths.

**Optional Coat Rod** – Optional 5/8" diameter rod – 18 gauge material tube mounted between coat hooks.

**Optional Mirror** – Optional 7" x 11" acrylic with magnetic backing.

**Optional Number Plates** – Aluminum number plates with etched figures at least 3/8" high. All lockers shall have number plates attached near top of door. Number plates are field installed.

**Optional Lower Unit Pull-Out Drawer:** The outside case of the lower drawer unit is 16-gauge welded construction. and utilizes frame sides, tops and bottoms with overlapping flanges. Slide mounting channels are 12 gauge formed channels 4 1/2" overall height x 1-1/2" wide. Mounting channel is attached to the side wall of locker. Slide body is mounted on the channel through pre-punched holes. Drawer body construction is 14 gauge. Actual drawer is 21-3/4" wide x 15-3/4" high x 30 1/16" deep. Ball bearing slides with full extension will yield 28-3/16" from face of the locker frame. Stiffening ribs welded to drawer sides for added stability, 200 lbs capacity. Gravity latch mechanism is a 10-gauge pre-locking lever located and activated in top locker unit in a 12-gauge mounting channel and secures the lower drawer against a 12-gauge drawer stop formed and welded to drawer side. Drawer can be closed with upper unit door in the closed position and manually released when door is open.

**Coat Hooks** – All hooks to be zinc-plated or subjected to a comparable rust retardant treatment and attached with two bolts. Two single prong hooks are supplied on the right side compartment mounted on partition and side wall. An optional double prong hook is available to be mounted to the underside of the compartment shelves. Punching provided in the pan reinforcement near the top for optional special belt hook.

**Paint Finish** – Exposed steel parts shall be thoroughly cleaned, given a bonding and rust inhibitive phosphate treatment and then electro-statically sprayed with a heavy coat of high quality powder coat texture finish paint.

Optional final coat of paint containing an antimicrobial finish is also available.

**NOTE:** *Lyon recommends Galvannealed steel on lockers used in high humidity atmospheres or corrosive atmospheres. Contact Lyon for finish compatibility with any chemicals.*

**Anchoring** - To prevent tipping or injury, Lyon strongly recommends that lockers be floor and/or wall anchored.





BB Wedgewood Blue



6Y Brilliant Blue



4B Ocean Blue



X3 Blue Streak



EQ Midnight Blue



X6 Marine Blue



3E Green Blue



X7 True Navy



4A Steel Blue



WV Wood Violet



1N Cosmos



CD Minute Man Blue



X4 Verdant Green



H3 Hunter Green



74 Sunshine



YF Red Baron



M5 Red Velvet



WE Burgundy



5F Wine Red



BU Orange



PP Putty



B6 Light Beige



78 Sand



NA Canyon



6B Gray Beige



7G Monorail Gray



77 Stone Gray



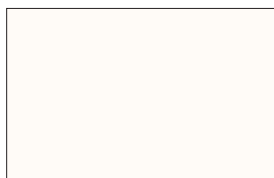
DD Dove Gray



3N Taupe



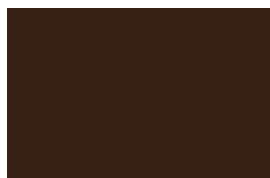
AA Ash



11 Whitewash



X2 Antique Vellum



9A Sepia Brown

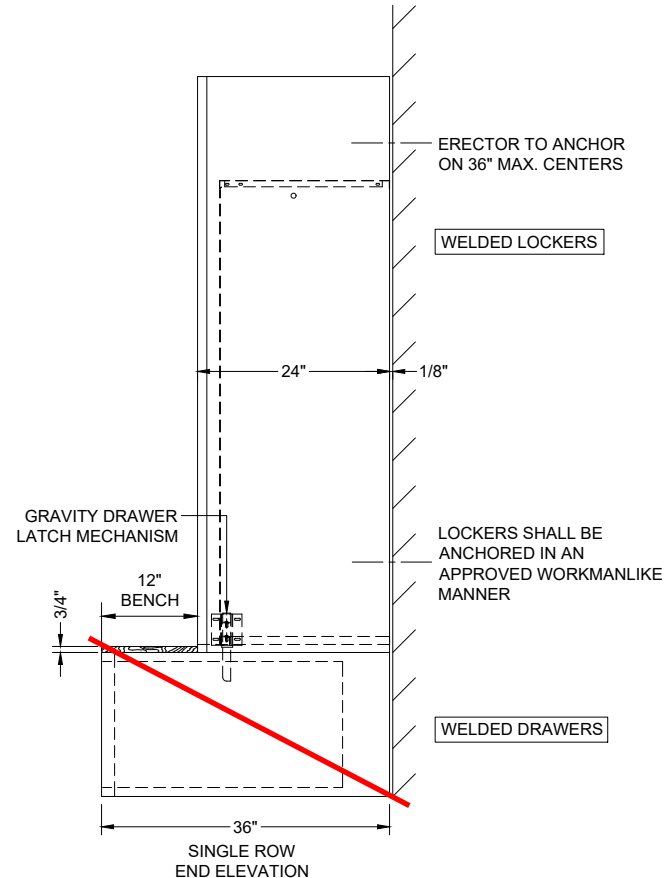
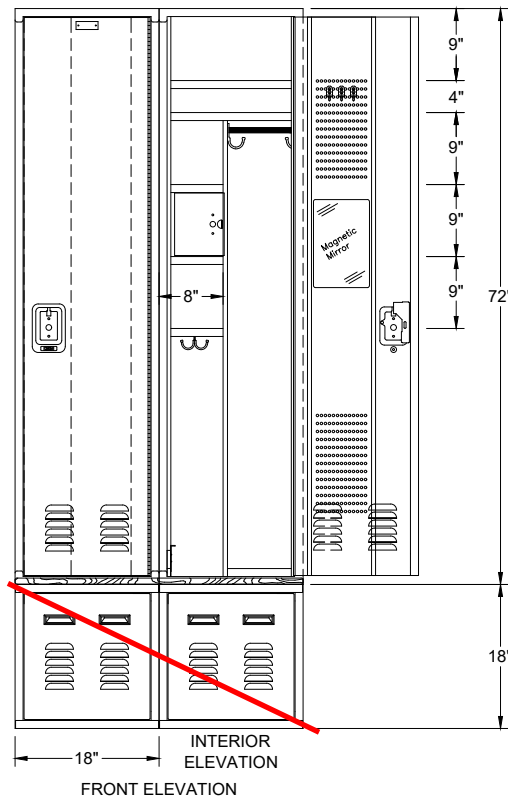


KK Vulcan Black

Our preparation and finishing procedures deliver a superior powder coat surface, highly resistant to chipping, cracking, and corrosion, to create a lasting impression for your locker installation. All color chips are reproductions and approximate the actual color as closely as possible. Additional charges apply for custom orders. Contact your Lyon representative for specific colors.

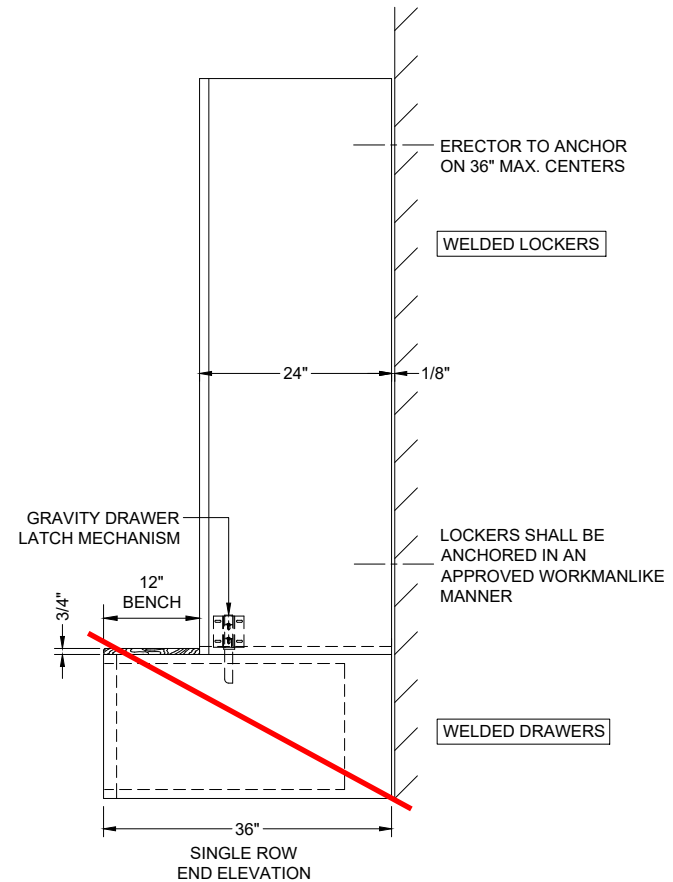
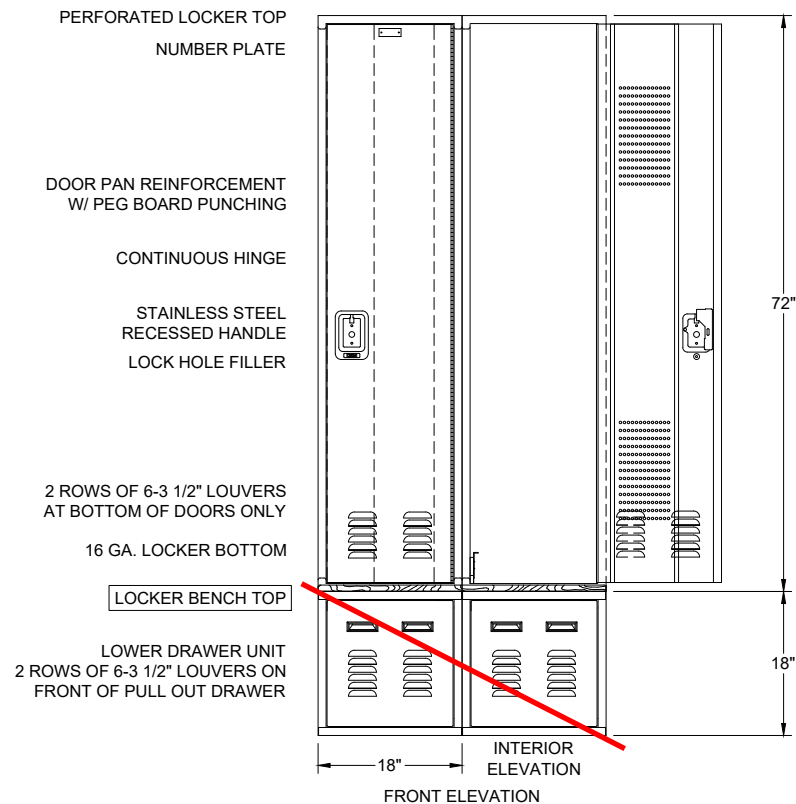


- PERFORATED LOCKER TOP
- NUMBER PLATE
- BELT CLIPS
- PERFORATED VEST SHELF
- PARTITION KIT:** PERFORATED FULL WIDTH HAT SHELF, PERFORATED PARTITION WALL, COAT ROD, & 2-SINGLE PRONG HOOKS
- 8" WIDE COMPARTMENT SHELF
- SECURITY COMPARTMENT DOOR KIT
- 1-DOUBLE PRONG HOOK
- 7" X 11" MAGNETIC MIRROR
- STAINLESS STEEL RECESSED HANDLE
- LOCK HOLE FILLER
- DOOR PAN REINFORCEMENT W/ PEG BOARD PUNCHING
- CONTINUOUS HINGE
- 2 ROWS OF 6-3 1/2" LOUVERS AT BOTTOM OF DOORS ONLY
- 16 GA. LOCKER BOTTOM
- BOOT TRAY
- LOCKER BENCH TOP
- LOWER DRAWER UNIT
- 2 ROWS OF 6-3 1/2" LOUVERS ON FRONT OF PULL OUT DRAWER



WELDED VALOR LOCKER FRAMES 18" X 24" X 72" S.R.S.T. W/ WELDED LOWER COMPARTMENT 18" X 36" X 18"





WELDED VALOR LOCKER FRAMES 18" X 24" X 72" S.R.S.T. W/ WELDED LOWER COMPARTMENT 18" X 36" X 18"



# Locker Bench specifications



## ADA Locker Bench Seat Kits (with Welded Frames)

Almond Pedestal	Almond Wgt	Stainless Steel Pedestal	SS Wgt	Description	D" x L" x H"
LBSADA2042	901	LBSADA2042SS	91	ADA Kit w/Back (2 Frames)*	20 x 42 x 18
LBSADA2048	109	LBSADA2048SS	99	ADA Kit w/Back (2 Frames)*	20 x 48 x 18
LBSADA2060	126	LBSADA2060SS	116	ADA Kit w/Back (2 Frames)*	20 x 60 x 18
LBSADA2072	164	LBSADA2072SS	149	ADA Kit w/Back (3 Frames)*	20 x 72 x 18
LBSADA2442	107	LBSADA2442SS	97	ADA Kit w/Back (2 Frames)*	24 x 42 x 18
LBSADA2448	116	LBSADA2448SS	106	ADA Kit w/Back (2 Frames)*	24 x 48 x 18
LBSADA2460	134	LBSADA2460SS	124	ADA Kit w/Back (2 Frames)*	24 x 60 x 18
LBSADA2472	174	LBSADA2472SS	159	ADA Kit w/Back (3 Frames)*	24 x 72 x 18

\*Seats are pre-drilled and include hardware to attach bench to frames, floor mounting hardware not supplied.

## ADA Locker Bench Seat Kits with Wall Brackets\*

Choose from Almond, Black or Stainless Steel Brackets



Model #	-A/-B Wgt	-SS Wgt	D" x L" x H"	Description
LBSBK20042	35	34	20 x 42 x 1.25	Includes 2 Wall Mount Brackets
<b>LBSBK20048</b>	<b>39</b>	<b>38</b>	<b>20 x 48 x 1.25</b>	<b>Includes 2 Wall Mount Brackets</b>
LBSBK24042	41	40	24 x 42 x 1.25	Includes 2 Wall Mount Brackets
LBSBK24048	48	47	24 x 48 x 1.25	Includes 2 Wall Mount Brackets

\*Drilling and attachment done onsite by others.

## Portable Hardwood Locker Bench Kits



Model #	Wgt	Description	D" x L" x H"
LBSMP12048U	30	Hardwood Seat w/2 Black U Legs, Glides*	12 x 48 x 19
LBSMP12060U	35	Hardwood Seat w/2 Black U Legs, Glides*	12 x 60 x 19
LBSMP12072U	44	Hardwood Seat w/2 Black U Legs, Glides (support bar)*	12 x 72 x 19
LBSMP12084U	50	Hardwood Seat w/3 Black U Legs, Glides*	12 x 84 x 19
LBSMP12096U	55	Hardwood Seat w/3 Black U Legs, Glides*	12 x 96 x 19
LBSMP15048U	35	Hardwood Seat w/2 Black U Legs, Glides*	15 x 48 x 19
LBSMP15060U	41	Hardwood Seat w/2 Black U Legs, Glides*	15 x 60 x 19
LBSMP15072U	52	Hardwood Seat w/2 Black U Legs, Glides (support bar)*	15 x 72 x 19
LBSMP15084U	59	Hardwood Seat w/3 Black U Legs, Glides*	15 x 84 x 19
LBSMP15096U	65	Hardwood Seat w/3 Black U Legs, Glides*	15 x 96 x 19
LBSMP18048U	40	Hardwood Seat w/2 Black U Legs, Glides*	18 x 48 x 19
LBSMP18060U	48	Hardwood Seat w/2 Black U Legs, Glides*	18 x 60 x 19
LBSMP18072U	59	Hardwood Seat w/2 Black U Legs, Glides (support bar)*	18 x 72 x 19
LBSMP18084U	68	Hardwood Seat w/3 Black U Legs, Glides*	18 x 84 x 19
LBSMP18096U	75	Hardwood Seat w/3 Black U Legs, Glides*	18 x 96 x 19

\*\*Seats are pre-drilled and include hardware to attach bench to legs.



## Hardwood Locker Bench Seats & Accessories

9.5" Depth	12" Depth	18" Depth	20" Depth	24" Depth	Seat Length"
LBS9H024	LBS12024	LBS18024	LBS20024	LBS24024	24
LBS9H036	LBS12036	LBS18036	LBS20036	LBS24036	36
LBS9H042	LBS12042	LBS18042	LBS20042	LBS24042	42
LBS9H048	LBS12048	LBS18048	LBS20048	LBS24048	48
LBS9H060	LBS12060	LBS18060	LBS20060	LBS24060	60
LBS9H072	LBS12072	LBS18072	LBS20072	LBS24072	72
LBS9H084	LBS12084	LBS18084	LBS20084	LBS24084	84
LBS9H096	LBS12096	LBS18096	LBS20096	LBS24096	96
LBS9H108	LBS12108	LBS18108	LBS20108	LBS24108	108
LBS9H120	LBS12120	LBS18120	LBS20120	LBS24120	120
LBS9H132	LBS12132	LBS18132	LBS20132	LBS24132	132
LBS9H144	LBS12144	LBS18144	LBS20144	LBS24144	144

Drilling and attachment done onsite by others.

## ADA Hardwood Locker Bench Seats



20" Depth	24" Depth	Seat Length"
LBS20042	LBS24042	42
LBS20048	LBS24048	48

LBS/SQ FT 5.0



Meets ADA  
requirements

## Locker Bench Pedestals & Wall Mount Brackets



Model #	Wgt	Description	Qty
MSLP	5.5	16.25"H Round Pedestals, Almond (includes bench top mounting hardware)	1
SSLP	5	16.25"H Round Pedestals, Stainless Steel (includes bench top mounting hardware)	1
04009060*	5.5	16.25"H Trapezoid, Stainless Steel (includes bench top mounting hardware)**	1
04009060-04*	6	16.25"H Trapezoid, Almond (includes bench top mounting hardware)**	1
0406773	2	17.75"H U-Frame, Black***	1
0400151	3	18" x 20" ADA Stainless Steel Backrest Bracket (includes hardware)	1
0400490-04	23	ADA Frame, Almond (includes hardware)	1
0400490-SS	18	ADA Frame, Stainless Steel (includes hardware)	1

\*Trapezoid pedestals don't come w/ rubber feet, meant to be floor mounted - not movable.

\*\*Recommended for benches with depths of 9.5" & 12", floor mounting hardware not included.

\*\*\*Recommended for U-Frame benches between 12" and 18" depths ONLY.

## Locker Bench Wall Mount Brackets\*



Black (-B)	Almond (-A)	Stainless Steel (SS)	Wgt	Description
BKT0508-B	BKT0508-A	N/A	2	9.5" and 12" Deep Seat (Pair)
BKT0812-B	BKT0812-A	N/A	4	15" Deep Seat (Pair)
BKT1218-B	BKT1218-A	BKT1218-SS	6	20" Deep Seat (Pair)
BKT1521-B	BKT1521-A	BKT1521-SS	8	18" and 24" Deep Seat (Pair)

\*Drilling and attachment done onsite by others.



## Appearance:

Natural variations do occur in the appearance of natural wood, of which it is these distinguishing features that creates the natural beauty of this product. These variations are subject to occur on all or some of the wood products based on environmental factors affecting the tree before harvesting and include character markings such as grain variation in color, various growth rings and tight knots among other naturally occurring defects. All variations are of a natural source, while all other manufacturing defects have been removed and should not detract from the function.

## General Care & Maintenance:

Allow top to reach ambient room temperature prior to installation. It may take forty-eight (48) hours for the top to acclimate to the surrounding environment.

Holes in framework used to secure the top to frame must be  $\frac{3}{8}$ " larger than the bolt or fastener. Predrill pilot holes for lag screw fasteners and only tighten the fastener slightly as the top needs to be able to expand and contract.

If final mounting requires cutting the top, then all exposed raw wood surfaces must be resealed. Polyurethane is an excellent sealer for lacquered tops. Tops and benches sent without a finish and tops that are modified in the field voids the warranty.

Lacquered benches should avoid excess amounts of water, oil and strong cleaning agents. The bench should be immediately wiped clean when the surface has been exposed to such excesses.

When necessary, reseal any exposed raw wood surfaces to avoid expansion and swelling caused by water and humidity.

Locker bench seats can be affected by the temperature and humidity of the surrounding environment.

## Catalyzed Lacquer Test Results:

Chemical	Rating
1) Sulfuric Acid 25%	5
2) Sulfuric Acid 50%	5
3) Acetic Acid 50%	4
4) Acetic Acid 75%	4
5) Phosphoric Acid 50%	5
6) Phosphoric Acid 75%	5
7) Hydrochloric Acid 20%	5
8) Hydrochloric Acid 37%	4
9) Butyl Alcohol	5
10) Ethyl Alcohol	5
11) Methyl Alcohol	5
12) Ethyl Acetate	2
13) Methyl Ethyl Ketone	1
14) Toluene	5
15) Acetone	1
16) Naphtha	5
17) Xylene	5
18) Sodium Hypochlorite 5.25%	5
19) Sodium Hydroxide 25%	5
20) Sodium Hydroxide 35%	5
21) Sodium Hydroxide 40%	5
22) Sodium Hydroxide 50%	5
23) Potassium Hydroxide 40%	5
24) Potassium Hydroxide 45%	5
25) Hydrogen Peroxide 30%	5
26) Nitric Acid 25%	5

Test prepared by Sheboygan Paint  
Co 1/2009  
5=No Effect  
4=Slight Stain  
3=Modest Stain  
2=Modest Stain, Film Blistered  
1=Film Damage

## Fastener and Pilot Hole Chart:

Screw size #	Pilot hard wood
4	$\frac{1}{16}$ "
6	$\frac{5}{64}$ "
8	$\frac{3}{32}$ "
10	$\frac{7}{64}$ "
12	$\frac{1}{8}$ "







< Bullet Containment

Mountable Handgun Clearing Trap



SKU SCT-PISTOL  
As Low As \$449.99  
**\$449.99**

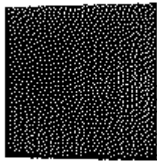
QTY:

Description

Small, compact clearing trap capable of containing all Pistol Caliber rounds. Allows for mounting to nearly any surface. Trap can be used over and over, and containment packs can be replaced as needed. Size: 11" x 11" x 5.5"

Customers Who Bought This Also Bought...

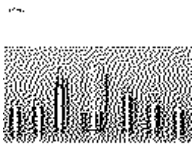




**SKURDP-ACOUSTIC**  
**Acoustic Shooting Range Rubber Panel**

**In Stock**  
As Low As: \$79.99  
**\$79.99**

1



**SKUST-200**  
**S.T. Action Pro Dummy Round**

As Low As: \$1.17



**SKUST-40 YELLOW**  
**S.T. Action Pro .40 Dummy Round (Yellow)**

**In Stock**  
As Low As: \$1.31  
**\$1.31**

1



**SKUSCT-RIFLE**  
**Mountable Rifle Clearing Trap**

**In Stock**  
As Low As: \$499.99  
**\$499.99**

1



# Standard Mop/Broom Holder - Stainless Steel

- Keep mops and brooms tidy.
- Spring-activated rubber clips grasp mops and brooms securely.
  - Corrosion resistant stainless steel.



Enlarge

MODEL NO.	DESCRIPTION	DIMENSIONS W x D x H	NO. OF CLIPS	PRICE EACH			IN STOCK SHIPS TODAY
				1	3	6+	
H-2841	Stainless Steel	24 x 3 x 4"	4	\$77	\$75	\$72	1 <a href="#">ADD</a>

Additional Info

Shopping Lists

Request a Catalog

**DIMENSIONS:**

- Actual Depth: 2 1/2"

**THICKNESS:**

- 22 gauge

**MATERIAL:**

- 430 Stainless steel back plate.
- Steel clip holder (not corrosion resistant)

**COMPATIBILITY:**

- Holds brooms approximately 1" in diameter.

**CAPACITY:**

- Per Clip: 8 lbs
- Maximum: 32 lbs

**RECYCLING:**

- Recycled Content: 60%
  - Post-consumer: 100%

**USAGE:**

- Rubber Caps: Slip over metal cams for additional friction to hold plastic handles.

**CLEANING INSTRUCTIONS:**

- Do not use chlorine-based detergents or cleaners that contain bromides, iodides or acids.
- Rinse with warm water.
- Wipe dry after cleaning.

**MOUNTING HARDWARE:**

- Pre-drilled holes
- Includes:
  - (4) Screws
  - (4) Anchors

Availability: [In Stock](#)  
Unit Weight: 2.27 lbs.

[Instructions](#)

[Catalog Page 381](#)

[Email Item](#)

Country of Origin: USA

https://www.uline.com/Product/Detail/H-2841/Tool-Racks-and-Holders/Standard-Mop-Broom-Holder-Stainless-Steel?pricode=WA9421&gadtype=pla&i...

1/2



SAME DAY SHIPPING

HUGE SELECTION IN STOCK

SHIPS FROM 14 LOCATIONS



ID	Description	Lamp	Voltage	Manufacturer	Notes
F1	6" LED ROUND RECESSED DOWNLIGHT WITH WIDE BEAM, COMFORT CLEAR DIFFUSE REFLECTOR AND WHITE FLANGE	1500 LUMEN LED 80 CRI 3500K 15.4 WATTS	MVOLT	LIGHTOLIER: MODULYTE M6R PRESCOLITE: LITEFRAME 2.0 OPUS: RONDO RB6	
F2	6" LED ROUND RECESSED WET DOWNLIGHT WITH WIDE BEAM, COMFORT CLEAR DIFFUSE REFLECTOR AND WHITE FLANGE	1500 LUMEN LED 80 CRI 3500K 15.4 WATTS	MVOLT	LIGHTOLIER: MODULYTE M6R PRESCOLITE: LITEFRAME 2.0 OPUS: RONDO RB6	
F3	20" TRIMLESS ROUND LED SEMI-FLUSHED WITH 2" STEM MOUNTED WITH FABRIC SHADE AND POLYCARBONATE DIFFUSER	2873 LUMEN LED 80 CRI 2700K 37 WATTS	MVOLT	WAC LIGHTING: MANHATTAN SEMI-FLUSH SERIES BROWNLEE LIGHTING: BOOST 2600 SERIES	
F4	LED SQUARE CANOPY LIGHTING FIXTURE	2340 LUMEN LED 80 CRI 3500K 20 WATTS	MVOLT	ALEO LED LIGHTING: LCP SERIES BEACON: LUMASQUARE ZUMTOBEL: PERLUCE	
F5	13" ROUND LED SURFACE MOUNTED LIGHTING FIXTURE AND WHITE FINISH	1600 LUMEN LED 80 CRI 2700K 15.4 WATTS	MVOLT	WAC LIGHTING: BLO SERIES VISTOSI: SABA PL 30 BROWNLEE LIGHTING: SPIN 2601 SERIES	
F6	8' RECESSED WALL PERIMETER LED LIGHTING FIXTURE WITH 6" REGRESSED LENS, AMBIENT DISTRIBUTION, STANDARD HOUSING AND WHITE FINISH	1500LM / 4 FT LED 80 CRI 3500K 13.7W / 4FT	MVOLT	LEDALITE: TRUGROOVE PERIMETER PRUDENTIAL LTG: BIONICPRO4 LUMENWERX: VIA 3 PERIMETER	



F7	3' EXTERIOR LED BOLLARD	172 LUMEN LED 80 CRI 3500K 12 WATTS	MVOLT	DESIGNPLAN: KLAK SERIES
EXIT	RECESSED MOUNTED EDGE-LIT EXIT SIGN WITH BRUSHED ALUMINUM HOUGSING, GREEN ON MIRROR LETTERS AND WIRED ON 2 SEPARTE AC CIRCUITS. COORDINATE WITH PLANS FOR NUMBER OF FACES AND CHEVRONS REQUIRED.	2.2 WATTS	120	LITHONIA: EDGR SERIES CHLORIDE BY SIGNIFY: 45 V SERIES





**ModuLite downlights** provide the optimal balance of field flexibility, performance, and commercial appeal. Light engines are designed to be installed without need of frames making ModuLite flexible to accommodate new construction, remodel, and retrofit applications. Field selectable correlated color temperature and lumens in addition to field installable optics including wall wash allow ModuLite to adapt to a variety of applications such as office, institution, healthcare, retail, and public.

Complete luminaire = Frame (optional) + Engine/Trim + Accessories (optional)

#### Engine

example: M6RDL259CSWCDZ10U

Series	Styles	Lumens	CRI/CCT	Beam	Reflector	Flange	Dimming	Voltage	Options
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
M4R 4" Round <sup>1</sup>	DL Downlight	10 500lm, 750lm, 1000lm	9CS 90 CRI with 2700K, 3000K, 3500K, 4000K, 5000K CCTs	M Medium <sup>6</sup>	CL Specular clear	W White (matte)	Z10 0-10V 1%	U Universal 120/277V	None
M6R 6" Round <sup>2</sup>	LW Lensed Wall Wash <sup>3</sup>	25 1500lm, 2000lm, 2500lm		W Wide	CD Comfort clear diffuse	B Black (matte)		3 347V <sup>8</sup>	LC Chicago plenum <sup>7</sup>
M8R 8" Round <sup>2</sup>		40 3000lm, 3500lm, 4000lm <sup>4</sup> 50 4500lm, 5000lm <sup>4,5</sup>			WH White BK Black (matte)	P Polished (matches aperture)			AT Air-tite (factory-installed gasket on trim flange) <sup>9</sup>
						W White (matte) B Black (matte)			EM6R Emergency battery pack w/ remote test switch <sup>10</sup>
									EM6I Emergency battery pack w/ integral test switch to trim <sup>10</sup>

#### Accessories

Lensed wall wash optic	New construction frame with 24" telescoping bar hangers	Medium beam diffuser lens	Goof ring White (matte)	Interact Ready System Bridge Accessory
M4RLW 4" round	4RNSR 4" round	M4MED 4" round	M4GRW 4" round	SBA System Bridge Accessory
M6RLW 6" round	6RNSR 6" round	M6MED 6" round	M6GRW 6" round	(refer to Philips System Bridge Accessory specification sheet for options and details)
M8RLW 8" round	8RNSR 8" round	M8MED 8" round	M8GRW 8" round	

- IC rated up to 1500lm.
- IC rated up to 2000lm.
- Integral lensed wall wash optic factory installed.  
May also be field installed with M<sub>4</sub>RLW accessory with DL style light engine/trim.
- The 4000, 4500, and 5000lm flux are marked spacings. Refer to page 7 for details.
- Available only with M6 and M8.
- Medium beam (M) option available only on select Stock Ready configurations.  
Consult factory for availability on make-to-order configurations.
- The 347V (3) and LC (Chicago plenum) options not available with EM6R and EM6I emergency options.
- Stock Ready light engines include factory-installed gasket and are AirSeal in compliance with ASTM E283.  
All other configurations require air-tite (AT) option to be selected for factory-installed gasket.
- Factory installed Bodine BSL06 6W battery pack for remote mount test switch.  
Ceiling mounting plate included. May also be field installed with LC6M6 accessory.
- Factory installed Bodine BSL06 6W battery pack for mounting test switch integrally to trim.



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Frame (optional)

#### New Construction Frames (optional):

4RNSR, 6RNSR, 8RNSR frames may be used to suit new construction installation as required to best accommodate placement of ceiling holes. All wiring is done on the integral junction box to the light engine.

- All metal construction with galvanized finish for corrosion protection.
- Integrated 24" x 7 1/2" telescoping bar hangers.
  - Integral nail and joist alignment tab for wood construction. Holes oriented for using screws (by others).
  - Notch for t-bar attachment with integral locking mechanisms.



### Construction

- Trim includes integral self-flange with tapered profile for leveling to ceiling plane.
- Die cast aluminum heat sink manages thermal load over spectrum for product longevity.
- Stamped and heat treated leaf springs designed for easy installation and maximized retention to the ceiling.
- Air-tite compliant to ASTM E283. Stock Ready configurations are supplied with factory-installed closed cell gaskets on the trim flange. All other configurations require air-tite (AT) option to be selected for factory-installed gasket.

### Optics

- Provides a physical 59° cutoff.
- Available in wide (4"/6"-80°, 8"-72°) beam for optimal spacing. Medium (4"/6"-68°, 8"-60°) field installable diffuser lens available.
- Precision spun all high grade aluminum reflectors available in anodized and painted finishes.
- Lens media may be removed in the field tool-free for easy installation of accessory diffusion media.
- Injection molded lensed wall wash optics. Replaces existing lens media holder with the standard product. Factory installed option or field installed accessory.

### Quality of light

- Beam shaping diffuser lens to mitigate pölation, enhance beam quality, and minimize color over angle.
- Color consistency:
  - 3 SDCM typ. @ 2700K & 5000K CCT
- Accurater 90 CRI minimum.

### Light Engine

Quick disconnect between the driver and light engine provides the following advantages:

- Junction box may be field wired in advance to better accommodate construction schedules.
- Light engine/trim may be installed at a later stage to protect the trim.
- Rated for direct contact with insulation (IC) - M4RDL to 1500lm, M6RDL & M8RDL to 2000lm
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Lumen Maintenance: L80 at 72,000 hours.

### Junction box

- Galvanized metal with captured cover that can be opened tool-free
- Three (3) 3/4" knock outs on the end for mains/dimming connections
- Two (2) 3/4" knock outs on the side, one allows for connection to emergency driver (field accessory or factory option)
- Mounting clips allow for direct mount to joist, or can be field modified to suspended t-bar (fasteners by others)
- Plenum rated CMP cable for secondary low voltage wiring between driver and engine. Integral quick disconnect allows for the engine and driver to be separated in the field for ease of installation and maintenance.
- Easy access switches allow for field selection of CCT (2700K-3000K-3500K-4000K-5000K) and lumens (refer to product selection matrix).

Max ceiling thickness is 1.25" (31 mm).  
Ceiling cutout - see page 7

### Driver

#### 0-10V 1% (Z10) dimming:

- 120-277V, 50/60Hz 0-10V dimming to 1%
- 347V option, 60Hz 0-10V dimming to 1%
- Tested in compliance with NEMA7-2017 for temporal lighting artifacts (flicker)
- FCC CFR Title47 Part 15 Class A

#### Recommended 0-10V dimmers:

- Eaton slide SF10
- Eaton Decorator DF10
- Lutron® Diva DVTV
- Lutron® Nova T NTFV
- Leviton® IllumaTech IP710

### Emergency

- Factory installed emergency options include Bodine BSL06 6W battery pack w/ self-test/self-diagnostic mounted on separate junction box for mains/secondary wire splicing. Conduit connector provided for attachment to secondary side of AC driver box for splicing to cool LED circuit.
- EM6R - remote mount test switch, provided with 4 1/2" x 2 1/2" (109x69mm) ceiling cover plate.
- EM6I - reflector w/ hole to field assemble test switch integrally.

### Labels and Listings

- cULus listed for wet locations with covered ceilings
- Air-tite compliant to ASTM E-283
- CCEA (frames with \*LC suffix)
- RoHS certified

### Warranty



5 year limited warranty  
Visit [Signify.com/warranties](http://Signify.com/warranties) for more information on Signify's standard 5-year limited warranty on complete luminaire systems.



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Accessories



**Lensed wall wash optics:**  
M4RLW, M6RLW, M8RLW may be field installed to standard product quickly converting to asymmetric distribution.



**Medium beam diffuser media:**  
M4MED, M6MED, and M8MED may be field installed to the media holder supplied with the standard engine.



**Oversized goof rings:**  
M4GRW, M6GRW, M8GRW may be field installed over the integral trim flange to support ceiling coverage for new or retrofit construction. See ceiling cutout chart for retrofitting guidance.



**Factory installed battery pack:**  
Bodine BSL6 6W battery pack with self-test/self-diagnostic. Includes remote ceiling plate for test switch. Includes flexible conduit and connector to wire into secondary compartment of the light engine's junction box. To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire configuration efficacy, then by 1.1.



### AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.



**Standard CRI 80**  
Good color rendering and high efficacy



**Standard CRI 90**  
Better color rendering and low efficacy



**AccuRender**  
Best color rendering, color preference and high efficacy

### Enjoy design flexibility

#### Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

### Promote savings

#### High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI<sup>1</sup>
- Helps meet Title 24 requirements

### Show your true colors

#### High color rendering:

- True to life colors that help energize your environment and render better flesh tones critical for healthcare, hospitality and retail applications.
- $R_a$  up to 94 CRI
- $R_g$  up to 87 CRI
- $G_a$  up to 89 CRI
- $C_g$  up to 94 CRI
- $R_{TM-30}$  up to 91 TM-30
- $R_g$  up to 100 TM-30
- $R_{ext}$  up to -5% TM-30

### Achieve color balance

#### Best in class color consistency:

- Promote aesthetic harmony in your space with  $\leq 3$  SDCM @ 2700K & 5000K



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

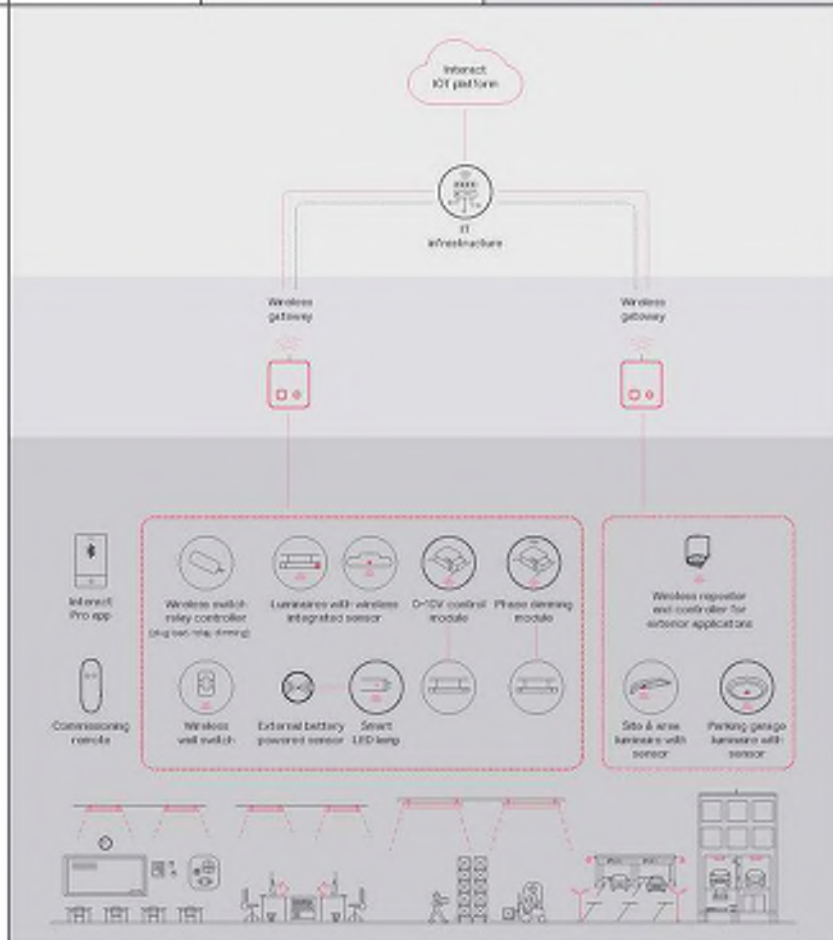
interact

	Standalone	Option 1	Option 2
	Gateway Connected		
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Correlated color temperature (CCT) tuning by switch	New	✓	✓
Support for sensor-based Tunable White luminaires	New	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

### Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
• Luminaires with integrated sensors	150
• Smart TLEDs	150
• Zones + groups	64
Total number of ZGP devices (sensors and switches)	50
• Sensors	30
• Switches	50
Group level	
Recommended number of lights	40 (maximum 150)
Number of ZGP devices	5
Number of scenes	16





# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Wireless controls options

#### Interact

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the standalone mode (similar to SpaceWise) when configured without a gateway or in a cloud connected mode if a compatible gateway is used.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote on-site to identify and group devices together.

#### Compatible with:

- SWS200 & UID8465 wireless scene switch
- Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
- Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
- LCN3110: battery powered IP65 presence sensor, OCC sensor IA CM IP65W
- LCN3120: battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH
- For more information on Interact visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Radio only sensor (RA or RADIO)

- Integral RA or RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non-gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely, identify and group devices together onsite.
- Compatible with SWS200 and UID8465 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Sensor bundle (IAOSB or SB)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible with SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available. Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- IAOSB or SB option in addition to occupancy and daylights sensing supports advanced IoT capabilities, such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Emergency Options (ER100)

- **Power Sensing** (factory default) – Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output.
- **Power Interruption Detection** (field option) – Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output.

### Interact supported sensor option codes across Genlyte product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	-	SWZCSH	-	-



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Reflectors



**Specular clear (CL):** Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



**Comfort clear diffuse (CD):** Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.



**White (WH):** (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



**Black (BK):** (matte) Specular finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.

### Flanges



**White (-):** (matte) Provides the smoothest transition to ceilings when off.



**Polished (P):** (matches aperture) Produces a continuous look throughout the reflector (aperture matching).

### Stock Ready configurations

Catalog Number	UPC Code	Model Number	Description
<b>ModuLyte LED 4" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M4RDL259CSWCLZ10U	190096192793	912401592618	CL/WH Z10 UNV
M4RDL259CSWCDZ10U	190096192809	912401592619	CD/WH Z10 UNV
M4RDL259CSWWHZ10U	190096192816	912401592620	WH/WH Z10 UNV
<b>ModuLyte LED 6" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M6RDL259CSWCLZ10U	190096192823	912401592621	CL/WH Z10 UNV
M6RDL259CSWCDZ10U	190096192830	912401592622	CD/WH Z10 UNV
M6RDL259CSWWHZ10U	190096192847	912401592623	WH/WH Z10 UNV
<b>Medium beam • 3000/3500/4000lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M6RDL409CSMCLZ10U	190096192854	912401592624	CL/WH Z10 UNV
M6RDL409CSMCDZ10U	190096192861	912401592625	CD/WH Z10 UNV
M6RDL409CSMWHZ10U	190096192878	912401592626	WH/WH Z10 UNV
<b>ModuLyte LED 8" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M8RDL259CSWCLZ10U	190096192885	912401592627	CL/WH Z10 UNV
M8RDL259CSWCDZ10U	190096192892	912401592628	CD/WH Z10 UNV
M8RDL259CSWWHZ10U	190096192908	912401592629	WH/WH Z10 UNV
<b>Medium beam • 3000/3500/4000lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M8RDL409CSMCLZ10U	190096192915	912401592630	CL/WH Z10 UNV
M8RDL409CSMCDZ10U	190096192922	912401592631	CD/WH Z10 UNV
M8RDL409CSMWHZ10U	190096192939	912401592632	WH/WH Z10 UNV

Cat. No.	UPC Code	Model Number	Description
<b>ModuLyte LED 4" Accessories</b>			
M4RLW	190096193134	912401592651	Lens Wall Wash Optics
M4MED	190096193165	912401592654	Medium Beam Optics
M4GRW	190096193189	912401592656	Goof Ring White
4RNSR	190096192526	912401592564	Frame SQ BH NJB
<b>ModuLyte LED 6" Accessories</b>			
M6RLW	190096193141	912401592652	Lens Wall Wash Optics
M6MED	190096193172	912401592655	Medium Beam Optics
M6GRW	190096193196	912401592657	Goof Ring White
6RNSR	190096192533	912401592565	Frame SQ BH NJB
<b>ModuLyte LED 8" Accessories</b>			
M8RLW	190096193158	912401592653	Lens Wall Wash Optics
M8MED	190096193226	912401592672	Medium Beam Optics
M8GRW	190096193202	912401592658	Goof Ring White
8RNR	190096192946	912401592635	Frame SQ BH NJB



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Electrical - 4 inch

Light engine	Input Volts	Input Current	Drive Current	Input Power	LED Power	THD Factor	Power Factor
500lm	120V	0.05	0.1	5.8	4.1	<20	>0.9
	277V	0.02	0.1	5.9	4.1	<20	>0.9
	347V	0.02	0.1	6.2	4.1	<20	>0.9
750lm	120V	0.07	0.2	8.2	6.2	<20	>0.9
	277V	0.03	0.2	8.4	6.2	<20	>0.9
	347V	0.03	0.2	8.7	6.2	<20	>0.9
1000lm	120V	0.09	0.2	10.6	8.3	<20	>0.9
	277V	0.04	0.2	10.7	8.3	<20	>0.9
	347V	0.03	0.2	11.6	8.3	<20	>0.9
1500lm	120V	0.13	0.3	15.3	12.5	<20	>0.9
	277V	0.06	0.3	15.4	12.5	<20	>0.9
	347V	0.04	0.3	15.3	12.5	<20	>0.9
2000lm	120V	0.17	0.4	20.3	17.0	<20	>0.9
	277V	0.07	0.4	20.4	17.0	<20	>0.9
	347V	0.06	0.4	20.3	17.0	<20	>0.9
2500lm	120V	0.21	0.5	25.4	21.5	<20	>0.9
	277V	0.09	0.5	25.5	21.5	<20	>0.9
	347V	0.07	0.5	25.2	21.5	<20	>0.9
3000lm	120V	0.24	0.6	28.6	24.2	<20	>0.9
	277V	0.10	0.6	28.7	24.2	<20	>0.9
	347V	0.08	0.6	28.5	24.2	<20	>0.9
3500lm	120V	0.28	0.7	33.6	28.6	<20	>0.9
	277V	0.12	0.7	33.6	28.6	<20	>0.9
	347V	0.10	0.7	33.3	28.6	<20	>0.9
4000lm	120V	0.32	0.8	38.5	32.9	<20	>0.9
	277V	0.14	0.8	38.6	32.9	<20	>0.9
	347V	0.11	0.8	38.1	32.9	<20	>0.9

### Electrical - 6 & 8 inch

Light engine	Input Volts	Input Current	Drive Current	Input Power	LED Power	THD Factor	Power Factor
500lm	120V	0.05	0.1	5.9	4.2	<20	>0.9
	277V	0.02	0.1	6.1	4.2	<20	>0.9
	347V	0.02	0.1	6.4	4.2	<20	>0.9
750lm	120V	0.07	0.2	8.3	6.3	<20	>0.9
	277V	0.03	0.2	8.4	6.3	<20	>0.9
	347V	0.03	0.2	8.8	6.3	<20	>0.9
1000lm	120V	0.09	0.2	10.8	8.4	<20	>0.9
	277V	0.04	0.2	10.9	8.4	<20	>0.9
	347V	0.03	0.2	11.8	8.4	<20	>0.9
1500lm	120V	0.13	0.3	15.4	12.6	<20	>0.9
	277V	0.06	0.3	15.5	12.6	<20	>0.9
	347V	0.04	0.3	15.5	12.6	<20	>0.9
2000lm	120V	0.17	0.4	20.4	17.1	<20	>0.9
	277V	0.07	0.4	20.5	17.1	<20	>0.9
	347V	0.06	0.4	20.4	17.1	<20	>0.9
2500lm	120V	0.21	0.5	25.5	21.6	<20	>0.9
	277V	0.09	0.5	25.6	21.6	<20	>0.9
	347V	0.07	0.5	25.3	21.6	<20	>0.9
3000lm	120V	0.24	0.6	29.3	24.8	<20	>0.9
	277V	0.11	0.6	29.4	24.8	<20	>0.9
	347V	0.08	0.6	29.2	24.8	<20	>0.9
3500lm	120V	0.28	0.7	34.1	29.1	<20	>0.9
	277V	0.12	0.7	34.1	29.1	<20	>0.9
	347V	0.10	0.7	33.8	29.1	<20	>0.9
4000lm	120V	0.33	0.8	39.0	33.4	<20	>0.9
	277V	0.14	0.8	39.1	33.4	<20	>0.9
	347V	0.11	0.8	38.6	33.4	<20	>0.9
4500lm	120V	0.37	0.9	44.8	38.7	<20	>0.9
	277V	0.16	0.9	44.8	38.7	<20	>0.9
	347V	0.13	0.9	44.5	38.7	<20	>0.9
5000lm	120V	0.42	1.0	49.8	43.0	<20	>0.9
	277V	0.18	1.0	49.7	43.0	<20	>0.9
	347V	0.14	1.0	49.0	43.0	<20	>0.9

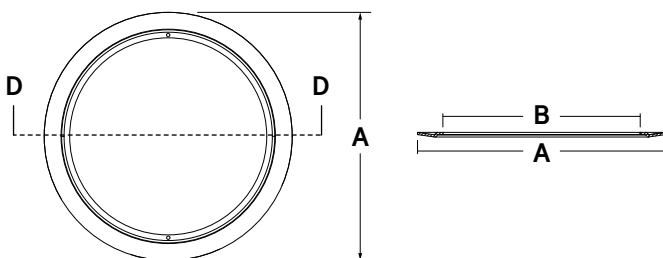
### Marked spacing applications

Light engine	4000lm	4500lm	5000lm
M4R	X		
M6R	X	X	X
M8R	X	X	X

Light engines marked with an X require marked spacing:

- Center-to-center of adjacent luminaires: 24" (610mm)
- Top of luminaire to overhead building member: 3" (75mm)
- Luminaire center to side building member: 12" (305mm)

### Goof ring



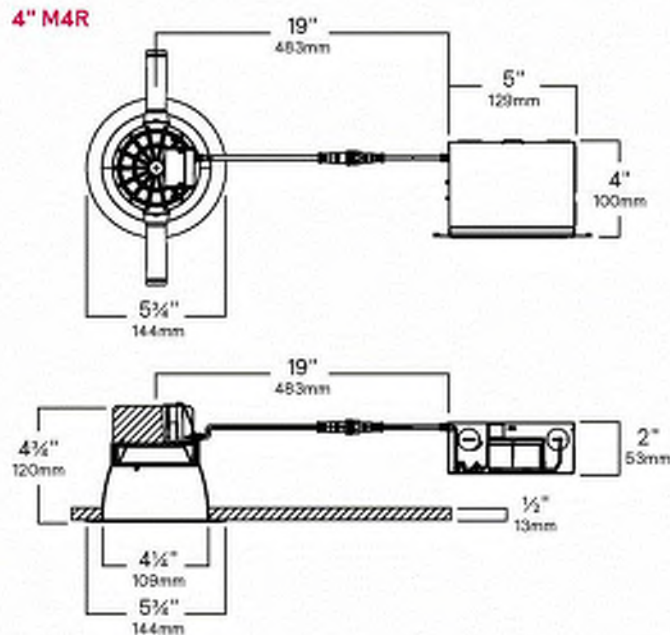
Size	A	B	Ceiling Cutout	
			Min (without goof ring)	Max (with goof ring)
M4GRW	7" (178mm)	5 3/8" (136mm)	4 7/8" (124mm)	5 3/4" (146mm)
M6GRW	8 3/4" (221mm)	6 7/8" (176mm)	6 3/8" (162mm)	7 1/2" (184mm)
M8GRW	10 3/4" (274mm)	9 1/8" (230mm)	8 3/8" (213mm)	9 1/4" (235mm)



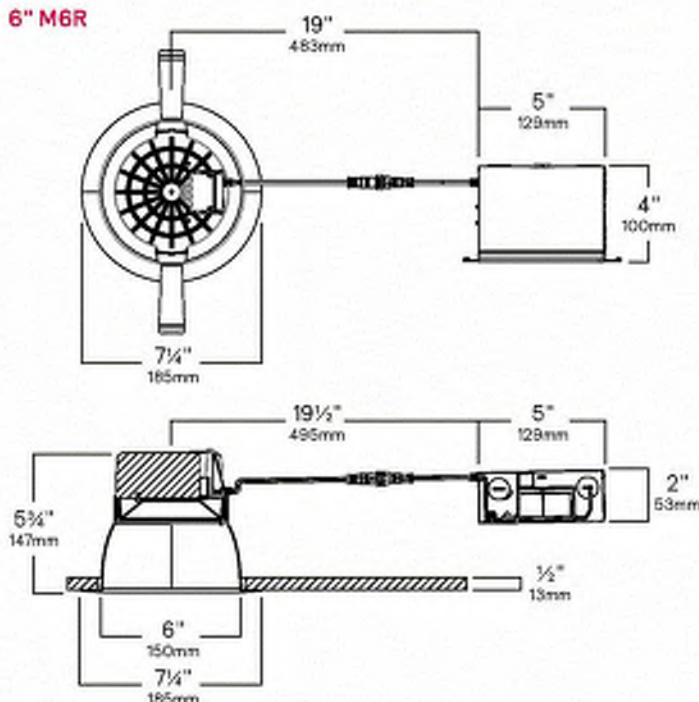
# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

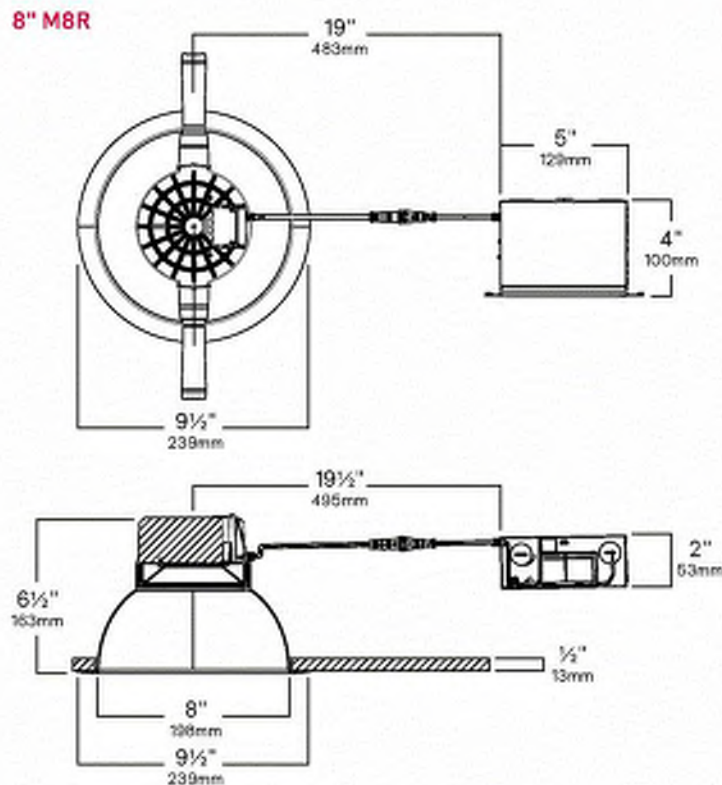
4" M4R



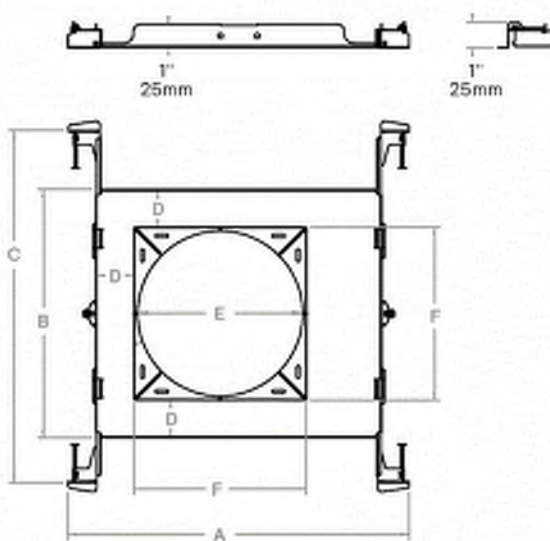
6" M6R



8" M8R



Frame (optional)



Size	A	B	C*	D	E	F
4RNSR	10 1/4" 276mm	7 1/4" 184mm	13 1/4" 345mm	1" 25mm	4 1/2" 124mm	5 1/4" 132mm
6RNSR	13 1/4" 334mm	9 1/4" 244mm	13 1/4" 345mm	1 1/4" 37mm	6 1/4" 162mm	5 1/4" 169mm
8RNR	13 1/4" 334mm	9 1/4" 244mm	13 1/4" 345mm	6" round apertured centered on frame		

\* Maximum span is 24"

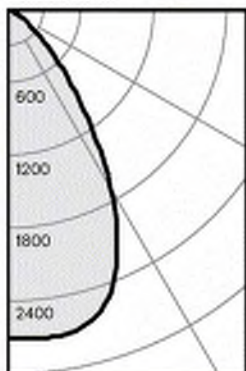


# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### 4-inch, Medium beam, 2500lm Engine, 103lm/W at 25W

Candela Curve



M4RDL259C8MCLZ10U

Output lumens: 2625 lms  
Input watts: 25.4 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.04  
Beam Angle: 65°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1562	59.5%
0-40	2162	82.4%
0-60	2601	99.1%
0-90	2625	100.0%

Angle	Mean CP	Lumens
0	2147	
5	2156	
10	2158	208
15	2104	
20	1961	589
25	1693	
30	1336	767
35	958	
40	645	600
45	399	
50	232	315
55	133	
60	69	124
65	18	
70	2	23
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	86	5.2'
9'	60	6.2'
10'	44	7.3'
12'	34	8.3'
14'	27	9.4'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	118.0	1.13
6'	77.0	0.74
7'	55.0	0.53
8'	46.0	0.44
9'	37.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficiency: 103.3lm/W  
Report: M4RDL259C8MCL-5000K.lvs\*

Adjustment factors

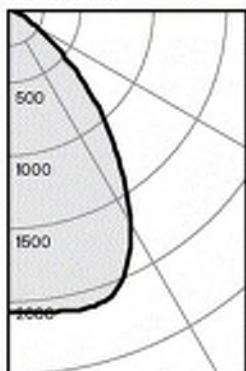
Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	500lm = 20%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	92
	2	107	101	97	93	100	92	96	90	93	88	84
	3	100	93	88	83	92	83	89	81	87	80	77
	4	95	86	80	75	85	75	83	74	81	73	71
	5	89	80	73	69	79	68	77	68	75	67	65
	6	84	74	68	63	73	63	72	62	70	62	60
	7	79	69	62	58	68	58	67	57	66	57	55
	8	75	65	58	53	64	53	63	53	62	53	51
	9	71	60	54	50	60	50	59	49	58	49	48
10	67	57	50	46	56	46	55	46	55	46	44	

### 4-inch, Wide beam, 2500lm Engine, 105lm/W at 25W

Candela Curve



M4RDL259C5WCLZ10U

Output lumens: 2665 lms  
Input watts: 25.4 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.18  
Beam Angle: 74°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1323	49.6%
0-40	1984	74.4%
0-60	2631	98.7%
0-90	2665	100.0%

Angle	Mean CP	Lumens
0	1849	
5	1652	
10	1663	158
15	1650	
20	1677	473
25	1649	
30	1519	692
35	1313	
40	1052	661
45	823	
50	577	447
55	371	
60	218	200
65	111	
70	15	32
75	3	
80	1	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	66	5.9'
9'	46	7.1'
10'	34	8.3'
12'	26	9.4'
14'	20	10.6'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	118.0	1.13
6'	77.0	0.74
7'	55.0	0.53
8'	46.0	0.44
9'	37.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficiency: 104.9lm/W  
Report: M4RDL259C5WCL-5000K.lvs\*

Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	500lm = 20%

Coefficients of utilization

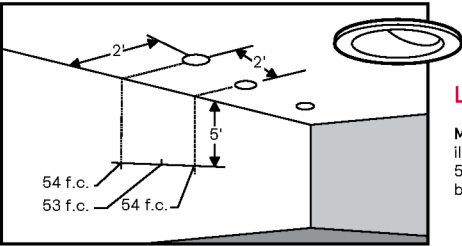
Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	112	109	106	104	107	102	103	99	99	96	91
	2	106	100	95	91	98	90	95	88	92	88	82
	3	99	91	85	81	90	80	87	79	84	77	74
	4	92	83	77	72	82	71	80	70	78	70	67
	5	87	77	70	64	76	64	74	64	72	63	61
	6	81	70	63	58	70	58	68	58	66	57	55
	7	76	65	58	53	64	53	63	53	62	52	50
	8	71	60	53	48	60	48	58	48	57	48	46
	9	67	56	49	44	55	44	54	44	53	44	42
10	64	52	45	41	52	41	51	41	50	41	39	

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# M4R/M6R/M8R    ModuLyte 4", 6", & 8"

## Round Downlight



### Lighting Data - Example

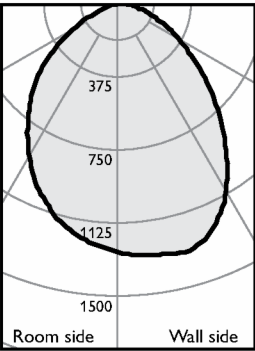
**M4RDL259CSWCLZ10U-M4RLW**  
illumination on the wall  
5' down from the ceiling is 54 f.c.  
beneath and 53 f.c. between fixtures.

### Adjustment factors

Finish	CCT (90CRI)	Lumens	
CL = 100%	5000K = 102%	4000lm = 160%	2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142%	1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120%	1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100%	750lm = 30%
	2700K = 95%		500lm = 20%

### 4-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

#### Candela Curve




#### M4RDL259CSWCLZ10U-M4RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT<sup>1</sup>: 5000K

**Efficacy:** 101.9 lm/w  
**Report<sup>2</sup>:** M4RDL259CSWCL-  
M4RLW-5000K.ies

#### Multiple unit data

##### Footcandles on wall

	2' from wall		
			
Distance from ceiling in feet			
1	65	64	65
2	105	104	105
3	96	95	96
4	74	73	74
5	54	53	54
6	39	38	39
7	29	29	29
8	22	22	22
9	17	17	17
10	14	14	14
12	12	12	12
14	10	10	10

#### Multiple unit data

##### Footcandles on wall

	<div>3' from wall</div> <div>3' on ctr.</div>			
Distance from ceiling in feet	1	21	20	21
	2	41	40	41
	3	48	47	48
	4	45	46	45
	5	38	39	38
	6	31	32	31
	7	25	26	25
	8	20	21	20
	9	16	17	16
	10	13	14	13
	12	11	12	11
	14	10	10	10

1. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

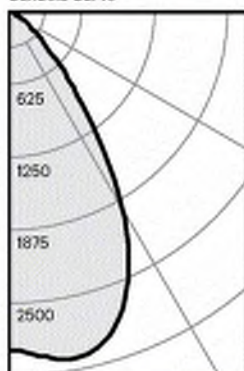


# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### 6-inch, Medium beam, 2500lm Engine, 114 lm/W at 26W

#### Candela Curve



#### M6RDL259CSMCLZ10U

Output lumens: 2500 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.08  
Beam Angle: 65°

#### Zonal summary

Zone	Lumens	%Luminaire
0-30	1761	80.7%
0-40	2427	83.6%
0-60	2880	99.2%
0-90	2902	100.0%

Angle	Mean CP	Lumens
0	2307	
5	2348	
10	2405	228
15	2365	
20	2211	662
25	1929	
30	1528	873
35	1063	
40	681	888
45	409	
50	239	325
55	140	
60	68	128
65	12	
70	2	20
75	1	
80	0	1
85	0	
90	0	0

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	92	5.4'
9'	64	6.5'
10'	47	7.6'
12'	36	8.6'
14'	28	9.7'

\* Beam diameter is where foot-candles drop to 50% of maximum.

#### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	128.0	1.13
6'	84.0	0.74
7'	60.0	0.53
8'	51.0	0.44
9'	40.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: 113.8lm/W  
Report: M6RDL259CSMCL-5000K.les\*

#### Adjustment factors

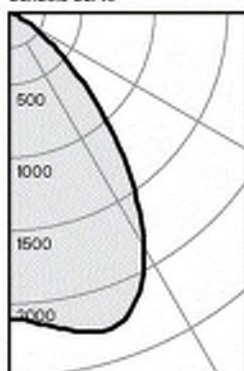
Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

#### Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	92
	2	107	101	97	93	100	92	96	90	93	88	85
	3	101	94	88	84	92	83	90	82	87	81	78
	4	95	87	81	76	85	75	83	75	81	74	71
	5	89	80	74	69	79	69	77	68	76	68	65
	6	84	75	68	63	74	63	72	63	71	62	60
	7	80	70	63	58	69	58	67	58	66	58	56
	8	75	65	58	54	64	54	63	54	62	53	52
	9	71	61	54	50	60	50	59	50	58	50	48
10	68	57	51	47	57	47	56	46	55	46	45	

### 6-inch, Wide beam, 2500lm Engine, 113 lm/W at 26W

#### Candela Curve



#### M6RDL259CSWCLZ10U

Output lumens: 2500 lms  
Input watts: 25.6 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.28  
Beam Angle: 73°

#### Zonal summary

Zone	Lumens	%Luminaire
0-30	1446	50.0%
0-40	2188	75.7%
0-60	2864	99.0%
0-90	2892	100.0%

Angle	Mean CP	Lumens
0	1679	
5	1707	
10	1763	165
15	1690	
20	1613	512
25	1604	
30	1587	789
35	1476	
40	1192	742
45	903	
50	616	478
55	382	
60	217	198
65	96	
70	12	27
75	2	
80	1	1
85	0	
90	0	0

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	67	6.3'
9'	47	7.6'
10'	34	8.6'
12'	26	10.7'
14'	21	11.3'

\* Beam diameter is where foot-candles drop to 50% of maximum.

#### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	128.0	1.13
6'	84.0	0.74
7'	60.0	0.53
8'	51.0	0.44
9'	40.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: 113.0lm/W  
Report: M6RDL259CSWCL-5000K.les\*

#### Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

#### Coefficients of utilization

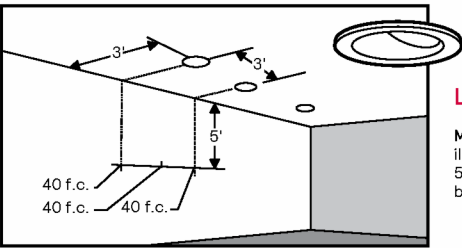
Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	112	109	106	104	107	102	103	99	99	96	91
	2	106	100	95	91	98	90	95	88	92	86	82
	3	99	91	85	81	90	80	87	79	84	77	74
	4	92	83	77	72	82	71	80	70	78	70	67
	5	87	77	70	64	76	64	74	64	72	63	61
	6	81	70	63	58	70	58	68	58	66	57	55
	7	76	65	58	53	64	53	63	53	62	52	50
	8	71	60	53	48	60	48	58	48	57	48	46
	9	67	56	49	44	55	44	54	44	53	44	42
10	64	52	45	41	52	41	51	41	50	41	39	

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# M4R/M6R/M8R    ModuLyte 4", 6", & 8"

## Round Downlight



### Lighting Data - Example

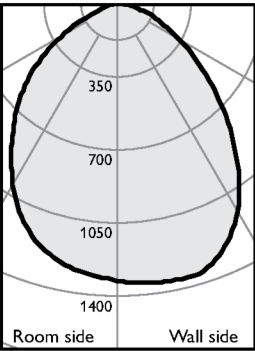
**M6RDL259CSWCLZ10U-M6RLW**  
illumination on the wall  
5' down from the ceiling is 40 f.c.  
beneath and 40 f.c. between fixtures.

### Adjustment factors

Finish	CCT (90CRI)	Lumens	
CL = 100%	5000K = 102%	5000lm = 200%	2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180%	1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160%	1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120%	750lm = 30%
	2700K = 95%	2500lm = 100%	500lm = 20%

### 6-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

#### Candela Curve



#### M6RDL259CSWCLZ10U-M6RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K

**Efficacy: 101.9 lm/w**  
Report: M6RDL259CSWCL-  
M6RLW-5000K.ies

#### Multiple unit data

##### Footcandles on wall

	3' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	20	19	20
2	40	39	40
3	48	48	48
4	47	47	47
5	40	40	40
6	32	33	32
7	26	27	26
8	21	21	21
9	17	17	17
10	14	14	14
12	12	12	12
14	10	10	10

#### Multiple unit data

##### Footcandles on wall

	3' from wall		
	4' on ctr.		
Distance from ceiling in feet	1	2	3
1	17	14	17
2	33	29	33
3	39	37	39
4	38	37	38
5	32	32	32
6	27	27	27
7	22	22	22
8	18	18	18
9	15	15	15
10	12	13	12
12	11	11	11
14	9	9	9

1. Correlated Color Temperature within specs as defined in ANSI/NEMA/ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

8-inch, Medium beam, 2500lm Engine, 114 lm/W at 26W

### Candela Curve



### M8RDL259CSMCDZ10U

Output lumens: 2916 lms  
Input watts: 26.7 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.06  
Beam Angle: 71°

### Zonal summary

Zone	Lumens	%Luminaire
0-30	1718	58.9%
0-40	2488	85.3%
0-60	2899	99.4%
0-90	2916	100.0%

Angle	Mean CP	Lumens
0	2444	
5	2414	
10	2341	228
15	2231	
20	2077	626
25	1886	
30	1651	864
35	1256	
40	791	770
45	423	
50	186	338
55	74	
60	22	73
65	11	
70	8	12
75	4	
80	2	4
85	1	
90	0	1

### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	98	5.3'
9'	68	6.4'
10'	50	7.4'
12'	38	8.5'
14'	30	9.5'

\* Beam diameter is where foot-candles drop to 50% of maximum.

### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
6'	131.0	1.14
6'	86.0	0.75
7'	61.0	0.53
8'	51.0	0.44
9'	41.0	0.38

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

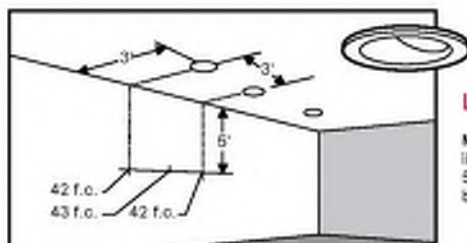
Efficiency: 113.8lm/W  
Report: M8RDL259CSWCD-5000K,ies\*

### Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 98%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 95%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 74%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

### Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	93
	2	107	102	97	94	100	92	97	90	94	88	85
	3	101	94	88	84	92	83	90	82	87	81	78
	4	95	87	81	76	86	76	83	75	81	74	71
	5	90	80	74	69	79	69	78	68	76	68	66
	6	84	75	68	64	74	63	72	63	71	62	60
	7	80	70	63	58	69	58	68	58	66	58	56
	8	75	65	58	54	64	54	63	54	62	53	52
	9	71	61	54	50	60	50	59	50	58	50	48
10	68	57	51	47	57	46	56	46	55	46	45	



### Lighting Data - Example

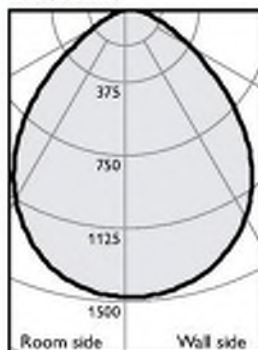
M8RDL259CSWCDZ10U-M4RLW  
illumination on the wall  
5' down from the ceiling is 40 f.c.  
beneath and 40 f.c. between fixtures.

### Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 98%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 95%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 74%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	2000lm = 80% 500lm = 20%

8-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

### Candela Curve



### M8RDL259CSWCDZ10U-M4RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K

Efficiency: 101.9 lm/W  
Report: M8RDL259CSWCD-  
M4RLW-5000K,ies

### Multiple unit data

#### Footcandles on wall

	3' from wall	3' on ctr.	3' from wall
1	23	22	23
2	42	41	42
3	51	50	51
4	50	50	50
5	42	43	42
6	35	35	35
7	27	28	27
8	22	23	22
9	18	18	18
10	15	15	15
12	12	12	12
14	10	11	10

### Multiple unit data

#### Footcandles on wall

	3' from wall	4' on ctr.	3' from wall
1	19	17	19
2	35	31	35
3	41	39	41
4	40	39	40
5	35	35	35
6	29	29	29
7	23	24	23
8	19	19	19
9	15	16	15
10	13	13	13
12	11	11	11
14	10	10	10

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

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**ModuLite downlights** provide the optimal balance of field flexibility, performance, and commercial appeal. Light engines are designed to be installed without need of frames making ModuLite flexible to accommodate new construction, remodel, and retrofit applications. Field selectable correlated color temperature and lumens in addition to field installable optics including wall wash allow ModuLite to adapt to a variety of applications such as office, institution, healthcare, retail, and public.

Complete luminaire = Frame (optional) + Engine/Trim + Accessories (optional)

#### Engine

example: M6RDL259CSWCDZ10U

Series	Styles	Lumens	CRI/CCT	Beam	Reflector	Flange	Dimming	Voltage	Options
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
M4R 4" Round <sup>1</sup>	DL Downlight	10 500lm, 750lm, 1000lm	9CS 90 CRI with 2700K, 3000K, 3500K, 4000K, 5000K CCTs	M Medium <sup>2</sup>	CL Specular clear	— White (matte)	Z10 0-10V 1%	U Universal 120/277V	— None
M6R 6" Round <sup>1</sup>	LW Lensed Wall Wash <sup>3</sup>	25 1500lm, 2000lm, 2500lm		W Wide	CD Comfort clear diffuse	B Black (matte)		3 347V <sup>4</sup>	LC Chicago plenum <sup>1</sup>
M8R 8" Round <sup>2</sup>		40 3000lm, 3500lm, 4000lm <sup>4</sup> 50 4500lm, 5000lm <sup>4,5</sup>			WH White BK Black (matte)	P Polished (matches aperture)			AT Air-tite (factory-installed gasket on trim flange) <sup>4</sup>
						— White (matte) B Black (matte)			EM6R Emergency battery pack w/ remote test switch <sup>4</sup>
									EM6I Emergency battery pack w/ integral test switch to trim <sup>10</sup>

#### Accessories

Lensed wall wash optic	New construction frame with 24" telescoping bar hangers	Medium beam diffuser lens	Goof ring White (matte)	Interact Ready System Bridge Accessory
M4RLW 4" round	4RNSR 4" round	M4MED 4" round	M4GRW 4" round	SBA System Bridge Accessory
M6RLW 6" round	6RNSR 6" round	M6MED 6" round	M6GRW 6" round	(refer to Philips System Bridge Accessory specification sheet for options and details)
M8RLW 8" round	8RNSR 8" round	M8MED 8" round	M8GRW 8" round	

- IC rated up to 1500lm.
- IC rated up to 2000lm.
- Integral lensed wall wash optic factory installed.  
May also be field installed with M<sub>4</sub>RLW accessory with DL style light engine/trim.
- The 4000, 4500, and 5000lm flux are marked spacings. Refer to page 7 for details.
- Available only with M6 and M8.
- Medium beam (M) option available only on select Stock Ready configurations.  
Consult factory for availability on make-to-order configurations.
- The 347V (3) and LC (Chicago plenum) options not available with EM6R and EM6I emergency options.
- Stock Ready light engines include factory-installed gasket and are AirSeal in compliance with ASTM E283.  
All other configurations require air-tite (AT) option to be selected for factory-installed gasket.
- Factory installed Bodine BSL06 6W battery pack for remote mount test switch.  
Ceiling mounting plate included. May also be field installed with LC6M6 accessory.
- Factory installed Bodine BSL06 6W battery pack for mounting test switch integrally to trim.



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Frame (optional)

#### New Construction Frames (optional):

4RNSR, 6RNSR, 8RNSR frames may be used to suit new construction installation as required to best accommodate placement of ceiling holes. All wiring is done on the integral junction box to the light engine.

- All metal construction with galvanized finish for corrosion protection.
- Integrated 24" x 7 1/2" telescoping bar hangers.
  - Integral nail and joist alignment tab for wood construction. Holes oriented for using screws (by others).
  - Notch for t-bar attachment with integral locking mechanisms.



### Construction

- Trim includes integral self-flange with tapered profile for leveling to ceiling plane.
- Die cast aluminum heat sink manages thermal load over spectrum for product longevity.
- Stamped and heat treated leaf springs designed for easy installation and maximized retention to the ceiling.
- Air-tite compliant to ASTM E283. Stock Ready configurations are supplied with factory-installed closed cell gaskets on the trim flange. All other configurations require air-tite (AT) option to be selected for factory-installed gasket.

### Optics

- Provides a physical 59° cutoff.
- Available in wide (4"/6"-80°, 8"-72°) beam for optimal spacing. Medium (4"/6"-68°, 8"-60°) field installable diffuser lens available.
- Precision spun all high grade aluminum reflectors available in anodized and painted finishes.
- Lens media may be removed in the field tool-free for easy installation of accessory diffusion media.
- Injection molded lensed wall wash optics. Replaces existing lens media holder with the standard product. Factory installed option or field installed accessory.

### Quality of light

- Beam shaping diffuser lens to mitigate pölation, enhance beam quality, and minimize color over angle.
- Color consistency:
  - 3 SDCM typ. @ 2700K & 5000K CCT
- Accurater 90 CRI minimum.

### Light Engine

Quick disconnect between the driver and light engine provides the following advantages:

- Junction box may be field wired in advance to better accommodate construction schedules.
- Light engine/trim may be installed at a later stage to protect the trim.
- Rated for direct contact with insulation (IC) - M4RDL to 1500lm, M6RDL & M8RDL to 2000lm
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Lumen Maintenance: L80 at 72,000 hours.

### Junction box

- Galvanized metal with captured cover that can be opened tool-free
- Three (3) 3/4" knock outs on the end for mains/dimming connections
- Two (2) 3/4" knock outs on the side, one allows for connection to emergency driver (field accessory or factory option)
- Mounting clips allow for direct mount to joist, or can be field modified to suspended t-bar (fasteners by others)
- Plenum rated CMP cable for secondary low voltage wiring between driver and engine. Integral quick disconnect allows for the engine and driver to be separated in the field for ease of installation and maintenance.
- Easy access switches allow for field selection of CCT (2700K-3000K-3500K-4000K-5000K) and lumens (refer to product selection matrix).

Max ceiling thickness is 1.25" (31 mm).  
Ceiling cutout - see page 7

### Driver

#### 0-10V 1% (Z10) dimming:

- 120-277V, 50/60Hz 0-10V dimming to 1%
- 347V option, 60Hz 0-10V dimming to 1%
- Tested in compliance with NEMA7-2017 for temporal lighting artifacts (flicker)
- FCC CFR Title47 Part 15 Class A

#### Recommended 0-10V dimmers:

- Eaton slide SF10
- Eaton Decorator DF10
- Lutron® Diva DVTV
- Lutron® Nova T NTFTV
- Leviton® IllumaTech IP710

### Emergency

- Factory installed emergency options include Bodine BSL06 6W battery pack w/ self-test/self-diagnostic mounted on separate junction box for mains/secondary wire splicing. Conduit connector provided for attachment to secondary side of AC driver box for splicing to cool LED circuit.
- EM6R - remote mount test switch, provided with 4 1/2" x 2 1/2" (109x69mm) ceiling cover plate.
- EM6I - reflector w/ hole to field assemble test switch integrally.

### Labels and Listings

- cULus listed for wet locations with covered ceilings
- Air-tite compliant to ASTM E-283
- CCEA (frames with \*LC suffix)
- RoHS certified

### Warranty



5 year limited warranty  
Visit [Signify.com/warranties](http://Signify.com/warranties) for more information on Signify's standard 5-year limited warranty on complete luminaire systems.



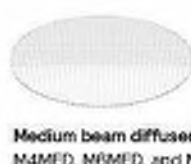
# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Accessories



**Lensed wall wash optics:**  
M4RLW, M6RLW, M8RLW may be field installed to standard product quickly converting to asymmetric distribution.



**Medium beam diffuser media:**  
M4MED, M6MED, and M8MED may be field installed to the media holder supplied with the standard engine.



**Oversized goof rings:**  
M4GRW, M6GRW, M8GRW may be field installed over the integral trim flange to support ceiling coverage for new or retrofit construction. See ceiling cutout chart for retrofitting guidance.



**Factory installed battery pack:**  
Bodine BSL6 6W battery pack with self-test/self-diagnostic. Includes remote ceiling plate for test switch. Includes flexible conduit and connector to wire into secondary compartment of the light engine's junction box. To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire configuration efficacy, then by 1.1.



### AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.



**Standard CRI 80**  
Good color rendering and high efficacy



**Standard CRI 90**  
Better color rendering and low efficacy



**AccuRender**  
Best color rendering, color preference and high efficacy

### Enjoy design flexibility

#### Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

### Promote savings

#### High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI<sup>1</sup>
- Helps meet Title 24 requirements

### Show your true colors

#### High color rendering:

- True to life colors that help energize your environment and render better flesh tones critical for healthcare, hospitality and retail applications.
- $R_a$  up to 94 CRI
- $R_g$  up to 87 CRI
- $G_a$  up to 89 CRI
- $C_g$  up to 94 CRI
- $R_{TM-30}$  up to 91 TM-30
- $R_g$  up to 100 TM-30
- $R_{TM-30}$  up to -5% TM-30

### Achieve color balance

#### Best in class color consistency:

- Promote aesthetic harmony in your space with  $\leq 3$  SDCM @ 2700K & 5000K



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

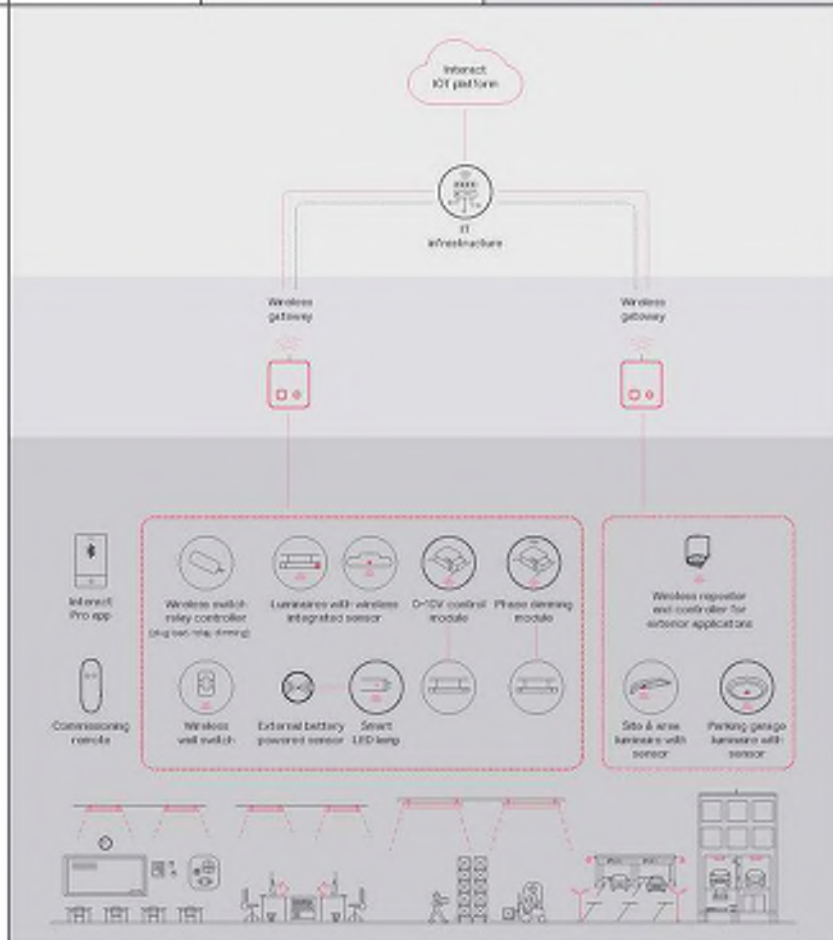
interact

	Standalone	Option 1	Option 2
	Gateway Connected		
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Correlated color temperature (CCT) tuning by switch	New	✓	✓
Support for sensor-based Tunable White luminaires	New	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

### Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
• Luminaires with integrated sensors	150
• Smart TLEDs	150
• Zones + groups	64
Total number of ZGP devices (sensors and switches)	50
• Sensors	30
• Switches	50
Group level	
Recommended number of lights	40 (maximum 150)
Number of ZGP devices	5
Number of scenes	16





# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Wireless controls options

#### Interact

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the standalone mode (similar to SpaceWise) when configured without a gateway or in a cloud connected mode if a compatible gateway is used.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote on-site to identify and group devices together.

#### Compatible with:

- SWS200 & UID8465 wireless scene switch
- Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
- Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
- LCN3110: battery powered IP65 presence sensor, OCC sensor IA CM IP65W
- LCN3120: battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH
- For more information on Interact visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Radio only sensor (RA or RADIO)

- Integral RA or RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non-gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely, identify and group devices together onsite.
- Compatible with SWS200 and UID8465 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Sensor bundle (IAOSB or SB)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible with SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available. Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- IAOSB or SB option in addition to occupancy and daylights sensing supports advanced IoT capabilities, such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit:  
[interact-lighting.com/interactproscalablesystem](http://interact-lighting.com/interactproscalablesystem)

#### Emergency Options (ER100)

- **Power Sensing** (factory default) – Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output.
- **Power Interruption Detection** (field option) – Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output.

### Interact supported sensor option codes across Genlyte product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	-	SWZCSH	-	-



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Reflectors



**Specular clear (CL):** Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



**Comfort clear diffuse (CD):** Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.



**White (WH):** (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



**Black (BK):** (matte) Specular finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.

### Flanges



**White (-):** (matte) Provides the smoothest transition to ceilings when off.



**Polished (P):** (matches aperture) Produces a continuous look throughout the reflector (aperture matching).

### Stock Ready configurations

Catalog Number	UPC Code	Model Number	Description
<b>ModuLyte LED 4" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M4RDL259CSWCLZ10U	190096192793	912401592618	CL/WH Z10 UNV
M4RDL259CSWCDZ10U	190096192809	912401592619	CD/WH Z10 UNV
M4RDL259CSWWHZ10U	190096192816	912401592620	WH/WH Z10 UNV
<b>ModuLyte LED 6" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M6RDL259CSWCLZ10U	190096192823	912401592621	CL/WH Z10 UNV
M6RDL259CSWCDZ10U	190096192830	912401592622	CD/WH Z10 UNV
M6RDL259CSWWHZ10U	190096192847	912401592623	WH/WH Z10 UNV
<b>Medium beam • 3000/3500/4000lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M6RDL409CSMCLZ10U	190096192854	912401592624	CL/WH Z10 UNV
M6RDL409CSMCDZ10U	190096192861	912401592625	CD/WH Z10 UNV
M6RDL409CSMWHZ10U	190096192878	912401592626	WH/WH Z10 UNV
<b>ModuLyte LED 8" Round Downlight</b>			
<b>Wide beam • 1500/2000/2500lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M8RDL259CSWCLZ10U	190096192885	912401592627	CL/WH Z10 UNV
M8RDL259CSWCDZ10U	190096192892	912401592628	CD/WH Z10 UNV
M8RDL259CSWWHZ10U	190096192908	912401592629	WH/WH Z10 UNV
<b>Medium beam • 3000/3500/4000lm</b>			
90CRI with 2700/3000/3500/4000/5000K CCTs			
M8RDL409CSMCLZ10U	190096192915	912401592630	CL/WH Z10 UNV
M8RDL409CSMCDZ10U	190096192922	912401592631	CD/WH Z10 UNV
M8RDL409CSMWHZ10U	190096192939	912401592632	WH/WH Z10 UNV

Cat. No.	UPC Code	Model Number	Description
<b>ModuLyte LED 4" Accessories</b>			
M4RLW	190096193134	912401592651	Lens Wall Wash Optics
M4MED	190096193165	912401592654	Medium Beam Optics
M4GRW	190096193189	912401592656	Goof Ring White
4RNSR	190096192526	912401592564	Frame SQ BH NJB
<b>ModuLyte LED 6" Accessories</b>			
M6RLW	190096193141	912401592652	Lens Wall Wash Optics
M6MED	190096193172	912401592655	Medium Beam Optics
M6GRW	190096193196	912401592657	Goof Ring White
6RNSR	190096192533	912401592565	Frame SQ BH NJB
<b>ModuLyte LED 8" Accessories</b>			
M8RLW	190096193158	912401592653	Lens Wall Wash Optics
M8MED	190096193226	912401592672	Medium Beam Optics
M8GRW	190096193202	912401592658	Goof Ring White
8RNR	190096192946	912401592635	Frame SQ BH NJB



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### Electrical - 4 inch

Light engine	Input Volts	Input Current	Drive Current	Input Power	LED Power	THD Factor	Power Factor
500lm	120V	0.05	0.1	5.8	4.1	<20	>0.9
	277V	0.02	0.1	5.9	4.1	<20	>0.9
	347V	0.02	0.1	6.2	4.1	<20	>0.9
750lm	120V	0.07	0.2	8.2	6.2	<20	>0.9
	277V	0.03	0.2	8.4	6.2	<20	>0.9
	347V	0.03	0.2	8.7	6.2	<20	>0.9
1000lm	120V	0.09	0.2	10.6	8.3	<20	>0.9
	277V	0.04	0.2	10.7	8.3	<20	>0.9
	347V	0.03	0.2	11.6	8.3	<20	>0.9
1500lm	120V	0.13	0.3	15.3	12.5	<20	>0.9
	277V	0.06	0.3	15.4	12.5	<20	>0.9
	347V	0.04	0.3	15.3	12.5	<20	>0.9
2000lm	120V	0.17	0.4	20.3	17.0	<20	>0.9
	277V	0.07	0.4	20.4	17.0	<20	>0.9
	347V	0.06	0.4	20.3	17.0	<20	>0.9
2500lm	120V	0.21	0.5	25.4	21.5	<20	>0.9
	277V	0.09	0.5	25.5	21.5	<20	>0.9
	347V	0.07	0.5	25.2	21.5	<20	>0.9
3000lm	120V	0.24	0.6	28.6	24.2	<20	>0.9
	277V	0.10	0.6	28.7	24.2	<20	>0.9
	347V	0.08	0.6	28.5	24.2	<20	>0.9
3500lm	120V	0.28	0.7	33.6	28.6	<20	>0.9
	277V	0.12	0.7	33.6	28.6	<20	>0.9
	347V	0.10	0.7	33.3	28.6	<20	>0.9
4000lm	120V	0.32	0.8	38.5	32.9	<20	>0.9
	277V	0.14	0.8	38.6	32.9	<20	>0.9
	347V	0.11	0.8	38.1	32.9	<20	>0.9

### Electrical - 6 & 8 inch

Light engine	Input Volts	Input Current	Drive Current	Input Power	LED Power	THD Factor	Power Factor
500lm	120V	0.05	0.1	5.9	4.2	<20	>0.9
	277V	0.02	0.1	6.1	4.2	<20	>0.9
	347V	0.02	0.1	6.4	4.2	<20	>0.9
750lm	120V	0.07	0.2	8.3	6.3	<20	>0.9
	277V	0.03	0.2	8.4	6.3	<20	>0.9
	347V	0.03	0.2	8.8	6.3	<20	>0.9
1000lm	120V	0.09	0.2	10.8	8.4	<20	>0.9
	277V	0.04	0.2	10.9	8.4	<20	>0.9
	347V	0.03	0.2	11.8	8.4	<20	>0.9
1500lm	120V	0.13	0.3	15.4	12.6	<20	>0.9
	277V	0.06	0.3	15.5	12.6	<20	>0.9
	347V	0.04	0.3	15.5	12.6	<20	>0.9
2000lm	120V	0.17	0.4	20.4	17.1	<20	>0.9
	277V	0.07	0.4	20.5	17.1	<20	>0.9
	347V	0.06	0.4	20.4	17.1	<20	>0.9
2500lm	120V	0.21	0.5	25.5	21.6	<20	>0.9
	277V	0.09	0.5	25.6	21.6	<20	>0.9
	347V	0.07	0.5	25.3	21.6	<20	>0.9
3000lm	120V	0.24	0.6	29.3	24.8	<20	>0.9
	277V	0.11	0.6	29.4	24.8	<20	>0.9
	347V	0.08	0.6	29.2	24.8	<20	>0.9
3500lm	120V	0.28	0.7	34.1	29.1	<20	>0.9
	277V	0.12	0.7	34.1	29.1	<20	>0.9
	347V	0.10	0.7	33.8	29.1	<20	>0.9
4000lm	120V	0.33	0.8	39.0	33.4	<20	>0.9
	277V	0.14	0.8	39.1	33.4	<20	>0.9
	347V	0.11	0.8	38.6	33.4	<20	>0.9
4500lm	120V	0.37	0.9	44.8	38.7	<20	>0.9
	277V	0.16	0.9	44.8	38.7	<20	>0.9
	347V	0.13	0.9	44.5	38.7	<20	>0.9
5000lm	120V	0.42	1.0	49.8	43.0	<20	>0.9
	277V	0.18	1.0	49.7	43.0	<20	>0.9
	347V	0.14	1.0	49.0	43.0	<20	>0.9

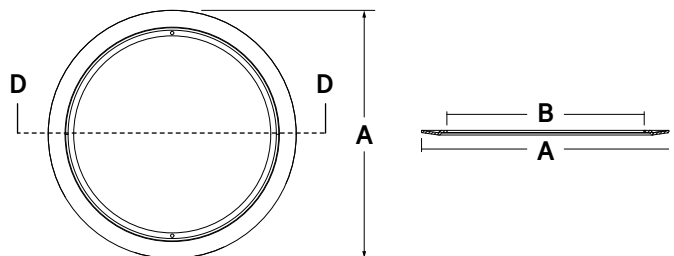
### Marked spacing applications

Light engine	4000lm	4500lm	5000lm
M4R	X		
M6R	X	X	X
M8R	X	X	X

Light engines marked with an X require marked spacing:

- Center-to-center of adjacent luminaires: 24" (610mm)
- Top of luminaire to overhead building member: 3" (75mm)
- Luminaire center to side building member: 12" (305mm)

### Goof ring



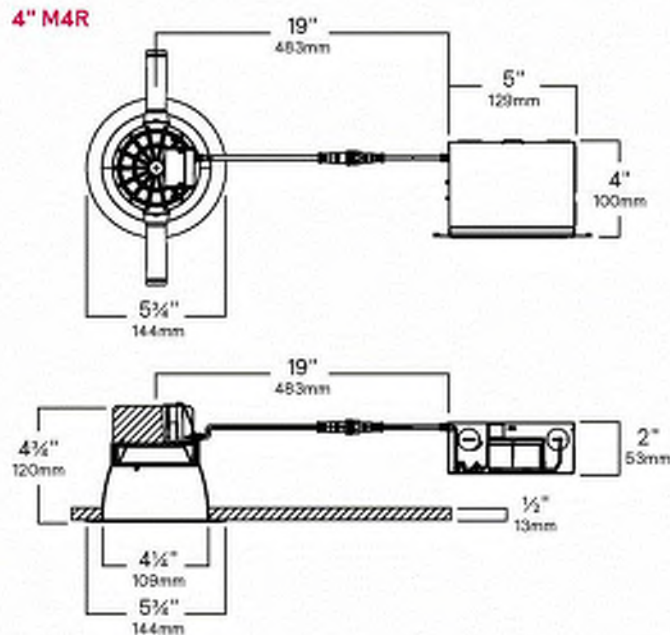
Size	A	B	Ceiling Cutout	
			Min (without goof ring)	Max (with goof ring)
M4GRW	7" (178mm)	5 3/8" (136mm)	4 7/8" (124mm)	5 3/4" (146mm)
M6GRW	8 3/4" (221mm)	6 7/8" (176mm)	6 3/8" (162mm)	7 1/2" (184mm)
M8GRW	10 3/4" (274mm)	9 1/8" (230mm)	8 3/8" (213mm)	9 1/4" (235mm)



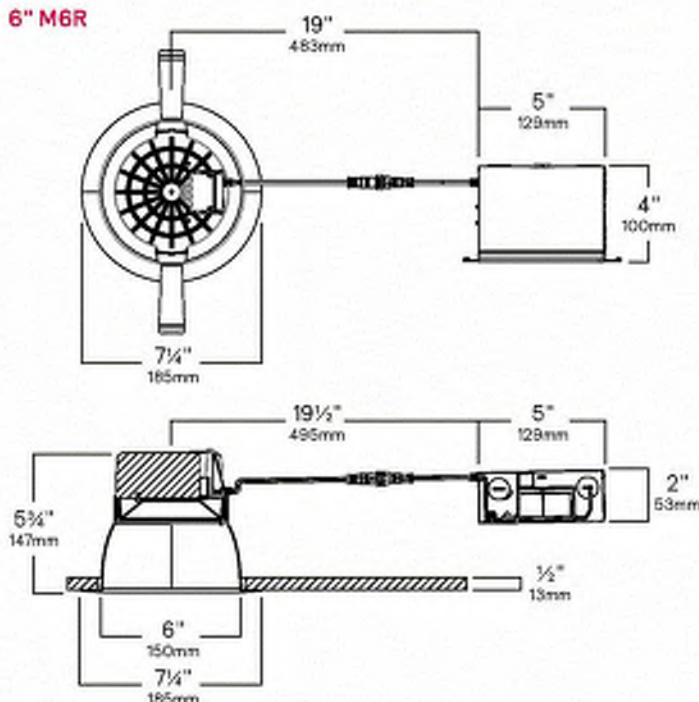
# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

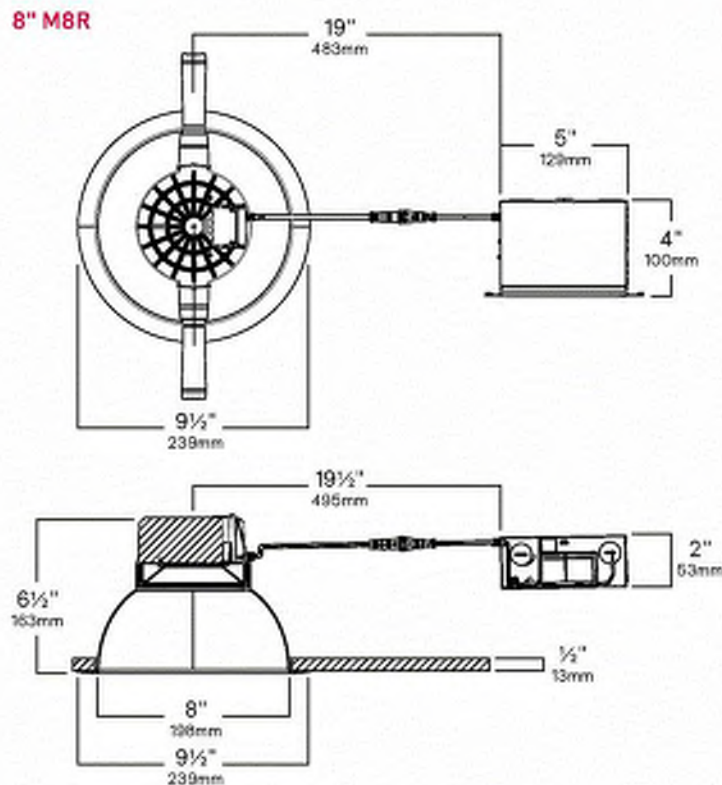
4" M4R



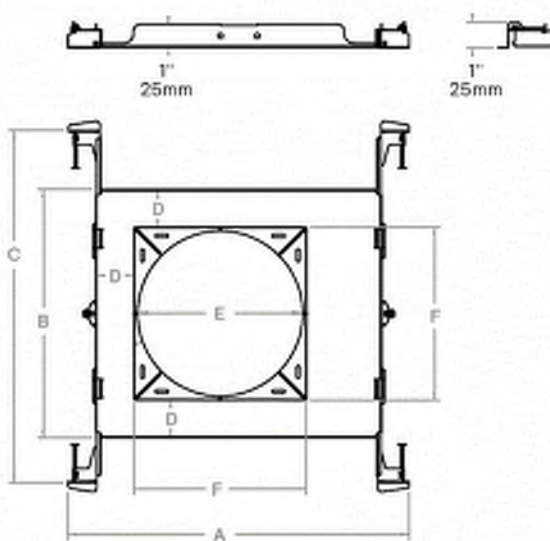
6" M6R



8" M8R



Frame (optional)



Size	A	B	C*	D	E	F
4RNSR	10 1/4" 276mm	7 1/4" 184mm	13 1/4" 345mm	1" 25mm	4 1/2" 124mm	5 1/4" 132mm
6RNSR	13 1/4" 334mm	9 1/4" 244mm	13 1/4" 345mm	1 1/4" 37mm	6 1/4" 162mm	5 1/4" 169mm
8RNR	13 1/4" 334mm	9 1/4" 244mm	13 1/4" 345mm	6" round apertured centered on frame		

\* Maximum span is 24"

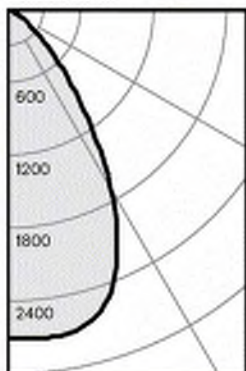


# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### 4-inch, Medium beam, 2500lm Engine, 103lm/W at 25W

Candela Curve



M4RDL259C8MCLZ10U

Output lumens: 2625 lms  
Input watts: 25.4 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.04  
Beam Angle: 65°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1562	59.5%
0-40	2162	82.4%
0-60	2601	99.1%
0-90	2625	100.0%

Angle	Mean CP	Lumens
0	2147	
5	2156	
10	2158	208
15	2104	
20	1961	589
25	1693	
30	1336	767
35	958	
40	645	600
45	399	
50	232	315
55	133	
60	69	124
65	18	
70	2	23
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	86	5.2'
9'	60	6.2'
10'	44	7.3'
12'	34	8.3'
14'	27	9.4'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	118.0	1.13
6'	77.0	0.74
7'	55.0	0.53
8'	46.0	0.44
9'	37.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficiency: 103.3lm/W  
Report: M4RDL259C8MCL-5000K.lvs\*

Adjustment factors

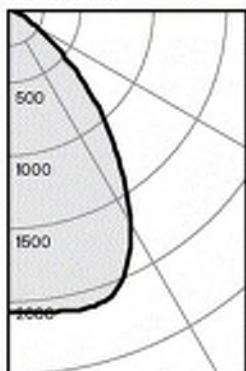
Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	500lm = 20%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	92
	2	107	101	97	93	100	92	96	90	93	88	84
	3	100	93	88	83	92	83	89	81	87	80	77
	4	95	86	80	75	85	75	83	74	81	73	71
	5	89	80	73	69	79	68	77	68	75	67	65
	6	84	74	68	63	73	63	72	62	70	62	60
	7	79	69	62	58	68	58	67	57	66	57	55
	8	75	65	58	53	64	53	63	53	62	53	51
	9	71	60	54	50	60	50	59	49	58	49	48
10	67	57	50	46	56	46	55	46	55	46	44	

### 4-inch, Wide beam, 2500lm Engine, 105lm/W at 25W

Candela Curve



M4RDL259C5WCLZ10U

Output lumens: 2665 lms  
Input watts: 25.4 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.18  
Beam Angle: 74°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1323	49.6%
0-40	1984	74.4%
0-60	2631	98.7%
0-90	2665	100.0%

Angle	Mean CP	Lumens
0	1849	
5	1652	
10	1663	158
15	1650	
20	1677	473
25	1649	
30	1519	692
35	1313	
40	1052	661
45	823	
50	577	447
55	371	
60	218	200
65	111	
70	15	32
75	3	
80	1	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	66	5.9'
9'	46	7.1'
10'	34	8.3'
12'	26	9.4'
14'	20	10.6'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	118.0	1.13
6'	77.0	0.74
7'	55.0	0.53
8'	46.0	0.44
9'	37.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficiency: 104.9lm/W  
Report: M4RDL259C5WCL-5000K.lvs\*

Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	500lm = 20%

Coefficients of utilization

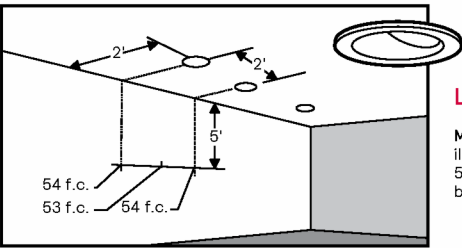
Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	112	109	106	104	107	102	103	99	99	96	91
	2	106	100	95	91	98	90	95	88	92	88	82
	3	99	91	85	81	90	80	87	79	84	77	74
	4	92	83	77	72	82	71	80	70	78	70	67
	5	87	77	70	64	76	64	74	64	72	63	61
	6	81	70	63	58	70	58	68	58	66	57	55
	7	76	65	58	53	64	53	63	53	62	52	50
	8	71	60	53	48	60	48	58	48	57	48	46
	9	67	56	49	44	55	44	54	44	53	44	42
10	64	52	45	41	52	41	51	41	50	41	39	

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI/CES E-1-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight



### Lighting Data - Example

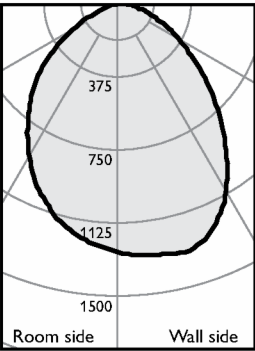
**M4RDL259CSWCLZ10U-M4RLW**  
illumination on the wall  
5' down from the ceiling is 54 f.c.  
beneath and 53 f.c. between fixtures.

### Adjustment factors

Finish	CCT (90CRI)	Lumens	
CL = 100%	5000K = 102%	4000lm = 160%	2000lm = 80%
CD = 97%	4000K = 101%	3500lm = 142%	1500lm = 60%
WH = 88%	3500K = 100%	3000lm = 120%	1000lm = 40%
BK = 57%	3000K = 99%	2500lm = 100%	750lm = 30%
	2700K = 95%		500lm = 20%

### 4-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

#### Candela Curve




#### M4RDL259CSWCLZ10U-M4RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT<sup>1</sup>: 5000K

**Efficacy:** 101.9 lm/w  
**Report<sup>2</sup>:** M4RDL259CSWCL-  
M4RLW-5000K.ies

#### Multiple unit data

##### Footcandles on wall

	2' from wall		
			
Distance from ceiling in feet			
1	65	64	65
2	105	104	105
3	96	95	96
4	74	73	74
5	54	53	54
6	39	38	39
7	29	29	29
8	22	22	22
9	17	17	17
10	14	14	14
12	12	12	12
14	10	10	10

#### Multiple unit data

##### Footcandles on wall

	<div>3' from wall</div> <div>3' on ctr.</div>			
Distance from ceiling in feet	1	21	20	21
	2	41	40	41
	3	48	47	48
	4	45	46	45
	5	38	39	38
	6	31	32	31
	7	25	26	25
	8	20	21	20
	9	16	17	16
	10	13	14	13
	12	11	12	11
	14	10	10	10

1. Correlated Color Temperature within specs as defined in ANSI/NEMA/ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

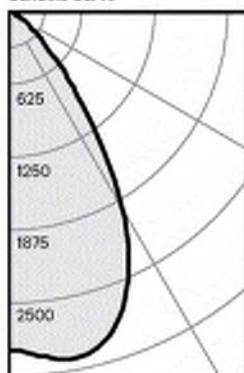


# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### 6-inch, Medium beam, 2500lm Engine, 114 lm/W at 26W

Candela Curve



M6RDL259CSMCLZ10U

Output lumens: 2500 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.08  
Beam Angle: 65°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1761	80.7%
0-40	2427	83.6%
0-60	2880	99.2%
0-90	2902	100.0%

Angle	Mean CP	Lumens
0	2307	
5	2348	
10	2405	228
15	2365	
20	2211	662
25	1929	
30	1528	873
35	1063	
40	681	888
45	409	
50	239	325
55	140	
60	68	128
65	12	
70	2	20
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	92	5.4'
9'	64	6.5'
10'	47	7.6'
12'	36	8.6'
14'	28	9.7'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	128.0	1.13
6'	84.0	0.74
7'	60.0	0.53
8'	51.0	0.44
9'	40.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: 113.8lm/W  
Report: M6RDL259CSMCL-5000K.les\*

Adjustment factors

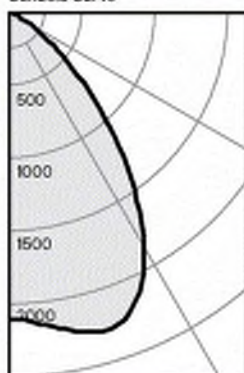
Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	92
	2	107	101	97	93	100	92	96	90	93	88	85
	3	101	94	88	84	92	83	90	82	87	81	78
	4	95	87	81	76	85	75	83	75	81	74	71
	5	89	80	74	69	79	69	77	68	76	68	65
	6	84	75	68	63	74	63	72	63	71	62	60
	7	80	70	63	58	69	58	67	58	66	58	56
	8	75	65	58	54	64	54	63	54	62	53	52
	9	71	61	54	50	60	50	59	50	58	50	48
10	68	57	51	47	57	47	56	46	55	46	45	

### 6-inch, Wide beam, 2500lm Engine, 113 lm/W at 26W

Candela Curve



M6RDL259CSWCLZ10U

Output lumens: 2500 lms  
Input watts: 25.6 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.28  
Beam Angle: 73°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1446	50.0%
0-40	2188	75.7%
0-60	2864	99.0%
0-90	2892	100.0%

Angle	Mean CP	Lumens
0	1679	
5	1707	
10	1763	165
15	1690	
20	1613	512
25	1604	
30	1587	789
35	1476	
40	1192	742
45	903	
50	616	478
55	382	
60	217	198
65	96	
70	12	27
75	2	
80	1	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	67	6.3'
9'	47	7.6'
10'	34	8.6'
12'	26	10.7'
14'	21	11.3'

\* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	128.0	1.13
6'	84.0	0.74
7'	60.0	0.53
8'	51.0	0.44
9'	40.0	0.35

38" x 38" x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: 113.0lm/W  
Report: M6RDL259CSWCL-5000K.les\*

Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

Coefficients of utilization

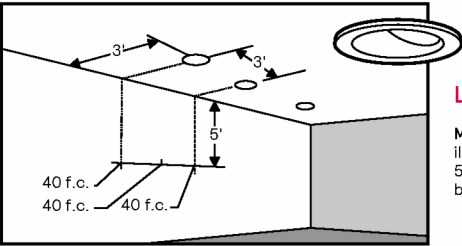
Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	112	109	106	104	107	102	103	99	99	96	91
	2	106	100	95	91	98	90	95	88	92	86	82
	3	99	91	85	81	90	80	87	79	84	77	74
	4	92	83	77	72	82	71	80	70	78	70	67
	5	87	77	70	64	76	64	74	64	72	63	61
	6	81	70	63	58	70	58	68	58	66	57	55
	7	76	65	58	53	64	53	63	53	62	52	50
	8	71	60	53	48	60	48	58	48	57	48	46
	9	67	56	49	44	55	44	54	44	53	44	42
10	64	52	45	41	52	41	51	41	50	41	39	

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI/C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# M4R/M6R/M8R    ModuLyte 4", 6", & 8"

## Round Downlight



### Lighting Data - Example

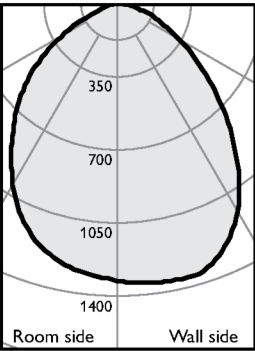
**M6RDL259CSWCLZ10U-M6RLW**  
illumination on the wall  
5' down from the ceiling is 40 f.c.  
beneath and 40 f.c. between fixtures.

### Adjustment factors

Finish	CCT (90CRI)	Lumens	
CL = 100%	5000K = 102%	5000lm = 200%	2000lm = 80%
CD = 99%	4000K = 101%	4000lm = 180%	1500lm = 60%
WH = 90%	3500K = 100%	3500lm = 160%	1000lm = 40%
BK = 58%	3000K = 99%	3000lm = 120%	750lm = 30%
	2700K = 95%	2500lm = 100%	500lm = 20%

### 6-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

#### Candela Curve



#### M6RDL259CSWCLZ10U-M6RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K

**Efficacy: 101.9 lm/w**  
Report: M6RDL259CSWCL-  
M6RLW-5000K.ies

#### Multiple unit data

##### Footcandles on wall

	3' from wall		
	3' on ctr.	3' on ctr.	3' on ctr.
1	20	19	20
2	40	39	40
3	48	48	48
4	47	47	47
5	40	40	40
6	32	33	32
7	26	27	26
8	21	21	21
9	17	17	17
10	14	14	14
12	12	12	12
14	10	10	10

#### Multiple unit data

##### Footcandles on wall

	3' from wall		
	3' on ctr.	4' on ctr.	4' on ctr.
1	17	14	17
2	33	29	33
3	39	37	39
4	38	37	38
5	32	32	32
6	27	27	27
7	22	22	22
8	18	18	18
9	15	15	15
10	12	13	12
12	11	11	11
14	9	9	9

1. Correlated Color Temperature within specs as defined in ANSI/NEMA/ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

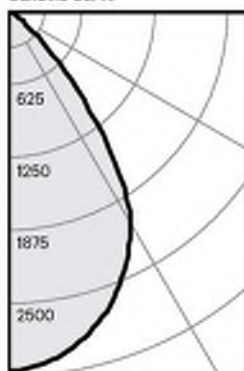


# M4R/M6R/M8R ModuLyte 4", 6", & 8"

## Round Downlight

### 8-inch, Medium beam, 2500lm Engine, 114 lm/W at 26W

#### Candela Curve



#### M8RDL259CSMCDZ10U

Output lumens: 2500 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K  
Spacing Crit.: 1.06  
Beam Angle: 71°

#### Zonal summary

Zone	Lumens	%Luminaire
0-30	1718	58.9%
0-40	2488	85.3%
0-60	2899	99.4%
0-90	2918	100.0%

Angle	Mean CP	Lumens
0	2444	
5	2414	
10	2341	228
15	2231	
20	2077	626
25	1886	
30	1651	864
35	1256	
40	791	770
45	423	
50	186	338
55	74	
60	22	73
65	11	
70	8	12
75	4	
80	2	4
85	1	
90	0	1

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	98	5.3'
9'	68	6.4'
10'	50	7.4'
12'	38	8.5'
14'	30	9.5'

\* Beam diameter is where foot-candles drop to 50% of maximum.

#### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
6'	131.0	1.14
6'	86.0	0.75
7'	61.0	0.53
8'	51.0	0.44
9'	41.0	0.38

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

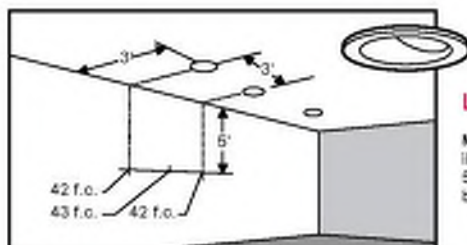
Efficiency: 113.8lm/W  
Report: M8RDL259CSWCD-5000K,ies\*

#### Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	5000lm = 200% 2000lm = 80%
CD = 98%	4000K = 101%	4000lm = 180% 1500lm = 60%
WH = 95%	3500K = 100%	3500lm = 160% 1000lm = 40%
BK = 74%	3000K = 99%	3000lm = 120% 750lm = 30%
	2700K = 95%	2500lm = 100% 500lm = 20%

#### Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	113	110	107	105	108	103	104	100	100	97	93
	2	107	102	97	94	100	92	97	90	94	88	85
	3	101	94	88	84	92	83	90	82	87	81	78
	4	95	87	81	76	86	76	83	75	81	74	71
	5	90	80	74	69	79	69	78	68	76	68	66
	6	84	75	68	64	74	63	72	63	71	62	60
	7	80	70	63	58	69	58	68	58	66	58	56
	8	75	65	58	54	64	54	63	54	62	53	52
	9	71	61	54	50	60	50	59	50	58	50	48
10	68	57	51	47	57	46	56	46	55	46	45	



#### Lighting Data - Example

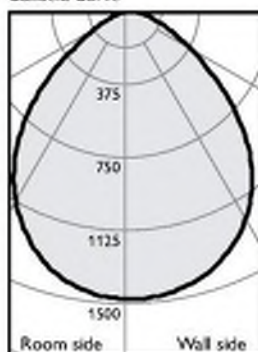
M8RDL259CSWCDZ10U-M4RLW  
illumination on the wall  
5' down from the ceiling is 40 f.c.  
beneath and 40 f.c. between fixtures.

#### Adjustment factors

Finish	CCT (90CRI)	Lumens
CL = 100%	5000K = 102%	4000lm = 160% 2000lm = 80%
CD = 98%	4000K = 101%	3500lm = 142% 1500lm = 60%
WH = 95%	3500K = 100%	3000lm = 120% 1000lm = 40%
BK = 74%	3000K = 99%	2500lm = 100% 750lm = 30%
	2700K = 95%	2000lm = 80% 500lm = 20%

### 8-inch, Lensed Wall Wash, 2500lm Engine, 102lm/W at 27W

#### Candela Curve



#### M8RDL259CSWCDZ10U-M4RLW

Output lumens: 2700 lms  
Input watts: 26.5 W  
CRI: 90 min  
CCT: 5000K

Efficiency: 101.9 lm/W  
Report: M8RDL259CSWCD-  
M4RLW-5000K,ies

#### Multiple unit data

##### Footcandles on wall

	3' from wall	3' on ctr.	3' from wall
1	23	22	23
2	42	41	42
3	51	50	51
4	50	50	50
5	42	43	42
6	35	35	35
7	27	28	27
8	22	23	22
9	18	18	18
10	15	15	15
12	12	12	12
14	10	11	10

#### Multiple unit data

##### Footcandles on wall

	3' from wall	4' on ctr.	3' from wall
1	19	17	19
2	35	31	35
3	41	39	41
4	40	39	40
5	35	35	35
6	29	29	29
7	23	24	23
8	19	19	19
9	15	16	15
10	13	13	13
12	11	11	11
14	10	10	10

1. Correlated Color Temperature within specs as defined in ANSI, NEMA, ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



# WAC LIGHTING

## Manhattan

### Semi-Flush Mount 2700K

Fixture Type:

Catalog Number:

Project:

Location:

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
○ FM-13120 20"	2700K	○ BN Brushed Nickel	37W	2873	2442

Example: **FM-13120-BN**

For custom requests please contact [customs@wacighting.com](mailto:customs@wacighting.com)

#### FEATURES

- Trimless look with a modern upgrade
- Urban elegance & LED illumination softened with a fabric shade
- 0-10V dimming option (LDS065M010AFE-LO1) available (special order), unit dimensions: 3.4" x 1.2" x 0.5"
- ACLED driverless technology
- 5 year warranty

#### SPECIFICATIONS

<b>Color Temp:</b>	2700K
<b>Input:</b>	120 VAC, 50/60Hz
<b>CRI</b>	90
<b>Dimming:</b>	ELV: 100-10% , TRIAC: 100-10%
<b>Rated Life:</b>	50,000 Hours
<b>Standards:</b>	ETL, cETL, Dry Location Listed
<b>Construction</b>	Aluminum hardware, fabric shade, polycarbonate diffuser

#### REPLACEMENT PARTS

RPL-DIF-13120 - Diffuser for FM-13120

RPL-GLA-13120 - Glass for FM-13120

RPL-SHA-13120 - Fabric shade for FM-13120



#### FINISHES:



Brushed  
Nickel

#### LINE DRAWING:





Project	
Notes	
Type	Date
Cat. No.	

**LCP™ UX Series**
**LED Square Canopy Luminaire - Field Adjustable**
**DESCRIPTION**

The Aleo LCP™ Series, LED Square Canopy Luminaire combines energy-efficiency, low-glare optics, and simple slim profile aesthetics to deliver enhanced performance to a range of surface-mount and recessed lighting applications. Mounting plate allows for quick and easy installation. Weather-proof compartment to withstand challenging environments.

**APPLICATIONS**

Covered walkways, drive-thrus, semi-covered outdoor aisles, corridors, building canopies, large stairwells. Covers recessed openings for surface mount application. Perfect for school campuses.

**Specification Features**

**Construction**

Simple, white finish powder-coated housing with advanced thermal management system ensures reliability and durability.

**Optical System**

Prismatic, square drop lens comes standard. Lens system improves safety and security by delivering high-efficiency illumination with low glare, comfortable illumination.

**Certification**

ETL Listed, DLC Premium CPL

**Warranty**

7-year Limited Warranty. See warranty documentation for more information.

**Electrical**

Luminaire utilizes high-efficacy LED packages maintained at cool temperatures for long life, high efficacy. Reliable driver features universal voltage (120-277V) for convenient installation.

**Installation / Mounting**

Luminaire comes standard with mounting plate for quick and easy installation. Can be mounted directly to surface junction box or surface mounted via keyhole slots on mounting plate. Covers existing 12" x 12" recessed square opening.

**Controls / Dimming**

Suitable for use with dimmers, sensors, daylight harvesting and other control strategies to achieve deeper energy-savings and code compliance.

**Field-Adjustable CCT / Wattage**

Increased versatility and reduced inventory burden. Wattage and Color Temp. Can be adjusted in the field by selecting (3) different wattages and (3) different CCTs via switch on driver box


**LCP Series**

20 13W / 15W / 20W  
55 36W / 45W / 55W

Rated Life 75,000 hours  
Limited Warranty 7-years  
Efficacy Over 121 LPW

**Quick Ship**

LCP-20UX/CT (PSMK)  
LCP-55UX/CT (PSMK)

**Ordering Information**

Example: LCP-55UX/CT XE (PSMK)

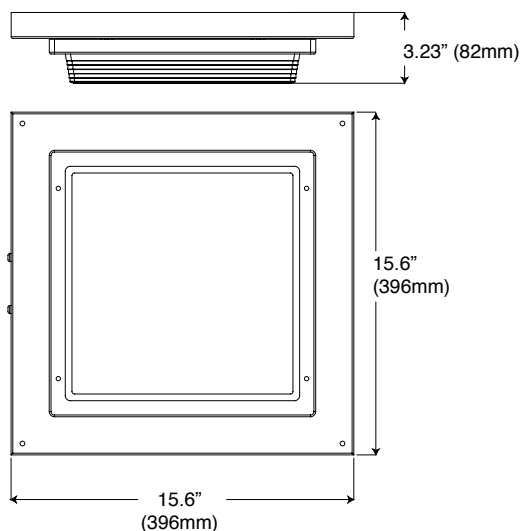
LCP	55	UX	CT	[Blank]	PSMK
<b>Series</b>	<b>Nominal Max Wattage</b>	<b>Lumen Package</b>	<b>Color Temp</b>	<b>Input Voltage</b>	<b>Housing</b>
LCP	20 13W / 15W / 20W	UX Field Adjustable	CT Field Adjust.	Blank	PSMK
LED Square	55 36W / 45W / 55W		3500K	120V-277V	Back housing enclosure
Canopy Luminaire			4000K		
			5000K		
<b>Options</b>					
			<b>Emergency Backup</b>	<b>Controls</b>	
			EM700 700 lm	OSDL/HFAR	
			EM1400 1400 lm	Multi-Level High Frequency	
				Occupancy Sensor	



## Performance Summary

Input Voltage	120V-277V
Input Frequency	50/60 Hz
Rated Wattage	See Performance Table
Delivered Lumens	See Performance Table
Efficacy	> 121 LPW (typ.)
CRI	80+, R9 > 0
Available CCT <sup>1</sup>	3500K, 4000K, 5000K
Rated Life	75,000 hours
Power Factor	> 0.9
THD	< 20%
Operating Temp.	-40°C to 40°C

## Product Dimensions



## Performance Data

Catalog No.	Nominal Wattage (W)	Tested Wattage (W)	3500K		4000K		5000K	
			Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)
LCP-20UX/CT (PSMK)	13	12	1584	132	1632	136	1596	133
	15	15	1980	132	2040	136	1995	133
	20	18	2340	130	2412	134	2358	131
LCP-55UX/CT (PSMK)	36	33	4290	130	4488	136	4422	134
	45	43	5375	125	5676	132	5590	130
	55	53	6413	121	6837	129	6731	127



Specifications and Dimensions subject to change without notice.

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**aleo**™  
LED LIGHTING

Aleo Lighting, Inc.  
www.aleolighting.com  
10988 Bloomfield Ave.  
Santa Fe Springs, CA 90670  
Ph: 877-358-8825



# WAC LIGHTING

## BLO - 5CCT

### Ceiling and Wall Mount

Model & Size	Color Temp & CRI	Lumens	Finish
<input type="radio"/> FM-113 <input type="radio"/> FM-115	<input type="radio"/> 2700K/3000K/3500K/4000K <input type="radio"/> 5000K 90	1600 2230	<input type="radio"/> WT White

Fixture Type:

Catalog Number:

Project:

Location:

Example: **FM-113-CS-WT**

#### DESCRIPTION

Blo LED Flush Mount is designed to blend into any decor with a clean and fresh appearance that produces an abundance of uniform diffused light. Ideal for use in foyers, corridors, hallways, bedrooms, offices, utility work areas, stairways and many other commercial or residential settings. An on-board 5-CCT selectable switch allows you to toggle between different color temperatures to find the perfect setting for your space.

#### FEATURES

- 5-CCT Switchable between 2700K and 5000K
- Multiple LED array for uniform illumination
- Driver included
- 5 year warranty

#### SPECIFICATIONS

<b>Construction:</b>	Aluminum with white acrylic diffuser
<b>Power:</b>	20W, 27W
<b>Input:</b>	120 -277 VAC, 50/60Hz
<b>Dimming:</b>	ELV: 100-5% , TRIAC: 100-5%
<b>Light Source:</b>	Integrated LED
<b>Lens:</b>	Translucent acrylic diffuser
<b>Rated Life:</b>	50000 Hours
<b>Mounting:</b>	Installs over a 3" or 4" Junction Box, Can be mounted on ceiling or wall in all orientations
<b>Finish:</b>	Electrostatically powder coated: White
<b>Operating Temp:</b>	-4°F to 104°F (-20°C to 40°C)
<b>Standards:</b>	ETL, cETL, Damp Location Listed, Energy Star 2.0, Title 24 JA8 Compliant, ADA, IC, Airtight

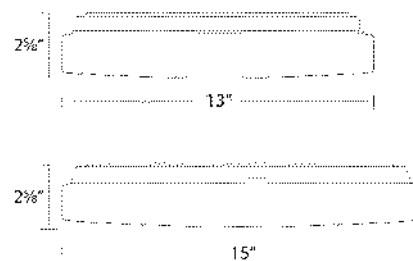


#### FINISHES:

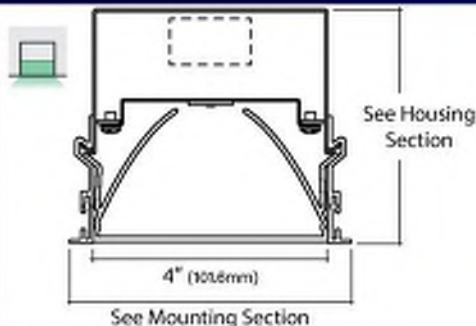


White

#### LINE DRAWING:







# EDGE EV4DPM

4" Recessed Perimeter

## Key Features

- Extruded aluminum trim with formed cold rolled 20 gauge steel back box housing
- 5-year limited warranty covers LED, driver and fixture
- ETL Listed conforming to UL1598 in US and CSA 250 in Canada
- Approved for dry/damp location unless otherwise noted
- Maximum fixture weight is 15lbs per 4ft fixture
- Room-Side Maintenance for LED system
- Buy American Act compliant
- Indigo-Clean available
- Product transparency with third-party verified Living Building Challenge (LBC) Declared



QUICKSHIP

Declare.



Example Part #: EV4DPM2-HE-830MO-26'-G1-U-FSD-T-0-W

HOUSING SHIELDING SOURCE LENGTH OR PATTERN MOUNTING VOLTAGE DRIVER CIRCUITING BATTERY & EMERGENCY FINISH FIXTURE OPTIONS CONTROLS

HOUSING	SHIELDING	SOURCE <sup>1</sup> QS.	LENGTH OR PATTERN <sup>2</sup> QS.
<b>EV4DPM</b> - Edge 4, Perimeter QS. <b>EV4DPM2</b> - Edge 4, Perimeter, 2" Regress QS. <b>EV4DPM3</b> - Edge 4, Perimeter, 3" Regress QS. <b>EV4DPM4</b> - Edge 4, Perimeter, 4" Regress QS. <b>MOD</b> - Modifications Available <i>Housing pg. 2</i>	<b>A</b> - Satine Lens QS. <b>HE</b> - High Efficiency Lens QS. <b>R</b> - Regress Lens <b>WHE</b> - Asymmetric Lens QS. <i>Shielding pg. 2</i>	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K <b>CL</b> - Custom Lumens <b>CW</b> - Custom Watts <b>MOD</b> - Mod options available <i>Lumen Output pg. 2-3</i>	<b>---</b> - Individual Fixture <b>---</b> - Continuous Row <b>SI</b> - Inside Square <b>SO</b> - Outside Square <b>RI</b> - Inside Rectangle <b>RO</b> - Outside Rectangle <b>UI</b> - Inside U Shape <b>UO</b> - Outside U Shape <b>LI</b> - Inside L Shape <b>LO</b> - Outside L Shape <i>Length pg. 3</i>
MOUNTING	VOLTAGE	DRIVER	CIRCUITING
<b>G1</b> - 1" (15/16") T Bar QS. <b>G9</b> - 9/16" T Bar QS. <b>GB</b> - 9/16" Bevel T Bar <b>GS</b> - Screw Slot T Bar QS. <b>FL</b> - 1/2" Flange QS. <b>NF</b> - Non Flange QS. <b>SF</b> - Spackle Flange QS. <b>MOD</b> - Mod options available <i>Mounting pg. 4</i>	<b>U</b> - Universal QS. <i>(120 thru 277V)</i> <b>1</b> - 120V QS. <b>2</b> - 277V QS. <b>3</b> - 347V <i>Voltage pg. 4</i>	<b>FSD</b> - Factory Select Driver (1%, 0-10V) QS. <b>PL2</b> - Advance Xitanium (1%, 0-10V) <b>OL2</b> - eldoLED Optotronic (1%, 0-10V) <b>OL4</b> - eldoLED Optotronic 347V (1%, 0-10V) <b>EE1</b> - eldoLED ECDriver (1%, 0-10V) <b>ES1</b> - eldoLED SOLDriver (0.1%, 0-10V) <b>LH1</b> - Lutron Hi-lume (1%, EcoSystem) <b>PS1</b> - Advance Xitanium (50%/100%) <b>MOD</b> - Mod options available <i>Driver pg. 5</i>	<b>1</b> - Single Circuit QS. <b>M</b> - Multi Circuit <b>E</b> - Emergency QS. <i>(entire fixture)</i> <b>N</b> - Night Light QS. <i>(entire fixture)</i> <i>Circuiting pg. 5</i>
BATTERY & EMERGENCY <sup>3</sup>	FINISH	FIXTURE OPTIONS <sup>4</sup>	CONTROLS <sup>5</sup>
<b>0</b> - None QS. <b>FSB</b> - Factory Select Battery QS. <b>FSG</b> - Factory Select ALCR <b>GB</b> - Bodine GTD <b>GI</b> - Iota ETS DR <b>IC</b> - Iota 10W (CEC Listed) <b>P</b> - Bodine 10W <b>E</b> - Emergency Circuit Section <b>N</b> - Night Light Circuit Section <b>L</b> - Life Safety Circuit Section <i>Battery and Emergency pg. 5-6</i>	<b>W</b> - White QS. <b>S</b> - Metallic Silver <b>BL</b> - Textured Black <b>BR</b> - Bronze <b>GR</b> - Graphite <b>CC</b> - Custom Color <i>Finish pg. 6</i>	<b>QS</b> - Quick Ship QS. <b>CP</b> - Chicago Plenum QS. <b>GLR</b> - Internal Fast Blow Fuse QS. <b>FIL</b> - Field Cut Illuminated Extension QS. <b>DSP</b> - Customer Supplied Battery/Driver/ Sensor <b>MOD</b> - Mod options available <i>Fixture Options pg. 6</i>	<b>MOD</b> - Mod options available <i>Controls pg. 7</i>

<sup>1</sup>When specifying SOURCE the first \_\_\_\_ is for specifying either 8 - 80CRI 9 - 90CRI The ending \_\_\_\_ are for specifying output, example HO - High Output. See output charts for more information. <sup>2</sup>Individual fixtures come in 2', 3', 4', 5', 6', 7' & 8' lengths. Continuous row come in 1/8" increments. <sup>3</sup>Enter quantity for Battery and Emergency, Example 2P. <sup>4</sup>QS must be used in part number when QuickShip. <sup>5</sup>Controls can only be used with Single Circuit (1) or Emergency Circuit (E). See Controls chart on page 5 for driver options and more information.

Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.





## Housing

- Mounting bolt allows for adjustability of mount height. If fixture is flushed to mount bracket, distance to ceiling would be bracket height (2") + fixture height (dependent on regress).

EV4DPM	EV4DPM2	EV4DPM3	EV4DPM4	MOD EV4DPM6
Edge 4, Perimeter	Edge 4, Perimeter 2" Regress	Edge 4, Perimeter 3" Regress	Edge 4, Perimeter 4" Regress	Edge 4, Perimeter 6" Regress

## Shielding

- Regress Lens option uses housing with backbox. Back box does not impact mounting. see detail.
- Asymmetric Lens option recommended for use pointing away from wall.
- Regress Lens option not available with corners.

A	HE	R	WHE	Regress Detail
Satine Lens	High Efficiency	Regress 1-1/8" regress	Asymmetric	

Source: White LED<sup>1</sup>

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory
- 90 CRI = R9250
- LPW and watts/ft based off 47" fixture size.

## Custom Output - Lumens OR Wattage

CL	Specify CRI, CCT and desired lumens (i.e. CL835500)	Specify lumens between standard offering listed below. Lumens are specified per color temp.
CW	Specify CRI, CCT and desired wattage (i.e. CW9407)	Specify watts between standard offering listed below

## 80 CRI

	Color	Lumens per foot	Shielding <sup>1</sup>		HE High Efficiency LPW	Watts/ft	R Regress LPW	Watts/ft	WHE Asymmetric LPW	Watts/ft
			A Satine LPW	Watts/ft						
830	3000K	500	114	4.4	126	4.0	103	4.9	123	4.1
830HO		750	114	6.6	130	5.8	103	7.3	127	5.9
830VHO		1000	117	8.5	131	7.6	104	9.6	130	7.7
835	3500K	500	118	4.3	130	3.9	104	4.8	127	4.0
835HO		750	117	6.4	134	5.6	106	7.1	131	5.7
835VHO		1000	120	8.3	136	7.4	107	9.4	132	7.6
840	4000K	500	118	4.3	130	3.9	104	4.8	127	4.0
840HO		750	117	6.4	134	5.6	106	7.1	131	5.7
840VHO		1000	120	8.3	136	7.4	107	9.4	132	7.6

## 90 CRI

927	2700K	500	94	5.3	106	4.7	83	6.0	103	4.8
927HO		750	96	7.8	108	6.9	85	8.8	105	7.1
927VHO		1000	95	10.5	108	9.2	N/A		107	9.4
930	3000K	500	103	4.9	115	4.3	91	5.5	113	4.4
930HO		750	103	7.3	115	6.5	92	8.1	112	6.7
930VHO		1000	104	9.6	118	8.5	92	10.9	116	8.7
935	3500K	500	103	4.9	115	4.3	90	5.5	112	4.5
935HO		750	102	7.3	115	6.5	92	8.1	112	6.7
935VHO		1000	104	9.6	118	8.5	92	10.9	115	8.7
940	4000K	500	103	4.9	115	4.3	90	5.5	112	4.5
940HO		750	102	7.3	115	6.5	92	8.1	112	6.7
940VHO		1000	104	9.6	118	8.5	92	10.9	115	8.7

<sup>1</sup>LPW and watts/ft based off 47" fixture size.

Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.

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EV4DPM\_LED\_SPEC\_MAY2025





## Direct Source: MOD Options

- Specify **MOD** in the part number for any of the below options
- All **RGB** Source Options will require specific driver and control
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD		Required Driver	Required Control
	Color Changing RGB LED	EC1	DMX
	Color Changing RGB-W LED	EC1	DMX
	Color Changing RGB-A LED	EC1	DMX
	2 Channel Tunable White	Various	Various

## Length

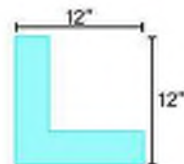
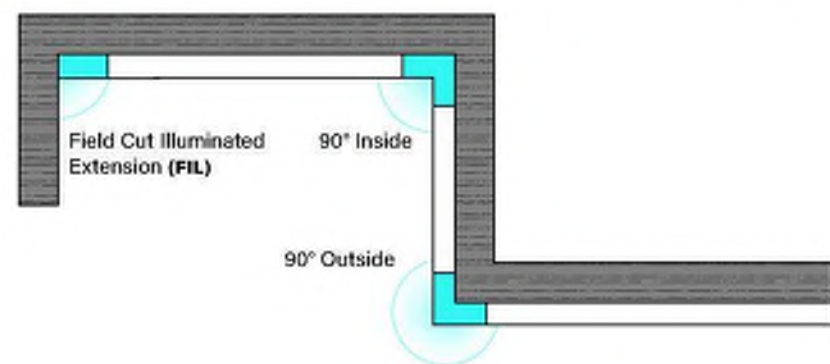
- All individual units cannot be joined, end trims are factory installed and cannot be removed
- Refer to Pattern section for specification and ordering options
- Continuous Rows are made up of even and odd length fixtures; designed to fall on-grid

2	3	4	5	6	7	8	—
Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Cont. Run Specify nominal overall row length to the 1/8"
23" (584.2mm)	35" (889mm)	47" (1193.8mm)	59" (1498.6mm)	71" (1803.4mm)	83" (2108.2mm)	95" (2413mm)	
							Specify to the 1/8" >>>

## Pattern

- Specify pattern shape and overall dimensions (includes corner dimensions)
- 90 degree horizontal corners are 12"x12" (overall, outside dimension)
- Use with Field Cut Illuminated extensions (**FIL**) to fit to wall to wall dimensions
- Not all drivers available with all patterns; consult factory
- Only available with A or HE lens

SI_	SO_	RI_x_	RO_x_	UI_x_x_	UO_x_x_	LI_x_	LO_x_
Square, Inside ( <b>SI</b> ) or Outside ( <b>SO</b> ) Provide overall length dimension for each fixture leg		Rectangle, Inside ( <b>RI</b> ) or Outside ( <b>RO</b> ) Provide overall length dimension for each fixture leg		U-Shape, Inside ( <b>UI</b> ) or Outside ( <b>UO</b> ) Provide overall length dimension for each fixture leg		L-Shape, Inside ( <b>LI</b> ) or Outside ( <b>LO</b> ) Provide overall length dimension for each fixture leg	


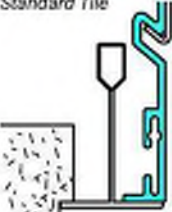
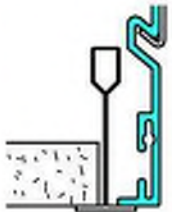




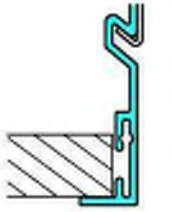
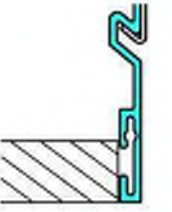
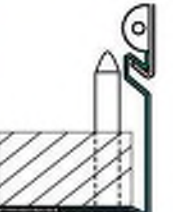






## Mounting

- Individual units cannot be joined, end trims are factory installed and cannot be removed
- Designed to install into acoustical grid and inaccessible ceilings
- Grid retention brackets integral to housing and require mechanical attachment
- Each housing contains 4 grid retention brackets
- Tie off fixture to structure with retention wires
- Approved for dry/damp location unless otherwise noted
- Details shown are room side mounting, wall side mounting will be FL flange on wall mount trim

G1	G9	GB	GS	FL	NF	SF
1" (15/16") T-Bar Flange to Flange: 4-15/16" (125.7mm)	9/16" T-Bar For regular tile installations, fixture position will not be flush to the bottom of the tile Flange to Flange: 4-15/16" (125.7mm)	9/16" T-Bar Rail has bevel edge details. For regular tile installations, fixture position will be flush to the bottom of the tile Flange to Flange: 4-15/16" (125.7mm)	Screw Slot & 9/16" T-Bar For 9/16" installations with regular tile, fixture position will be flush to the bottom of the tile Flange to Flange: 4-15/16" (125.7mm)	Exposed Standard 1/2" Flange Detail Flange to Flange: 5-1/8" (129.5mm)	Metal Pan or Millwork Flange to Flange: 4-3/4" (120.6mm)	Drywall, Flangeless Detail Flange to Flange: 5-1/2" (140.9mm)
 Standard Tile  Regular Tile	 Standard Tile  Regular Tile	 Regular Tile	 Regular Tile  Regular Tile			

## Mounting: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

### MOD Alternative Ceiling Solutions

## Voltage

- Some EV4D configurations will not accommodate all voltage options; consult with factory

<b>U</b>	Universal
<b>1</b>	120 volt
<b>2</b>	277 volt
<b>3</b>	347 volt





## Driver

- Standard Driver Option = FSD
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options see Pinnacle Resource Guide
- Some EV4D configurations will not accommodate all driver options; consult with factory

### 0-10V Drivers

<b>FSD</b>	Factory Select Driver 1%, 0-10v
<b>PL2</b>	Signify Advance Xitanium 1%, 0-10v
<b>PL4</b>	Advance Xitanium 347v 1%, 0-10v, requires 347v
<b>OL2</b>	eldoLED Optotronic, 1%, 0-10v
<b>OL4</b>	eldoLED Optotronic 347v, 1% 0-10v, requires 347v option
<b>EE1</b>	eldoLED ECOdrive 1%, 0-10v Logarithmic
<b>EE2</b>	eldoLED ECOdrive 1%, 0-10v Linear
<b>ES1</b>	eldoLED SOLOdrive 0-10v, 0.1% Logarithmic
<b>ES2</b>	eldoLED SOLOdrive 0-10v, 0% Linear
<b>OL5</b>	eldoLED Optotronic 1%, 0-10v, AUX
<b>PL5</b>	Advance Xitanium 1%, 0-10v, AUX

### DALI Drivers

<b>EE3</b>	eldoLED ECOdrive .1%, DALI (logarithmic)
<b>ES3</b>	eldoLED SOLOdrive .1%, DALI (logarithmic)
<b>OD1</b>	eldoLED Optotronic 1%, DEXAL

### Lutron Drivers

<b>LH1</b>	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
------------	---

### Alternate Drivers

<b>PS1</b>	Signify Advance Xitanium Step Dimming 50%/100%
<b>EH1</b>	ELV 120v only, 0-10v universal

## Driver: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	POE or DC Power
------------	-----------------

## How to Specify Circuiting, Battery and Emergency

- Select fixture circuiting from options below
  - Some EV4D configurations will not accommodate all circuiting options, consult with factory

### Circuiting

<b>1</b>	Single Circuit
<b>M</b>	Multi Circuit (Not available with controls)
<b>E</b>	Emergency Circuit only
<b>N</b>	Night Light Circuit only

- Battery and emergency section options are available in addition to fixture circuit
  - Select battery and emergency section options below; factory shop drawing required
  - Some EV4D configurations will not accommodate all circuiting options, consult with factory

### Battery and/or Emergency If Required

<b>0</b>	No battery or specific emergency section required
----------	---





## Battery

- Select battery section type if required, indicate total QTY. *Example 2P*
- 90 minute battery runtime; test button location dependent on configuration, consult factory
- No battery option available for 2' lengths
- Entire fixture is on battery for lengths up to 5'
- Largest reflector section is on battery for 6', 7' and 8' housing lengths
- For more battery options available, see Pinnacle Resource Guide

<b>0</b>	No Battery
<b>_FSB</b>	Factory Select Battery (10w option)
<b>_FSBST</b>	Factory Select Battery (10w, Self Testing)
<b>_ILL</b>	10w Integral Lithium, Self Testing
<b>_PLL</b>	Bodine 10w Integral Lithium, Self Testing

### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 92.3 (LPW) x 10 (watts) = 923 battery lumen output

## Emergency

- Select emergency section type if required, indicate total QTY. *Example 2E*
- Combine battery and emergency section ordering codes if both options are selected

<b>_FSG</b>	Factory Select ALCR Emergency Control Device, UNV
<b>_GI</b>	10w ETS-DR, Emergency Control Device, UNV
<b>_GB</b>	Bodine GTD, Emergency Control Device, 120v or 277v
<b>_E</b>	Emergency circuit section
<b>_N</b>	Night Light circuit section
<b>_L</b>	Life Safety circuit section NO THROUGH WIRE

### Battery OR Emergency Ordering Examples

- Single circuit, 10w Integral Battery      Ordering Code: 1-1FSB
- Emergency only, 10w Integral Battery      Ordering Code: E-1FSB
- Single circuit, GTD required      Ordering Code: 1-1GB

## Finish

- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

<b>W</b>	White
<b>S</b>	Metallic Silver
<b>BL</b>	Textured Black
<b>GR</b>	Graphite
<b>BR</b>	Bronze
<b>CC</b>	Custom Color

## Fixture Options

- Additional options to enhance the fixture and finish of the product
- FIL has 2" min - 12" max length
- FIL Option angle range is 40° to 90°
- FIL Option is not IC rated

<b>QS</b>	Quick Ship
<b>CP</b>	Chicago Plenum
<b>GLR</b>	Internal Fast Blow Fuse
<b>DSP</b>	Customer Supplied Battery/Driver/Sensor
<b>FIL</b>	Field Cut Illuminated Extension

Quick Ship	Shielding	Source	Mounting	Voltage	Driver	Circuiting	Battery	Finish	Options
------------	-----------	--------	----------	---------	--------	------------	---------	--------	---------

<b>10-Day</b>									
<b>A</b>	80 CRI, all color temperatures, all lumen packages <i>See pg 2</i>	<b>G1</b>	1" T-Bar	<b>U</b>	Universal (120-277)	<b>FSD</b>	Factory Select Driver (1% 0-10v)	<b>1</b>	Single Circuit Emergency Night Light
<b>HE</b>		<b>G9</b>	9/16" T-Bar	<b>1</b>	120V			<b>0</b>	None
<b>WHE</b>		<b>GS</b>	Screw Slot	<b>2</b>	277V			<b>FSB</b>	Factory Select Battery
		<b>FL</b>	1/2" Flange					<b>W</b>	White
		<b>NF</b>	Flangeless					<b>CP</b>	Chicago Plenum
		<b>SF</b>	Speckle Flange					<b>GLR</b>	Fast Blow Fuse
								<b>FIL</b>	Illuminated Extensions

All lengths and continuous rows up to 1,000 ft OR 150 individual fixtures. Consult factory for larger projects.

## Fixture Options: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	Remote Driver
------------	---------------

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## Direct Source: MOD Options

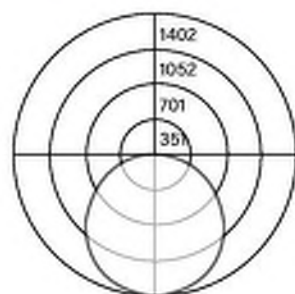
- Specify **MOD** in the part number for any of the below options
- Control** Options may require specific driver. Refer to the chart below
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD	Required Driver	
	Legrand Wattstopper DLM	OL2, OL4
	Encellum Sensillum	OD1, OL5
	Acuity nLight Air Wireless Connected	EE6, ES6

## Photometrics

## Satine Lens

Test #	ITL91432
Catalog #	EV2D-A-849VHO-4
Lumens	4620 lm
Watts	34.7 w
Efficacy	116 LPW



## Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1400	1400	1400	1400	1400
5	1393	1395	1397	1399	1399
10	1379	1382	1382	1379	1381
15	1348	1344	1350	1350	1348
20	1308	1298	1306	1307	1304
25	1253	1245	1253	1254	1247
30	1191	1178	1186	1184	1183
35	1112	1104	1112	1108	1105
40	1030	1023	1029	1027	1024
45	940	932	935	932	930
50	839	834	836	833	830
55	734	730	730	729	727
60	624	618	619	618	615
65	507	504	503	501	503
70	388	386	387	388	387
75	269	268	271	273	274
80	156	160	164	169	168
85	65	66	70	73	73
90	0	0	0	0	0

## Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10950	10892	10633
55	10541	10463	10440
65	9832	9804	9804
75	8561	8625	8720
85	6143	6616	6899

For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com). Photometry testing in accordance to IESNA LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25°C ambient conditions.

## Applications &amp; Certificates

**Housing:** Formed cold-rolled 20 gauge steel housing. Highly reflective die-formed white painted steel reflector.

**Shielding:** Diffuse snap-in acrylic lens, removable for maintenance.

**Mounting:** EDGE is designed to install into acoustical grid and inaccessible ceilings. Specify GX, FL, SF, NF, runs designed to fall on-grid. Consult factory for detailed installation instructions. Maximum fixture weight is 15lbs per 4' fixture.

**White LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%; 2' or 3' lengths may have a greater wattage deviation. Luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. TM-21-21 Lifetime Rating L70 = >72,000 hours, L90 = 68,400 hours, MacAdam 3-Step Ellipses. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**CRI, CCT & Lumen Output:** Not all lumen packages available. Three lumen packages available. Standard, High (HO) and Very High (VHO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K and 4000K. 90 CRI = R9250.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify PL4 or OL4 in Driver section when 347 volt (3) is selected. Some EDGE configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Factory Select Driver 0-10V, 1% = FSD. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. Ambient operating range: -20°F/-30°C to 94°F/35°C. For more driver options, see Pinnacle Resource Guide. Some EDGE configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Multi circuit - For multiple circuiting and zone control, requires factory shop drawing (M), Emergency circuit (E), Life Safety (L) or Night Light circuit (N). For emergency circuiting situations that require no through wire or circuit separation, Life Safety Circuit should be selected. This will provide a separate power feed and only the Life Safety Circuit in that section. Some EDGE configurations will not accommodate all circuiting options; consult with factory.

**Battery & Emergency:** Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button location dependant on configuration, consult factory. For more Battery options, see Pinnacle Resource Guide.

**Finish:** Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes or for additional custom color and finish options.

**Controls:** Mod options available, consult with factory.

**Labels:** UL and cUL 1598 listed. Standard, HO and VHO lumen packages are IC Rated, approved for dry/damp location unless otherwise noted.

**Sustainability:** All models are Living Building Challenge (LBC) Declared with third-party verification. The Declare Label from ILFI provides transparent insights into materials, sourcing, and environmental impact, promoting informed, sustainable choices that benefit both people and the planet. View the label here.

**Fixture Weight:** Maximum fixture weight is 15lbs per 4' fixture.

**Buy American Act Compliant**

**Warranty:** EDGE LED offered with a 5-year limited warranty. Covers LED, driver and fixture.



Klak is an outdoor LED bollard offered in 3 different heights, 1-foot, 2-foot or 3-foot. It is offered in static white, dim to warm or RGB. Dark Sky compliant for output below 80°.

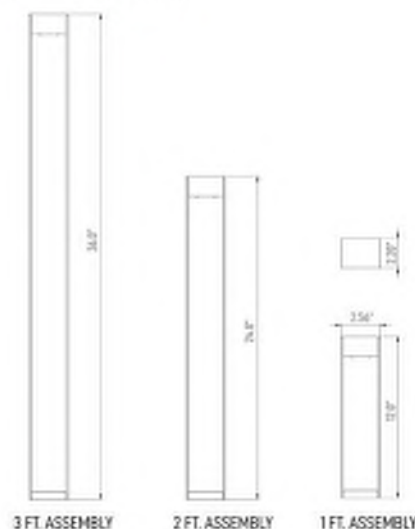
## TECHNICAL DATA

<b>Wattage</b>	6W (Dim to Warm) 12W (Static White) 13W (RGB)
<b>Power Supply</b>	Integral 120VAC (Static White only) Remote, not included - See page 2 (350mA RGB, 350mA Dim to Warm, 350mA Static White)
<b>Dimming</b>	Dimming based on remote power selected. 0-10V Dimming - Integral (Static White Only)
<b>Construction</b>	Body: Aluminum Lens: Clear
<b>CCT</b>	2700K, 3000K, 4000K (static white) 3000K-1800K (dim to warm) RGB
<b>BUG Rating</b>	B0-U1-G0
<b>CRI</b>	>80
<b>Delivered Lumens</b>	172 lm (Static 3000K - 2 foot version) Dark Sky compliant, output below 80°
<b>Efficacy</b>	14.3 lm/W (Static 3000K - 2 foot version)
<b>Optics</b>	180°
<b>Finishes</b>	5 Standard, Custom RAL on request
<b>Fixture Dimensions</b>	2.5" w x 2.2" or 12.0", 24.0" or 36.0" h
<b>IP Rating</b>	IP65



MADE IN THE U.S.A.

Fixture Dimensions



## ORDERING INFORMATION

Example: KLK-L-1-40-02-C-0. Accessories / Power Supplies ordered separately.

KLK-L	-		-		-		-	0
Model #	Height	CCT	Finish	Dimming	Options			
KLK-L	1 - 1 ft. 2 - 2 ft. 3 - 3 ft.	27 - 2700K 30 - 3000K 40 - 4000K RG - RGB DW - Dim Warm (3000K-1800K)	11 - White Suede 02 - Black Suede 03 - Gray 18 - Tex. Bronze TS - Silver C - Custom	R - <u>Remote</u> Driver (for Dim to Warm, RGB & Static White 1 ft. version) L - Lutron Dimming <u>Remote</u> Driver (Static White) C - Integral 120VAC - 0-10V Dimming For Static White Only (Not Available on 1 ft.) <div>See page 2 for remote power supply options</div>	0 - None			

Job Name/Date:

Fixture Type Designation:



**SUGGESTED POWER SUPPLIES**

## Dim to Warm - 350mA Remote Drivers

Part Number	Description	Input/Output	# of Fixtures
<a href="#">PPLT00466-P</a>	0-10V Dimming (to 1.0%)	120-277VAC to 350mA, 10W, Class 2	1-1
<a href="#">PPLT00468</a>	Phase Dim (120V only)	120VAC to 350mA, 12W, Class 2	1-2
<a href="#">PPLT00214</a>	0-10V Dimming (to 10%)	120-277VAC to 350mA, 30W, Class 2	3-4
<a href="#">PPLT00538-P</a>	0-10V Dimming (to 0.1%) (4 channels)	120-277VAC to 350mA, 100W, Class 2	1-3 (1-12)

## Lutron Compatible - Dim to Warm - 350mA Remote Driver

Part Number	Option	Lutron SKU	Dim Range	Description	Input/Output	# of Fixtures
<a href="#">PPLT00247</a>	L3DAE / L3DA3W	L3DA	100%-1%	Hi-Lume™ 1% EcoSystem™ or 1% 3-Wire LED Driver	120-277VAC to 350mA, 7W, Class 2	1-1
<a href="#">PPLT00516</a>	L3DAE / L3DA3W	L3DA	100%-1%	Hi-Lume™ 1% EcoSystem™ or 1% 3-Wire LED Driver	120-277VAC to 350mA, 13W, Class 2	2-2

## RGB - 350mA Remote Drivers

Part Number	Description	Input/Output	# of Fixtures
<a href="#">PPLT00244-P</a>	DMX / RDM (Must advise DMX addresses if not using RDM)	120-277VAC to 350mA, 50W, Class 2	1-4
<a href="#">PPLT00129-P</a>	DMX / RDM (Field Addressable)	120-277VAC to 350mA, 100W, Class 2	1-4

## Static White - 350mA Remote Drivers

Part Number	Description	Input/Output	# of Fixtures
<a href="#">PPLT00139</a>	0-10V Dimming to 10%	120-277VAC to 350mA, 12W, Class 2	1-1
<a href="#">PPLT00468</a>	Phase Dim (120V only)	120-277VAC to 350mA, 14W, Class 2	1-1
<a href="#">PPLT00465-P</a>	0-10V Dimming to 1.0%	120-277VAC to 350mA, 20W, Class 2	1-1
<a href="#">PPLT00263</a>	Leading / Trailing Edge Dimming to 10% (120V only)	120-277VAC to 350mA, 32W, Class 2	1-1
<a href="#">PPLT00168-P</a>	0-10V Dimming to 1.0%	120-277VAC to 350mA, 50W, Class 2	1-2
<a href="#">PPLT00538-P</a>	0-10V Dimming to 0.1%	120-277VAC to 350mA, 100W, Class 2	1-4

## Lutron Compatible - Static White - 350mA Remote Driver

Part Number	Option	Lutron SKU	Dim Range	Description	Input/Output	# of Fixtures
<a href="#">PPLT00516</a>	L3DAE / L3DA3W	L3DA	100%-1%	Hi-Lume™ 1% EcoSystem™ or 1% 3-Wire LED Driver	120-277VAC to 350mA, 13W, Class 2	1-1

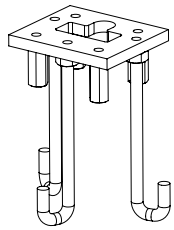
For other power supply options consult factory.

Job Name/Date:

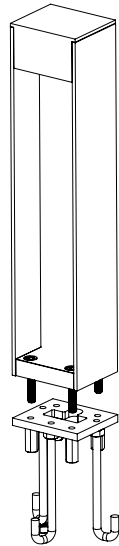
Fixture Type Designation:



## ACCESSORIES - Installation



**AM-00008**  
Mounting Base  
Assembly

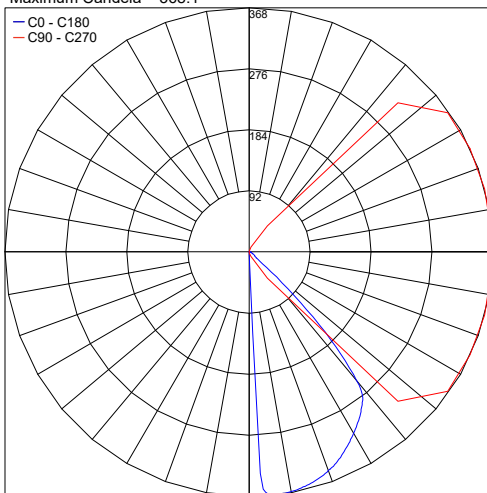


## PHOTOMETRIC DATA

*Note: Photometry is 3000K*

Maximum Candela = 368.1

— C0 - C180  
— C90 - C270



PHOTOMETRIC FILENAME : KLAK - 3000K 2FT INTEGRAL 120VAC.IES

Job Name/Date:

Fixture Type Designation:



## FEATURES & SPECIFICATIONS

**INTENDED USE** — Suitable for applications requiring attractive edge-lit exit signage, universal installation and low energy consumption.

**CONSTRUCTION** — Extruded brushed aluminum finish.

Clear acrylic panels- letters measure 6" high with 3/4" stroke, with 100 ft viewing distance rating, based upon UL 924 standard.

For single-face clear panels, EXIT is seen as a reversed image from the back.

**OPTICS** — LEDs mounted on printed circuit board. The typical life of the exit LED lamp is 5 years, based on 24/7 operation.

The LED operating frequency is 120Hz.

**ELECTRICAL** — Dual voltage input capacity (120/277V).

Battery: (EL Option) — Sealed, maintenance free nickel-cadmium battery delivers 90 minutes capacity to emergency lamps. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection.

Self-diagnostic testing (EL Option Only) for 30 seconds every 30 days and 90 minutes annually. Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition.

**INSTALLATION** — EDG — Universal mounting canopy for top or end mount. Back mount standard for single face only. Canopy provided.

EDGR — Recessed mounting. Bar hanger and brackets provided for both new or restricted ceiling access installation applications. Available for use in drop ceiling applications. Back wall mount (WM) option.

Universal directional indicators. Field selected and attached.

**LISTINGS** — UL damp location listed 32°-122°F (0°-50°C) standard. Meets UL924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards. Meets all applicable FCC Title 47, Part 15, Subpart B requirements.

**BUY AMERICAN ACT** — BAA — Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations. Please refer to [www.acuitybrands.com/buy-american](http://www.acuitybrands.com/buy-american) for additional information.

**WARRANTY** — 5-year limited warranty (Battery is prorated). This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

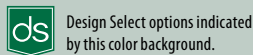
**NOTE:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit [www.acuitybrands.com/designselect](http://www.acuitybrands.com/designselect).

\*See ordering tree for details



Catalog Number
Notes
Type



EDG (surface mount)



EDGR (recessed mount)



LED Edge-Lit Exits

# EDG EDGR



### Specifications

EDG (End Mount)	EDG (Top Mount)
Length: 13 (33.0)	Length: 13-5/8 (34.6)
Depth: 5-1/2 (14.0)	Depth: 4-5/16 (11.0)
Height: 11-1/8 (28.3)	Height: 11-3/4 (29.8)
Shipping Weight: 4 lbs (1.8 kgs)	Shipping Weight: 4 lbs (1.8 kgs)
EDG (Back Mount)	EDGR
Length: 13 (33.0)	Length: 13 (33.0)
Depth: 3 (7.6)	Depth: 1-3/4 (4.4)
Height: 11-1/8 (28.3)	Height: 8 (20.3)
Shipping Weight: 4 lbs (1.8 kgs)	Shipping Weight: 6.8 lbs (3.1 kgs)
	Shipping Weight (WM option): 8.1 lbs (3.7 kgs)

All dimensions are inches (centimeters) unless otherwise noted.

### ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

**Example:** EDG 1 R EL

Family	Housing color	Number of faces	Letter color	Operations	Options
<b>EDG</b> Surface mount LED edge-lit exit	<b>(blank)</b> Brushed aluminum	<b>1</b> Single face	<b>R</b> Red on clear (single face only) <sup>1</sup>	<b>(blank)</b> AC only	<b>(blank)</b> None
<b>EDGR</b> Recessed LED edge-lit exit	<b>W</b> White	<b>2</b> Double face	<b>G</b> Green on clear (single face only) <sup>1</sup>	<b>EL</b> Nickel-cadmium battery	<b>WM</b> Recessed wall mount <sup>2</sup>
			<b>RMR</b> Red on mirror <sup>2</sup>	<b>X2</b> Lamp wired on two separate AC circuits (specify 120V or 277V) <sup>4,5</sup>	<b>BAA</b> Buy America(n) Act Compliant
			<b>GMR</b> Green on mirror <sup>2</sup>	<b>SD</b> Self-diagnostics <sup>6</sup>	
			<b>RW</b> Red on white <sup>3</sup>		
			<b>GW</b> Green on white <sup>3</sup>		

### Accessories: Order as separate item.

ELA US12	12" stem kit with brushed aluminum canopy <sup>8</sup>
ELA W US12	12" stem kit with white canopy <sup>8</sup>
ELA WG1	Wireguard (13 3/4"H x 15 1/4"W x 6" D, back mount only)

### Notes

- For single-face clear panels, EXIT is seen as a reversed image from the back.
- Available with single and double face.
- White panel standard for double and single face.
- Both circuits can be energized at the same time.
- Not available with EL and SD options.
- Available with EL option only.
- Available on EDGR single face only
- See spec sheet [ELA-StemKits](#). Only available for EDG.

EDG-EDGR LED, Quantum® Surface and Recessed Mount Edge-Lit Exits

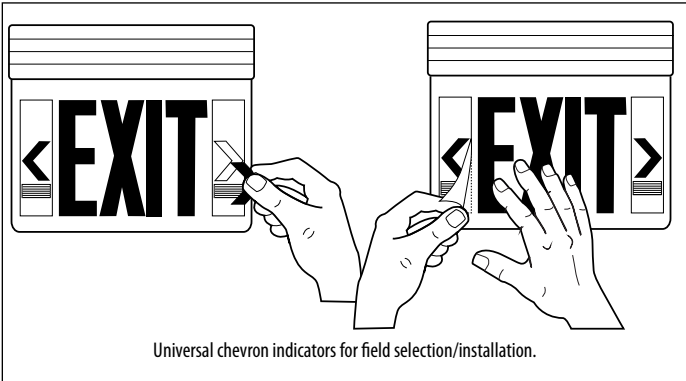
SPECIFICATIONS

ELECTRICAL						
Primary Circuit						
Type	Typical LED life¹	Supply voltage	EDG		EDGR	
			Input Watts	Max amps.	Input Watts	Max amps.
Red LED AC only	>5 years	120	2.5	0.020	3.8	0.030
		277	2.8	0.010	4.5	0.014
Green LED AC only	>5 years	120	2.2	0.020	3.8	0.030
		277	2.2	0.010	4.5	0.020
Red LED emergency	>5 years	120	3.0	0.030	3.8	0.031
		277	3.1	0.010	4.5	0.015
Green LED emergency	>5 years	120	2.6	0.020	3.8	0.031
		277	2.8	0.010	4.5	0.020

BATTERY (EL option)			
Sealed Nickel-Cadmium			
Shelf life²	Typical life²	Maintenance³	Temperature range⁴
3 years	6-8 years	none	32-122°F (0-50°C)

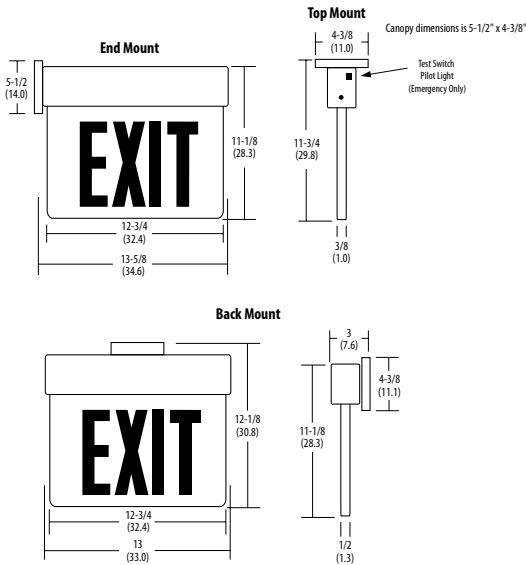
- Notes
- Based on 24/7 operation. The typical life of the exit LED lamp is 5 years.
  - At 77°F (25°C).
  - All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.
  - Temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity.

KEY FEATURES



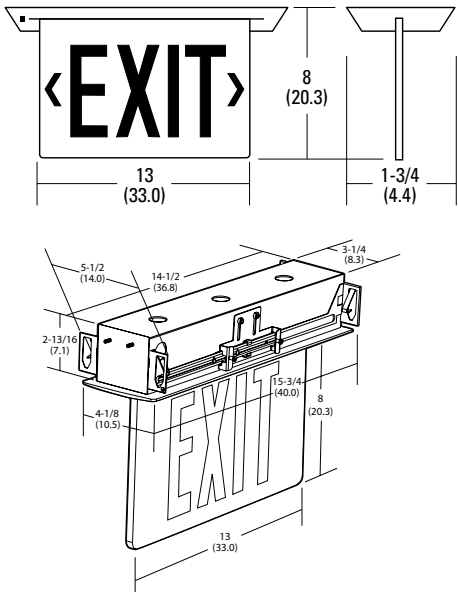
MOUNTING

EDG

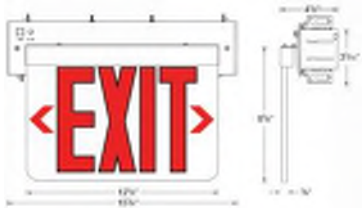


EDGR

Note: For drop ceiling applications refer to the standard installation section of the instruction sheet. Not applicable for "bracket mount" installation.



EDGR WM option





Mechanical Equipment (Refer to Mechaincal drawings)			
ID	Description	Specification	Notes
HP-1	Outdoor unit single zone heat pump ductless system	Carrier 38MBRCQ58	
EF-1	Exhaust Fan	Greenheck SG-100-VG	
FC-1	Fan Coil - High static slim ducted system	Carrier 40MBDAQ58	
GI-1, GR-1, GR-2	Gravity Intake	Greenheck FGI &FGR	

# Outdoor Unit Single Zone Heat Pump Ductless System

## 38MBRC Submittal Selection

HP-1



Turn to the experts

Job Data:

Location:

Carrier #:

Tag #:

Date:



Outdoor Model #	Size
38MBRCQ36AA3	36K
38MBRCQ48AA3	48K
38MBRCQ58AA3	58K

Combination Selection	
Outdoor Unit	58K
Indoor Category	Ducted

### STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Quiet operation
- Anti-corrosive fin coating

### LIMITED WARRANTY\*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
- \*For residential applications. See warranty for full details.

## Specifications

Outdoor - Heat Pump					
System	Outdoor Size				58K
	Voltage, Phase, Cycle		V/Ph/Hz		208/230-1-60
	MCA		A.		35
	Recommended Fuse Size		A.		40
	MOCP - Fuse Rating		A.		50
Electrical	Short Circuit Current Rating (SCCR)		kA		2.4
	Cooling Outdoor DB Min - Max		°F(°C)		-22~130 (-30~55)
	Heating Outdoor DB Min - Max		°F(°C)		-22~86 (-30~30)
	Total Piping Length		ft (m)		213 (65)
	Piping Lift		ft (m)		98 (30)
Operating Range	Pipe Connection Size - Liquid		in (mm)		3/8 (9.52)
	Pipe Connection Size - Suction		in (mm)		7/8 (22)
	Type				R410A
	Charge		lbs (kg)		10.58 (4.8)
	Additional Refrigerant Charge (between Std & Max Piping Lengths)		Oz/ft (g/m)		0.32 (30)
Piping	Metering Device				EXV + Capillary
	Face Area		Sq. Ft.		26.7
	No. Rows				3
	Fins per inch				18
	Circuits				14
Refrigerant	Type				Rotary Inverter
	Model				KTQ420D1UMU
	Oil Type				VG74
	Oil Charge		Fl. Oz.		47.4
	Rated Current		RLA		25.0
Compressor	Airflow		CFM		4,500
	Sound Pressure		dB(A)		61.2

\* Condensing unit above or below indoor unit

## Performance

Cassette	Outdoor Size				
	Indoor Model				
	Energy Star				
	Cooling System Tons				
	Cooling Rated Capacity	Btu/h			
	Cooling Cap. Range Min - Max	Btu/h			
	SEER				
	EER				
	Heating Rated Capacity (47°F)	Btu/h			
	Heating Rated Capacity (17°F)	Btu/h			
	Heating Maximum Capacity (17°F)	Btu/h			
	Heating Maximum Capacity (5°F)	Btu/h			
	Heating Cap. Range Min - Max	Btu/h			
	HSPF				
	COP (47°F)	W/W			
	COP (17°F)	W/W			
	COP (5°F)	W/W			

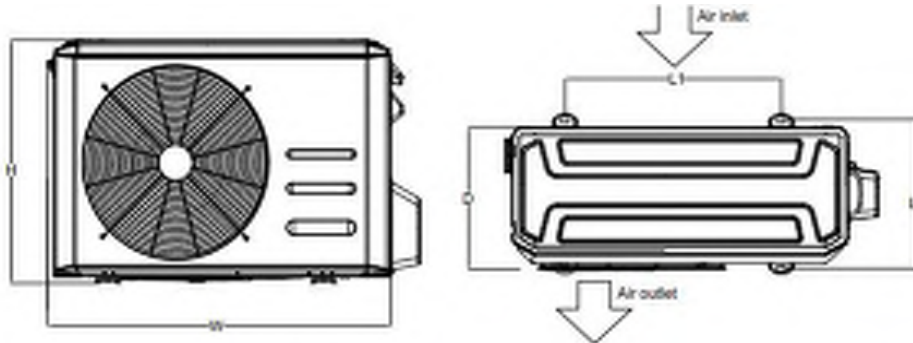


Ducted	Outdoor Size			58K
	Indoor Model			58K
	Energy Star			NO
	Cooling System Tons			4.8
	Cooling Rated Capacity	Btu/h		57,000
	Cooling Cap. Range Min - Max	Btu/h		13,000-59,000
	SEER			18
	EER			10
	Heating Rated Capacity (47°F)	Btu/h		60,000
	Heating Rated Capacity (17°F)	Btu/h		35,400
	Heating Maximum Capacity (17°F)	Btu/h		35,400
	Heating Maximum Capacity (5°F)	Btu/h		35,000
	Heating Cap. Range Min - Max	Btu/h		12,000-61,000
	HSPF			10.0
	COP (47°F)	W/W		3.5
	COP (17°F)	W/W		2.5
	COP (5°F)	W/W		2.01

Console	Indoor Model			
	Energy Star			
	Cooling System Tons			
	Cooling Rated Capacity	Btu/h		
	Cooling Cap. Range Min - Max	Btu/h		
	SEER			
	EER			
	Heating Rated Capacity (47°F)	Btu/h		
	Heating Rated Capacity (17°F)	Btu/h		
	Heating Maximum Capacity (17°F)	Btu/h		
	Heating Maximum Capacity (5°F)	Btu/h		
	Heating Cap. Range Min - Max	Btu/h		
	HSPF			
	COP (47°F)	W/W		
	COP (17°F)	W/W		
	COP (5°F)	W/W		

Air Handler	Indoor Model			
	Energy Star			
	Cooling System Tons			
	Cooling Rated Capacity	Btu/h		
	Cooling Cap. Range Min - Max	Btu/h		
	SEER			
	EER			
	Heating Rated Capacity (47°F)	Btu/h		
	Heating Rated Capacity (17°F)	Btu/h		
	Heating Maximum Capacity (17°F)	Btu/h		
	Heating Maximum Capacity (5°F)	Btu/h		
	Heating Cap. Range Min - Max	Btu/h		
	HSPF			
	COP (47°F)	W/W		
	COP (17°F)	W/W		
	COP (5°F)	W/W		

## Dimensions



\*Drawing for reference only; 48K & 58K models have dual fans.

Size			58K
Width (W)	in (mm)		37.48 (952)
Height (H)	in (mm)		52.48 (1333)
Depth (D)	in (mm)		16.34 (415)
L1	in (mm)		24.96 (634)
L2	in (mm)		15.58 (396)
Operating Weight	lbs (kg)		217.15 (98.5)
Shipping Width	in (mm)		43.11 (1095)
Shipping Height	in (mm)		58.27 (1480)
Shipping Depth	in (mm)		19.49 (495)
Shipping Weight	lbs (kg)		248.24 (112.6)



## Model: SQ-100-VG

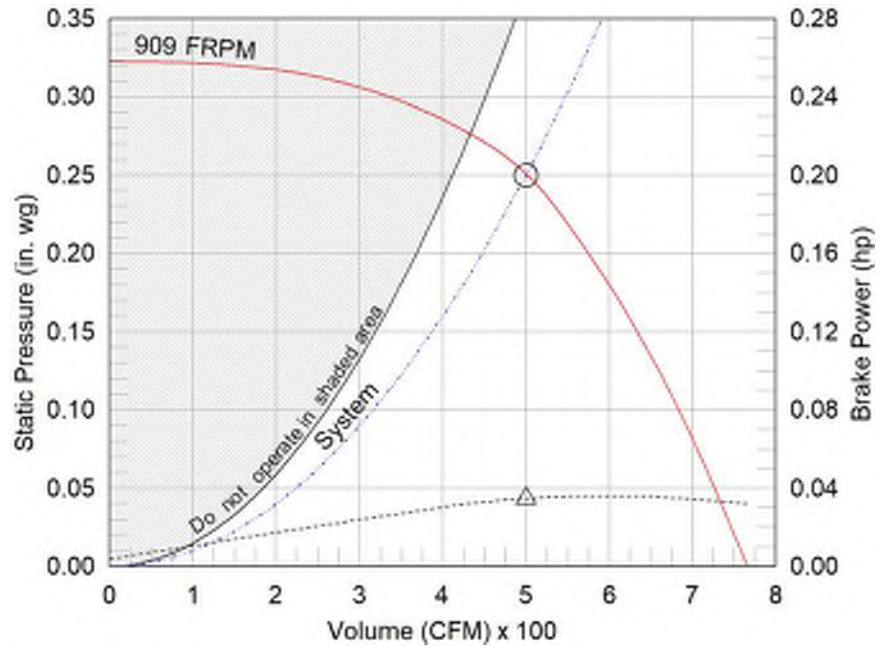
Direct Drive Centrifugal Inline Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	50
Weight w/ Acc's (lb)	62
Optional Damper (in.)	14 x 14

Performance	
Requested Volume (CFM)	500
Actual Volume (CFM)	500
Total External SP (in. wg)	0.25
Fan RPM	909
Operating Power (hp)	0.03
Elevation (ft)	325
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.074
Tip Speed (ft/min)	2,661
Static Eff. (%)	57

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	382

Motor	
Motor Mounted	Yes
Size (hp)	1/4
Voltage/Cycle/Phase	115/60/1
Enclosure	TENV
Motor RPM	1725
Windings	1
FLA (Amps)	2.85
Min. Circuit Ampacity (MCA)	4
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- ... Brake horsepower curve

### Nameplate Model: SQ-100-VG-X

#### Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	60	63	59	54	49	44	38	38	56	45	3.7
Radiated	61	65	53	48	44	38	32	34	53	41	3.1

#### Notes:

All dimensions shown are in units of in.  
\*NEC FLA, MCA and MOP are for reference only – based on tables 430.248 or 430.25 of National Electric Code 2020. 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).  
LwA - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International  
Sones - calculated using AMCA 301 at 5 ft



## Model: SQ-100-VG

### Direct Drive Centrifugal Inline Fan

**Greenheck model SQ Mixed Flow meets or exceeds legacy centrifugal models SQ/BSQ in performance and features. SQ Mixed flow is an approved equal and can be considered a direct replacement for these models.**

#### Standard Construction Features:

- Galvanized steel housing - Backward inclined composite (sizes 60-95) or aluminum (sizes 97-160) wheel - Two bolted access panels - Integral duct connection flanges - Ball bearing motors (sizes 97-160 and all vari-green motors), sleeve bearing motors (sizes 60-95) - Corrosion resistant fasteners

#### Selected Options & Accessories:

Motor - Vari-Green EC motor

Control - Vari-Green Dial on Exterior of Fan Housing, Mounted and Wired

UL/cUL 705 Listed - "Power Ventilators"

Junction Box Mounted and Wired

Switch, NEMA-1, Toggle, Shipped Separate,

Aluminum Wheel Material

Fan: Spring, Hanging, 1 Inch Isolator PN: 850343, Incl. 4 isolators and 4 brackets

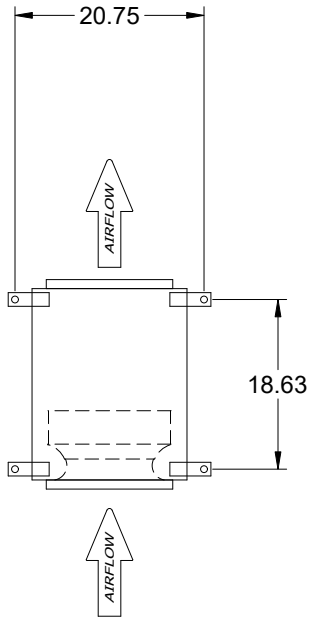
Damper Shipped Loose, Inline, BD-330-PB-14X14, Gravity Operated, Not Coated

Unit Warranty: 1 Yr (Standard)

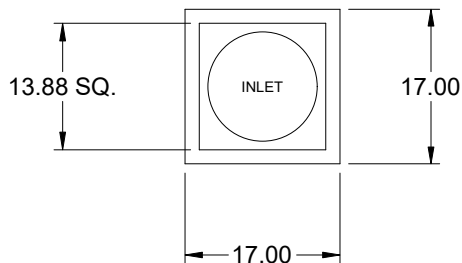
California Energy Commission Title 20 Compliant/Exempt

# SQ-100-VG

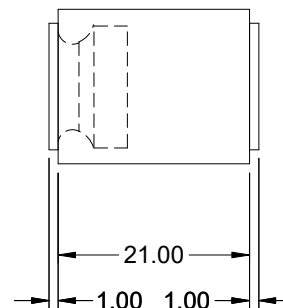
## Direct Drive Centrifugal Inline Fan



TOP VIEW



END VIEW



SIDE VIEW

Notes: All dimensions shown are in units of in.



Indoor Model: 40MBDAQ58XH3

# Submittal Data

Job Data:  Location:

Buyer:  Buyer P.O. #:  Carrier #:

Unit Number:  Model Number:

Performance Data Certified By:  Date:



## STANDARD FEATURES:

- Modes: Cool, Heat, Dry, Fan, Auto
- Vertical or Horizontal Installation
- Rear or Bottom Return
- Outside Air Intake
- Condensate Lift pump shipped with the unit
- Follow Me (senses temperature at handheld remote)
- Heating Setback (46° F Heating Mode)
- Quiet indoor operation
- Anti-corrosive fin coating

## CONTROLS:

- Wireless Remote included with indoor unit
- Optional Wired Remote Controller (Timer Function)
- Wired Remote Controller included with indoor unit

System	Size	58
Indoor Model		40MBDAQ58XH3
Electrical	Voltage, Phase, Cycle	V/Ph/Hz 208/230-1-60
	Power Supply	Indoor unit powered by outdoor unit
	MCA	A 5.00
Controls	Wireless Remote Controller (*F/C Convertible)	Standard
	Wired Remote Controller (*F/C Convertible)	Standard
Operating Range	Cooling Indoor DB Min-Max	*F(*C) 62-90 (16-32)
	Heating Indoor DB Min-Max	*F(*C) 59-84 (15-29)
Piping	Pipe Connection Size - Liquid	in (mm) 3/8 (9.52)
	Pipe Connection Size - Suction	in (mm) 7/8 (22)
Performance	Nominal Cooling Rated Capacity	Btu/h 59,000
	Nominal Heating Rated Capacity	Btu/h 60,000

Indoor Coil	Face Area	Sq. Ft.	5.88
	No. Rows		4
	Fins per inch		16
	Circuits		9
Indoor	Unit Width	in (mm)	55.12(1400)
	Unit Height	in (mm)	18.11(460)
	Unit Depth	in (mm)	33.78(858)
	Net Weight	lbs (kg)	174.60(79.2)
	Number of Fan Speeds		3
	Airflow (lowest to highest)	CFM	1262/1709/2156
	Sound Pressure (lowest to highest)	dB(A)	50/53/57
	Max Static Pressure	In.WG.	0.8
	Field Drain Pipe Size O.D.	in (mm)	1.0 (25.4)

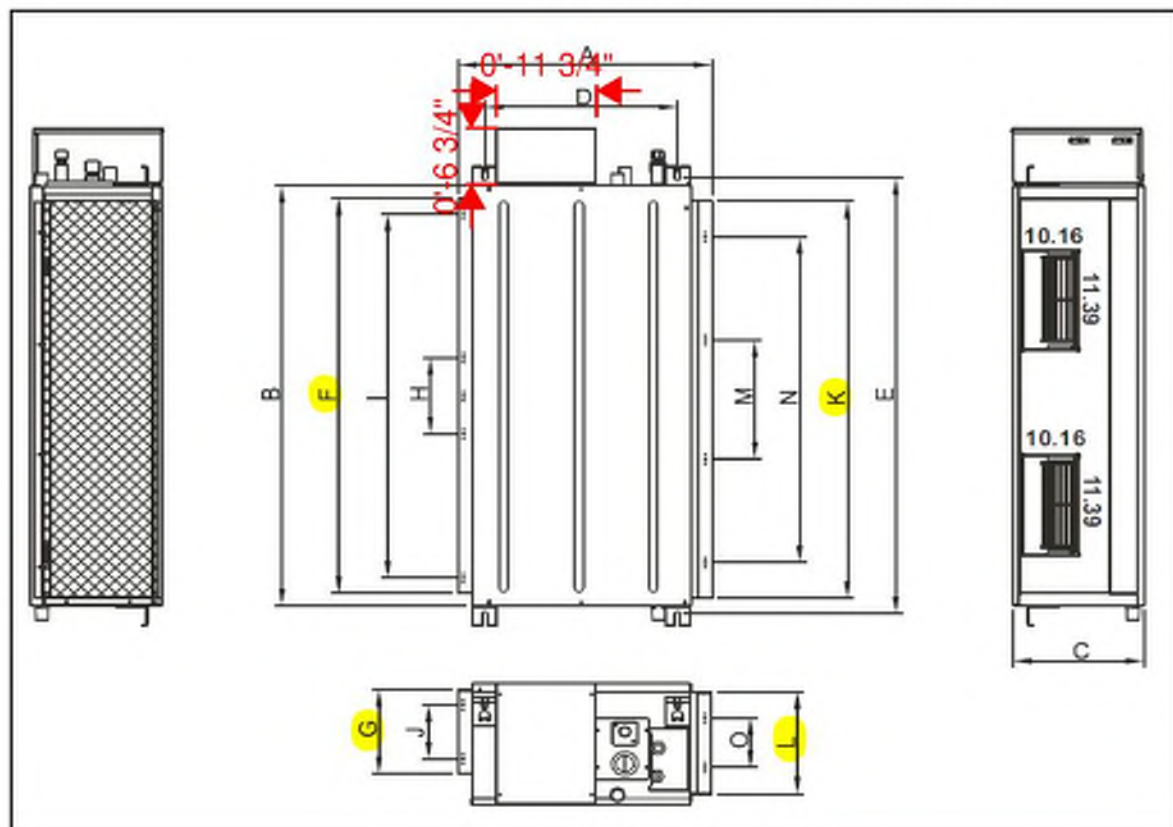
For compatibility see Product Data

## Accessories

KSACN0701AAA	Wired Remote Control 7 Day Programmable
KSACN0101AAA	Wired Remote Control with Timer Function
KSAIF0401AAA	Wi-Fi™ Kit
KSAIC0301230	24V Interface Kit 230V

## Construction View

Indoor Model: 40MBDAQ58XH3

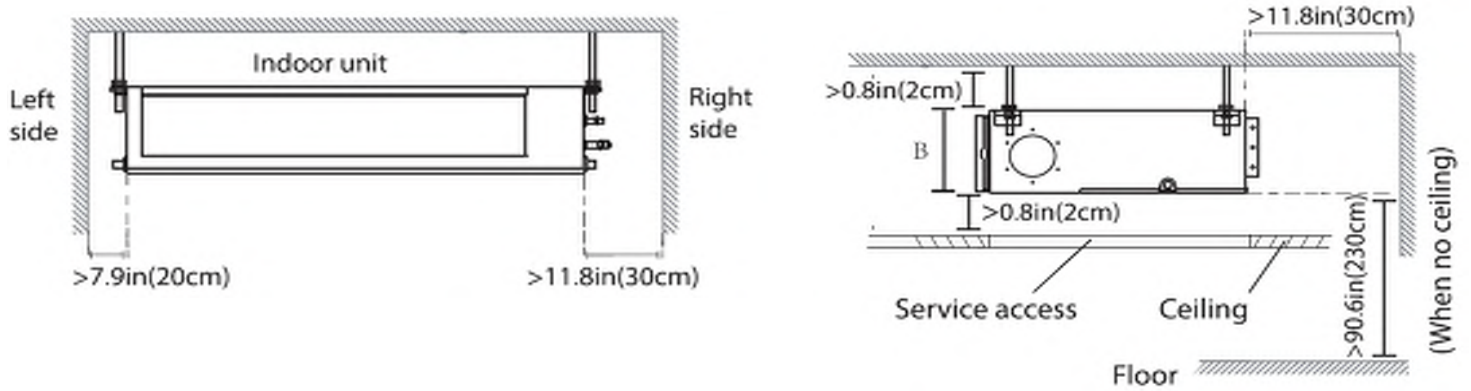


Dim.	in(mm)
A	33.8/858
B	55.1/1400
C	18.1/460
D	27.5/700
E	56.5/1436
F	46.7/1188
G	15/385
H	20/500
I	39.3/1000
J	11/280
K	46.7/1188
L	15/385
M	20/500
N	39.3/1000
O	11/280

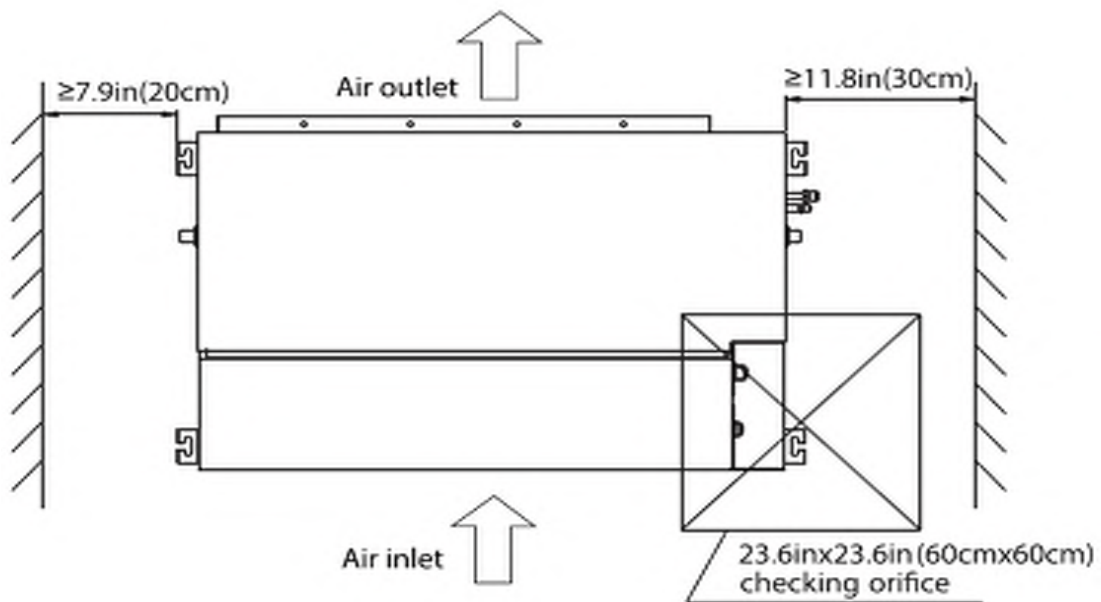




## Installation Clearances



## Maintenance Clearances



GI-1, GR-1, GR-2

# Gravity Ventilators

Models FGI/FGR, GRSI/GRSR, WIH/WRH

Intake and Relief



BUILDING VALUE IN AIR.



March  
2024



Gravity ventilators allow air to enter or exhaust a building using the pressure in a building. The air inside a building will exhaust out as the pressure inside a building increases. Similarly, air enters the building through the gravity ventilator as the inside pressure decreases.

## Fabra Hood

**4**

Designed for intake or relief applications, the fabra hood models FGI or FGR offer many important advantages over other gravity roof ventilators. These models are superior in load bearing strength, weather-resistance, dimensional flexibility and appearance.

Models FGI and FGR.....	4-7
Dimensions and Performance Data .....	8-13
Specifications .....	18

## Spun Aluminum

**14**

For natural gravity or positive pressure systems, the intake model GRSI or relief model GRSR offers excellent performance and durability. Featuring an exceptional low silhouette design and rugged construction, this model is both efficient and economical.

Model GRSI and GRSR .....	14
Dimensions and Performance Data .....	14-15
Specifications .....	18

## Louvered Penthouse

**16**

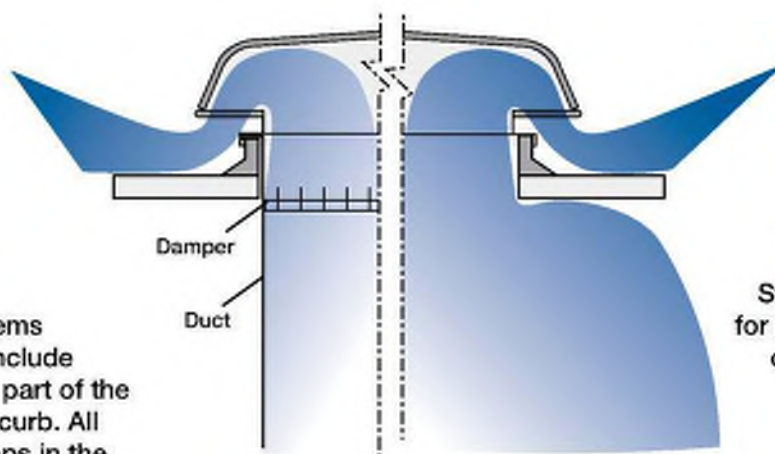
The WIH intake or WRH relief penthouse units offer an aesthetically pleasing design. This flexible design allows for units to be shipped in pre-assembled sections that can be easily assembled without special tools.

Models WIH and WRH .....	16
Dimensions and Performance Data .....	16-17
Specifications .....	19

## Model Comparison

Model	Intake	Relief	High Wind	Performance	
				Maximum Volume (CFM)	Maximum Static Pressure (in. wg)
GRSI	✓			15,200	0.4
GRSR		✓		18,400	0.4
FGI	✓		✓	109,600	0.4
FGR		✓	✓	96,800	0.3
WIH	✓			40,000	0.1
WRH		✓		60,000	0.2

## System Resistance



### Ducted Systems

Static pressure drops shown for ducted systems in this catalog do not include pressure drops for any part of the system below the roof curb. All additional pressure drops in the ducted system must be calculated by the system designer.

### Non-ducted Systems

Static pressure drops shown for non-ducted systems in this catalog include all entrance and discharge losses.

### Performance Data

Performance data shown on models include static pressure drops for both ducted and non-ducted systems. Pressure drop values as shown are lower for ducted systems than for non-ducted systems. The non-ducted pressure drop includes the sudden expansion at the throat for intake and sudden contraction loss at the throat for exhaust. These losses are not present when a duct is attached to the throat. Calculating total system resistance for

ducted systems also requires adding the pressure drop values shown to the combined total of the other losses in the system. A damper installed in either a ducted or non-ducted system will also require including additional pressure drop value. Where insect screens or filters are installed, the static pressure drops shown on page 6 should be included in system resistance calculations in lieu of standard cataloged pressure drops.



Fabra hoods are designed for intake (model FGI) or relief (model FGR) applications. The fabra hood design offers many important advantages not found in other gravity roof ventilators. Its design is superior in appearance, load-bearing strength, weather resistance, and dimensional flexibility.

## Appearance

The clean lines and uniform structural design of the fabra hood complement any building's appearance. The fabra hood is designed with a low profile to mount close to the roofline. The result is minimum impact on the building silhouette.

## Strength and Weather Resistance

These hoods are strong enough to handle the snow loads found in even the harshest of northern climates and have proven their ruggedness. The key to the fabra hood's strength and rigidity is in the design of the arched hood panels. Each panel provides structural support and is formed with interlocking edges. The result is a strong, rigid shell without the obstruction and performance losses of excessive internal support braces. The interlocking ribs also create tight, weather-resistant joints. No caulking or caps are required to seal out rain and snow.

## Third-Party Certified for High Wind

Miami-Dade, Notice of Acceptance NOA 23-1122.03  
Florida Product Approval - FL41781

- Highest industry rating

Maximum High Wind Certifications Sizes		
Model	Throat Diameter	
	Width inches	Length inches
FGI	54	54
FGR	66	66

- Fabra hoods are certified for static and cyclic wind loading and missile impact
- Designed to withstand wind loads of up to 70 psf (steel) and 40 psf (aluminum)
  - > No tie-downs are needed
- Installation/mounting details are provided



## Performance

The rounded inner surfaces of the fabra hood's arched panels promote a smooth, uninterrupted airflow to reduce pressure losses. Cataloged performance data is assured through extensive air testing of both ducted and non-ducted installations with standard birdscreens in place. Intake and relief units differ in size and performance. It is important to note that the "free area" (the opening surrounding the throat) is larger for intake hoods. This larger free area (twice that of the throat) limits the entry of airborne debris and moisture by creating lower intake air velocities. Since relief units are not affected by velocity considerations, the free area is equal to the throat area. Consequently, the smaller overall dimensions of relief units result in lower cost.

## Broad Range of Sizes

Model FGI (intake) and FGR (relief) are available in throat sizes ranging from a minimum of 8 inches wide by 8 inches long to a maximum of 72 inches wide by 180 inches long. The complete range of suggested throat sizes is shown on pages 8-13. Other sizes are also available in increments of one inch within the limits shown.

## Shipping

Most fabra hoods ship assembled unless the dimensions are too large to fit in a semitrailer. See pages 8-13 for specific dimensional data.

## Assembly

Hoods of long lengths can be constructed on the jobsite with the interlocking rib design. Where the appearance of a single unit is desired, large roof openings can be covered using a single hood. This also represents cost savings in working with a single roof penetration. Neither special tools nor training are required for assembly. See page 7 for details.



# Fabra Hood Construction Features

## Precision Formed Locking Rib System

Strength, weather tightness, and adjustable lengths are the primary advantages of the fabra hood's arched, interlocking hood panels. A single, precision roll forming operation creates the rib, the adjacent channel and the arch. All three features work in combination for rigidity and efficient water drainage.

Fabra hoods are available with hood panels and bases constructed of aluminum or galvanized steel as specified.

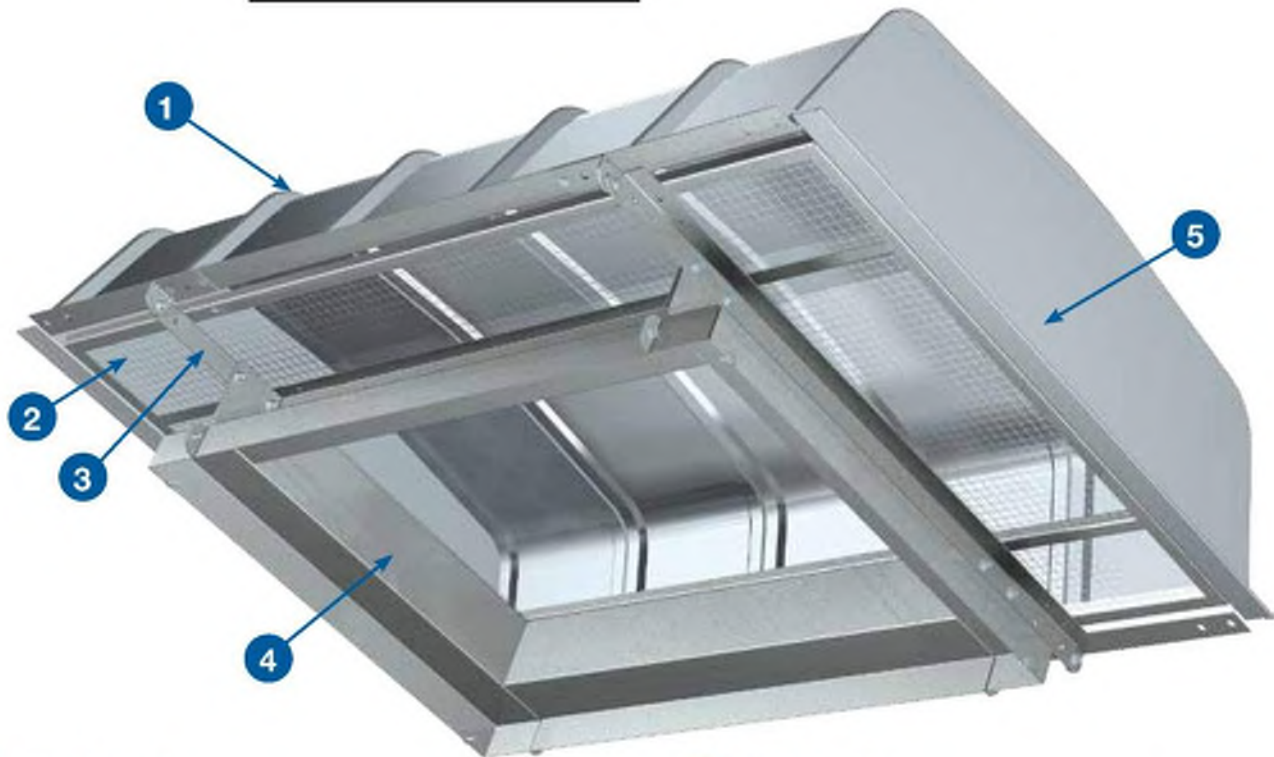


## Accessibility

Fabra hoods are designed for ease of access to allow inspection and maintenance of screens, filters, and dampers. There are two options for opening the hood:

1. Completely lift the hood off the base by removing the bolts on all the support members.
2. Hinged hood action allows the hood to swing up and over to lie on the roof deck by removing the end bolts on only one side of the support member.

**NOTE:** Using this hinging function on larger hoods or propping any hood partway open is not recommended due to safety concerns. Take care to avoid handling an unbolted hood in strong winds, especially with larger size units.



### 1 Hood panels

Panels are arched and precision roll-formed for strength and weather tightness. The design and construction provides sufficient structural strength to allow inlet and outlet areas to be virtually unobstructed by support members.

### 2 Birdscreens

Standard birdscreens are constructed of 1/2-inch galvanized steel mesh for minimum airflow restriction.

### 3 Support members

Heavy-gauge galvanized steel support members provide additional structural strength as well as a hood/base interface. Larger hoods have truss braces added for increased strength.

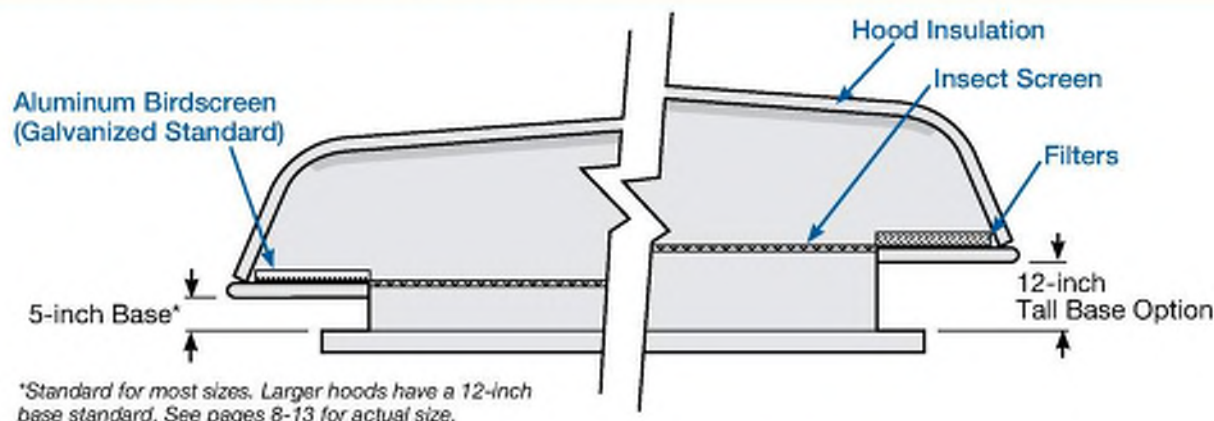
### 4 Standard base

The standard base height is 5 inches for most sizes. Bases include pre-punched mounting holes for ease of installation. The curb cap is 6 inches larger than the throat size to minimize airflow restrictions. Reinforced steel hood support members are securely attached to the base and direct hood loads to the roof curb. 12-inch bases are optional. See page 6 for details.

### 5 Vertical end panels

Vertical panels are fully locked into the hood's end panels.





## 12-inch tall bases

12-inch bases are recommended for intake applications to prevent moisture entry and for all applications where rain or snow may accumulate on the roof deck. A 12-inch base on larger-size units will provide more clearance space from the roof deck and allow for better airflow.

## Fiberglass hood insulation

Either 1/2-inch or 1-inch insulation can be factory applied to the underside of the hood to prevent condensation. Insulation is also factory applied to individual panels of large unassembled units.

**Aluminum birdscreen** 3/4 x 1-1/4 inch diamond shape is available in place of standard galvanized birdscreen.

## Tie-down points

Heavy-gauge galvanized steel tie-down points are available as cable attachment points at the ends of each hood support rail and prevent damage to the fabra hood in locations where unusually strong winds occur.

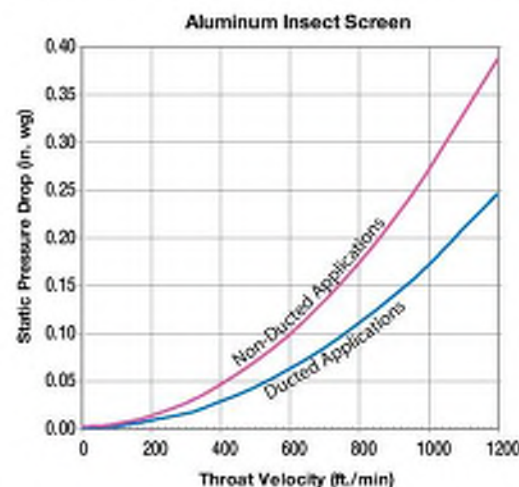
## Special coatings

Options are available for decorative or protective coatings purposes. Refer to the Performance Coatings brochure for complete coating options.

- Greenheck's **Permatector™** is the standard coating for steel products in both indoor and outdoor applications.
- Greenheck's **Hi-Pro Polyester** is formulated for exterior durability, color and gloss retention. Excellent for chemical applications.

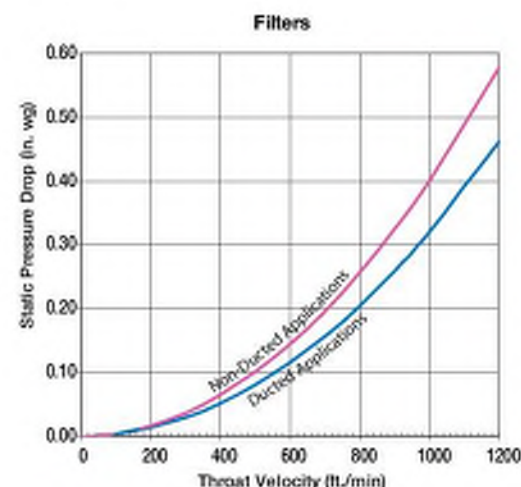
## Aluminum Insect Screen

A fine mesh aluminum insect screen tightly fitted to the top of the throat is available to prevent the entry of insects. (This is in addition to the standard birdscreen and is available on factory-assembled units only.) Use the curves on the graph below to determine the static pressure drop for units with an insect screen.



## Filters

Two-inch aluminum filters are available on model FGI (intake) for applications where foreign material must be removed from the airstream. Use the curves on the graph below to determine the static pressure drop for units with filters.







## Backdraft Dampers

Backdraft dampers are available for intake or relief with either gravity or motorized operation. Motorized dampers are recommended for all intake or low-velocity relief applications. Damper sizes are the same as throat sizes.



## Roof Curbs

Prefabricated roof curbs ensure compatibility between the gravity ventilator, curb, and roof opening. Curb extensions are also available. Curb models are available to meet a wide range of applications and varying roof architecture and construction. See the Greenheck Roof Curbs, Extensions and Equipment Supports catalog for complete details on these products.

## On-Site Assembly

Flexibility is a primary feature of the fabra hood design. Interlocking hood panels and extendible throats allow units to be constructed to long lengths. On-site assembly for these larger units is not difficult and offers several advantages.

For jobs with large throat sizes, assembling hoods on-site reduces costs. There is a cost-savings in carrying unassembled components to the roof versus the expense of cranes or other equipment involved in lifting a bulky assembled unit. The risk of damage in transporting large assembled units also is reduced when assembled on the roof deck.

The space saved by a compact crate of knocked-down component parts also reduces shipping charges and final costs over large, fully assembled units.

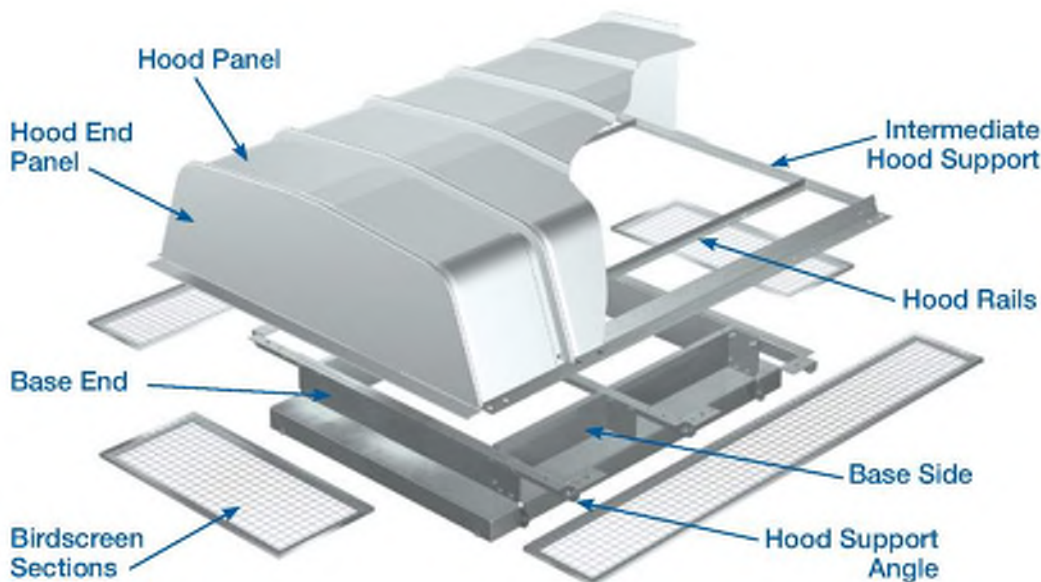
## Ease of Assembly

Hoods of any length can be constructed on the job-site with ease. No special tools or training are required to assemble a Greenheck fabra hood.

Assemble fabra hoods using these basic steps:

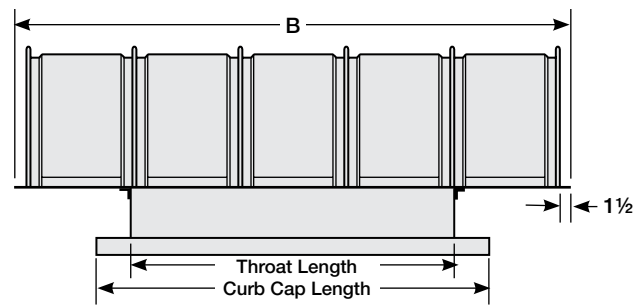
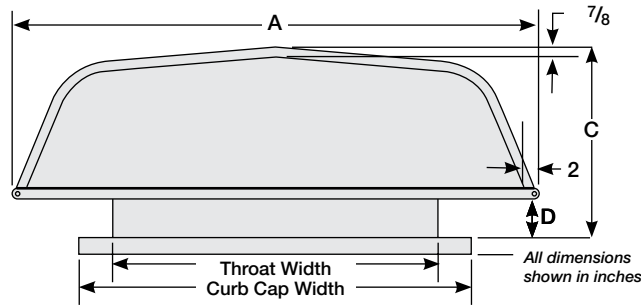
- Step 1** Base ends, base sides, and intermediate hood supports (when required) are placed in position and bolted together.
- Step 2** Attach hood support angles.
- Step 3** Tighten all fasteners and caulk all inside base corners.
- Step 4** Attach birdscreens to hood support angles.
- Step 5** Attach hood rails to hood support angles.
- Step 6** Assemble hood panels and end panels to hood rails.

All hardware comes with each unit along with complete, detailed, and well-illustrated instructions.





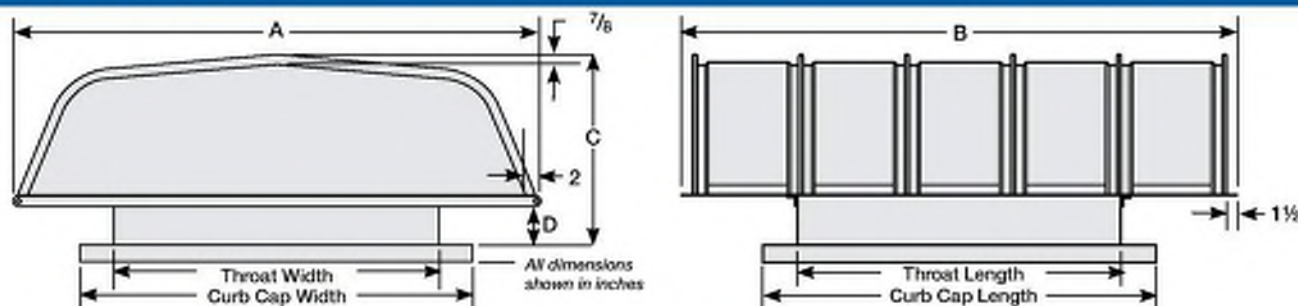
# Fabra Hood - Gravity Intake Model FGI



Dimensional Data								Performance Data								Shipped Assembled	Galvanized Unit Weight
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)									
								0.030	0.047	0.071	0.089	0.119	0.149	0.196			
								NON-DUCTED STATIC PRESSURE DROP (in. wg)									
								0.053	0.085	0.127	0.158	0.212	0.267	0.350			
HOOD INTAKE VELOCITY / THROAT VELOCITY (ft/min.)																	
ft²	Inches							235/475	297/600	364/735	406/820	470/950	527/1065	604/1220		POUNDS	
								CFM									
0.44	8 x 8	14 x 14	8 x 8	22	27	14	5	211	267	327	364	422	474	542	Yes	37	
0.67	8 x 12	14 x 18	8 x 12	22	27	14	5	316	401	490	546	633	710	813	Yes	37	
1.00	8 x 18	14 x 24	8 x 18	22	39	14	5	475	601	735	820	949	1066	1220	Yes	46	
1.33	8 x 24	14 x 30	8 x 24	22	39	14	5	633	802	980	1093	1266	1421	1627	Yes	49	
1.67	8 x 30	14 x 36	8 x 30	22	51	14	5	791	1002	1225	1366	1582	1776	2033	Yes	57	
1.00	12 x 12	18 x 18	12 x 12	26	27	14	5	475	601	735	820	949	1066	1220	Yes	37	
1.50	12 x 18	18 x 24	12 x 18	26	39	14	5	712	902	1102	1229	1424	1598	1830	Yes	46	
2.00	12 x 24	18 x 30	12 x 24	28	39	14	5	949	1202	1470	1639	1899	2131	2440	Yes	49	
2.50	12 x 30	18 x 36	12 x 30	27	51	14	5	1187	1503	1837	2049	2374	2664	3050	Yes	57	
3.00	12 x 36	18 x 42	12 x 36	31	51	14	5	1424	1804	2205	2459	2848	3197	3660	Yes	63	
3.50	12 x 42	18 x 48	12 x 42	29	63	14	5	1662	2104	2572	2869	3323	3729	4270	Yes	73	
4.00	12 x 48	18 x 54	12 x 48	33	63	14	5	1899	2405	2939	3279	3798	4262	4880	Yes	79	
1.36	14 x 14	20 x 20	14 x 14	29	27	16	5	646	818	1000	1116	1292	1450	1660	Yes	43	
1.75	14 x 18	20 x 24	14 x 18	28	39	16	5	831	1052	1286	1434	1662	1865	2135	Yes	49	
2.33	14 x 24	20 x 30	14 x 24	32	39	16	5	1108	1403	1715	1913	2215	2486	2846	Yes	55	
2.92	14 x 30	20 x 36	14 x 30	30	51	16	5	1385	1753	2143	2391	2769	3108	3558	Yes	62	
3.50	14 x 36	20 x 42	14 x 36	36	51	16	5	1662	2104	2572	2869	3323	3729	4270	Yes	70	
4.08	14 x 42	20 x 48	14 x 42	33	63	16	5	1938	2455	3001	3347	3877	4351	4981	Yes	80	
4.67	14 x 48	20 x 54	14 x 48	38	63	16	5	2215	2806	3429	3825	4431	4972	5693	Yes	87	
5.25	14 x 54	20 x 60	14 x 54	36	75	16	5	2492	3156	3858	4303	4985	5594	6405	Yes	96	
1.78	16 x 16	22 x 22	16 x 16	30	39	16	5	844	1069	1306	1457	1688	1894	2169	Yes	52	
2.22	16 x 20	22 x 26	16 x 20	31	39	16	5	1055	1336	1633	1821	2110	2368	2711	Yes	54	
2.67	16 x 24	22 x 30	16 x 24	36	39	16	5	1266	1603	1960	2186	2532	2841	3253	Yes	60	
3.33	16 x 30	22 x 36	16 x 30	34	51	16	5	1582	2004	2450	2732	3165	3552	4066	Yes	68	
4.00	16 x 36	22 x 42	16 x 36	40	51	16	5	1899	2405	2939	3279	3798	4262	4880	Yes	76	
4.67	16 x 42	22 x 48	16 x 42	38	63	16	5	2215	2806	3429	3825	4431	4972	5693	Yes	87	
5.33	16 x 48	22 x 54	16 x 48	36	75	16	5	2532	3206	3919	4371	5064	5683	6506	Yes	95	
6.00	16 x 54	22 x 60	16 x 54	40	75	16	5	2848	3607	4409	4918	5697	6393	7320	Yes	104	
6.67	16 x 60	22 x 66	16 x 60	38	87	16	5	3165	4008	4899	5464	6330	7103	8133	Yes	129	
7.33	16 x 66	22 x 72	16 x 66	42	87	16	5	3481	4409	5389	6011	6963	7814	8946	Yes	136	
2.25	18 x 18	24 x 24	18 x 18	32	39	16	5	1068	1353	1653	1844	2136	2397	2745	Yes	55	
3.00	18 x 24	24 x 30	18 x 24	40	39	16	5	1424	1804	2205	2459	2848	3197	3660	Yes	64	
3.75	18 x 30	24 x 36	18 x 30	38	51	16	5	1780	2254	2756	3074	3560	3996	4575	Yes	73	
4.50	18 x 36	24 x 42	18 x 36	36	63	16	5	2136	2705	3307	3688	4272	4795	5490	Yes	83	
5.25	18 x 42	24 x 48	18 x 42	42	63	16	5	2492	3156	3858	4303	4985	5594	6405	Yes	92	
6.00	18 x 48	24 x 54	18 x 48	40	75	16	5	2848	3607	4409	4918	5697	6393	7320	Yes	101	
6.75	18 x 54	24 x 60	18 x 54	45	75	16	5	3204	4058	4960	5533	6409	7192	8235	Yes	111	
7.50	18 x 60	24 x 66	18 x 60	43	87	16	5	3560	4509	5511	6147	7121	7991	9149	Yes	136	
8.25	18 x 66	24 x 72	18 x 66	46	87	16	5	3916	4960	6063	6762	7833	8790	10064	Yes	145	
9.00	18 x 72	24 x 78	18 x 72	45	99	16	5	4272	5411	6614	7377	8545	9590	10979	Yes	155	
2.78	20 x 20	26 x 26	20 x 20	37	39	16	5	1319	1670	2041	2277	2637	2960	3389	Yes	61	
3.33	20 x 24	26 x 30	20 x 24	44	39	16	5	1582	2004	2450	2732	3165	3552	4066	Yes	69	
4.17	20 x 30	26 x 36	20 x 30	42	51	16	5	1978	2505	3062	3415	3956	4440	5083	Yes	77	
5.00	20 x 36	26 x 42	20 x 36	40	63	16	5	2374	3006	3674	4098	4747	5328	6100	Yes	89	
5.83	20 x 42	26 x 48	20 x 42	48	63	16	5	2769	3507	4287	4781	5538	6215	7116	Yes	98	
6.67	20 x 48	26 x 54	20 x 48	44	75	16	5	3165	4008	4899	5464	6330	7103	8133	Yes	107	
7.50	20 x 54	26 x 60	20 x 54	49	75	16	5	3560	4509	5511	6147	7121	7991	9149	Yes	117	
8.33	20 x 60	26 x 66	20 x 60	47	87	16	5	3956	5010	6124	6830	7912	8879	10166	Yes	143	
9.17	20 x 66	26 x 72	20 x 66	45	99	16	5	4352	5511	6736	7513	8703	9767	11183	Yes	154	
10.00	20 x 72	26 x 78	20 x 72	49	99	16	5	4747	6012	7349	8196	9494	10655	12199	Yes	162	
10.83	20 x 78	26 x 84	20 x 78	47	111	16	5	5143	6513	7961	8880	10286	11543	13216	Yes	194	
11.67	20 x 84	26 x 90	20 x 84	51	111	16	5	5538	7014	8573	9563	11077	12431	14232	Yes	203	



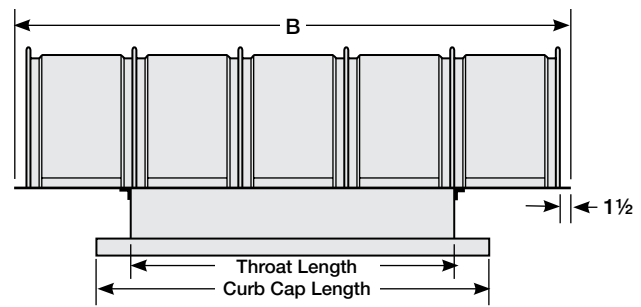
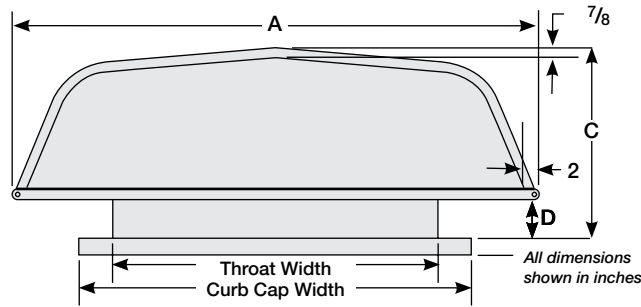
## Fabra Hood - Gravity Intake Model FGI



Dimensional Data								Performance Data								Shipped Assembled	Galvanized Unit Weight		
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)											
								0.030	0.047	0.071	0.089	0.119	0.149	0.196					
				NON-DUCTED STATIC PRESSURE DROP (in. wg)							235/475	297/600	364/735	406/820	470/950			527/1065	604/1220
				0.053	0.085	0.127	0.158	0.212	0.267	0.350									
HOOD INTAKE VELOCITY / THROAT VELOCITY (ft/min.)																			
ft²	Inches							CFM							POUNDS				
4.00	24 x 24	30 x 30	24 x 24	52	39	19	5	1899	2405	2939	3279	3798	4262	4880	Yes	82			
5.00	24 x 30	30 x 36	24 x 30	49	51	19	5	2374	3006	3674	4098	4747	5328	6100	Yes	91			
6.00	24 x 36	30 x 42	24 x 36	47	63	19	5	2848	3607	4409	4918	5697	6393	7320	Yes	104			
7.00	24 x 42	30 x 48	24 x 42	54	63	19	5	3323	4208	5144	5738	6646	7459	8539	Yes	114			
8.00	24 x 48	30 x 54	24 x 48	52	75	19	5	3798	4809	5879	6557	7596	8524	9759	Yes	125			
9.00	24 x 54	30 x 60	24 x 54	50	87	19	5	4272	5411	6614	7377	8545	9590	10979	Yes	154			
10.00	24 x 60	30 x 66	24 x 60	55	87	19	5	4747	6012	7349	8196	9494	10655	12199	Yes	163			
11.00	24 x 66	30 x 72	24 x 66	54	99	19	5	5222	6613	8083	9016	10444	11721	13419	Yes	174			
12.00	24 x 72	30 x 78	24 x 72	58	99	19	5	5697	7214	8818	9836	11393	12786	14639	Yes	185			
13.00	24 x 78	30 x 84	24 x 78	56	111	19	5	6171	7815	9553	10655	12343	13852	15859	Yes	220			
14.00	24 x 84	30 x 90	24 x 84	60	111	19	5	6646	8417	10288	11475	13292	14917	17079	Yes	230			
15.00	24 x 90	30 x 96	24 x 90	58	123	19	5	7121	9018	11023	12295	14242	15983	18299	Yes	244			
6.25	30 x 30	36 x 36	30 x 30	60	51	19	5	2967	3757	4593	5123	5934	6659	7625	Yes	108			
7.50	30 x 36	36 x 42	30 x 36	58	63	19	5	3560	4509	5511	6147	7121	7991	9149	Yes	119			
8.75	30 x 42	36 x 48	30 x 42	57	75	19	5	4154	5260	6430	7172	8308	9323	10674	Yes	131			
10.00	30 x 48	36 x 54	30 x 48	64	75	19	5	4747	6012	7349	8196	9494	10655	12199	Yes	143			
11.25	30 x 54	36 x 60	30 x 54	62	87	19	5	5341	6763	8267	9221	10681	11987	13724	Yes	174			
12.50	30 x 60	36 x 66	30 x 60	60	99	19	5	5934	7515	9186	10246	11868	13319	15249	Yes	186			
13.75	30 x 66	36 x 72	30 x 66	66	99	19	5	6527	8266	10104	11270	13055	14651	16774	Yes	200			
15.00	30 x 72	36 x 78	30 x 72	64	111	19	5	7121	9018	11023	12295	14242	15983	18299	Yes	225			
16.25	30 x 78	36 x 84	30 x 78	69	111	19	5	7714	9769	11941	13319	15428	17314	19824	Yes	251			
17.50	30 x 84	36 x 90	30 x 84	67	123	19	5	8308	10521	12860	14344	16615	18646	21349	Yes	264			
18.75	30 x 90	36 x 96	30 x 90	72	123	19	5	8901	11272	13779	15368	17802	19978	22874	Yes	278			
9.00	36 x 36	42 x 42	36 x 36	69	63	19	5	4272	5411	6614	7377	8545	9590	10979	Yes	134			
10.50	36 x 42	42 x 48	36 x 42	67	75	19	5	4985	6312	7716	8606	9969	11188	12809	Yes	147			
12.00	36 x 48	42 x 54	36 x 48	66	87	19	5	5697	7214	8818	9836	11393	12786	14639	Yes	176			
13.50	36 x 54	42 x 60	36 x 54	73	87	19	5	6409	8116	9921	11065	12817	14384	16469	Yes	196			
15.00	36 x 60	42 x 66	36 x 60	72	99	19	5	7121	9018	11023	12295	14242	15983	18299	Yes	208			
16.50	36 x 66	42 x 72	36 x 66	78	99	19	5	7833	9920	12125	13524	15666	17581	20129	Yes	224			
18.00	36 x 72	42 x 78	36 x 72	76	111	19	5	8545	10821	13227	14754	17090	19179	21959	Yes	252			
19.50	36 x 78	42 x 84	36 x 78	74	123	19	5	9257	11723	14330	15983	18514	20777	23789	Yes	280			
21.00	36 x 84	42 x 90	36 x 84	80	123	19	5	9969	12625	15432	17213	19938	22376	25618	Yes	295			
22.50	36 x 90	42 x 96	36 x 90	78	135	19	5	10681	13527	16534	18442	21362	23974	27448	Yes	311			
24.00	36 x 96	42 x 102	36 x 96	83	135	19	5	11393	14428	17637	19672	22787	25572	29278	Yes	324			
25.50	36 x 102	42 x 108	36 x 102	81	147	19	5	12105	15330	18739	20901	24211	27170	31108	No	340			
12.25	42 x 42	48 x 48	42 x 42	78	75	23	5	5815	7365	9002	10041	11631	13052	14944	Yes	178			
14.00	42 x 48	48 x 54	42 x 48	76	87	23	5	6646	8417	10288	11475	13292	14917	17079	Yes	221			
15.75	42 x 54	48 x 60	42 x 54	85	87	23	5	7477	9469	11574	12909	14954	16782	19214	Yes	252			
17.50	42 x 60	48 x 66	42 x 60	83	99	23	5	8308	10521	12860	14344	16615	18646	21349	Yes	261			
19.25	42 x 66	48 x 72	42 x 66	81	111	23	5	9138	11573	14146	15778	18277	20511	23484	Yes	291			
21.00	42 x 72	48 x 78	42 x 72	88	111	23	5	9969	12625	15432	17213	19938	22376	25618	Yes	320			
22.75	42 x 78	48 x 84	42 x 78	86	123	23	5	10800	13677	16718	18647	21600	24240	27753	Yes	355			
24.50	42 x 84	48 x 90	42 x 84	84	135	23	5	11631	14729	18004	20081	23261	26105	29888	Yes	373			
26.25	42 x 90	48 x 96	42 x 90	90	135	23	5	12461	15781	19290	21516	24923	27970	32023	Yes	392			
28.00	42 x 96	48 x 102	42 x 96	88	147	23	5	13292	16833	20576	22950	26584	29834	34158	No	412			
29.75	42 x 102	48 x 108	42 x 102	93	147	23	5	14123	17885	21862	24385	28246	31699	36293	No	429			
31.50	42 x 108	48 x 114	42 x 108	91	159	23	5	14954	18937	23148	25819	29907	33563	38428	No	450			
16.00	48 x 48	54 x 54	48 x 48	86	87	25	5	7596	9619	11758	13114	15191	17048	19519	Yes	257			
18.00	48 x 54	54 x 60	48 x 54	85	99	25	5	8545	10821	13227	14754	17090	19179	21959	Yes	278			
20.00	48 x 60	54 x 66	48 x 60	94	99	25	5	9494	12024	14697	16393	18989	21310	24399	Yes	299			
22.00	48 x 66	54 x 72	48 x 66	92	111	25	5	10444	13226	16167	18032	20888	23441	26838	Yes	332			
24.00	48 x 72	54 x 78	48 x 72	90	123	25	5	11393	14428	17637	19672	22787	25572	29278	Yes	353			
26.00	48 x 78	54 x 84	48 x 78	98	123	25	5	12343	15631	19106	21311	24685	27703	31718	No	383			
28.00	48 x 84	54 x 90	48 x 84	92	135	25	5	13292	16833	20576	22950	26584	29834	34158	No	412			
30.00	48 x 90	54 x 96	48 x 90	98	135	25	5	14242	18036	22046	24589	28483	31965	36598	No	430			
32.00	48 x 96	54 x 102	48 x 96	96	147	25	5	15191	19238	23515	26229	30382	34096	39038	No	452			
34.00	48 x 102	54 x 108	48 x 102	94	159	25	5	16140	20440	24985	27868	32281	36227	41478	No	475			
36.00	48 x 108	54 x 114	48 x 108	100	159	25	5	17090	21643	26455	29507	34180	38358	43917	No	495			
38.00	48 x 114	54 x 120	48 x 114	98	171	25	5	18039	22845	27924	31147	36079	40489	46357	No	517			



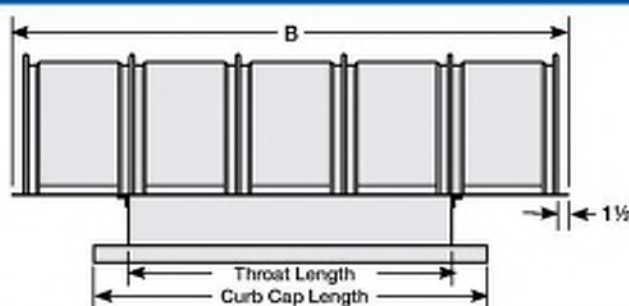
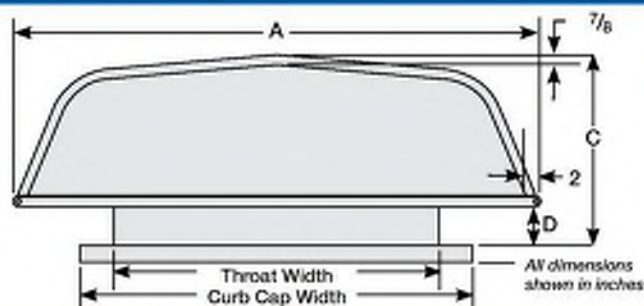
# Fabra Hood - Gravity Intake Model FGI



Dimensional Data								Performance Data								Shipped Assembled	Galvanized Unit Weight
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)									
								0.030	0.047	0.071	0.089	0.119	0.149	0.196			
				NON-DUCTED STATIC PRESSURE DROP (in. wg)													
				0.053	0.085	0.127	0.158	0.212	0.267	0.350							
				HOOD INTAKE VELOCITY / THROAT VELOCITY (ft/min.)													
				A	B	C	D	235/475	297/600	364/735	406/820	470/950	527/1065	604/1220			
ft²	Inches							CFM									POUNDS
20.25	54 x 54	60 x 60	54 x 54	95	99	26	5	9613	12174	14881	16598	19226	21576	24704	No	304	
22.50	54 x 60	60 x 66	54 x 60	105	99	26	5	10681	13527	16534	18442	21362	23974	27448	No	341	
24.75	54 x 66	60 x 72	54 x 66	103	111	26	5	11749	14879	18188	20286	23499	26371	30193	No	370	
27.00	54 x 72	60 x 78	54 x 72	101	123	26	5	12817	16232	19841	22131	25635	28769	32938	No	394	
29.25	54 x 78	60 x 84	54 x 78	109	123	26	5	13886	17585	21495	23975	27771	31166	35683	No	433	
31.50	54 x 84	60 x 90	54 x 84	107	135	26	5	14954	18937	23148	25819	29907	33563	38428	No	457	
33.75	54 x 90	60 x 96	54 x 90	105	147	26	5	16022	20290	24801	27663	32044	35961	41173	No	481	
36.00	54 x 96	60 x 102	54 x 96	112	147	26	5	17090	21643	26455	29507	34180	38358	43917	No	502	
38.25	54 x 102	60 x 108	54 x 102	110	159	26	5	18158	22995	28108	31352	36316	40756	46662	No	528	
40.50	54 x 108	60 x 114	54 x 108	108	171	26	5	19226	24348	29762	33196	38452	43153	49407	No	550	
42.75	54 x 114	60 x 120	54 x 114	114	171	26	5	20294	25701	31415	35040	40589	45550	52152	No	572	
25.00	60 x 60	66 x 66	60 x 60	104	111	29.5	5	11868	15030	18371	20491	23736	26638	30498	No	379	
27.50	60 x 66	66 x 72	60 x 66	114	111	29.5	5	13055	16533	20209	22540	26110	29301	33548	No	404	
30.00	60 x 72	66 x 78	60 x 72	112	123	29.5	5	14242	18036	22046	24589	28483	31965	36598	No	429	
32.50	60 x 78	66 x 84	60 x 78	110	135	29.5	5	15428	19539	23883	26639	30857	34629	39648	No	473	
35.00	60 x 84	66 x 90	60 x 84	119	135	29.5	5	16615	21042	25720	28688	33230	37293	42697	No	500	
37.50	60 x 90	66 x 96	60 x 90	117	147	29.5	5	17802	22544	27557	30737	35604	39956	45747	No	525	
40.00	60 x 96	66 x 102	60 x 96	115	159	29.5	5	18989	24047	29394	32786	37978	42620	48797	No	552	
42.50	60 x 102	66 x 108	60 x 102	122	159	29.5	5	20176	25550	31231	34835	40351	45284	51847	No	576	
45.00	60 x 108	66 x 114	60 x 108	120	171	29.5	5	21362	27053	33068	36884	42725	47948	54897	No	601	
47.50	60 x 114	66 x 120	60 x 114	126	171	29.5	5	22549	28556	34906	38933	45098	50611	57947	No	733	
50.00	60 x 120	66 x 126	60 x 120	124	183	29.5	5	23736	30059	36743	40982	47472	53275	60996	No	761	
30.25	66 x 66	72 x 72	66 x 66	113	123	29.5	5	14360	18186	22229	24794	28721	32232	36903	No	431	
33.00	66 x 72	72 x 78	66 x 72	123	123	29.5	5	15666	19839	24250	27048	31332	35162	40258	No	504	
35.75	66 x 78	72 x 84	66 x 78	121	135	29.5	5	16971	21492	26271	29302	33942	38092	43612	No	555	
38.50	66 x 84	72 x 90	66 x 84	120	147	29.5	5	18277	23146	28292	31557	36553	41022	46967	No	632	
41.25	66 x 90	72 x 96	66 x 90	128	147	29.5	5	19582	24799	30313	33811	39164	43952	50322	No	643	
44.00	66 x 96	72 x 102	66 x 96	126	159	29.5	5	20888	26452	32334	36065	41775	46882	53677	No	663	
46.75	66 x 102	72 x 108	66 x 102	133	159	29.5	5	22193	28105	34354	38319	44386	49812	57032	No	726	
49.50	66 x 108	72 x 114	66 x 108	131	171	29.5	5	23499	29759	36375	40573	46997	52742	60386	No	753	
52.25	66 x 114	72 x 120	66 x 114	129	183	29.5	5	24804	31412	38396	42827	49608	55673	63741	No	784	
55.00	66 x 120	72 x 126	66 x 120	136	183	29.5	5	26110	33065	40417	45081	52219	58603	67096	No	823	
57.75	66 x 126	72 x 132	66 x 126	134	195	36.5	12	27415	34719	42438	47335	54830	61533	70451	No	900	
60.50	66 x 132	72 x 138	66 x 132	132	207	36.5	12	28721	36372	44459	49589	57441	64463	73806	No	916	
36.00	72 x 72	78 x 78	72 x 72	134	123	29.5	5	17090	21643	26455	29507	34180	38358	43917	No	587	
39.00	72 x 78	78 x 84	72 x 78	132	135	29.5	5	18514	23446	28659	31966	37028	41555	47577	No	641	
42.00	72 x 84	78 x 90	72 x 84	130	147	29.5	5	19938	25250	30864	34425	39876	44751	51237	No	670	
45.00	72 x 90	78 x 96	72 x 90	136	159	29.5	5	21362	27053	33068	36884	42725	47948	54897	No	733	
48.00	72 x 96	78 x 102	72 x 96	136	171	29.5	5	22787	28857	35273	39343	45573	51144	58556	No	771	
51.00	72 x 102	78 x 108	72 x 102	135	171	29.5	5	24211	30661	37478	41802	48421	54341	62216	No	791	
54.00	72 x 108	78 x 114	72 x 108	136	183	29.5	5	25635	32464	39682	44261	51270	57537	65876	No	811	
57.00	72 x 114	78 x 120	72 x 114	136	195	29.5	5	27059	34268	41887	46720	54118	60734	69536	No	848	
60.00	72 x 120	78 x 126	72 x 120	136	207	29.5	5	28483	36071	44091	49179	56966	63930	73196	No	886	
63.00	72 x 126	78 x 132	72 x 126	136	207	36.5	12	29907	37875	46296	51638	59815	67127	76855	No	934	
66.00	72 x 132	78 x 138	72 x 132	136	219	36.5	12	31332	39678	48500	54097	62663	70323	80515	No	973	
69.00	72 x 138	78 x 144	72 x 138	136	219	36.5	12	32756	41482	50705	56556	65511	73520	84175	No	976	
72.00	72 x 144	78 x 150	72 x 144	136	231	36.5	12	34180	43285	52910	59015	68360	76716	87835	No	1015	
75.00	72 x 150	78 x 156	72 x 150	136	231	36.5	12	35604	45089	55114	61474	71208	79913	91495	No	1116	
78.00	72 x 156	78 x 162	72 x 156	136	243	36.5	12	37028	46893	57319	63933	74056	83109	95154	No	1228	
81.00	72 x 162	78 x 168	72 x 162	136	243	36.5	12	38452	48696	59523	66392	76905	86306	98814	No	1351	
84.00	72 x 168	78 x 174	72 x 168	136	255	36.5	12	39876	50500	61728	68851	79753	89502	102474	No	1486	
87.00	72 x 174	78 x 180	72 x 174	136	255	36.5	12	41301	52303	63932	71310	82601	92699	106134	No	1634	
90.00	72 x 180	78 x 186	72 x 180	136	267	36.5	12	42725	54107	66137	73768	85450	95895	109793	No	1798	



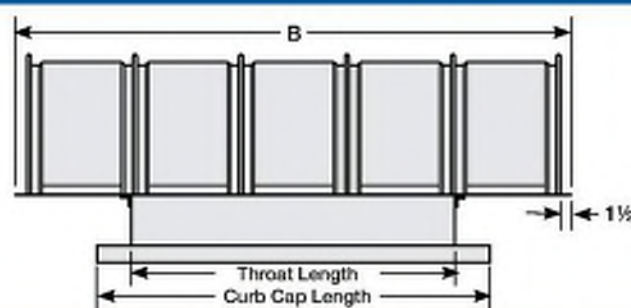
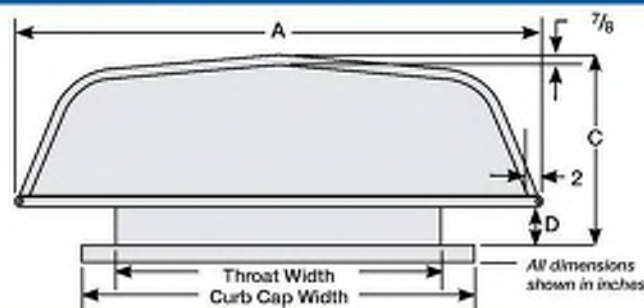
# Fabra Hood - Gravity Relief Model FGR



Dimensional Data								Performance Data								Shipped Assembled	Galvanized Unit Weigh
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)									
								0.024	0.043	0.060	0.084	0.107	0.136	0.160			
								NON-DUCTED STATIC PRESSURE DROP (in. wg)									
								0.042	0.075	0.105	0.146	0.186	0.236	0.278			
								HOOD AND THROAT VELOCITY (ft/min.)									
				A	B	C	D	420	560	660	780	880	990	1075			
ft²	Inches							CFM									POUNDS
0.44	8 x 8	14 x 14	8 x 8	22	27	14	5	186	248	294	346	391	440	478	Yes	37	
0.67	8 x 12	14 x 18	8 x 12	22	27	14	5	279	372	441	520	586	661	717	Yes	37	
1.00	8 x 18	14 x 24	8 x 18	22	39	14	5	418	559	661	779	880	991	1075	Yes	46	
1.33	8 x 24	14 x 30	8 x 24	22	39	14	5	557	745	881	1039	1173	1321	1434	Yes	48	
1.67	8 x 30	14 x 36	8 x 30	22	51	14	5	697	931	1101	1299	1466	1651	1792	Yes	56	
1.00	12 x 12	18 x 18	12 x 12	26	27	14	5	418	559	661	779	880	991	1075	Yes	37	
1.50	12 x 18	18 x 24	12 x 18	26	39	14	5	627	838	991	1169	1319	1486	1613	Yes	46	
2.00	12 x 24	18 x 30	12 x 24	26	39	14	5	836	1117	1322	1559	1759	1982	2151	Yes	48	
2.50	12 x 30	18 x 36	12 x 30	26	51	14	5	1045	1396	1652	1948	2199	2477	2688	Yes	56	
3.00	12 x 36	18 x 42	12 x 36	26	51	14	5	1254	1676	1983	2338	2639	2972	3226	Yes	58	
3.50	12 x 42	18 x 48	12 x 42	26	63	14	5	1463	1955	2313	2727	3079	3468	3764	Yes	69	
4.00	12 x 48	18 x 54	12 x 48	26	63	14	5	1672	2234	2643	3117	3518	3963	4301	Yes	71	
1.36	14 x 14	20 x 20	14 x 14	28	27	16	5	569	760	900	1061	1197	1349	1464	Yes	42	
1.75	14 x 18	20 x 24	14 x 18	28	39	16	5	731	977	1157	1364	1539	1734	1882	Yes	50	
2.33	14 x 24	20 x 30	14 x 24	28	39	16	5	975	1303	1542	1818	2052	2312	2509	Yes	53	
2.92	14 x 30	20 x 36	14 x 30	28	51	16	5	1219	1629	1928	2273	2565	2890	3136	Yes	60	
3.50	14 x 36	20 x 42	14 x 36	28	51	16	5	1463	1955	2313	2727	3079	3468	3764	Yes	62	
4.08	14 x 42	20 x 48	14 x 42	28	63	16	5	1707	2281	2699	3182	3592	4046	4391	Yes	74	
4.67	14 x 48	20 x 54	14 x 48	28	63	16	5	1951	2606	3084	3637	4105	4624	5018	Yes	76	
5.25	14 x 54	20 x 60	14 x 54	28	75	16	5	2194	2932	3470	4091	4618	5202	5645	Yes	87	
1.78	16 x 16	22 x 22	16 x 16	30	39	16	5	743	993	1175	1385	1564	1761	1912	Yes	52	
2.22	16 x 20	22 x 26	16 x 20	30	39	16	5	929	1241	1469	1732	1955	2202	2390	Yes	53	
2.67	16 x 24	22 x 30	16 x 24	30	39	16	5	1115	1489	1762	2078	2346	2642	2868	Yes	55	
3.33	16 x 30	22 x 36	16 x 30	30	51	16	5	1393	1862	2203	2598	2932	3303	3584	Yes	64	
4.00	16 x 36	22 x 42	16 x 36	30	51	16	5	1672	2234	2643	3117	3518	3963	4301	Yes	66	
4.67	16 x 42	22 x 48	16 x 42	30	63	16	5	1951	2606	3084	3637	4105	4624	5018	Yes	78	
5.33	16 x 48	22 x 54	16 x 48	30	63	16	5	2229	2979	3525	4156	4691	5284	5735	Yes	80	
6.00	16 x 54	22 x 60	16 x 54	30	75	16	5	2508	3351	3965	4676	5277	5945	6452	Yes	91	
6.67	16 x 60	22 x 66	16 x 60	31	75	16	5	2786	3724	4406	5195	5864	6605	7169	Yes	95	
7.33	16 x 66	22 x 72	16 x 66	30	87	16	5	3065	4096	4846	5715	6450	7266	7886	Yes	120	
2.25	18 x 18	24 x 24	18 x 18	32	39	16	5	940	1257	1487	1753	1979	2229	2419	Yes	55	
3.00	18 x 24	24 x 30	18 x 24	32	39	16	5	1254	1676	1983	2338	2639	2972	3226	Yes	57	
3.75	18 x 30	24 x 36	18 x 30	32	51	16	5	1567	2094	2478	2922	3298	3715	4032	Yes	67	
4.50	18 x 36	24 x 42	18 x 36	32	51	16	5	1881	2513	2974	3507	3958	4458	4839	Yes	69	
5.25	18 x 42	24 x 48	18 x 42	32	63	16	5	2194	2932	3470	4091	4618	5202	5645	Yes	81	
6.00	18 x 48	24 x 54	18 x 48	33	63	16	5	2508	3351	3965	4676	5277	5945	6452	Yes	84	
6.75	18 x 54	24 x 60	18 x 54	32	75	16	5	2821	3770	4461	5260	5937	6688	7258	Yes	95	
7.50	18 x 60	24 x 66	18 x 60	34	75	16	5	3135	4189	4956	5845	6597	7431	8065	Yes	99	
8.25	18 x 66	24 x 72	18 x 66	32	87	16	5	3448	4608	5452	6429	7256	8174	8871	Yes	124	
9.00	18 x 72	24 x 78	18 x 72	35	87	16	5	3762	5027	5948	7013	7916	8917	9678	Yes	129	
2.78	20 x 20	26 x 26	20 x 20	34	39	16	5	1161	1551	1836	2165	2443	2752	2987	Yes	58	
3.33	20 x 24	26 x 30	20 x 24	34	39	16	5	1393	1862	2203	2598	2932	3303	3584	Yes	60	
4.17	20 x 30	26 x 36	20 x 30	34	51	16	5	1742	2327	2754	3247	3665	4128	4480	Yes	69	
5.00	20 x 36	26 x 42	20 x 36	34	51	16	5	2090	2793	3304	3896	4398	4954	5377	Yes	71	
5.83	20 x 42	26 x 48	20 x 42	34	63	16	5	2438	3258	3855	4546	5131	5779	6273	Yes	84	
6.67	20 x 48	26 x 54	20 x 48	36	63	16	5	2786	3724	4406	5195	5864	6605	7169	Yes	89	
7.50	20 x 54	26 x 60	20 x 54	34	75	16	5	3135	4189	4956	5845	6597	7431	8065	Yes	98	
8.33	20 x 60	26 x 66	20 x 60	37	75	16	5	3483	4654	5507	6494	7330	8256	8961	Yes	104	
9.17	20 x 66	26 x 72	20 x 66	35	87	16	5	3831	5120	6058	7143	8063	9082	9857	Yes	128	
10.00	20 x 72	26 x 78	20 x 72	38	87	16	5	4180	5585	6609	7793	8796	9908	10753	Yes	135	
10.83	20 x 78	26 x 84	20 x 78	37	99	16	5	4528	6051	7159	8442	9529	10733	11649	Yes	153	
11.67	20 x 84	26 x 90	20 x 84	39	99	16	5	4876	6516	7710	9092	10262	11559	12545	Yes	158	



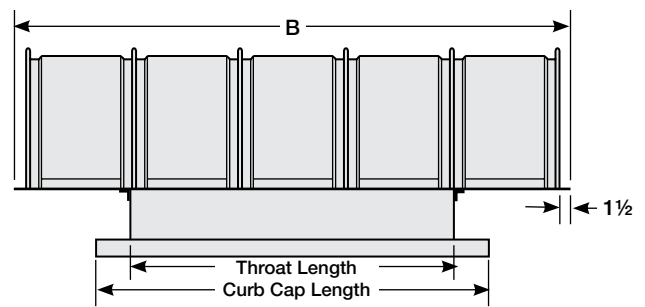
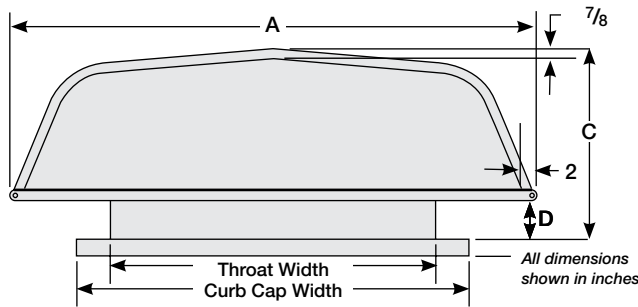
# Fabra Hood - Gravity Relief Model FGR



Dimensional Data								Performance Data							Shipped Assembled	Galvanized Unit Weight
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)								
								0.024	0.043	0.060	0.084	0.107	0.136	0.160		
								NON-DUCTED STATIC PRESSURE DROP (in. wg)								
								0.042	0.075	0.105	0.146	0.186	0.236	0.278		
								HOOD AND THROAT VELOCITY (ft/min.)								
				A	B	C	D	420	560	660	780	880	990	1075		
ft <sup>2</sup>	Inches							CFM								POUNDS
4.00	24 x 24	30 x 30	24 x 24	38	39	19	5	1672	2234	2643	3117	3518	3963	4301	Yes	69
5.00	24 x 30	30 x 36	24 x 30	38	51	19	5	2090	2793	3304	3896	4398	4954	5377	Yes	79
6.00	24 x 36	30 x 42	24 x 36	40	51	19	5	2508	3351	3965	4676	5277	5945	6452	Yes	84
7.00	24 x 42	30 x 48	24 x 42	38	63	19	5	2926	3910	4626	5455	6157	6935	7527	Yes	95
8.00	24 x 48	30 x 54	24 x 48	42	63	19	5	3344	4468	5287	6234	7037	7926	8603	Yes	102
9.00	24 x 54	30 x 60	24 x 54	40	75	19	5	3762	5027	5948	7013	7916	8917	9678	Yes	113
10.00	24 x 60	30 x 66	24 x 60	44	75	19	5	4180	5585	6609	7793	8796	9908	10753	Yes	120
11.00	24 x 66	30 x 72	24 x 66	42	87	19	5	4598	6144	7269	8572	9675	10898	11829	Yes	146
12.00	24 x 72	30 x 78	24 x 72	45	87	19	5	5016	6702	7930	9351	10555	11889	12904	Yes	152
13.00	24 x 78	30 x 84	24 x 78	43	99	19	5	5434	7261	8591	10131	11434	12880	13979	Yes	171
14.00	24 x 84	30 x 90	24 x 84	46	99	19	5	5852	7819	9252	10910	12314	13871	15054	Yes	178
15.00	24 x 90	30 x 96	24 x 90	44	111	19	5	6269	8378	9913	11689	13194	14861	16130	Yes	202
6.25	30 x 30	36 x 36	30 x 30	44	51	19	5	2612	3491	4130	4870	5497	6192	6721	Yes	88
7.50	30 x 36	36 x 42	30 x 36	49	51	19	5	3135	4189	4956	5845	6597	7431	8065	Yes	95
8.75	30 x 42	36 x 48	30 x 42	46	63	19	5	3657	4887	5783	6819	7696	8669	9409	Yes	107
10.00	30 x 48	36 x 54	30 x 48	52	63	19	5	4180	5585	6609	7793	8796	9908	10753	Yes	116
11.25	30 x 54	36 x 60	30 x 54	49	75	19	5	4702	6283	7435	8767	9895	11146	12097	Yes	128
12.50	30 x 60	36 x 66	30 x 60	54	75	19	5	5225	6982	8261	9741	10995	12385	13441	Yes	136
13.75	30 x 66	36 x 72	30 x 66	51	87	19	5	5747	7680	9087	10715	12094	13623	14786	Yes	162
15.00	30 x 72	36 x 78	30 x 72	49	99	19	5	6269	8378	9913	11689	13194	14861	16130	Yes	172
16.25	30 x 78	36 x 84	30 x 78	53	99	19	5	6792	9076	10739	12663	14293	16100	17474	Yes	191
17.50	30 x 84	36 x 90	30 x 84	51	111	19	5	7314	9774	11565	13637	15393	17338	18818	Yes	216
18.75	30 x 90	36 x 96	30 x 90	54	111	19	5	7837	10472	12391	14611	16492	18577	20162	Yes	223
9.00	36 x 36	42 x 42	36 x 36	58	51	19	5	3762	5027	5948	7013	7916	8917	9678	Yes	110
10.50	36 x 42	42 x 48	36 x 42	54	63	19	5	4389	5865	6939	8182	9236	10403	11291	Yes	119
12.00	36 x 48	42 x 54	36 x 48	62	63	19	5	5016	6702	7930	9351	10555	11889	12904	Yes	130
13.50	36 x 54	42 x 60	36 x 54	58	75	19	5	5643	7540	8922	10520	11874	13375	14517	Yes	142
15.00	36 x 60	42 x 66	36 x 60	55	87	19	5	6269	8378	9913	11689	13194	14861	16130	Yes	168
16.50	36 x 66	42 x 72	36 x 66	61	87	19	5	6896	9216	10904	12858	14513	16348	17743	Yes	178
18.00	36 x 72	42 x 78	36 x 72	58	99	19	5	7523	10054	11895	14027	15832	17834	19356	Yes	190
19.50	36 x 78	42 x 84	36 x 78	63	96	19	5	8150	10891	12887	15196	17152	19320	20969	Yes	211
21.00	36 x 84	42 x 90	36 x 84	60	111	19	5	8777	11729	13878	16365	18471	20806	22582	Yes	235
22.50	36 x 90	42 x 96	36 x 90	64	111	19	5	9404	12567	14869	17534	19790	22292	24195	Yes	244
24.00	36 x 96	42 x 102	36 x 96	62	123	19	5	10031	13405	15861	18703	21110	23778	25808	Yes	258
25.50	36 x 102	42 x 108	36 x 102	65	123	19	5	10658	14242	16852	19872	22429	25265	27421	Yes	266
12.25	42 x 42	48 x 48	42 x 42	63	63	23	5	5120	6842	8096	9546	10775	12137	13173	Yes	144
14.00	42 x 48	48 x 54	42 x 48	60	75	23	5	5852	7819	9252	10910	12314	13871	15054	Yes	157
15.75	42 x 54	48 x 60	42 x 54	67	75	23	5	6583	8797	10409	12274	13853	15605	16936	Yes	169
17.50	42 x 60	48 x 66	42 x 60	64	87	23	5	7314	9774	11565	13637	15393	17338	18818	Yes	197
19.25	42 x 66	48 x 72	42 x 66	70	87	23	5	8046	10752	12722	15001	16932	19072	20700	Yes	208
21.00	42 x 72	48 x 78	42 x 72	67	99	23	5	8777	11729	13878	16365	18471	20806	22582	Yes	222
22.75	42 x 78	48 x 84	42 x 78	72	99	23	5	9509	12707	15035	17729	20010	22540	24463	Yes	245
24.50	42 x 84	48 x 90	42 x 84	69	111	23	5	10240	13684	16191	19092	21550	24274	26345	Yes	270
26.25	42 x 90	48 x 96	42 x 90	67	123	23	5	10972	14661	17348	20456	23089	26008	28227	Yes	284
28.00	42 x 96	48 x 102	42 x 96	71	123	23	5	11703	15639	18504	21820	24628	27741	30109	Yes	296
29.75	42 x 102	48 x 108	42 x 102	69	135	23	5	12434	16616	19661	23183	26167	29475	31991	Yes	311
31.50	42 x 108	48 x 114	42 x 108	73	135	23	5	13166	17594	20817	24547	27707	31209	33873	Yes	321
16.00	48 x 48	54 x 54	48 x 48	68	75	25	5	6687	8936	10574	12468	14073	15852	17205	Yes	168
18.00	48 x 54	54 x 60	48 x 54	76	75	25	5	7523	10054	11895	14027	15832	17834	19356	Yes	187
20.00	48 x 60	54 x 66	48 x 60	73	87	25	5	8359	11171	13217	15586	17591	19815	21506	Yes	216
22.00	48 x 66	54 x 72	48 x 66	79	87	25	5	9195	12288	14539	17144	19351	21797	23657	Yes	246
24.00	48 x 72	54 x 78	48 x 72	76	99	25	5	10031	13405	15861	18703	21110	23778	25808	Yes	242
26.00	48 x 78	54 x 84	48 x 78	73	111	25	5	10867	14522	17182	20261	22869	25760	27958	Yes	281
28.00	48 x 84	54 x 90	48 x 84	79	111	25	5	11703	15639	18504	21820	24628	27741	30109	Yes	319
30.00	48 x 90	54 x 96	48 x 90	76	123	25	5	12539	16756	19826	23378	26387	29723	32260	Yes	310
32.00	48 x 96	54 x 102	48 x 96	81	123	25	5	13375	17873	21148	24937	28146	31704	34410	Yes	350
34.00	48 x 102	54 x 108	48 x 102	78	135	25	5	14211	18990	22469	26495	29905	33686	36561	Yes	367
36.00	48 x 108	54 x 114	48 x 108	83	135	25	5	15047	20107	23791	28054	31665	35668	38711	Yes	381
38.00	48 x 114	54 x 120	48 x 114	80	147	25	5	15883	21224	25113	29612	33424	37649	40862	No	398



# Fabra Hood - Gravity Relief Model FGR



Dimensional Data								Performance Data								Shipped Assembled	Galvanized Unit Weight
Throat Area	Throat Width x Length	Curb Cap Width x Length	Optional Damper Width x Length	Width	Length	Overall Height	Base Height	DUCTED STATIC PRESSURE DROP (in. wg)									
								0.024	0.043	0.060	0.084	0.107	0.136	0.160			
								NON-DUCTED STATIC PRESSURE DROP (in. wg)									
								0.042	0.075	0.105	0.146	0.186	0.236	0.278			
								HOOD AND THROAT VELOCITY (ft/min.)									
				A	B	C	D	420	560	660	780	880	990	1075			
ft²	Inches							CFM									POUNDS
20.25	54 x 54	60 x 60	54 x 54	85	75	26	5	8464	11310	13382	15780	17811	20063	21775	Yes	223	
22.50	54 x 60	60 x 66	54 x 60	81	87	26	5	9404	12567	14869	17534	19790	22292	24195	Yes	266	
24.75	54 x 66	60 x 72	54 x 66	78	99	26	5	10345	13824	16356	19287	21769	24521	26614	Yes	285	
27.00	54 x 72	60 x 78	54 x 72	85	99	26	5	11285	15080	17843	21040	23748	26751	29034	Yes	300	
29.25	54 x 78	60 x 84	54 x 78	82	111	26	5	12225	16337	19330	22794	25727	28980	31453	Yes	345	
31.50	54 x 84	60 x 90	54 x 84	88	111	26	5	13166	17594	20817	24547	27707	31209	33873	Yes	363	
33.75	54 x 90	60 x 96	54 x 90	85	123	26	5	14106	18850	22304	26301	29686	33438	36292	Yes	380	
36.00	54 x 96	60 x 102	54 x 96	90	123	26	5	15047	20107	23791	28054	31665	35668	38711	Yes	396	
38.25	54 x 102	60 x 108	54 x 102	87	135	26	5	15987	21364	25278	29807	33644	37897	41131	Yes	416	
40.50	54 x 108	60 x 114	54 x 108	85	147	26	5	16928	22620	26765	31561	35623	40126	43550	No	433	
42.75	54 x 114	60 x 120	54 x 114	90	147	26	5	17868	23877	28252	33314	37602	42355	45970	No	450	
25.00	60 x 60	66 x 66	60 x 60	90	87	29.5	5	10449	13963	16521	19482	21989	24769	26883	Yes	284	
27.50	60 x 66	66 x 72	60 x 66	87	99	29.5	5	11494	15360	18174	21430	24188	27246	29571	Yes	304	
30.00	60 x 72	66 x 78	60 x 72	94	99	29.5	5	12539	16756	19826	23378	26387	29723	32260	Yes	320	
32.50	60 x 78	66 x 84	60 x 78	91	111	29.5	5	13584	18152	21478	25326	28586	32200	34948	Yes	367	
35.00	60 x 84	66 x 90	60 x 84	97	111	29.5	5	14629	19548	23130	27275	30785	34677	37636	Yes	387	
37.50	60 x 90	66 x 96	60 x 90	94	123	29.5	5	15674	20945	24782	29223	32984	37154	40324	Yes	403	
40.00	60 x 96	66 x 102	60 x 96	91	135	29.5	5	16719	22341	26434	31171	35183	39631	43013	Yes	423	
42.50	60 x 102	66 x 108	60 x 102	97	135	29.5	5	17763	23737	28087	33119	37382	42108	45701	No	444	
45.00	60 x 108	66 x 114	60 x 108	94	147	29.5	5	18808	25134	29739	35067	39581	44584	48389	No	460	
47.50	60 x 114	66 x 120	60 x 114	99	147	29.5	5	19853	26530	31391	37016	41780	47061	51078	No	479	
50.00	60 x 120	66 x 126	60 x 120	96	159	29.5	5	20898	27926	33043	38964	43979	49538	53766	No	496	
30.25	66 x 66	72 x 72	66 x 66	95	99	29.5	5	12643	16895	19991	23573	26607	29971	32528	No	322	
33.00	66 x 72	72 x 78	66 x 72	103	99	29.5	5	13793	18431	21808	25716	29026	32695	35486	No	342	
35.75	66 x 78	72 x 84	66 x 78	99	111	29.5	5	14942	19967	23626	27859	31445	35420	38443	No	388	
38.50	66 x 84	72 x 90	66 x 84	96	123	29.5	5	16092	21503	25443	30002	33864	38144	41400	No	410	
41.25	66 x 90	72 x 96	66 x 90	103	123	29.5	5	17241	23039	27260	32145	36282	40869	44357	No	430	
44.00	66 x 96	72 x 102	66 x 96	100	135	29.5	5	18390	24575	29078	34288	38701	43594	47314	No	449	
46.75	66 x 102	72 x 108	66 x 102	106	135	29.5	5	19540	26111	30895	36431	41120	46318	50271	No	471	
49.50	66 x 108	72 x 114	66 x 108	103	147	29.5	5	20689	27647	32713	38574	43539	49043	53228	No	489	
52.25	66 x 114	72 x 120	66 x 114	109	147	29.5	5	21839	29183	34530	40717	45958	51767	56185	No	509	
55.00	66 x 120	72 x 126	66 x 120	106	159	29.5	5	22988	30719	36347	42860	48376	54492	59143	No	530	
57.75	66 x 126	72 x 132	66 x 126	103	171	36.5	12	24137	32255	38165	45003	50795	57217	62100	No	595	
60.50	66 x 132	72 x 138	66 x 132	108	171	36.5	12	25287	33791	39982	47146	53214	59941	65057	No	616	
36.00	72 x 72	78 x 78	72 x 72	112	99	29.5	5	15047	20107	23791	28054	31665	35668	38711	No	365	
39.00	72 x 78	78 x 84	72 x 78	108	111	29.5	5	16301	21783	25774	30392	34303	38640	41937	No	412	
42.00	72 x 84	78 x 90	72 x 84	105	123	29.5	5	17555	23458	27756	32730	36942	41612	45163	No	434	
45.00	72 x 90	78 x 96	72 x 90	112	123	29.5	5	18808	25134	29739	35067	39581	44584	48389	No	457	
48.00	72 x 96	78 x 102	72 x 96	109	135	29.5	5	20062	26809	31721	37405	42219	47557	51615	No	479	
51.00	72 x 102	78 x 108	72 x 102	115	135	29.5	5	21316	28485	33704	39743	44858	50529	54841	No	497	
54.00	72 x 108	78 x 114	72 x 108	112	147	29.5	5	22570	30161	35686	42081	47497	53501	58067	No	519	
57.00	72 x 114	78 x 120	72 x 114	109	159	29.5	5	23824	31836	37669	44419	50136	56474	61293	No	541	
60.00	72 x 120	78 x 126	72 x 120	115	159	29.5	5	25078	33512	39652	46757	52774	59446	64519	No	607	
63.00	72 x 126	78 x 132	72 x 126	112	171	36.5	12	26332	35187	41634	49094	55413	62418	67745	No	629	
66.00	72 x 132	78 x 138	72 x 132	117	171	36.5	12	27586	36863	43617	51432	58052	65390	70971	No	648	
69.00	72 x 138	78 x 144	72 x 138	114	183	36.5	12	28840	38538	45599	53770	60690	68363	74197	No	670	
72.00	72 x 144	78 x 150	72 x 144	119	183	36.5	12	30093	40214	47582	56108	63329	71335	77423	No	690	
75.00	72 x 150	78 x 156	72 x 150	117	195	36.5	12	31347	41890	49564	58446	65968	74307	80649	No	759	
78.00	72 x 156	78 x 162	72 x 156	121	195	36.5	12	32601	43565	51547	60784	68607	77280	83875	No	834	
81.00	72 x 162	78 x 168	72 x 162	118	207	36.5	12	33855	45241	53530	63121	71245	80252	87101	No	918	
84.00	72 x 168	78 x 174	72 x 168	116	219	36.5	12	35109	46916	55512	65459	73884	83224	90327	No	1010	
87.00	72 x 174	78 x 180	72 x 174	120	219	36.5	12	36363	48592	57495	67797	76523	86197	93553	No	1111	
90.00	72 x 180	78 x 186	72 x 180	118	231	36.5	12	37617	50268	59477	70135	79161	89169	96779	No	1222	



# Spun Aluminum Model GRSI/GRSR/GRSF



## Construction Features

When you buy a Greenheck gravity ventilator, you receive a ventilator with the industry's best performance and durability for intake (model GRSI) or relief (model GRSR) for natural gravity or positive pressure systems. Exceptional low silhouette design and construction features make this unit a rugged, efficient, and economical air inlet or outlet.

- Broadest performance in the industry, up to 18,400 cfm (31,300 m<sup>3</sup>/hr)
- Most advanced weather protection of any ventilator in its class
- Greenheck subjects these products to extensive life testing, ensuring the ventilator will provide years of reliable performance

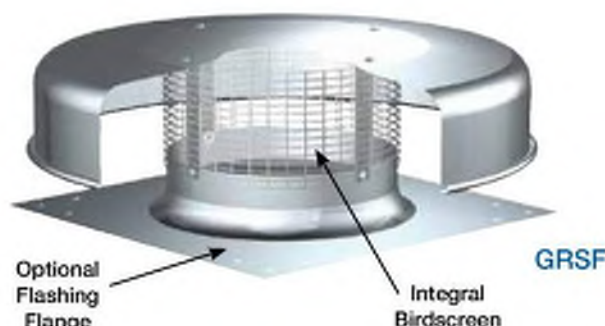
- All aluminum exterior for corrosion-resistant construction
- Integral birdscreen to prevent the entry of birds and/or small objects
- Built-in curb cap with prepunched holes for easy attachment to roof curbs
- Optional built-in flashing flange (model GRSF) with prepunched holes for quick and easy installations without a roof curb.

### Use the GRS with the following accessories:

Gravity or motorized dampers to ensure weather tightness.

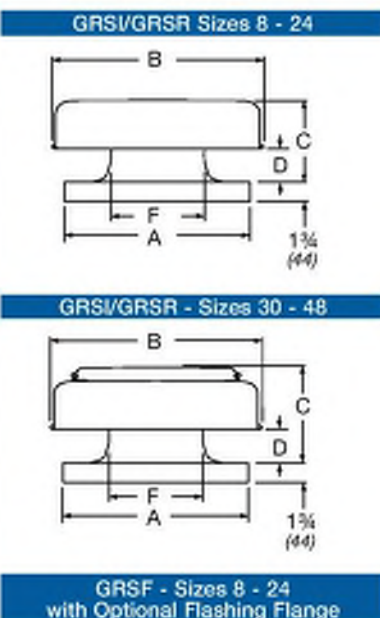
Prefab curbs to reduce installation time.

Protective coatings to extend the life of the unit or blend its color with other equipment.



Dimensions										
Model Size	A	B	C	D	E	F	Damper Size	Curb Thickness	Shroud Thickness	Unit Weight
8	19 (483)	20 1/2 (521)	7 1/2 (184)	1 1/2 (38)	20 1/2 (514)	8 1/2 (210)	8 x 8 (203 x 203)	0.051 (1.3)	0.051 (1.3)	7 (3)
10	19 (483)	20 1/2 (521)	7 1/2 (197)	2 (51)	20 1/2 (514)	10 (254)	10 x 10 (254 x 254)	0.051 (1.3)	0.051 (1.3)	8 (4)
12	22 (559)	29 (737)	10 (254)	3 1/2 (89)	23 1/2 (591)	12 1/2 (311)	12 x 12 (305 x 305)	0.064 (1.6)	0.064 (1.6)	10 (5)
15	22 (559)	29 (737)	10 (254)	3 1/2 (89)	23 1/2 (591)	14 1/2 (362)	16 x 16 (406 x 406)	0.064 (1.6)	0.064 (1.6)	13 (6)
16	26 (660)	29 (737)	11 (279)	4 1/4 (108)	27 1/2 (692)	16 1/2 (413)	16 x 16 (406 x 406)	0.064 (1.6)	0.064 (1.6)	16 (7)
18	30 (762)	35 1/2 (902)	9 1/2 (248)	1 1/2 (44)	31 1/2 (794)	20 1/2 (514)	18 x 18 (457 x 457)	0.064 (1.6)	0.064 (1.6)	19 (9)
20	30 (762)	35 1/2 (902)	11 1/2 (286)	3 1/2 (95)	31 1/2 (794)	20 1/2 (514)	18 x 18 (457 x 457)	0.064 (1.6)	0.064 (1.6)	24 (11)
24	34 (864)	38 1/2 (972)	11 (279)	4 (102)	35 1/2 (895)	24 1/2 (622)	24 x 24 (610 x 610)	0.064 (1.6)	0.064 (1.6)	29 (13)
30	40 (1016)	48 (1219)	18 1/2 (476)	5 1/2 (138)	-	30 1/2 (775)	30 x 30 (762 x 762)	0.064 (1.6)	0.064 (1.6)	35 (16)
36	46 (1168)	56 1/2 (1441)	21 1/2 (540)	10 (254)	-	36 1/2 (927)	36 x 36 (914 x 914)	0.064 (1.6)	0.080 (2.0)	45 (20)
42	52 (1321)	63 1/2 (1607)	24 1/2 (616)	11 1/2 (286)	-	42 1/2 (1089)	42 x 42 (1067 x 1067)	0.064 (1.6)	0.080 (2.0)	60 (27)
48	58 (1473)	72 (1829)	26 1/2 (667)	11 1/2 (286)	-	48 1/2 (1232)	48 x 48 (1219 x 1219)	0.064 (1.6)	0.080 (2.0)	80 (36)

All dimensions are in inches (millimeters) and the weight in pounds (kilograms). NOTE: Sizes GRS-8 through 24 have a one-piece cover and shroud. Access is gained through the removal of screws. Sizes GRS-30 through 48 have a removable cover, separate from the shroud, to facilitate maintenance and servicing of dampers.



## Performance

Performance data for these units was obtained through actual testing. The information is presented in capacity versus total pressure drop through the GRS. Total pressure drop includes the static and velocity pressure drops. To find the static drop alone, use the following equations.

$$\text{Throat Velocity} = \left[ \frac{\text{CFM}}{\text{Throat Area}} \right]$$

$$\text{Static Pressure} = \left[ \text{Total Pressure} \right] - \left[ \text{Velocity Pressure} \right]$$

$$\text{Velocity Pressure (in. wg)}^* = \left[ \frac{\text{Throat Velocity}}{4008.6} \right]^2$$

\*1 inch wg = 249 Pa

The data is presented for both discharge and intake units. The intake velocity of the intake unit should not exceed 600 feet per minute. Above this velocity, airborne particles may be carried into the building. The table below displays the maximum recommended values for the respective intake units. In areas where snow depths may be a problem, 12-inch or higher curbs are recommended.

			Volume (CFM)										Recommended Maximum Intake Capacities	
		GRSI Size	Throat Area (ft <sup>2</sup> )	Total Pressure Drop (in. wg)								Intake Area (ft <sup>2</sup> )	Max. CFM Intake	
				0.04	0.06	0.08	0.10	0.15	0.20	0.25	0.30			0.35
Model GRSI	Intake Performance	8	0.37	178	218	252	282	345	398	445	488	527	1.30	780
		10	0.57	279	342	395	442	541	624	698	765	826	1.72	1032
		12	0.82	400	490	566	633	775	895	1001	1097	1184	2.52	1512
		15	1.12	553	677	782	874	1071	1237	1383	1515	1636	2.57	1542
		16	1.45	742	908	1049	1173	1436	1658	1854	2031	2194	3.02	1812
		18	1.83	901	1104	1274	1425	1745	2015	2253	2468	2665	3.42	2052
		20	2.25	1096	1343	1550	1733	2123	2452	2741	3002	3243	4.43	2658
		24	3.24	1542	1888	2180	2438	2985	3447	3854	4222	4560	4.95	2970
		30	5.03	2013	2465	2847	3183	3898	4501	5032	5512	5954	7.49	4496
		36	7.29	2921	3577	4130	4618	5656	6531	7301	7998	8639	10.2	6111
		42	9.77	3911	4791	5532	6185	7574	8746	9779	10712	11570	12.0	7159
		48	12.8	5139	6294	7268	8126	9952	11491	12848	14074	15201	15.5	9286
		GRSR Size	Throat Area (ft <sup>2</sup> )	Total Pressure Drop (in. wg)								Table is based on 600 ft/min. maximum intake velocity. Above these values (numbers in gray), provisions should be made to contain incoming moisture.		
Model GRSR	Relief Performance	8	0.37	231	282	326	365	446	516	576	631			682
		10	0.57	331	406	468	524	641	741	828	907			980
		12	0.82	468	573	662	740	907	1047	1171	1282			1385
		15	1.12	663	811	937	1048	1283	1481	1656	1814			1960
		16	1.45	870	1065	1230	1375	1685	1945	2175	2382			2573
		18	1.83	1060	1298	1499	1676	2052	2370	2649	2902			3135
		20	2.25	1284	1572	1815	2029	2486	2870	3209	3515			3797
		24	3.24	1879	2301	2657	2971	3638	4201	4697	5145			5558
		30	5.03	2281	2794	3226	3607	4418	5101	5703	6247			6748
		36	7.29	3279	4016	4637	5184	6349	7331	8197	8979			9699
		42	9.77	4672	5722	6607	7387	9047	10447	11680	12795	13820		
		48	12.8	6211	7607	8783	9820	12027	13888	15527	17009	18372		



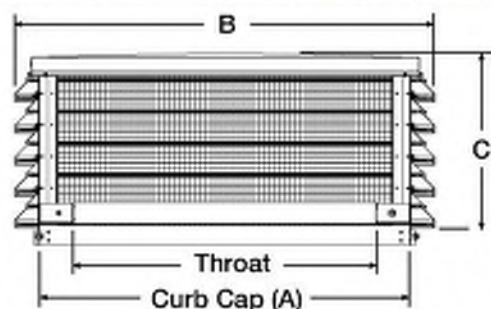
# Louvered Penthouse Models WIH/WRH



Greenheck designs penthouse units for use in gravity intake or relief applications where aesthetics are important.

- Clean horizontal lines blend perfectly with modern architecture.
- The unique louver design offers a low pressure drop, low hood height, and maintains a maximum weather resistance.
- All-aluminum construction assures lasting durability and appearance.
- The removable cover is equipped with insulation to prevent condensation.

## DIMENSIONAL DRAWING FOR CHARTS



The flexible design of WIH (intake) and WRH (relief) models allows for shipment in pre-assembled sections. These sections are easy to assemble on the jobsite without special tools. All required fasteners and complete assembly instructions are shipped with each unit.

Options include a variety of bird and insect screens, dampers, roof curbs, special finishes and factory assembled based on shipping limitations.

Use these tables for specific product dimensions

Dimensional & Performance Data						Intake (WIH) Volume (CFM)						Relief (WRH) Volume (CFM)						
						Total Pressure Drop (in. wg*)						Total Pressure Drop (in. wg*)						
						.008	.029	.045	.065	.088	.115	.025	.055	.075	.098	.125	.154	.221
						THROAT VELOCITY (ft/min.)						THROAT VELOCITY (ft/min.)						
Dimensions (inches)						200	400	500	600	700	800	400	600	700	800	900	1000	1200
Throat	Area (ft²)	A	B	C	Number of Louvers	200	400	500	600	700	800	400	600	700	800	900	1000	1200
12 x 12	1.00	20 x 20	26 x 26	12½"	3	200	400	500	600	700	800	400	600	700	800	900	1000	1200
12 x 14	1.20	20 x 22	26 x 28	12½"	3	240	480	600	720	840	960	480	720	840	960	1080	1200	1440
12 x 16	1.30	20 x 24	26 x 30	12½"	3	260	520	650	780	910	1040	520	780	910	1040	1170	1300	1560
12 x 18	1.50	20 x 26	26 x 32	12½"	3	300	600	750	900	1050	1200	600	900	1050	1200	1350	1500	1800
12 x 22	1.80	20 x 30	26 x 36	12½"	3	360	720	900	1080	1260	1440	720	1080	1260	1440	1620	1800	2160
12 x 24	2.00	20 x 32	26 x 38	12½"	3	400	800	1000	1200	1400	1600	800	1200	1400	1600	1800	2000	2400
14 x 14	1.36	22 x 22	28 x 28	12½"	3	272	544	680	816	952	1088	544	816	952	1088	1224	1360	1632
14 x 16	1.55	22 x 24	28 x 30	12½"	3	310	620	775	930	1085	1240	620	930	1085	1240	1395	1550	1860
14 x 18	1.75	22 x 26	28 x 32	12½"	3	350	700	875	1050	1225	1400	700	1050	1225	1400	1575	1750	2100
14 x 20	1.95	22 x 28	28 x 34	12½"	3	390	780	975	1170	1365	1560	780	1170	1365	1560	1755	1950	2340
14 x 24	2.34	22 x 32	28 x 38	12½"	3	468	936	1170	1404	1638	1872	936	1404	1638	1872	2106	2340	2808
14 x 28	2.70	22 x 36	28 x 42	12½"	3	540	1080	1350	1620	1890	2160	1080	1620	1890	2160	2430	2700	3240
16 x 16	1.78	24 x 24	30 x 30	12½"	3	356	712	890	1068	1246	1424	712	1068	1246	1424	1602	1780	2136
16 x 20	2.22	24 x 28	30 x 34	12½"	3	444	888	1110	1332	1554	1776	888	1332	1554	1776	1998	2220	2664
16 x 24	2.68	24 x 30	30 x 36	12½"	3	536	1072	1340	1608	1876	2144	1072	1608	1876	2144	2412	2680	3216
16 x 28	3.11	24 x 36	30 x 42	12½"	3	622	1244	1555	1866	2177	2488	1244	1866	2177	2488	2799	3110	3732
16 x 30	3.33	24 x 38	30 x 44	12½"	3	666	1332	1665	1998	2331	2664	1332	1992	2324	2656	2988	3320	3984
16 x 32	3.55	24 x 40	30 x 46	12½"	3	710	1420	1775	2130	2485	2840	1420	2130	2485	2840	3195	3550	4260
18 x 18	2.25	26 x 26	32 x 32	12½"	3	450	900	1125	1350	1575	1800	900	1350	1575	1800	2025	2250	2700
18 x 24	3.00	26 x 32	32 x 38	12½"	3	600	1200	1500	1800	2100	2400	1200	1800	2100	2400	2700	3000	3600
18 x 26	3.25	26 x 34	32 x 40	12½"	3	650	1300	1625	1950	2275	2600	1300	1950	2275	2600	2925	3250	3900
18 x 30	3.74	26 x 38	32 x 44	12½"	4	748	1496	1870	2244	2618	2992	1496	2004	2618	2992	3366	3740	4488
18 x 32	4.00	26 x 40	32 x 46	12½"	4	800	1600	2000	2400	2800	3200	1600	2400	2800	3200	3600	4000	4800
18 x 36	4.50	26 x 44	32 x 50	16"	4	900	1800	2250	2700	3150	3600	1800	2700	3150	3600	4050	4500	5400
22 x 22	3.37	30 x 30	36 x 36	16"	4	674	1348	1685	2022	2359	2696	1348	2022	2359	2696	3033	3370	4044
22 x 26	3.97	30 x 34	36 x 40	16"	4	794	1588	1985	2382	2779	3176	1588	2382	2779	3176	3573	3970	4764
22 x 30	4.60	30 x 38	36 x 44	16"	4	920	1840	2300	2760	3220	3680	1840	2760	3220	3680	4140	4600	5520
22 x 36	5.50	30 x 44	36 x 50	16"	5	1100	2200	2750	3300	3850	4400	2200	3300	3850	4400	4950	5500	6600
22 x 40	6.10	30 x 48	36 x 54	16"	5	1220	2440	3050	3660	4270	4880	2440	3660	4270	4880	5490	6100	7320
22 x 44	6.73	30 x 52	36 x 58	16"	5	1346	2692	3365	4038	4711	5384	2692	4038	4711	5384	6057	6730	8076
24 x 24	4.00	32 x 32	38 x 38	16"	4	800	1600	2000	2400	2800	3200	1600	2400	2800	3200	3600	4000	4800
24 x 30	5.00	32 x 38	38 x 44	16"	5	1000	2000	2500	3000	3500	4000	2000	3000	3500	4000	4500	5000	6000
24 x 36	6.00	32 x 44	38 x 50	16"	5	1200	2400	3000	3600	4200	4800	2400	3600	4200	4800	5400	6000	7200
24 x 40	6.67	32 x 48	38 x 54	16"	5	1334	2668	3335	4002	4669	5336	2668	4002	4669	5336	6003	6670	8004
24 x 44	7.35	32 x 52	38 x 58	19½"	5	1470	2940	3675	4410	5145	5880	2940	4410	5145	5880	6615	7350	8820
24 x 48	8.00	32 x 56	38 x 62	19½"	5	1600	3200	4000	4800	5600	6400	3200	4800	5600	6400	7200	8000	9600

\* Total pressure drop includes velocity pressure losses at outlet of throat, but does not include birdscreen loss. Increase the total pressure drop with a 1.15 multiplier to allow for birdscreen pressure drop.



# Louvered Penthouse Models WIH/WRH

## Construction Features

### Weather Shield

The interior vertical edge of the curb cap forms the throat and weather shield. Each corner is shielded to prevent leakage. The louvers are mounted 4 inches from the roof opening for added weather protection.



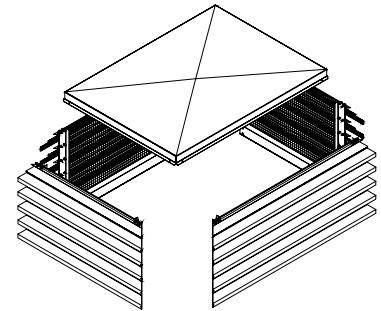
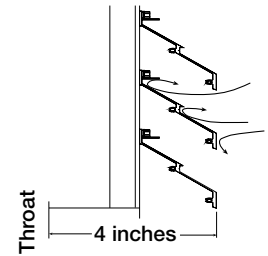
### Weather-Resistant Louver Blades

Each unit features weather-resistant aluminum louver blades with mitered corners. The sturdy extruded aluminum louver blade has a material thickness of 0.080 inches.

### Assembled Sides and Cover

The unit has four side sections and a reinforced cover. A factory-assembled side consists of the curb cap, vertical supports, and the number of louvers required for the specified height.

The sides are joined at the four corners by stainless steel screws in each louver. These screws are countersunk to maintain the appearance of the mitered corner. The cover is securely fastened to the unit by stainless steel fasteners.



### Multi-section hood covers

The multi-section covers allow for easy access inside to perform maintenance of components such as insect screens, birdscreens, and dampers.

**Note:** Please consult factory for other sizes

Dimensional & Performance Data						Intake (WIH) Volume (CFM)						Relief (WRH) Volume (CFM)							
Dimensions (inches)						Total Pressure Drop (in. wg*)						Total Pressure Drop (in. wg*)							
						.008	.029	.045	.065	.088	.115	.025	.055	.075	.098	.125	.154	.221	
						THROAT VELOCITY (ft/min.)						THROAT VELOCITY (ft/min.)							
Throat	Area (ft²)	A	B	C	Number of Louvers	200	400	500	600	700	800	400	600	700	800	900	1000	1200	
28 x 28	5.44	36 x 36	42 x 42	19 1/4	5	1088	2176	2720	3264	3808	4352	2176	3264	3808	4352	4896	5440	6528	
28 x 36	7.00	36 x 44	42 x 50	19 1/4	5	1400	2800	3500	4200	4900	5600	2800	4200	4900	5600	6300	7000	8400	
28 x 40	7.80	36 x 48	42 x 54	19 1/4	5	1560	3900	4680	5460	6240	7020	3120	4680	5460	6240	7020	7800	9360	
28 x 44	8.55	36 x 52	42 x 58	19 1/4	5	1710	3420	4275	5130	5985	6840	3420	5130	5985	6840	7695	8550	10260	
28 x 50	9.75	36 x 58	42 x 64	19 1/4	5	1950	3900	4875	5850	6825	7800	3900	5850	6825	7800	8775	9750	11700	
28 x 56	10.9	36 x 64	42 x 70	23 1/2	6	2180	4360	5450	6540	7630	8720	4360	6540	7630	8720	9810	10900	13080	
32 x 32	7.10	40 x 40	46 x 46	19 1/4	5	1420	2840	3550	4260	4970	5680	2840	4260	4970	5680	6390	7100	8520	
32 x 36	8.00	40 x 44	46 x 50	19 1/4	5	1600	3200	4000	4800	5600	6400	3200	4800	5600	6400	7200	8000	9600	
32 x 40	8.90	40 x 48	46 x 54	19 1/4	5	1780	3560	4450	5340	6230	7120	3560	5340	6230	7120	8010	8900	10680	
32 x 48	10.7	40 x 56	46 x 62	23 1/2	6	2140	4280	5350	6420	7490	8560	4280	6420	7490	8560	9630	10700	12840	
32 x 54	12.0	40 x 62	46 x 68	23 1/2	6	2400	4800	6000	7200	8400	9600	4800	7200	8400	9600	10800	12000	14400	
32 x 64	14.2	40 x 72	46 x 78	27 1/4	7	2840	5680	7100	8520	9940	11360	5680	8520	9940	11360	12780	14200	17040	
36 x 36	9.00	44 x 44	50 x 50	19 1/4	5	1800	3600	4500	5400	6300	7200	3600	5400	6300	7200	8100	9000	10800	
36 x 40	10.0	44 x 48	50 x 54	23 1/2	6	2000	4000	5000	6000	7000	8000	4000	6000	7000	8000	9000	10000	12000	
36 x 48	12.0	44 x 56	50 x 62	23 1/2	6	2400	4800	6000	7200	8400	9600	4800	7200	8400	9600	10800	12000	14400	
36 x 54	13.5	44 x 62	50 x 68	23 1/2	6	2700	5400	6750	8100	9950	10800	5400	8100	9450	10800	12150	13500	16200	
36 x 60	15.0	44 x 68	50 x 74	27 1/4	6	3000	6000	7500	9000	10500	12000	6000	9000	10500	12000	13500	15000	18000	
36 x 72	18.0	44 x 80	50 x 86	27 1/4	7	3600	7200	9000	10800	12600	14400	7200	10800	12600	14400	16200	18000	21600	
42 x 42	12.3	50 x 50	56 x 56	23 1/2	6	2450	4900	6125	7350	8575	9800	4900	7350	8575	9800	11025	12250	14700	
42 x 48	14.0	50 x 56	56 x 62	27 1/4	7	2800	5600	7000	8400	9800	11200	5600	8400	9800	11200	12600	14000	16800	
42 x 54	15.8	50 x 62	56 x 68	27 1/4	7	3150	6300	7875	9450	11025	12600	6300	9450	11025	12600	14175	15750	18900	
42 x 60	17.5	50 x 68	56 x 74	31	8	3500	7000	8750	10500	12250	14000	7000	10500	12250	14000	15750	17500	21000	
42 x 72	21.0	50 x 80	56 x 86	31	8	4200	8400	10500	12600	14700	16800	8400	12600	14700	16800	18900	21000	25200	
42 x 84	24.5	50 x 92	56 x 98	34 3/4	9	4900	9800	12250	14700	17150	19600	9800	14700	17150	19600	22050	24500	29400	
48 x 48	16.0	56 x 56	62 x 62	27 1/4	7	3200	6400	8000	9600	11200	12800	6400	9600	11200	12800	14400	16000	19200	
48 x 54	18.0	56 x 62	62 x 68	27 1/4	8	3600	7200	9000	10800	12600	14400	7200	10800	12600	14400	16200	18000	21600	
48 x 64	21.4	56 x 72	62 x 78	31	8	4280	8560	10700	12840	14980	17120	8560	12840	14980	17120	19260	21400	25680	
48 x 72	24.0	56 x 80	62 x 86	34 3/4	9	4800	9600	12000	14400	16800	19200	9600	14400	16800	19200	21600	24000	28800	
48 x 84	28.0	56 x 92	62 x 98	34 3/4	10	5600	11200	14000	16800	19600	22400	11200	16800	19600	22400	25200	28000	33600	
48 x 96	32.0	56 x 104	62 x 110	38 1/2	10	6400	12800	16000	19200	22400	25600	12800	19200	22400	25600	28800	32000	38400	
54 x 54	20.3	62 x 62	68 x 68	31	8	4050	8100	10125	12150	14175	16200	8100	12150	14175	16200	18225	20250	24300	
54 x 60	22.0	62 x 68	68 x 74	31	9	4400	8800	11000	13200	15400	17600	8800	13200	15400	17600	19800	22000	26400	
54 x 72	27.0	62 x 80	68 x 86	34 3/4	10	5400	10800	13500	16200	18900	21600	10800	16200	18900	21600	24300	27000	32400	
54 x 84	31.5	62 x 92	68 x 98	38 1/2	10	6300	12600	15750	18900	22050	25200	12600	18900	22050	25200	28350	31500	37800	
54 x 96	36.0	62 x 104	68 x 110	38 1/2	11	7200	14400	18000	21600	25200	28800	14400	21600	25200	28800	32400	36000	43200	
54 x 108	40.5	62 x 116	68 x 122	42 1/2	11	8100	16200	20250	24300	28350	32400	16200	24300	28350	32400	36450	40500	48600	
60 x 60	25.0	68 x 68	74 x 74	34 3/4	9	5000	10000	12500	15000	17500	20000	10000	15000	17500	20000	22500	25000	30000	
60 x 72	30.0	68 x 80	74 x 86	38 1/2	10	6000	12000	15000	18000	21000	24000	12000	18000	21000	24000	27000	30000	36000	
60 x 84	35.0	68 x 92	74 x 98	42 1/2	11	7000	14000	17500	21000	24500	28000	14000	21000	24500	28000	31500	35000	42000	
60 x 96	40.0	68 x 104	74 x 110	42 1/2	12	8000	16000	20000	24000	28000	32000	16000	24000	28000	32000	36000	40000	48000	
60 x 108	45.0	68 x 116	74 x 122	46	13	9000	18000	22500	27000	31500	36000	18000	27000	31500	36000	40500	45000	54000	
60 x 120	50.0	68 x 128	74 x 134	46	13	10000	20000	25000	30000	35000	40000	20000	30000	35000	40000	45000	50000	60000	



## Fabra Hood - FGI/FGR



Gravity roof ventilators shall be constructed of heavy-gauge aluminum or galvanized steel as specified.

Hoods shall be constructed of precision-formed, arched panels with interlocking seams.

Bases shall be constructed so that the curb cap is 6 inches larger than the throat size.

Standard base height shall be 5 inches for most sizes. Optional 12-inch bases shall be furnished as specified for intake applications to restrict the entry of moisture and for all applications where rain and/or snow may accumulate on the roof deck.

Hood support members shall be constructed of galvanized steel and fastened so that the hood can be either removed completely from the base or hinged open.

Birdscreens constructed of 1/2-inch galvanized steel mesh shall be mounted horizontally across the intake/discharge area of the hood.

Gravity hoods shall be fabra hood model FGI for intake or model FGR for relief as manufactured by Greenheck Fan Corporation of Schofield, Wisconsin and/or in Rocklin, California, USA.

## Spun Aluminum Gravity Roof Ventilator - GRSI/GRSR/GRSF



Exterior construction shall be heavy-gauge aluminum windband with a rolled bead.

Curb cap shall be constructed of heavy-gauge aluminum and includes a one-piece spun venturi.

Curb cap shall be prepunched for mounting.

Internal components shall be constructed of rigid galvanized steel and include birdscreen.

Gravity ventilator shall be models GRSI, GRSR or GRSF as manufactured by Greenheck Fan Corporation, Schofield, Wisconsin, USA.

## Louvered Penthouse - WIH/WRH



Models WIH and WRH shall be low silhouette louvered penthouse units for intake or relief applications.

Construction shall be all aluminum to assure lasting durability and appearance.

Unit shall have a removable aluminum cover for internal access and shall be lined with fiberglass insulation to prevent condensation.

Cover shall be securely fastened to the unit by corrosion-resistant fasteners.

Birdscreen shall be constructed of 3/4-inch aluminum flat expanded mesh securely mounted across intake/relief openings.

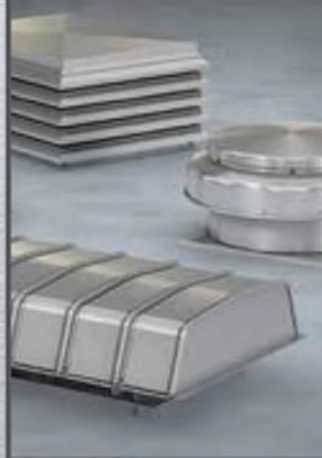
Units shall feature a 0.080-inch aluminum louver with mitered corners.



## Quick Delivery and Quick Build Program

Gravity models are available for shipment to your jobsite in less than 24 hours from our strategically located warehouses or available on our Quick Build program.

Model	Size	Best Available Program
GRS	8 through 30	In Stock
GRSF	8, 10, 12	
GRS	36 through 48	1 Day
GRSF	15 through 24	
FGI	10 x 10 through 72 x 180	5 Days
FGR	10 x 10 through 72 x 180	



## Computer Aided Product Selection

All Greenheck products are supported by the industry's best product literature, electronic media and two product selection tools – CAPS®, our computer aided product selection software program and eCAPS®, our online selection tool. These programs will guide you from initial design through detailed submittals.



And, of course, you can always count on the personal service and expertise of our national and international representative organization. To locate your nearest Greenheck representative call 715-359-6171 or visit our website at [www.greenheck.com](http://www.greenheck.com)

## Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of

top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time.

And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

## Our Commitment

*As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.*

Product warranties can be found online at [Greenheck.com](http://Greenheck.com), either on the specific product page or in the literature section of the website at [Greenheck.com/Resources/Library/Literature](http://Greenheck.com/Resources/Library/Literature).



Plumbing Equipment (Refer to plumbing drawings)			
ID	Description	Specification	Notes
WC-1	Water Closet (ADA)	Refer to Plumbing Drawings	
WC-2	Water Closet	Refer to Plumbing Drawings	
L-1	Lavatory (ADA)	Refer to Plumbing Drawings	
SH-1&2	Shower	Refer to Plumbing Drawings	
S-1	Sink (ADA)	Refer to Plumbing Drawings	
SS-1	Service Sink	Refer to Plumbing Drawings	
FD-1	Floor Drain	Refer to Plumbing Drawings	
TP-1	Trap Primer	Refer to Plumbing Drawings	



BV-1	Backwater Valve	Refer to Plumbing Drawings
HB-1	Hose Bib - Roof	Refer to Plumbing Drawings
HB-2	Hose Bib - Exterior	Refer to Plumbing Drawings
RD-1	Roof Drain	Refer to Plumbing Drawings

**Madera™ FloWise® 16-1/2" Height Elongated  
with EverClean®**

- Floor mount flushometer valve toilet
- Vitreous china
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.1 gpf, 1.28 gpf or 1.6 / 1.1 gpf dual flush)
- Permanent EverClean® surface inhibits the growth of stain and odor-causing bacteria, mold, and mildew on the surface
- Fully glazed 2-1/8" trapway
- Elongated bowl
- 10" or 12" roughing-in
- 16-1/2" rim height for accessible application
- Condensation channel prevents water from dripping on the floor
- Powerful direct-fed siphon jet action
- 10" x 12" water surface area
- 1-1/2" inlet spud
- 2 bolt caps included
- Tested to support static weight load of 2,500 lbs. (1,134kg)

- ☐ **3461.001** Elongated bowl only, top spud
- ☐ **3462.001** Elongated bowl only, top spud with slotted rim for bedpan holding
- ☐ **3465.001** Elongated bowl only, top spud with 4 bolts
- ☐ **3466.001** Elongated bowl only, top spud with slotted rim for bedpan holding with 4 bolts
- ☐ **3463.001** Elongated bowl only, back spud
- ☐ **3464.001** Elongated bowl only, back spud with slotted rim for bedpan holding

**Component Parts:**

- ☐ **047007-0070A** Inlet Spud (furnished with bowl)
- ☐ **034783-0200A** Bolt caps with retainers (furnished with bowl)

**Nominal Dimensions:**

718 x 356 x 419mm  
(28-1/4" x 14" x 16-1/2")

Fixture only, less seat and flush valve

**Compliance Certifications -**

**Meets or Exceeds the Following Specifications:**

- ASME A112.19.2 / CSA B45.1 for Vitreous China Fixtures



MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES  
AND ANSI A117.1 REQUIREMENTS FOR ACCESSIBLE AND USABLE  
BUILDING FACILITIES - CHECK LOCAL CODES.



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

**System MaP\* Score:**

- 1,000 grams of miso @ 1.1 gpf, 1.28 gpf or 1.6 gpf when used with an American Standard flush valve

\* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

**OPERATING PRESSURE:**

25 psi (flowing) - 80 psi (static)

**FLOW REQUIREMENT:**

25 gpm (94.6 L/min.)

**To Be Specified:**

- ☐ Color: ☐ White
- ☐ Seat:
  - ☐ American Standard #5901.100 Heavy duty open front less cover
  - ☐ American Standard #5901.100SS Heavy duty open front less cover with EverClean®
- ☐ Flushometer Valve:



ENVIRONMENTAL  
PRODUCT  
DECLARATION



When used with  
1.1 or 1.28 gpf  
toilet flush valves



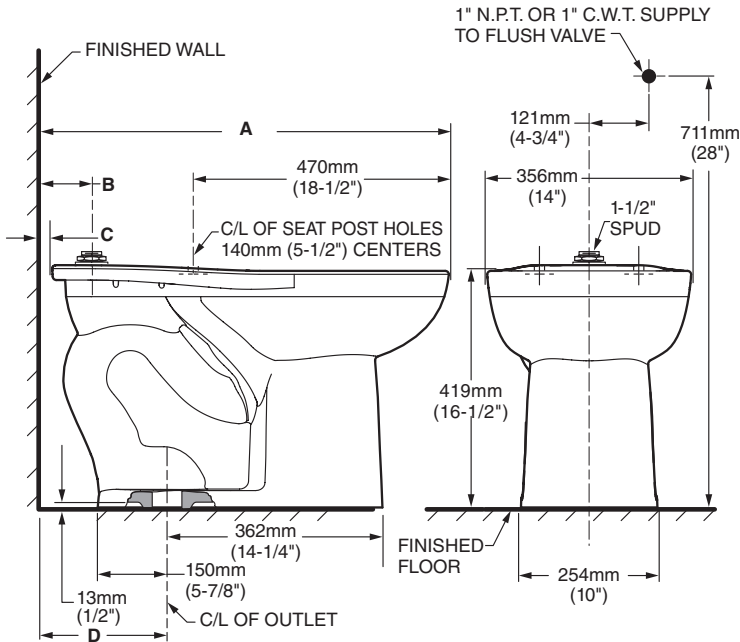
EVERCLEAN



WATER  
EFFICIENT

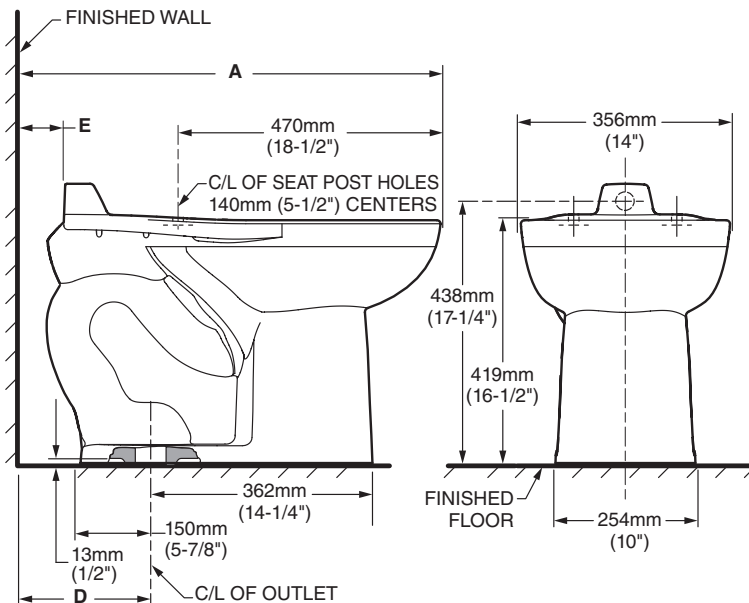


**3461.001/3462.001**

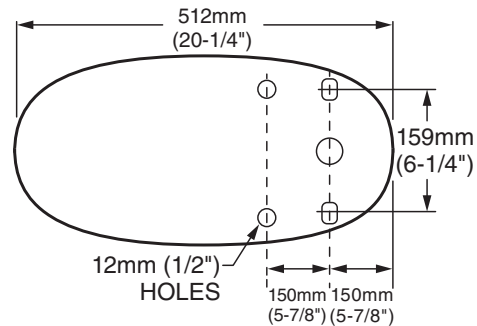


Dimension	10" (254mm) Rough	12" (305mm) Rough
A	718mm (28-1/4")	768mm (30-1/4")
B	102mm (4")	152mm (6")
C	25mm (1")	76mm (3")
D	254mm (10")	305mm (12")
E	76mm (3")	380mm (5")

**3463.001/3464.001**



**3465.001/3466.001  
4-BOLT ANCHOR DETAIL  
(Bottom View of Bowl)**



**NOTES:**

PRODUCT 3461 AND 3463 SHOWN, 3462 AND 3464 SAME EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING. TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING. THIS TOILET DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") AND A MAXIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET. FLUSHOMETER VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. FLUSHOMETER VALVE REQUIREMENTS FOR 12" (305MM) ROUGH-IN: SWEAT EXTENSION NIPPLE IS REQUIRED. REFER TO VALVE MANUFACTURER AND LOCAL CODES.

**IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.



WC-2

## Madera™ FloWise® 15" Height Elongated Flushometer Toilet

VITREOUS CHINA LESS EVERCLEAN®

### Madera™ FloWise® 15" Height Elongated LESS EverClean®

- Floor mount flushometer valve toilet
- Vitreous china
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.28 gpf or 1.6 / 1.1 gpf dual flush)
- Fully glazed 2-1/8" trapway
- Elongated bowl
- 10" or 12" roughing-in
- 15" rim height
- Condensation channel
- Powerful direct-fed siphon jet action
- 10" x 12" water surface area
- 1-1/2" inlet spud
- 2 bolt caps

- ☐ **2234.001** Elongated bowl only, top spud
- ☐ **2623.001** Elongated bowl only, top spud with slotted rim for bedpan holding
- ☐ **2624.001** Elongated bowl only, back spud

#### System MaP\* Score:

- 1,000 grams of miso @ 1.1 gpf, 1.28 gpf or 1.6 gpf when used with an American Standard flush valve

\* Maximum Performance (MaP) testing performed by IAPMO R&T Lab. MaP Report conducted by Veritec Consulting, Inc. and Koeller and Company.

#### Component Parts:

- ☐ **047007-0070A** Inlet Spud (furnished with bowl)
- ☐ **481310-100** Bolt caps with retainers (furnished with bowl)

#### Nominal Dimensions:

718 x 356 x 381mm  
(28-1/4" x 14" x 15")

Fixture only, less seat and flush valve

Recommended working pressure—between 25 psi at valve when flushing and 80 psi static

#### Compliance Certifications -

##### Meets or Exceeds the Following Specifications:

- ASME A112.19.2 / CSA B45.1 for Vitreous China Fixtures



SEE REVERSE FOR ROUGHING-IN DIMENSIONS

#### To Be Specified:

- ☐ Color: ☐ White
- ☐ Seat:
  - ☐ American Standard #5901.100 Heavy duty open front less cover
  - ☐ American Standard #5905.100 Extra heavy duty open front less cover
- ☐ Flushometer Valve:
  - ☐ 1.6 gpf:
    - ☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.161.002 (Top Spud)
    - ☐ Sensor-Operated: American Standard Selectronic® AC Power #6067.261.002 (Back Spud)
    - ☐ Manual: American Standard #6047.161.002 (Top Spud)
  - ☐ 1.28 gpf:
    - ☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.121.002 (Top Spud)
    - ☐ Sensor-Operated: American Standard Selectronic® AC Power #6067.221.002 (Back Spud)
    - ☐ Manual: American Standard #6047.121.002 (Top Spud)
  - ☐ 1.6 / 1.1 gpf Dual Flush:
    - ☐ Sensor-Operated: American Standard Selectronic® DC Power #6065.761.002 (Top Spud)



ENVIRONMENTAL  
PRODUCT  
DECLARATION



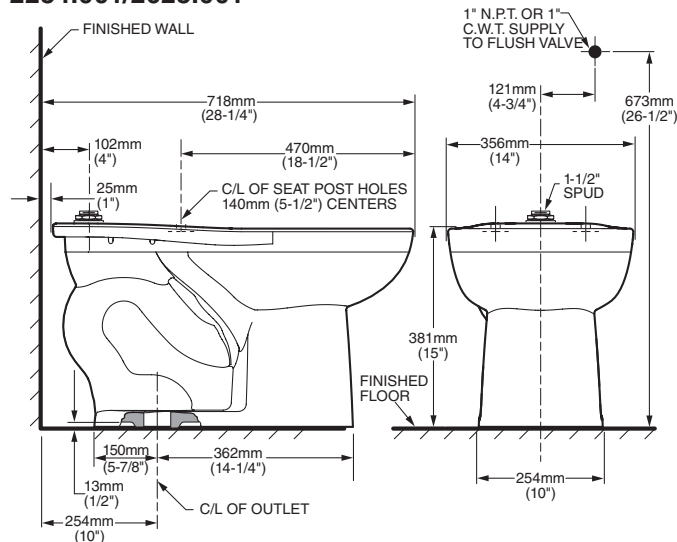
When used with  
1.1 or 1.28 gpf  
toilet flush valves



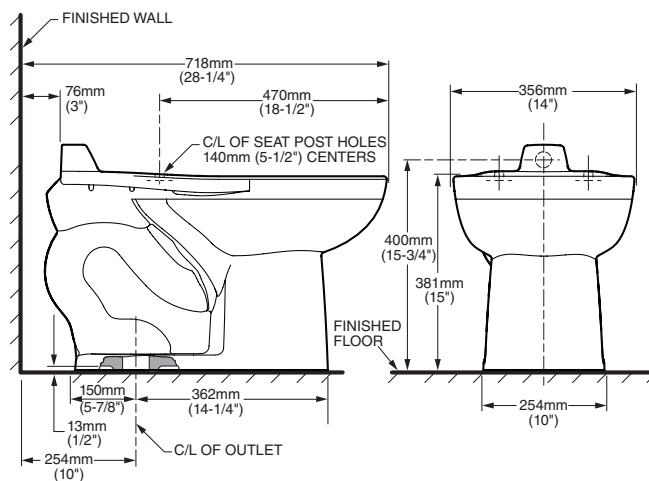
WATER  
EFFICIENT



**2234.001/2623.001**



**2624.001**



**NOTES:**

PRODUCT 2234 SHOWN, 2623 SAME EXCEPT WITH SLOTTED RIM FOR BED PAN HOLDING.  
TO COMPLY WITH AREA CODE GOVERNING THE HEIGHT OF VACUUM BREAKER ON THE FLUSHOMETER VALVE, THE PLUMBER MUST VERIFY DIMENSIONS SHOWN FOR SUPPLY ROUGHING.  
THIS TOILET DESIGNED TO ROUGH-IN AT A MINIMUM DIMENSION OF 254MM (10") AND A MAXIMUM DIMENSION OF 305MM (12") FROM FINISHED WALL TO C/L OF OUTLET.  
FLUSHOMETER VALVE NOT INCLUDED WITH FIXTURE AND MUST BE ORDERED SEPARATELY. FLUSHOMETER VALVE REQUIREMENTS FOR 12" (305MM) ROUGH-IN: SWEAT EXTENSION NIPPLE IS REQUIRED. REFER TO VALVE MANUFACTURER AND LOCAL CODES.

**IMPORTANT:** Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

## Features

- Vitreous china
- Under-mount
- With overflow
- Includes 1193643 clamp assembly
- 17" (432 mm) x 13" (330 mm)

## UNDER-MOUNT BATHROOM SINK K-2330

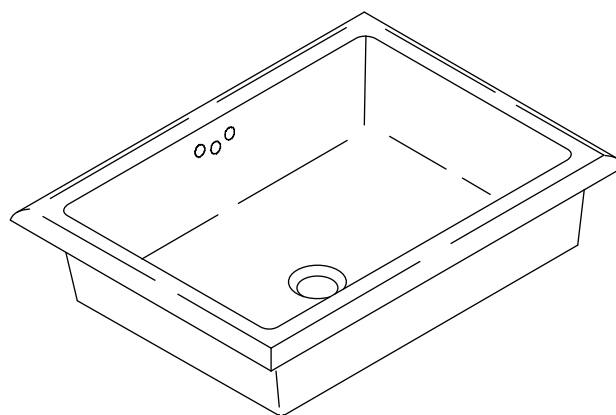
ADA

CSA B651

## Codes/Standards Applicable

Specified model meets or exceeds the following:

- ADA
- ASME A112.19.2/CSA B45.1
- ICC/ANSI A117.1
- CSA B651



## Colors/Finishes

- 0: White
- Other: Refer to Price Book for additional colors/finishes

## Specified Model

Model	Description	Colors/Finishes	
K-2330	Under-mount bathroom sink less glazed underside	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____
K-2330-G	Under-mount bathroom sink with glazed underside	<input type="checkbox"/> 0	<input type="checkbox"/> Other _____

## Product Specification

The under-mount bathroom sink shall be made of vitreous china. Bathroom sink shall be 17" (432 mm) in length and 13" (330 mm) in width. Bathroom sink shall be available with overflow and includes 1193643 clamp assembly. Bathroom sink shall be Kohler Model K-2330-\_\_\_\_ or K-2330-G-\_\_\_\_\_.



## Technical Information

Fixture*:	
Basin area	17" (432 mm) x 13" (330 mm)
Water depth	3" (76 mm)
Drain hole	Ø 1-3/4" (44 mm)
* Approximate measurements for comparison only.	
Cutout template	1006809-7
Included components:	
Basin clamp assembly	1193643

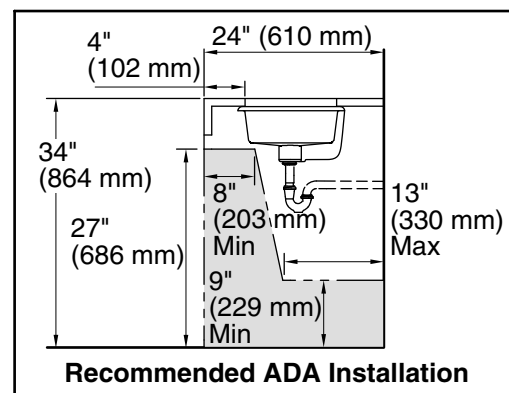
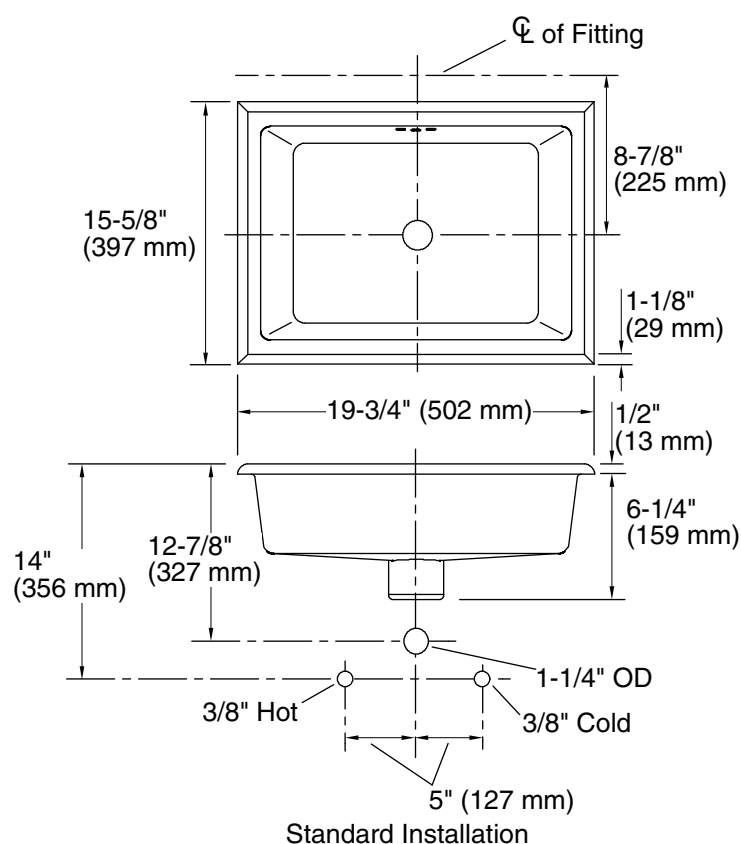
## Installation Notes

Install this product according to the installation guide.

**NOTICE:** Countertop manufacturer or cutter must use the current product template available at [www.kohler.com](http://www.kohler.com), or by calling 1-800-4KOHLER. Kohler Co. is not responsible for cutout errors when the incorrect cutout template is used.

Will comply with **ADA** when installed per section 606 Lavatories and Sinks of the 2010 ADA Standards for Accessible Design.

Will comply with **CSA B651** when installed per Clause 4.3.3 of the standard.



## Product Diagram



#### PRODUCT FEATURES:

- **Flexible Selectronic® Platform** with programmable, multi-function sensor.
- **Hygienic, touch-free operation**
- **Easy & Flexible Installation:** Single post mounting with optional 4" & 8" deck plate. Water resistant solenoid enclosure mounts to wall.
- **Durable Vandal-Resistant Brass Body:** Ideal for high-use commercial applications.
- **Self-Cleaning Solenoid Valve:** Wiper spring prevents clogging
- **Easy to Service Integrated Strainer:** Patented integrated strainer protects solenoid from debris. Strainer is enclosed in removable debris cup for easy service.
- **Optional Auto Purge Feature:** Faucet can be programmed to open at a pre-determined time after last use to purge the faucet and water lines.
- **Safety Timer:** Helps prevent vandalism by turning off the faucet if the sensor is covered for 55 seconds or more. Timing is adjustable with optional remote control.
- **Adjustable Range:** Detection zone can be adjusted manually or with optional remote control.
- **Fail-Safe:** Faucet automatically shuts off upon loss of power or dead battery. Prevents costly excess water usage and potential flooding.
- **Lead-Free:** Faucet contains  $\leq 0.25\%$  total lead content by weighted average.

#### GENERAL DESCRIPTION:

Electronic faucet with proximity operation. Vandal-resistant cast brass spout with single post mounting. Water pressure range from 20 to 125 psi. Single inlet. 18" flexible stainless steel inlet hose with 3/8" compression fitting for connection to control box.

#### MODEL NUMBER:

##### ■ BASE UNIT (Does not include power supply)

- **250B.105** 0.5 GPM pressure compensating, vandal-resistant multi-laminar spray.
- **205B.102** 1.5 GPM pressure compensating, vandal-resistant aerator.

##### ■ POWER KITS (Must be purchased separately)

- **PK00.PAC** Includes universal Plug-In AC power supply.
- **PK00.MAC** Includes Y-splitter and 10' extension cable.
- **PK00.HAC** Includes universal Hard-Wired AC transformer and 10' extension cable.

##### ■ OPTIONAL Battery Back-Up

- **PK00.BBU** Allows faucet to continuously operate during a power failure.

##### ■ OPTIONAL 4" or 8" Deck plates

- **605P.400** 4" brass deck plate with 1/4" fixation studs and quick spin nuts. (6-1/8" x 2-1/8" x 1/2")
- **605P.800** 8" brass deck plate with 1/4" fixation studs and quick spin nuts. (10-1/8" x 2-3/8" x 1/2")

##### ■ OPTIONAL Thermostatic Mixing Valve

- **605XTMV1070** Thermostatic mixing valve. 20" flexible stainless steel inlet hoses with 3/8" compression fittings. ASSE 1070 certified down to 0.35 gpm.

#### POWER OPTIONS:

- **Universal Voltage:** 100 - 240 VAC, 50/60 Hz
- **Plug-In AC:** Includes Class 2 UL certified universal Plug-In AC power supply with 6' long power cord.
- **Hard-Wired AC:** Includes Class 2 UL certified universal Hard-Wired AC transformer (electrical box by others).
- **Multi-AC:** One AC transformer can power up to 15 faucets and/or flush valves in a daisy chain configuration. **POWER SUPPLY NOT INCLUDED.**

#### RECOMMENDED SPECIFICATION:

Electronic, sensor-operated lavatory faucet shall feature a programmable, multi-function sensor and an electronically operated self-cleaning solenoid valve. Shall also feature a vandal resistant solid brass construction with single inlet and in-line strainer. Shall meet ANSI A112.18.1 and ANSI 117.1 codes. Fitting shall be American Standard Model # 250B.1\_\_.



## CODES AND STANDARDS

These products meet or exceed the following codes and standards:

**ANSI A117.1**

**ASME A112.18.1**

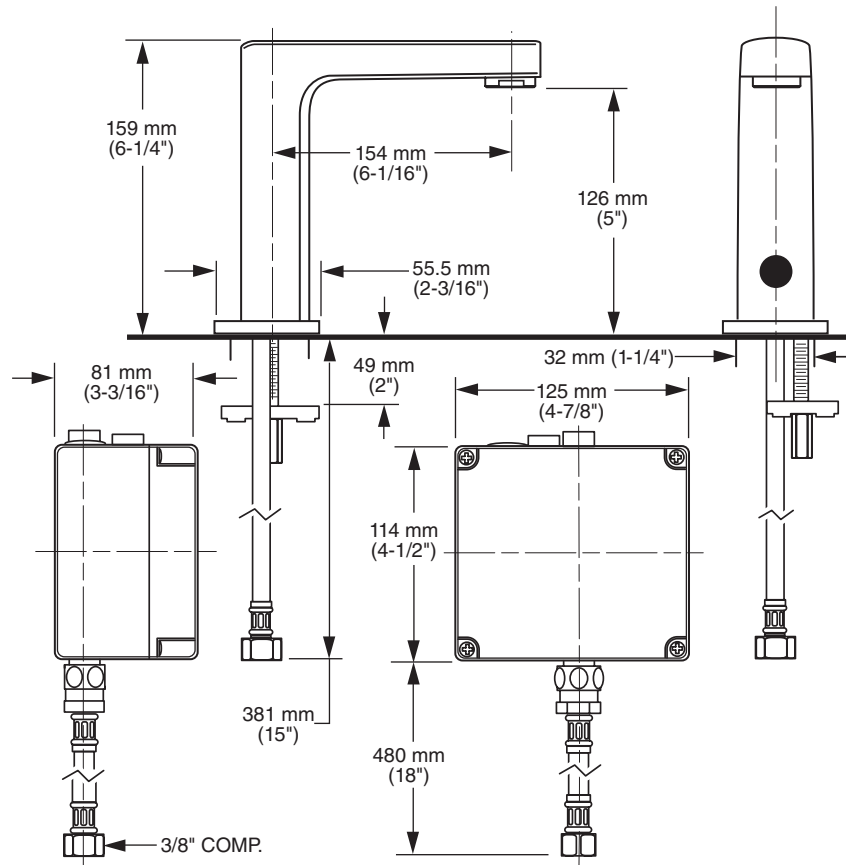
**CSA B 125**

**NSF 372**

Other Aerators Available:	
Part Suffix	Description
LV15	1.5 gpm (5.7 Lpm) PCA Vandal-Resistant Non-Aerated Laminar Flow Outlet
LV10	1.0 gpm (3.8 Lpm) PCA Vandal-Resistant Non-Aerated Laminar Flow Outlet
V10	1.0 gpm (3.8 Lpm) PCA Vandal-Resistant Aerator
V035*	0.35 gpm (1.3 Lpm) PCA Vandal-Resistant Non-Aerated Spray

PCA - Pressure Compensating

\* Meets Cal Green Code



Meets the American Disabilities Act Guidelines and **ANSI A117.1** Requirements for accessible and usable building facilities - check local codes

**PART OF LIXIL**



L-1 TMV

## S59-4016 Series Navigator® Thermostatic Mixing Valves

- Lead-free design†
- Glass-filled polysulfone valve body
- Thermoplastic polymer cartridge
- Reliable wax-filled thermostat
- Adjustable set point within temperature range
- Easy installation and serviceability
- Universal Mounting Capability
- Integral check valves and strainers
- Factory assembled and tested
- Optional mounting bracket

### Valve Specifications

#### Maximum Operating Pressure

125 PSI (860 kPa)

#### Maximum Inlet Temperature

180° F (82° C)

#### Temperature Range

Std. 59° F (15° C) to 140° F (60° C)

#### Temperature Differential – Hot to Mix

10° F (18° C)

#### Flow Capacities – GPM (L/Min)

##### S59-4016D, S59-4016N, S59-4016S

Min. Flow	Pressure Drop – PSI (Bar)						
	5 (.5)	10 (1.0)	15 (1.5)	20 (2.0)	30 (2.5)	45 (3.0)	60 (4.0)
0.5 (2.0)	5.0 (22.4)	7.0 (31.6)	8.5 (39.6)	10.0 (46.4)	12.5 (52.0)	15.0 (56.5)	16.5 (61.9)

##### S59-4016X, S59-4016Y

Min. Flow	Pressure Drop – PSI (Bar)						
	5 (.5)	10 (1.0)	15 (1.5)	20 (2.0)	30 (2.5)	45 (3.0)	60 (4.0)
0.5 (2.0)	4.0 (17.3)	5.0 (23.5)	6.5 (29.0)	7.5 (33.8)	9.0 (38.0)	11.0 (41.5)	12.5 (46.5)

### Code Compliance and Certifications

ASSE 1017, 1069, 1070 & cUPC certified. Complies with California Lead Plumbing Law.

† Wetted surface area contains less than .25% lead.

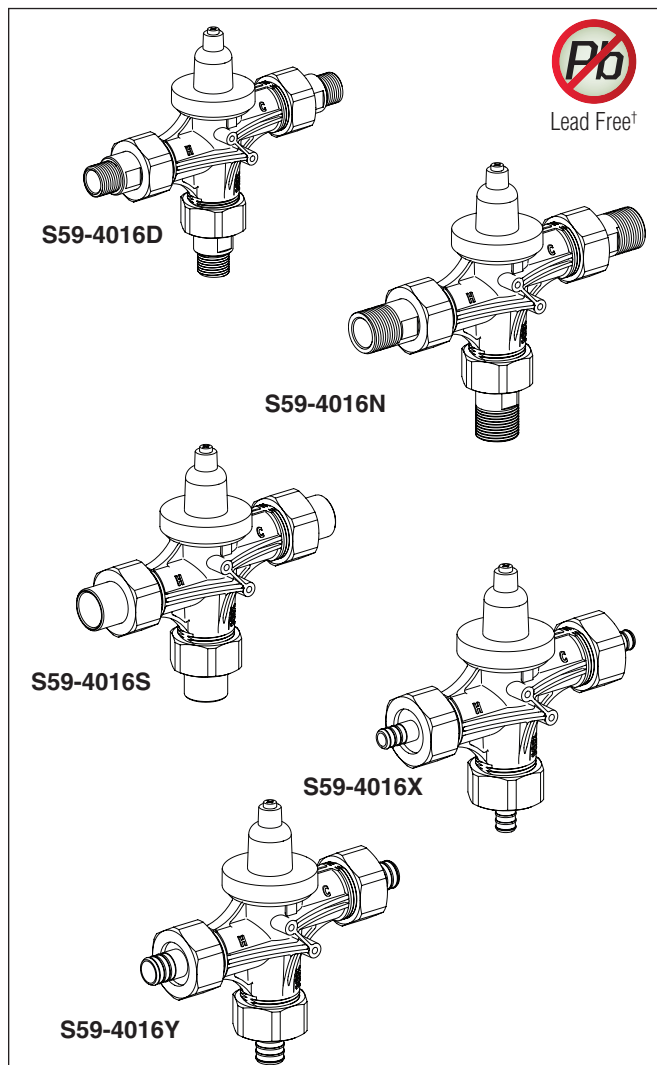


Certified to  
NSF/ANSI 372

☒ Standard product selections contained within this document are third party CERTIFIED to NSF/ANSI 372 meeting the Lead-Free content requirement. Any product configured with custom options will be COMPLIANT with NSF/ANSI 372 meeting the Lead-Free content requirement.

Engineer's Approval \_\_\_\_\_

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



### Models (Must select one)

Model	Description
<input type="checkbox"/> S59-4016D	Navigator® Thermostatic Mixing Valve with 1/2" NPT/sweat connections
<input type="checkbox"/> S59-4016N	Navigator Thermostatic Mixing Valve with 3/4" NPT connections
<input type="checkbox"/> S59-4016S	Navigator Thermostatic Mixing Valve with 3/4" sweat connections
<input type="checkbox"/> S59-4016X	Navigator Thermostatic Mixing Valve with 1/2" PEX connections
<input type="checkbox"/> S59-4016Y	Navigator Thermostatic Mixing Valve with 3/4" PEX connections
<input type="checkbox"/> S45-2456	Optional Mounting Bracket (Not Shown)



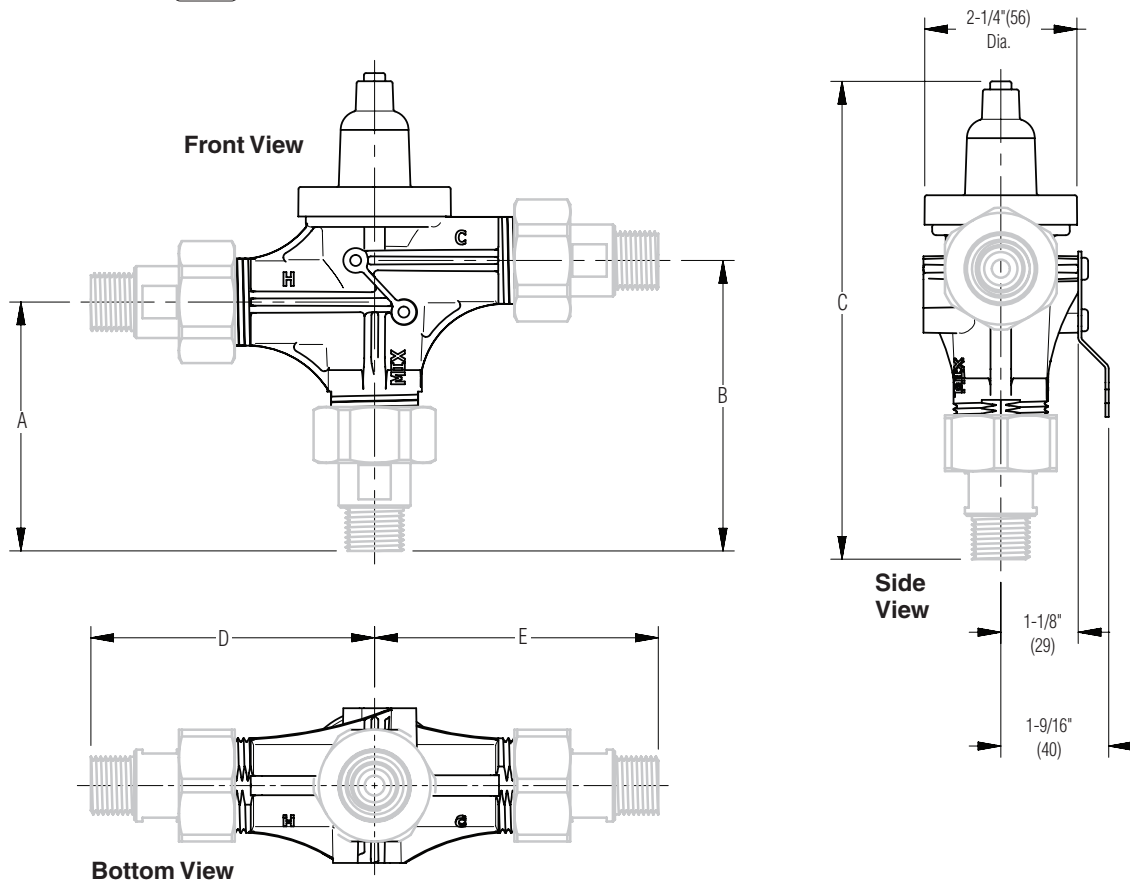
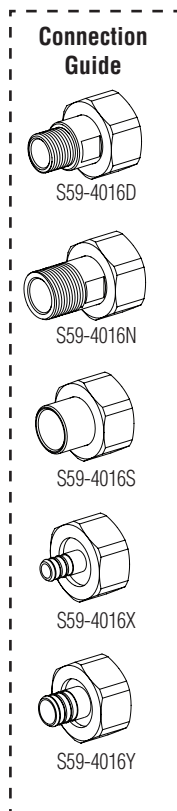


# S59-4016 Series Navigator® Thermostatic Mixing Valves

## Dimensions (mm)



Model S59-4016D (1/2" NPT/sweat connection) shown.  
Connectors shown in gray for reference.



Model No	Connection Type	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
S59-4016D	1/2" NPT/Sweat	3-5/8" (92)	4-1/4" (107)	7" (176)	4-1/8" (105)	4-1/8" (105)
S59-4016N	3/4" NPT	3-3/4" (95)	4-5/16" (110)	7" (176)	4-1/4" (107)	4-1/4" (107)
S59-4016S	3/4" Sweat	3-1/8" (79)	3-3/4" (95)	6-1/2" (164)	3-5/8" (92)	3-5/8" (92)
S59-4016X	1/2" PEX	3-1/8" (79)	3-3/4" (95)	6-1/2" (164)	3-5/8" (92)	3-5/8" (92)
S59-4016Y	3/4" PEX	3-1/8" (79)	3-3/4" (95)	6-1/2" (164)	3-5/8" (92)	3-5/8" (92)

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

Page 2 of 2

8/19/2014

This information is subject to change without notice.

Bradley\_TMV\_PointOfUse\_S59-4016D\_N\_S\_X\_Y

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



SH-1&2

# HN300 ADA Compliant In-Wall Shower

## Specifications

### Shower Configuration

Ability to install as right or left-handed configurations as determined by application or ADA requirements.

## Construction

### Materials

All exposed materials, except for phenolic seat, are type 304 stainless steel or polished chrome-plated brass. Valve bodies are brass casting. Grab bar is 18 gauge.

## ADA Compliant

When installed properly in a 3' x 3' stall (supplied by others), the HN300 provides a shower stall designed to comply with all known ADA guidelines on reaches, clearances, and operation. Controls are mounted 38"–48" above the floor to accommodate all users.



*Check local applicable codes for dimensional compliance.*

## Standard Equipment

### Valve Type as Selected

For more information on each valve type, please enter the model number in the search box at [www.bradleycorp.com](http://www.bradleycorp.com).

### Showerhead

Standard fixed direction adjustable sprayhead (S15).

### Diverter Valve

Lever handle operation for easy transfer of water flow between fixed and hand-held shower spray.

### Flow Control

A 1.5 GPM (5.7 LPM) flow control is standard. Actual flow may vary, but will not exceed 2.0 GPM (7.6 LPM) max.

## Optional Selections

### Hand Shower

Consisting of hand shower with on-off control, a 60" stainless steel flexible hose and post style mounting bracket to hold to wall. Elevated in-line backflow preventer with quick-disconnect for flexible hose available with some models. For more information on each hand shower type, please reference the Hand Showers tech data at [www.bradleycorp.com](http://www.bradleycorp.com).

### Barrier-Free Seat

Reversible phenolic shower seat. Load capacity of 250 lbs. See technical data document Bradley\_ShowerSeat\_9569 for additional information.

### Showerhead Anchor Plate

3/16" cadmium-plated steel plate furnished with countersunk mounting holes and machine screws provides additional mounting strength.

### Showerhead Back Plate

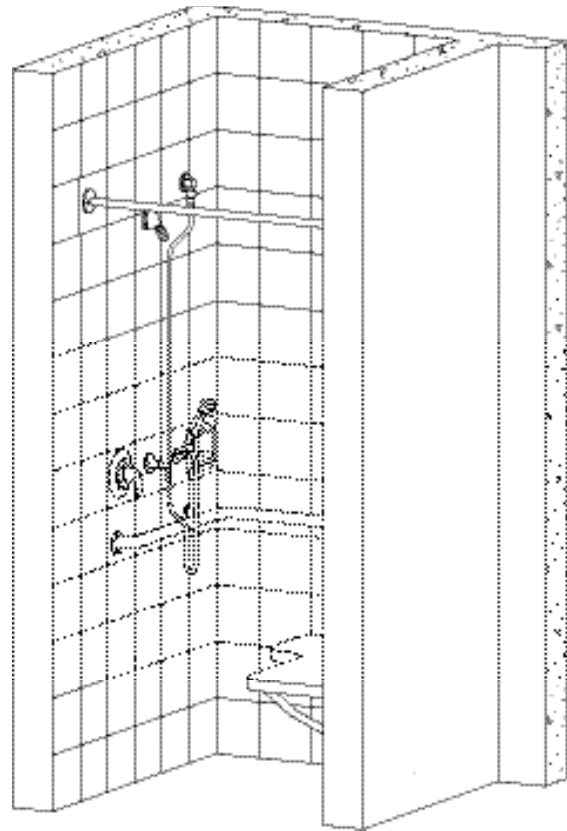
3/16" cadmium-plated steel plate furnished with couplings, studs and nuts allows most secure anchorage of wall-mounted components.

### Shower Curtain

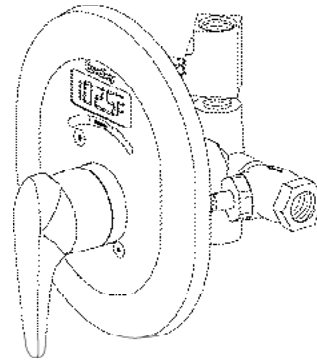
60" x 72" vinyl shower curtain with heavy-duty curtain rod and hooks.

### L-Shaped 2-Wall Grab Bar

Grab bar fabricated of 18 gauge 1-1/2" O.D. stainless steel tubing with a 1-1/2" safety statute clearance. Flanges are 11 gauge. Load capacity in excess of 300 lbs.



**HN 300**  
(Stall shown not included as standard equipment)







A WATTS Brand

# HN300

## ADA Compliant In-Wall Shower

Model	Description
<input checked="" type="radio"/> HN300	ADA-Compliant In-Wall Shower

Standard Selections (Must select one from each category)	
<b>Valve Type (select one):</b>	
<input type="radio"/> EF	Equa Flo Pressure Balancing Valve
<input type="radio"/> EFT1	Equa Flo Pressure Balancing Valve with Temperature Display
<input type="radio"/> HD	Equa Flo HD Pressure Balancing Valve
<input type="radio"/> HDT1	Equa Flo HD Pressure Balancing Valve with Temperature Display
<input type="radio"/> TMV	Thermostatic Mixing Valve
<input type="radio"/> TMVT1	Thermostatic Mixing Valve with Temperature Display
<input type="radio"/> SVL	Single Compression Valve with Lever Handle
<input type="radio"/> AST	Air Pushbutton
<input type="radio"/> TTPA	TouchTime Pushbutton*
<input type="radio"/> TTPB	TouchTime Piezo Switch*
<b>Showerhead Type (select one):</b>	
<input type="radio"/> S15	Standard Showerhead (Flow Rate = 1.5 GPM/5.7 LPM)
<input type="radio"/> SX15	Severe Service Showerhead (Flow Rate = 1.5 GPM/5.7 LPM)
<input type="radio"/> S20	Standard Showerhead (Flow Rate = 2.0 GPM/7.6 LPM)
<input type="radio"/> SX20	Severe Service Showerhead (Flow Rate = 2.0 GPM/7.6 LPM)
<input type="radio"/> SF	Deluxe Showerhead w/ Ball Joint (Flow Rate = 1.5 GPM/5.7 LPM)
<input type="radio"/> ES	Economy Soft Flow w/ Ball Joint (Flow Rate = 2.0 GPM/7.6 LPM)
<input type="radio"/> J	Multi-Jet Showerhead w/ Ball Joint (Flow Rate = 1.5GPM/5.7 LPM)
<input type="radio"/> LX	Luxury Showerhead w/ Ball Joint (Flow Rate = 1.5GPM/5.7 LPM)
<input type="radio"/> B	Axis Showerhead w/ Ball Joint (Flow Rate = 1.5GPM/5.7 LPM)

\*TTPA and TTPB valves require a low-voltage UL/CSA listed 120VAC/12VDC plug-in adapter.

\*\* All hand showers are 1.5GPM (95.7LPM) and must be installed per ADA requirements.

§ Only available with wall arm showerheads.

† Included with EF, EFT1, HD, HDT1, TMV and TMVT1 valves.

‡ Only available on S15 and S20 showerheads.

Verify all rough-in dimensions prior to installation.

Consult local and national codes: conformity and compliance to local and national codes is the responsibility of the installer.

Optional Selections (Must select one from each category)	
<b>Volume Control Type‡ (select one):</b>	
<input type="radio"/> AKV	Allen Key Volume Control
<input type="radio"/> LHV	Lever Handle Volume Control
<input type="radio"/> NONE	No Volume Control
<b>Ball Joint Type‡ (select one):</b>	
<input type="radio"/> LBJ	Lockable Ball Joint
<input type="radio"/> NONE	No Ball Joint
<b>Supply Stop Type† (select one):</b>	
<input type="radio"/> ST	Stops in each Supply
<input type="radio"/> NONE	No Supply Stops
<b>Hand Shower Type** (select one):</b>	
<input type="radio"/> A24	With 60" flexible hose, 24" ADA Grab Bar and Vacuum Breaker
<input type="radio"/> A36	With 60" flexible hose, 36" ADA Grab Bar and Vacuum Breaker
<input type="radio"/> B24	With 60" Flexible Hose, 24" Metal Slide Bar and Vacuum Breaker
<input type="radio"/> B30	With 60" flexible hose, 30" Slide Bar
<input type="radio"/> E24	With 60" Flexible Hose, 22" Economy Slide Bar and Vacuum Breaker
<input type="radio"/> HW	With 60" Flexible Hose, Wall Hooks and Vacuum Breaker
<input type="radio"/> HS	With 60" Flexible Hose, Wall Hooks, Vacuum Breaker and Quick Disconnect
<input type="radio"/> SB	With 60" Flexible Hose, 24" Metal Slide Bar, Vacuum Breaker and Quick Disconnect
<input type="radio"/> SB-30	With 60" flexible hose, 30" Slide Bar and Quick Disconnect
<input type="radio"/> NONE	No Hand Shower
<b>Shower Seat Type (select one):</b>	
<input type="radio"/> RSS	Reversible Phenolic Shower Seat
<input type="radio"/> NS	No Seat
<b>Soap Dish Type (select one):</b>	
<input type="radio"/> SD	Wall-Mount Soap Dish
<input type="radio"/> RSD	Recessed Soap Dish
<input type="radio"/> NONE	No Soap Dish
<b>Showerhead Anchor Plate Type (select one):</b>	
<input type="radio"/> AP	Anchor Plate for Showerhead §
<input type="radio"/> NONE	No Anchor Plate for Showerhead §
<b>Showerhead Back Plate Type (select one):</b>	
<input type="radio"/> BP	Back Plate for Showerhead §
<input type="radio"/> NONE	No Back Plate for Showerhead §
<b>Curtain Type (select one):</b>	
<input type="radio"/> CRH	Shower Curtain, Rod and Hooks
<input type="radio"/> NONE	No Shower Curtain, Rod or Hooks
<b>Grab Bar Type (select one):</b>	
<input type="radio"/> GB	L-Shaped 2-Wall Grab Bar
<input type="radio"/> NONE	No Grab Bar

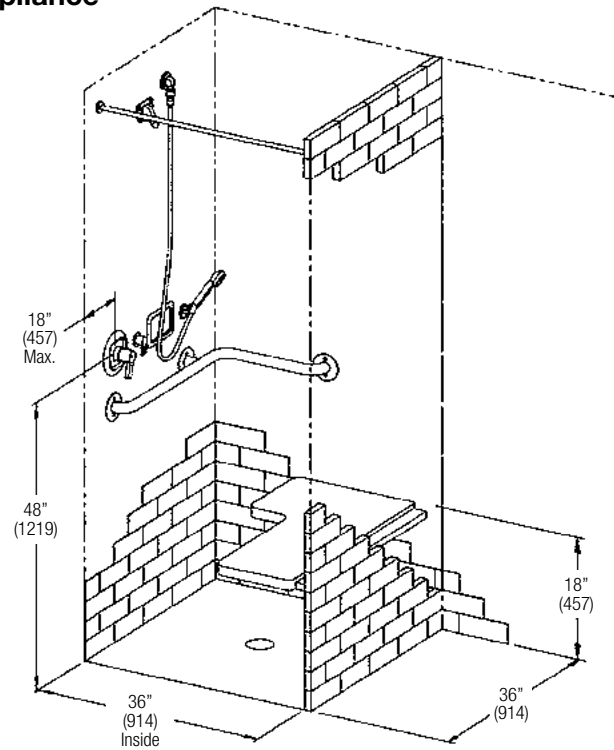


A WATTS Brand

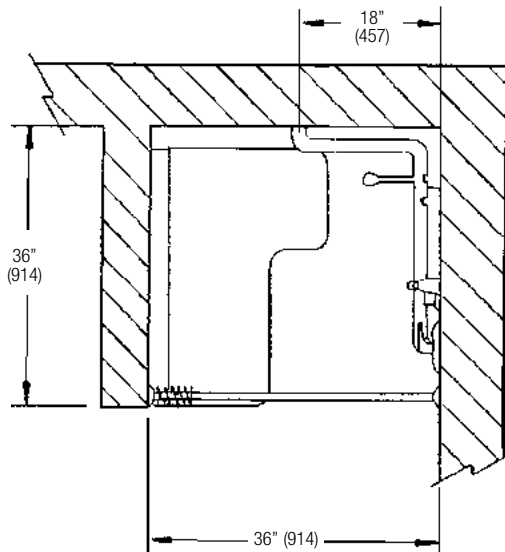
# HN300 ADA Compliant In-Wall Shower

## Dimensions for ADA Compliance

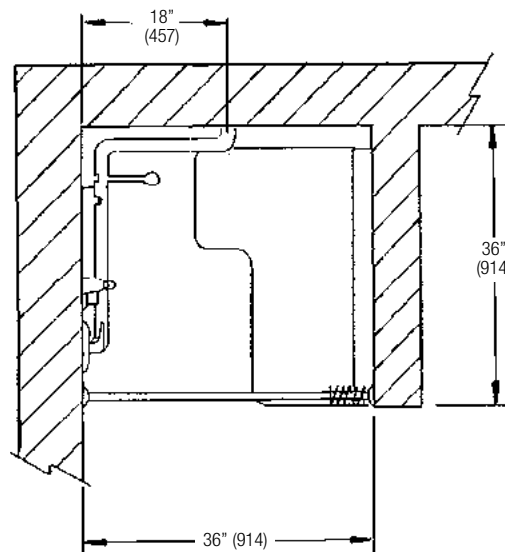
(mm)



### Valve Right/Seat Left Configuration



### Valve Left/Seat Right Configuration







S-1

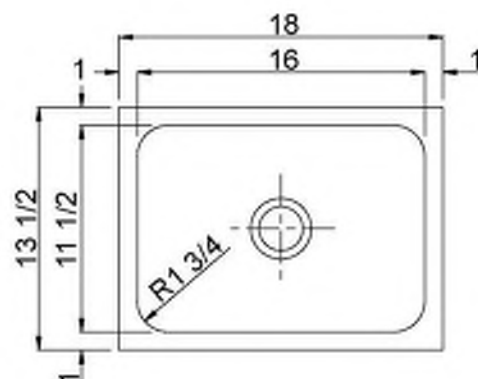
# US-ADA-13518-A - 18 GA. UNDERMOUNT GROUP

## ADA COMPLIANT SINGLE COMPARTMENT

SUBMITTAL DATA

ADA  
COMPLIANT**SPECIFICATION**

Seamless die-drawn construction of 18 gauge, type 304, 18-8 stainless steel. Interior and top surfaces polished to a non-porous Hand-blended Just Finish with highlighted bowl rim. Smooth, fully coated underside insulated for sound and reduces condensation. Straight-sided compartment with radius corners provides greater capacity. Drain punched for J-35 drain. Certified to ASME A112.19.3/CSA B45.5, Canadian Standards Association (CSA), Uniform Plumbing Code (UPC) and International Plumbing Code (IPC).



4.18

Gallon  
Capacity\***Capacity Matters**

Max ID sizing with straight sided bowl configuration (non tapered sides). Tight corner radius design.

\*Capacity is based on 5-1/2" Depth

**To Be Specified:****DRAIN LOCATION:**

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> CENTER (SHOWN) | <input type="checkbox"/> LEFT REAR   |
| <input type="checkbox"/> RIGHT REAR     | <input type="checkbox"/> CENTER REAR |

LOCATIONS MUST BE A MINIMUM OF 4 1/2" FROM THE BOWL WALL.

**DEPTH - MUST BE SPECIFIED:**

- |                                      |                                  |                                      |
|--------------------------------------|----------------------------------|--------------------------------------|
| <input type="checkbox"/> 4 1/2" DEEP | <input type="checkbox"/> 5" DEEP | <input type="checkbox"/> 5-1/2" DEEP |
|--------------------------------------|----------------------------------|--------------------------------------|

APPROVED FOR MANUFACTURING

MODEL NO.: **US-ADA-13518-A** QTY: \_\_\_\_\_

JOB NAME: \_\_\_\_\_

TAG/ITEM: \_\_\_\_\_

CUSTOMER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

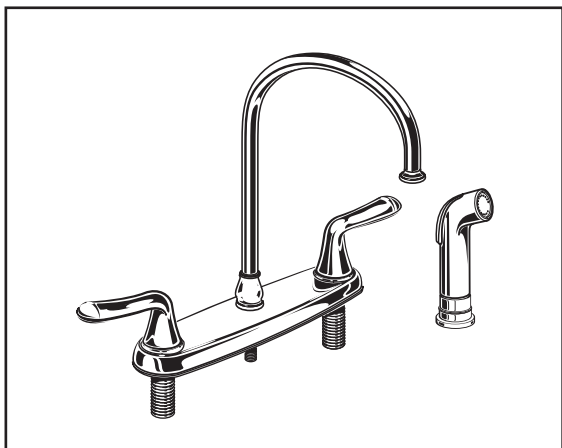


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JUST MANUFACTURING COMPANY

9233 KING STREET . FRANKLIN PARK . ILLINOIS . 60131-2111

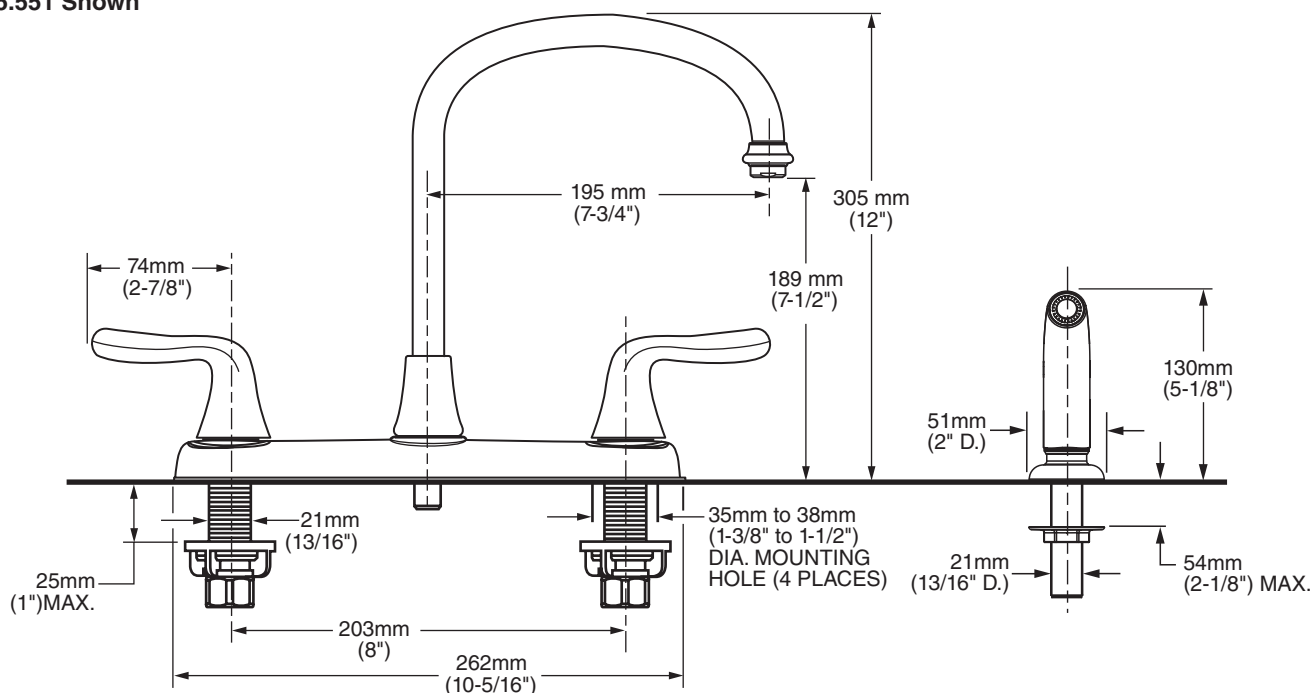
PH: 847-678-5150 . FAX: 847-678-6817 . E-MAIL: [custserv@justmfg.com](mailto:custserv@justmfg.com) . [www.justmfg.com](http://www.justmfg.com)



**4275.551 Shown**

**MODEL NUMBER:**

- ☐ **4275.550 Kitchen Faucet**  
Lever Handles. Less Handspray.
- ☐ **4275.550.F15 Kitchen Faucet**  
Same as above. 1.5gpm flow rate.
- ☐ **4275.551 Kitchen Faucet**  
Lever Handles. Separate Color-Matched Handspray.
- ☐ **4275.551.F15 Kitchen Faucet**  
Same as above. 1.5gpm flow rate.



**GENERAL DESCRIPTION:**

Durable brass construction. 1/4 turn washerless ceramic disc valve cartridges. Durable cast brass waterway with 1/2" male inlet shanks. Brass gooseneck swivel spout and lever handles. Metal escutcheon plate (escutcheon size 10-5/16"L x 2-3/8"W). 2.2gpm/8.3L/min. maximum flow rate, 1.5gpm/5.7 L/min. maximum flow rate for F15 models.

**PRODUCT FEATURES:**

**Ceramic Disc Valve Cartridges:** Assures a lifetime of drip-free performance.

**Cast Brass Waterways with "City Shanks":** Strong and durable. Integral tabs on casting provide a wobble-free installation.

**Lead Free:** Faucet contains  $\leq 0.25\%$  total lead content by weighted average.

**Simple Installation:** Fast and easy one person installation. Faucet drops in from top. Quick spin nuts secure faucet in place.

**SUGGESTED SPECIFICATION:**

Two handle kitchen faucet shall feature brass construction with all brass inlet shanks and coupling nuts. Brass gooseneck swivel spout. Shall also feature 1/4 turn washerless ceramic disc valve cartridges that are reversible for use on either "hot" or "cold" side. Faucet shall be American Standard Model #4275.5\_\_\_\_.



**COLONY SOFT**  
**TWO-HANDLE KITCHEN FAUCET**  
**WITH BRASS GOOSENECK SPOUT**

**CODES AND STANDARDS**

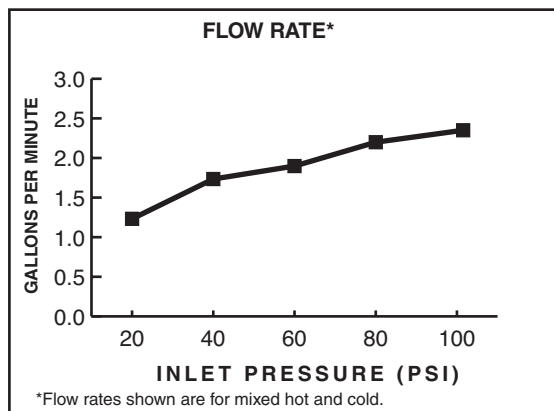
These products meet or exceed the following codes and standards:

**ASME A112.18.1**

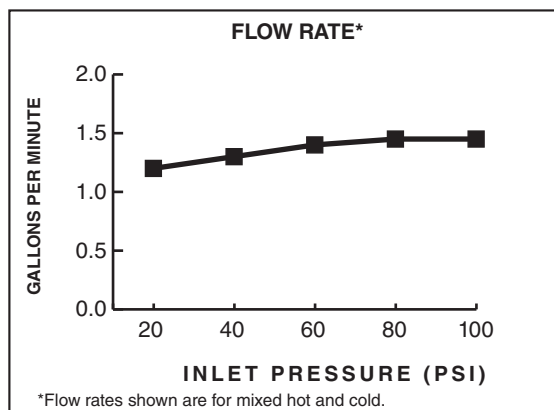
**CSA B 125**

**NSF 61/Section 9 & Annex G**

**ANSI A117.1**




**2.2gpm/8.3L/min. FLOW RATE**



**1.5gpm/5.7 L/min. FLOW RATE**

Product Number	Description	Finish Options	
		Polished Chrome	PVD Stainless Steel
		002	075
4275.550	Kitchen faucet. Lever handles. Less Handspray.		
4275.550.F15	Same as above. 1.5gpm/5.7 L/min. flow rate.		
4275.551	Kitchen faucet. Lever handles. Separate Color-Matched Handspray.		
4275.551.F15	Same as above. 1.5gpm/5.7 L/min. flow rate.		

 Meets the American Disabilities Act Guidelines and **ANSI A117.1** Requirements for the physically challenged.



SS-1

STAINLESS STEEL

# FABRICATED FLOOR MOP SINKS

Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Project #: \_\_\_\_\_



**Standard Mop Sink**  
9-OP-20 Shown



**Drop Front Mop Sink**  
9-OP-40DF Shown

## FEATURES:

Floor mounted unit eliminates the need of lifting heavy containers.

Tile edge furnished on the rear.

Bowls rectangular in design for increased capacity.

**K-16** Free Flow Drain is included with each mop sink.

**-DF models** feature a notched out front which allows for ease of emptying mop bucket.

## CONSTRUCTION:

All TIG welded.

Welded areas blended to match adjacent surfaces and to a satin finish.

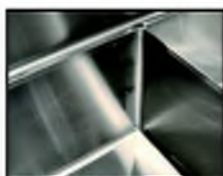
## MATERIAL:

16 Gauge type "304" series stainless steel sink bowl.

18 Gauge type "304" series stainless steel sink apron.



Notched Out Front Allows  
Ease of Emptying Mop Bucket



Fabricated Bowls are Welded  
Together at the Seams

	Model #	Bowl Size (A x B x C)	O.A. Dimension (W x L x H)	Dist. To Drain (E)	Approx. Wt.	Approx. Cu.
STANDARD	9-OP-20	16" x 20" x 6"	21" x 25" x 10"	10-1/2"	26 lbs.	5
	9-OP-28	20" x 28" x 6"	25" x 33" x 10"	12-1/2"	35 lbs.	5
	9-OP-40	16" x 20" x 12"	21" x 25" x 16"	10-1/2"	45 lbs.	7
	9-OP-48	20" x 28" x 12"	25" x 33" x 16"	12-1/2"	63 lbs.	9
LARGE BOWL	9-OP-44	24" x 24" x 12"	29" x 29" x 16"	14-1/2"	70 lbs.	9
DROP FRONT	9-OP-40DF	16" x 20" x 12"	18-1/2" x 25" x 16"	10-1/2"	45 lbs.	7
	9-OP-48DF	20" x 28" x 12"	22-1/2" x 33" x 16"	12-1/2"	63 lbs.	9

## MOP SINK ACCESSORIES

\*Does not meet Federal Lead Free Standards as it is not intended for potable water.

**K-16** Replacement drain for floor mop sinks

**K-240** Service Faucet\*

**K-242** 23" wide mop hanger

**K-243** Stainless steel mop drainage tray

**K-244** Hose and hanger

**K-245** 8" x 24" utility shelf

**K-246** 8" x 36" utility shelf



K-243



K-240



K-242



K-245



K-244



K-16



## 16" HIGH SIDE & BACK SPLASHES FOR 9-OP SERIES MOP SINKS

16 Gauge, 300 Series Stainless Steel

Available with Back & Left Side,  
Back & Right Side or Back & Both Sides  
(Mounting Hardware Included)

	Model #	Fits Units:	Height Above Finished Floor (A.F.F.)
Splash on Left Or Right & Back	K-288L or R	9-OP-20	26"
		9-OP-40	32"
	K-290L or R	9-OP-28	26"
		9-OP-48	32"
Splashes On All 3 Sides	K-291L or R	9-OP-44	32"
		9-OP-20	26"
	K-298	9-OP-40	32"
		9-OP-28	26"
	K-299	9-OP-48	32"
		9-OP-44	32"
	K-300	9-OP-44	32"



Customer Service Available To Assist You 1-800-645-3166 8:30 am - 8:00 pm E.S.T.

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Email: smartfab@advancetabco.com or Fax: 631-586-2933

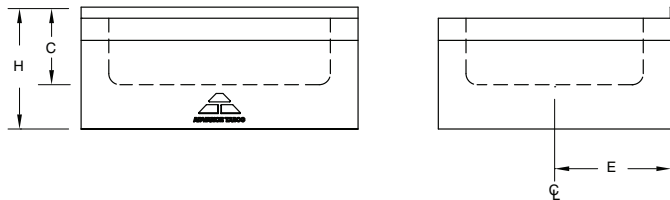
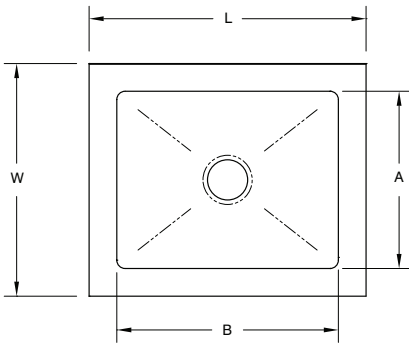


# DIMENSIONS and SPECIFICATIONS

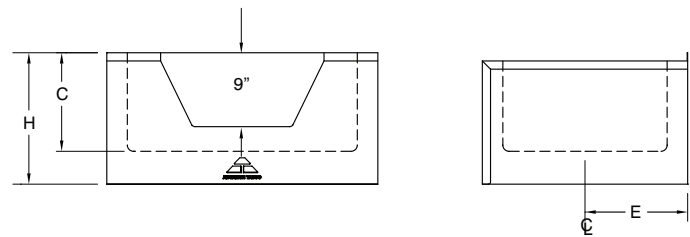
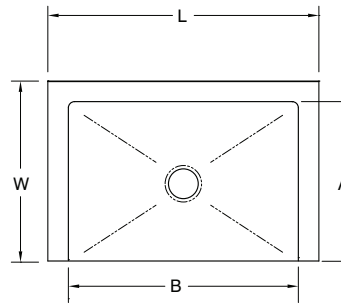
TOL Overall:  $\pm .500"$   
Interior:  $\pm .250"$

ALL DIMENSIONS ARE TYPICAL

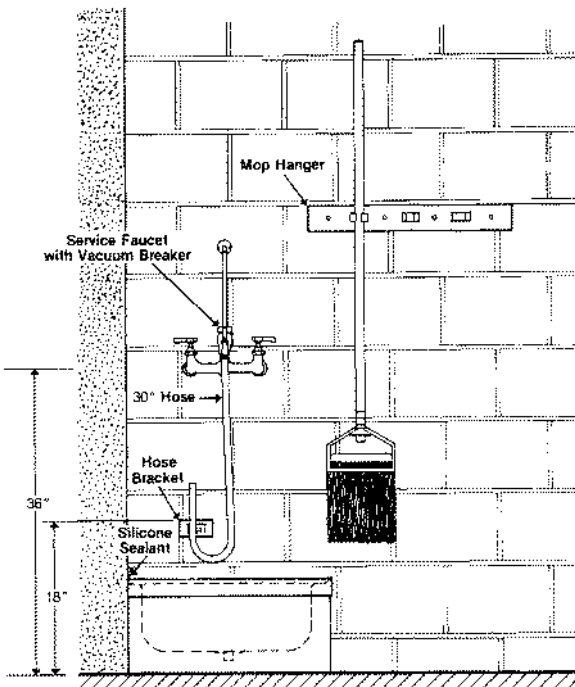
## STANDARD MOP SINK



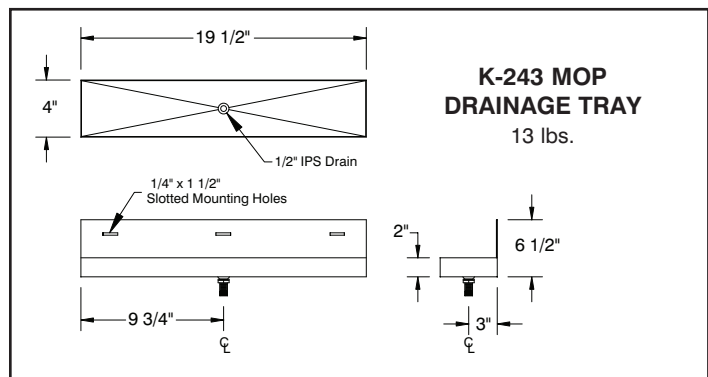
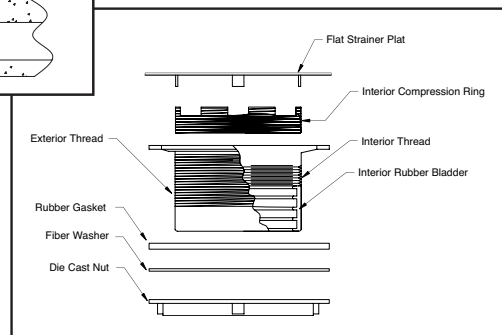
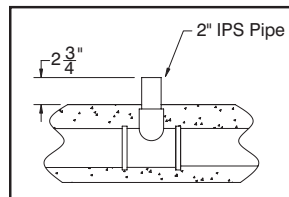
## DROP FRONT MOP SINK



## SUGGESTED INSTALLATION



## MOP SINK DRAIN ASSEMBLY



Y	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <b>SMITH® JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL  POST OFFICE BOX 3237  MONTGOMERY, ALABAMA 36109-0237 (USA)  TEL: 334-277-8520 FAX: 888-377-7818 www.jrsmith.com</small> </div> <div style="text-align: center;">   <small>MEMBER OF:</small> </div> <div style="text-align: center;"> </div> </div>				LOCATION																																																															
	FLOOR OR SHOWER DRAINS																																																																			
	WITH ADJUSTABLE STRAINER HEADS																																																																			
	<p>Load Rating: Light Duty having a Safe Live (Static) Load less than 2,000 lbs. (900 kg) per ASME A112.6.3 Floor Drain Standard.  For the specific Safe Live Load rating of any grate, contact the Smith representative or factory direct.</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> </div> <div style="width: 45%;"> </div> </div> <p style="text-align: center;">A (Pipe Size) = 02(50), 03(75), 04(100), 05(125) or 06(150)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p style="text-align: center; font-weight: bold;">NO-HUB OUTLET</p> <div style="display: flex; justify-content: space-around;"> <div> <input type="checkbox"/> Fig. 2005Y.....(A) ROUND TOP  <input type="checkbox"/> Fig. 2005Y.....(B) SQUARE TOP </div> <div> <input type="checkbox"/> Fig. 2005L.....(A) ROUND TOP  <input type="checkbox"/> Fig. 2005L.....(B) SQUARE TOP </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Outlet Size</th> <th>Nickel Bronze Strainer Head</th> </tr> </thead> <tbody> <tr> <td>▲ 02(50)</td> <td>05(125) DIA or SQ</td> </tr> <tr> <td>▲ 03(75)</td> <td>06(150) DIA or SQ</td> </tr> <tr> <td>▲ 04(100)</td> <td>08(205) DIA or SQ</td> </tr> </tbody> </table> <p>▼ This dimension to internal stop of speedi-set® gasket.  • Add 3/8" (10) to all min/max dimensions for round strainers.  * Collar is reversible to obtain extreme high and low strainer positions.  ** Not available for 5" (125) size strainer.  ** MIN 6 3/4" (170) hole required for core drilled application.</p> </div> <div style="width: 48%;"> <p style="text-align: center; font-weight: bold;">SPEEDI-SET® OUTLET</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Strainer Size B</th> <th colspan="2">*Collar In High Position X</th> <th colspan="2">*Collar In Low Position XX</th> <th colspan="2">Free Area SQ IN (SQ CM)</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> <th>ROUND</th> <th>SQUARE</th> </tr> </thead> <tbody> <tr> <td>05 (125)</td> <td>1 1/4 (32)</td> <td>2 1/4 (57)</td> <td>3/4 (19)</td> <td>1 5/8 (41)</td> <td>7(45)</td> <td>6.5(42)</td> </tr> <tr> <td>06 (150)</td> <td>1 1/4 (32)</td> <td>2 1/4 (57)</td> <td>3/4 (19)</td> <td>1 5/8 (41)</td> <td>9(58)</td> <td>12.5(81)</td> </tr> <tr> <td>07 (180)</td> <td>1 1/4 (32)</td> <td>2 1/4 (57)</td> <td>7/8 (22)</td> <td>1 7/8 (48)</td> <td>14(90)</td> <td>11(71)</td> </tr> <tr> <td>08 (205)</td> <td>1 1/2 (38)</td> <td>2 1/2 (64)</td> <td>1(25)</td> <td>1 7/8 (48)</td> <td>17(110)</td> <td>14(90)</td> </tr> <tr> <td>•09 (230)</td> <td>1 1/2 (38)</td> <td>2 3/8 (60)</td> <td>1(25)</td> <td>1 7/8 (48)</td> <td>18(116)</td> <td>16(103)</td> </tr> <tr> <td>•10 (255)</td> <td>1 1/2 (38)</td> <td>2 3/8 (60)</td> <td>1(25)</td> <td>1 7/8 (48)</td> <td>23(48)</td> <td>16(103)</td> </tr> </tbody> </table> </div> </div>						Outlet Size	Nickel Bronze Strainer Head	▲ 02(50)	05(125) DIA or SQ	▲ 03(75)	06(150) DIA or SQ	▲ 04(100)	08(205) DIA or SQ	Strainer Size B	*Collar In High Position X		*Collar In Low Position XX		Free Area SQ IN (SQ CM)		MIN	MAX	MIN	MAX	ROUND	SQUARE	05 (125)	1 1/4 (32)	2 1/4 (57)	3/4 (19)	1 5/8 (41)	7(45)	6.5(42)	06 (150)	1 1/4 (32)	2 1/4 (57)	3/4 (19)	1 5/8 (41)	9(58)	12.5(81)	07 (180)	1 1/4 (32)	2 1/4 (57)	7/8 (22)	1 7/8 (48)	14(90)	11(71)	08 (205)	1 1/2 (38)	2 1/2 (64)	1(25)	1 7/8 (48)	17(110)	14(90)	•09 (230)	1 1/2 (38)	2 3/8 (60)	1(25)	1 7/8 (48)	18(116)	16(103)	•10 (255)	1 1/2 (38)	2 3/8 (60)	1(25)	1 7/8 (48)	23(48)
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•10 (255)	1 1/2 (38)	2 3/8 (60)	1(25)	1 7/8 (48)	23(48)	16(103)																																																														
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p style="font-weight: bold;">REGULARLY FURNISHED:</p> <p>Duco Cast Iron Body with Flashing Collar and Adjustable Strainer Head as Indicated by Suffix Letter Selected.</p> <p style="margin-top: 20px;"><b>NOTE:</b> Dimensions shown in parentheses are in millimeters.</p> <p>▲ Meets ASME Standard A112.6.3-2001 02(50), 03(75) or 04"(100) sizes only.</p> </div> <div style="width: 40%;"> <p style="font-weight: bold;">VARIATIONS:</p> <div style="display: flex; flex-direction: column; gap: 5px;"> <div><input type="checkbox"/> Flapper Type Backwater Valve -V (NOTE 2)</div> <div><input type="checkbox"/> Hinged Grate -H (NOTE 1)</div> <div><input type="checkbox"/> L Speedi-Set® Service Weight 2(50), 3(75) &amp; 4"(100) only</div> <div><input type="checkbox"/> LXH Speedi-Set® Extra Heavy 2(50), 3(75) &amp; 4"(100) only</div> <div><input type="checkbox"/> Sediment Bucket -B</div> <div><input type="checkbox"/> Trap Primer Connection -P050 1/2" (13) &amp; -P075 3/4" (19)</div> <div><input type="checkbox"/> Vandal Proof Screws -U</div> <div><input type="checkbox"/> Wide Flanged Strainer (Specify Fig. DX2005)</div> <div><input type="checkbox"/> T Threaded Outlet (Specify 2010T)</div> <div><input type="checkbox"/> Heelproof Grate -HP -AHP (Round) or -BHP (Square)</div> <div><input type="checkbox"/> Quad Close Trap Seal (Specify Fig. 2692)</div> </div> </div> <div style="width: 30%;"> <p style="font-weight: bold;">OPTIONAL MATERIALS:</p> <div style="display: flex; flex-direction: column; gap: 5px;"> <div><input type="checkbox"/> Bronze Body -BB</div> <div><input type="checkbox"/> Chrome Plated Strainer -CP</div> <div><input type="checkbox"/> Galvanized Cast Iron Body -G</div> <div><input type="checkbox"/> Nickel Bronze Strainer -NB</div> <div><input type="checkbox"/> Polished Bronze Strainer -PB</div> <div><input type="checkbox"/> All Stainless Steel (Specify Fig. 9700)</div> <div><input type="checkbox"/> Stainless Steel Strainers -SS [Available in 05(125) &amp; 06(150) sizes only]</div> </div> <p style="margin-top: 20px;"><b>NOTE 1:</b> Sediment Bucket -B not provided for a Hinged Grate (-H)</p> <p><b>NOTE 2:</b> Sediment Bucket -B not provided for a Ball Float (-BFV) or a Flapper Type (-V)</p> </div> </div> <p style="text-align: right; font-weight: bold; margin-top: 10px;">SEE PM 0457 FOR OPTIONAL STRAINER HEADS.</p>																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Y</td> <td style="width: 15%;">8-9-23</td> <td style="width: 30%;">Removed Function Added @ to "Speedi-Set"</td> <td style="width: 10%;">HS</td> <td style="width: 10%;">CL</td> <td style="width: 10%;">WEIGHT POUNDS</td> <td style="width: 10%;">VOLUME CUBIC FEET</td> <td style="width: 15%;">FIGURE NUMBER</td> </tr> <tr> <td>X</td> <td>3-10-23</td> <td>Added NOTE 1 &amp; 2</td> <td>KK</td> <td>CL</td> <td></td> <td></td> <td rowspan="3" style="font-size: 36px; text-align: center; vertical-align: middle;">2005</td> </tr> <tr> <td>W</td> <td>10-8-21</td> <td>Edited Variations</td> <td>KK</td> <td>JM</td> <td></td> <td></td> </tr> <tr> <td>V</td> <td>8-27-21</td> <td></td> <td>KK</td> <td>JM</td> <td></td> <td></td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td>CKD. BY</td> <td></td> <td></td> <td></td> </tr> </table>						Y	8-9-23	Removed Function Added @ to "Speedi-Set"	HS	CL	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER	X	3-10-23	Added NOTE 1 & 2	KK	CL			2005	W	10-8-21	Edited Variations	KK	JM			V	8-27-21		KK	JM			REV.	DATE	DESCRIPTION	BY	CKD. BY																												
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REV.	DATE	DESCRIPTION	BY	CKD. BY																																																																



**WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov



# OPTIONAL STRAINER HEADS

## ROUND STRAINER



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB  
 Stainless Steel  
 Strainers -SS [Available in 05(125) & 06(150) sizes only]

**VARIATIONS:**  
 \*Hinged Grate (Specify Suffix -AH) (NOTE 1)  
 Sediment Bucket -B  
 Vandal Proof Screws -U

B DIA	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	2 3/4 (70)

LIGHT DUTY

Specify Type, Size & Finish eg: A05NB  
 \*Not available for 05" (125) size

**SUFFIX -A**

## SQUARE STRAINER



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 Flapper Type Backwater Valve (Specify Suffix -BV) 05 (125), 06 (150), 07 (180) or 08" (205) sizes only (NOTE 2)  
 \*Hinged Grate (Specify Suffix -BH) (NOTE 1)  
 Sediment Bucket -B  
 Vandal Proof Screws -U

B SQ	05 (125)	06 (150)	07 (180)	08 (205)	09 (230)	10 (255)
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 1/4 (57)
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/4 (57)	2 3/8 (80)

LIGHT DUTY

Specify Type, Size & Finish eg: B05NB  
 \*Not available for 05" (125) size

**SUFFIX -B**

## REINFORCED ROUND STRAINER



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 Flapper Type Backwater Valve (Specify Suffix -CV) (NOTE 2)  
 Sediment Bucket -B  
 Vandal Proof Screws -U

B DIA	05 (125)	06 (150)	08 (205)	10 (255)
H	2 (51)	2 (51)	2 1/2 (64)	2 3/4 (70)
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 7/8 (48)
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 3/4 (70)

LIGHT DUTY

Specify Type, Size & Finish eg: C06NB

**SUFFIX -C**

## TILE FLANGE



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 Flapper Type Backwater Valve (Specify Suffix -FV)  
 Holes in Flange -SH  
 Sediment Bucket -B  
 Vandal Proof Screws -U

X	MIN	MAX
	1 1/4 (32)	2 1/8 (54)

LIGHT DUTY

Specify Type, Size & Finish eg: F06NB

**SUFFIX -F**

## FLAPPER TYPE BACKWATER VALVE



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 \*Hinged Grate (Specify Suffix -AH)  
 Vandal Proof Screws -U

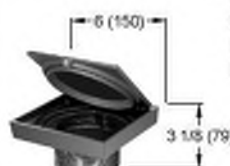
B SQ	05 (125)	06 (150)	07 (180)	08 (205)
H	2 (51)	2 (51)	2 1/4 (57)	2 1/2 (64)
X MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)
X MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)

LIGHT DUTY

Specify Type, Size & Finish eg: AV05NB  
 \*Not available for 05" (125) size

**SUFFIX -AV**

## STRAINER HEAD w/SQUARE HINGED COVER



**MATERIALS:**  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 Gasketed Water Tight Cover -GC  
 Secured Cover -SC  
 Secondary Strainer Grate -SG

LIGHT DUTY

Specify Type, Size & Finish eg: BSNB

**SUFFIX -BS**

## REINFORCED TRACTOR STRAINER



**MATERIALS:**  
 Cast Iron -CI  
 Chrome Plated -CP  
 Polished Bronze -PB  
 Nickel Bronze -NB

**VARIATIONS:**  
 Flapper Type Backwater Valve (Specify Suffix -DV or -EV) (NOTE 2)  
 Sediment Bucket -B  
 Vandal Proof Screws -U

SUFFIX	B DIA	H	X MIN	X MAX
-D	07 (180)	3 1/4 (83)	2 5/8 (67)	3 1/2 (89)
-E	09 (230)	3 1/2 (89)	3 3/4 (93)	3 1/2 (89)

LIGHT DUTY

Specify Type, Size & Finish eg: D07PB  
 E09PB

**SUFFIX -D-E**

## ADJUSTABLE STRAINER HEAD



**VARIATIONS:**  
 Flapper Type Backwater Valve (Specify Suffix -F37V or F38V)  
 Sediment Bucket -B

**MATERIALS:**  
 Cast Iron -CI  
 Chrome Plated -CP  
 Galvanized Cast Iron -G  
 Polished Bronze -PB  
 Nickel Bronze -NB

SUFFIX	F37	F38
B DIA	07 (180)	09 (230)
H	3 1/4 (83)	3 1/2 (89)
X MIN	2 5/8 (67)	2 3/4 (70)
X MAX	3 1/2 (89)	3 1/2 (89)

NON-TRAFFIC

Specify Type, Size & Finish eg: F37NB F38CP

**SUFFIX -F37-F38**

N	5-21-24
M	10-8-21
L	10-26-20

Removed Function, Rev. Var.  
 Added NOTE 1 & 2  
 Rev. Finish (Tractor Strainer)







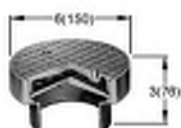





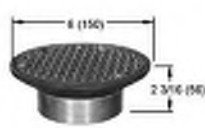


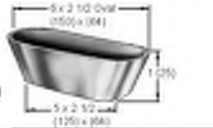
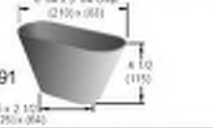
HS  
 KK  
 MW

KV  
 JM  
 CL

**FIGURE NUMBER**  
 2005/2010 SERIES OPTIONAL  
 STRAINER HEADS  
 1 of 2





M	DRAWING NUMBER PM0457 SH 2 of 2	SIZE A	SCALE NONE	DATE 6-17-85	APPROVED BY TD	CHECKED BY TD	DRAWN BY PJ	FIGURE NUMBER	 <b>JAY R. SMITH MFG. CO.</b> MEMBER OF MORRIS GROUP INTERNATIONAL POST OFFICE BOX 3337 MONTGOMERY, ALABAMA 36109-0337 (USA) TEL: 334-277-8520 FAX: 888-377-7818 www.jrsmith.com	  	LOCATION																																																																										
									<h2 style="text-align: center;">OPTIONAL STRAINER HEADS</h2>																																																																												
<h3>LOW DOME STRAINER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -GV) Sediment Bucket -B Vandal Proof Screws -U</p>  <table border="1"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> </tr> </table> <p><b>SUFFIX -G</b> Specify Type, Size &amp; Finish eg: G06PB</p>			B DIA	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/2 (64)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	<h3>SOLID HINGED COVER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -GV) Vandal Proof Screws -U</p>  <table border="1"> <tr> <th>B DIA</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> <td>2 1/2 (64)</td> </tr> </table> <p><b>SUFFIX -H</b> Specify Type, Size &amp; Finish eg: H05CP</p>			B DIA	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/2 (64)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	2 1/2 (64)	<h3>SPANNER WRENCH COVER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -GV) Sediment Bucket -B</p>  <p><b>MEDIUM DUTY</b></p> <table border="1"> <tr> <th>X</th> <th>MIN</th> <th>MAX</th> </tr> <tr> <td></td> <td>2 (51)</td> <td>3 (76)</td> </tr> </table> <p><b>SUFFIX -J</b> Specify Type, Size &amp; Finish eg: J06NB</p>			X	MIN	MAX		2 (51)	3 (76)																															
B DIA	05 (125)	06 (150)	07 (180)	08 (205)																																																																																	
H	2 (51)	2 (51)	2 1/2 (64)	2 1/2 (64)																																																																																	
MIN	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)																																																																																	
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X	MIN	MAX																																																																																			
	2 (51)	3 (76)																																																																																			
<h3>REINFORCED SQUARE STRAINER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -KV) Sediment Bucket -B Vandal Proof Screws -U</p>  <table border="1"> <tr> <th>B SQ</th> <th>05 (125)</th> <th>06 (150)</th> <th>07 (180)</th> <th>08 (205)</th> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (61)</td> <td>2 1/2 (64)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/2 (38)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/2 (64)</td> </tr> </table> <p><b>SUFFIX -K</b> Specify Type, Size &amp; Finish eg: K07CP</p>			B SQ	05 (125)	06 (150)	07 (180)	08 (205)	H	2 (51)	2 (51)	2 1/4 (61)	2 1/2 (64)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)	<h3>RECTANGULAR STRAINER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Sediment Bucket -B Vandal Proof Screws -U</p>  <p><b>LIGHT DUTY</b></p> <table border="1"> <tr> <th>SUFFIX</th> <th>L</th> <th>M</th> <th>N</th> <th>P</th> <th>R</th> <th>T</th> </tr> <tr> <td>B x H</td> <td>4 x 6 (102 x 152)</td> <td>6 x 6 (152 x 152)</td> <td>8 x 6 (203 x 152)</td> <td>10 x 6 (254 x 152)</td> <td>12 x 6 (305 x 152)</td> <td>14 x 6 (356 x 152)</td> </tr> <tr> <td>H</td> <td>2 (51)</td> <td>2 (51)</td> <td>2 1/4 (61)</td> <td>2 1/4 (61)</td> <td>2 1/4 (61)</td> <td>2 1/4 (61)</td> </tr> <tr> <td>MIN</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> <td>1 1/4 (32)</td> </tr> <tr> <td>MAX</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> <td>2 1/4 (57)</td> </tr> </table> <p><b>SUFFIX -L-M-N-P-R-T</b> Specify Type, Size &amp; Finish eg: LNB</p>			SUFFIX	L	M	N	P	R	T	B x H	4 x 6 (102 x 152)	6 x 6 (152 x 152)	8 x 6 (203 x 152)	10 x 6 (254 x 152)	12 x 6 (305 x 152)	14 x 6 (356 x 152)	H	2 (51)	2 (51)	2 1/4 (61)	2 1/4 (61)	2 1/4 (61)	2 1/4 (61)	MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	<h3>ANGLE STRAINER</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Polished Bronze -PB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Vandal Proof Screws -U Sediment Bucket -B</p>  <p><b>LIGHT DUTY</b></p> <table border="1"> <tr> <th>SUFFIX</th> <th>B</th> <th>C</th> <th>D</th> <th>X</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>MIN MAX</td> </tr> <tr> <td>-V</td> <td>3 1/2 (89)</td> <td>3 1/2 (89)</td> <td>4 1/2 (113)</td> <td>1 5/8 (41)</td> <td>2 5/8 (67)</td> </tr> <tr> <td>-W</td> <td>6 3/4 (170)</td> <td>6 3/4 (170)</td> <td>6 1/2 (165)</td> <td>1 5/8 (41)</td> <td>2 5/8 (67)</td> </tr> </table> <p><b>SUFFIX -V-W</b> Specify Type, Size &amp; Finish eg: VPB, WNB</p>			SUFFIX	B	C	D	X					MIN MAX	-V	3 1/2 (89)	3 1/2 (89)	4 1/2 (113)	1 5/8 (41)	2 5/8 (67)	-W	6 3/4 (170)	6 3/4 (170)	6 1/2 (165)	1 5/8 (41)	2 5/8 (67)
B SQ	05 (125)	06 (150)	07 (180)	08 (205)																																																																																	
H	2 (51)	2 (51)	2 1/4 (61)	2 1/2 (64)																																																																																	
MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/2 (38)																																																																																	
MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/2 (64)																																																																																	
SUFFIX	L	M	N	P	R	T																																																																															
B x H	4 x 6 (102 x 152)	6 x 6 (152 x 152)	8 x 6 (203 x 152)	10 x 6 (254 x 152)	12 x 6 (305 x 152)	14 x 6 (356 x 152)																																																																															
H	2 (51)	2 (51)	2 1/4 (61)	2 1/4 (61)	2 1/4 (61)	2 1/4 (61)																																																																															
MIN	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)																																																																															
MAX	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)	2 1/4 (57)																																																																															
SUFFIX	B	C	D	X																																																																																	
				MIN MAX																																																																																	
-V	3 1/2 (89)	3 1/2 (89)	4 1/2 (113)	1 5/8 (41)	2 5/8 (67)																																																																																
-W	6 3/4 (170)	6 3/4 (170)	6 1/2 (165)	1 5/8 (41)	2 5/8 (67)																																																																																
<h3>EXTENSION ADAPTOR</h3> <p><b>REGULARLY FURNISHED:</b> Duct Cast Iron -CI</p> <p><b>MATERIALS:</b> Cast Bronze -CB Galvanized Cast Iron -G</p>  <p><b>NOTE:</b> Extension can be stacked for increased maximum adjustment.</p> <p><b>SUFFIX -X</b></p>			<h3>OVERFLOW WITH STANDPIPE</h3> <p><b>MATERIALS:</b> Chrome Plated -CP Nickel Bronze -NB Polished Bronze -PB</p> <p><b>VARIATIONS:</b> Less Dome -LD Standpipe Height other than 6" (150) (Specify Height)</p>  <table border="1"> <tr> <th>SUFFIX</th> <th>A</th> <th>X</th> </tr> <tr> <td></td> <td>SIZE MIN MAX</td> <td></td> </tr> <tr> <td>-Y</td> <td>2 (51)</td> <td>3/4 (19)</td> <td>2 1/8 (54)</td> </tr> <tr> <td>-Z</td> <td>3 (76)</td> <td>3/4 (19)</td> <td>2 1/8 (54)</td> </tr> </table> <p><b>SUFFIX -Y-Z</b> Specify Type, Size &amp; Finish eg: YCP, ZCP</p>			SUFFIX	A	X		SIZE MIN MAX		-Y	2 (51)	3/4 (19)	2 1/8 (54)	-Z	3 (76)	3/4 (19)	2 1/8 (54)	<h3>HEAVY DUTY ADJUSTABLE</h3> <p><b>MATERIALS:</b> Polished Bronze -PB Rough Bronze -RB Nickel Bronze -NB</p> <p><b>VARIATIONS:</b> Flapper Type Backwater Valve (Specify Suffix -69V) Sediment Bucket -B Vandal Proof Screws -U</p>  <p><b>MEDIUM DUTY</b></p> <p><b>SUFFIX -69</b> eg: A06NB-69</p>																																																																	
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 <p>Fig. 3580</p>			 <p>Fig. 3581</p>			 <p>Fig. 3590</p>			 <p>Fig. 3591</p>																																																																												
M	5-21-24	Removed Function, Rev. Var. Added Load Rating(s) Rev. Materials Suffix -H, -V-W Rev. Variations of Suffix -J	HS	KV	FIGURE NUMBER 2005/2010 SERIES OPTIONAL STRAINER HEADS 2 of 2																																																																																
L	7-29-19		MW	JM																																																																																	
K	10-20-17		TBW	CL																																																																																	
J	1-17-12		TBW	AM																																																																																	
REV	DATE	DESCRIPTION	BY	CHKD BY																																																																																	

NOTE: Dimensions shown in parentheses are in millimeters.



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov





**Precision Plumbing Products**

*"Specify with Confidence - Install with Pride"*

**LEAD FREE**

## PO-500 PRESSURE DROP ACTIVATED TRAP PRIMER SUBMITTAL

www.pppinc.net

TP-1

The PO-500, Oregon #1 automatic pressure drop activated trap primer valve will prime 1 to 4 floor drains with our patented distribution units, the DU-U or DU-4.

System operating range is 20 psi minimum to 80 psi (138 to 552 kpa) maximum.

The valve requires a 10 psi (70 kpa) pressure drop across the valve to activate and will deliver a metered amount of water to the floor drain. Trap primer is to be connected to a cold water supply only.

Constructed composite body, Santoprene 111-45 diaphragm, #60 stainless steel mesh screen.

**NO Adjustment Required!**

PART NO: PO-500



**"OREGON #1"  
Floor Drain Trap  
Primer Valve Components**

### SPECIFICATIONS

Body, Check Valve Retainer Plate, Float (Polypropylene), cover.

### Material Specification

- Geon PVC M-1000 Type 1, Grade 1 molding compound, NSF listed material #270
- Check Valve Ball
- #316 - Stainless Steel
- Check Valve Ball Retainer
- Monel Metal
- Cover Screws (6)
- 5/8" x 10/24" Stainless Steel
- Slip Joint Nut - 1/2" NPT
- Chrome Plated Brass
- Slip Joint Nut Washer - Neoprene Strainer
- 40 Mesh - Stainless Steel Wire Cloth



PROJECT SUBMITTAL MODEL # \_\_\_\_\_

Project: \_\_\_\_\_

Contractor: \_\_\_\_\_

Engineer: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Prepared By: \_\_\_\_\_

## INSTALLATION REQUIREMENTS

This valve is designed to be installed on 1/2" to 1 1/2" cold water line, feeding a flush valve or other open and closing valve supply line that is frequently used.

Trap Primer valve makeup line to floor drain is recommended to be a minimum of 12" off the finished floor before a 90° elbow can be installed.

The furthest recommended distance of makeup line is 20' to the floor drain.

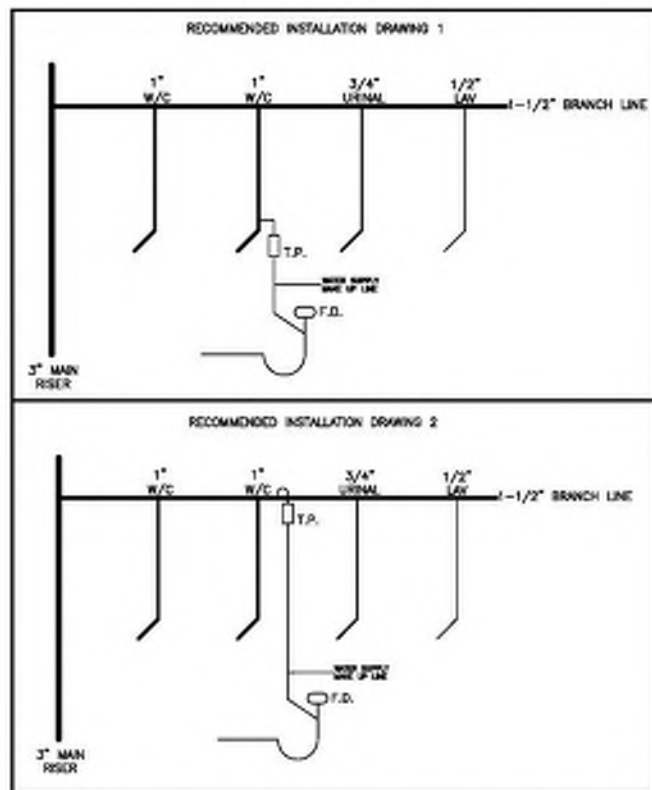
Trap primer make up line must have continuous slope to the floor drain (consult local code requirements).

Install with a shut off valve for servicing on the inlet side and a union connection on the outlet side.

The valve must be installed level.

If using the distribution unit the clear plastic cover must be used.

Do not subject the valve to rough in pressure test.



NOTE: Consult plumbing inspector prior to installing distribution units.



JL Industries, Inc.

### Precision Plumbing Products

Division of JL Industries, Inc.

802 SE 199th Ave  
Portland, Oregon 97233

T (503) 256-4010  
F (503) 253-8165

www.pppinc.net



Rev 02/18



# Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

## BV-200 Cast Iron "In Line" Backwater Valve Specification

Watts BV-200 cast iron backwater valve with gasketed cover, bronze seat and flapper, and no hub connections.

Call customer service if you need assistance with technical details.

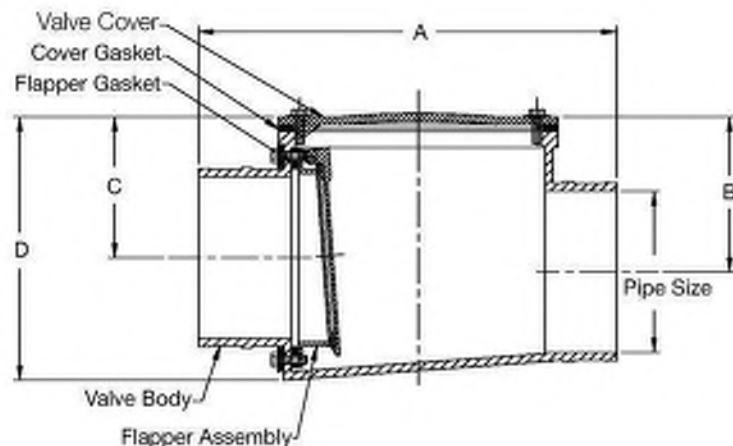
BV-1



Connection Size		
Suffix	Description	
3	3"(76) Connection Size	<input type="checkbox"/>
4	4"(102) Connection Size	<input checked="" type="checkbox"/>
6	6"(152) Connection Size	<input type="checkbox"/>

Dimensional Chart

Pipe Size	A	B	C	D
3"(76)	11 5/8"(294)	4 3/16"(107)	3 3/4"(94)	6 1/2"(165)
4"(102)	12"(305)	4 3/8"(110)	3 7/8"(98)	7 1/4"(184)
6"(152)	14 3/4"(375)	5 1/2"(140)	5"(127)	9 3/8"(238)



### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



USA: T: (800) 338-2581 • Watts.com

Canada: T: (888) 208-8927 • Watts.ca

Latin America: T: (52) 55-4122-0138 • Watts.com

ES-WD-BV-200 2412





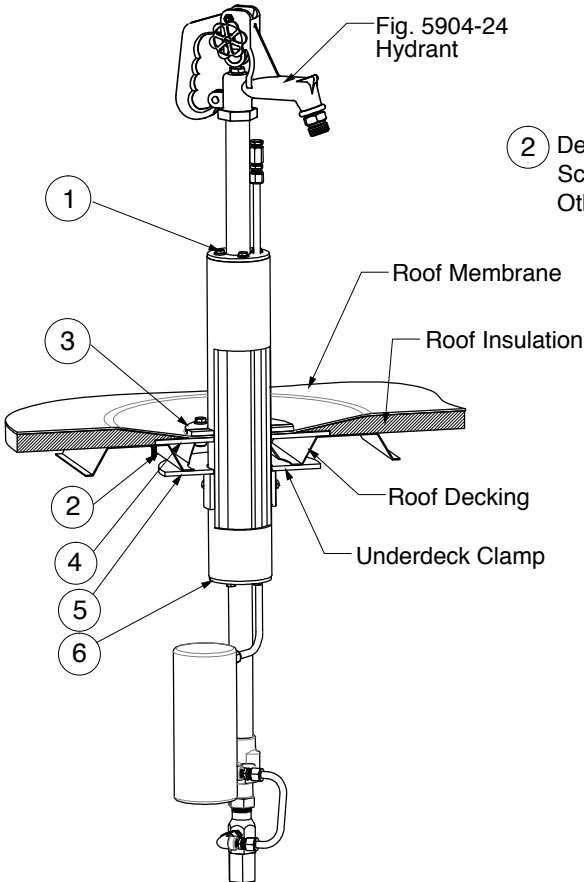
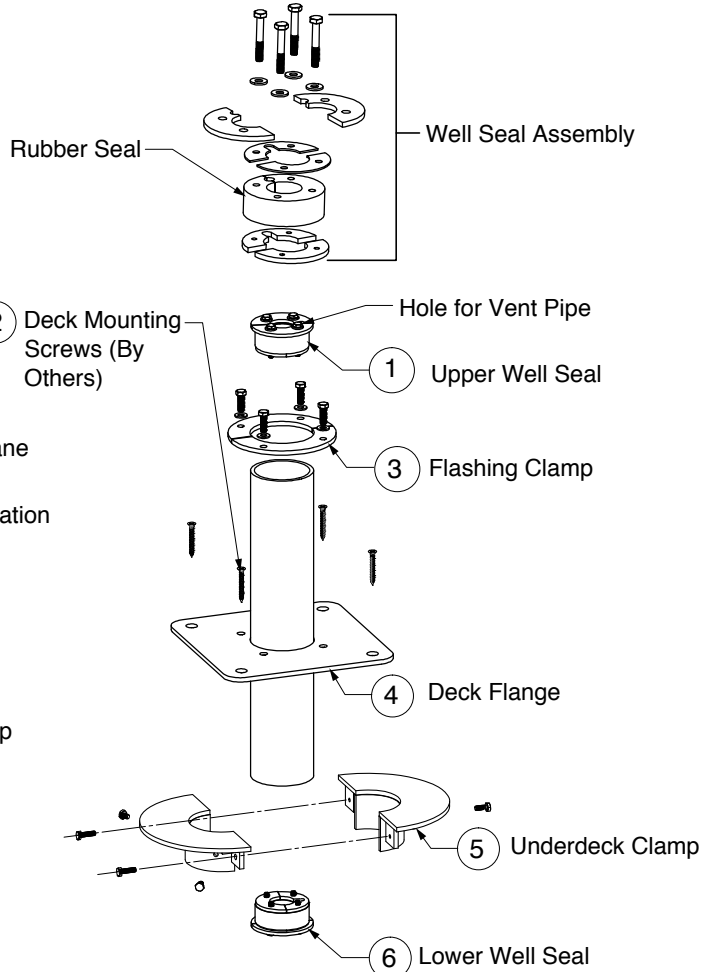
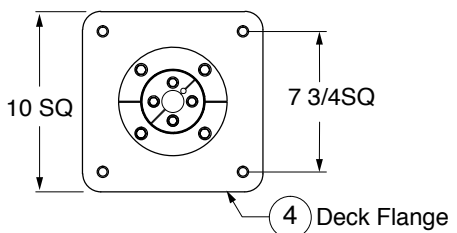
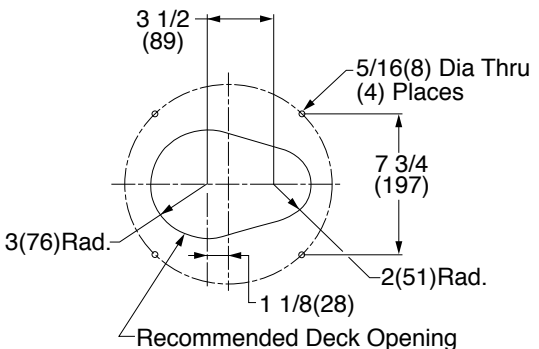
© 2024 Watts

D	DRAWING NUMBER s5903	SIZE A	SCALE: NONE	DATE: 5-17-12	APPROVED BY: CR	CHECKED BY: CL	DRAWN BY: CL	5903	<div>SMITH® JAY R. SMITH MFG. CO.® MEMBER OF MORRIS GROUP INTERNATIONAL POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</div> <div>CUSTOMER DRIVEN SINCE 1926</div>	<div>ASPE</div> <div>MEMBER OF:</div>	<div>HB-1</div>	LOCATION								
									NON-FREEZE SANITARY ROOF HYDRANT											
									<p><b>FUNCTION:</b> Used on roofs where water is required for window washing, cleaning of condenser coils, cooling towers and other types of roof equipment. Freezing is prevented by the valve housing being located below the roof in a heated or insulated area. The hydrant is engineered to be fully self contained by draining the water from casing after shut-off into the sealed canister.</p> <div><div><p>Flow Lock Wheel</p><p>Heavy Duty Cast Iron Head with Pail Hook (Painted Green)</p><p>3/4"(19) Hose Connection</p><p>Handle</p><p>Float Valve</p><p>20(508)MIN 34(867)MAX</p><p>Flashing Clamp</p><p>10 (254)</p><p>18 3/8 (467)</p><p>Deck Flange</p><p>9 DIA (229)</p><p>10 SQ (254)</p><p>5 1/2(140) MAX</p><p>57 (1448)</p><p>Underdeck Clamp</p><p>Sealed Stainless Steel Canister</p><p>Venturi Body</p><p>3/4"(19) NPT Female Inlet</p></div><div><p>Roof Membrane</p><p>Roof Insulation</p><p>Roof Decking</p><p>Underdeck Clamp</p><p>3/4"(19) Water Supply ( By Others)</p></div></div> <p>Installation Illustration (For Illustration Pupose Only)</p>											
									<p><b>REGULARLY FURNISHED:</b> Non-Freeze Sanitary (Self Contained) Roof Hydrant with Galvanized Casing, Adjustable Flow Wheel Lock Handle, Sealed Stainless Steel Canister, Venturi and Roof Mount Assembly.</p> <p><b>VARIATIONS:</b> <input type="checkbox"/> Vacuum Breaker -H</p>											
									<p><b>NOTES:</b></p> <ol style="list-style-type: none"><li>Addition of vacuum breaker will not allow draining of the hydrant casing. Smith is not responsible for any casings that burst or related incidents if the hydrant is supplied with a vacuum breaker.</li><li>The AB1953 California Lead Law and NSF/ANSI Standard 61-2008 - Drinking Water system Components are not applicable to Jay R. Smith hydrants as they do not convey/dispense water for human consumption through drinking or cooking.</li><li>Do not leave a hose attached in freezing temperatures as it may prevent proper drainage of the casing.</li><li>Upon activating, hydrant should be discharged fully open a minimum of 30 seconds.</li><li>Minimum operating line pressure should be 25 psi for proper operation.</li><li>Dimensions shown in parentheses are in millimeters.</li><li><b>FOR IRRIGATION PURPOSES ONLY.</b></li></ol>											
REV.	DATE	DESCRIPTION	BY	CKD. BY	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER <b>5903</b>													



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov



B	<div>  <div> <b>JAY R. SMITH MFG. CO.®</b>  <small>MEMBER OF MORRIS GROUP INTERNATIONAL          POST OFFICE BOX 3237          MONTGOMERY, ALABAMA 36109-0237 (USA)          TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</small> </div> <div>    </div> </div>					LOCATION <div></div>																
	<div> <div>             DRAWING NUMBER  <b>s5903 Back Sheet</b> </div> <div>             SIZE  <b>A</b> </div> <div>             SCALE:  <b>NONE</b> </div> <div>             DATE:  <b>5-17-12</b> </div> <div>             APPROVED BY:  <b>CR</b> </div> <div>             CHECKED BY:  <b>CL</b> </div> <div>             DRAWN BY:  <b>CL</b> </div> </div>																					
<div> <div>             FIGURE NUMBER  <b>5903BS</b> </div> <div>             DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE         </div> </div>																						
<div> <div> <h1>NON-FREEZE SANITARY ROOF HYDRANT</h1>  <p>Fig. 5904-24 Hydrant</p> </div> <div>  <p>Well Seal Assembly</p> <p>Rubber Seal</p> <p>Hole for Vent Pipe</p> <p>1 Upper Well Seal</p> <p>3 Flashing Clamp</p> <p>4 Deck Flange</p> <p>5 Underdeck Clamp</p> <p>6 Lower Well Seal</p> </div> <div> <p><b>ROOF MOUNT ASSEMBLY</b></p>  <p>10 SQ</p> <p>7 3/4 SQ</p> <p>4 Deck Flange</p> </div> <div> <p><b>Installation Illustration (For Illustration Purpose Only)</b></p>  <p>3 1/2 (89)</p> <p>5/16(8) Dia Thru (4) Places</p> <p>7 3/4 (197)</p> <p>3(76)Rad.</p> <p>2(51)Rad.</p> <p>1 1/8(28)</p> <p>Recommended Deck Opening</p> </div> </div>																						
<table border="1"> <tr> <td>B A</td> <td>4-30-13 9-20-12</td> <td>Revised Underdeck Clamp Added Rec. Deck Opening</td> <td>TBW TBW</td> <td>CL CL</td> <td>WEIGHT POUNDS</td> <td>VOLUME CUBIC FEET</td> <td>FIGURE NUMBER <b>5903BS</b></td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td>CKD. BY</td> <td></td> <td></td> <td></td> </tr> </table>							B A	4-30-13 9-20-12	Revised Underdeck Clamp Added Rec. Deck Opening	TBW TBW	CL CL	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER <b>5903BS</b>	REV.	DATE	DESCRIPTION	BY	CKD. BY			
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REV.	DATE	DESCRIPTION	BY	CKD. BY																		



**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## Hose & Supply Boxes 8120-LF Series

Hose Valves



8120CP-LF



8125CR-LF

Fixture May Show Some Available Options

Please visit [www.acorneng.com](http://www.acorneng.com) for most current specifications.

**Acorn Hose Valves** are CUPC certified by IAPMO for U.S. and Canada. Hose valves are recommended for installation in indoor and outdoor locations not subject to freezing. Hose valves include a heavy rough brass body, furnished with a lockshield bonnet and removable loose key wheel handle. Valves close with the water pressure and feature a replaceable cartridge which contains all wearing parts including the seat. Inlet is 3/4" NPTI, outlet is 3/4" NPSH. Vacuum breakers are atmospheric type and conform to the requirements of ASSE Standard 1011. Hose valves meets the lead free requirements where the wetted surface of this product contacted by water contains less than 0.25% lead. Check local code authority for vacuum breaker requirements.

**Installation:** The 8120-LF and 8121-LF, horizontally supplied valves have integral wall flanges and both are used indoor and outdoor. 8125-LF and 8126-LF, vertically standpipe valves are normally used in outdoor planting areas and often provided in a rough brass finish.

### GUIDE SPECIFICATION

Provide and install Acorn Hose Valves model (specify model number) cartridge - operated hose valve with lock shield bonnet and removable loose key handle. Interior wall hose valves shall be polished chrome finish, exterior valves shall be rough chrome-plated.





# Hose & Supply Boxes 8120-LF: Hose Valves

**BASE MODEL NUMBER (Must Specify)**

## HOSE VALVE

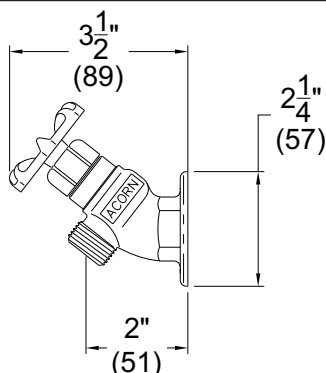
### BENT NOSE WITH FLANGE

- ☐ 8120-LF Less Vacuum Breaker
- ☐ 8120CP-LF Polished Chrome-Plated Less Vacuum Breaker
- ☐ 8120CR-LF Rough Chrome-Plated Less Vacuum Breaker
- ☐ 8121-LF With Vacuum Breaker
- ☐ 8121CP-LF Polished Chrome-Plated With Vacuum Breaker
- ☐ 8121CR-LF Rough Chrome-Plated With Vacuum Breaker

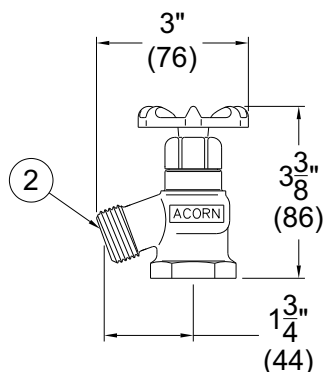
### BENT NOSE

- ☐ 8125-LF Less Vacuum Breaker
- ☐ 8125CP-LF Polished Chrome-Plated Less Vacuum Breaker
- ☐ 8125CR-LF Rough Chrome-Plated Less Vacuum Breaker
- ☐ 8126-LF With Vacuum Breaker
- ☐ 8126CP-LF Polished Chrome-Plated With Vacuum Breaker
- ☐ 8126CR-LF Rough Chrome-Plated With Vacuum Breaker

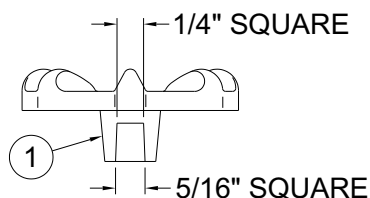
Please visit [www.acorneng.com](http://www.acorneng.com) for most current specifications.



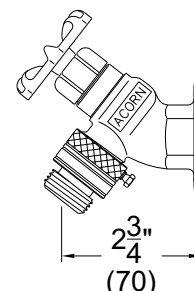
**8120-LF**



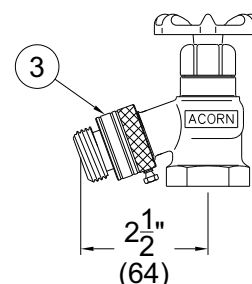
**8125-LF**



**SCALE 2X**



**8121-LF**



**8126-LF**

## NOTES:

1. Wheel Handle (removable).
2. 3/4"-11.5 NHE Hose Connection.
3. Vacuum Breaker.

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Important:** Installation instructions and current rough-in are furnished with each fixture. Do not rough in without certified dimensions. Dimensions are subject to manufacturer's tolerance of plus or minus 1/4" and change without notice. Acorn assumes no responsibility for use of void or superseded data. © Copyright 2008 Acorn Engineering Company

<p style="text-align: center;">Selection Summary</p> <p>Model No. &amp; Option _____</p> <p>Quantity _____</p>	<p style="text-align: center;">Approved for Manufacturing</p> <p>Company _____ Title _____</p> <p>Signature _____ Date _____</p>
--	--

