

Canadian Catalog and Price List

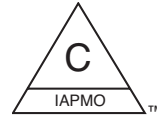
Specification Drainage Products



Effective June 3, 2024

All prices supersede previous issues, are temporary and subject to change without notice.

Drainage Products Standards



American National Standards Institute (ANSI)
American Society of Sanitary Engineering (ASSE)
Plumbing & Drainage Institute (PDI)
International Association of Plumbing and Mechanical Officials (IAPMO)

Product Group	ANSI	ASSE	CSA	PDI	IAPMO
Fixture Carriers	A112.6.1M-97				A112.6.1M-97
Floor Drains	A112.6.3-01				A112.6.3-01
Floor Sinks	A112.6.7-2001				A112.6.7-2001
Roof Drains	A112.6.4-2003				A112.6.4-2003
Wall Hydrants		1019-2004			1019-2004
Water Hammer Arrestors		1010-04		WH-201	1010-04
Cleanouts	A112-36.2M-91				A112-36.2M-91
Trap Seal Primers		1018-2001			1018-2001
Grease Interceptors	A112.14.3-2000		B481.1	G-101	A112.14.3-2000
Solids Interceptors					IGC167-2011

Drainage Products Division
A Watts Water Technologies Company
Canadian Sales Office
5435 North Service Road • Burlington, ON • L7L 5H7
Toll Free Customer Service Phone: 1-888-208-8927
Toll Free Customer Service Fax: 1-(905)-481-2316
Watts.ca

Terms & Conditions

FREIGHT TERMS:

All shipments are F.O.B. shipping point. Shipments from the factory of less than \$4,500.00 net are F.O.B. factory. Factory shipments over \$4,500.00 net will be prepaid and allowed within Canada when made at the lowest motor carrier transportation rate. Short shipments and/or damaged goods must be reported within 72 hours.

PAYMENT TERMS:

Invoices are due and payable 30 days from the date of invoice.

STOCKING WHOLESALE MINIMUM CHARGE:

A minimum billing charge of \$75.00 applies to shipments F.O.B. factory. Stocking Wholesaler Customers are encouraged to order sufficient material to avoid this charge which is necessitated by increased costs of processing small orders.

SPECIAL PRODUCTS:

Orders for special or modified products are non-cancelable and non-returnable.

LIMITED WARRANTY:

This limited warranty is provided by WATTS Water Technologies (Canada) Inc., 5435 North Service Road Burlington, Ontario, Canada L7L 5H7 (the "Company"). The Company warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

This warranty may be transferred to subsequent product owners.

Subject to applicable laws, including consumer protection legislation, the limited warranty set forth above is given expressly and is the only warranty given by the Company with respect to the product. The Company makes no other warranties, express or implied. The Company hereby specifically disclaims all other representations, warranties or conditions, express or implied, including but not limited to the implied representations, conditions and warranties of merchantability and fitness for a particular purpose.

Subject to applicable laws, including consumer protection legislation, the remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labour charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. The Company shall not be responsible for shipping or freight charges associated with warranty claims.

The warranty set forth above shall be invalidated by any abuse, misuse, misapplications, improper installation or improper maintenance or alteration of the product.

For claims within the warranty period, contact the Company at 1-888-208-8927.

THE COMPANY MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY.

RETURNED GOODS RESTOCKING CHARGE:

Returned products will only be accepted from customers in Canada. No material shall be returned without authorization. When credit is issued it will be at the price charged, or prevailing price, if lower, less handling charges based on costs of reconditioning, boxing, etc. Restocking charges will apply. A minimum handling charge equal to the greater of 25% of the original purchase price or \$50.00 will apply. Products which are obsolete or made to special order are not returnable. **NOTE:**

Prices and terms are subject to change without notice and supersede all previous quotations. The right is reserved to change or modify product design or construction without prior notice and without incurring any obligation to make such changes and modifications on products previously or subsequently sold.

WATTS Water Technologies (Canada) Inc. reserves the right to modify or change product design or construction without prior notice and without incurring any obligation to make similar changes and modifications to products previously or subsequently sold.

See your WATTS representative for any clarification.

Examples of WATTS Drainage Alpha/Numeric Suffix System

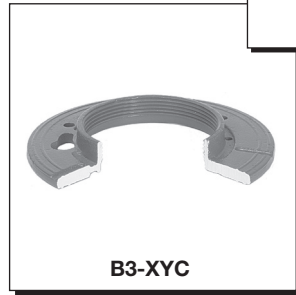
Floor Drains With Adjustable Strainers

Components:



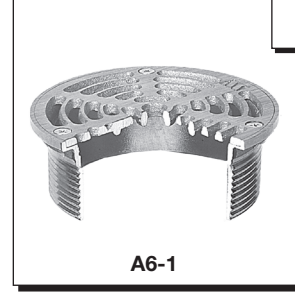
B3 Body, 3" Push-on connection standard with trap primer tapping.

+



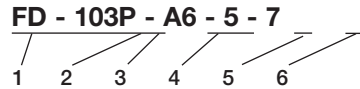
Reversible clamp collar, attached with FC-1 hardware.

+



6" diameter nickel bronze strainer standard with vandal proof screws.

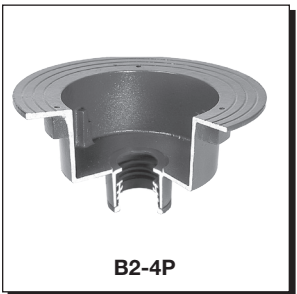
Alpha/Numeric Description



- 1. Series Number - FD-100
- 2. Outlet Size..... - 3" Outlet
- 3. Outlet Type..... - Push-On Outlet - Suffix "P"
- 4. Strainer - Type "A6" Strainer.
- 5. Option - Sediment Bucket - Suffix "-5"
- 6. Option - Trap Primer Tapping - Suffix "-7"

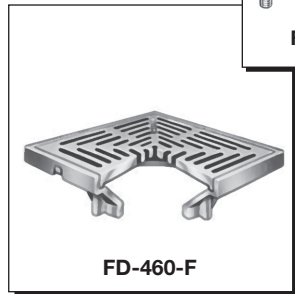
Area Drains

Components:



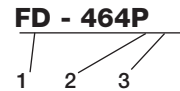
B2 Body, 4" Push-on Connection

+



Fixed top assembly with ductile iron grate, attached with FC-1 hardware.

Alpha/Numeric Description



- 1. Series Number - FD-460-F
- 2. Outlet Size - 4" outlet
- 3. Outlet Type..... - Push-on



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Examples of WATTS Drainage Alpha/Numeric Suffix System

Roof Drains

Components:

B15-6
B15 Body, 6" no hub connection.

B15-FLG
Flashing Clamp w/Integral Gravel stop, attached with FC-6 Hardware.

B15-S
24" x 24" Sump Receiver

B15-DC
Underdeck Clamp with FC-7 hardware.

B2-DM
Poly dome standard

Alpha/Numeric Description:

RD - 306 - B-D

1 2 3 4 5

- 1. Series Number - RD-300
- 2. Outlet Size..... - 6" Outlet
- 3. Outlet type - (Standard) No Hub
- 4. Option - B Sump Receiver
- 5. Option - D Underdeck Clamp

Cleanout With Adjustable Top

Components:

B4
B4 Standard Body 4" No Hub Connection

RX-1
5" dia. heavy duty nickel bronze top, standard with vandal proof screws

34G
Gas-tight gasketed plastic cleanout plug

Alpha/Numeric Description

CO - 204 - RX

1 2 3 4

- 1. Series Number - CO-200
- 2. Outlet Size..... - 4" Outlet
- 3. Outlet Type - (Standard) No Hub
- 4. Top - Type RX strainer

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Floor And Area Drains

Table Of Contents

- Pictorial Index
- Recommendations
- Floor Drain Selection Factors
 - Materials
 - Pipe Connections
 - Load Ratings
 - Grate Free Area
 - Design Considerations
 - Commonly Specified Options
- Typical Installations



Floor And Area Drains

Pictorial Index



FD-100-C-A
Round Strainer



FD-100
HD Round Strainer



FD-190-PR
Pronto!® Cast Iron Adj. Floor
Drain w/Integrated Level



FD-190-PR-60
Pronto!® PVC Adj. Floor
Drain w/Integrated Level



FD-100-AS
Angle Strainer



FD-100-DD
Hub Funnel



FD-100-EF
Round Funnel



FD-100-EG
Oval Funnel



FD-100-ER
Extended Rim Strainer



FD-100-FC
Surface Membrane Clamp



FD-100-H
Elastomeric Flange



FD-100-K
Dome Strainer



FD-100-L
HD Square Strainer



FD-100-RS
Rectangular Strainer



FD-100-VD
Solid Hinged Cover



FD-100-VS
Square Hinged Solid Cover

Consult factory for all applications outside of listed parameters.
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WATTS®

Floor And Area Drains

Pictorial Index



FD-100-WD
Domed Standpipe

No Photo
Available

FD-100-C-XH
HD Round Strainer



FD-160-C
Floor Drain w/Side Outlet
for Membrane Floor



FD-200
HD Round Strainer



FD-200-A
Round Strainer



FD-290-PR
Pronto!® Cast Iron Adj. Floor
Drain w/Integrated Level



FD-290-PR-60
Pronto!® PVC Adj. Floor
Drain w/Integrated Level



FD-200-AS
Angle Strainer



FD-200-DD
Hub Funnel



FD-200-EF
Round Funnel



FD-200-EG
Oval Funnel



FD-200-ER
Extended Rim Strainer



FD-200-FC
Surface Membrane Clamp



FD-200-H
Elastomeric Tile Flange



FD-200-K
Dome Strainer



FD-200-L
HD Square Strainer



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Floor And Area Drains

Pictorial Index



FD-200-RS
Rectangular Strainer



FD-200-VD
Solid Hinged Cover



FD-200-VS
Square Hinged Solid Cover



FD-200-WD
Domed Standpipe



No Photo
Available

FD-200-XH
Round HD Strainer



FD-220-C
Floor Drain w/Integral Trap
for Membrane Floor



FD-230-A
Combination



FD-240
Prison Cell



FD-300
6-1/2" Adjustable Top



FD-310
6-1/2" Fixed Top



FD-320
8" Adjustable Top



FD-320-SET
8" Adjustable Top



FD-320-25
Detention Area Floor Drain
w/Tamper Resistant Cover



FD-320-Y
8" Fixed Top



FD-320-Y-SET
8" Fixed Top



FD-330
8x8" Adjustable Top

Consult factory for all applications outside of listed parameters.
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Floor And Area Drains

Pictorial Index



FD-330-Y
8x8" Fixed Top



FD-340
12" Adjustable Top



FD-340-SET
12" Adjustable Top



FD-340-Y
12" Fixed Top



FD-340-Y-SET
12" Fixed Top



FD-340-67
Floor Drain For
Pre-Cast Slabs



FD-360
15" Adjustable Top



FD-360-Y
15" Fixed Top



FD-380
Adjustable Wood Floors



FD-390
Floor Drain with 7" Heavy
Duty Strainer



FD-410
Parking Area
Catch Basin



FD-430
Side Outlet



FD-450
15x15" Adjustable Top



FD-450-F
15x15" Fixed Top



FD-460
12x12" Adjustable Top



FD-460-F
12x12" Fixed Top



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Floor And Area Drains

Pictorial Index



FD-490-F-4
Parking Structure



FD-490-F-80
Aluminum Parking
Structure Heavy Duty



FD-520
Side Outlet Parking Area



FD-530
Parking Area Drain



FD-540
Bottom Outlet
Parking Area



FD-600
Unfinished Area Isolation



FD-620
Finished Area Isolation



FD-660
PVC 7" Fixed Top



FD-670
PVC 10" Fixed Top



FD-750
Gutter Drain with
6" x 16" Top



FD-760
Cast Iron Gutter Drain
with 6" x 12" Top



FD-810
Iowa Garage Drain



FD-820
Flushing Rim



FD-830
Hopper Drain



FD-850
Planting Area Drain with
Dome Cap



FD-860
8" Planting Area

Consult factory for all applications outside of listed parameters.
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WATTS®

Floor And Area Drains

Pictorial Index



FD-870
12" Planting Area



FD-870-TG
Planting Area Drain with
Deck Level Drainage Grate



FD-880
Ground Water
Containment Drain



FD-890
Planter Drain with
Removable Cover



FD-900
12" Precast Parking Deck



FD-910
15" Precast Parking Deck



FD-920
8" Precast Parking Deck



FD-930
Sq. Precast Parking Deck



FD-1100
HD Round SS Strainer



FD-1100-A
Round SS Strainer



FD-1100-A-LR
Floor Drain w/Ligature
Resistant Round Strainer



FD-1190-PR
Pronto!® Cast Iron Adj. Floor
Drain w/Integrated Level



FD-1190-PR-60
Pronto!® PVC Adj. Floor
Drain w/Integrated Level



FD-1100-ER
SS Extended Rim Strainer



FD-1100-L
HD Square SS Strainer



FD-1100-M-LR
Floor Drain w/Ligature
Resistant Square Strainer



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Floor And Area Drains

Pictorial Index



FD-1160
Chemical Resistant



FD-1200
HD Round SS Strainer



FD-1290-PR
Pronto!® Cast Iron Adj. Floor
Drain w/Integrated Level



FD-1290-PR-60
Pronto!® PVC Adj. Floor
Drain w/Integrated Level



FD-1200-ER
SS Extended Rim Strainer



FD-1200-L
HD Square SS Strainer



TD-300
Elevator Trench Drain



FD-Funnels
Bolt-On Funnels

Floor And Area Drains

Recommendations

Application	Product
Basement Areas.....	FD-300, FD-310-Y, FD-320(-Y), FD-320(-Y)-SET
Carwash & Sediment Collection Areas.....	FD-410, also see Dead Level® Catch Basins
Clinical & Surgical Areas.....	FD-1100(-28) Series, FD-820, also see BLÜCHER
Condensate & Drip Lines (indirect waste).....	FD-100-DD, FD-100-EF, FD-100-EG, FD-200-DD, FD-200-EF, FD-200-EG
Rubberized Sheet Flooring.....	FD-100-FC, FD-200-FC
Rubberized Poured Flooring.....	FD-100-H, FD-200-H
Floating Slabs.....	FD-600, FD-620
Food Preparation Areas.....	FD-1100 Series, also see Sanitary Floor Sinks
Garage & Service Bays.....	FD-430, FD-450(-F), FD-460(-F), also see Dead Level® Trench Drains
Industrial & Warehouse Areas.....	FD-320(-Y), FD-330(-Y), FD-340(-Y), FD-460(-F)
Outdoor Parking Areas.....	FD-530, also see Dead Level® Trench Drains
Planting Areas.....	FD-850, FD-860, FD-870, FD-880, see also Green Roof Drains
Parking Decks Poured.....	FD-490-F-4
Parking Decks Precast.....	FD-900, FD-910, FD-920, FD-930
Prison Cells.....	FD-240
Sanitary Manufacturing Areas.....	FD-1100, FD-1200 Series, also see BLÜCHER
Shower Areas.....	FD-100, FD-1100 Series
Stairwells.....	FD-100, FD-200 Series
Wood Floors.....	FD-380, FD-390-E-63

Floor Drain Selection Factors

Materials

Cast Iron Epoxy Coated*

Industrial grade cast iron, finished with Watts gray acid resistant coating.

*Note: *Watts Drainage standard epoxy coating is designed for interim protection of iron components during processing, shipping, and construction. It is not intended to protect surfaces subject to traffic, or environmental conditions. Exposed iron surfaces should be expected to show surface oxidation (rusting) after a short period of time.*

Nickel Bronze

Nickel Bronze alloy is homogenous, highly resistant to wear, and will not be discolored by weather or traffic. Appearance is silvery, and compliments most interior and exterior finishes.

Stainless Steel

In accordance with ASTM A-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.

Ductile Iron Epoxy Coated*

Superior impact resistance and durability compared to standard cast iron. Watts supplies ductile iron drain grates standard, finished with gray acid resistant epoxy coating.

PVC or ABS

Most floor and area drains can be specified with optional PVC (-60) or ABS (-61) plastic bodies for direct sch. 40 solvent weld connection.

Pipe Connections

No Hub (Standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Push-on

ASTM C-564 gasket connection, with pipe stop. Suitable for no hub or service weight cast iron, sch. 40 plastic, and steel pipe. Not recommended for above grade.

Inside Caulk (-X)

Used for lead and oakum joints, pipe is inserted through a caulk ring on the drain outlet.

PVC (-60) or ABS (-61) Socket

For direct solvent weld connection to sch. 40 plastic pipe.

Threaded (THD)

Female threaded outlet for connection to IPS threaded pipe.



Consult factory for all applications outside of listed parameters.
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Floor And Area Drains

Floor Drain Selection Factors

Load Ratings

Load ratings are based upon maximum anticipated traffic, in accordance with American National Standards AMSE A112.21.1M. See specification pages for specific load rating data.

Light Duty (LD) - safe live load under 2000 lbs.

Medium Duty (MD) - safe live load 2000-4999 lbs.

Heavy Duty (HD) - safe live load 5000-7499 lbs.

Extra Heavy Duty (XHD) - safe live load 7500-10,000 lbs.

Special Duty - safe live load over 10,000 lbs.

Grate Free Area

Drains should be specified with sufficient grate free area and outlet size to pass anticipated flow. For standard indoor applications, the grate free area should equal 1-1/2 times the transverse area of the connecting pipe. In exterior areas, the grate free area should be twice the transverse area of the connecting pipe.

Recommended Free Area

Pipe Size	Transverse Sq. In.	Interior Free Area Sq. In.	Exterior Free Area Sq. In.
2"	3.14	4.71	6.28
3"	7.06	10.59	14.12
4"	12.50	18.75	25.00
5"	19.60	29.40	39.20
6"	28.30	42.45	56.60
8"	50.25	75.38	100.50

Design Considerations

Finished / Unfinished Areas

Finished area top specifications should be nickel bronze, or optional stainless steel. Ductile iron is typically used in unfinished areas, where appearance is not a primary concern.

Fixed / Adjustable Tops

Adjustable top drains enable vertical adjustment of the strainer or top assembly, to more easily match the finished floor level.

Heel Proof / ADA Grate Openings

All standard floor and area drains are supplied with heel proof, ADA compliant 5/16" grate openings. Consult product specifications for parking area drain applications.

Weep Holes / Double Drainage

All standard floor and area drains are designed with weep holes for "double drainage". Water seeping around the outside of the drain filters through the weepholes, and back into the drain sump. This protects the immediate area surrounding the drain from deterioration.

Commonly Specified Options

-5 Sediment Bucket

Catches large debris at the drain, protects the p-trap from becoming clogged with accumulated debris.

-6 Vandal Proof

Grate secured with Allen Head screws. Security screws (Torx & Pin) may be specified for high security applications.

-7 Trap Primer Tapping

Plugged 1/2" threaded inlet on drain body, for connection to trap primer valve (see Watts #LFTP300-DR).

-8 Backwater Valve (2", 3", 4" Only)

Ball float backwater valve with no hub connections, attaches to drain outlet to prevent back-up damage in low pressure applications.

-9 Hinged Grate

Available on select square top drains, provides easy access to sediment buckets or drain lines requiring regular maintenance.

-12 Galvanized

Standard zinc galvanizing, commonly specified above grade in highly corrosive coastal environments or industrial areas.

-15 Strainer Extension

For FD-100 & FD-200 Series floor drains, extends strainer to accommodate thick slabs and special applications.

-21 Secondary Strainer

Fits in bottom of drain body, secondary protection against debris that bypasses sediment bucket.

-C Membrane Clamp

Specified in floors with a waterproofing membrane. On most Watts floor and area drains, the waterproofing membrane is clamped between the drain body and bolt-on collar, so a separate membrane clamp is not required.

-F4-50, -F4-1, -F6-1 Round Funnels

4" dia. cast iron or nickel bronze, 6" dia. nickel bronze round funnels to accept single condensate lines. Bolt supplied to attach funnel through underside of the grate.

-G-50, -G-1 Oval Funnels

4"x9" cast iron or nickel bronze oval funnel, to accept multiple condensate lines. Bolt supplied to attach funnel through underside of the grate

-US Buy American Compliant

Product will be supplied with minimum 51% domestic content, in compliance with FAR 52.225-9 Buy American Act

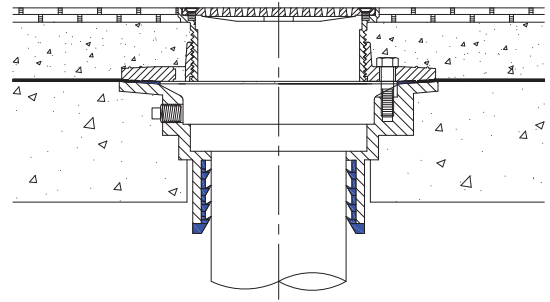
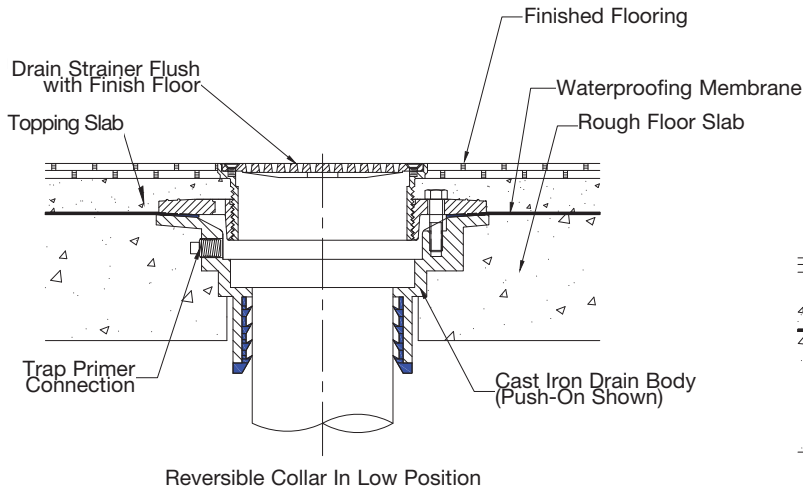
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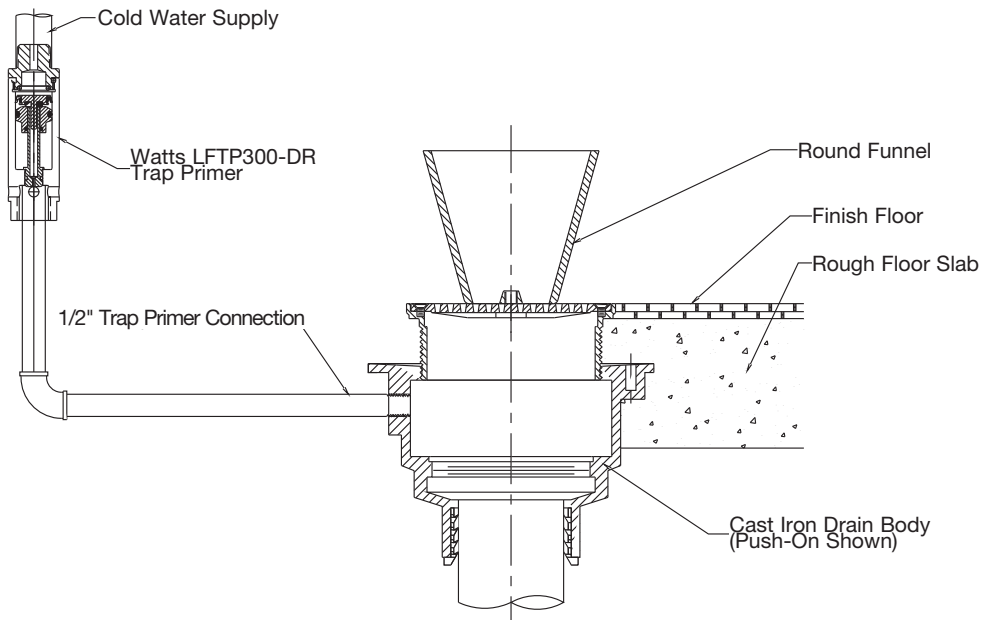
Floor And Area Drains

Typical Installations



FD-100 SERIES

ADJUSTABLE FLOOR DRAIN ABOVE GRADE



FD-200 SERIES

ADJUSTABLE FLOOR DRAIN ON GRADE W/TRAP PRIMER

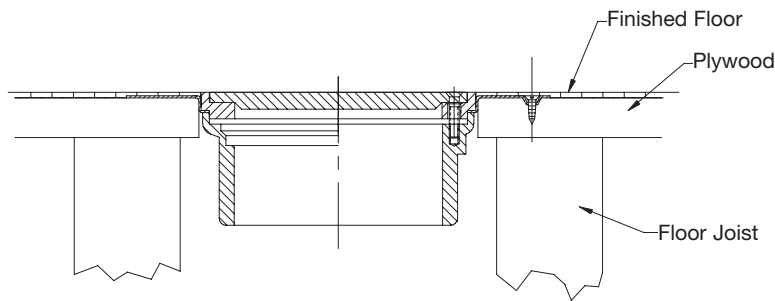
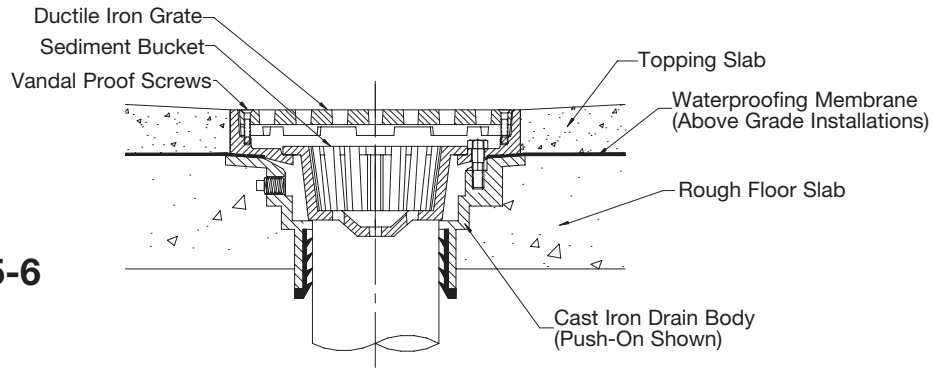


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Floor And Area Drains

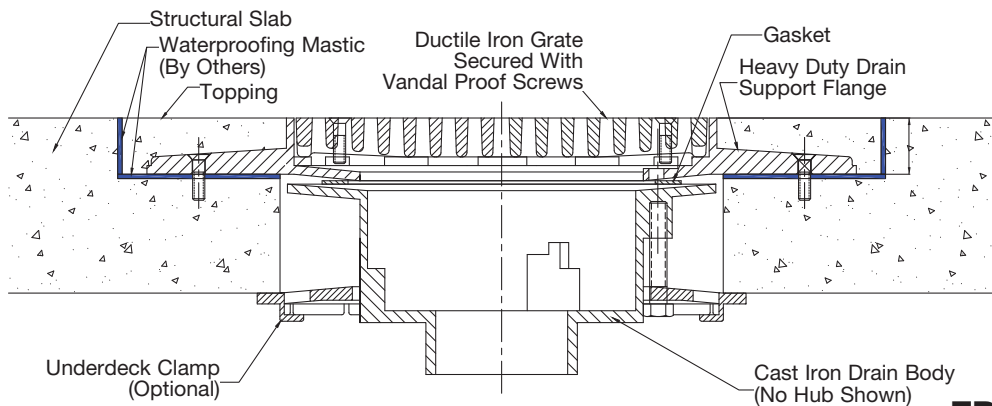
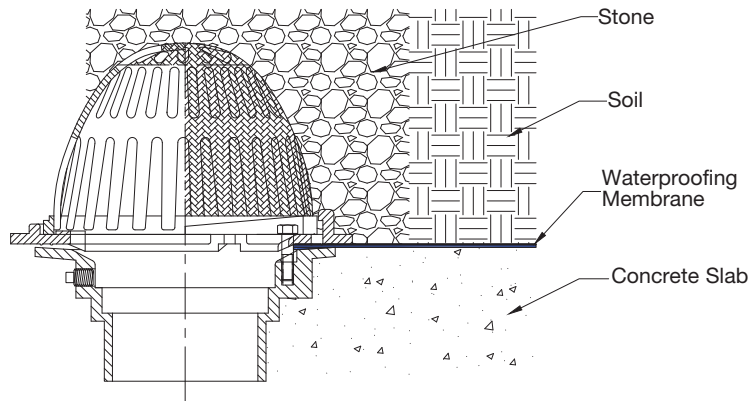
Typical Installations

FD-320-Y-5-6
AREA DRAIN



WWDFD
WOODEN FLOORS

FD-860
PLANTER AREA



FD-900
PRECAST PARKING DECK

Consult factory for all applications outside of listed parameters.
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Finished Area Floor Drains

FD-100-C-A Floor Drain with Round Strainer



Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-102, 3, 4-C-A5	11	5"	2, 3, 4"	nickel bronze	\$376.27
FD-102, 3, 4-C-A6	12.5	6"	2, 3, 4"	nickel bronze	484.45
FD-102, 3, 4-C-A7	14	7"	2, 3, 4"	nickel bronze	634.68

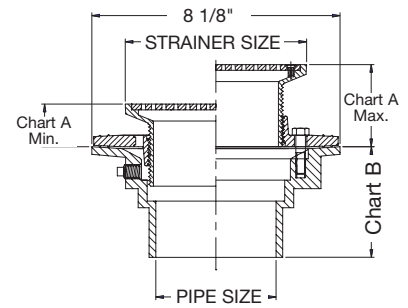


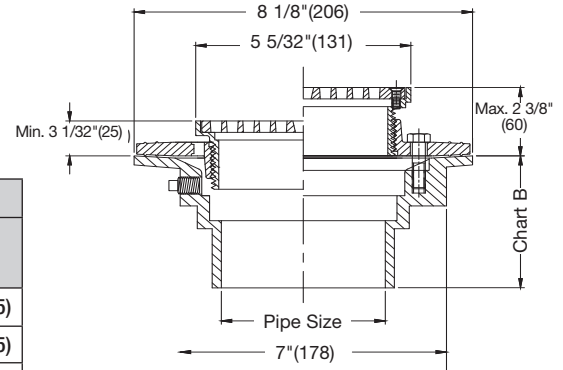
Chart A		
Strainer	Min.	Max.
5"	13/16"	3 1/4"
6"	7/8"	3 3/8"
7"	11/16"	3 1/4"
8"	7/8"	3 1/4"
10"	1 1/4"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

FD-100-C-XH Floor Drain with Round Heavy Duty Strainer



Model Number	Wt., Lbs.	Str. Size	Pipe Size	Strainer	List Price
FD-100-C-XH5-1	12	5"	2, 3, 4, 6"	Solid NB	\$601.47
FD-100-C-XH5-4	14	5"	2, 3, 4, 6"	ductile iron	361.10
FD-100-C-XH6-1	13.5	6"	2, 3, 4, 6"	Solid NB	669.43



No Photo Available

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3 5/8"	4 1/4"	4 1/4"	4 1/2"	3 3/4"(95)
3"(76)	3 5/8"	4 1/4"	4 1/4"	4 1/2"	3 3/4"(95)
4"(102)	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"(102)
6"(152)	3 1/2"	-	-	-	-

Chart A				
Strainer	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	31/32"(25)	2 3/8"(60)	*XHD	7
6"(152)	1 1/8"(26)	2 5/8"(67)	*XHD	8

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

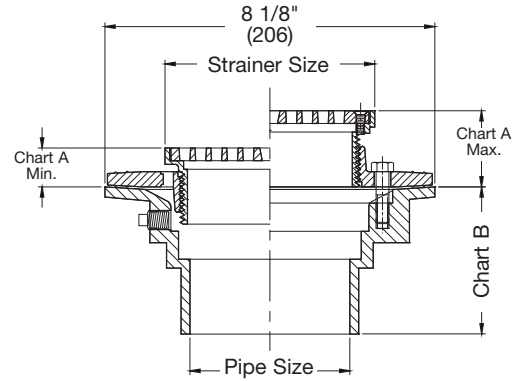
Finished Area Floor Drains

FD-100-C

Floor Drain with Round Heavy Duty Strainer



Model Number	Wt., Lbs.	Str. Size	Pipe Size	Strainer	List Price
FD-102, 3, 4-C-5-4	13	5"	2, 3, 4"	ductile iron	\$CF**
FD-102, 3, 4-C-5-1	11	5"	2, 3, 4"	nickel bronze	472.33
FD-102, 3, 4-C-6-1	12.5	6"	2, 3, 4"	nickel bronze	595.34
FD-102, 3, 4-C-8-1	16	8"	2, 3, 4"	nickel bronze	860.04
FD-102, 3, 4-C-10-1	21	10"	2, 3, 4"	nickel bronze	1,814.85



Note: Funnelns are ordered separately. See page 76 for details.

Chart A		
Strainer	Min.	Max.
5"	13/16"	3 1/4"
6"	7/8"	3 3/8"
8"	7/8"	3 1/4"
10"	1 1/4"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

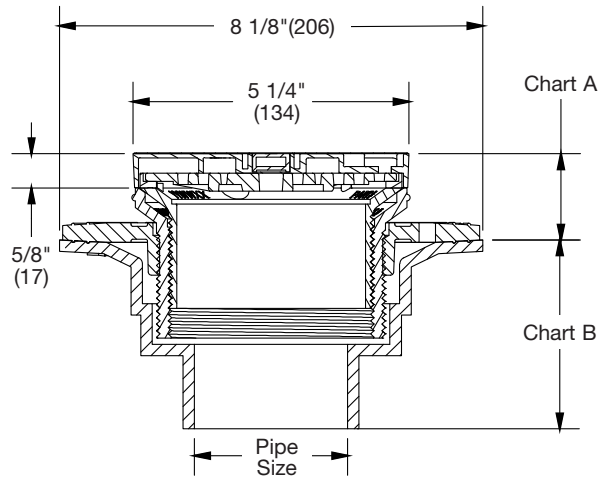


Adjustable Floor Drains

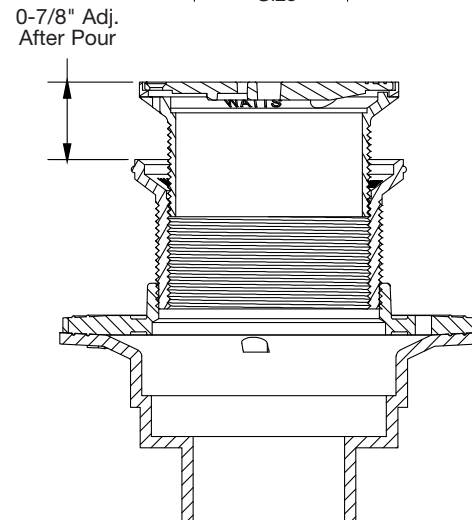
FD-190-PR

Pronto!® Cast Iron Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-192, 3, 4-PR5	14	5"(127)	2, 3, 4"	nickel bronze	\$835.97
FD-192, 3, 4-PR6	16	6"(152)	2, 3, 4"	nickel bronze	1,020.39
FD-192, 3, 4-PR7	18	7"(178)	2, 3, 4"	nickel bronze	1,255.16
FD-192, 3, 4-PR8	21	8"(203)	2, 3, 4"	nickel bronze	1,550.42
FD-196-PR5 (NH Only)	14	5"(127)	6"(152)	nickel bronze	2,057.68
FD-196-PR6 (NH Only)	16	6"(152)	6"(152)	nickel bronze	2,057.68
FD-196-PR7 (NH Only)	18	7"(178)	6"(152)	nickel bronze	2,057.68
FD-196-PR8 (NH Only)	21	8"(203)	6"(152)	nickel bronze	2,205.95



PATENTED



Patent No. USD897503 and Patents Pending

Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	1 3/4"(83)	4 1/4"(108)	MD	6 1/16"(154)
6"(152)	1 3/4"(83)	4 1/4"(108)	LD	10 3/4"(273)
7"(178)	1 7/8"(54)	4 3/8"(111)	LD	13 1/4"(337)
8"(203)	2"(51)	4 1/2"(114)	MD	19"(483)

Chart B

Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60 PVC
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-190-PR Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-F4-50	4" Round Cast Iron Funnel	126.72
T	Threaded Outlet	104.33	F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-50	4x9" Oval Cast Iron Funnel	172.24
-12	Galvanized Body	160.66	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
			-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Adjustable Floor Drains

FD-190-PR-60

Pronto!® PVC Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-192, 3, 4-PR5-60	5	5"(127)	2, 3, 4"	nickel bronze	\$475.41
FD-192, 3, 4-PR6-60	6	6"(152)	2, 3, 4"	nickel bronze	707.58
FD-192, 3, 4-PR7-60	7	7"(178)	2, 3, 4"	nickel bronze	799.26
FD-192, 3, 4-PR8-60	8	8"(203)	2, 3, 4"	nickel bronze	873.41



PATENTED

Patent No. USD897503 and Patents Pending

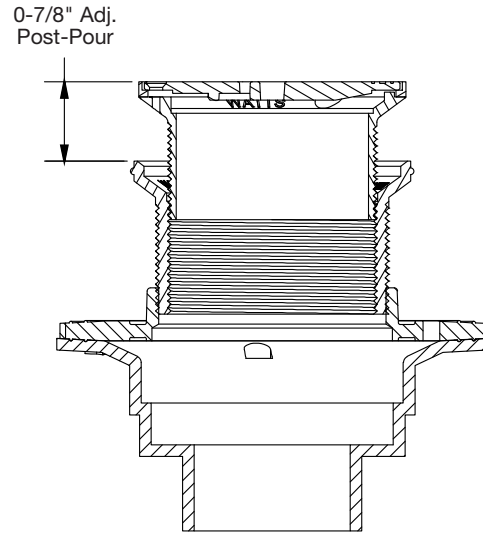
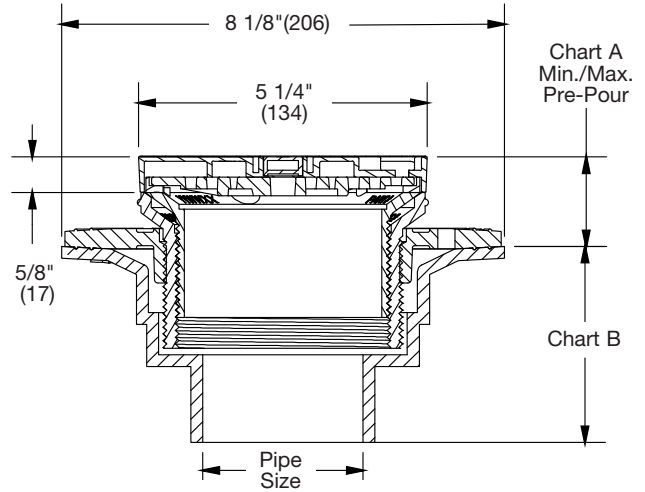


Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	2 1/2"(64)	4 1/4"(108)	MD	6 1/16"(154)
6"(152)	2 1/2"(64)	4 1/4"(108)	LD	10 3/4"(273)
7"(178)	2 5/8"(67)	4 3/8"(111)	LD	13 1/4"(337)
8"(203)	2 3/4"(70)	4 1/2"(114)	MD	19"(483)

Chart B

Pipe Size	60 PVC
2"(51)	4"(102)
3"(76)	4"(102)
4"(102)	4"(102)

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-190-PR-60 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-7	Tap Primer Tapping	\$44.31	-15	Strainer Extension (DD-50)	\$106.86
-8	Squeeze in Backwater Valve	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-61	ABS Body w/Socket Outlet	32.31			
-F4-50	4" Round Cast Iron Funnel	126.72			
-F4-1	4" Round Nickel Bronze Funnel	263.36			
-F6-1	6" Round Nickel Bronze Funnel	680.74			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Finished Area Floor Drains

FD-100-C-AS Floor Drain with Angle Strainer

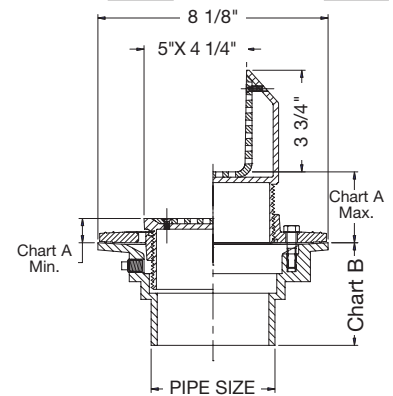


Model Number	Wt., Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-AS	15	5" x 4"	2, 3, 4"	nickel bronze	\$1,337.18



Chart A	
Min.	Max.
13/16"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



FD-100-C-DD Floor Drain with Hub Funnel

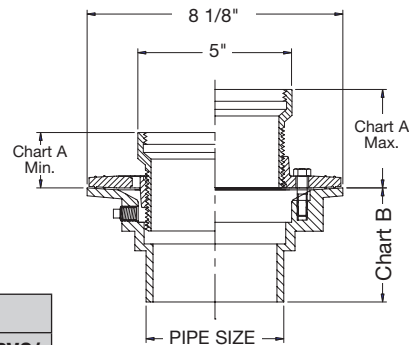


Model Number	Weight (Lbs.)	Outlet Size	Strainer	List Price
FD-102, 3, 4-DD-50	7	2, 3, 4"	cast iron	\$279.15
FD-102, 3,4-DD-1	7	2, 3, 4"	nickel bronze	774.19



Chart A	
Min.	Max.
1"	2 3/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Finished Area Floor Drains

FD-100-C-EF Floor Drain with Round Funnel

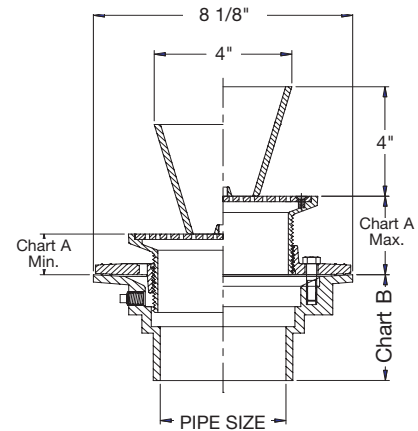


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Funnel	List Price
FD-102, 3, 4-EF-1	9	5"	2, 3, 4"	nickel bronze	\$639.69
FD-102, 3, 4-EF-50	10	5"	2, 3, 4"	cast iron	409.25



Chart A		
Strainer Dia.	Min.	Max.
5"	7/8"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



FD-100-C-EG Floor Drain with Oval Funnel

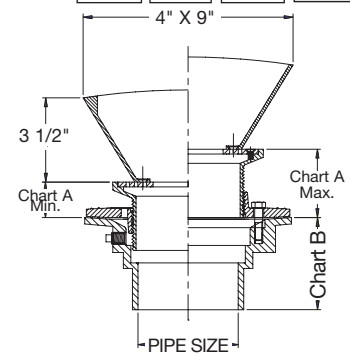


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Funnel	List Price
FD-102, 3, 4-EG-1	10	5"	2, 3, 4"	nickel bronze	\$755.56
FD-102, 3, 4-EG-50	10	5"	2, 3, 4"	cast iron	468.01



Chart A		
Strainer Dia.	Min.	Max.
5"	7/8"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



Note: Funnel are ordered separately. See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Finished Area Floor Drains

FD-100-C-ER Floor Drain with Extended Rim Strainer

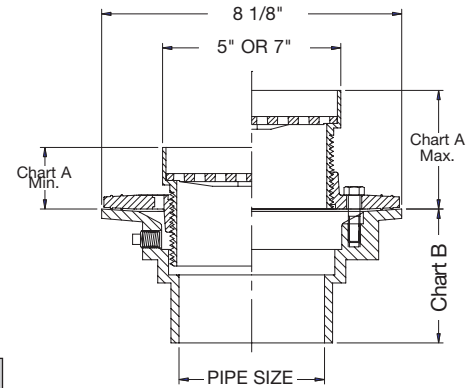


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-ER5	11	5"	2, 3, 4"	nickel bronze	\$867.19
FD-102, 3, 4-ER7	12	7"	2, 3, 4"	nickel bronze	914.83
FD-102, 3, 4-ER9	13	9"	2, 3, 4"	nickel bronze	1,286.40



Chart A		
Strainer Dia.	Min.	Max.
5"	1 1/2"	4"
7"	2 1/2"	4"
9"	2 1/2"	4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



FD-100-C-FC Floor Drain with Surface Membrane Clamp



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-FC7	15	7"	2, 3, 4"	nickel bronze	\$680.20
FD-102, 3, 4-FC7-3	15	7"	2, 3, 4"	stainless steel	1,056.85
FD-102, 3, 4-FC9	18	9"	2, 3, 4"	nickel bronze	1,217.72



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

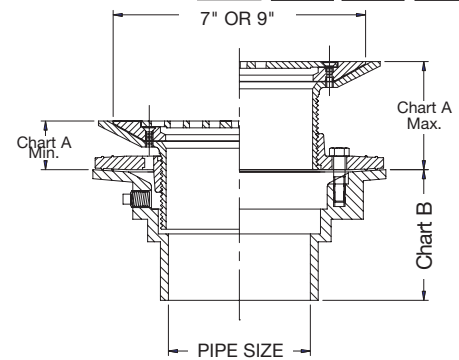


Chart A		
Strainer Dia.	Min.	Max.
7"	2 1/4"	3 3/4"
9"	2 1/4"	3 3/4"

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Finished Area Floor Drains

FD-100-C-H

Floor Drain with Elastomeric Flange

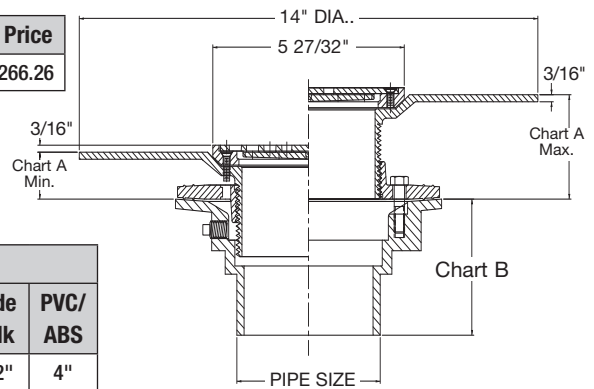


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-H	15	6"	2, 3, 4"	nickel bronze	\$1,266.26



Chart A		
Strainer Dia.	Min.	Max.
6"	7/8"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



FD-100-C-K5

Floor Drain with Dome Strainer

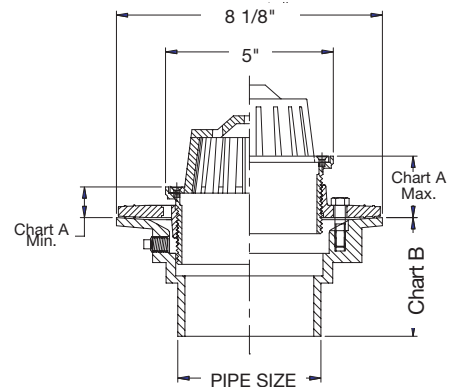


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-C-K5-1	11	5" dome	2, 3, 4"	nickel bronze	\$745.57



Chart A		
Strainer Dia.	Min.	Max.
5"	13/16"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Finished Area Floor Drains

FD-100-C-L

Floor Drain with Square Heavy Duty Strainer



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-L5-1	10	5" x 5"	2, 3, 4"	nickel bronze	\$598.22
FD-102, 3, 4-L5-4	11	5" x 5"	2, 3, 4"	ductile iron	339.55
FD-102, 3, 4-L6-1	14	6" x 6"	2, 3, 4"	nickel bronze	653.29
FD-102, 3, 4-L8-1	16	8" x 8"	2, 3, 4"	nickel bronze	1,058.91



Chart A		
Strainer	Min.	Max.
5" x 5"	7/8"	3 1/4"
6" x 6"	1"	3 1/4"
8" x 8"	1 3/8"	3 5/8"

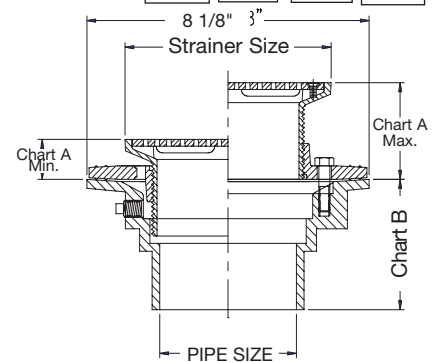


Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

FD-100-C-RS

Floor Drain with Rectangular Strainer



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-RS48	12	4" x 8"	2, 3, 4"	nickel bronze	\$784.20
FD-102, 3, 4-RS412	14	4" x 12"	2, 3, 4"	nickel bronze	842.14
FD-102, 3, 4-RS517	24	5" x 17"	2, 3, 4"	nickel bronze	1,520.89



Chart A		
Strainer	Min.	Max.
4" x 8"	1 1/2"	3 3/4"
4" x 12"	1 1/2"	3 3/4"
5" x 17"	2"	4 3/8"

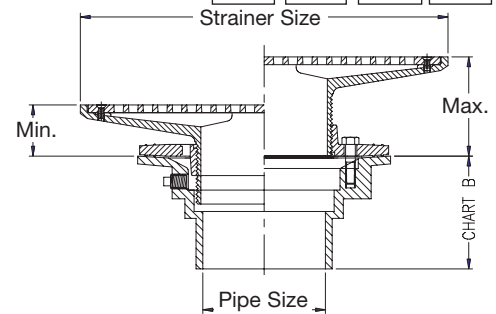


Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Finished Area Floor Drains

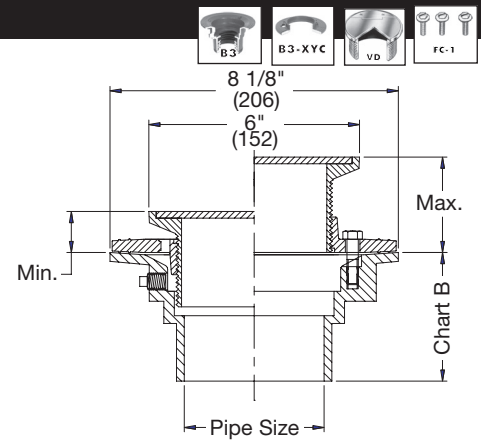
FD-100-C-VD Floor Drain with Round Hinged Solid Cover

Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-VD	15	6"	2, 3, 4"	nickel bronze	\$954.46



Chart A		
Strainer	Min.	Max.
6"	13/16"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-

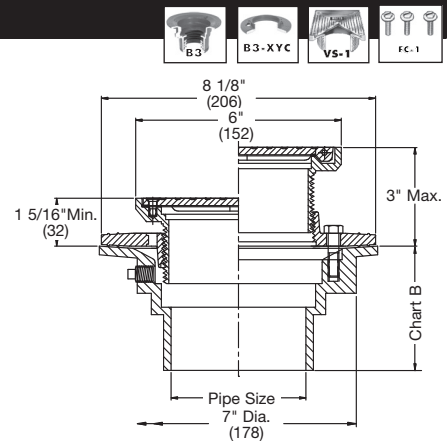


FD-100-C-VS Floor Drain with Square Hinged Solid Cover

Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-102, 3, 4-VS	15	6" x 6 Cover"	2, 3, 4"	nickel bronze	\$1,487.41



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Finished Area Floor Drains

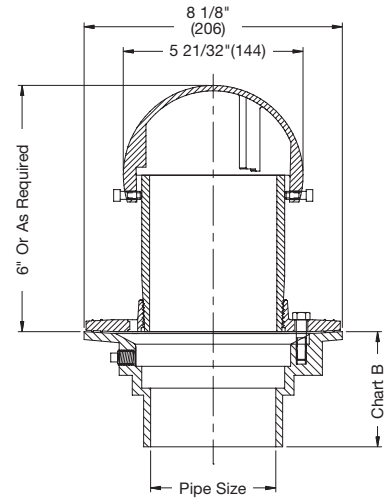
FD-100-C-WD Floor Drain with Domed Standpipe



Model Number	Weight (lbs.)	Str. Size	Outlet Size	List Price
FD-102, 3, 4-WD	11	Domed Standpipe	2, 3, 4"	\$981.39



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



FD-160-C Floor Drain with Side Outlet for Membrane Floor



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-162, 3, 4-C-A5-1	17	5"	2, 3, 4"	nickel bronze	\$651.36
FD-162, 3, 4-C-6-1	18	6"	2, 3, 4"	nickel bronze	870.43
FD-162, 3, 4-C-A7-1	18	7"	2, 3, 4"	nickel bronze	909.77
FD-162, 3, 4-C-8-1	28	8"	2, 3, 4"	nickel bronze	1,135.13

FD-160-C Body Only: 2", 3", 4" \$288.87

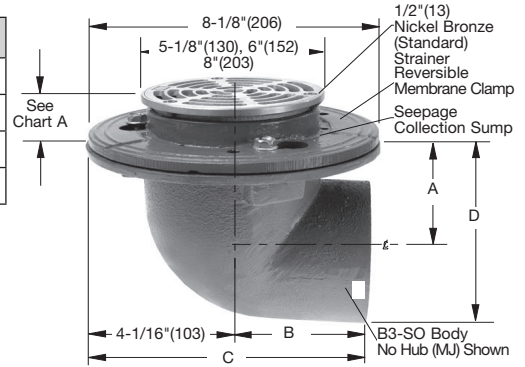


Chart B				
Model	A	B	C	D
B3-2-SO	4 5/8"(117)	7 1/4"(184)	11 5/16"(287)	5 3/4"(146)
B3-3-SO	4 3/32"(104)	5 3/4"(146)	9 27/32"(250)	5 3/4"(146)
B3-4-SO	3 5/8"(92)	4 1/32"(102)	8 3/32"(206)	5 3/4"(146)

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-160-C Series:

Suffix	Description	List Price
-6	Vandal Proof	\$104.33

WATTS Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

On-Grade Finished Area Floor Drains

FD-200

Floor Drain with Round Heavy Duty Strainer

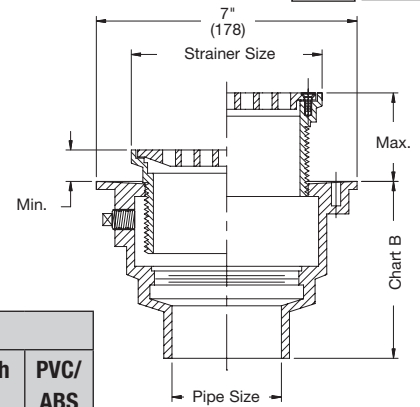


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-5-4	13	5"	2, 3, 4"	ductile iron	\$239.41
FD-202, 3, 4-5-1	8	5"	2, 3, 4"	nickel bronze	394.68
FD-202, 3, 4-6-1	9.5	6"	2, 3, 4"	nickel bronze	517.69
FD-202, 3, 4-8-1	16	8"	2, 3, 4"	nickel bronze	782.39
FD-202, 3, 4-10-1	20	10"	2, 3, 4"	nickel bronze	1,737.20



Chart A		
Strainer	Min.	Max.
5"	1"	2 1/4"
6"	1"	2 1/4"
8"	1 7/16"	2 3/4"
10"	1"	2 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-A

Floor Drain with Round Strainer

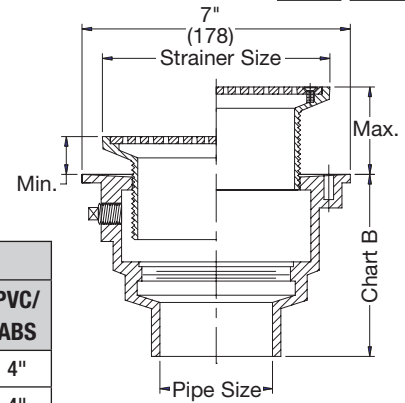


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-A5-1	8	5"	2, 3, 4"	nickel bronze	\$298.62
FD-202, 3, 4-A6-1	9.5	6"	2, 3, 4"	nickel bronze	406.80
FD-202, 3, 4-A7-1	12	7"	2, 3, 4"	nickel bronze	557.03



Chart A		
Strainer	Min.	Max.
5"	7/16"	2 1/4"
6"	5/8"	2 1/4"
7"	11/16"	2 1/4"
8"	3/4"	2 3/4"
10"	1"	2 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately.
See page 65 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



On-Grade Finished Area Floor Drains

FD-200-XH

Floor Drain with Round Heavy Duty Strainer

Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-200-XH5-1	9	5"	2, 3, 4"	nickel bronze	\$492.65
FD-200-XH5-4	13	5"	2, 3, 4"	ductile iron	252.28
FD-200-XH6-1	10	6"	2, 3, 4"	nickel bronze	560.61

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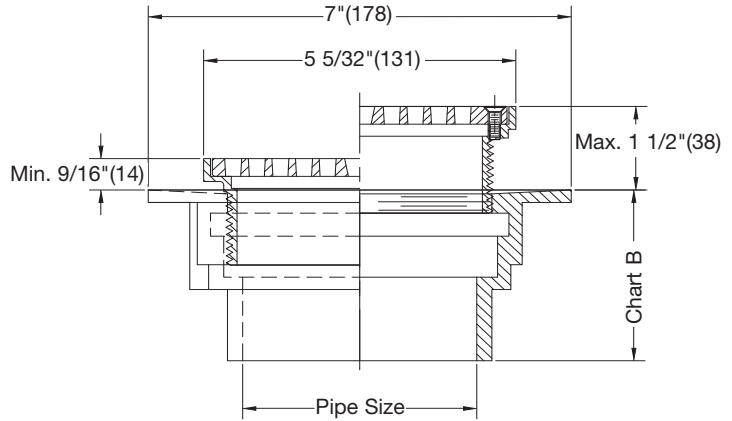


Chart A				
Strainer	Min.	Max.	Load Rating	Free Area Sq. In.
5"(127)	9/16"(14)	1 1/2"(38)	*XHD	7
6"(152)	3/4"(19)	1 3/4"(44)	*XHD	8

Chart B			
Pipe Size	Std. No Hub	P Push On	60/61 PVC/ABS
2"(51)	3"(76)	4"(102)	4"(102)
3"(76)	3"(76)	4"(102)	3 3/4"(95)
4"(102)	3"(76)	4"(102)	3 3/4"(95)

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Adjustable Floor Drains

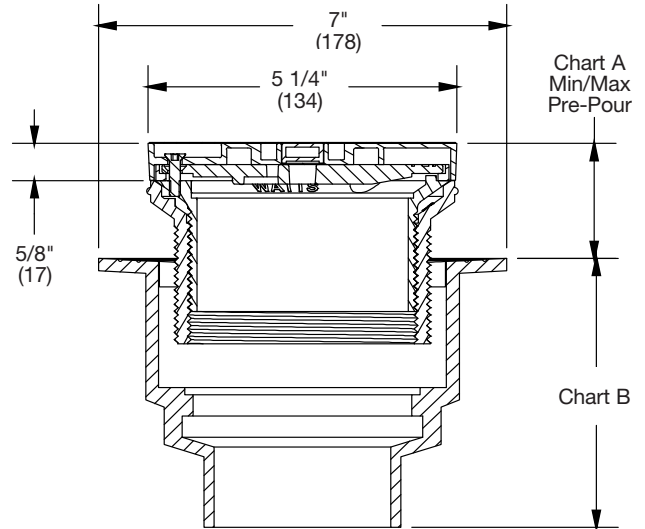
FD-290-PR

Pronto!® Cast Iron Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-292, 3, 4-PR5	13	5"(127)	2, 3, 4"	nickel bronze	\$772.60
FD-292, 3, 4-PR6	15	6"(152)	2, 3, 4"	nickel bronze	931.94
FD-292, 3, 4-PR7	17	7"(178)	2, 3, 4"	nickel bronze	1,166.71
FD-292, 3, 4-PR8	20	8"(203)	2, 3, 4"	nickel bronze	1,461.97



PATENTED



Patent No. USD897503 and Patents Pending

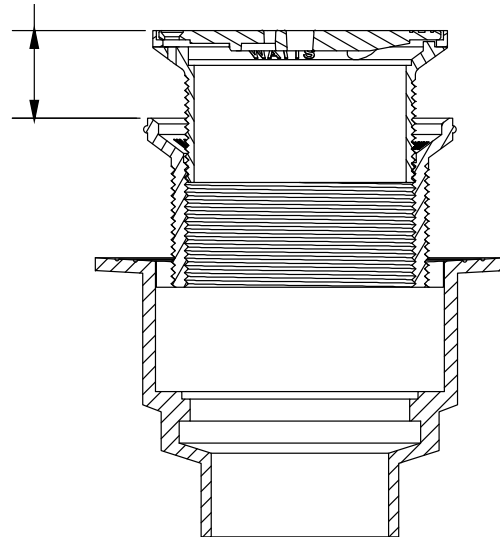
Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	1 1/2"(38)	3 1/4"(83)	MD	6 1/16"(154)
6"(152)	1 1/2"(38)	3 1/4"(83)	LD	10 3/4"(273)
7"(178)	1 9/16"(40)	3 5/16"(84)	LD	13 1/4"(337)
8"(203)	1 11/16"(43)	3 7/16"(87)	MD	19"(483)

Chart B

Pipe Size	Std. No Hub	P Push On	60/61 PVC/ABS
2"(51)	4 1/2"(114)	5 1/2"(140)	4"(102)
3"(76)	4 1/2"(114)	5 1/2"(140)	4"(102)
4"(102)	4 1/2"(114)	5 1/2"(140)	4"(102)

0-7/8" Adj. Post-Pour



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-290-PR Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-F4-50	4" Round Cast Iron Funnel	126.72
T	Threaded Outlet	104.33	F4-1	4" Round Nickel Bronze Funnel	263.36
None	6" Outlet No Hub Only	104.33	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Adjustable Floor Drains

FD-290-PR-60

Pronto!® PVC Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-292, 3, 4-PR5-60	4	5"(127)	2, 3, 4"	nickel bronze	\$437.03
FD-292, 3, 4-PR6-60	5	6"(152)	2, 3, 4"	nickel bronze	672.45
FD-292, 3, 4-PR7-60	6	7"(178)	2, 3, 4"	nickel bronze	751.80
FD-292, 3, 4-PR8-60	7	8"(203)	2, 3, 4"	nickel bronze	814.23



PATENTED

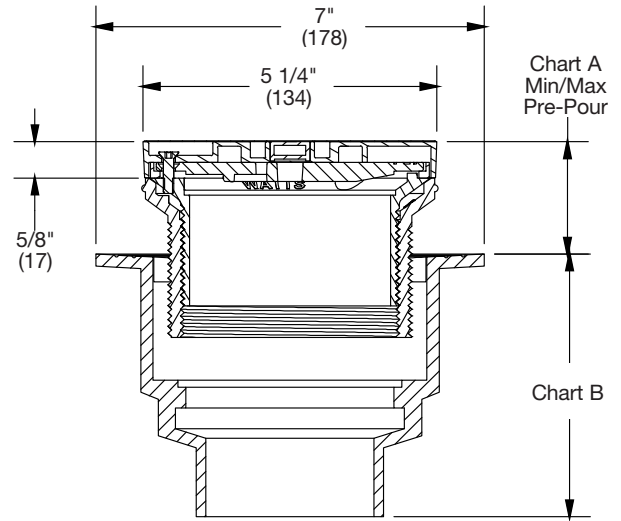
Patent No. USD897503 and Patents Pending

Chart A

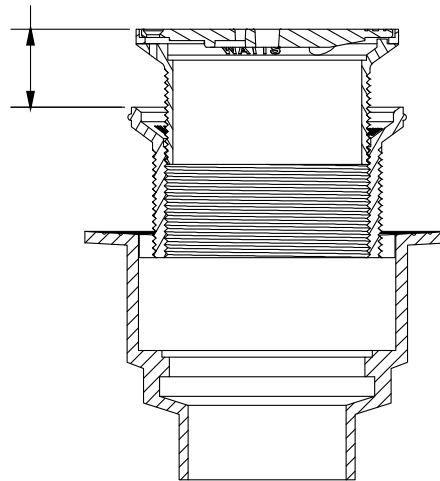
Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	1 1/2"(38)	3 1/4"(83)	MD	6 1/16"(154)
6"(152)	1 1/2"(38)	3 1/4"(83)	LD	10 3/4"(273)
7"(178)	1 9/16"(40)	3 5/16"(84)	LD	13 1/4"(337)
8"(203)	1 11/16"(43)	3 7/16"(87)	MD	19"(483)

Chart B

Pipe Size	60 PVC
2"(51)	4 1/2"(114)
3"(76)	4 1/2"(114)
4"(102)	4 1/2"(114)



0-7/8" Adj. Post-Pour



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-290-PR-60 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-7	Trap Primer Tapping	No Add	F6-1	6" Round Nickel Bronze Funnel	\$680.74
-8	Squeeze in Backwater Valve	\$104.33	-G-50	4x9" Oval Cast Iron Funnel	172.24
-15	Strainer Extension (DD-50)	106.86	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-61	ABS Body w/Socket Outlet	32.31			
-F4-50	4" Round Cast Iron Funnel	126.72			
-F4-1	4" Round Nickel Bronze Funnel	263.36			



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

On-Grade Finished Area Floor Drains

FD-200-AS

Floor Drain with Angle Strainer

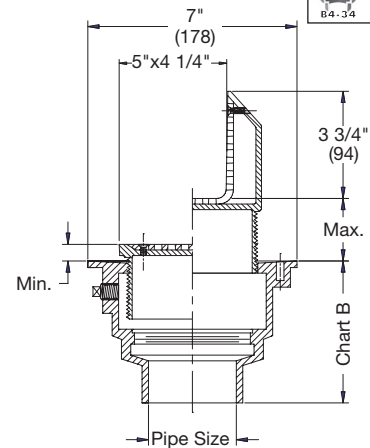


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-AS	8	5" x 4"	2, 3, 4"	nickel bronze	\$1,259.53



Chart A	
Min.	Max..
13/16"	3 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-DD

Floor Drain with Hub Funnel

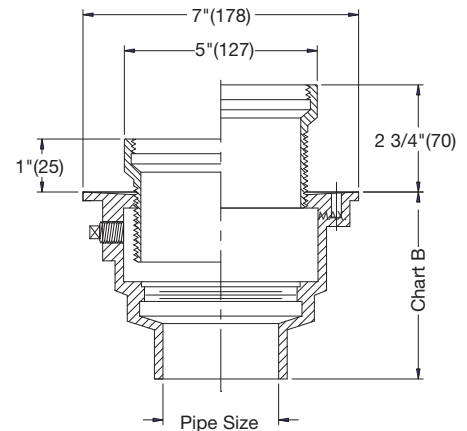


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-DD-50	7	N/A	2, 3, 4"	cast iron	\$201.50
FD-202, 3, 4-DD-1	7	N/A	2, 3, 4"	nickel bronze	696.54



Chart A	
Min.	Max..
13/16"	3 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnel are ordered separately.
See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



On-Grade Finished Area Floor Drains

FD-200-EF

Floor Drain with Round Funnel

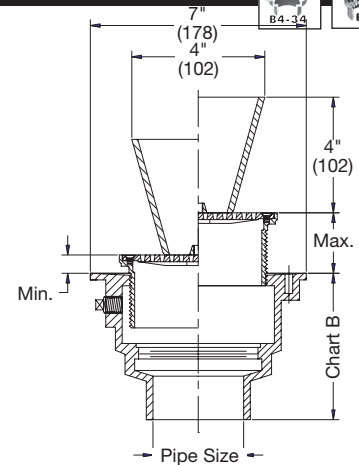


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Funnel	List Price
FD-202, 3, 4-EF-1	9	5"	2, 3, 4"	nickel bronze	\$562.04
FD-202, 3, 4-EF-50	10	5"	2, 3, 4"	nickel bronze	331.60



Chart A		
Strainer Dia.	Min.	Max.
5"	7/16"	1 5/8"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-EG

Floor Drain with Oval Funnel

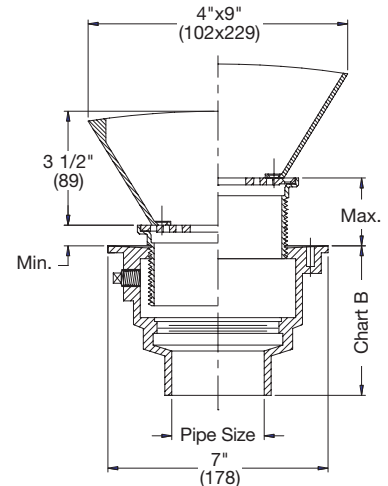


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Funnel	List Price
FD-202, 3, 4-EG-1	10	5"	2, 3, 4"	nickel bronze	\$677.91
FD-202, 3, 4-EG-50	10	5"	2, 3, 4"	cast iron	390.36



Chart A		
Strainer Dia.	Min.	Max.
5"	7/16"	1 5/8"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

On-Grade Finished Area Floor Drains

FD-200-ER

Floor Drain with Extended Rim Strainer

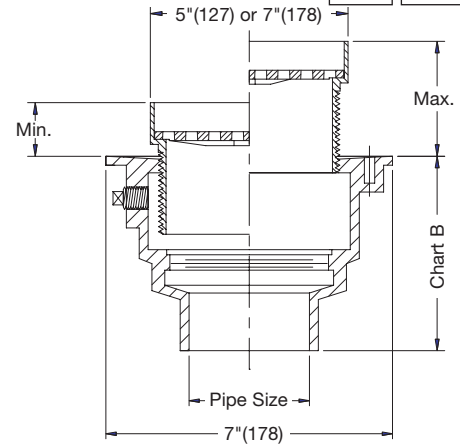


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-ER5	11	5"	2, 3, 4"	nickel bronze	\$789.54
FD-202, 3, 4-ER7	12	7"	2, 3, 4"	nickel bronze	837.18
FD-202, 3, 4, ER9	13	9"	2, 3, 4"	nickel bronze	1,208.75



Chart A		
Strainer Dia.	Min.	Max.
5"	1 3/4"	3"
7"	1 3/4"	3"
9"	1 3/4"	3"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-FC

Floor Drain with Surface Membrane Clamp

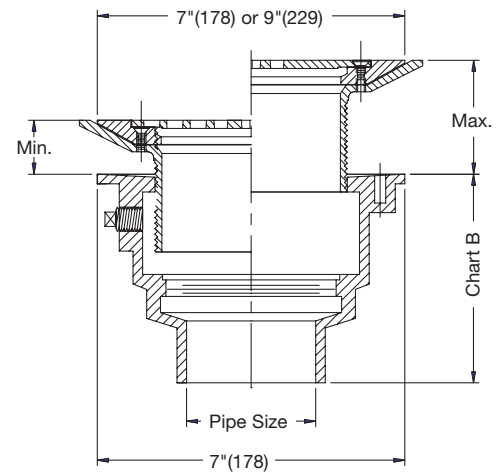


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-FC7	15	7"	2, 3, 4"	nickel bronze	\$602.55
FD-202, 3, 4-FC7-3	15	7"	2, 3, 4"	stainless steel	979.20
FD-202, 3, 4-FC9	16	9"	2, 3, 4"	nickel bronze	1,140.07



Chart A		
Strainer Dia.	Min.	Max.
7"	1 1/2"	2 3/4"
9"	1 1/2"	2 3/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



On-Grade Finished Area Floor Drains

FD-200-H

Floor Drain with Elastomeric Flange

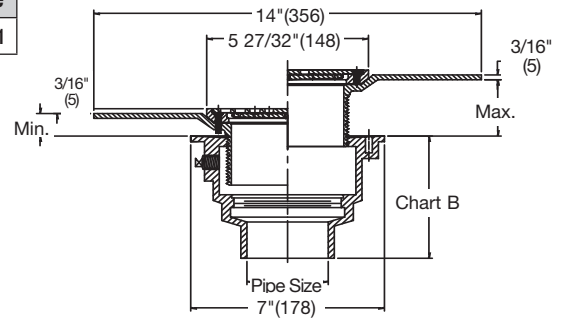


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-H	15	6"	2, 3, 4"	nickel bronze	\$1,188.61



Chart A		
Strainer Dia.	Min.	Max.
6"	1"	2 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-K

Floor Drain with Dome Strainer

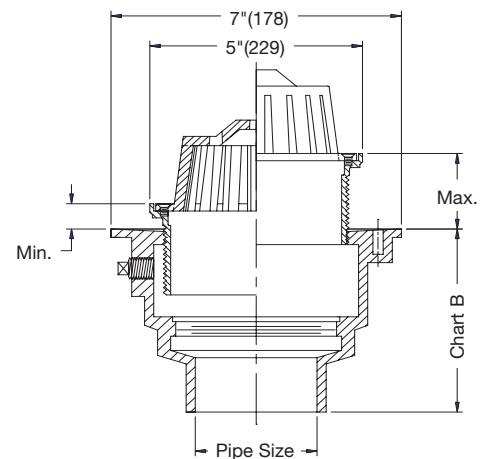


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-K5-1	11	5" dome	2, 3, 4"	nickel bronze	\$667.92



Chart A		
Strainer Dia.	Min.	Max.
5"	1"	2 1/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

On-Grade Finished Area Floor Drains

FD-200-L

Floor Drain with Square Heavy Duty Strainer

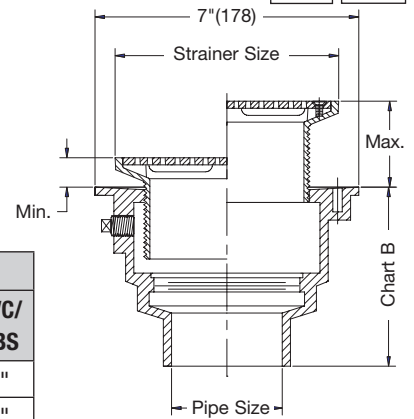


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-L5	10	5" Sq.	2, 3, 4"	nickel bronze	\$520.57
FD-202, 3, 4-L6	14	6" Sq.	2, 3, 4"	nickel bronze	575.64
FD-202, 3, 4-L8	16	8" Sq.	2, 3, 4"	nickel bronze	981.26



Chart A		
Strainer Dia.	Min.	Max.
5" x 5"	1 1/2"	2 5/16"
6" x 6"	1 1/2"	2 5/16"
8" x 8"	1 1/2"	2 3/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-200-RS

Floor Drain with Rectangular Strainer

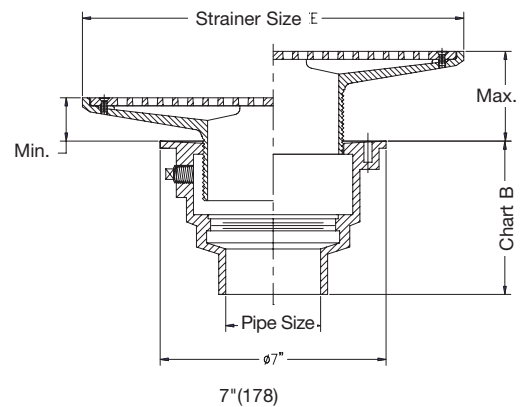


Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-RS48	12	4" x 8"	2, 3, 4"	nickel bronze	\$706.55
FD-202, 3, 4-RS412	14	4" x 12"	2, 3, 4"	nickel bronze	764.49
FD-202, 3, 4-RS517	24	5" x 17"	2, 3, 4"	nickel bronze	1,443.24



Chart A		
Strainer	Min.	Max.
4"x8"	1 1/2"	2 3/4"
4"x12"	1 1/2"	3"
5"x17"	1 1/2"	3 1/2"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.
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On-Grade Finished Area Floor Drains

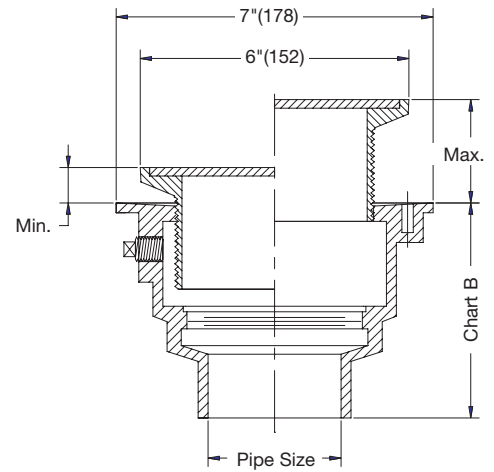
FD-200-VD Floor Drain with Round Hinged Solid Cover



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-VD	15	6" cover	2, 3, 4"	nickel bronze	\$876.81



Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



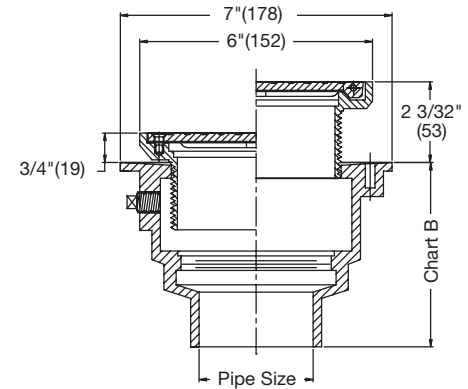
FD-200-VS Floor Drain with Square Hinged Solid Cover



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-202, 3, 4-VS	15	6" x 6"	2, 3, 4"	nickel bronze	\$1,409.76



Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

On-Grade Finished Area Floor Drains

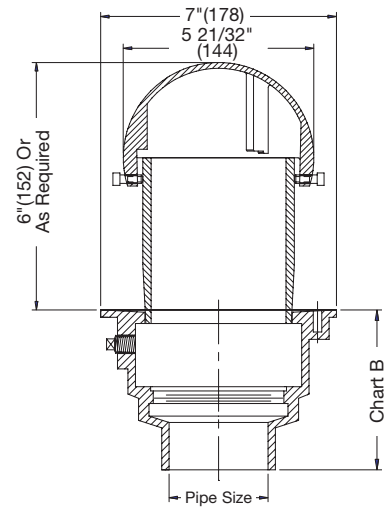
FD-200-WD Floor Drain with Domed Standpipe



Model Number	Weight (lbs.)	Strainer Type	Outlet Size	List Price
FD-202, 3, 4-WD	11	domed standpipe	2, 3, 4"	\$903.74



Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



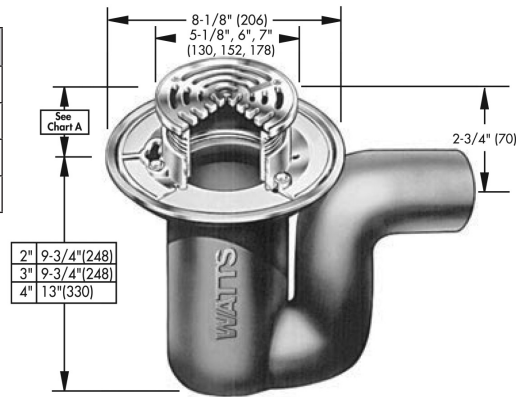
FD-220-C Floor Drain with Integral Trap for Membrane Floor



Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-223, 4-C-5-1	24	5"(127)	3, 4"	nickel bronze	\$1,286.09
FD-223, 4-C-6-1	42	6"(152)	3, 4"	nickel bronze	1,505.16
FD-223, 4-C-A7-1	43	7"(178)	3, 4"	nickel bronze	1,544.50
FD-223, 4-C-8-1	44	8"(203)	3, 4"	nickel bronze	1,769.86

Note: Funnels are ordered separately. See page 76 for details.

Chart A		
Str. Dia.	Min.	Max.
2"(51)	7/16"(11)	1 5/8"(41)
3"(76)	5/8"(16)	1 7/8"(47)
4"(102)	3/4"(19)	2 1/4"(56)



Options for FD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$106.86
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	104.33	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



On-Grade Finished Area Floor Drains

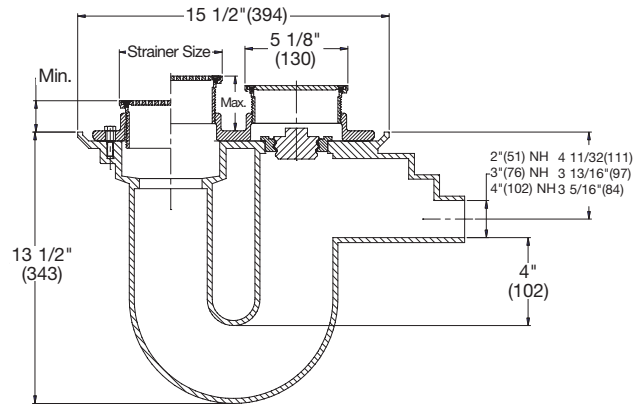
FD-230-A

Combined Floor Drain/Cleanout with Integral Trap

Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-233, 4-A5	57	5"	3, 4"	nickel bronze	\$3,127.52
FD-233, 4-A6	58	6"	3, 4"	nickel bronze	2,215.22
FD-233, 4-A7	60	7"	3, 4"	nickel bronze	2,365.45



Chart A		
Str. Size	Min.	Max.
5" Dia.	1 7/16"	2 1/4"
6" Dia.	1 9/16"	2 3/8"
7" Dia.	1 1/16"	3 1/4"
5" Sq.	7/8"	3 1/4"
6" Sq.	1"	3 1/4"



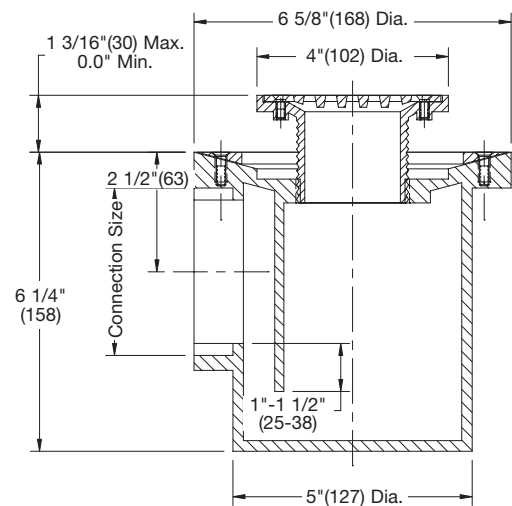
Options for FD-230-A Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-F4-50	4" Round Cast Iron Funnel	\$126.72
-5	Sediment Bucket	\$56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-15	Strainer Extension (DD-50)	106.86			

FD-240

Prison Cell Floor Drain

Model Number	Weight (lbs.)	Str. Size	Outlet Size	Strainer	List Price
FD-242,	15	4"	2"	nickel bronze	\$1,069.51
FD-243	14	4"	3"	nickel bronze	728.59



Note: Funnel are ordered separately.
See page 76 for details.

Options for FD-240 Series:

Suffix	Description	List Price
-7	Trap Primer Tapping	\$175.59



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Area Drains

FD-300

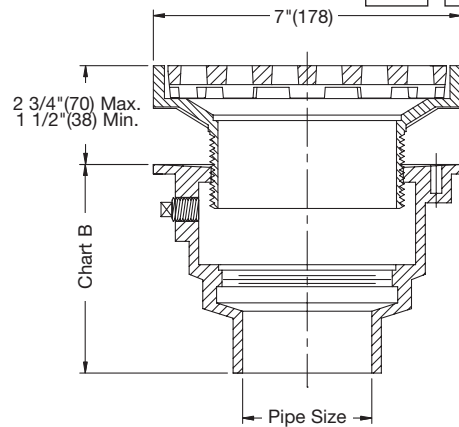
Area Drain with 7" Adjustable Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-302, 3, 4	13	7"	2, 3, 4"	ductile iron	\$361.42
FD-302, 3, 4-101	18	7"	2, 3, 4"	Solid NB	918.18



Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



FD-310

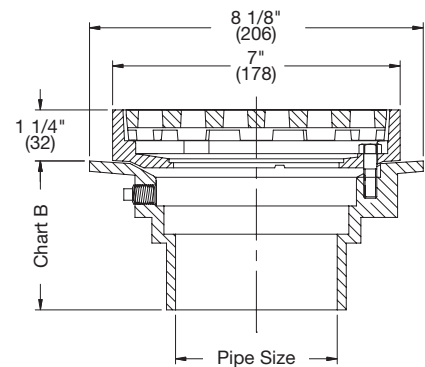
Area Drain with 7" Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-312, 3, 4	13	7"	2, 3, 4"	ductile iron	\$371.65
FD-312, 3, 4-101	18	7"	2, 3, 4"	Solid NB	1,103.51



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-300, 310, 320, 330 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$72.88
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	180.28	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Hot Dipped Galvanized	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15
-15	Strainer Extension (DD-50)	106.86			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Area Drains

FD-320

Area Drain with 8" Adjustable Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-322, 3, 4	19	8"	2, 3, 4"	ductile iron	\$442.66
FD-322, 3, 4-1	20	8"	2, 3, 4"	nickel bronze	1,074.69

Note: Canada collar includes slots.

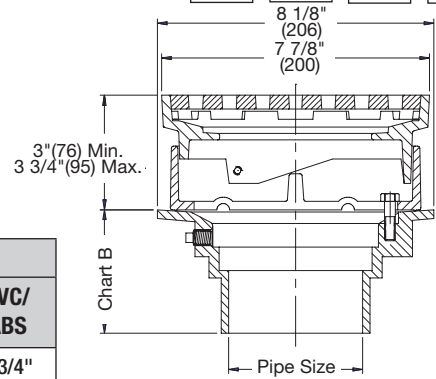


Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-

FD-320-SET

Area Drain with 8" Adjustable Top, Grate Supported by Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-322, 3, 4-Set	19	8"	2, 3, 4"	ductile iron	\$548.21
FD-322, 3, 4-Set-101	19	8"	2, 3, 4"	Solid NB	P.O.A.

Note: Canada collar includes slots.

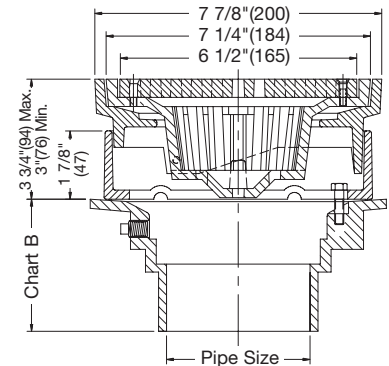


Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-300, 310, 320, 330 Series:

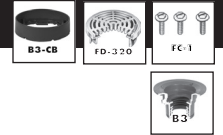
Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$72.88
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	32.31
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	32.31
None	6" Outlet No Hub Only	180.28	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Hot Dipped Galvanized	160.66	-S0	Side Outlet (2, 3, 4" Only)	247.15
-15	Strainer Extension (DD-50)	106.86			

WATTS® Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Area Drains

FD-320-25

Detention Area Floor Drain with Tamper Resistant Hinged Cover



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-322, 3, 4-25-1	19	6 1/2"(165)	2, 3, 4"	NB Hinged Cover	\$1,193.02

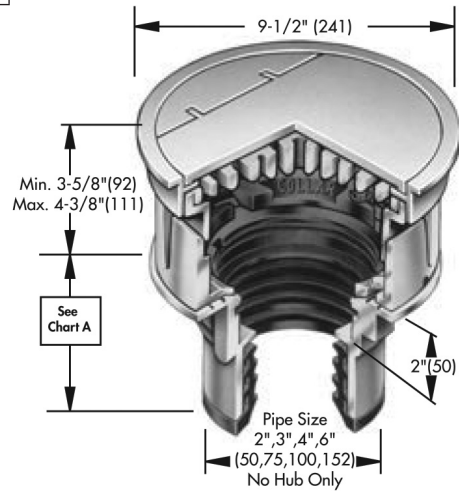


Chart A

Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60/61 PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(95)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(95)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				

Options for FD-320-25 Series:

Suffix	Description	List Price
-P	Push-On	\$45.81
-T	Threaded Outlet	94.92
6"	6" Outlet MJ/NH Only	94.92

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Area Drains

FD-320-Y

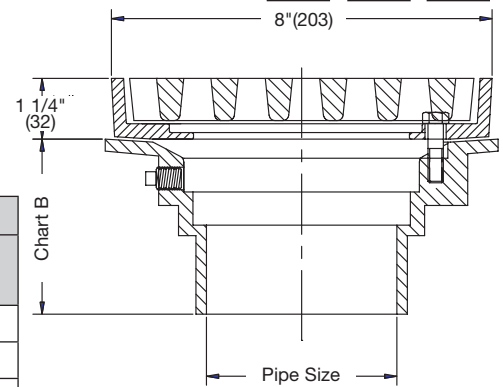
Area Drain with 8" Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-322, 3, 4-Y	19	8"	2, 3, 4"	ductile iron	\$298.65
FD-322, 3, 4-Y-101	20	8"	2, 3, 4"	Solid NB	1,199.23



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-



Options for FD-320-Y Series:

Suffix	Description	List Price
-28	All Type 304 Stainless Steel	P.O.A.
-5SS	Type 304 Stainless Steel Sediment Bucket	\$404.13

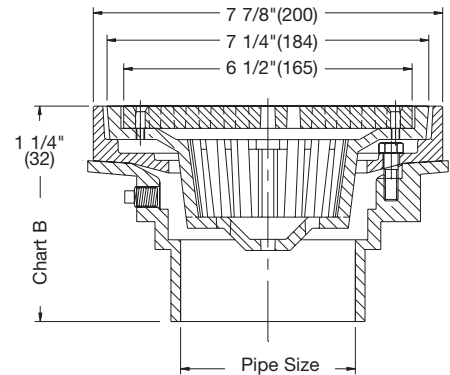
FD-320-Y-SET

Area Drain with 8" Fixed Top, Grate Supported by Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-322, 3, 4-Y-SET	19	8"	2, 3, 4"	ductile iron	\$409.49
FD-322, 3, 4-Y-SET-101	19	8"	2, 3, 4"	Solid NB	\$CF**



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-300, 310, 320, 330 Series:

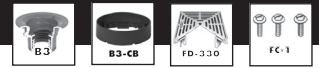
Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$72.88
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	180.28	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Hot Dipped Galvanized	160.66	-S0	Side Outlet (2, 3, 4" Only)	248.45
-15	Strainer Extension (DD-50)	106.86			



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Area Drains

FD-330 Area Drain with 8" x 8" Adjustable Top

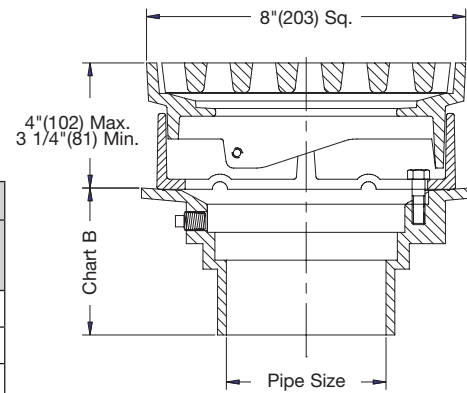


Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-332, 3, 4	22	8" Sq.	2, 3, 4"	ductile iron	\$525.65
FD-332, 3, 4-1	23	8" Sq.	2, 3, 4"	nickel bronze	1,831.01

Note: Canada collar includes slots.



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-



Options for FD-330 Series:

Suffix	Description	List Price
-9	Hinged Grate	\$304.75

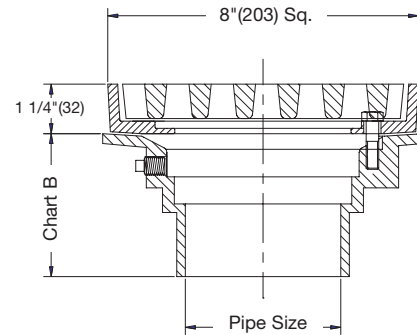
FD-330-Y Area Drain with 8" x 8" Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-332, 3, 4-Y-4	22	8" Sq.	2, 3, 4"	ductile iron	\$364.49
FD-332, 3, 4-Y-101	23	8" Sq.	2, 3, 4"	Solid NB	1,404.27



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-



Options for FD-330-Y Series:

Suffix	Description	List Price
-9	Hinged Grate	\$304.75

Options for FD-300, 310, 320, 330 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$72.88
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	180.28	-F4-50	4" Round Cast Iron Funnel	126.72
-5	Sediment Bucket	56.32	F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof	44.31	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	172.24
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-12	Hot Dipped Galvanized	160.66	-S0	Side Outlet (2, 3, 4" Only)	248.45
-15	Strainer Extension (DD-50)	106.86			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Area Drains

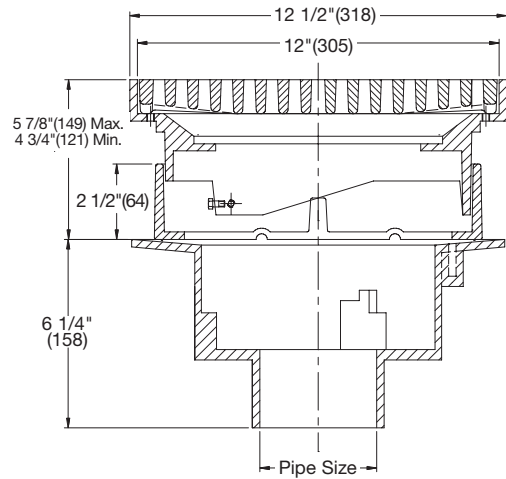
FD-340

Area Drain with 12" Round Adjustable Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-342,3,4,5,6,8	62	12"	2, 3, 4, 5, 6, 8"	ductile iron	\$1,293.40
FD-342,3,4,5,6,8-101	62	12"	2, 3, 4, 5, 6, 8"	Solid NB	3,739.95

Note: Canada does not use the B2-CB Collar shown.

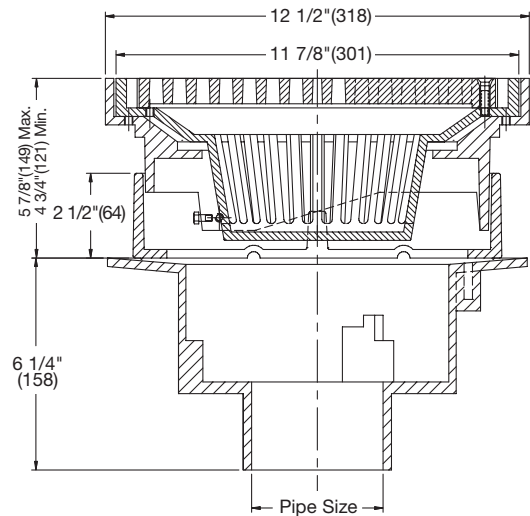


FD-340-SET

Area Drain with 12" Round Adjustable Top, Grate Supported By Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-342,3,4,5,6,8-SET	62	12"	2, 3, 4, 5, 6, 8"	ductile iron	\$1,030.08
FD-342,3,4,5,6,8-SET-101	62	12"	2, 3, 4, 5, 6, 8"	Solid NB	4,928.52

Note: Canada does not use collar shown below.



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-340, FD-340-Y Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.31	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	104.33	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
-5	Sediment Bucket	190.47	-F4-50	4" Round Cast Iron Funnel	127.51
-6	Vandal Proof	44.73	F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-G-50	4x9" Oval Cast Iron Funnel	172.24
-12	Hot Dipped Galvanized	160.66	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-15	Strainer Extension (DD-50)	106.86	-S0	Side Outlet (2, 3, 4" Only)	260.02



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

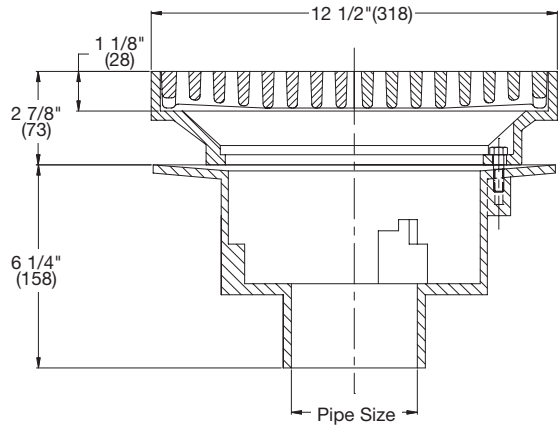
Area Drains

FD-340-Y

Area Drain with 12" Round Fixed Top



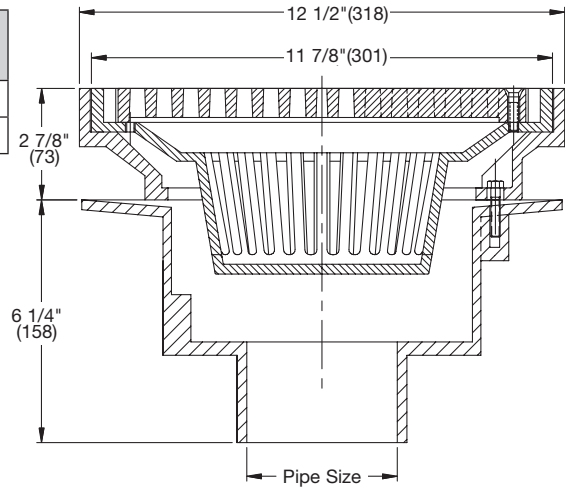
Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-342,3,4,5,6,8-Y	60	12"	2,3,4,5,6,8"	ductile iron	\$998.30
FD-342,3,4,5,6,8-Y-101	60	12"	2,3,4,5,6,8"	Solid NB	2,955.44



FD-340-Y-SET

Area Drain with 12" Round Fixed Top Grate Supported By Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-342,3,4,5,6,8-Y-SET	60	12"	2,3,4,5,6,8"	ductile iron	\$1,224.75
FD-342,3,4,5,6,8-Y-SET-101	60	12"	2,3,4,5,6,8"	Solid NB	6,779.52



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-340, FD-340-Y Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-34	Closure Plug	142.45
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
-5	Sediment Bucket	190.47	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
-6	Vandal Proof	44.73	-F4-50	4" Round Cast Iron Funnel	127.51
-7	Trap Primer Tapping	No Add	F4-1	4" Round Nickel Bronze Funnel	263.36
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-F6-1	6" Round Nickel Bronze Funnel	680.74
-12	Hot Dipped Galvanized	160.66	-G-50	4x9" Oval Cast Iron Funnel	172.24
-15	Strainer Extension (DD-50)	106.86	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
			-S0	Side Outlet (2, 3, 4" Only)	260.02

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



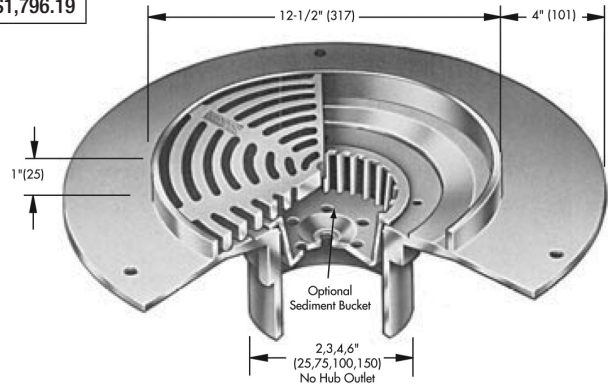
Area Drains

FD-340-67

Floor Drain for Pre-Cast Slabs



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-342,3,4,5,6,8-4-67	62	12"(305)	2, 3, 4, 6, 8"	ductile iron	\$1,796.19



Options for FD-340-67 Series:

Suffix	Description	List Price
P	Push-On	\$44.73
T	Threaded Outlet	94.86



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

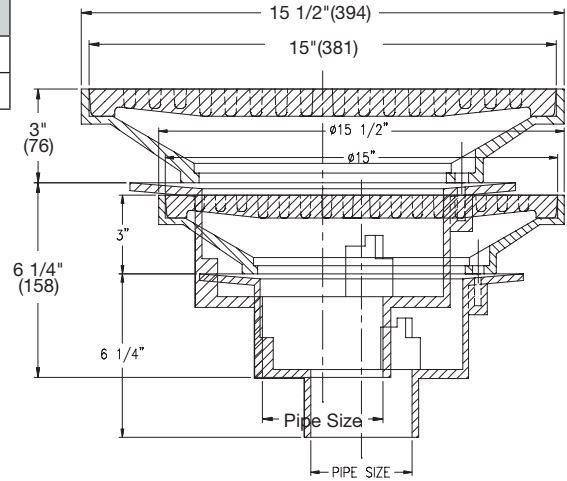
Area Drains

FD-360-Y

Area Drain with 15" Round Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-362,3,4,5,6,8-Y	110	15"	2, 3, 4, 5, 6, 8"	ductile iron	\$1,440.83
FD-362,3,4,5,6,8-Y-101	110	15"	2, 3, 4, 5, 6, 8"	Solid NB	4,120.79



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-360, FD-360-Y Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-34	Closure Plug	142.45
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
-5	Sediment Bucket	190.47	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
-6	Vandal Proof	44.73	-F4-50	4" Round Cast Iron Funnel	127.51
-7	Trap Primer Tapping	No Add	F4-1	4" Round Nickel Bronze Funnel	263.36
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	104.33	-F6-1	6" Round Nickel Bronze Funnel	680.74
-12	Hot Dipped Galvanized	160.66	-G-50	4x9" Oval Cast Iron Funnel	172.24
-15	Strainer Extension (DD-50)	106.86	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
			-S0	Side Outlet (2, 3, 4" Only)	260.02

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

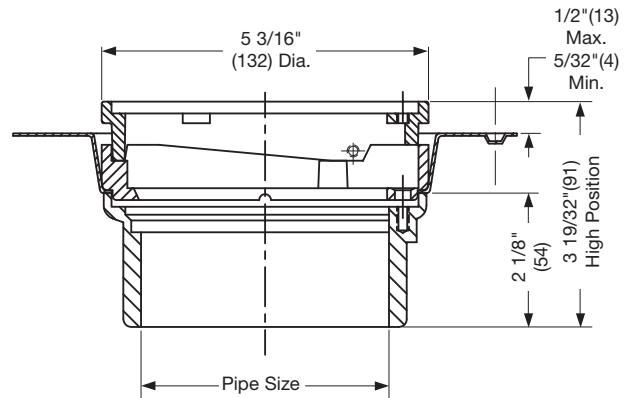


Area & General Purpose Floor Drains

FD-380

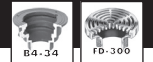
Adjustable Wood Floor Drain

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-382,3,4	7	5"	2, 3, 4"	nickel bronze	\$632.65

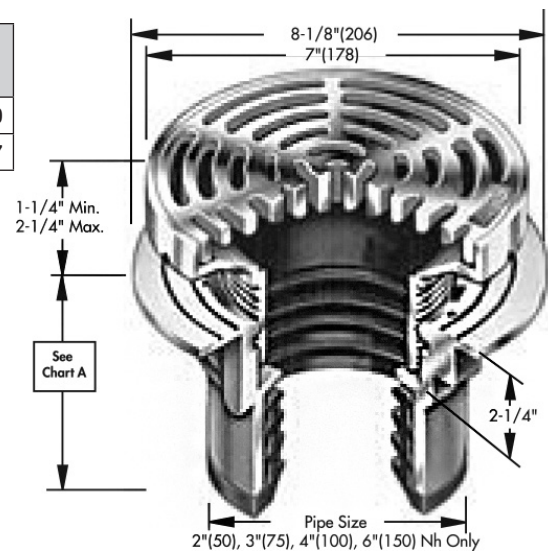


FD-390

Floor Drain with 7\"/>



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-392, 3, 4-101	14	7\"(178)	2, 3, 4"	Solid NB	\$1,481.30
FD-392, 3, 4-4	14	7\"(178)	2, 3, 4"	ductile iron	283.77



Pipe Size	Std. No Hub	P Push On	60/61 PVC/ ABS
2\"(51)	3 5/8"	4 1/4\"(108)	3 3/4\"(95)
3\"(76)	3 5/8"	4 1/4\"(108)	3 3/4\"(95)
4\"(102)	3 5/8"	4 1/4\"(108)	4\"(102)
6\"(152)	3 1/2"	-	-

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-390 Series:

Suffix	Description	List Price
P	Push-On	\$44.73



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Area Drains

FD-450

Area Drain with 15" x 15" Adjustable Top

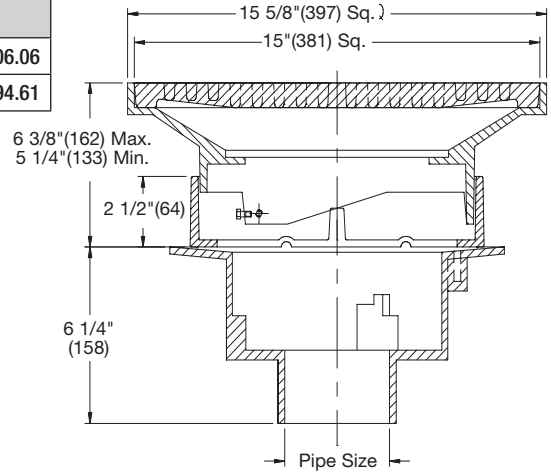


Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-452,3,4,5,6,8	120	15"(381) Sq.	2, 3, 4, 5, 6, 8"	ductile iron	\$2,106.06
FD-452,3,4,5,6,8-101	120	15 1/2"(394) Sq.	2, 3, 4, 5, 6, 8"	Solid NB	7,594.61

Note: Canada does not use the B2-CB Collar shown.



Note: Funnels are ordered separately. See page 76 for details.



FD-450-F

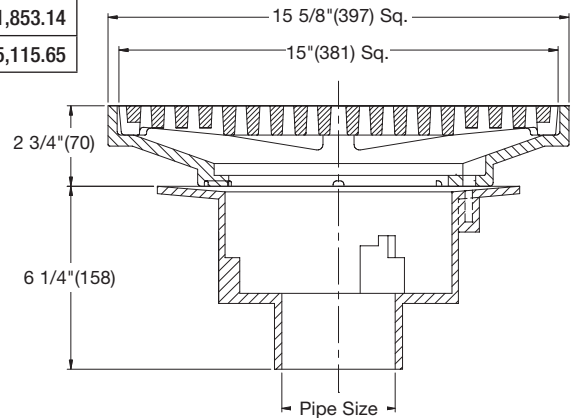
Area Drain with 15" x 15" Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-452,3,4,5,6,8-F	120	15"(381) Sq.	2, 3, 4, 5, 6, 8"	ductile iron	\$1,853.14
FD-452,3,4,5,6,8-F-101	120	15 1/2"(394) Sq.	2, 3, 4, 5, 6, 8"	Solid NB	5,115.65



Note: Funnels are ordered separately. See page 76 for details.



Options for FD-450, FD-450-F Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-34	Closure Plug	\$142.45
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	87.78	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
-5	Sediment Bucket	212.01	-F4-50	4" Round Cast Iron Funnel	127.51
-6	Vandal Proof	44.73	F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	107.65	-G-50	4x9" Oval Cast Iron Funnel	172.24
-12	Hot Dipped Galvanized	160.66	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-15	Strainer Extension (DD-50)	106.86	-S0	Side Outlet (2, 3, 4" Only)	260.02
-21	Secondary Strainer	79.51			

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Area Drains

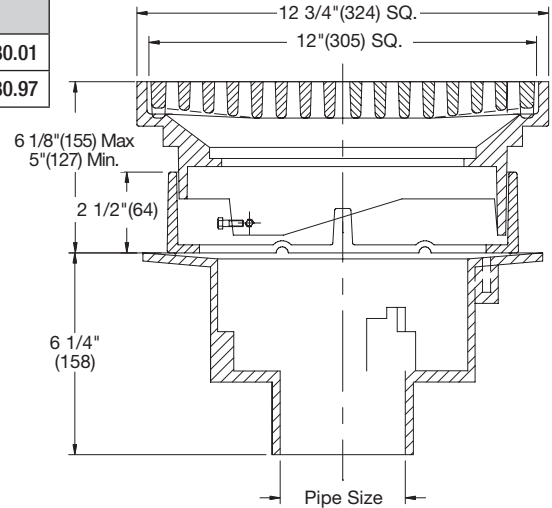
FD-460

Area Drain with 12" Square Adjustable Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-462,3,4,5,6,8	70	12"(305)	2, 3, 4, 5, 6, 8"	ductile iron	\$1,780.01
FD-462,3,4,5,6,8-1	70	12 1/2"(318)	2, 3, 4, 5, 6, 8"	nickel bronze	2,780.97

Note: Canada does not use the B2-CB Collar shown.

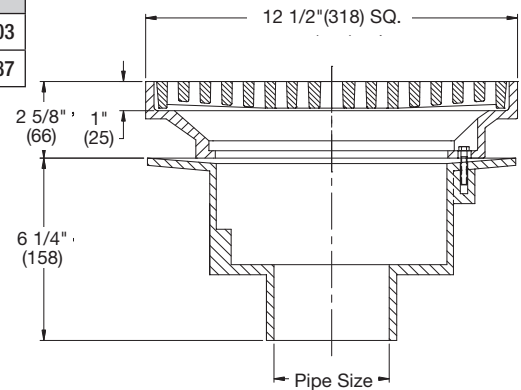


FD-460-F

Area Drain with 12" Square Fixed Top



Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-462,3,4,5,6,8-F	85	12"(305) Sq.	2, 3, 4, 5, 6, 8"	ductile iron	\$1,126.03
FD-462,3,4,5,6,8-F-1	85	12 1/2"(318) Sq.	2, 3, 4, 5, 6, 8"	nickel bronze	2,137.87



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-460, FD-460-F Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-34	Closure Plug	142.45
T	Threaded Outlet	87.78	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
-5	Sediment Bucket	212.01	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
-6	Vandal Proof	44.73	-F4-50	4" Round Cast Iron Funnel	127.51
-7	Trap Primer Tapping	No Add	F4-1	4" Round Nickel Bronze Funnel	263.36
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	107.65	-F6-1	6" Round Nickel Bronze Funnel	680.74
-12	Hot Dipped Galvanized	160.66	-G-50	4x9" Oval Cast Iron Funnel	172.24
-15	Strainer Extentsion	106.86	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
			-S0	Side Outlet (2, 3, 4" Only)	260.02



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

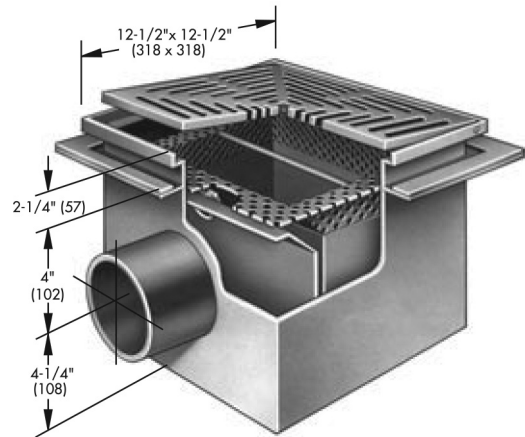
Area Drains

FD-460-F-9-46 Area Drain with 12" Square Adjustable Top

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-462,3,4,6-F-9-46	216	12-1/2" Sq.	2, 3, 4, 6"	ductile iron	P.O.A.

Options for FD-460-F-9-46:

Suffix	Option	List Price
-C	Membrane Clamp	P.O.A.
-X	Special Dimension, per inch of invert	P.O.A.
-3	Stainless Steel Trap	P.O.A.
-5	Sediment Bucket	P.O.A.
-6	Vandal Proof Grate	P.O.A.
-9	Hinged Grate	P.O.A.
-12	Galvanized Top	P.O.A.
-13	All Galvanized	P.O.A.
-19	Deflector Grate	P.O.A.
-21	Secondary Strainer	P.O.A.
-23	Chained Grate	P.O.A.
-26	Hinged Locking Grate	P.O.A.
-28	All Stainless Steel Body, EHD Fabricated SS Grate	P.O.A.
-35	Bronze Mesh Bucket	P.O.A.
-113M	Special Epoxy from 3M product selection	P.O.A.



Consult factory for all applications outside of listed parameters.

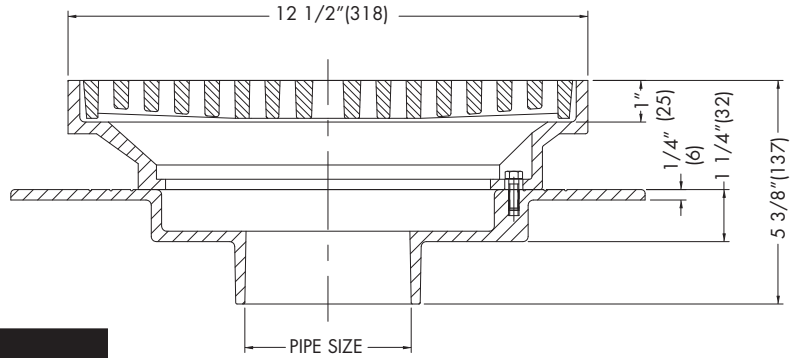
Prices do not include applicable taxes.



Area Drains

FD-480-F-1 12" x 12" Shallow Body Promenade Drian

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-483,4,6, 8-F-101	81	12" Sq.	3, 4, 6, 8"	Solid NB	\$3,721.10
FD-483,4,6, 8-F-4	81	12" Sq.	3, 4, 6, 8"	nickel bronze	P.O.A.



Options for FD-480-F-1 Series:

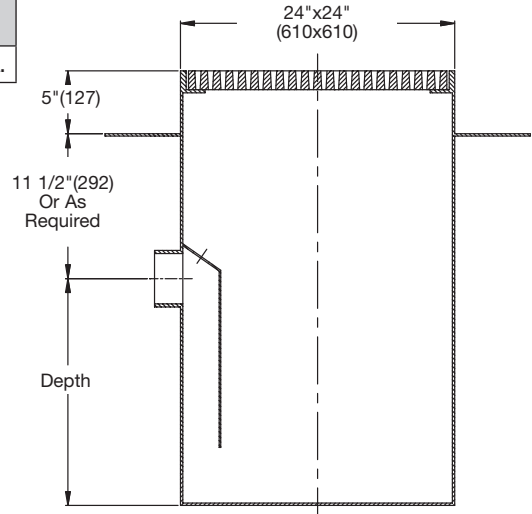
Suffix	Description	List Price
-5	Sediment Bucket	\$301.45
-6	Vandal Proof	172.24
-D	Underdeck Clamp	284.87
-E	Slotted Extension (Per 3/4")	284.87

Parking Area Drains

FD-410

Parking Area Catch Basin with Heavy Duty Grate

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-413,4,6 (A,B,C,D,E)	800	20 x 20 1/2"	3, 4, 6"	cast iron	P.O.A.



Options for FD-410 Series:

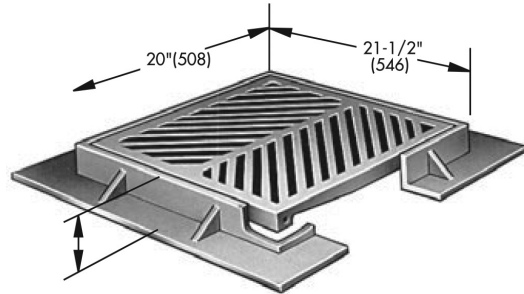
Suffix	Description	List Price
-6	Vandal Proof	P.O.A.
-Q	Special Dimension	P.O.A.
-SI	Side Inlet Connection	P.O.A.
-ST	Solid Top	No Add
-T	Threaded Outlet	P.O.A.

Pipe Size	Depth				
	(A)	(B)	(C)	(D)	(E)
3, 4, 6"	18"(457)	24"(610)	30"(762)	36"(914)	Special

FD-420

Parking Area Catch Basin Frame & Grate

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-420-50	350	20 x 20-1/2"	n/a	cast iron	\$28,978.94



Note: Funnels are ordered separately. See page 76 for details.

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

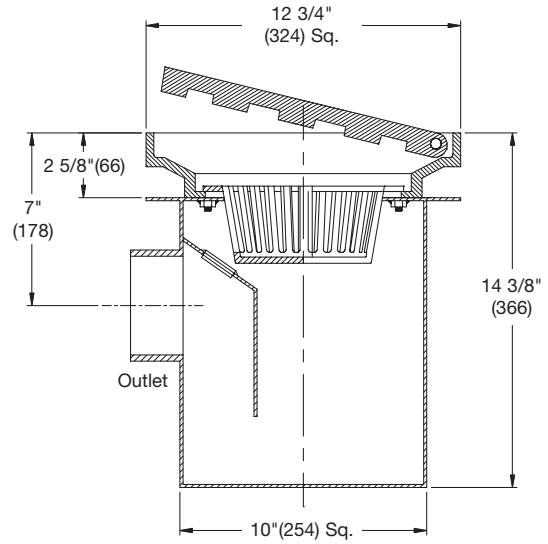


Parking Area Drains

FD-430

Side Outlet Area Drain with Hinged Grate

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-432,3,4,6	63	12 1/2" Sq.	2, 3, 4, 6"	ductile iron	\$2,155.27
FD-432,3,4-1	63	12 1/2" Sq.	2, 3, 4"	nickel bronze	6,238.10



Note: Funnels are ordered separately.
See page 76 for details.

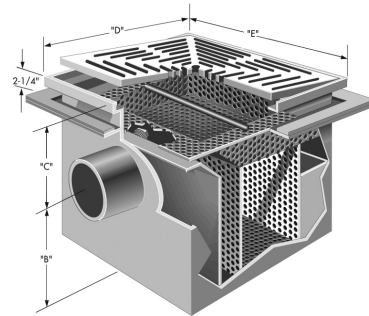
Options for FD-430 Series:

Suffix	Description	List Price
-6	Vandal Proof	P.O.A.
-T	Threaded Outlet	P.O.A.

FD-440

Sediment & Oil Intercepting Drain

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-440-12	n/a	12 1/2" Sq.	2, 3, 4, 6"	ductile iron	P.O.A.
FD-440-60	n/a	24-1/2"x12-1/2"	2, 3, 4, 6"	ductile iron	P.O.A.
FD-440-100	n/a	24-1/2" Sq.	2, 3, 4, 6"	ductile iron	P.O.A.
FD-440-200	n/a	36-1/2"x24-1/2"	2, 3, 4, 6"	ductile iron	P.O.A.



Options for FD-440 Series:

Suffix	Description	List Price
-C	Membrane Clamp - 12"	P.O.A.
-C	Membrane Clamp - 60"	P.O.A.
-C	Membrane Clamp - 100"	P.O.A.
-C	Membrane Clamp - 200"	P.O.A.
-X	Special "C" Dimension, per 3"	P.O.A.
-6	Vandal Proof Top	P.O.A.

Model Number	Sludge Capacity Lbs.	Grate Free Area (Sq. In.)	"A" Outlet Size	"B" Base To Center	"C" Top To Center	"D" Length	"E" Width
FD-440-12	12	51	2"	12"	6"	12-1/2"	12-1/2"
FD-440-60	60	100	3"	22"	6"	24-1/2"	12-1/2"
FD-440-100	100	200	4"	30"	6"	24-1/2"	24-1/2"
FD-440-200	200	300	4"	30"	6"	36-1/2"	24-1/2"



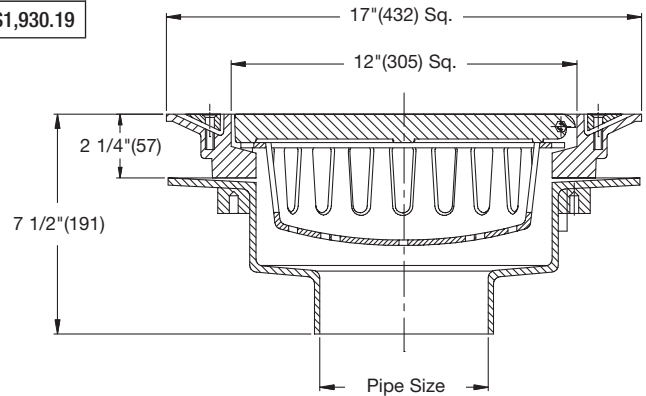
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Parking Deck Drains

FD-490-F-4

Parking Structure Drain with Heavy Duty Grate and Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-493,4,5,6,8,10-F-4	112	12" Sq.	3, 4, 5, 6, 8, 10"	ductile iron	\$1,930.19



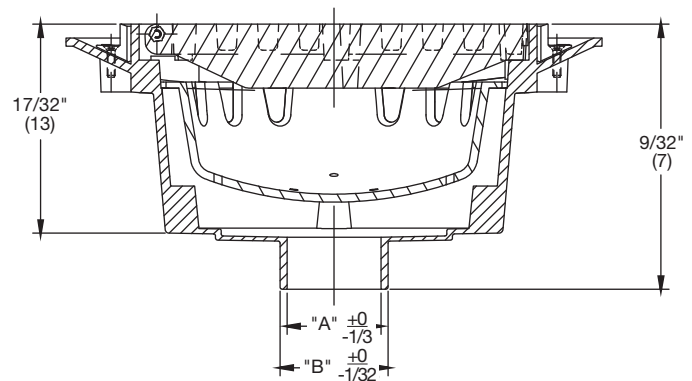
Options for FD-490 Series:

Suffix	Description	List Price
-6	Vandal Proof	\$202.08
-12	Hot Dipped Galvanized	357.68
65mm	EXTN	858.45
85mm	EXTN	929.99

FD-490-F-80

Aluminum Parking Structure Drain with Heavy Duty Grate and Bucket

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-493, 4, 6, 8,-F-80	112	12" Sq.	3, 4, 6, 8,"	aluminum	\$3,263.13



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-490-F-80 Series:

Suffix	Description	List Price
-10	Secured Top c/w Phillips Screws	\$192.13
-TE	Top Extended Body for Thick Membrane System	197.09
-78	1 1/2" Extension	731.62

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

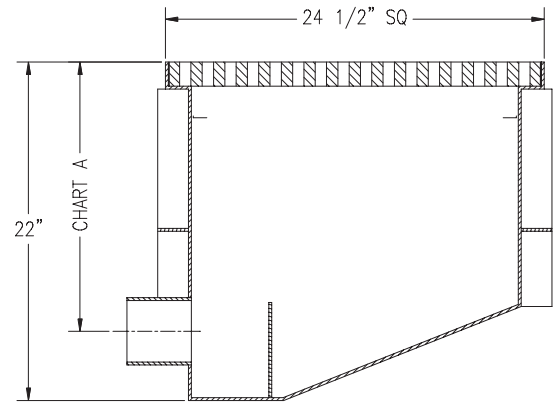


Parking Area Drains

FD-520

Large Capacity Side Outlet Parking Area Drain

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-524,6,8	400	24" Sq.	4, 6, 8" NH	ductile iron	P.O.A.



Options for FD-520 Series:

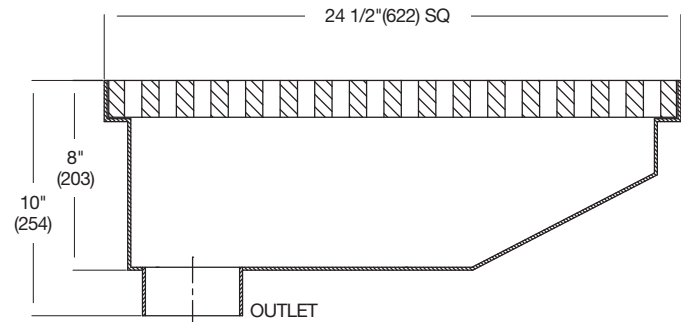
Suffix	Description	List Price
-C	Membrane Clamp	\$828.13
-T	Vandal Proof Grate	311.37
-5	Solids Retaining Baffle	324.62
-6	Membrane Clamp	536.64
-38	Threaded Outlet	682.37

Chart A	
Outlet Size	Top to Center of Outlet
4, 6"	16 1/2"(419)
8"	11 1/2"(292)

FD-530

Large Capacity Bottom Outlet Offset Parking Area Drain

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-533,4,6,8	400	24" Sq.	3, 4, 6, 8" NH	ductile iron	P.O.A.



Note: Funnels are ordered separately. See page 68 for details.

Options for FD-530 Series:

Suffix	Description	List Price
-5	Sediment Bucket	\$1,682.79
-10	Secured Grate	41.40
-38	Solids Retaining Baffle	583.01
-C	Membrane Clamp	112.75
-T	Threaded Outlet	311.37



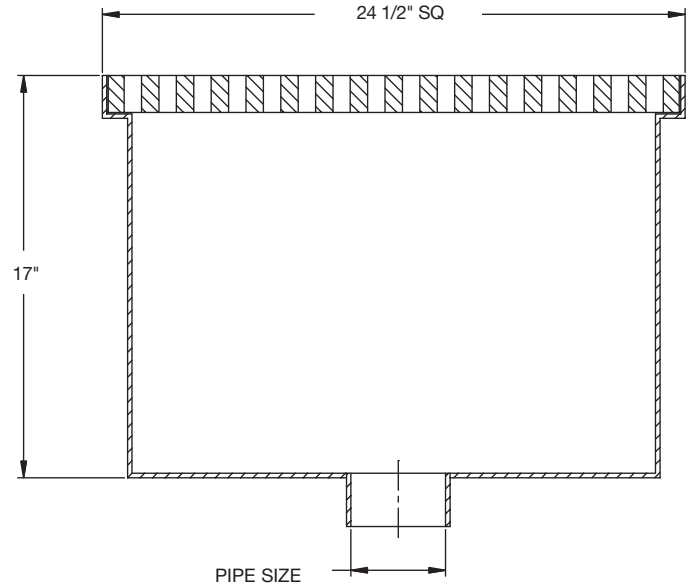
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Parking Deck Drains

FD-540

Large Capacity Bottom Outlet Parking Area Drain

Model Number	Weight (lbs.)	Grate Size	Outlet Size	Grate	List Price
FD-543, 4, 6, 8	400	24" Sq.	3,4,6,8" NH	ductile iron	P.O.A.



Options for FD-540 Series:

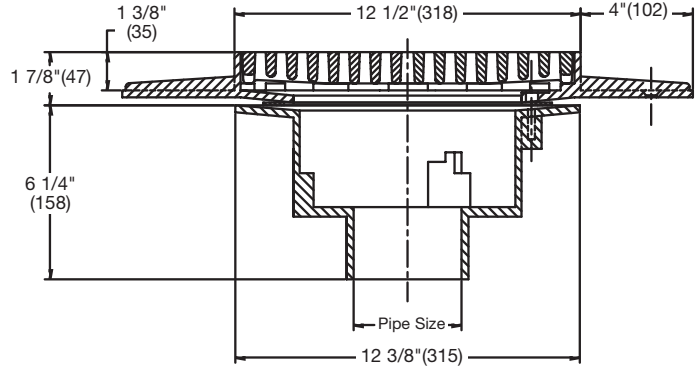
Suffix	Description	List Price
-C	Membrane Clamp	P.O.A.
-T	Threaded Outlet	P.O.A.
-5	Sediment Bucket	P.O.A.
-6	Vandal Proof Grate	P.O.A.
-38	Solids Retaining Baffle	P.O.A.

Parking Deck Drains

FD-900

Parking Deck Drain for Precast Slabs

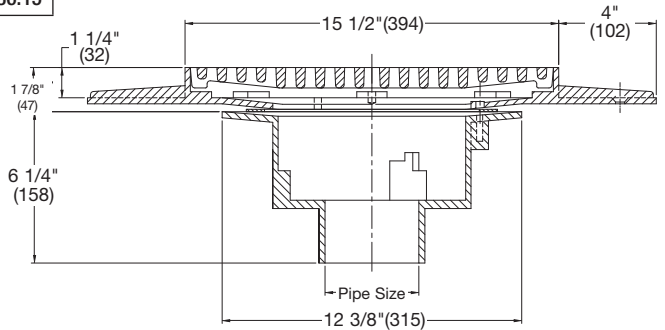
Model Number	Weight (lbs.)	Cover Size	Pipe Size	Grate	List Price
FD-902, 3, 4, 5, 6, 8	62	12"	2, 3, 4, 5, 6, 8"	ductile iron	\$1,927.92



FD-910

Parking Deck Drain For Precast Slabs

Model Number	Weight (lbs.)	Cover Size	Pipe Size	Grate	List Price
FD-912, 3, 4, 5, 6, 8	76	15"	2, 3, 4, 5, 6, 8"	ductile iron	\$1,786.15



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-900/910/920 Series:

Suffix	Description	List Price
None	No Hub	No Add
P	Push-On Outlet (2, 3, 4, 6" Only)	No Add
T	Threaded Outlet (2, 3, 4, 6" Only)	\$92.75
-5	Sediment Bucket	301.45
-6	Vandal Proof	172.24
D	Underdeck Clamp	284.87



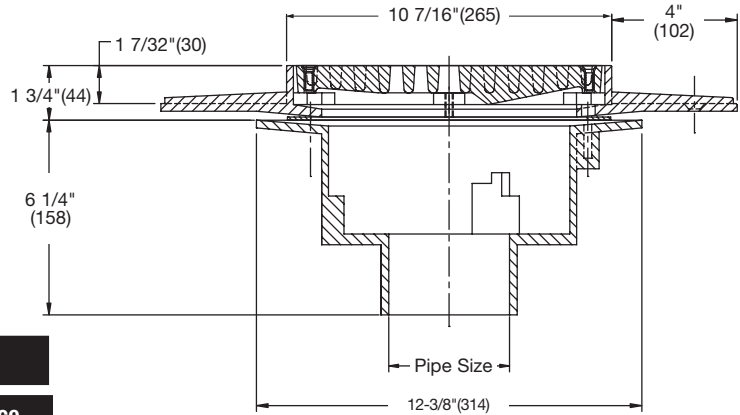
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Parking Deck Drains

FD-920

Parking Deck Drain For Precast Slabs

Model Number	Weight (lbs.)	Cover Size	Pipe Size	Grate	List Price
FD-922, 3, 4, 5, 6, 8	48	10"	2, 3, 4, 5, 6, 8,"	ductile iron	\$1,537.33



Options for FD-900/910/920 Series:

Suffix	Description	List Price
None	No Hub	No Add
P	Push-On Outlet (2, 3, 4, 6" Only)	No Add
T	Threaded Outlet (2, 3, 4, 6" Only)	\$92.75
-5	Sediment Bucket	301.45
-6	Vandal Proof	172.24
D	Underdeck Clamp	284.87

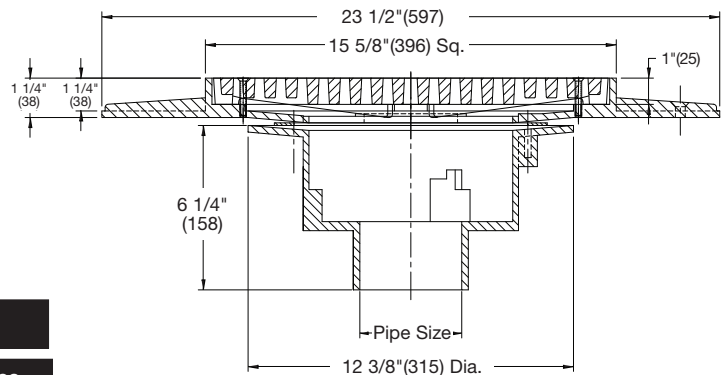
FD-930

Parking Deck Drain For Precast Slabs

Model Number	Weight (lbs.)	Cover Size	Pipe Size	Grate	List Price
FD-932, 3, 4, 5, 6, 8	85	15" Sq.	2, 3, 4, 5, 6, 8,"	ductile iron	\$3,191.28



Note: Funnels are ordered separately.
See page 76 for details.



Options for FD-930 Series:

Suffix	Description	List Price
None	No Hub	No Add
P	Push-On Outlet (2, 3, 4, 6" Only)	No Add
T	Threaded Outlet (2, 3, 4, 6" Only)	\$92.75
-5	Sediment Bucket	301.45
-6	Vandal Proof	172.24
D	Underdeck Clamp	284.87

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Isolation Drains

FD-600

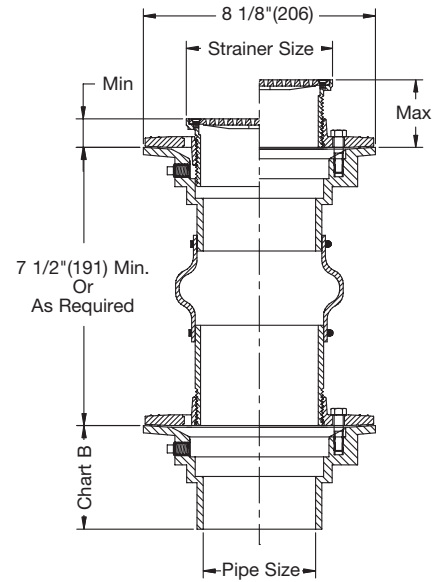
Isolation Floor Drain

Model Number	Weight (lbs.)	Strainer Size	Pipe Size	Strainer	List Price
FD-602, 3, 4-A5-1	17	5"	2, 3, 4"	nickel bronze	\$1,080.42
FD-602, 3, 4-A6-1	17.5	6"	2, 3, 4"	nickel bronze	1,188.60
FD-602, 3, 4-8-1	23	8"	2, 3, 4"	nickel bronze	1,564.19



Chart A		
Str. Dia.	Min.	Max.
5"	13/16"	3 1/4"
6"	7/8"	3 3/8"
8"	7/8"	3 3/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	3 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"



See FD-100 Options on page 17.

FD-620

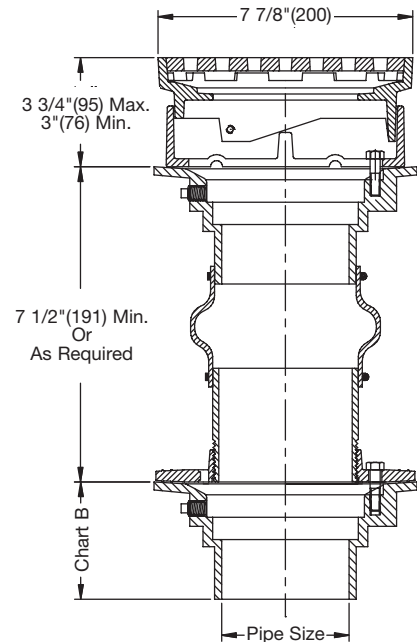
Isolation Area Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-622, 3, 4	25	8"	2, 3, 4"	ductile iron	\$1,146.81
FD-622, 3, 4-1	25	8"	2, 3, 4"	nickel bronze	1,822.86

Note: Canada collar includes slots.



Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	3 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"



Note: Funnels are ordered separately. See page 76 for details.

See FD-320 Options on page 41.



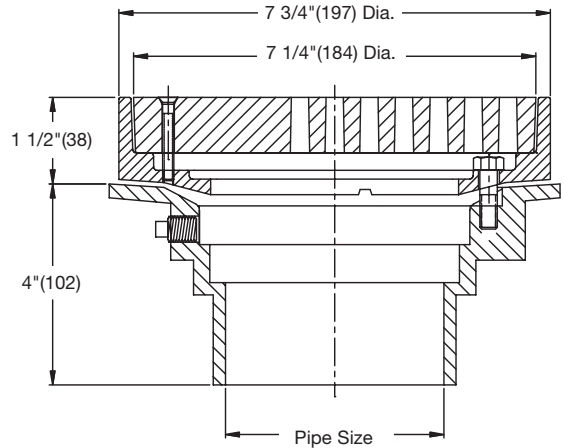
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Isolation Drains

FD-660

PVC Area Drain with 7" Fixed Top

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-662, 3, 4	7	7"	2,3,4"	PVC	\$536.54



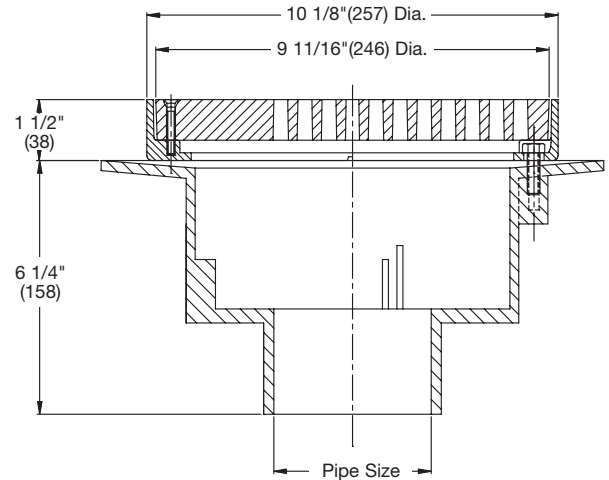
Options for FD-660 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$147.88	-F4-50	4" Round Cast Iron Funnel	\$127.51
-6	Vandal Proof	No Add	F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel	680.74
-34	Closure Plug	127.18	-G-50	4x9" Oval Cast Iron Funnel	172.24
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	No Add	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-150	1/2 Grate	No Add			

FD-670

PVC Area Drain with 10" Fixed Top

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-672, 3, 4, 6	8	10"	2,3,4,6"	PVC	\$442.28



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-670 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$241.82	-F4-50	4" Round Cast Iron Funnel	\$127.51
-6	Vandal Proof	No Add	F4-1	4" Round Nickel Bronze Funnel	263.36
-26	Sand Bucket	241.82	-F6-1	6" Round Nickel Bronze Funnel	680.74
-34	Closure Plug	142.45	-G-50	4x9" Oval Cast Iron Funnel	172.24
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	No Add	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-150	1/2 Grate	No Add			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

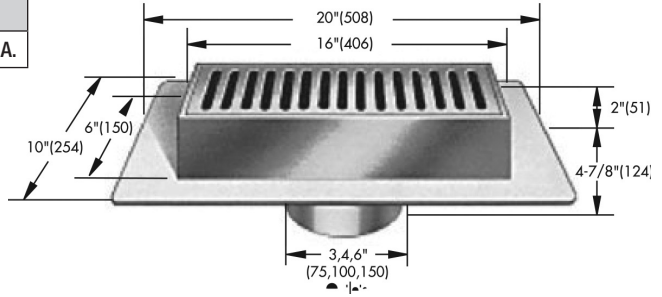


Specialty Drains

FD-750

Gutter Drain with 6" x 16" Top

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-752, 3,4,6-4	35	7" x 15"	2,3,4,6"	ductile iron	P.O.A.



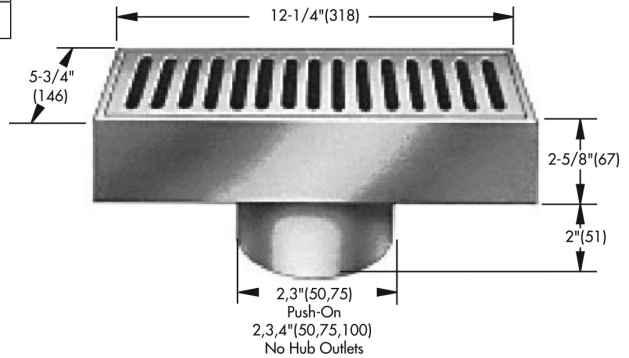
Options for FD-750 Series:

Suffix	Description	List Price
-C	Membrane Clamp	P.O.A.
-6	Vandal Proof Top	P.O.A.
-10	Secured Top c/w Phillips Screws	P.O.A.
-12	All Galvanized	P.O.A.
-F	Flange	P.O.A.
-39	Full Flow Grate	P.O.A.

FD-760

Cast Iron Gutter Drain with 6" x 12" Top

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-762, 3,4-4	25	4" x 12"	2,3,4,6"	ductile iron	P.O.A.



Options for FD-760 Series:

Suffix	Description	List Price
-C	Membrane Clamp	\$1,253.80
-6	Vandal Proof Top	132.51
-10	Secured Top c/w Phillips Screws	39.75
-12	All Galvanized	160.66
-F	Flange	1,894.93
-39	Full Flow Grate	626.09



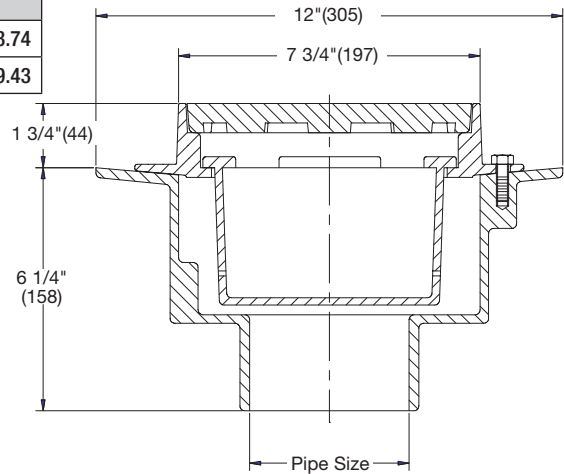
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Flushing Rim Floor Drains

FD-810

Iowa Garage Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-812, 3, 4, 5, 6, 8	14	8"	2, 3, 4, 5, 6, 8"	ductile iron	\$733.74
FD-812, 3, 4, 5, 6, 8-1	15	8"	2, 3, 4, 5, 6, 8"	nickel bronze	1,189.43



Options for FD-810 Series:

Suffix	Description	List Price
None	No Hub	No Add
P	Push-On Outlet (2, 3, 4, 6" Only)	No Add
T	Threaded Outlet (2, 3, 4, 6" Only)	\$92.75
-6	Vandal Proof	172.24
-7	Trap Primer Tapping	175.58
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	No Add
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	No Add

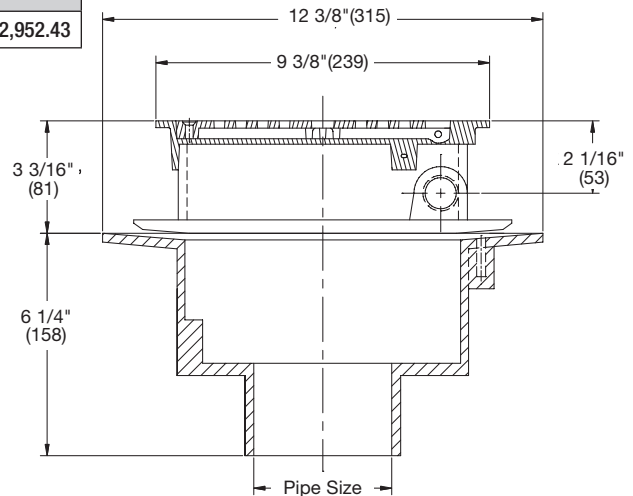
FD-820

Flushing Rim Floor Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-822, 3, 4	30	9 1/2"	2, 3, 4"	nickel bronze	\$2,952.43



Note: Funnels are ordered separately. See page 76 for details.



Options for FD-820 Series:

Suffix	Description	List Price
None	No Hub	No Add
-6	Vandal Proof	\$172.24
-G	Trap w/Flushing Connection	1,237.25

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

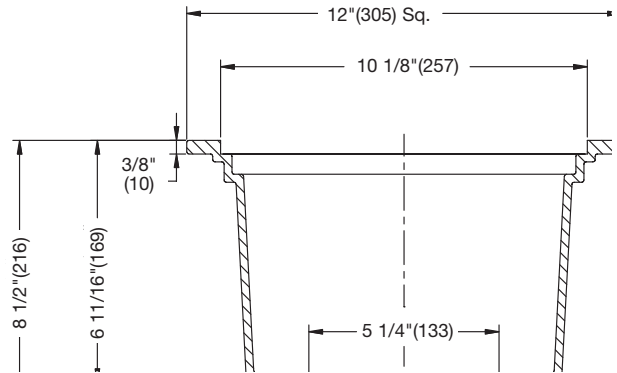


Flushing Rim Floor Drains

FD-830

Hopper Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Material	List Price
FD-832, 3, 4	27	5 1/4"	2,3,4"	cast iron	\$833.42



Options for FD-830 Series:

Suffix	Description	List Price
-1	Nickel Bronze Top	\$467.08
-5	Sediment Bucket	114.29
-7	Trap Primer Tapping	175.57
-TG	Top Grate - Ductile Iron	112.63

Pipe Size

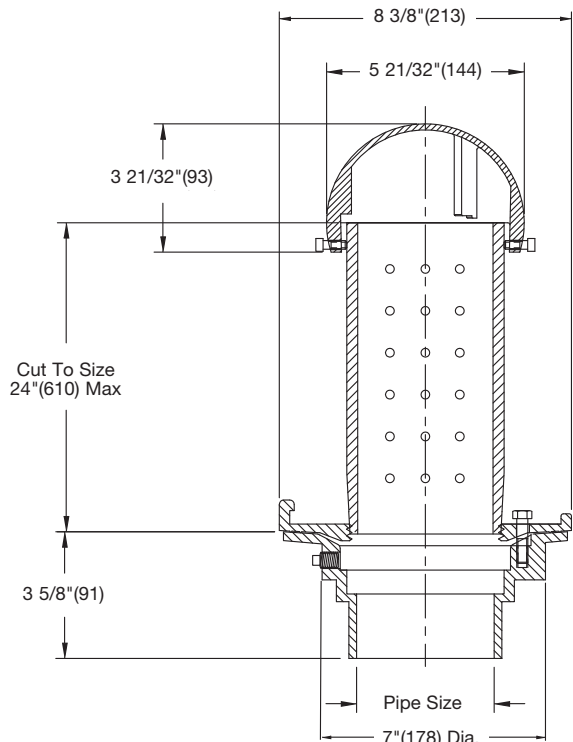
FD-870-P

Planting Area Drain with Dome Cap

Model Number	Weight (lbs.)	Str. Type	Pipe Size	List Price
FD-872, 3, 4, 6	11	Domed Standpipe	2,3,4,6"	\$789.48



Note: Funnels are ordered separately. See page 76 for details.



Options for FD-870-P Series:

Suffix	Description	List Price
-12	Hot Dipped Galvanized	\$160.66
-60	PVC Body w/Socket Outlet	No Add
-61	ABS Body w/Socket Outlet	No Add
P	Push-On Outlet (2, 3, 4, 6" Only)	44.73
-T	Threaded Outlet	92.75



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Planter Area Floor Drains

FD-860

Planting Area Drain with Screened Dome



Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-862, 3, 4, 6	25	8 1/2" Dome	2, 3, 4, 6"	alum. w/SS mesh	\$470.57

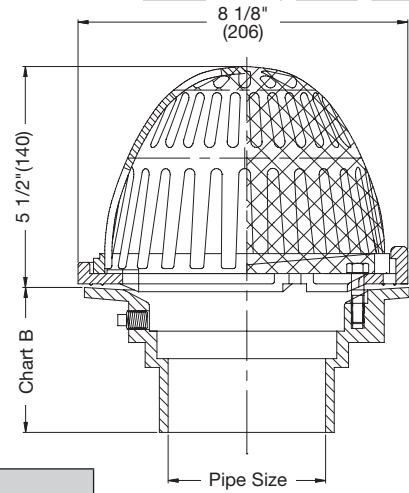


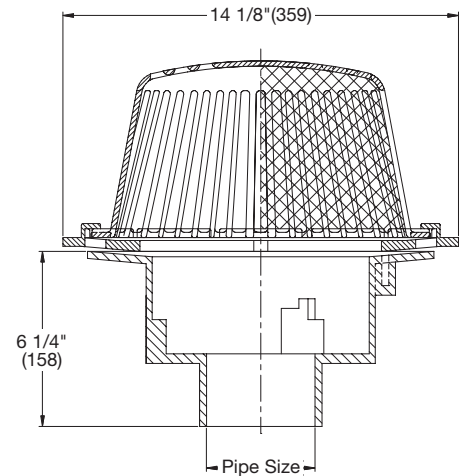
Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3 5/8"(92)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	2 3/4"(70)
3"(76)	3 5/8"(92)	4"(102)	4 1/4"(108)	4 1/4"(108)	3 5/8"(92)
4"(102)	3 5/8"(92)	4"(102)	4 1/4"(108)	4 1/4"(108)	3 7/8"(98)
6"(152)	3 1/2"(89)	-	-	-	-

FD-870-PA

Large Planting Area Drain with Screened Dome



Model Number	Weight (lbs.)	Str. Size	Pipe Size	Dome	List Price
FD-872, 3, 4, 6-PA	50	8 1/2" Dome	2, 3, 4"	alum. w/SS mesh	\$789.48



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-860/870 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	\$33.13
P	Push-On Outlet	\$44.73	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	92.75	-81	Bronze Dome	720.48
-6	Vandal Proof	135.81	-S0	Side Outlet	260.02
-12	Hot Dipped Galvanized	160.66			

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Planter Area Drains

FD-870-TG

Planting Area Drain w/Deck Level Drainage Grate

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-873,4-TG-1	45	8"(203)	3,4"	nickel bronze	\$CF**
FD-873,4-TG-4	45	8"(203)	3,4"	ductile iron	856.40

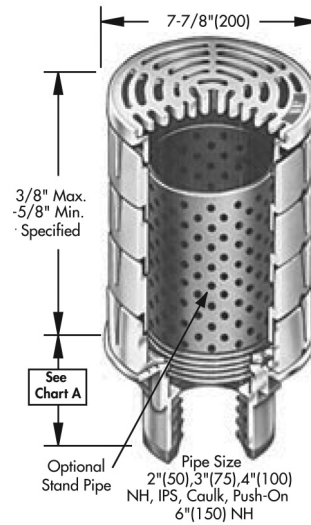


Chart A					
Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60/61 PVC/ABS
2"(50)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(95)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(95)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)	-	-	-	-

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-870-TG Series:

Suffix	Description	List Price	Suffix	Description	List Price
-B	Sump Receiver	\$104.33	-6	Vandal Proof	\$44.73
-D	Deck Clamp	66.25	-15	Adjustable Extension, 1 3/4" to 3 1/2"	132.51
-P	Push-On Outlet	44.73	-42	Perforated Standpipe	150.74
-S	Side Outlet (integral) 2, 3, 4"	273.29			
-T	Threaded IPS Outlet	104.33			



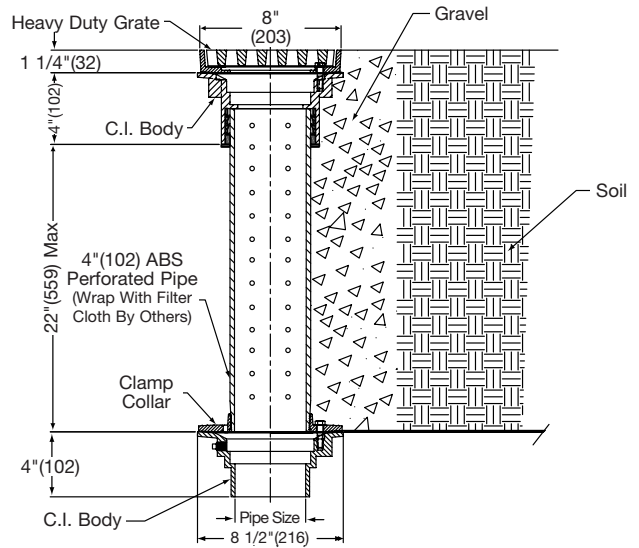
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Containment Drains

FD-880

Ground Water Containment Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-882, 3, 4, 6	34	8"	2, 3, 4, 6"	ductile iron	\$1,028.15



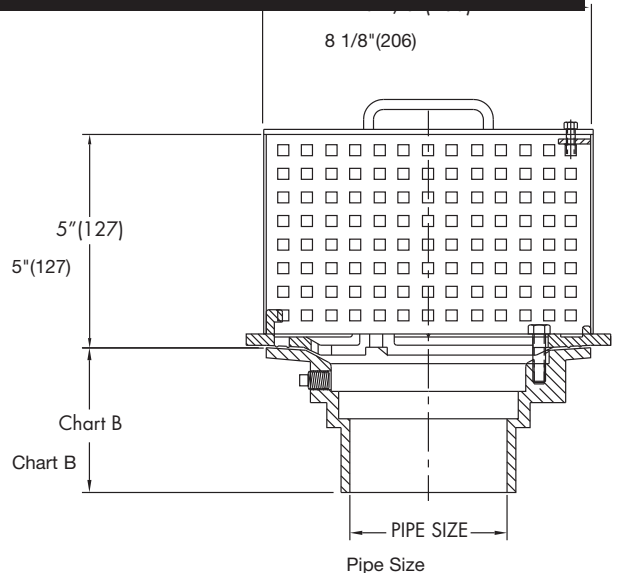
Options for FD-880 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-6	Vandal Proof	\$43.06
-P	Push-On Outlet	No Add	-7	Trap Primer Tapping	No Add
-T	Threaded Outlet	\$92.75	-21	Secondary Strainer	79.51
-1	Nickel Bronze Top	617.80	-S0	Side Outlet (2, 3, 4" Only)	248.45
-5	Sediment Bucket	49.68			

FD-890

Planter Drain with Removable Cover

Model Number	Weight (lbs.)	Pipe Size	Cover	List Price
FD-892, 3, 4, 6	14	2, 3, 4, 6"	Stainless Steel	\$1,592.67



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-890 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-12	Galvanized Body & Clamp	\$160.66
P	Push-On Outlet	\$44.73	-S0	Side Outlet	248.45
T	Threaded Outlet	92.75			

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Floor Drains with Stainless Steel Strainers

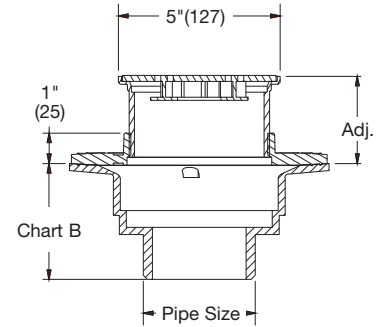
FD-1100-A-LR Floor Drain with Ligature Resistant Round Strainer

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1102, 3, 4-A5-LR	11	5"	2, 3, 4"	stainless steel	\$1,244.55
FD-1102, 3, 4-A6-LR	12.5	6"	2, 3, 4"	stainless steel	1,362.17
FD-1102, 3, 4-A8-LR	16	8"	2, 3, 4"	stainless steel	3,033.29



Chart A		
Strainer	Min.	Max.
5"	13/16"	2 1/2"
6"	7/8"	2 3/4"
8"	7/8"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)	-	-	-	-



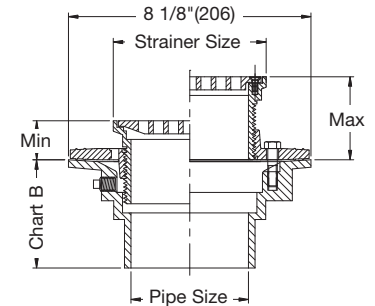
FD-1100-C Planter Drain with Round Stainless Steel Strainer

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1102,3,4-C5-3	11	5"	2, 3, 4, 6"	stainless steel	\$610.23
FD-1102,3,4-C6-3	12.5	6"	2, 3, 4, 6"	stainless steel	785.60
FD-1102,3,4-C8-3	16	8"	2, 3, 4, 6"	stainless steel	2,019.63



Chart A		
Strainer	Min.	Max.
5"	13/16"	3 1/4"
6"	7/8"	3 3/8"
8"	7/8"	3 1/4"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
3"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
4"	3 5/8"	4 1/4"	4 1/4"	4 1/2"	4"
6"	3 1/2"	-	-	-	-



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-1100 A-LR / FD-1100-C Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-28	304 SS Body & Collar (No Hub Only)	P.O.A.
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	\$33.13
T	Threaded Outlet	92.75	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	142.45	-F4-3	4" Round SS Funnel (FD-1100-C Only)	271.64
-5	Sediment Bucket	56.32	-F4-50	4" Round Cast Iron Funnel (FD-1100-C Only)	127.51
-6	Vandal Proof	44.73	-F4-1	4" Round Nickel Bronze Funnel (FD-1100-C-Only)	260.02
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel (FD-1100-C-Only)	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	96.08	-G-50	4x9" Oval Cast Iron Funnel (FD-1100-C Only)	354.45
-12	Galvanized Body	160.66	-G-1	4x9" Oval Nickel Bronze Funnel FD-1100-C Only)	359.40
-15	Strainer Extension (DD-50)	107.65	-S0	Side Outlet (2, 3, 4" Only)	248.45

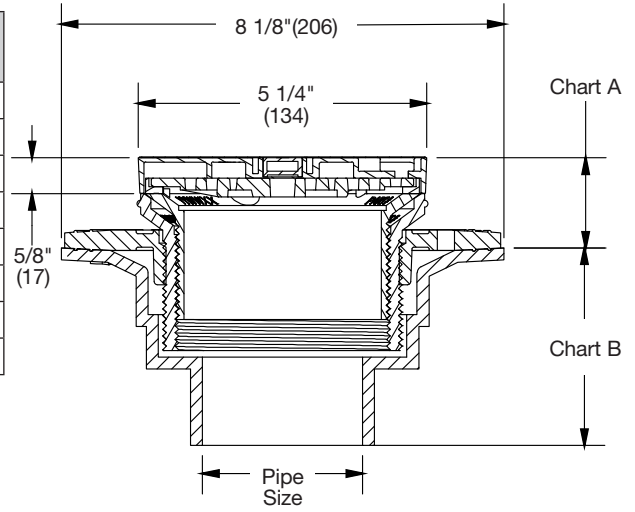
WATTS® Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Adjustable Floor Drains with Stainless Steel Strainers

FD-1190-PR

Pronto!® Cast Iron Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-1192, 3, 4-PR5	14	5"(127)	2, 3, 4"	stainless steel	\$979.74
FD-1192, 3, 4-PR6	16	6"(152)	2, 3, 4"	stainless steel	1,285.72
FD-1192, 3, 4-PR7	18	7"(178)	2, 3, 4"	stainless steel	1,562.12
FD-1192, 3, 4-PR8	21	8"(203)	2, 3, 4"	stainless steel	2,211.16
FD-1196-PR5	14	5"(127)	6"	stainless steel	2,250.18
FD-1196-PR6	16	6"(152)	6"	stainless steel	2,250.18
FD-1196-PR7	18	7"(178)	6"	stainless steel	2,397.17
FD-1196-PR8	21	8"(203)	6"	stainless steel	2,397.17



PATENTED

Patent No. USD897503 and Patents Pending

Chart A

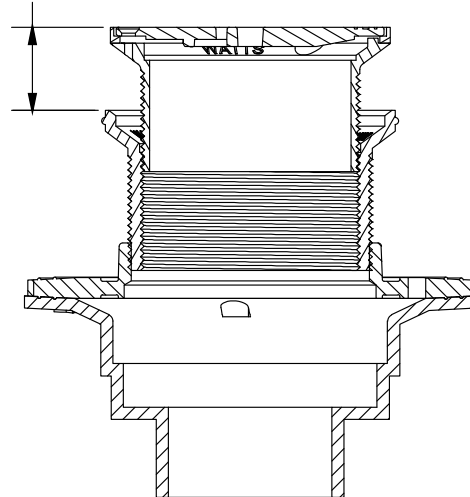
Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	1 3/4"(44)	4 1/4"(108)	MD	6 1/16"(154)
6"(152)	1 3/4"(44)	4 1/4"(108)	LD	10 3/4"(273)
7"(178)	1 7/8"(48)	4 3/8"(111)	LD	13 1/4"(337)
8"(203)	2"(51)	4 1/2"(114)	MD	19"(483)

Chart B

Pipe Size	Std. No Hub	P Push On	T Female Thread	X Inside Caulk	60 PVC
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				

Note: Funnel are ordered separately.
See page 76 for details.

0-7/8" Adj. Post-Pour



Options for FD-1190-PR Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-15	Strainer Extension (DD-50)	\$107.65
P	Push-On Outlet	\$44.73	-F4-50	4" Round Cast Iron Funnel	127.51
T	Threaded Outlet	92.75	-F4-1	4" Round Nickel Bronze Funnel	260.02
None	6" Outlet No Hub Only	142.45	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	354.45
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	\$96.08	-G-1	4x9" Nickel Bronze Funnel	359.40
-12	Galvanized Body	160.66	-S0	Side Outlet (2, 3, 4" Only)	248.45

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Adjustable Floor Drains with Stainless Steel Strainers

FD-1190-PR-60 Pronto!® PVC Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-1192, 3, 4-PR5-60	5	5"(127)	2, 3, 4"	stainless steel	\$708.41
FD-1192, 3, 4-PR6-60	6	6"(152)	2, 3, 4"	stainless steel	CF**
FD-1192, 3, 4-PR7-60	7	7"(178)	2, 3, 4"	stainless steel	1,342.30
FD-1192, 3, 4-PR8-60	8	8"(203)	2, 3, 4"	stainless steel	2,064.19



PATENTED

Patent No. USD897503 and Patents Pending

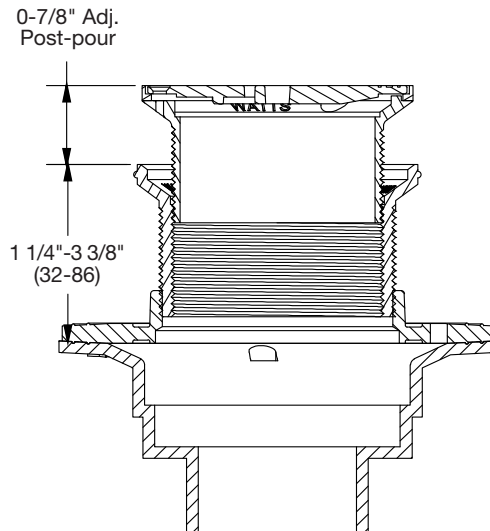
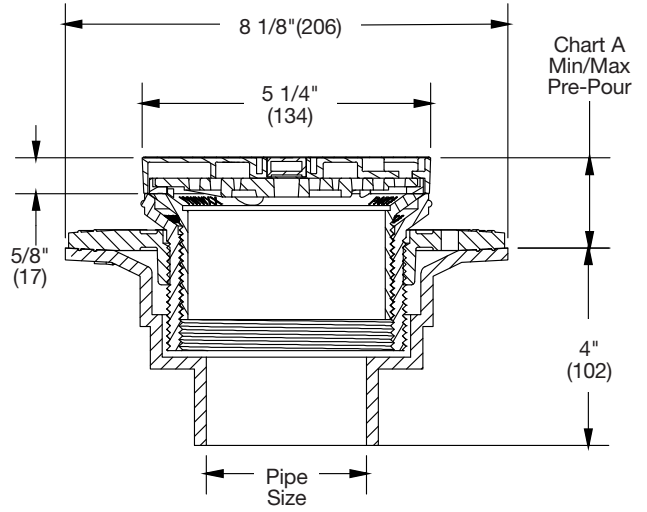


Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	2 1/2"(64)	4 1/4"(108)	MD	6 1/16"(154)
6"(152)	2 1/2"(64)	4 1/4"(108)	LD	10 3/4"(273)
7"(178)	2 5/8"(67)	4 3/8"(111)	LD	13 1/4"(337)
8"(203)	2 3/4"(70)	4 1/2"(114)	MD	19"(483)

Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-1190-PR-60 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-7	Trap Primer Tapping	No Add	-F4-1	4" Round Nickel Bronze Funnel	\$260.02
-8	Squeeze in Backwater Valve	\$96.08	-F6-1	6" Round Nickel Bronze Funnel	680.74
-15	Strainer Extension (DD-50)	107.65	-G-50	4x9" Oval Cast Iron Funnel	354.45
-61	ABS Body w/Socket Outlet	33.13	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-F4-50	4" Round Cast Iron Funnel	127.51			



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Floor Drains with Stainless Steel Strainers

FD-1100-L

Floor Drain with Heavy Duty Square Stainless Steel Strainer

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1102,3,4-L5-3	10	5" x 5"	2, 3, 4, 6"	stainless steel	\$614.88
FD-1102,3,4-L6-3	14	6" x 6"	2, 3, 4, 6"	stainless steel	986.98
FD-1102,3,4-L8-3	16	8" x 8"	2, 3, 4, 6"	stainless steel	1,201.17

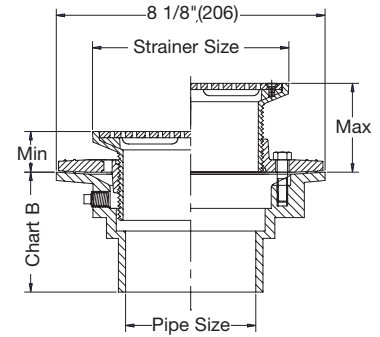


Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"	3 5/8"	3 5/8"	4 1/4"	4 1/4"	2 3/4"
3"	3 5/8"	4"	4 1/4"	4 1/4"	3 5/8"
4"	3 5/8"	4"	4 1/4"	4 1/4"	3 7/8"
6"	3 1/2"	-	-	-	-

Chart A		
Strainer	Min.	Max.
5"x5"	7/8"	3 1/4"
6"x6"	1"	3 1/4"
8"x8"	1 3/8"	3 5/8"

FD-1100-M-LR

Floor Drain with Ligature Resistant Square Strainer

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1102, 3, 4-M5-LR	11	5"	2, 3, 4"	stainless steel	\$1,389.38
FD-1102, 3, 4-M6-LR	12.5	6"	2, 3, 4"	stainless steel	1,432.76
FD-1102, 3, 4-M8-LR	16	8"	2, 3, 4"	stainless steel	2,041.34

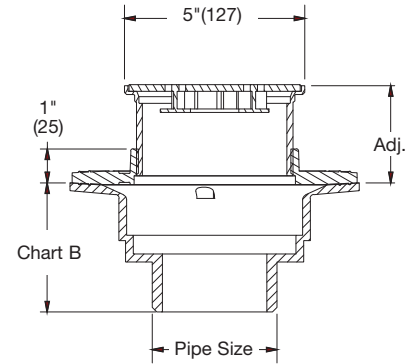


Chart A		
Strainer	Min.	Max.
5"	13/16"	2 1/2"
6"	7/8"	2 3/4"
8"	1 3/8"	3 5/8"

Chart B					
Pipe Size	No Hub	Push On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)	-	-	-	-

Options for FD-1100-L / FD-1100-M-LR Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-28	304 SS Body & Collar (No Hub Only)	\$2,957.64
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	92.75	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	142.45	-F4-3	4" Round SS Funnel (FD-1100-L Only)	271.64
-5	Sediment Bucket	56.32	-F4-50	4" Round Cast Iron Funnel (FD-1100-L Only)	127.51
-6	Vandal Proof	44.73	-F4-1	4" Round Nickel Bronze Funnel (FD-1100-L Only)	260.02
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel (FD-1100-L Only)	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	96.08	-G-50	4x9" Oval Cast Iron Funnel (FD-1100-L Only)	354.45
-12	Galvanized Body	160.66	-G-1	4x9" Oval Nickel Bronze Funnel (FD-1100-L Only)	359.40
-15	Strainer Extension (DD-50)	107.65	-S0	Side Outlet (2, 3, 4" Only)	248.45

Consult factory for all applications outside of listed parameters.

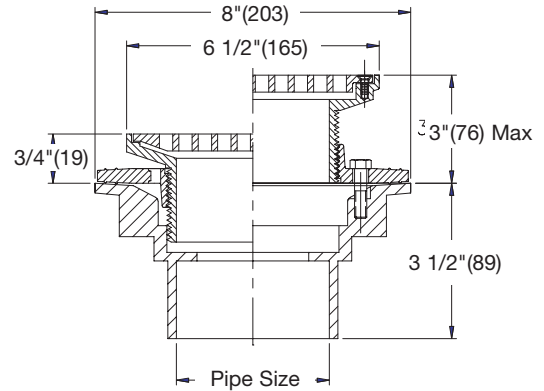
Prices do not include applicable taxes.



On-Grade Floor Drains with Stainless Steel Strainers

FD-1160 Chemical Resistant Floor Drain

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1162,3,4	6	6 1/2"	2, 3, 4"	PVC	\$569.95



Options for FD-1160 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$125.89	-F4-1	4" Round Nickel Bronze FUNnel	\$263.36
-6	Vandal Proof	64.62	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-1	4x9" Nickel Bronze Funnel	359.40

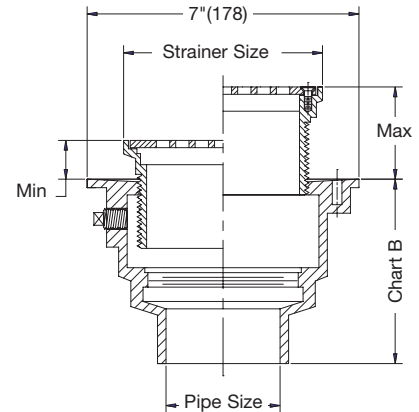
FD-1200 Floor Drain with Heavy Duty Round Stainless Steel Strainer

Model Number	Weight (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1202,3,4-5-3	11	5"	2, 3, 4"	stainless steel	\$532.58
FD-1202,3,4-6-3	12.5	6"	2, 3, 4"	stainless steel	676.78
FD-1202,3,4-8-3	16	8"	2, 3, 4"	stainless steel	1,910.81



Chart A		
Str. Dia.	Min.	Max.
5"	7/16"	2 1/4"
6"	5/8"	2 1/4"
8"	3/4"	2 3/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"



Note: Funnels are ordered separately.
See page 76 for details.

Options for FD-1200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-28	304 SS Body & Collar (No Hub Only)	\$2,957.64
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	92.75	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	142.45	-F4-3	4" Round SS Funnel	172.24
-5	Sediment Bucket	56.32	-F4-50	4" Round Cast Iron Funnel	127.51
-6	Vandal Proof	44.73	-F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	96.08	-G-50	4x9" Oval Cast Iron Funnel	354.45
-12	Galvanized Body	160.66	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-15	Strainer Extension (DD-50)	107.65	-S0	Side Outlet (2, 3, 4" Only)	248.45

WATTS® Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Adjustable Floor Drains with Stainless Steel Strainers

FD-1200-L Floor Drain with Heavy Duty Square Stainless Steel Strainer

Model Number	Wt. (lbs.)	Str. Size	Pipe Size	Strainer	List Price
FD-1202,3,4-L5-3	10	5 x 5"	2, 3, 4"	stainless steel	\$506.06
FD-1202,3,4-L6-3	14	6 x 6"	2, 3, 4"	stainless steel	878.16
FD-1202,3,4-L8-3	16	8 x 8"	2, 3, 4"	stainless steel	1,092.35

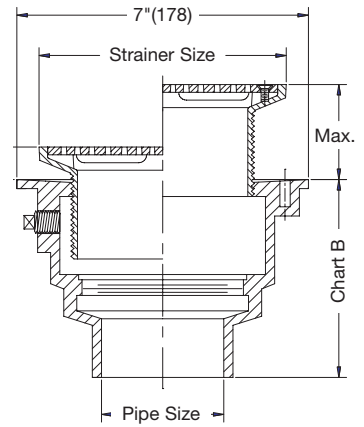


Chart A		
Strainer	Min.	Max.
5" x 5"	1 1/2"	2 5/16"
6" x 6"	1 1/2"	2 5/16"
8" x 8"	3/4"	2 3/4"

Chart B			
Pipe Size	No Hub	Push On	PVC/ABS
2"	4 3/4"	5 1/2"	4"
3"	4 3/4"	5 1/2"	4"
4"	4 3/4"	5 1/2"	4"

Note: Funnels are ordered separately. See page 76 for details.

Options for FD-1200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-28	304 SS Body & Collar (No Hub Only)	\$2,957.64
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet (2, 3, 4" Only)	33.13
T	Threaded Outlet	92.75	-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13
None	6" Outlet No Hub Only	142.45	-F4-3	4" Round SS Funnel	172.24
-5	Sediment Bucket	56.32	-F4-50	4" Round Cast Iron Funnel	127.51
-6	Vandal Proof	44.73	-F4-1	4" Round Nickel Bronze Funnel	263.36
-7	Trap Primer Tapping	No Add	-F6-1	6" Round Nickel Bronze Funnel	680.74
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	96.08	-G-50	4x9" Oval Cast Iron Funnel	354.45
-12	Galvanized Body	160.66	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-15	Strainer Extension (DD-50)	107.65	-S0	Side Outlet (2, 3, 4" Only)	248.45

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Adjustable Floor Drains with Stainless Steel Strainers

FD-1290-PR Pronto!® Cast Iron Adjustable Floor Drain w/Integrated Level

Model Number	Weight Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-1292, 3, 4-PR5	13	5"(127)	2, 3, 4"	stainless steel	\$1,149.80
FD-1292, 3, 4-PR6	15	6"(152)	2, 3, 4"	stainless steel	1,256.46
FD-1292, 3, 4-PR7	17	7"(178)	2, 3, 4"	stainless steel	1,533.51
FD-1292, 3, 4-PR8	20	8"(203)	2, 3, 4"	stainless steel	2,181.24

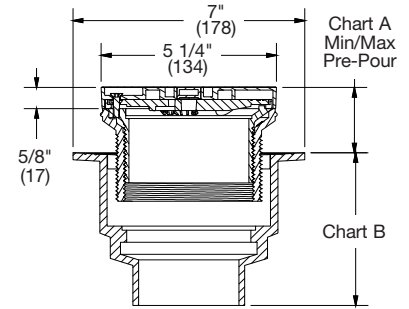
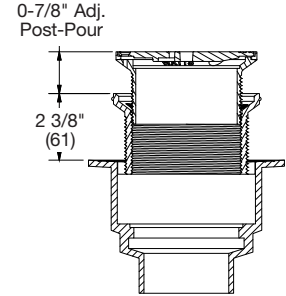


Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	1 1/2"(38)	3 1/4"(83)	MD	6 1/16"(154)
6"(152)	1 1/2"(38)	3 1/4"(83)	LD	10 3/4"(273)
7"(178)	1 9/16"(40)	3 5/16"(84)	LD	13 1/4"(337)
8"(203)	1 11/16"(43)	3 7/16"(87)	MD	19"(483)

Chart B

Pipe Size	Std. No Hub	P Push On	60/61 PVC/ABS
2"(51)	4 1/2"(114)	5 1/2"(140)	4"(102)
3"(76)	4 1/2"(114)	5 1/2"(140)	4"(102)
4"(102)	4 3/4"(121)	5 1/2"(140)	4"(102)



FD-1290-PR-60 Pronto!® PVC Adjustable Floor Drain w/Integrated Level

Model Number	Wt. Lbs.	Str. Size	Outlet Size	Strainer	List Price
FD-1292, 3, 4-PR5-60	4	5"(127)	2, 3, 4"	stainless steel	\$763.50
FD-1292, 3, 4-PR6-60	5	6"(152)	2, 3, 4"	stainless steel	926.73
FD-1292, 3, 4-PR7-60	6	7"(178)	2, 3, 4"	stainless steel	1,312.39
FD-1292, 3, 4-PR8-60	7	8"(203)	2, 3, 4"	stainless steel	2,034.28

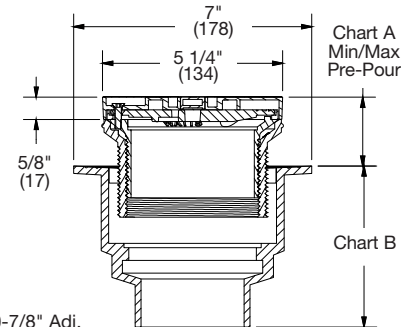
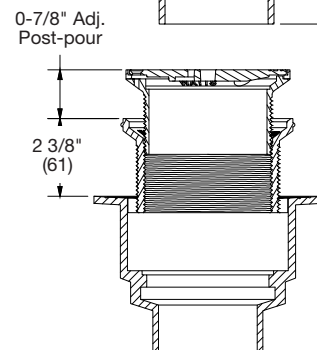


Chart A

Strainer Size	Min.	Max.	Load Rating	Free Area Sq. In
5"(127)	1 1/2"(38)	3 1/4"(83)	MD	6 1/16"(154)
6"(152)	1 1/2"(38)	3 1/4"(83)	LD	10 3/4"(273)
7"(178)	1 9/16"(40)	3 5/16"(84)	LD	13 1/4"(337)
8"(203)	1 11/16"(43)	3 7/16"(87)	MD	19"(483)

Chart B

Pipe Size	60 PVC
2"(51)	4 1/2"(114)
3"(76)	4 1/2"(114)
4"(102)	4 1/2"(114)



Note: Funnels are ordered separately. See page 76 for details.

Options for FD-1290-PR Series:

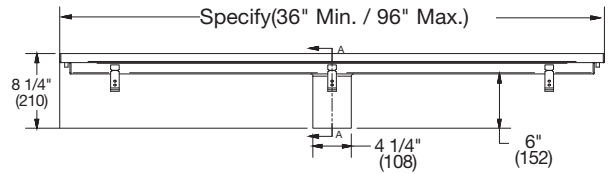
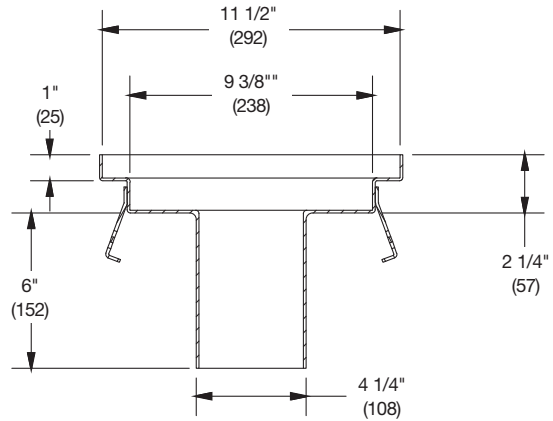
Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-61	ABS Body w/Socket Outlet (FD-1190-PR Only)	CF**
P	Push-On Outlet	\$44.73	-F4-50	4" Round Cast Iron Funnel	\$172.24
T	Threaded Outlet	92.75	-F4-1	4" Round Nickel Bronze Funnel	127.51
None	6" Outlet No Hub Only	142.45	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	No Add	-G-50	4x9" Oval Cast Iron Funnel	263.36
-8	Squeeze in Backwater Valve (2, 3, 4" Only)	96.08	-G-1	4x9" Oval Nickel Bronze Funnel	354.45
-12	Galvanized Body (FD-1190-PR Only)	160.66	-S0	Side Outlet (FD-1190-PR 2, 3, 4" Only)	CF**
-15	Strainer Extension (DD-50)	107.65			

Channel Drains/Accessories

TD-300 Elevator Channel Drain

Model Number	Size	EDP Number	Grate	List Price
TD-324	24"	8189398	stainless steel	\$CF**
*TD-336	36"	8189211	stainless steel	9,685.00
*TD-342	42"	8189377	stainless steel	13,321.42
*TD-348	48"	8189779	stainless steel	13,209.89
*TD-360	60"	8189780	stainless steel	CF**
*TD-396	96"	8189375	stainless steel	30,453.52
Special Order: Add Per Ft.				\$3,738.16

*Note: TD-300 is ANSI and ASME certified

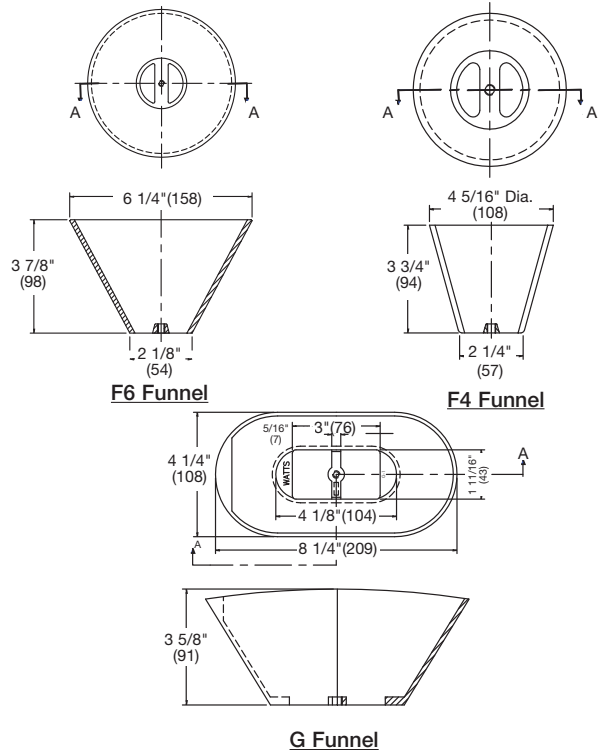


Options for TD-300 Series:

Suffix	Description	List Price
-06	6"(152) No Hub Outlet	\$590.00

FD-Funnels Bolt-On Funnels

Model Number	EDP#	Size	Material	List Price
F4-50	8135668	4" Round	cast iron	\$128.06
F4-1	8135666	4" Round	nickel bronze	263.98
F4-3	8187293	4" Round	stainless steel	487.13
F6-1	8135671	6" Round	nickel bronze	263.98
G-50	8141444	4x9" Oval	cast iron	174.55
G-1	8141441	4x9" Oval	nickel bronze	361.27
G-3	8141443	4x9" Oval	stainless steel	437.32



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Sanitary Floor Sinks

Table Of Contents

- Pictorial Index
- Recommendations
- Floor Sink Selection Factors
 - Materials
 - Pipe Connections
 - Load Ratings
 - Design Considerations
 - Commonly Specified Options
 - Option Configurations
- Typical Installations



Sanitary Floor Sinks

Pictorial Index



FS-700
8" Round x 3" Deep



FS-710
8" Square x 6" Deep



FS-720
8" Round x 6" Deep



FS-730
12" Square x 6" Deep



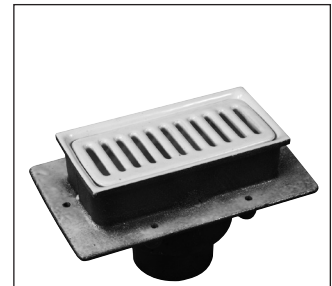
FS-740
12" Square x 8" Deep



FS-750
12" Square x 10" Deep



FS-760
12" Round x 8" Deep



FS-770
4"X8" Rectangular
X 4" Deep



FS-780
Stainless Steel
12" Square x 6" Deep



FS-790
Stainless Steel
12" Square x 8" Deep



FS-800
Can Wash Sink



FS-850
16" Square x 12" Deep



FS-900
12"x 24"x17" Deep

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

WATTS[®]

Sanitary Floor Sinks

Recommendations

Watts Sanitary Floor Sinks are recommended for indirect waste reception, generally in food handling or preparation areas. Sanitary floor sinks are constructed of porcelain enamel coated cast iron, or type 304 stainless steel. The smooth interior and rounded corners eliminate areas where pockets of waste and bacteria might otherwise accumulate.

Floor Sink Selection Factors

Materials

Porcelain enamel coated cast iron

White, glasslike inorganic coating common in sanitary plumbing applications. Corrosion proof and easy to clean, in compliance with strict sanitation standards.

Stainless steel

14 ga. in accordance with ASTM-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.

PVC

Standard sch. 40 PVC, corrosion resistant, for direct solvent weld connection.

Pipe Connections

No hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Push-on (-P)

ASTM C-564 gasket connection, with pipe stop. Suitable for no hub or service weight cast iron, sch. 40 plastic, and steel pipe. Not recommended for above grade.

Inside caulk

Used for lead and oakum joints, pipe is inserted through a caulk ring on the drain outlet.

Load Ratings

Floor sinks are not designed for traffic, and generally should not be specified in areas where traffic may occur. Please consult Watts technical support before specifying Sanitary Floor Sinks in an area subject to foot or other traffic.

Design Considerations

Porcelain grating

Porcelain floor sink grates are specifically designed to maximize flow through the grate.

Note: Porcelain grating is slippery and unstable, and cannot accept any foot or other traffic.

Above grade installation

Above grade floor sinks must be specified with a flange (option -F) to prevent water from seeping around the sink, and leaking through the floor. If the floor is properly waterproofed with a membrane, option -FC (flange and clamp) should be specified.

Sanitary Floor Sinks

Floor Sink Selection Factors

Commonly Specified Options

-F Flange with Weepholes

Anchors the sink in above grade applications. Water seeping around the outside of the sink will stop at the flange, and return to the sink through the weepholes.

-FC Flange with Weepholes and Flashing Clamp

Flange and flashing clamp secure a waterproofing membrane in above grade applications.

-1 Nickel Bronze Rim & Grate

Finished area top assembly for porcelain enamel coated sinks.

-3 Stainless Steel Rim & Grate

Finished area top assembly for porcelain enamel coated sinks.

-5 Sediment Bucket

Catches debris at the drain to prevent it from collecting and blocking the p-trap.

-6 Vandal Proof

Grate secured with Allen Head screws. Security screws (Torx and Pin, Allen and Pin) may be specified for high security applications.

-7 Trap Primer Tapping

Plugged 1/2" threaded inlet on drain body, for connection to trap primer valve (see Watts #LFTP300-DR).

-9 Hinged Grate

Available on square top floor sinks with optional nickel bronze (-1) or stainless steel (-3) top assemblies. Provides easy access to sediment buckets and drain lines requiring regular maintenance.

-21 Secondary Strainer

Fits in bottom of drain body, secondary protection against debris that bypasses sediment bucket.

-33 Less Grate

Grate removed for indirect waste reception.

-128 Grate with 2-1/2" Center Opening

For indirect waste line.

-150 1/2 Grate

Commonly specified under refrigeration cases. Receives indirect waste from back side, while grate covers exposed area.

-175 3/4 Grate

For indirect waste line.

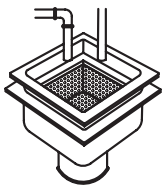
-F4-1, -F6-1 Round Funnels

4" or 6" dia. nickel bronze round funnels to accept single condensate lines. Bolt supplied to attach funnel through underside of grate.

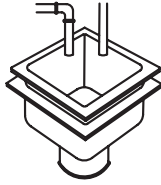
-G-1 Oval Funnel

4"x9" nickel bronze oval funnel, to accept multiple condensate lines. Bolt supplied to attach funnel through underside of grate.

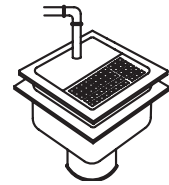
Option Configurations



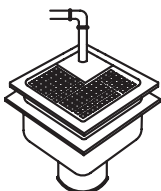
-5 Sediment Bucket



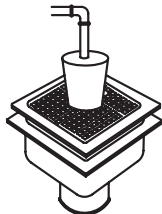
-33 Less Grate



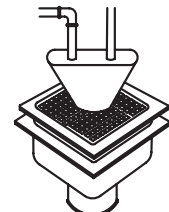
-150 1/2 Grate



-175 3/4 Grate



-F4-1 NB Round Funnel



-G-1 NB Oval Funnel

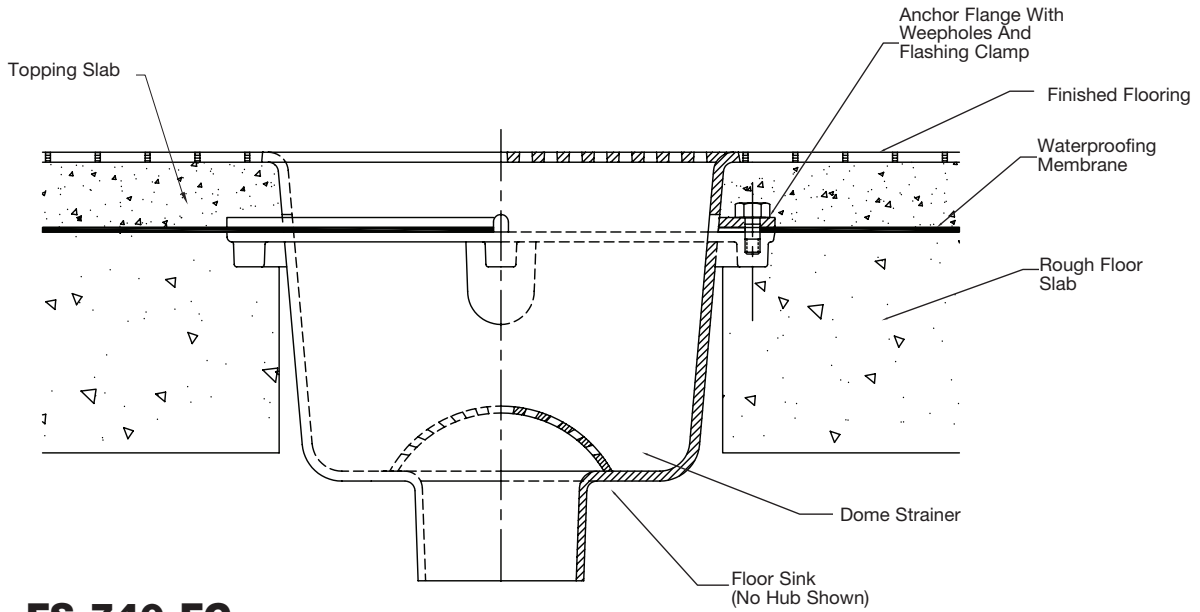
Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



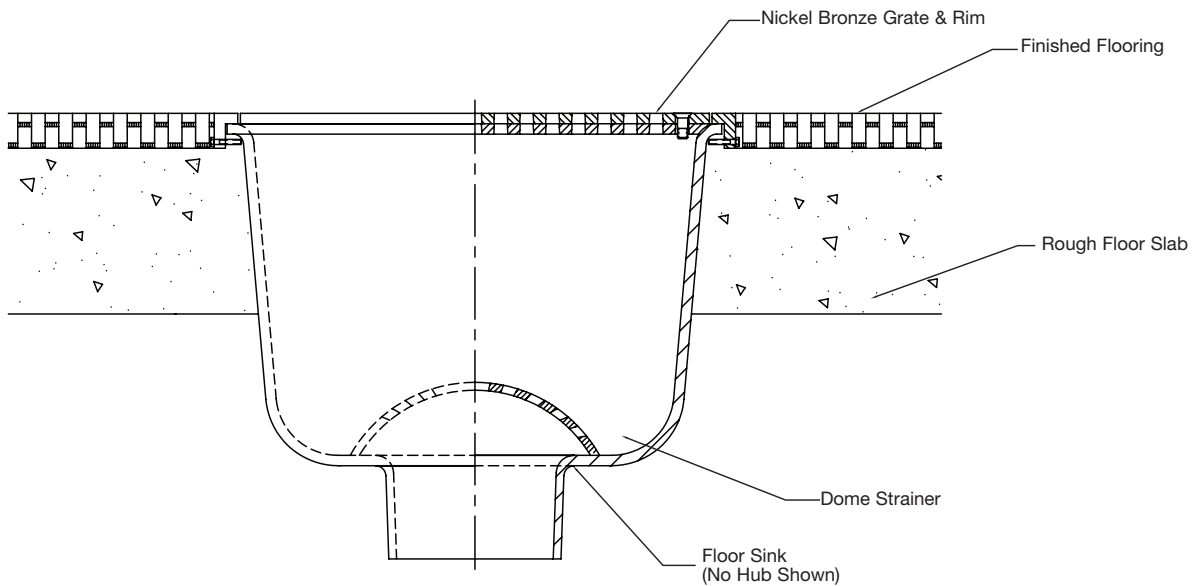
Sanitary Floor Sinks

Typical Installations



FS-740-FC

ABOVE GRADE INSTALLATION



FS-740-1

ON GRADE INSTALLATION



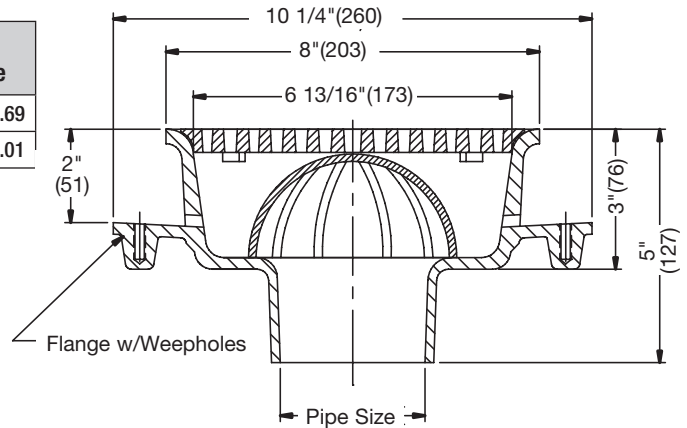
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Sanitary Floor Sinks

FS-700

8" Round x 3" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-702, 3, 4	14	8" Round	2, 3, 4"	porcelain	\$1,202.69
FS-702, 3, 4-1	20	8" Round	2, 3, 4"	nickel bronze	1,601.01



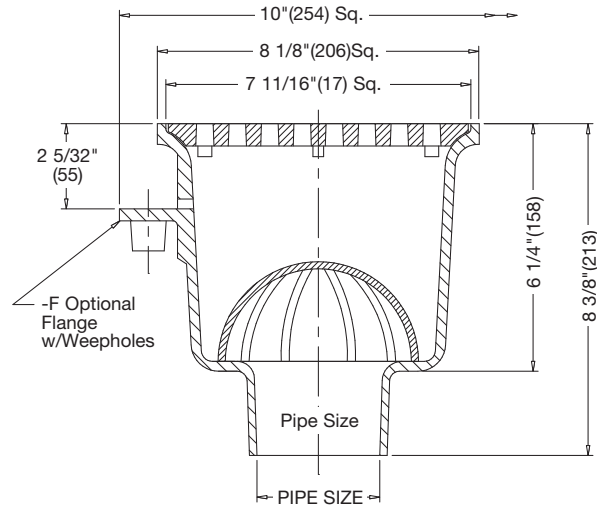
Options for FS-700 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-150	1/2 Grate	No Add
FC	Flange w/Weepholes & Flashing Clamp	218.75	-175	3/4 Grate	No Add
-5	Sediment Bucket	264.99	-F4-1	4" Round Nickel Bronze Funnel	496.89
-6	Vandal Proof (-1 Only)	89.45	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	228.59	-G-1	4x9" Oval Nickel Bronze Funnel	1,026.89

FS-710

8" Square x 6" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-712, 3, 4	20	8" Sq.	2, 3, 4"	porcelain	\$1,597.21
FS-712, 3, 4-1	20	8" Sq.	2, 3, 4"	nickel bronze	1,958.24
FS-712, 3, 4-3	20	8" Sq.	2, 3, 4"	stainless steel	2,582.97



Options for FS-710/720 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-150	1/2 Grate	No Add
F	Flange w/Weepholes	248.45	-175	3/4 Grate	No Add
FC	Flange w/Weepholes & Flashing Clamp	448.85	-F4-1	4" Round Nickel Bronze Funnel	263.36
-5	Sediment Bucket	342.84	-F6-1	6" Round Nickel Bronze Funnel	680.74
-6	Vandal Proof (-1, -3 Only)	84.46	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-7	Trap Primer Tapping	112.63			

Consult factory for all applications outside of listed parameters.

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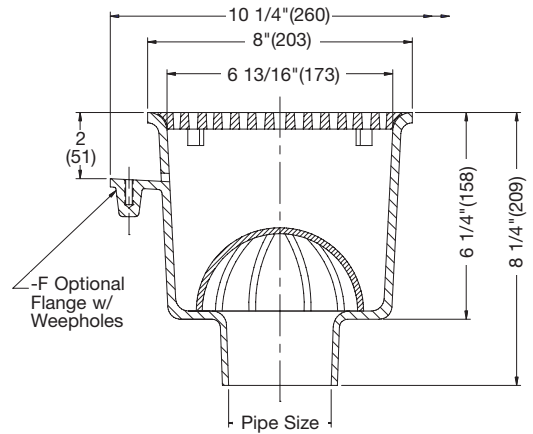


Sanitary Floor Sinks

FS-720

8" Round x 6" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-722, 3, 4	16	8" Round	2, 3, 4"	porcelain	\$CF**
FS-722, 3, 4-1	16	8" Round	2, 3, 4"	nickel bronze	1,572.40



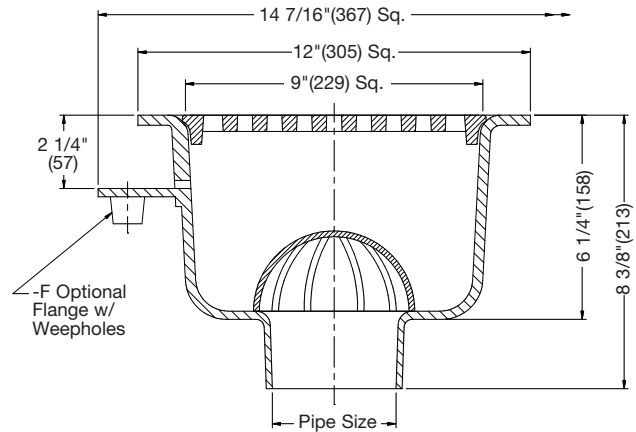
Options for FS-710/720 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-150	1/2 Grate	No Add
F	Flange w/Weepholes	248.45	-175	3/4 Grate	No Add
FC	Flange w/Weepholes & Flashing Clamp	448.85	-F4-1	4" Round Nickel Bronze Funnel	263.36
-5	Sediment Bucket	342.84	-F6-1	6" Round Nickel Bronze Funnel	680.74
-6	Vandal Proof (-1, -3 Only)	84.46	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-7	Trap Primer Tapping	112.63			

FS-730

12" Square x 6" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-732, 3, 4	32	12" Sq.	2, 3, 4"	porcelain	\$888.19
FS-732, 3, 4-1	32	12" Sq.	2, 3, 4"	nickel bronze	1,734.68



Options for FS-730 / FS-740 / FS-750 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-9	Hinged Grate (-1, -3 Only)	\$414.08
P	Push-On Outlet	\$44.73	-21	Secondary Strainer	79.51
-F	Flange w/Weepholes	248.45	-128	Grate with 2 1/2" Center Opening	208.71
FC	Flange w/Weepholes & Flashing Clamp	448.85	-150	1/2 Grate	No Add
-3	Stainless Steel (Rim & Grate)	1,056.71	-175	3/4 Grate	No Add
-5	Sediment Bucket	342.84	-F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof (-1, -3 Only)	84.46	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	112.63	-G-1	4x9" Oval Nickel Bronze Funnel	359.40



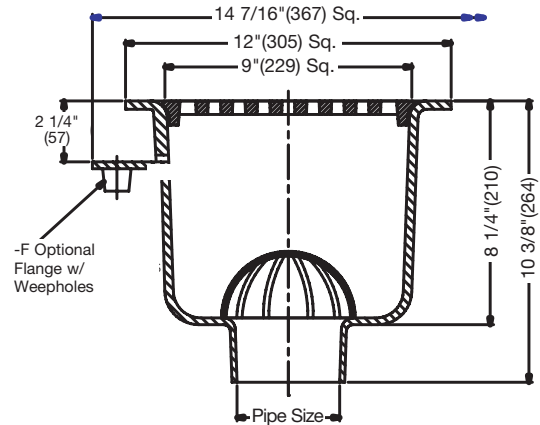
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Sanitary Floor Sinks

FS-740

12" Square x 8" Deep Sanitary Floor Sink

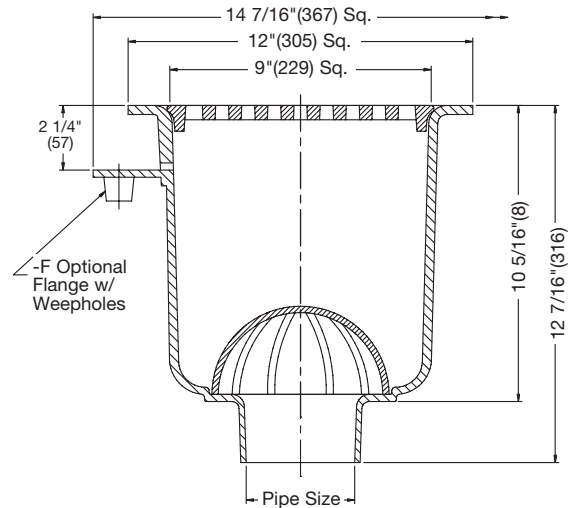
Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-742, 3, 4	34	12" Sq.	2, 3, 4"	porcelain	\$1,298.42
FS-742, 3, 4-1	34	12" Sq.	2, 3, 4"	nickel bronze	2,144.91



FS-750

12" Square x 10" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-752, 3, 4	36	12" Sq.	2, 3, 4"	porcelain	\$1,374.03
FS-752, 3, 4-1	36	12" Sq.	2, 3, 4"	nickel bronze	2,220.52



Options for FS-730 / FS-740 / FS-750 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-9	Hinged Grate (-1, -3 Only)	\$414.08
P	Push-On Outlet	\$44.73	-21	Secondary Strainer	79.51
-F	Flange w/Weepholes	248.45	-128	Grate with 2 1/2" Center Opening	208.71
FC	Flange w/Weepholes & Flashing Clamp	448.85	-150	1/2 Grate	No Add
-3	Stainless Steel (Rim & Grate)	1,056.71	-175	3/4 Grate	No Add
-5	Sediment Bucket	342.84	-F4-1	4" Round Nickel Bronze Funnel	263.36
-6	Vandal Proof (-1, -3 Only)	84.46	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	112.63	-G-1	4x9" Oval Nickel Bronze Funnel	359.40

Consult factory for all applications outside of listed parameters.

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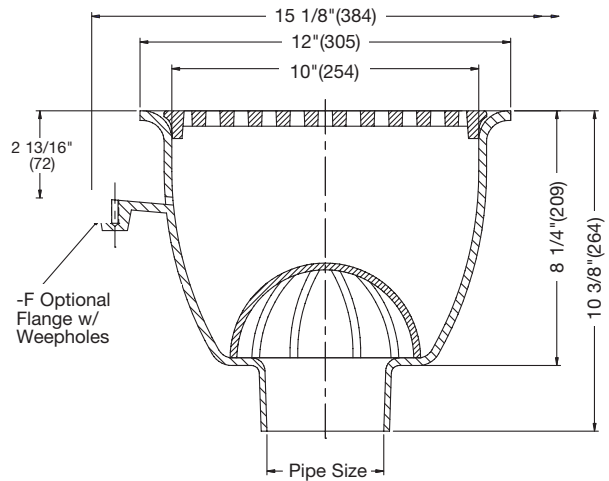


Sanitary Floor Sinks

FS-760

12" Round x 8" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-762, 3, 4	32	12" Round	2, 3, 4"	porcelain	\$1,818.91
FS-762, 3, 4-1	32	12" Round	2, 3, 4"	nickel bronze	2,506.02



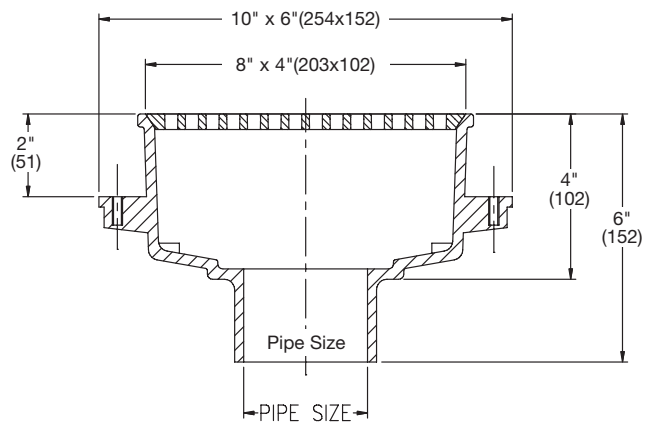
Options for FS-760 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-21	Secondary Strainer	\$79.51
P	Push-On Outlet	\$44.73	-150	1/2 Grate	No Add
-F	Flange w/Weepholes	248.45	-175	3/4 Grate	No Add
FC	Flange w/Weepholes & Flashing Clamp	447.20	-F4-1	4" Round Nickel Bronze Funnel	263.36
-5	Sediment Bucket	342.84	-F6-1	6" Round Nickel Bronze Funnel	680.74
-6	Vandal Proof (-1, -3 Only)	84.46	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-7	Trap Primer Tapping	112.63			

FS-770

8" x 4" x 4" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-772, 3,	16	4" x 8"	2, 3"	porcelain	\$758.42
FS-772, 3-1	16	4" x 8"	2, 3"	nickel bronze	950.60



Options for FS-770 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-150	1/2 Grate	No Add
P	Push-On Outlet	\$44.73	-F4-1	4" Round Nickel Bronze Funnel	\$263.36
FC	Flashing Clamp	447.20	-F6-1	6" Round Nickel Bronze Funnel	680.74
-5	Sediment Bucket	227.53	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-6	Vandal Proof (-1 Only)	89.45			
-7	Trap Primer Tapping	112.63			



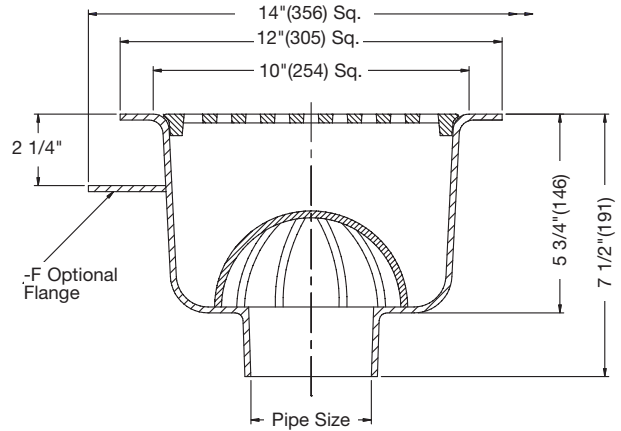
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Sanitary Floor Sinks

FS-780

12" Square x 6" Deep Sanitary Floor Sink

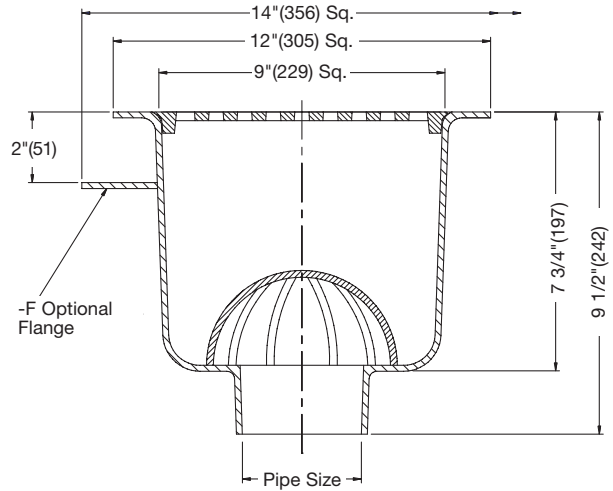
Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-782, 3, 4	16	12" Sq.	2, 3, 4"	stainless steel	\$3,340.02



FS-790

12" Square x 8" Deep Stainless Steel Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-792, 3, 4	18	12" Sq.	2, 3, 4"	stainless steel	\$5,023.76



Options for FS-780 / FS-790 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-150	1/2 Grate	No Add
P	Push-On Outlet	\$44.73	-175	3/4 Grate	No Add
-F	Flange w/Weepholes	645.96	-F4-1	4" Round Nickel Bronze Funnel	\$263.36
FC	Flange w/Weepholes & Flashing Clamp	1,212.39	-F6-1	6" Round Nickel Bronze Funnel	680.74
-5	Sediment Bucket	486.97	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-6	Vandal Proof	751.96	-HD	Heavy Duty Grate	457.84
-21	Secondary Strainer	79.51			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

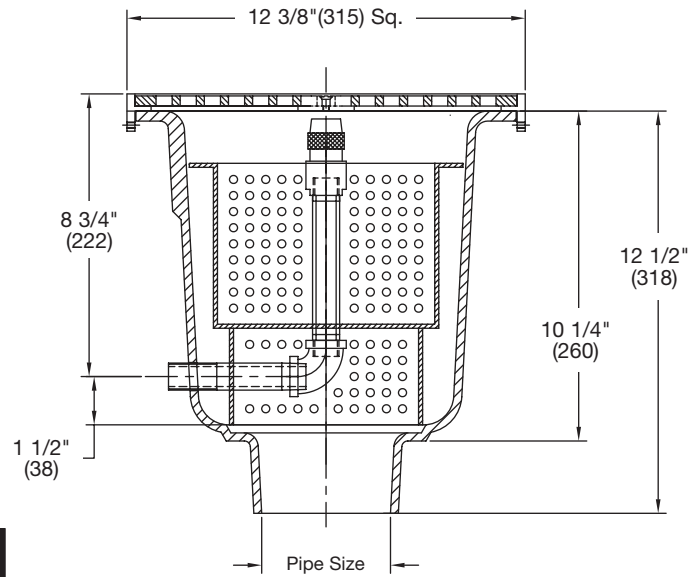


Sanitary Floor Sinks

FS-800

Sanitary Can Wash

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-804	39	12" Sq.	4"	nickel bronze	\$4,104.78



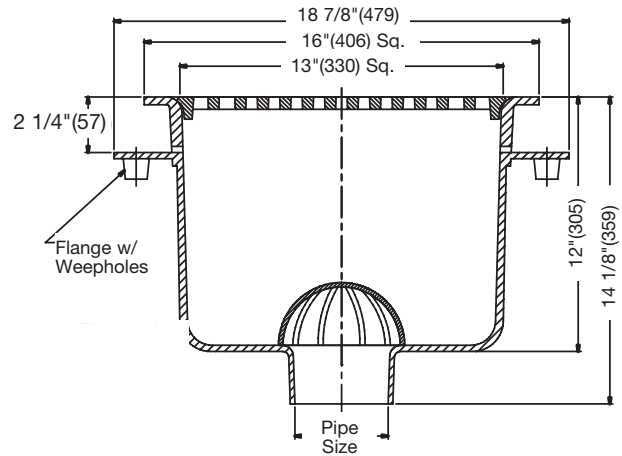
Options for FS-800 Series:

Suffix	Description	List Price
-6	Vandal Proof	\$89.45

FS-850

16" Square x 12" Deep Sanitary Floor Sink

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-854,6	150	16" Sq.	4, 6"	porcelain	\$4,424.49
FS-854,6-1	150	16" Sq.	4, 6"	nickel bronze	5,343.24



Options for FS-850 Series:

Suffix	Description	List Price	Suffix	Description	List Price
FC	Flashing Clamp	\$662.56	-175	3/4 Grate	No Add
-5	Sediment Bucket	973.89	-F4-1	4" Round Nickel Bronze Funnel	\$263.36
-6	Vandal Proof (-1 Only)	82.14	-F6-1	6" Round Nickel Bronze Funnel	680.74
-7	Trap Primer Tapping	228.59	-G-1	4x9" Oval Nickel Bronze Funnel	359.40
-150	1/2 Grate	No Add			



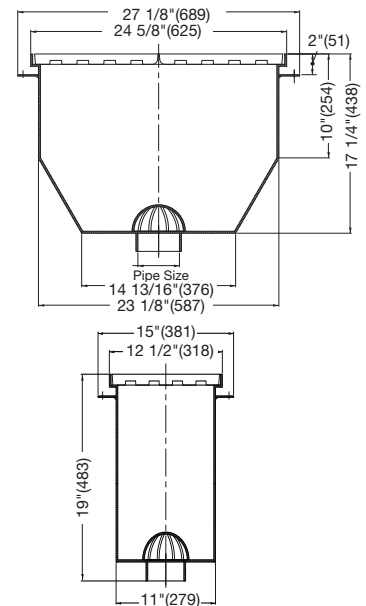
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Sanitary Floor Sinks & Receptor

FS-900

12" x 24" x 17" Deep Floor Receptor

Model Number	Weight (lbs.)	Top Size	Outlet Size	Top	List Price
FS-902,3,4,6	82	12" x 24"	2, 3, 4, 6"	ductile iron	\$CF**
FS-902,3,4,6-1	82	12" x 24"	2, 3, 4, 6"	nickel bronze	CF**



Options for FS-900 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-150	1/2 Grate	No Add
P	Push-On Outlet	\$44.73	-175	3/4 Grate	No Add
-FC	Flashing Clamp	662.53	-F4-1	4" Round Nickel Bronze Funnel	\$263.36
-5	Sediment Bucket	2,209.48	-F6-1	6" Round Nickel Bronze Funnel	680.74
-6	Vandal Proof (-1 Only)	89.45	-G-1	4x9" Oval Nickel Bronze Funnel	359.40

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Dead Level® Trench Drains

Table Of Contents

- Pictorial Index
- Dead Level® Features
- Design Considerations
- Gratings
- Load Classifications
- Configure & Order Dead Level
- Typical Configurations



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Dead Level® Trench Drains

Pictorial Index



Dead Level® BK
6" Wide SS Grating w/
Ductile Iron Frame



Dead Level® D
6" Wide Pre-Sloped
w/Ductile Iron Frame



Dead Level® P
6" Wide Pre-Sloped
w/Polypropylene Frame



Dead Level® DX
12" Wide Pre-Sloped
w/Ductile Iron Frame



Dead Level® S
6" Wide Deck Channel For
Cast in Place



Dead Level® Z
6" Wide Flanged Deck
Channel For Precast



Dead Level® DL-GF
6" Wide Grating
w/Ductile Iron Frame



Dead Level® DLP-GF
6" Wide Grating
w/Polypropylene Frame



Dead Level® DX-GF
12" Wide Grating
w/Ductile Iron Frame



Dead Level® Catch Basin
6"x24"x24" & 24"x24"x24"
Catch Basins

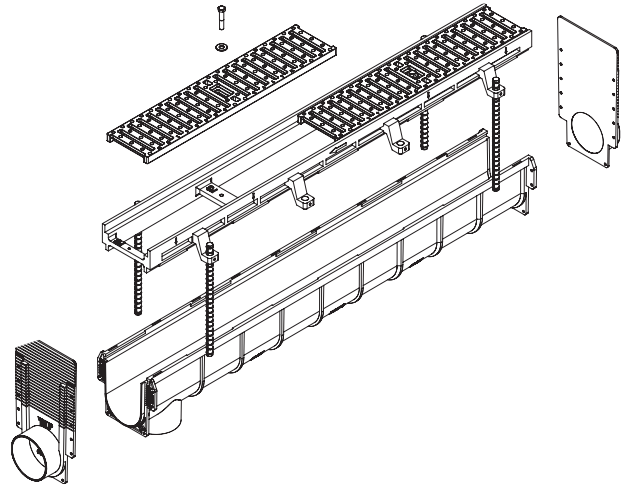
Consult factory for all applications outside of listed parameters.
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Dead Level® Trench Drains

Dead Level® Features

Uniquely engineered,
Dead Level® installs and
performs like no other
trench drain system



Applications

Recommended for surface drainage in indoor or outdoor applications.

Superior materials

Chemical resistant, UV stabilized injection molded polypropylene channels. Standard ductile iron frames for heavy traffic, or durable polypropylene frames for moderate traffic.

Stability & structural strength

Channels lock longitudinally outside of the structural frame, and cannot pinch or fold in with the concrete pour. Concentrated and dynamic loads transfer directly from the frame to the slab, protecting channels from stress and loading failure.

Frame anchored design

Support anchors tie directly to the structural frame, not the channels. Straight, level installations are easily accomplished, with less risk of channel floating.

Solid connections

Flanged channel, end cap, and frame connections create proper joints and alignment. Pre-molded no hub outlets guarantee a solid connection to discharge piping.

Short & corner/tee sections

1' straight and combination corner/tee sections add flexibility on uneven runs, while eliminating difficult field cutting operations.

Maximum flow

.7% sloped channels, with radiused bottom and smooth interior generate maximum hydraulic flow.

Gratings for diverse commercial applications

Ductile iron, stainless steel, galvanized, polypropylene, fiberglass, and bronze gratings available to meet DIN 19580 Load Classifications A through F. Check product specifications for heel proof and ADA requirements.

Shipped with construction covers

Time-saving construction covers protect the grating, and keep channels free of debris during construction.

Design Considerations

Traffic

Vehicular or equipment traffic requires higher load classifications, depending upon the specific type of loading. In general, non-pneumatic wheels and high velocity traffic create the heaviest loads. Trench drains subject to pedestrian traffic may require heel proof or ADA compliant grating. Polypropylene grating should be specified in areas with barefoot traffic, particularly around swimming pools, where chlorine can attack stainless steel grating.

Flow & Outlets

Specific flow calculations are typically used for outdoor trench drain. Indoors, flushing is usually of primary concern, particularly in sanitary environments. Pre-sloped trench drain is designed to be self-flushing, although minimal flows or long travel to an outlet will reduce flushing action. A general recommendation is minimum one outlet every 80' outdoors, every 100' indoors.

Catch Basins

Catch basins should be used as a point to trap debris, transition flow from the trench drain to discharge piping, or as a junction box receiving multiple runs.

Cosmetics

Any cast iron or ductile iron surface should be expected to show rust, even with an applied coating. Metal grating specified in a high visibility area should be galvanized or stainless steel. Optional galvanized or stainless steel frame guards are specified to match the frame to the grating, and maintain a uniform appearance.

* See Watts Dead Level® Trench Drains catalogue for complete information.



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Dead Level® Trench Drains

Grating



Ductile Iron

8187063 DLG-DI12 12"
8187307 DLG-DI 24"



Galvanized Steel Slotted

8187346 DLG-GS12 12" 8187309 DLG-GS 48"
8187366 DLG-GS24 24"
8188706 DLG-GS36 36"



Galvanized Steel Perforated

8187347 DLG-GP12 12" 8187312 DLG-GP 48"
8187358 DLG-GP24 24"
8188705 DLG-GP36 36"



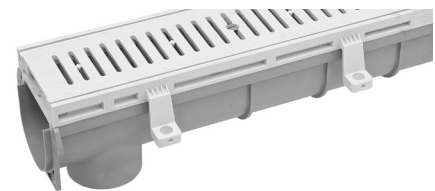
Stainless Steel Slotted

8187348 DLG-SS12 12" 8187308 DLG-SS 48"
8187368 DLG-SS24 24"
8188708 DLG-SS36 36"



Stainless Steel Perforated

8187349 DLG-SP12 12" 8189435 DLG-SP40 40"
8187369 DLG-SP24 24"
8188707 DLG-SP36 36"



Polypropylene Composite

8187370 DLG-PP12 12"
8187030 DLG-PP 24"



Decorative Bronze

8187425 DLG-BR 24"



Galvanized Ductile Iron

8187989 DLG-GDI12 12"



Ductile Iron ADA

8187611 DLG-DI12-ADA 12"
8187430 DLG-DI-ADA 24"



Solid Cast Iron

8185967 DLG-SCI 24"



Stainless Steel Brickslot

8189419 DLG-BK12 12"
8189003 DLG-BK24 24"
8189004 DLG-BK 48"

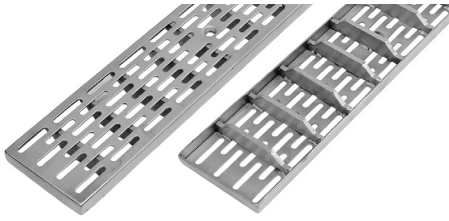
Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



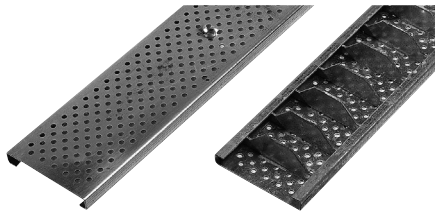
Dead Level® Trench Drains

Grating



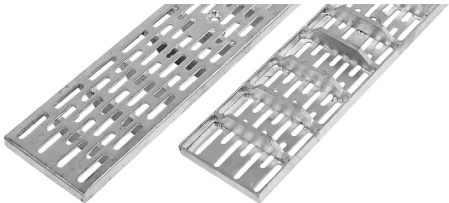
**Reinforced Galvanized
Steel Slotted**

8187350 DLG-RGS12 12" 8188720 DLG-RGS36 36"
8187367 DLG-RGS24 24" 8187314 DLG-RGS 48"



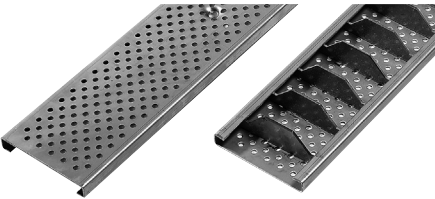
**Reinforced Galvanized
Steel Perforated**

8187351 DLG-RGP12 12" 8188722 DLG-RGP36 36"
8187406 DLG-RGP24 24" 8187316 DLG-RGP 48"



**Reinforced Stainless
Steel Slotted**

8187352 DLG-RSS12 12" 8188721 DLG-RSS36 36"
8187377 DLG-RSS24 24" 8187315 DLG-RSS 48"



**Reinforced Stainless
Steel Perforated**

8187353 DLG-RSP12 12" 8188723 DLG-RSP36 36"
8187382 DLG-RSP24 24" 8187317 DLG-RSP 48"

Dead Level® Trench Drains

Load Classifications

DIN 19580 / EN 1433 Load Classifications

Load Class Description



A Pedestrian areas, pavements, bicycle lanes, square, yard improvements, individual construction.



B Individual construction, private garages, gardens and parks, artificial landscape, private car parks.



C Pedestrian areas, waysides, parking areas, garages, car service stations, territory improvements.

Load Class Description



D Fuel filling stations, car washes, industrial areas, transport terminals, roads and automobile enterprises.



E Airports, highways, industrial companies, ports, fuel filling stations, transport terminals and storage terminals.



F Airport runways, industrial areas, transport terminals, structures with extreme loads on the road surface.

Dead Level P - Polypropylene Frame 6"

Grating Suffix	Grating Desc.	Std. Length	DIN Class	ANSI Class	H-20 Compliant	ADA Compliant	Heel Proof	Open Area
BR	Decorative Bronze	24"	B	MD	N	Y	Y	30%
DI	Ductile Iron	24"	C*	HD*	N	N	N	30%
DI-ADA	Ductile Iron ADA	24"	C*	HD*	N	Y	Y	25%
GDI	Galvanized Ductile Iron	24"	C*	HD*	N	N	N	30%
PP	Polypropylene	24"	C	MD	N	Y	Y	15%
GP	Galvanized Perforated	48"	A	LD	N	Y	Y	15%
GS	Galvanized Slotted	48"	A	LD	N	Y	N	12%
RGP	Reinforced Galvanized Perforated	48"	C*	HD*	N	Y	Y	15%
RGS	Reinforced Galvanized Slotted	48"	C*	HD*	N	Y	Y	30%
SP	Stainless Steel Perforated	48"	A	LD	N	Y	Y	15%
SS	Stainless Steel Slotted	48"	A	LD	N	Y	Y	12%
RSP	Reinforced Stainless Steel Perforated	48"	C*	HD*	N	Y	Y	15%
RSS	Reinforced Stainless Steel Slotted	48"	C*	HD*	N	Y	Y	30%
SCI	Solid Cast Iron	24"	C*	HD*	N	Y	Y	0%

*Load Class E / ANSI Class XHD with Frame Guards

Dead Level D, S, Z - Ductile Iron Frame 6" Wide

BR	Decorative Bronze	24"	B	MD	N	Y	Y	30%
DI	Ductile Iron	24"	F	SD	Y	N	N	30%
DI-ADA	Ductile Iron ADA	24"	F	SD	Y	Y	Y	25%
GDI	Galvanized Ductile Iron	24"	F	SD	Y	N	N	30%
PP	Polypropylene	24"	C	MD	N	Y	Y	15%
GP	Galvanized Perforated	48"	A	LD	N	Y	Y	15%
GS	Galvanized Slotted	48"	A	LD	N	Y	N	12%
RGP	Reinforced Galvanized Perforated	48"	E	XHD	Y	Y	Y	15%
RGS	Reinforced Galvanized Slotted	48"	E	XHD	Y	Y	Y	30%
SP	Stainless Steel Perforated	48"	A	LD	N	Y	Y	15%
SS	Stainless Steel Slotted	48"	A	LD	N	Y	Y	12%
RSP	Reinforced Stainless Steel Perforated	48"	E	SD	Y	Y	Y	15%
RSS	Reinforced Stainless Steel Slotted	48"	E	SD	Y	Y	Y	30%
SCI	Solid Cast Iron	24"	F	SD	Y	Y	Y	0%

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Dead Level® Trench Drains

Load Classifications

DIN 19580 / EN 1433 Load Classifications

Load Class Description



A Pedestrian areas, pavements, bicycle lanes, square, yard improvements, individual construction.



B Individual construction, private garages, gardens and parks, artificial landscape, private car parks.



C Pedestrian areas, waysides, parking areas, garages, car service stations, territory improvements.

Load Class Description



D Fuel filling stations, car washes, industrial areas, transport terminals, roads and automobile enterprises.



E Airports, highways, industrial companies, ports, fuel filling stations, transport terminals and storage terminals.



F Airport runways, industrial areas, transport terminals, structures with extreme loads on the road surface.

Dead Level DX - Ductile Iron Frame 12" Wide

Grating Suffix	Grating Desc.	Std. Length	DIN Class	ANSI Class	H-20 Compliant	ADA Compliant	Heel Proof	Open Area
DI	Ductile Iron	24"	F	SD	Y	N	N	40%
DI-ADA	Ductile Iron ADA	24"	F	SD	Y	Y	Y	30%
GDI	Galvanized Ductile Iron	24"	F	SD	Y	N	N	40%
RGP	Reinforced Galvanized Perforated	24"	E	XHD	Y	Y	Y	15%
RGS	Reinforced Galvanized Slotted	24"	E	XHD	Y	Y	Y	30%
RSP	Reinforced Stainless Steel Perforated	24"	E	SD	Y	Y	Y	15%
RSS	Reinforced Stainless Steel Slotted	24"	E	SD	Y	Y	Y	30%
SDI	Solid Ductile Iron	24"	F	SD	Y	Y	Y	0%

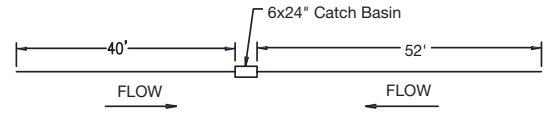
Catch Basins

Grating Suffix	Grating Desc.	Std. Length	DIN Class	ANSI Class	H-20 Compliant	ADA Compliant	Heel Proof	Open Area
6x24x24	See Dead Level P or Dead Level D - Same as Trench Drain Grating							
24x24x24	Ductile Iron	24"	F	SD	Y	Y	Y	40%
24x24x24	Stainless Steel	24"	F	SD	Y	Y	Y	30%

How to Configure & Order Dead Level® Trench System

1. Sketch General Layout

For each separate trench configuration show length(s), position of outlet(s), direction of flow(s), and position of catch basins (if required).



2. Specify Frame

Ductile Iron
Polypropylene

Ordering Code

D or DX
P

3. Specify Length in Feet

(Do not Include Catch Basins)

Numeric

4. Specify Outlet

Straight Run End Outlet
Straight Run Center Outlet
Other Configuration

EO
CO
XO

5. Specify Grating

Ductile Iron
ADA Ductile Iron
Galvanized Ductile Iron
Galvanized Steel Slotted
Galvanized Steel Perforated
Stainless Steel Slotted
Stainless Steel Perforated
Reinforced Galvanized Steel Slotted
Reinforced Galvanized Steel Perforated
Reinforced Stainless Steel Slotted
Reinforced Stainless Steel Perforated
Polypropylene

DI
DI-ADA
GDI
GS
GP
SS
SP
RGS
RGP
RSS
RSP
PP

6. Specify Catch Basin

(If Required)

6x24x24" Catch Basin
24x24x24" Catch Basin

B6
B24

7. Specify Frame Guards

(If Required)

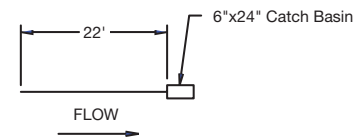
Galvanized Steel
Stainless Steel

FG
FS

8a. Configure Straight Run (EO or CO)

EX.

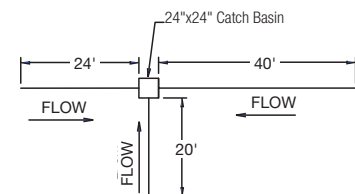
P22-EO-RSS-B6-FS
P = Polypropylene Frame
22 = Trench Length in Feet
EO = End Outlet
RSS = Reinforced Stainless Steel Slotted Grates
B6 = 6x24x24" Catch Basin
FS = Stainless Steel Frame Guard



8b. Configure Special Run (XO)

EX.

D84-XO-DI-B24
D = Ductile Iron Frame
84 = Trench Length in Feet
XO = Other Configuration (Provide Sketch or Describe)
DI = Ductile Iron Grates
B24 = 24x24x24" Catch Basin



Consult factory for all applications outside of listed parameters.

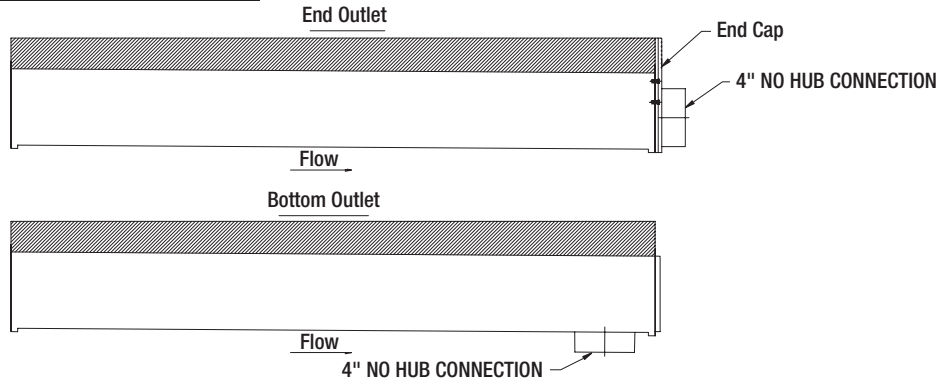
Prices do not include applicable taxes.



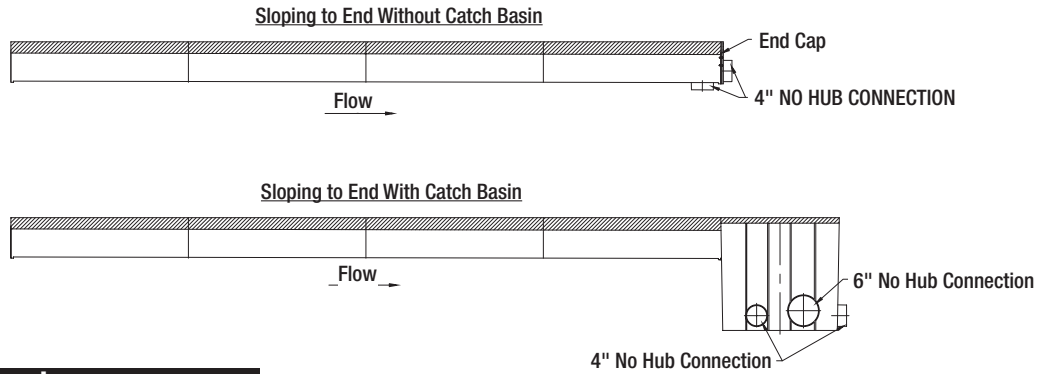
Dead Level® Trench Drains

Standard Configurations

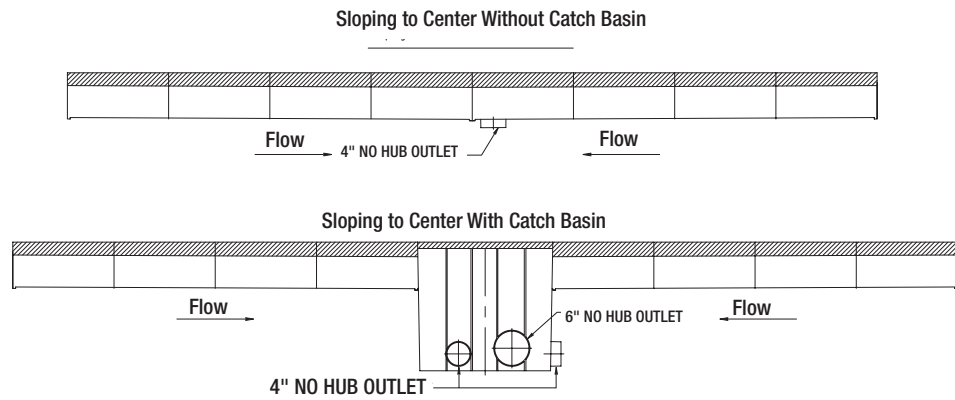
Outlet Variations



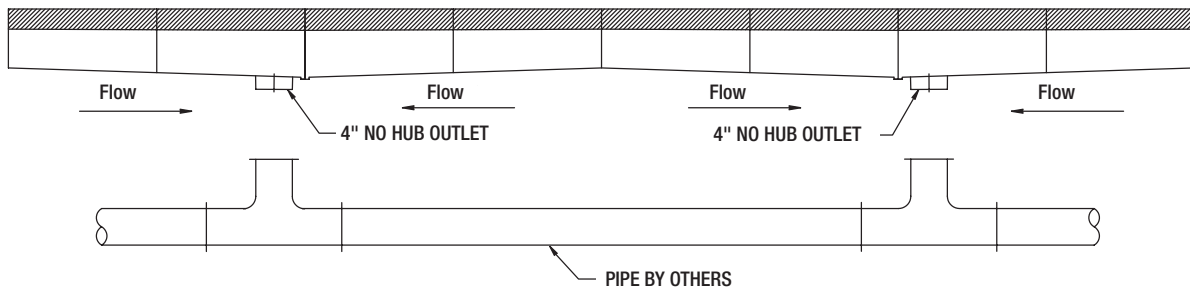
Sloping to End



Sloping to Center



Multiple Outlets

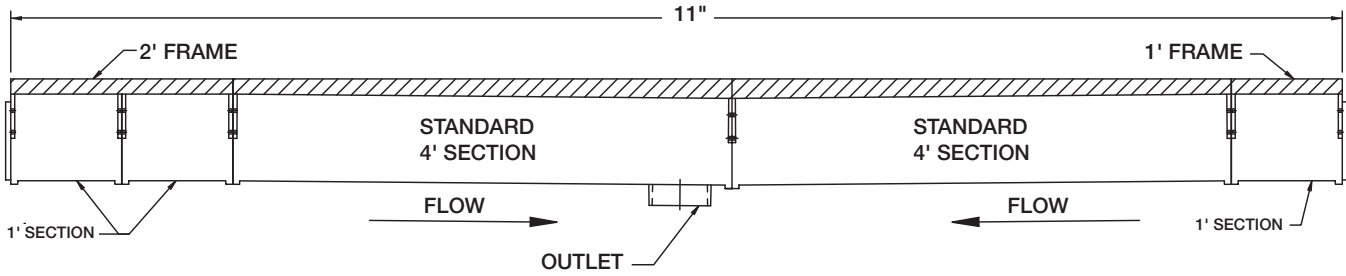


Dead Level® Trench Drains

Special Configurations

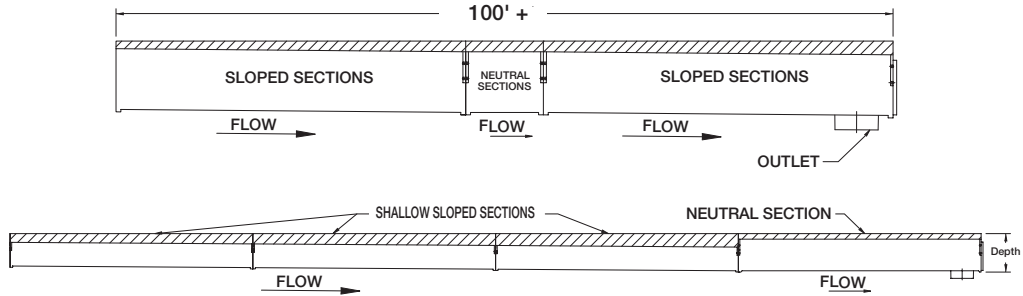
Use of Short Section

USE OF SHORT SECTIONS



Use of Neutral Channels

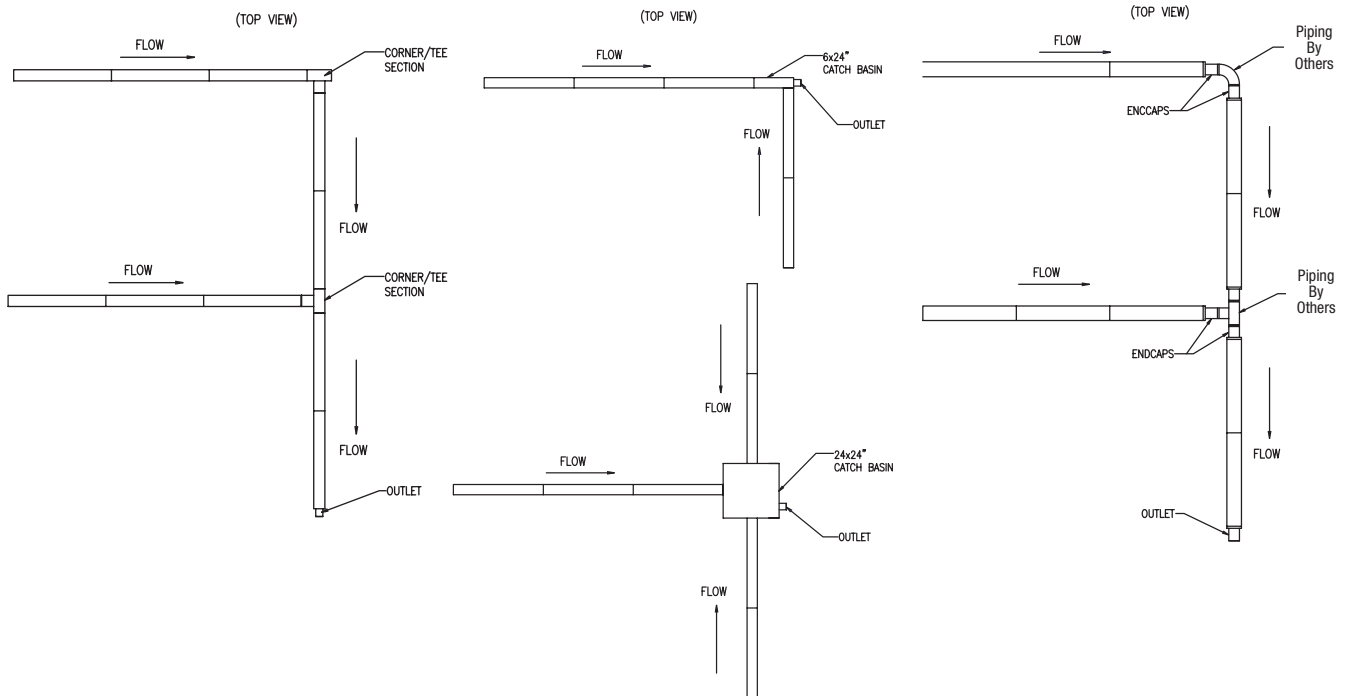
USE OF NEUTRAL CHANNELS
EXTEND RUN BEYOND 100'



Use of Corner & Tee Section

Corner or Tee w/Catch Basin

Piped Corners and Tees

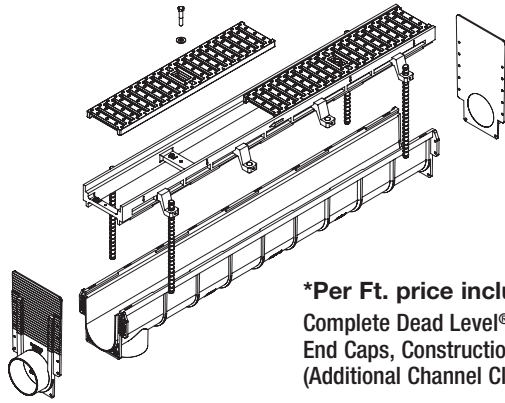


Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Dead Level® 6" Wide Pre-Sloped Trench Drain



***Per Ft. price includes:**

Complete Dead Level® System with Channels, Frames, Grates, Lockdowns, Frame Connectors, End Caps, Construction Covers, 10 Channel Clips per run and Hardware as Required. (Additional Channel Clips may be ordered. See pricing below)

System Pricing	
Dead Level D w/Ductile Iron Frame Grating Type	List Price Per Ft.*
BK - Brickslot	\$806.11
BK-AC12 Brickslot Access Cover	P.O.A.
BR - Decorative Bronze	P.O.A.
DI - Ductile Iron	570.09
DI-ADA - ADA Ductile Iron	625.96
GDI - Galvanized Ductile Iron	709.21
GS - Galvanized Slotted	497.12
GP - Galvanized Perforated	497.12
SS - Stainless Slotted	734.66
SP - Stainless Perforated	734.66
RGS - HD Galvanized Slotted	583.64
RGP - HD Galvanized Perforated	583.64
RSS - HD Stainless Slotted	821.18
RSP - HD Stainless Perforated	821.18
PP - Polypropylene	497.12
SCI - Solid Cast Iron	658.32

System Pricing	
Dead Level P w/Polypropylene Frame Grating Type	List Price Per Ft.*
BK - Brickslot	\$710.84
BK-AC12 Brickslot Access Cover	P.O.A.
BR - Decorative Bronze	678.69
DI - Ductile Iron	475.08
DI-ADA - ADA Ductile Iron	514.09
GDI - Galvanized Ductile Iron	597.23
GS - Galvanized Slotted	402.11
GP - Galvanized Perforated	402.11
SS - Stainless Slotted	641.36
SP - Stainless Perforated	641.36
RGS - HD Galvanized Slotted	492.05
RGP - HD Galvanized Perforated	492.05
RSS - HD Stainless Slotted	729.58
RSP - HD Stainless Perforated	729.58
PP - Polypropylene	402.11
SCI - Solid Cast Iron	541.24

Channel Clips Order #	List Price Each
8189227	\$7.31



Catch Basins	Description	List Price Per Ft.
CB-624D	6x24x24 Catch Basin w/DI Frame, Less Grate	\$1,162.22
CB-624P	6x24x24 Catch Basin w/PP Frame, Less Grate	946.75
CB-624D-T	6x24x24 Catch Basin w/DI Frame, Trash Basket	1,420.10
CB-624P-T	6x24x24 Catch Basin w/PP Frame, Trash Basket	1,204.64
CB-2424	24x24x24 Catch Basin w/DI Grate	5,610.91
CB-2424T	24x24x24 Catch Basin w/DI Grate, Trash Basket	6,216.60
CB-2424-RGS	24x24x24 Catch Basin w/Galv. Grate	6,145.34
CB-2424T-RGS	24x24x24 Catch Basin w/Galv. Grate, Trash Basket	6,751.06
CB-2424-SS	24x24x24 Catch Basin w/SS Grate	7,016.06
CB-2424T-SS	24x24x24 Catch Basin w/SS Grate, Trash Basket	7,602.80



Frame Guards	Description	List Price Per Ft.
FG-BR	Decorative Bronze	\$322.38
FG-GV	Galvanized Steel	84.85
FG-SS	Stainless Steel	261.30



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Dead Level® DX 12" Wide Pre-Sloped Trench Drain



***Per Ft. price includes:**

Complete Dead Level® System with Channels, Frames, Grates, Lockdowns, Frame Connectors, End Caps, Construction Covers, and Hardware as Required.

System Pricing	
Dead Level DX w/Ductile Iron Frame Grating Type	List Price Per Ft.*
DI - Ductile Iron	\$1,153.74
DI-ADA - ADA Ductile Iron	1,295.64
GDI - Galvanized Ductile Iron	1,192.77
RGP - HD Galvanized Perforated	1,460.82
RGS - HD Galvanized Slotted	1,460.82
RSP - HD Stainless Perforated	2,017.34
RSS - HD Stainless Slotted	2,017.34
SCI - Solid Cast Iron	1,153.74



Catch Basins	Description	List Price Per Ft.
CB-2424	24x24x24 Catch Basin w/DI Grate	\$5,610.91
CB-2424D-12	24x24x12 Catch Basin w/Galvanized Grate & Frame	6,819.93
CB-2424T	24x24x24 Catch Basin w/DI Grate, Trash Basket	6,216.60
CB-2424-RGS	24x24x24 Catch Basin w/Galvanized Grate	6,145.34
CB-2424T-RGS	24x24x24 Catch Basin w/Galvanized Grate, Trash Basket	6,751.06
CB-2424-SS	24x24x24 Catch Basin w/SS Grate	7,016.06
CB-2424T-SS	24x24x24 Catch Basin w/SS Grate, Trash Basket	7,602.80



Frame Guards	Description	List Price Per Ft.
-FGX-GV	Galvanized Steel	\$84.85
-FGX-SS	Stainless Steel	261.30

Corners/Tees	List Price Per Ft.
Corner/Tee	\$709.21

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



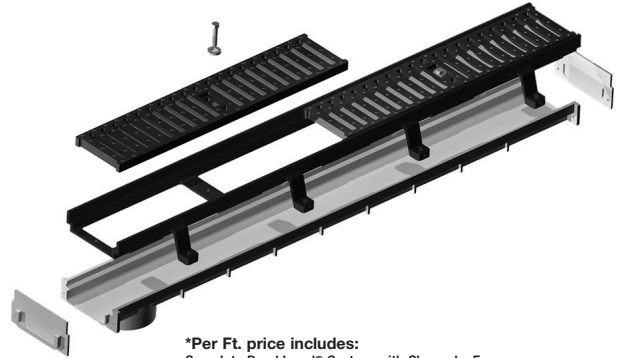
Dead Level® Deck Channels

Dead Level® S

6" Wide Deck Channel For Cast in Place

System Pricing

Grating Type	List Price Per Ft.*
BK - Brickslot	P.O.A.
BK-AC12 Brickslot Access Cover	P.O.A.
BR - Decorative Bronze	\$777.08
DI - Ductile Iron	570.09
DI-ADA Ductile Iron ADA	626.07
GDI Galvanized Ductile Iron	709.21
GP Galvanized Perforated	499.78
GS Galvanized Slotted	499.78
SP Stainless Steel Perforated	734.66
SS Stainless Steel Slotted	734.66
RGP Reinforced Galvanized Perforated	583.64
RGS Reinforced Galvanized Slotted	583.64
RSP Reinforced Stainless Steel Perforated	821.18
RSS Reinforced Stainless Steel Slotted	821.18
PP Polypropylene	497.12
SCI Solid Cast Iron	658.32



*Per Ft. price includes:
Complete Dead Level® System with Channels, Frames,
Grates, Lockdowns, Frame Connectors, End Caps, Construction
Covers, and Hardware as Required.

Frame Guards	Description	List Price Per Ft.
FG-BR	Decorative Bronze	\$322.38
FG-GV	Galvanized Steel	84.85
FG-SS	Stainless Steel	261.30

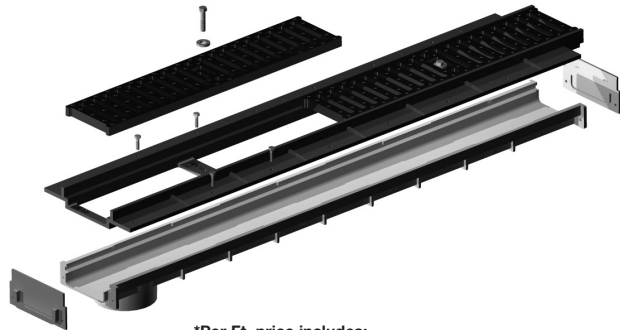
Dead Level® Z

6" Wide Flanged Deck Channel For Precast

System Pricing

Grating Type	List Price Per Ft.*
DI - Ductile Iron	\$475.08
DI-ADA Ductile Iron ADA	626.07
GDI Galvanized Ductile Iron	709.21
RGP HD Galvanized Perforated	492.05
RGS HD Galvanized Slotted	492.05
RSP HD Stainless Perforated	729.58
RSS HD Stainless Slotted	729.58

Frame Guards	Description	List Price Per Ft.
FG-BR	Decorative Bronze	\$322.38
FG-GV	Galvanized Steel	84.85
FG-SS	Stainless Steel	261.30



*Per Ft. price includes:
Complete Dead Level® System with Channels, Frames,
Grates, Lockdowns, Frame Connectors, End Caps, Construction
Covers, and Hardware as Required.



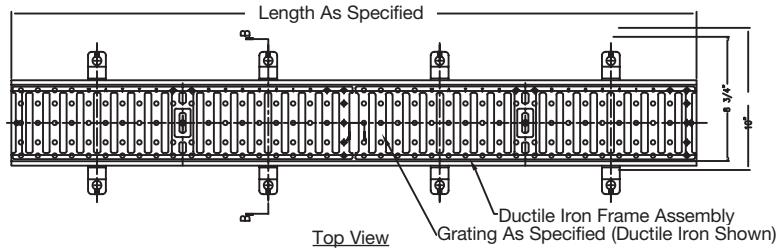
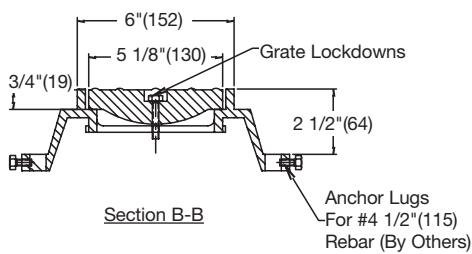
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Dead Level® 6" Wide Grate & Frame

DL-GF

6" Wide Ductile Iron Trench Frame & Grating

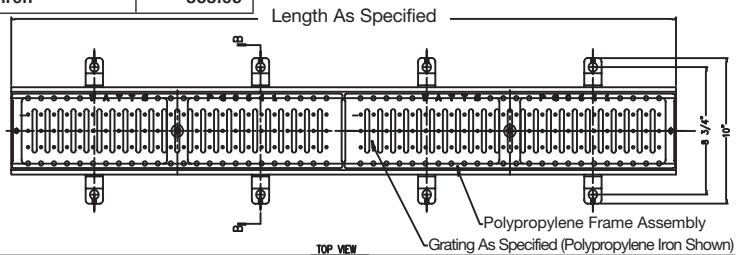
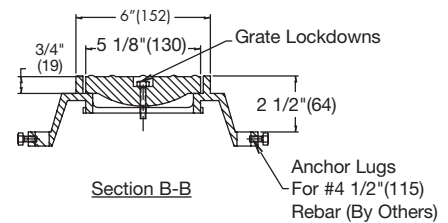
Model Number	Weight (lbs.)	Frame	Grating	List Price Per Ft.
DL-GF-BR	14 lbs./ft.	ductile iron	decorative bronze	\$612.50
DL-GF-DI	16 lbs./ft.	ductile iron	ductile iron	405.52
DL-GF-DI-ADA	16 lbs./ft.	ductile iron	ductile iron ADA	461.50
DL-GF-GDI	16 lbs./ft.	ductile iron	galvanized ductile iron	544.65
DL-GF-GP	11 lbs./ft.	ductile iron	galvanized perforated	332.54
DL-GF-GS	11 lbs./ft.	ductile iron	galvanized slotted	332.54
DL-GF-RGP	12 lbs./ft.	ductile iron	reinforced galvanized perforated	419.09
DL-GF-RGS	12 lbs./ft.	ductile iron	reinforced galvanized slotted	419.09
DL-GF-SP	11 lbs./ft.	ductile iron	stainless steel perforated	570.09
DL-GF-SS	11 lbs./ft.	ductile iron	stainless steel slotted	570.09
DL-GF-RSP	12 lbs./ft.	ductile iron	reinforced stainless steel perforated	656.61
DL-GF-RSS	12 lbs./ft.	ductile iron	reinforced stainless steel slotted	656.61
DL-GF-SCI	17 lbs./ft.	ductile iron	solid cast iron	488.64



DLP-GF

6" Wide Polypropylene Trench Frame & Grating

Model Number	Weight (lbs.)	Frame	Grating	List Price Per Ft.
DLP-GF-BR	6 lbs./ft.	polypropylene	decorative bronze	\$514.09
DLP-GF-DI	8 lbs./ft.	polypropylene	ductile iron	310.50
DLP-GF-DI-ADA	8 lbs./ft.	polypropylene	ductile iron ADA	349.53
DLP-GF-GDI	8 lbs./ft.	polypropylene	galvanized ductile iron	432.65
DLP-GF-GP	3 lbs./ft.	polypropylene	galvanized perforated	237.54
DLP-GF-GS	3 lbs./ft.	polypropylene	galvanized slotted	237.54
DLP-GF-PP	3 lbs./ft.	polypropylene	polypropylene	237.54
DLP-GF-RGP	4 lbs./ft.	polypropylene	reinforced galvanized perforated	327.45
DLP-GF-RGS	4 lbs./ft.	polypropylene	reinforced galvanized slotted	327.45
DLP-GF-SP	3 lbs./ft.	polypropylene	stainless steel perforated	476.75
DLP-GF-SS	3 lbs./ft.	polypropylene	stainless steel slotted	476.75
DLP-GF-RSP	4 lbs./ft.	polypropylene	reinforced stainless steel perforated	564.98
DLP-GF-RSS	4 lbs./ft.	polypropylene	reinforced stainless steel slotted	564.98
DLP-GF-SCI	9 lbs./ft.	polypropylene	solid cast iron	363.09



Frame Guards	Description	List Price Per Ft.
FG-BR	Decorative Bronze	\$322.38
FG-GV	Galvanized Steel	84.85
FG-SS	Stainless Steel	261.30

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

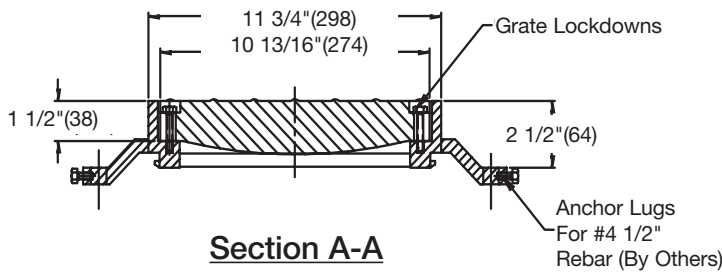


Dead Level® 12" Wide Grate & Frame

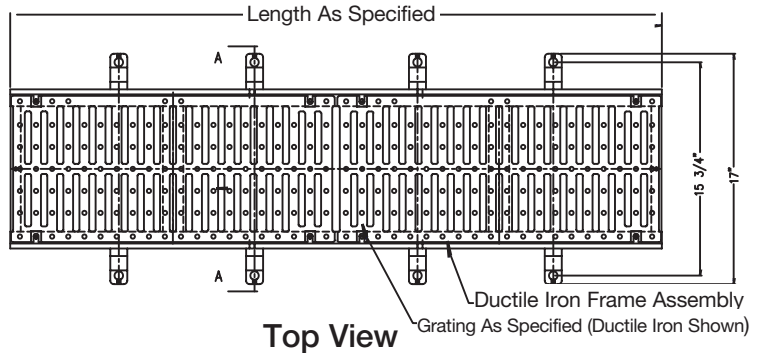
DX-GF

12" Wide Ductile Iron Trench Frame & Grating

Model Number	Weight (lbs.)	Frame	Grating	List Price Per Ft.
DX-GF-DI	32 lbs./ft.	ductile iron	ductile iron	\$726.16
DX-GF-DI-ADA	32 lbs./ft.	ductile iron	ductile iron ADA	816.10
DX-GF-GDI	32 lbs./ft.	ductile iron	galvanized ductile iron	751.62
DX-GF-RGP	22 lbs./ft.	ductile iron	reinforced galvanized perforated	919.60
DX-GF-RGS	22 lbs./ft.	ductile iron	reinforced galvanized slotted	919.60
DX-GF-RSP	22 lbs./ft.	ductile iron	reinforced stainless steel perforated	1,269.10
DX-GF-RSS	22 lbs./ft.	ductile iron	reinforced stainless steel slotted	1,269.10
DX-GF-SCI	33 lbs./ft.	ductile iron	solid ductile iron	802.52



Frame Guards	Description	List Price Per Ft.
FG-GV	Galvanized	\$84.85
FG-SS	Stainless Steel	261.30

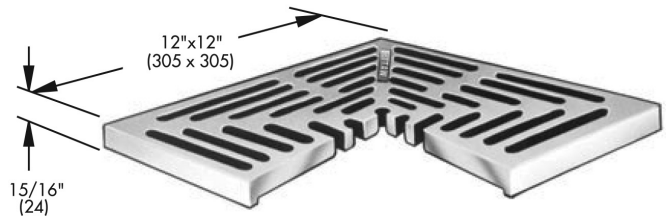


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Trench Drains

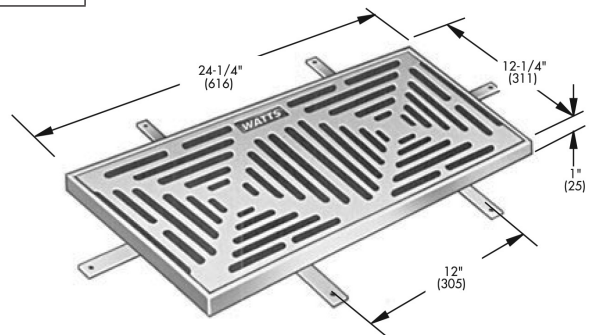
FD-460-AF-PG Medium Duty Sectional 12" Wide Trench Drain Grate Only

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.
FD-460-AF-PG-4-9	12" x 12"	None	Ductile Iron	\$463.73
FD-460-AF-PG-1	12" x 12"	None	Ductile Iron w/NB Veneer	1,184.93
FD-460-AF-PG-3-9	12" x 12"	None	Ductile w/Stainless Veneer	1,083.59



TD-900-B Medium Duty Sectional Trench Drain Grate & Frame

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.
TD-900-B-4	12" x 24"	Steel	Ductile Iron	P.O.A.
TD-900-B-4-1	12" x 24"	Nickel Bronze	Ductile Iron w/NB Veneer	P.O.A.
TD-900-B-4-3	12" x 24"	Stainless Steel	Ductile/w/Stainless Veneer	P.O.A.
TD-900-B-28	12" x 24"	Stainless Steel	Solid Stainless Grate	P.O.A.



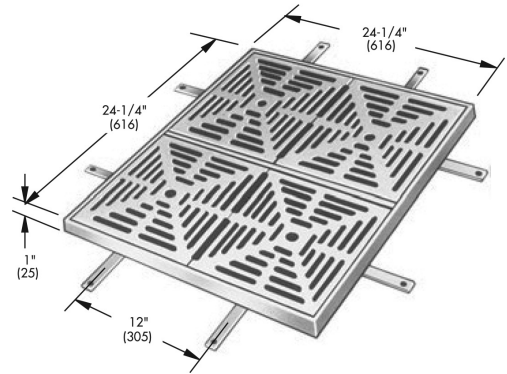
Consult factory for all applications outside of listed parameters.
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Trench Drains

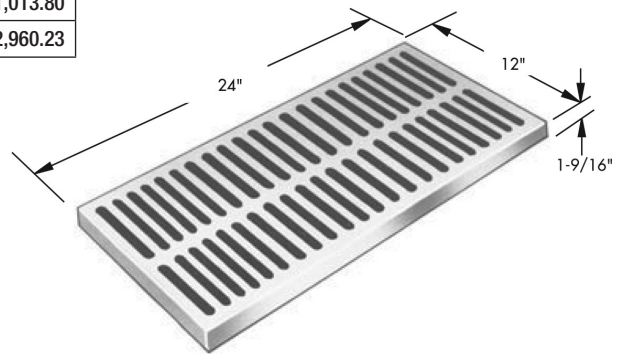
TD-900-C Light Duty Sectional 24" Wide Trench Drain Grate & Frame

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.
TD-900-C2-4	24" x 24"	Steel	Ductile Iron	P.O.A.
TD-900-C2-4-1	24" x 24"	Nickel Bronze	Ductile Iron w/NB Veneer	P.O.A.
TD-900-C2-4-3	24" x 24"	Stainless Steel	Ductile/w/Stainless Veneer	P.O.A.
TD-900--28	24" x 24"	Stainless Steel	Solid Stainless Grate	P.O.A.



TD-910 Heavy Duty Sectional 12" Wide Trench Drain Grate

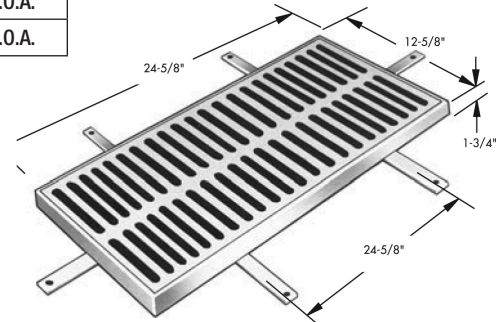
Model Number	Nominal Size	Frame	Grating	List Price Per Ft.
TD-910-4	12" x 24"	None	Ductile	\$1,013.80
TD-910-4-3	12" x 24"	None	Ductile w/Stainless Veneer	2,960.23



Trench Drains

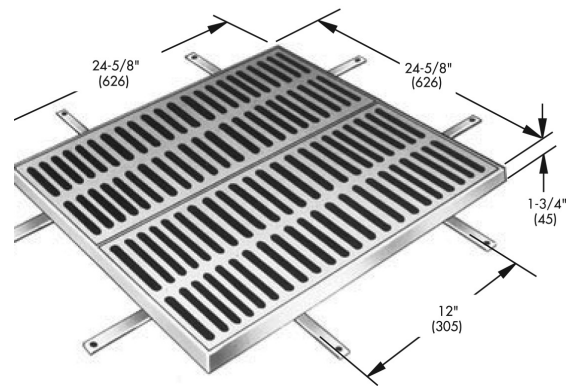
TD-910-B Heavy Duty Sectional 12" Wide Trench Drain Grate & Frame

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.	Add per 12"
TD-910-B-4	12" x 24"	Steel	Ductile Iron	P.O.A.	P.O.A.
TD-910-B-4-3	12" x 24"	Stainless Steel	Ductile w/Stainless Veneer	P.O.A.	P.O.A.



TD-910-C Heavy Duty Sectional 24" Wide Trench Drain Grate & Frame

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.	Add per 12"
TD-910-C2-4	24" x 24"	Steel	Ductile Iron	P.O.A.	P.O.A.
TD-910-C2-4-3	24" x 24"	Stainless Steel	Ductile w/Stainless Veneer	P.O.A.	P.O.A.



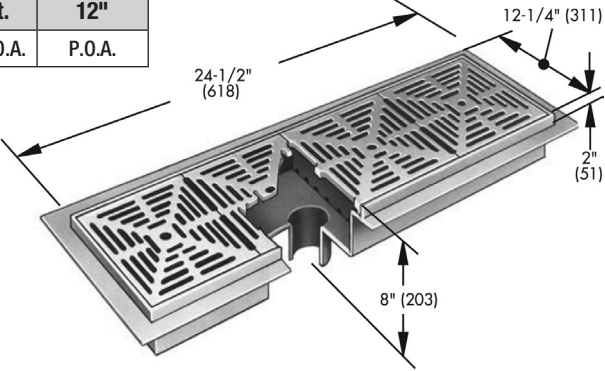
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Trench Drains

TD-920 Sectional Trench Drain 12" Wide

Model Number	Nominal Size	Frame	Grating	List Price Per Ft.	Add per 12"
TD-922,3,4,5,6-4	12" x 24"	Cold Rolled Steel	Ductile Iron	P.O.A.	P.O.A.

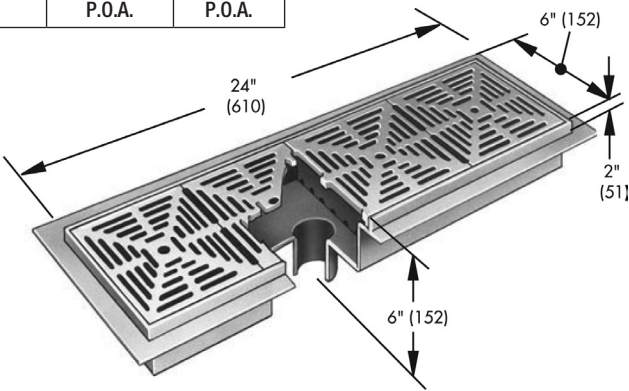


Options for TD-920 Series:

Suffix	Description	List Price
-5	Sediment Bucket	P.O.A.
-6	Vandal Proof per 12"	P.O.A.
-8	Backwater Valve (per outlet)	P.O.A.
-20	Secondary Dome Strainer	P.O.A.
-21	Solids Retaining Baffle (2 per outlet)	P.O.A.
-38	Anchor Flange	P.O.A.
-P	Push-On Connection	P.O.A.
-S	Side or End Outlet	P.O.A.

TD-940 Sectional Trench Drain 6" Wide

Model Number	Nominal Size	Frame	Grating	List Price/Per Ft.	Add per 12"
TD-942,3,4,5,6-3-28	6" x 24"	Stainless Steel	Ductile w/Stainless Veneer	P.O.A.	P.O.A.
TD-942,3,4,5,6-4	6" x 24"	Cold Rolled Steel	Ductile Iron	P.O.A.	P.O.A.



Options for TD-920 Series:

Suffix	Description	List Price
-5	Sediment Bucket	P.O.A.
-6	Vandal Proof per 12"	P.O.A.
-8	Backwater Valve (per outlet)	P.O.A.
-20	Secondary Dome Strainer	P.O.A.
-21	Solids Retaining Baffle (2 per outlet)	P.O.A.
-38	Anchor Flange	P.O.A.
-P	Push-On Connection	P.O.A.
-S	Side or End Outlet	P.O.A.

Green Roof Drains

Table Of Contents

- Pictorial Index
- Recommendations
- Green Roof Drainage
 - Placement & Sizing
 - Materials
 - Pipe Connections
 - Commonly Specified Options
 - Typical Installations



Green Roof Drains

Pictorial Index



GRD-610
Green Roof Large
Planter Drain



GRD-610-W
Green Roof Large
Planter Overflow Drain



GRD-620
Green Roof Plaza Area
Drain



GRD-630
Green Roof Intensive
Area Drain



GRD-640
Green Roof Metered
Overflow Drain



GRD-650
Green Roof Multi-Level
Planter Drain



GRD-670
Green Roof Drain
w/Auxiliary Inlet



GRD-680
Green Roof Planter Drain
with Traffic Grate



GRD-690
Green Roof Shallow
Planter Drain



GRD-730
Green Roof Large Multi-
Level Planter Drain

Green Roof Drains

Recommendations

Application

Extensive Area Primary.....	GRD-650, GRD-610
Intensive Area Primary.....	GRD-630
Maintenance Walkway.....	GRD-680
Multi-Level.....	GRD-650, GRD-730
Overflow.....	GRD-610-W, GRD-640
Planting Area Primary.....	GRD-610, GRD-670
Plaza Area.....	GRD-620

Product

Green Roof Drainage

Drainage is a critical aspect of green roof design and construction. Excessive accumulation of water in planting mediums can add considerable weight to a roof structure, creating a potentially hazardous condition.

Extensive green roof systems are comprised of grasses and vegetation requiring minimum or no maintenance. These systems typically have a soil depth of approx. 6", and an overall build-up of 12" or less above the structural roof.

Intensive green roof systems generally have a much deeper soil depth, and can incorporate bushes, trees, shrubs, and other decorative plants. Extensive green roof systems are designed to be regularly visited and maintained. Properly designed drainage is critical to ensure efficient water removal, and keep vegetation from interfering with drains.

Placement & Sizing

Refer to standard Roof Drain Placement & Sizing on p.100.

Materials

Cast iron epoxy coated*

Industrial grade cast iron, finished with Watts gray acid resistant epoxy coating.

*Note: * Watts Drainage standard epoxy coating is designed for interim protection of iron components during processing, shipping, and construction. It is not intended to protect surfaces subject to traffic, or environmental conditions. Exposed iron surfaces should be expected to show surface oxidation (rusting) after a short period of time.*

Domes

Standard non-rusting aluminum, covered with type 304 stainless steel mesh.

Perforated ABS

Standard 4" sch. 40 pipe size with 1/2" dia. perforations.

Perforated stainless steel

20 gauge, 3/8" dia. perforations, in accordance with ASTM-351-Grade CF8 (Type 304) standard specification.

Pipe Connections

No hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Push-on (-P)

ASTM C-564 gasket connection, with pipe stop. Suitable for no hub service weight cast iron, sch. 40 plastic, and steel pipe. Not recommended for above grade.

Inside caulk (-X)

Used for lead and oakum joints, pipe is inserted through a caulk ring on the drain outlet.

PVC (-60) or ABS (-61) socket

For direct solvent weld connection to sch. 40 plastic pipe.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Green Roof Drains

Green Roof Drainage

Commonly Specified Options

-12 Galvanized body and flashing clamp

Standard zinc galvanizing, typically specified in coastal environments.

-B Sump Receiver

Receives roof drain flange for installation flush with the roof deck, eliminating stress on the roofing membrane, and potential puddling around the drain.

-D Underdeck Clamp

Install on the underside of the roof deck, securely fastens the roof drain to the deck.

-F Deck Flange / Adjustable Extension

10 ga. zinc plated steel flange creates a structurally sound mounting surface over the roof penetration, and enables the drain to be elevated to the insulation height. *Note: a separate sump receiver is not required when a drain is specified with -F Deck Flange / Adjustable Extension.*

-L Vandal Proof Dome

Dome secured with Allen head bolts.

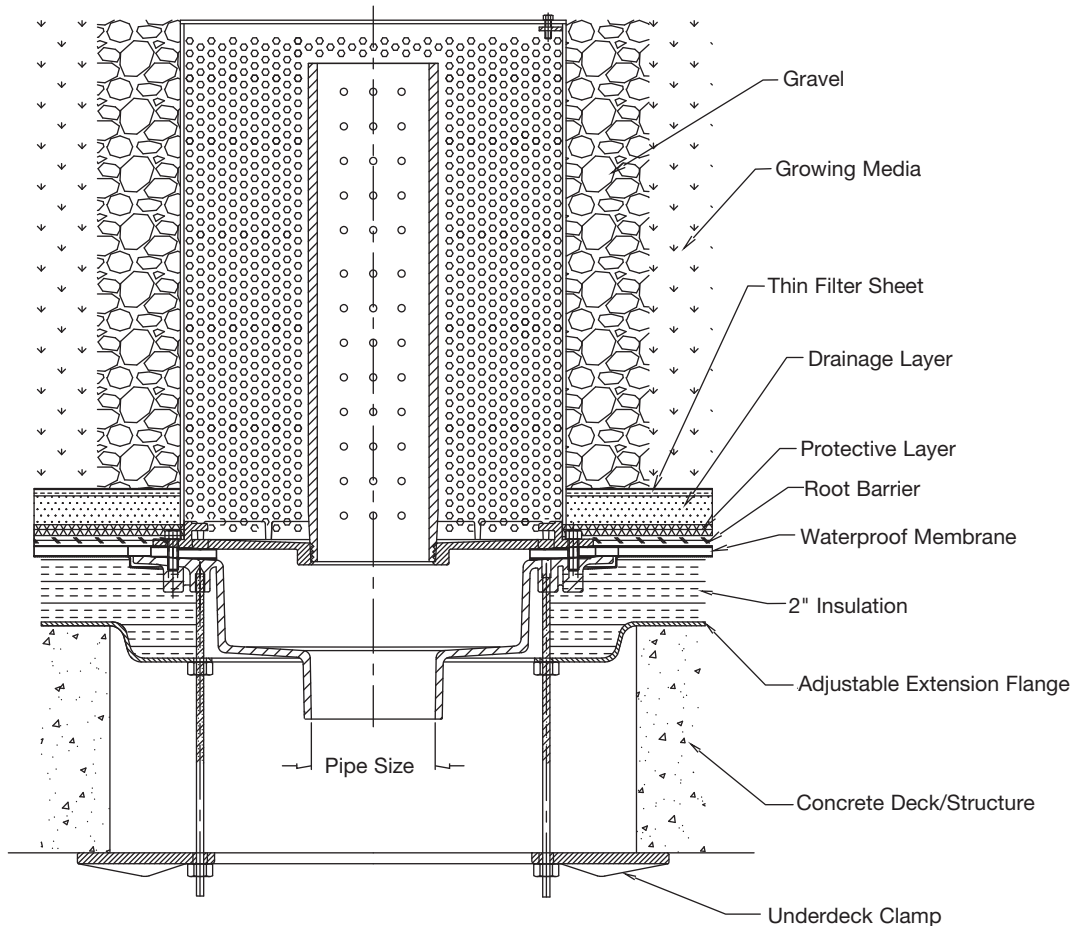
-US Buy American Compliant

Product will be supplied with minimum 51% domestic content, in compliance with FAR 52.225-9 Buy American Act.

Typical Installations

GRD-630

INTENSIVE AREA



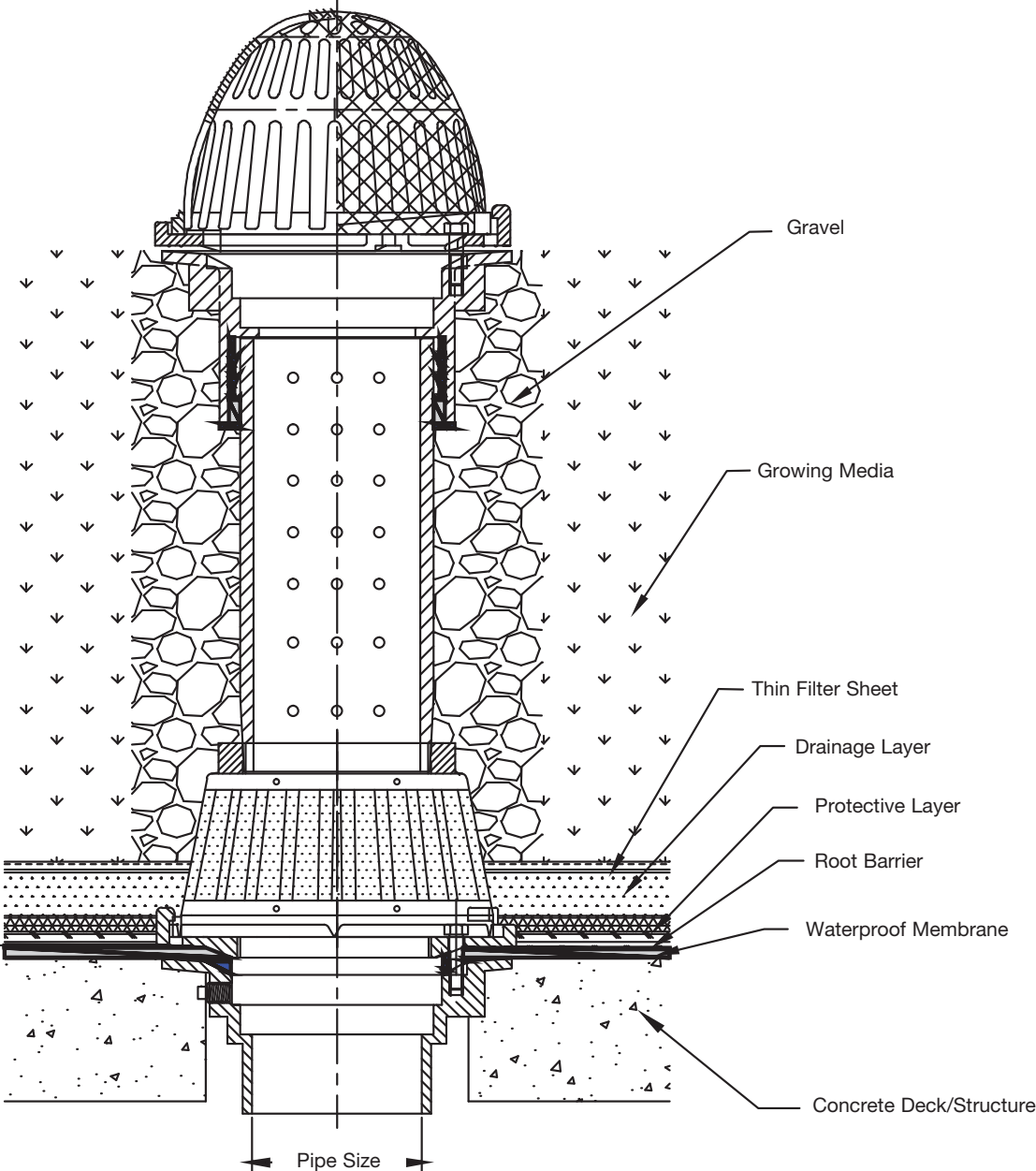
Consult factory for all applications outside of listed parameters.
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Green Roof Drains

Typical Installations

GRD-650

MULTI-LEVEL PLANTING AREA



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

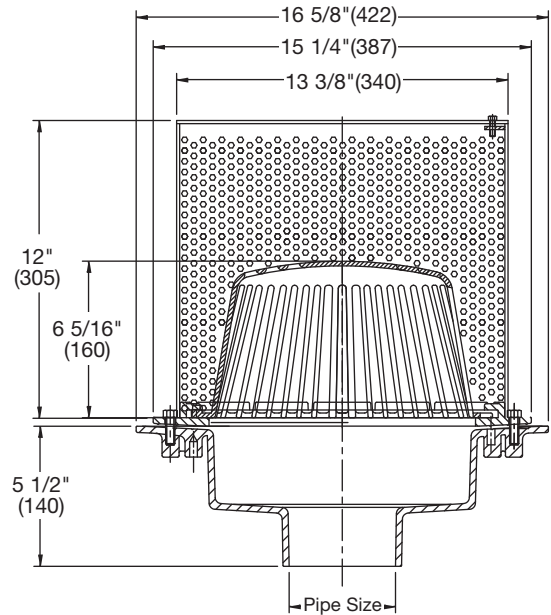


Green Roof Drains

GRD-610

Green Roof Large Planter Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-612, 3, 4, 5, 6, 8, 10"	2, 3, 4, 5, 6, 8, 10"	32	\$2,288.40



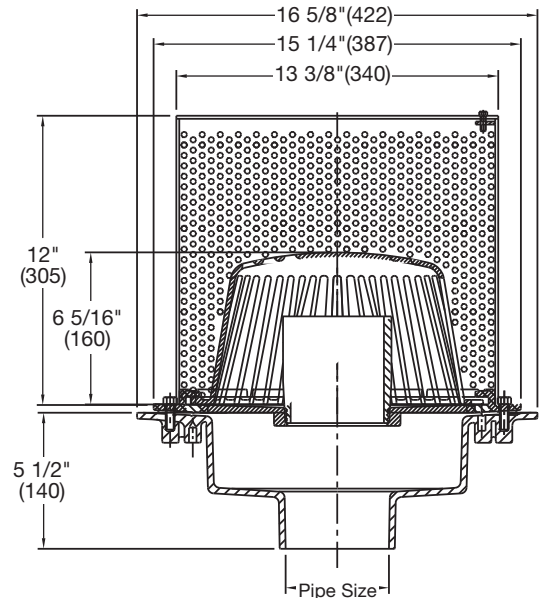
Options for GRD-610 Series:

Suffix	Description	List Price
-12	Galvanized Body	\$160.66
-B	Vandal Proof per 12"	269.99
-D	Backwater Valve (per outlet)	238.52
-F	Secondary Dome Strainer	364.39
-P	Push On	44.73

GRD-610-W

Green Roof Large Planter Overflow Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-612, 3, 4, 5, 6, 8, 10-W	2, 3, 4, 5, 6, 8, 10"	37	\$2,651.48



Options for GRD-610-W Series:

Suffix	Description	List Price
-12	Galvanized Body	\$160.66
-B	Vandal Proof per 12"	269.99
-D	Backwater Valve (per outlet)	238.52
-F	Secondary Dome Strainer	364.39
-W2	2" Internal Standpipe	No Add



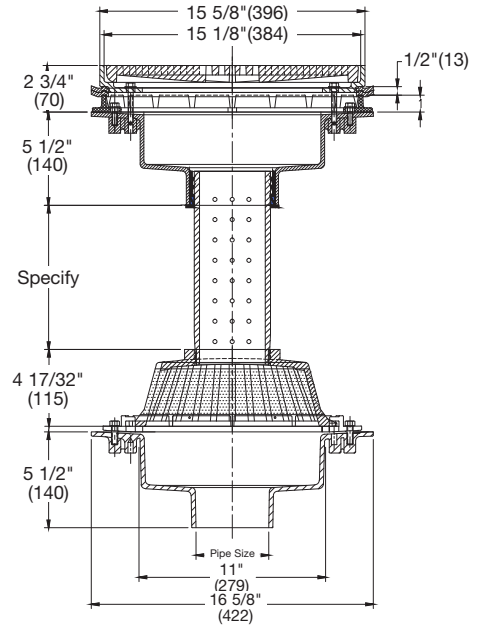
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Green Roof Drains

GRD-620

Green Roof Plaza Area Drain

Model Number	Outlet Size	Grate	WT., lbs.	List Price
GRD-622, 3, 4, 5, 6, 8, 10	2, 3, 4, 5, 6, 8, 10"	nickel bronze	130	\$9,172.02



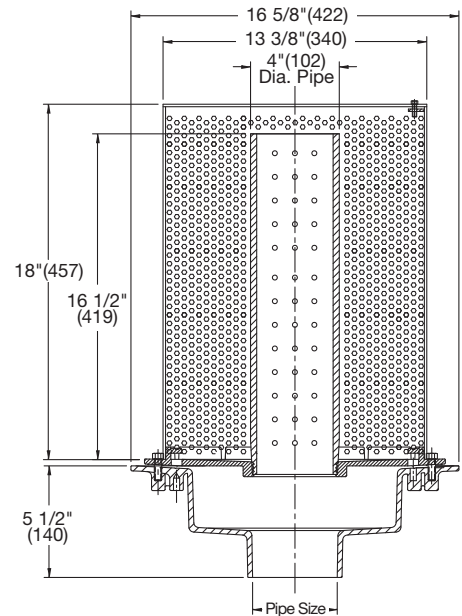
Options for GRD-620 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$255.08	-B	Sump Receiver	\$269.99
-6	Vandal Proof	145.76	-D	Underdeck Clamp	238.52
-12	Galvanized Body	160.66	-F	Deck Flange/Adj. Extension	365.03

GRD-630

Green Roof Intensive Area Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-632, 3, 4, 5, 6, 8, 10	2, 3, 4, 5, 6, 8, 10"	34	\$3,187.24



Options for GRD-630 Series:

Suffix	Description	List Price
-12	Galvanized Body	\$269.99
-B	Sump Receiver	238.52
-D	Underdeck Clamp	365.03
-F	Deck Flange/Adj. Extension	353.78

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

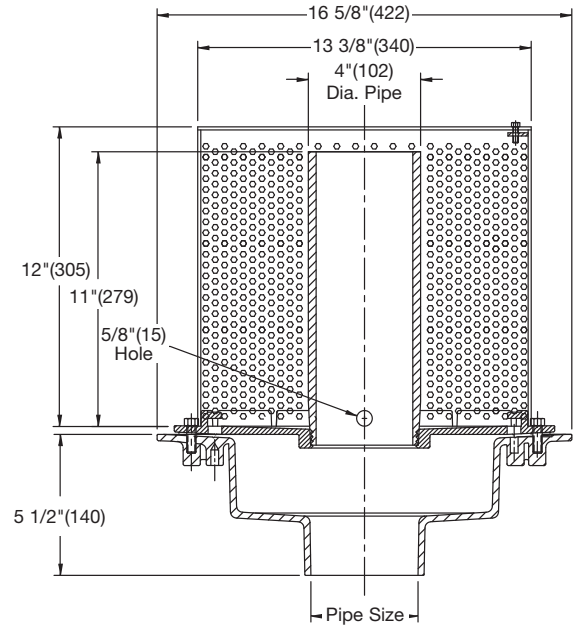


Green Roof Drains

GRD-640

Green Roof Metered Overflow Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-642, 3, 4, 5, 6, 8, 10	2, 3, 4, 5, 6, 8, 10"	37	\$2,368.94



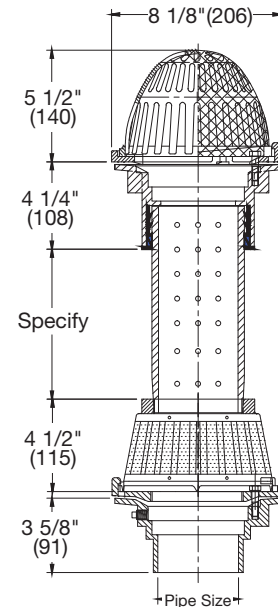
Options for GRD-640 Series:

Suffix	Description	List Price
-12	Galvanized Body	\$160.66
-B	Sump Receiver	269.99
-D	Underdeck Clamp	238.52
-F	Deck Flange/Adj. Extension	365.03

GRD-650

Green Roof Multi-Level Planter Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-652, 3, 4,	2, 3, 4,"	29	\$2,460.86



Options for GRD-620 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$140.78	-D	Underdeck Clamp	\$238.52
-6	Vandal Proof	142.45	-F	Deck Flange/Adj. Extension	364.39
-12	Galvanized Body	160.66	-P	Push On	44.73
-B	Sump Receiver	255.08	-SO	Side Outlet	248.45



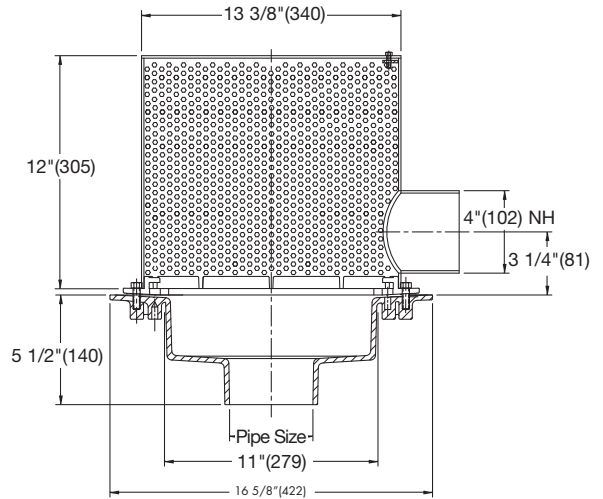
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Green Roof Drains

GRD-670

Green Roof Drain w/Auxiliary Inlet

Model Number	Outlet Size	WT., lbs.	List Price
GRD-672, 3, 4, 5, 6, 8, 10	2, 3, 4, 5, 6, 8, 10"	38	\$1,979.26



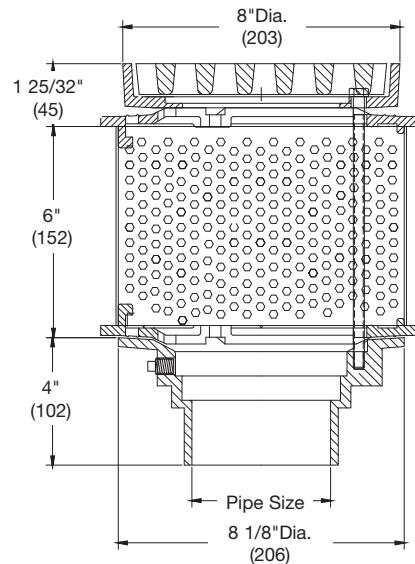
Options for GRD-670 Series:

Suffix	Description	List Price
-12	Galvanized Body	\$160.66
-B	Sump Receiver	270.53
-D	Underdeck Clamp	238.52
-F	Deck Flange/Adj. Extension	364.39
-P	Push On	44.73
-Q	Additional Inlet(s)	298.13 ea

GRD-680

Green Roof Planter Drain w/ Traffic Grate

Model Number	Outlet Size	Grate	WT., lbs.	List Price
GRD-682, 3, 4,	2, 3, 4,"	ductile iron	22	\$674.19



Options for GRD-680 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-1	All Nickel Bronze Top	\$616.14	-D	Underdeck Clamp	\$149.08
-6	Vandal Proof	142.45	-F	Deck Flange/Adj. Extension	364.39
-12	Galvanized Body	160.66	-P	Push On	44.73
-B	Sump Receiver	255.08	-SO	Side Outlet	248.45

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

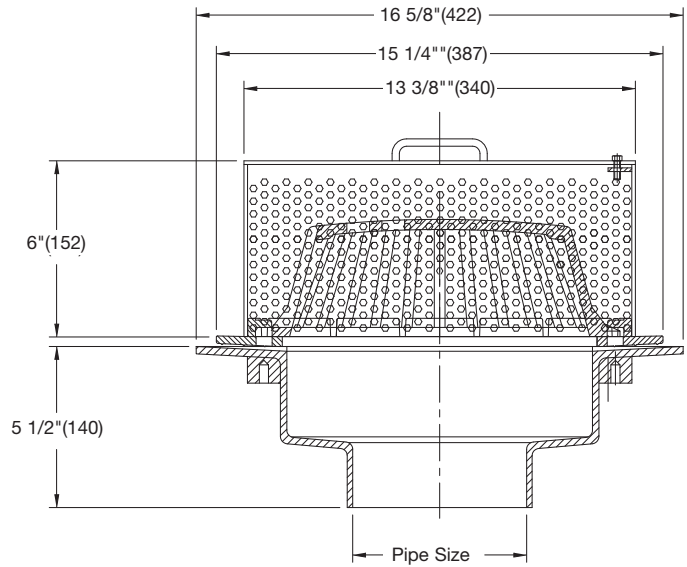


Green Roof Drains

GRD-690

Green Roof Shallow Planter Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-692, 3, 4, 5, 6, 8, 10	2, 3, 4, 5, 6, 8, 10"	34	\$2,643.31



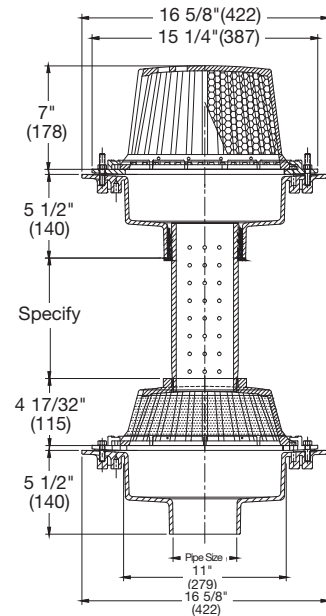
Options for GRD-690 Series:

Suffix	Description	List Price
-12	Galvanized Body	\$160.66
-B	Sump Receiver	269.99
-D	Underdeck Clamp	238.52
-F	Deck Flange/Adj. Extension	364.39
-P	Push On	44.73

GRD-730

Green Roof Large Multi-Level Planter Drain

Model Number	Outlet Size	WT., lbs.	List Price
GRD-732, 3, 4, 5, 6, 8, 10	2,3,4,5,6,8,10"	74	\$3,933.23



Options for GRD-730 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-5	Sediment Bucket	\$256.71	-D	Underdeck Clamp	\$246.77
-6	Vandal Proof	145.76	-F	Deck Flange/Adj. Extension	364.39
-12	Galvanized Body	160.66	-P	Push On	44.73
-B	Sump Receiver	269.99			



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Roof Drains

Table Of Contents

- Pictorial Index
- Product Recommendations
- Roof Drain Selection Factors
 - Placement
 - Sizing
 - Materials
 - Pipe Connections
 - Commonly Specified Options
- Typical Installations



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

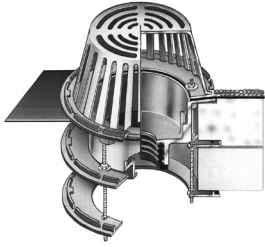
WATTS[®]

Roof Drains

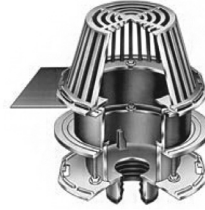
Pictorial Index



RD-100
Roof Drain



RD-100-BED
Large Area Roof Drain w/
Sump Receiver



RD-100-BVD
Large Sump Roof Drain w/
Fixed Extension & Clamp



RD-100-CH
Roof Drain w/Adj. IRMA Cast
Iron Insulation & Ballast Guard



RD-100-CJ
IRMA
Roof Drain



RD-100-CP
Roof Drain with
12" x 12" Promenade Top



RD-100-CP-CJ
IRMA Roof Drain
w/12"x12" Promenade Top

No Photo
Available

RD-100-CT
Cooling Tower Roof Drain



RD-100-F
Roof Drain w/Deck
Flange/Adj. Extension



RD-100-GSS
Roof Drain w/ Stainless Steel
Insulation & Ballast Guard



RD-100-R
Roof Drain with
2 in. External Water Dam



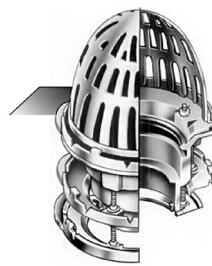
RD-100-SO
Roof Drain with Side Outlet



RD-100-W
Roof Drain with 4"
Internal Standpipe



RD-200
Small Area Roof Drain



RD-200-BED
Small Sump Roof Drain
For 1-3/4" to 7" Insulation



RD-200-CP
Small Area Roof Drain with
Promenade Top

Roof Drains

Pictorial Index



RD-200-CP-CJ
IRMA Roof Drain with 8 in.
Promenade Top



RD-200-R
Small Area Roof Drain with
2 in. External Water Dam



RD-200-SO
Side Outlet Roof Drain



RD-200-W
Small Area Roof Drain with
4" Internal Standpipe



RD-230
Side Outlet Balcony Drain



RD-240
Bottom Outlet Balcony
Drain



RD-250
One-Piece Combination
Roof Drain



RD-260
Combination Roof Drain &
Secondary Overflow



RD-270
Scupper Drain with Angle
Grate



RD-280
Flanged Cast Iron
Roof Drain



RD-280-SO
Flanged Cast Iron Roof
Drain with Side Outlet



RD-290
Scupper Drain
w/Flat Grate



RD-300
High Volume Roof Drain



RD-300-AC
Adj. Ext. Compression
Seal Roof Drain



RD-300-AE
Adj. Ext. Threaded
Seal Roof Drain



RD-300-85
High Volume
IRMA Roof Drain

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

WATTS®

Roof Drains

Pictorial Index



RD-300-CP15
Roof Drain with 15 x15 in.
Promenade Top



RD-300-CP15-85
IRMA Roof Drain
w/15"x15" Promenade Top



RD-300-F
High Volume Roof Drain w/
Deck Flange/Adj. Extension



RD-300-R
High Volume Roof Drain w/
2 in. External Water Dam



RD-300-W
High Volume Roof Drain
w/4 in. Internal Standpipe



RD-400
12 in. Dia.
Deck Receptor Drain



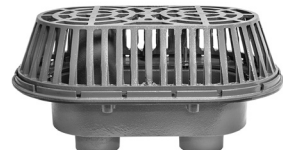
RD-410
8 in. Dia.
Deck Receptor Drain



RD-500
Super Flow
Roof Drain



RD-680-VC
Cast Iron Vent Cap



RD-700
Dual Outlet Roof Drain/
Overflow



RD-700-CT
Dual Outlet Roof Drain/
Overflow



RD-800
Dual Outlet Large Capacity
Roof Drain/Overflow



RD-800-CT
Dual Outlet Large Capacity
Roof Drain/Overflow



RD-900
Neoprene Expansion
Coupling



RD-940
Downspout Nozzle



RD-950
Stainless Steel Downspout
Cover



Consult factory for all applications outside of listed parameters.
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Roof Drains

Pictorial Index



Recommendations

Application	Product
Balcony or Canopy	RD-230, RD-240
Combination Primary/Overflow	RD-700
Deck Receptor	RD-400, RD-410
Downspout Nozzle/Cover	RD-940, RD-950
Downspout Boot	RD-970 / RD-980
IRMA	RD-300-85
Primary Roof Drain	RD-300, RD-300-F
Primary Roof Overflow	RD-300-R, RD-300-W
Promenade Area	RD-100-CP, RD-300-CP15
Promenade Area IRMA	RD-100-CP-85, RD-300-CP15-85
Scupper or Parapet	RD-270, RD-290

Consult factory for all applications outside of listed parameters.
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Roof Drains

Roof Drain Selection Factors

Sizing

- 1.) Calculate roof area (sq. ft.) to be drained.
- 2.) Determine the maximum hourly rainfall rate for your area. This information is available from your local weather bureau or code authority.
- 3.) Select leader (drain pipe) size. In general, increasing leader size will decrease the number of drains required.
- 4.) Reference leader size with hourly rainfall rate, to determine the roof area drained by each leader (Chart B).
- 5.) Divide roof area (1.) by area per leader (4.) to determine the number of drains required

Chart A

Leader Pipe Size Inches	Maximum Allowable Horizontal Projected Roof Areas Square Feet at Various Rainfall Rates					
	1 in./hr.	2 in./hr.	3 in./hr.	4 in./hr.	5 in./hr.	6 in./hr.
2	2176	1088	725	544	435	363
3	6440	3220	2147	1610	1288	1073
4	13840	6920	4613	3460	2768	2307
5	25120	12560	8373	6280	5024	4187
6	40800	20400	13600	10200	8160	6800
8	88000	44000	29333	22000	17600	14667

Chart A is based on Table 11-1 from the Uniform Plumbing Code (UPC) - 2006 Edition

Chart B

Allowable Flow (GPM) for Vertical Leaders and Horizontal Storm Drains ²				
Pipe Size Inches	Vertical Leader	Horizontal Storm Drain / Slope		
		1/8"/ft.	1/4"/ft.	1/2"/ft.
2	23	10	15	20
3	67	34	48	68
4	144	78	110	156
5	261	139	196	278
6	424	222	314	445
8	913	478	677	956
10	-	860	1214	1721
12	-	1384	1953	2768
15	-	2473	3491	4946

Chart B is based on Table 11-2 from the Uniform Plumbing Code (UPC) - 2006 Edition

Roof Drains

Roof Drain Selection Factors

Materials

Cast iron epoxy coated*

Industrial grade cast iron, finished with Watts gray acid resistant epoxy coating.

NOTE: Watts drainage standard epoxy coating is designed for interim protection of iron components during processing, shipping, and construction. It is not intended to protect surfaces subject to traffic, or environmental conditions. Exposed iron surfaces should be expected to show surface oxidation (rusting) after a short period of time.

PVC or ABS

Select roof drains can be specified with optional PVC (-60) or ABS (-61) plastic bodies for direct sch. 40 solvent weld connection.

Poly domes

UV stabilized high density polyethylene, high resistance to breakage and weathering.

Pipe Connections

No Hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Push-on (-P)

ASTM C-564 gasket connection, with pipe stop. Suitable for no hub or service weight cast iron, sch. 40 plastic, and steel pipe. Not recommended for above grade.

Inside Caulk (-X)

Used for lead and oakum joints, pipe is inserted through a caulk ring on the drain outlet.

PVC (-60) or ABS (-61) socket

For direct solvent weld connection to sch. 40 plastic pipe.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Commonly Specified Options

-12 Galvanized body and flashing clamp

Standard zinc galvanizing, typically specified in coastal environments.

-85 4" High Perforated SS Extension

For IRMA roof applications, allows drainage through insulation area.

-B Sump Receiver

Receives roof drain flange for installation flush with the roof deck, eliminating stress on the roofing membrane, and potential puddling around the drain.

-D Underdeck Clamp

Install on the underside of the roof deck, securely fastens the roof drain to the deck.

-F Deck Flange / Adjustable Extension

10 ga. zinc plated steel flange creates a structurally sound mounting surface over the roof penetration, and enables drain to be elevated to insulation height.

Note: a separate sump receiver is not required when the drain is specified with a -F Deck Flange / Adjustable Extension.

-GSS Stainless Steel Ballast Guard

4" high perforated stainless steel, protects drain area and dome in ballasted roof areas.

-K Ductile Iron Dome

Superior impact resistance compared to standard cast iron. Finished with standard grey epoxy coating.

-K12 Galvanized Ductile Iron Dome

Hot-dipped galvanized, superior impact resistance. Typically specified in coastal environments.

-K40 Ductile Iron Low Dome

Low profile, superior impact resistance compared to standard cast iron. Finished with standard grey epoxy coating.

-K80 Aluminum Dome

Corrosion resistant, finished with standard grey epoxy coating.

-K83 Stainless Steel Mesh Covered Aluminum Dome

Corrosion resistant, mesh prevents small debris from entering the drain.

-L Vandal Proof Dome

Dome secured with Allen head bolts.

-R 2" High External Water Dam

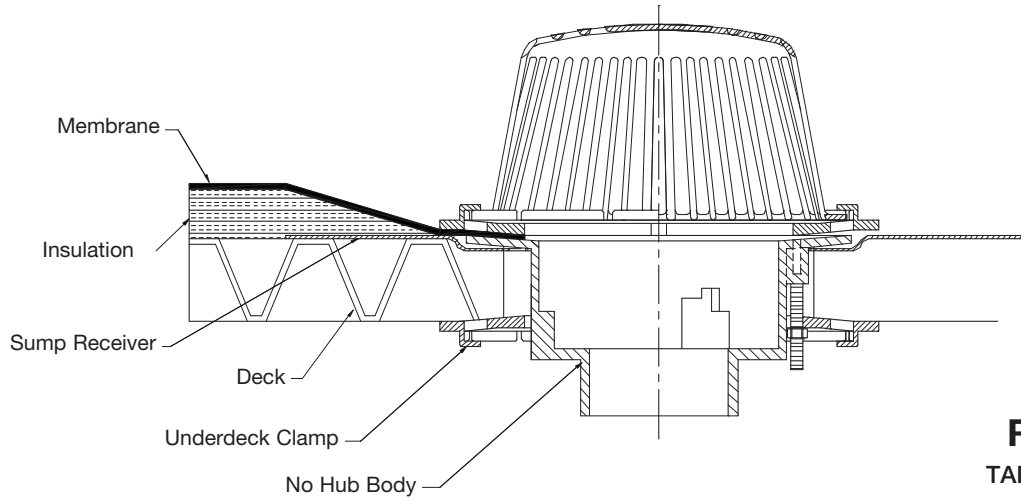
For emergency roof overflow drains, restricts drainage on roof surface below 2".

-W 4" High Internal Water Dam

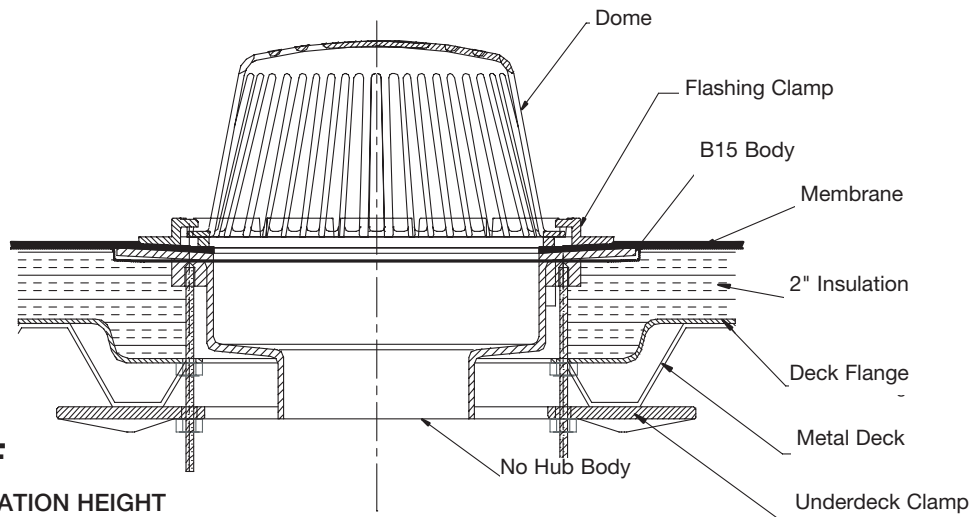
For emergency roof overflow drains, restricts drainage on roof surface below 4".

Roof Drains

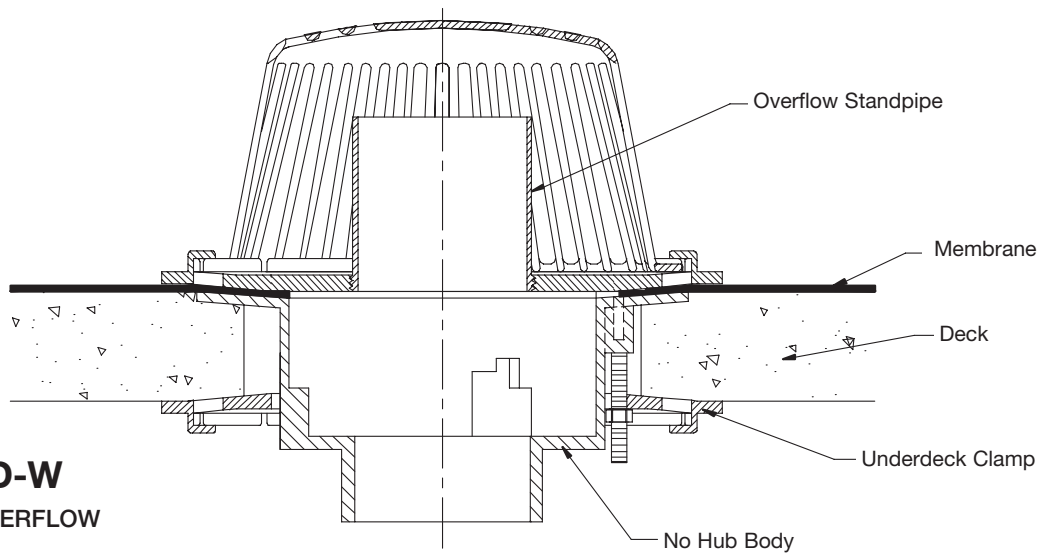
Typical Installations



RD-100-B-D
TAPERED INSULATION



RD-300-D-F
DRAIN ELEVATED TO INSULATION HEIGHT



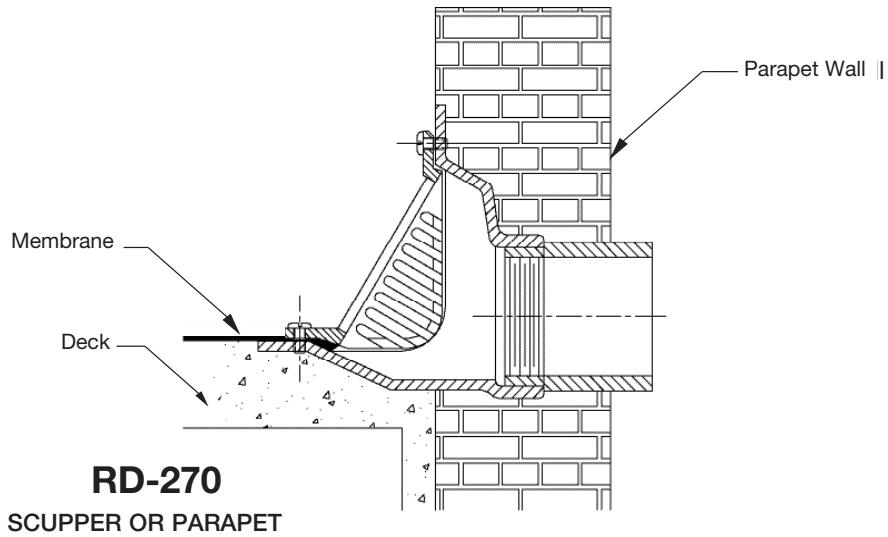
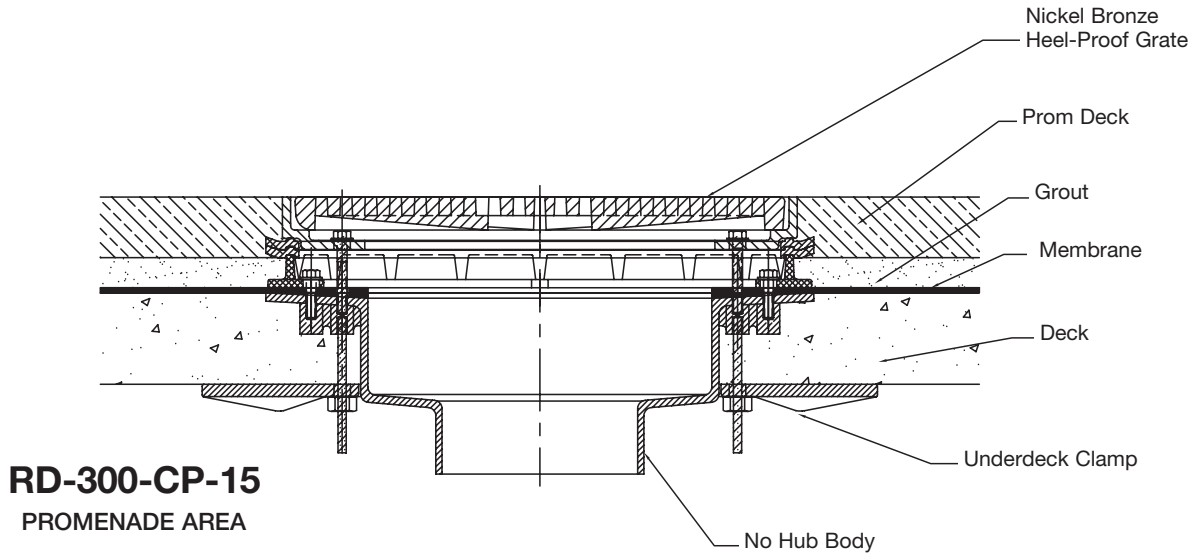
RD-100-D-W
INTERNAL OVERFLOW



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Roof Drains

Typical Installations



Roof Drains

RD-100

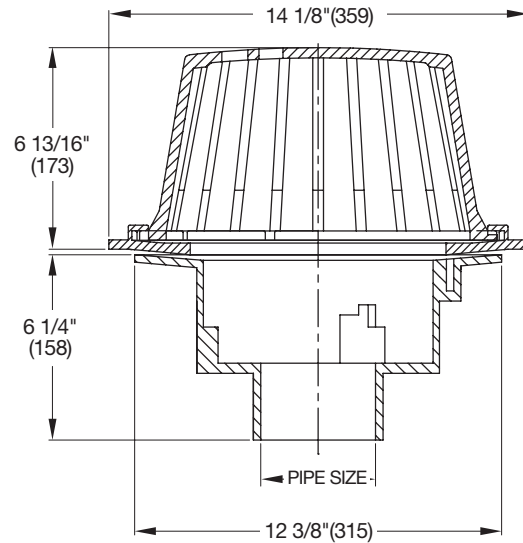
Roof Drain



Model Number	Outlet Size	WT., lbs.	List Price
RD-102, 3, 4	2, 3, 4, 6"	26	\$454.86
RD-105, 6, 8	5, 6, 8"	26	586.59



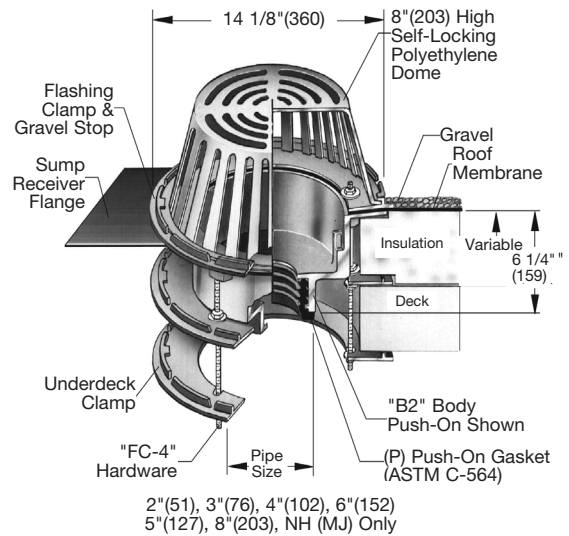
Note: Poly Dome Standard



RD-100-BED

Large Area Roof Drain w/Sump Receiver, Adj. Extension, & Deck Clamp

Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-102, 3, 4-BED	2, 3, 4, 5, 6"	55	\$906.71
RD-108-BED	8"	55	1,038.44



Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W	Adjustable Internal Water Dam	220.29

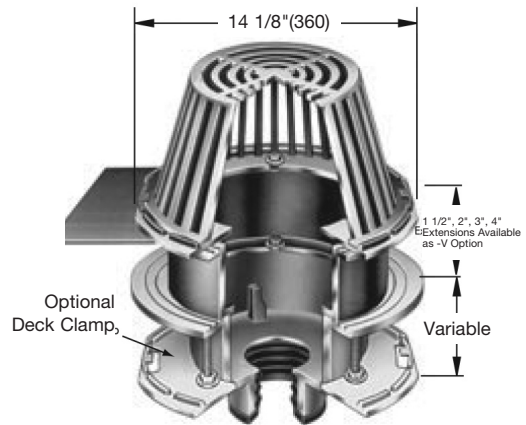


Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Roof Drains

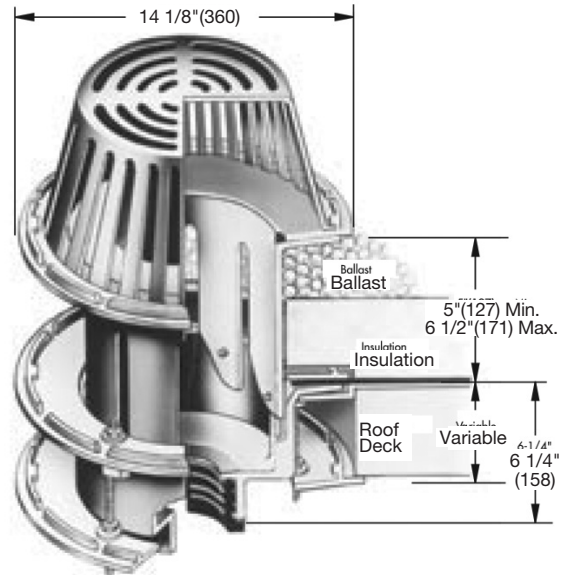
RD-100-BVD Roof Drain

Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-102, 3, 4-BVD	2, 3, 4"	95	\$1,125.73
RD-105, 6, 8-BVD	5, 6, 8"	N/A	1,257.46



RD-100-CH Roof Drain w/Adj. IRMA Cast Iron Insulation & Ballast Guard

Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-102, 3, 4-CH	2, 3, 4"	65	\$976.18
RD-105, 6, 8-CH	5, 6, 8"	n/a	1,107.91



Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W	Adjustable Internal Water Dam	220.29

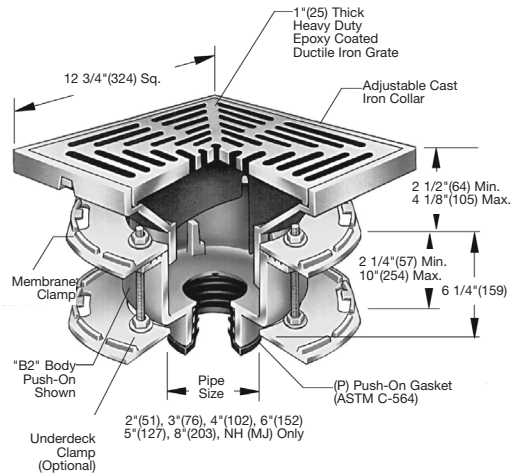
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Roof Drains

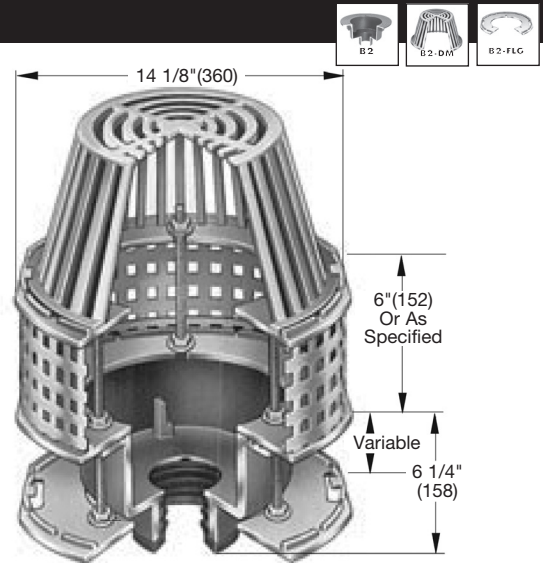
RD-100-CP Roof Drain w/12" x 12" Promenade Top

Model Number	Outlet Size	Wt., Lbs.	List Price
RD-102, 3, 4-CP-4	2, 3, 4"	84	\$1,258.42
RD-102, 3, 4-CP-1	2, 3, 4"	84	2,138.53
RD-105, 6, 8-CP-4	5, 6, 8"	84	3,200.30
RD-105, 6, 8-CP-1	5, 6, 8"	84	3,200.30



RD-100-CJ IRMA Roof Drain

Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-102, 3, 4, 6-CJ	2, 3, 4, 6"	60	\$1,089.33
RD-108-CJ	8"	60	1,221.06



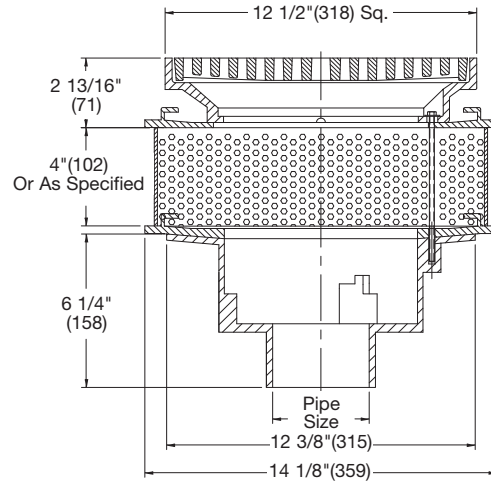
Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W	Adjustable Internal Water Dam	220.29

Roof Drains

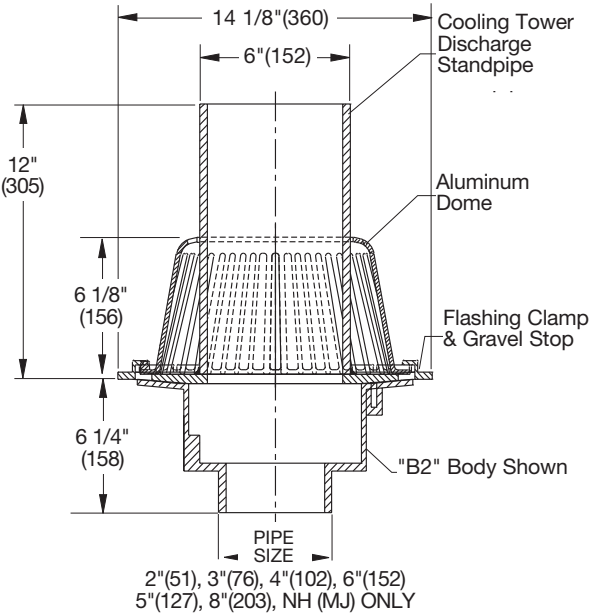
RD-100-CJ-CP Roof Drain with 12" x 12" Promenade Top

Model Number	Outlet Size	Wt., Lbs.	Cast Top	Nickel Bronze Top
RD-102, 3, 4-CJ-CP-1	2, 3, 4"	85	\$2,320.71	\$2,749.78
RD-105, 6, 8-CJ-CP-1	5, 6, 8"	85	2,431.52	2,881.51



RD-100-CT Roof Drain with Adjustable Extension Flange

Model Number	Outlet Size	WT., lbs.	List Price
RD-102, 3, 4-CT	2, 3, 4"	85	\$4,680.48
RD-105, 6, 8-CT	5, 6, 8"	85	4,812.21



Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W	Adjustable Internal Water Dam	220.29

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



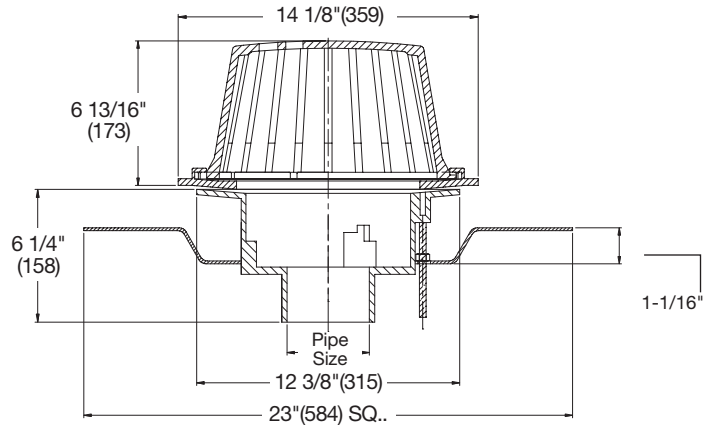
Roof Drains

RD-100-F

Roof Drain with Adjustable Extension Flange



Model Number	Outlet Size	WT., lbs.	List Price
RD-102, 3, 4-F	2, 3, 4"	40	\$1,111.78
RD-105, 6, 8-F	5, 6, 8"	40	1,243.51



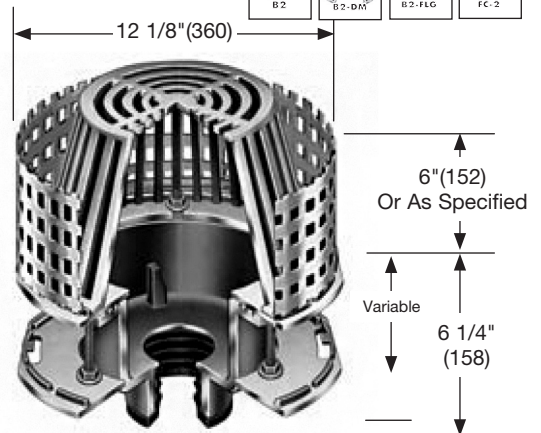
Note: Poly Dome Standard

RD-100-GSS

Roof Drain with Stainless Steel Insulation & Ballast Guard



Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-102, 3, 4, 6-GSS	2, 3, 4, 6"	50	\$953.48
RD-108-GSS	8"	50	856.74



Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W	Adjustable Internal Water Dam	220.29



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Roof Drains

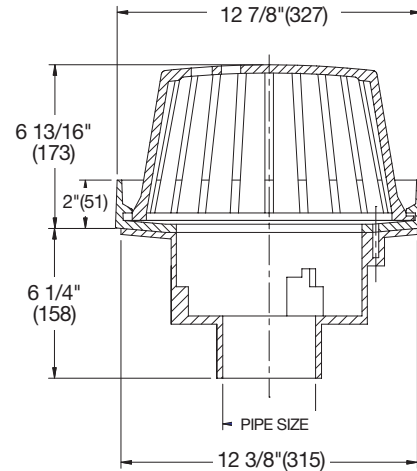
RD-100-R Overflow Roof Drain with 2" External Water Dam



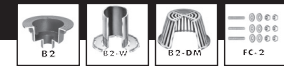
Model Number	Outlet Size	WT., lbs.	List Price
RD-102, 3, 4-R	2, 3, 4,"	27	\$516.99
RD-105, 6, 8-R	5, 6, 8"	27	648.72



Note: Poly-Dome Standard



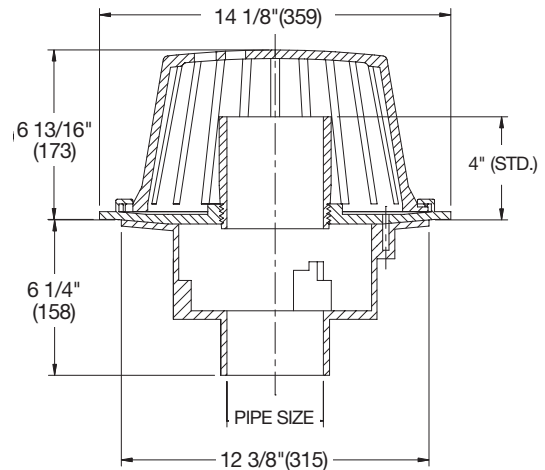
RD-100-W Overflow Roof Drain with Internal Standpipe



Outlet Size	Outlet Size	WT., lbs.	Poly Dome
RD-102, 3, 4-W	2, 3, 4"	32	\$610.20
RD-105, 6, 8-W	5, 6, 8"	32	741.93



Note: Poly-Dome Standard



Options for RD-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$104.33
P	Push-On Outlet	\$44.73	-K13	Galvanized Dome	339.53
-T	Threaded Outlet	92.75	-K40	Ductile Iron Low Dome (4" High)	248.45
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K80	Aluminum Dome	104.33
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K81	Rough Bronze Dome	967.27
-12	Galvanized Body & Flashing Clamp	160.66	-K83	SS Mesh Covered Aluminum Dome	877.84
-A	Accutrol Flow Restrictor	241.82	-L	Vandal Proof Dome	145.76
-B	Sump Receiver	190.47	-R	2" External Water Dam	178.86
-D	UnderdeckClamp	112.63	-SO	Side Outlet (2, 3, 4" Only)	258.85
-F	Deck Flange/Adj. Extension	664.20	-V	Fixed Extension	323.36
-GSS	Stainless Steel Ballast Guard	498.53	-W6	Adjustable Internal Water Dam	220.29

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



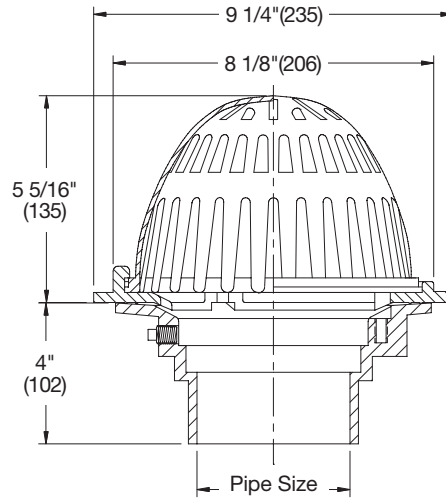
Roof Drains

RD-200

Small Area Roof Drain



Model Number	Outlet Size	WT., lbs.	Poly Dome
RD-202, 3, 4, 6	2, 3, 4, 6"	15	\$299.26

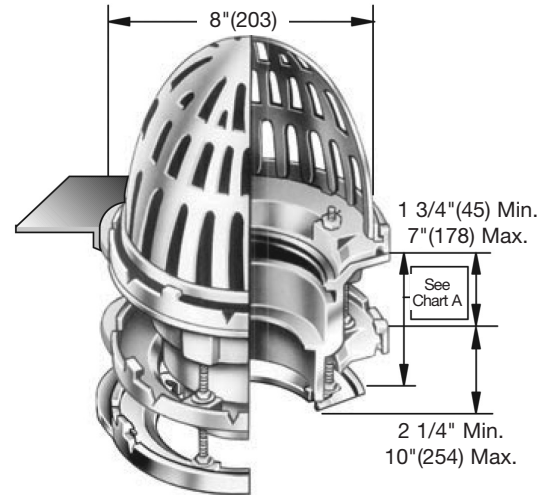


RD-200-BED

Small Sump Roof Drain for 1-3/4" to 7" Insulation

Model Number	Outlet Size	Wt., Lbs.	Poly Dome
RD-202, 3, 4, 6-BED	2, 3, 4, 6"	27	\$590.96

Chart A				
	Std.	P	T	60/61
Pipe Size	No Hub	Push On	Female Thread	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	3 3/4"(94)
4"(100)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)			



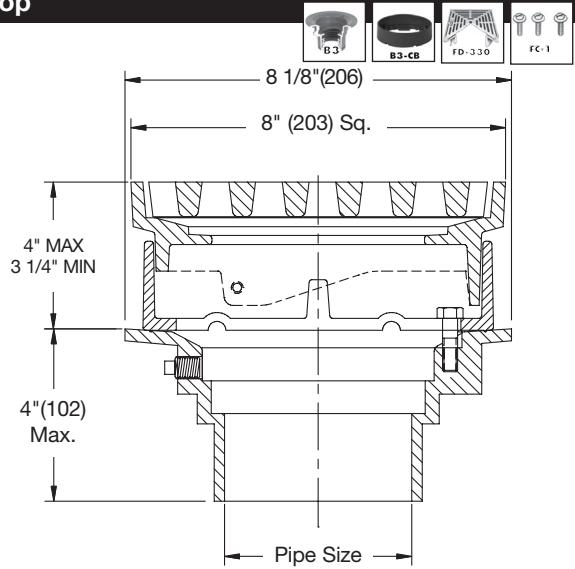
Options for RD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-A1, A2	Flow Control	\$137.48	-F	Deck Flange/Adj. Extension	\$381.30
None	No Hub	No Add	-GSS	Stainless Steel Ballast Guard	218.91
P	Push-On Outlet	44.73	-K	Ductile Iron Dome	109.34
-T	Threaded Outlet	92.75	-K80	Aluminum Dome	109.34
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K81	Bronze Dome	724.68
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K83	SS Mesh Covered Aluminum Dome	331.26
-6	Vandal Proof	44.73	-L	Vandal Proof Dome	74.53
-12	Hot Dipped Galvanized	160.66	-R	2" External Water Dam	74.53
-B	Sump Receiver	106.60	-SO	Side Outlet	248.45
-D	UnderdeckClamp	72.88	-W	Adjustable Internal Water Dam	437.24

Roof Drains

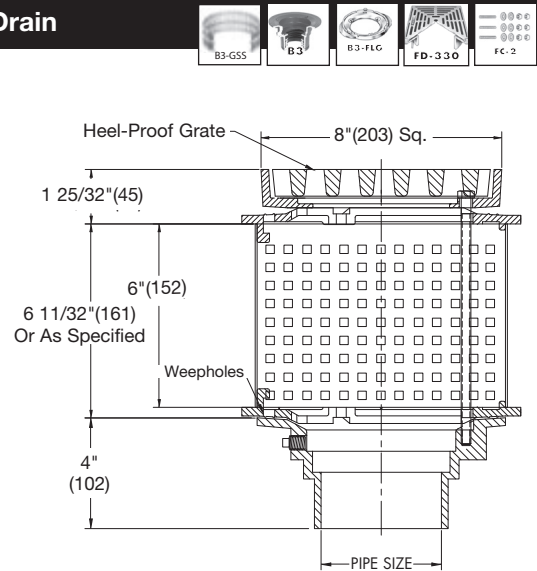
RD-200-CP Roof Drain with 8" x 8" Promenade Top

Model Number	Outlet Size	WT., lbs.	Grate	List Price
RD-202, 3, 4-CP	2, 3, 4, 6"	22	ductile iron	\$556.82
RD-202, 3, 4-CP-1	2, 3, 4, 6"	22	nickel bronze	1,862.18



RD-200-CJ-CP Irma Promenade Roof Drain

Model Number	Outlet Size	Wt., Lbs.	Ductile Iron Top
RD-202, 3, 4, 6-CJ-CP	2, 3, 4, 6"	85	\$488.39
RD-202, 3, 4, 6-CJ-CP-101	2, 3, 4, 6"	85	1,528.17



Options for RD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-A1, A2	Flow Control	137.48	-F	Deck Flange/Adj. Extension	\$381.30
None	No Hub	No Add	-GSS	Stainless Steel Ballast Guard	218.91
P	Push-On Outlet	44.73	-K	Ductile Iron Dome	109.34
-T	Threaded Outlet	92.75	-K80	Aluminum Dome	109.34
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K81	Bronze Dome	724.68
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-K83	SS Mesh Covered Aluminum Dome	331.26
-6	Vandal Proof	44.73	-L	Vandal Proof Dome	74.53
-12	Hot Dipped Galvanized	160.66	-R	2" External Water Dam	74.53
-B	Sump Receiver	106.60	-SO	Side Outlet	248.45
-D	UnderdeckClamp	72.88	-W	Adjustable Internal Water Dam	437.24

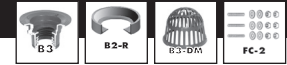
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



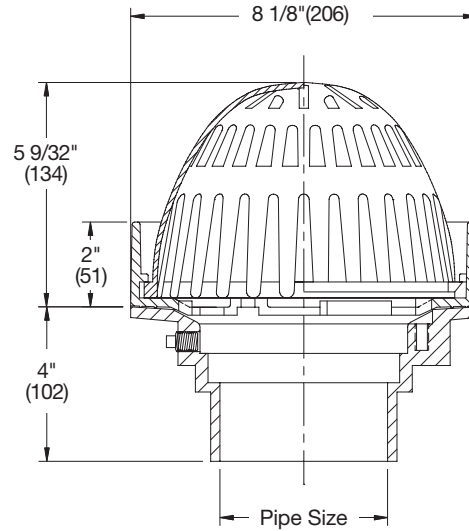
Roof Drains

RD-200-R

Overflow Roof Drain with 2" External Water Dam

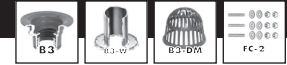


Model Number	Outlet Size	WT., lbs.	List Price
RD-202, 3, 4, 6-R	2, 3, 4, 6"	25	\$341.22

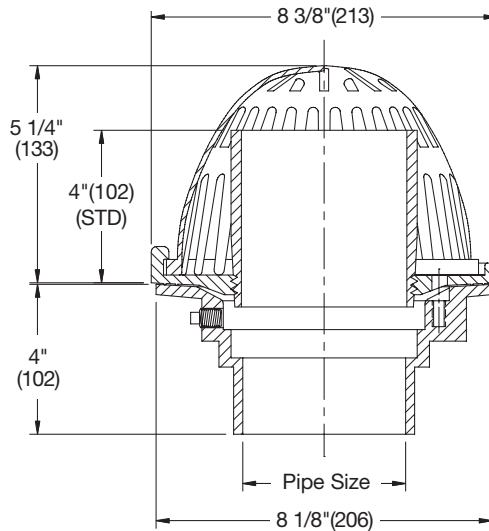


RD-200-W

Overflow Roof Drain with Internal Standpipe



Model Number	Outlet Size	WT., lbs.	List Price
RD-202, 3, 4, 6-W	2, 3, 4, 6"	25	\$401.26



Options for RD-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
-A1, A2	Flow Control	\$130.92	-F	Deck Flange/Adj. Extension	\$381.30
None	No Hub	No Add	-GSS	Stainless Steel Ballast Guard	218.91
P	Push-On Outlet	44.73	-K	Ductile Iron Dome	109.34
-T	Threaded Outlet	92.75	-K80	Aluminum Dome	109.34
X	Inside Caulk Outlet	No Add	-K81	Bronze Dome	724.68
-60	PVC Body w/Socket Outlet (2, 3, 4, 6" Only)	33.13	-K83	SS Mesh Covered Aluminum Dome	331.26
-61	ABS Body w/Socket Outlet (2, 3, 4" Only)	33.13	-L	Vandal Proof Dome	74.53
-6	Vandal Proof	44.73	-R	2" External Water Dam	74.53
-12	Hot Dipped Galvanized	160.66	-SO	Side Outlet	248.45
-B	Sump Receiver	106.60	-W	Adjustable Internal Water Dam	437.24
-D	UnderdeckClamp	72.88			



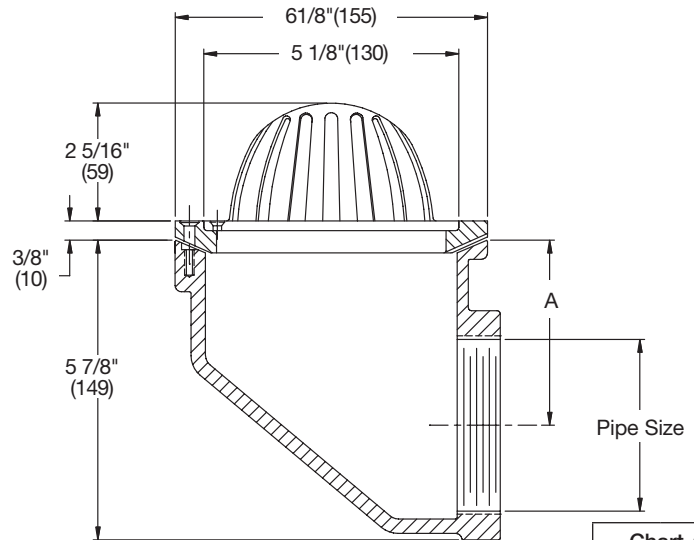
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Balcony Drains

RD-230

Side Outlet Balcony Drain

Model Number	Outlet Size	WT., lbs.	List Price
RD-232, 3, 4	2, 3, 4"	10	\$755.45

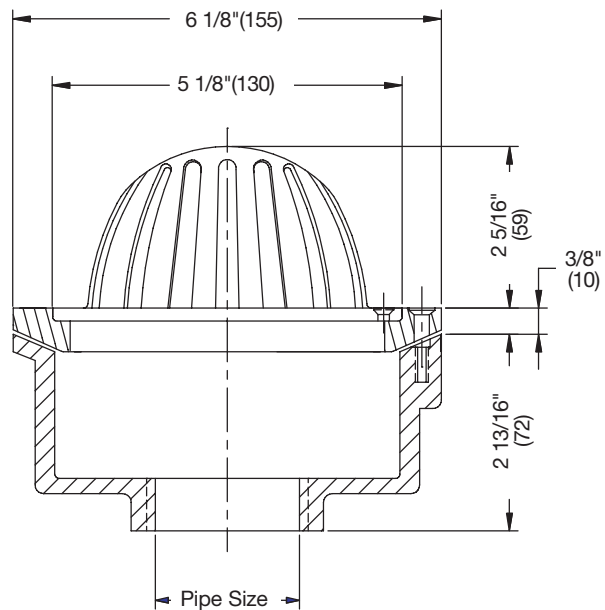


Size	A
2"	4 5/16"
3"	3 5/8"
4"	3 1/8"

RD-240

Bottom Outlet Balcony Drain

Model Number	Outlet Size	WT., lbs.	List Price
RD-242, 3, 4	2, 3, 4"	7	\$728.78



Options for RD-230/240 Series:

Suffix	Description	List Price
-6	Vandal Proof	\$66.25
-12	Galvanized Body & Flashing Clamp	160.66
-14	Flat Grate	No Add
-83	SSMesh Covered Dome	553.10

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

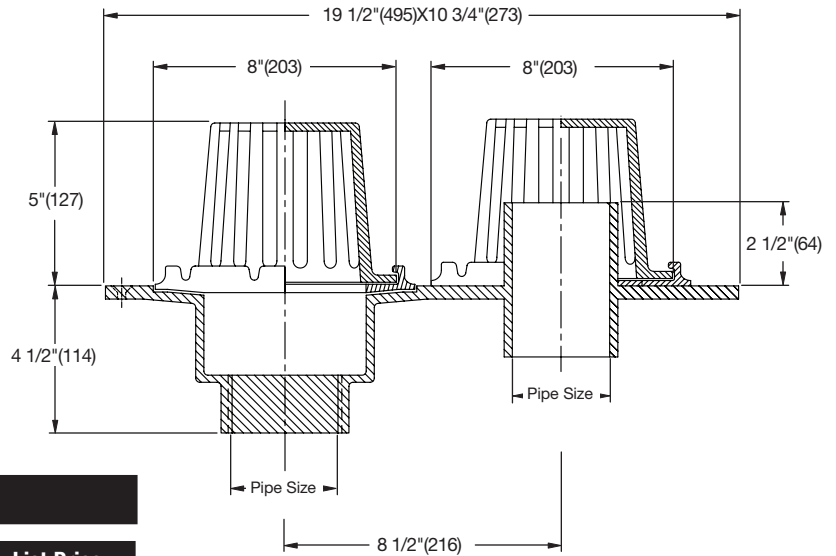


Combination Roof Drains

RD-250

Flanged Cast Iron Roof Drain/Overflow System

Model Number	Outlet Size	WT., lbs.	List Price
RD-252, 3, 4	2, 3, 4"	28	\$965.27



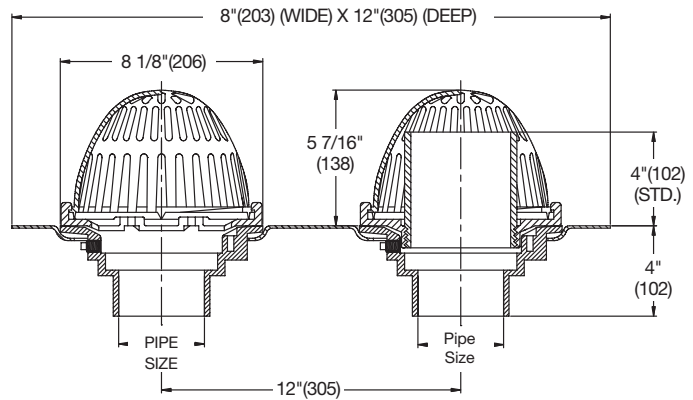
Options for RD-250 Series:

Suffix	Description	List Price
-L	Vandal Proof	\$74.53

RD-260

Roof Drain/Overflow System

Model Number	Outlet Size	WT., lbs.	List Price
RD-262, 3, 4	2, 3, 4"	36	\$785.55



Options for RD-260 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-K	Ductile Iron Dome	\$218.63
P	Push-On Outlet	\$44.73	-K80	Aluminum Dome	218.63
-T	Threaded Outlet	185.50	-K83	SS Mesh Covered Dome	695.64
-60	PVC Body w/Socket Outlet	33.13	-L	Vandal Proof Dome	291.49
-61	ABS Body w/Socket Outlet	33.13	-R	2" External Water Dam	357.78
-12	Galvanized Body & Flashing Clamp	160.66			
-D	UnderdeckClamp	298.13			



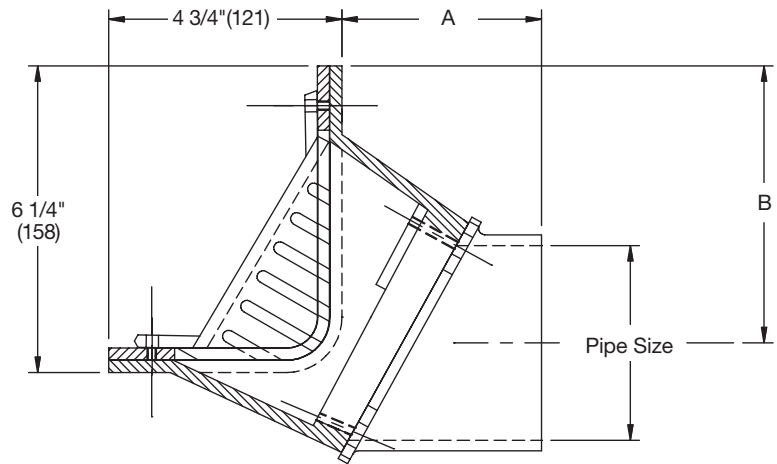
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Scupper Drains

RD-270

Scupper Drain with Angle Grate

Model Number	Outlet Size	WT., lbs.	List Price
RD-272, 3, 4	2, 3, 4"	20	\$735.41
RD-276	6"	22	1,830.65
RD-272, 3, 4-1	2, 3, 4"	20	\$1,638.21
RD-276-1	6"	22	2,285.64

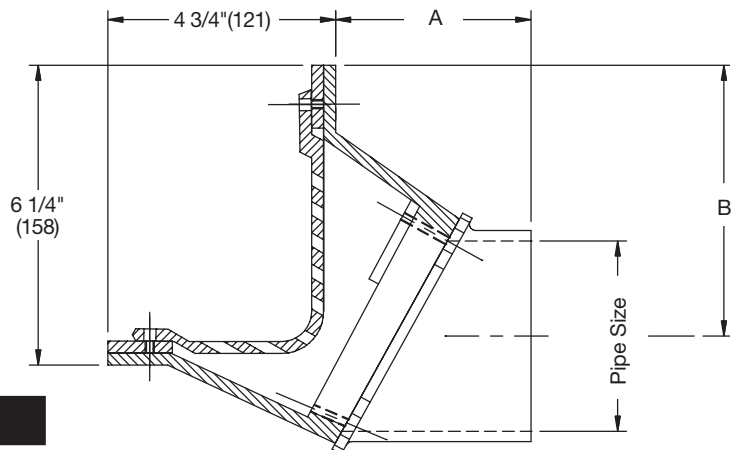


RD-270	NH		THD	
	A	B	A	B
2"	5-1/8"	6-1/2"	2-3/4"	6"
3"	4-1/2"	5-3/4"	2-3/4"	5-3/8"
4"	4"	5-1/8"	2-3/4"	4-7/8"

RD-290

Scupper Drain with Flat Grate

Model Number	Outlet Size	WT., lbs.	List Price
RD-292, 3, 4	2, 3, 4,"	24	\$694.64
RD-296	6"	26	1,875.01
RD-292, 3, 4-1	2, 3, 4,"	24	\$1,339.50
RD-296-1	6"	26	CF**



Options for RD-270 / RD-290 Series:

Suffix	Description	List Price
-A	45 Degree Outlet (NH Only)	No Add
-T	Threaded Outlet (2, 3, 4" Only)	No Add
-1	Nickel Bronze Grate & Frame	\$877.84
-6	Vandal Proof Grate	66.25
-12	Galvanized	160.66

RD-290	NH		THD	
	A	B	A	B
2"	5-1/8"	6-1/2"	2-3/4"	6"
3"	4-1/2"	5-3/4"	2-3/4"	5-3/8"
4"	4"	5-1/8"	2-3/4"	4-7/8"

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

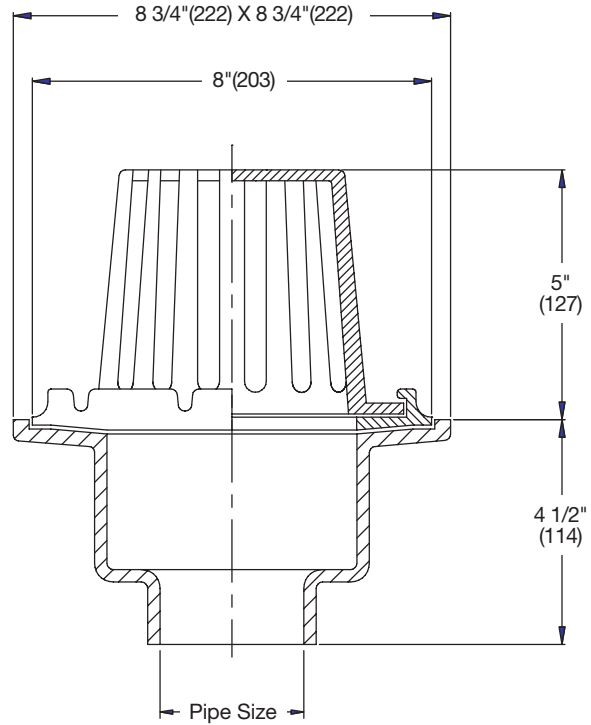


Small Area Roof Drains

RD-280

Flanged Cast Iron Roof Drain

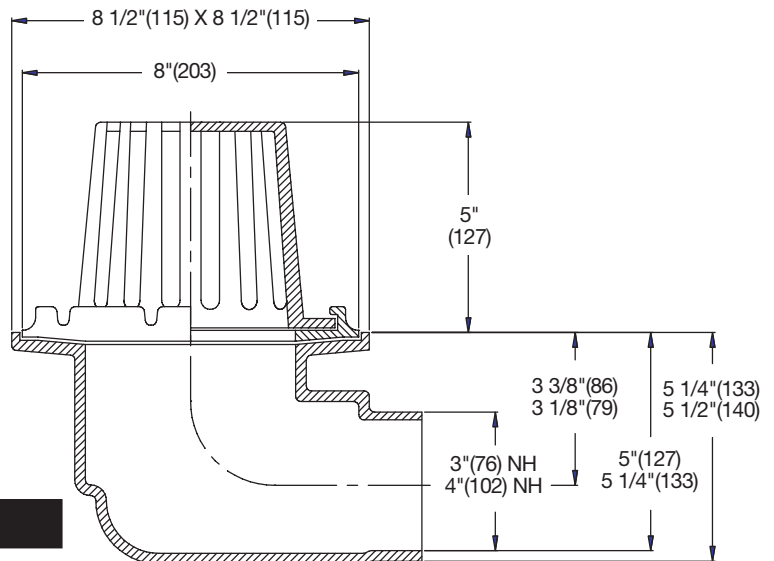
Model Number	Outlet Size	WT., lbs.	List Price
RD-283, 4	3, 4"	16	\$546.55



RD-280-SO

Flanged Cast Iron Roof Drain with Side Outlet

Model Number	Outlet Size	WT., lbs.	List Price
RD-283, 4-SO	3, 4"	17	\$558.96



Options for RD-270 / RD-290 Series:

Suffix	Description	List Price
-L	Vandal Proof Dome	No Add
-R	2" External Water Dam	\$202.19



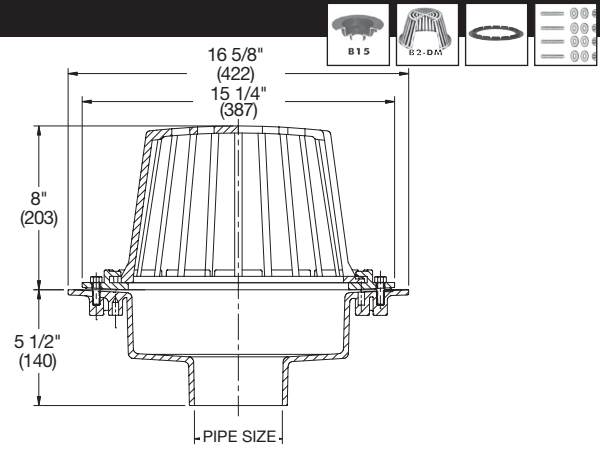
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

High Volume Roof Drains

RD-300

High Volume Roof Drain

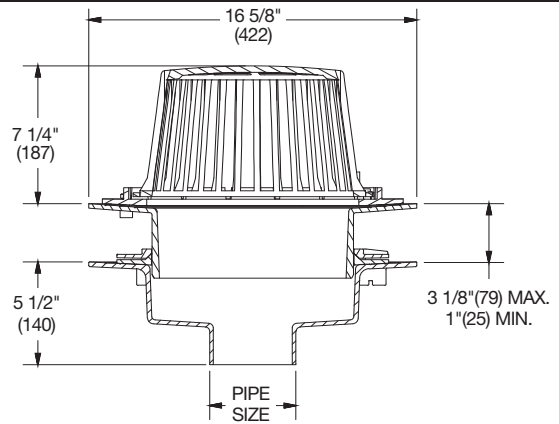
Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4	2, 3, 4"	30	\$703.92
RD-305, 6	5, 6"	30	1,008.66
RD-308, 10	8, 10"	30	1,311.75



RD-300-AC

Adjustable Extension Compression Seal Roof Drain

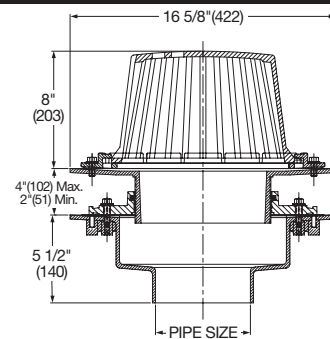
Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4-AC	2, 3, 4"	63	\$1,231.00
RD-305, 6-AC	5, 6"	63	1,231.00
RD-308, 10-AC	8, 10"	63	1,231.00



RD-300-AE

Adjustable Extension Threaded Seal Roof Drain

Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4-AE	2, 3, 4"	63	\$2,369.74
RD-305, 6-AE	5, 6"	63	2,369.74
RD-308, 10-AE	8, 10"	63	2,369.74



Options for RD-300 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Available on 3, 4, & 6" Outlets Only	\$44.73	-K40	Ductile Iron Low Dome (4" High)	\$248.45
-12	Galvanized Body	160.66	-K80	Aluminum Dome	104.33
-B	Sump Receiver	269.99	-K81	Rough Bronze Dome	967.27
-D	UnderdeckClamp	165.63	-K83	SS Mesh Covered Aluminum Dome	877.84
-F	Deck Flange/Adj. Extension	666.25	-L	Vandal Proof Dome	145.76
-GSS	Stainless Steel Ballast Guard	498.53	-R	2" External Water Dam	178.86
-K	Ductile Iron Dome	104.33	-W	4" Internal Water Dam	220.29
-K13	Galvanized Dome	669.14			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

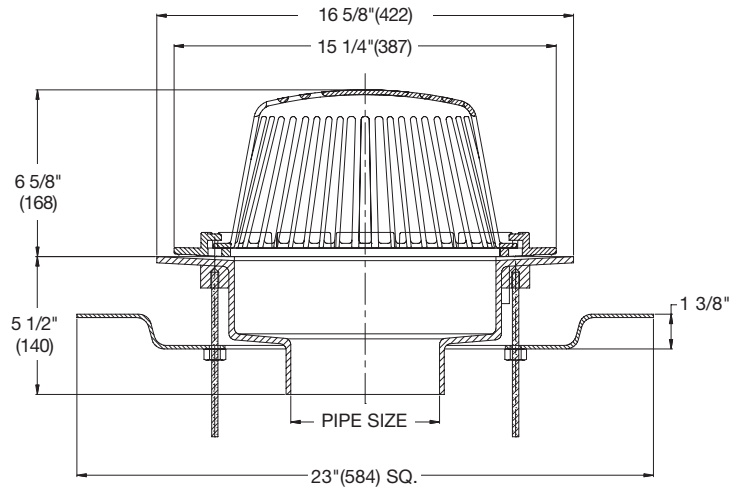


High Volume Roof Drains

RD-300-F

Roof Drain with Adjustable Extension Flange

Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4-F	2, 3, 4,"	45	\$1,393.92
RD-305, 6-F	5, 6"	45	1,393.92
RD-308, 10-F	8, 10"	45	1,393.92

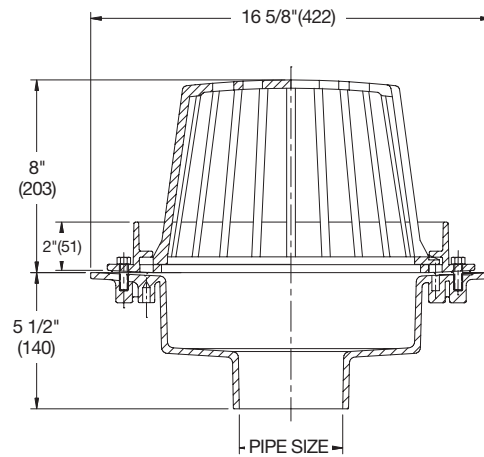


RD-300-R

Overflow Roof Drain with 2" External Water Dam



Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4-R	2, 3, 4"	32	\$786.55
RD-305, 6-R	5, 6"	32	714.55
RD-308, 10-R	8, 10"	32	669.69



RD-300-W

Overflow Roof Drain with 2" Internal Standpipe

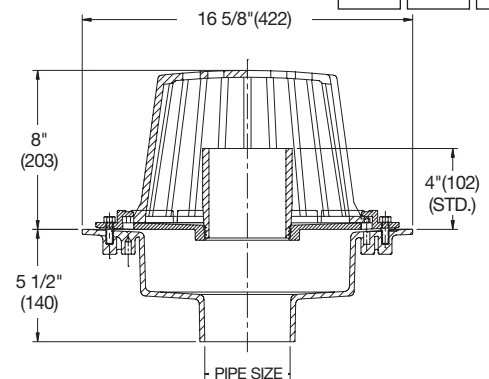


Model Number	Outlet Size	WT., lbs.	List Price
RD-302, 3, 4-W	2, 3, 4"	37	\$903.45
RD-305, 6-W	5, 6"	37	1,198.99
RD-308, 10-W	8, 10"	37	786.59



Options for RD-300 Series:

(For Options see page 140.)



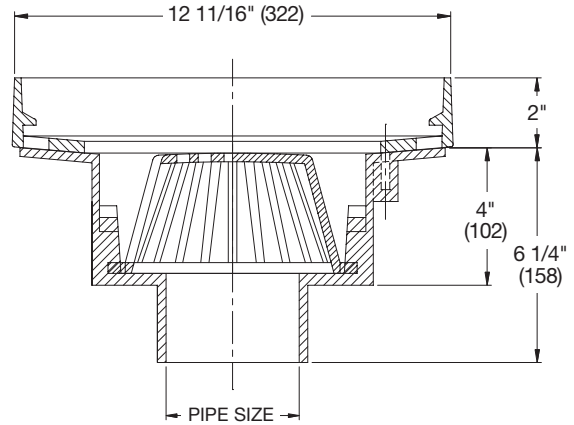
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Deck Receptor Drain

RD-400

12" Diameter Deck Receptor Drain

Model Number	Outlet Size	WT.,Lbs.	List Price
RD-402, 3, 4, 5, 6, 8	2, 3, 4, 5, 6, 8"	28	\$754.06



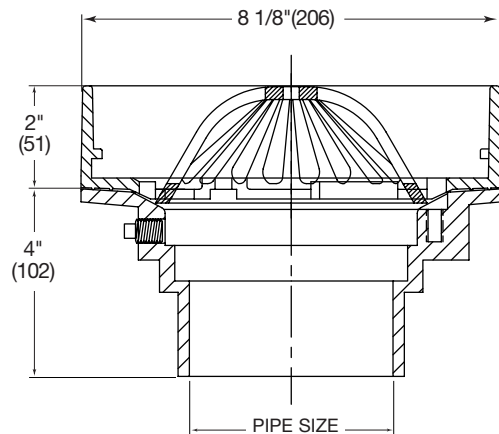
Options for RD-400 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-B	Sump Receiver	\$749.45
-P	Push-On Outlet	\$46.38	-D	Underdeck Clamp	278.27
-T	Threaded Outlet	92.75	-F	Deck Flange/Adj. Extension	116.86
-X	Inside Caulk Outlet	No Add	-L	Vandal Proof Dome	1,083.33
-12	Galvanized	486.97			

RD-410

8" Diameter Deck Receptor Drain

Model Number	Outlet Size	WT., Lbs.	List Price
RD-412, 3, 4, 6	2, 3, 4, 6"	15	\$435.45



Options for RD-410 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub	No Add	-D	Underdeck Clamp	\$72.88
-P	Push-On Outlet	\$46.38	-F	Deck Flange/Adj. Extension	666.25
-T	Threaded Outlet	92.75	-L	Vandal Proof Dome	74.53
-12	Galvanized Body & Flashing Clamp	160.66	-SO	Side Outlet	248.45
-B	Sump Receiver	1,157.89			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

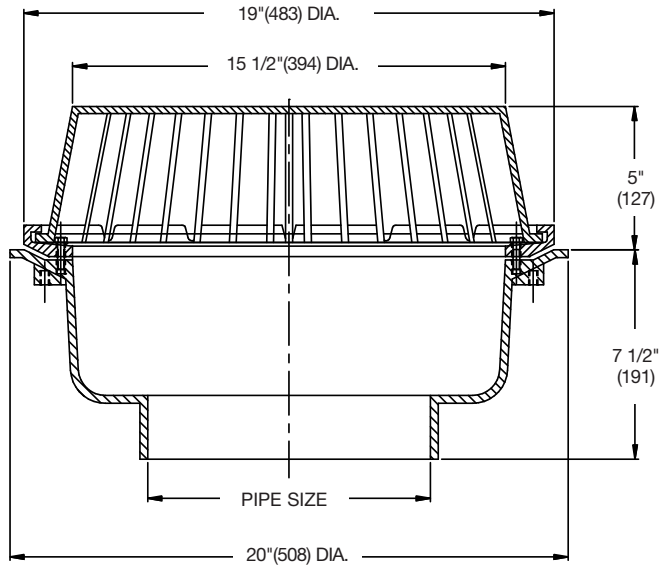


Specialty Roof Drains

RD-500

Super Flow Roof Drain

Model Number	Outlet Size	WT., lbs.	List Price
RD-510, 12	10", 12"	52	\$2,806.19



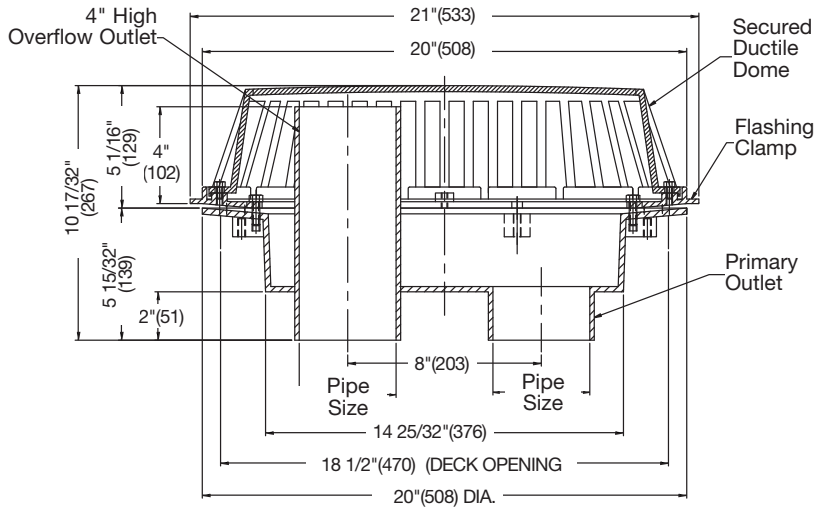
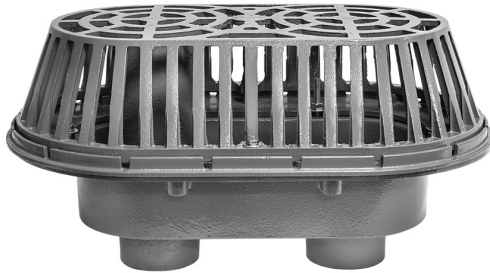
Options for RD-500 Series:

Suffix	Description	List Price
-D	Underdeck Clamp	\$241.82
-F	Deck Flange/Adj. Extension	1,010.65
-L	Vandal Proof Dome	145.76
-R	2" External Water Dam	395.87
-W	2" Internal Water Dam	655.89

RD-700

Dual Outlet Roof Drain/Overflow

Model Number	Outlet Size	WT., lbs.	List Price
RD-703, 4	3, 4"	49	\$1,283.66
RD-705, 6	5, 6"	49	1,418.45



Options for RD-700 Series:

Suffix	Description	List Price
-CT	Overflow Through Dome	No Add
-D	Underdeck Clamp	\$248.50
-F	Deck Flange/Adj. Extension	666.25
-GSS	4" High Gravel Guard	882.79
-K80	Aluminum Dome	No Add
-K83	SS Mesh Covered Dome	518.40
-L	Vandal Proof Dome	145.69
-W2	2" High Overflow	No Add

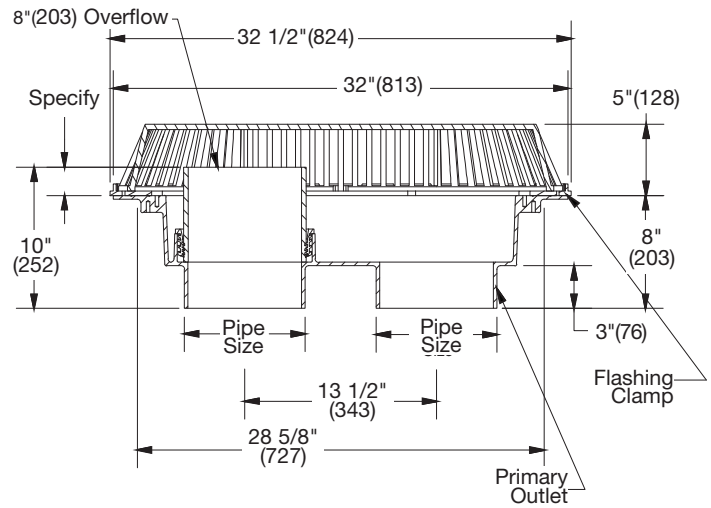


Roof Drains

RD-800

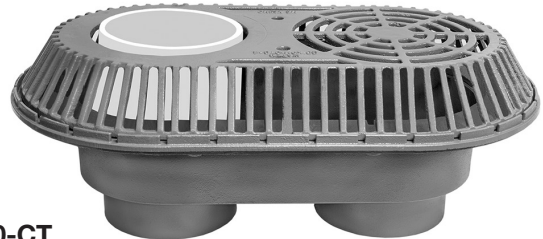
Dual Outlet Large Capacity Roof Drain/Overflow

Model Number	Outlet Size	WT., lbs.	List Price
RD-808	8"	115	\$4,952.03
RD-810	10"	115	4,952.03



Options for RD-800 Series:

Suffix	Description	List Price
-CT	Overflow Through Dome	No Add
-D	Underdeck Clamp	\$207.46
-F	Deck Flange/Adj. Extension	666.25
-L	Vandal Proof Dome	178.84
-W2	2" High Overflow	No Add

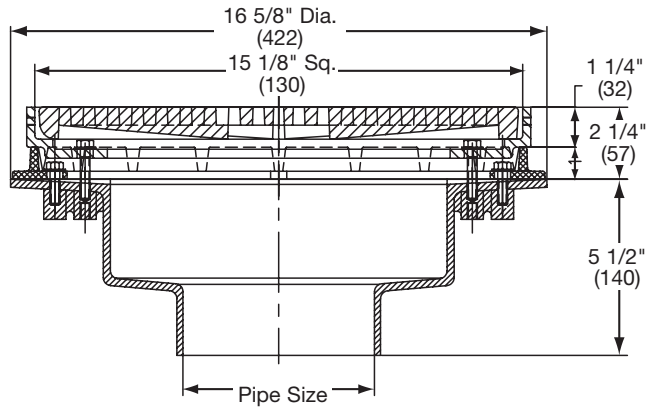


RD-800-CT

Roof Drains

RD-300-CP15 Roof Drain with 15" x 15" Promenade Top

Model Number	Outlet Size	WT., lbs.	Grate	List Price
RD-302, 3, 4-CP15,	2, 3, 4, 10"	110	ductile iron	\$1,985.65
RD-302, 3, 4-CP15-101	2, 3, 4, 10"	110	nickel bronze	6,295.02
RD-305, 6,8-CP15	5, 6, 8, 10"	110	ductile iron	1,861.35
RD-305, 6,8-CP15-101	5, 6, 8, 10"	110	nickel bronze	6,170.72

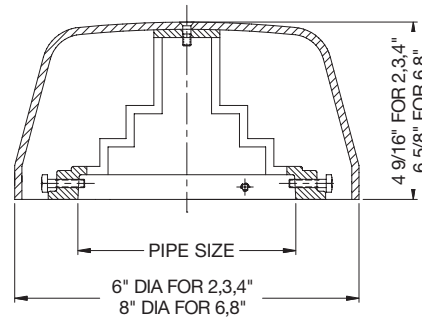


Options for RD-300-CP15 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Available on 3, 4, & 6" Outlets Only	\$44.73	-K40	Ductile Iron Low Dome (4" High)	\$248.45
-12	Galvanized Body	160.66	-K80	Aluminum Dome	104.33
-B	Sump Receiver	269.99	-K81	Rough Bronze Dome	967.27
-D	Underdeck Clamp	165.63	-K83	SS Mesh Covered Aluminum Dome	877.84
-F	Deck Flange/Adj. Extension	666.25	-L	Vandal Proof Dome	145.76
-GSS	Stainless Steel Ballast Guard	498.53	-R	2" External Water Dam	178.86
-K	Ductile Iron Dome	104.33	-W	4" Internal Water Dam	220.29
-K13	Galvanized Dome	669.14			

RD-680-VC Vent Cap

Model Number	Outlet Size	WT., lbs.	List Price
RD-682, 3, 4-VC	2, 3, 4"	7	\$829.84
RD-686-VC	6"	15	1,053.75
RD-688-VC	8"	15	1,053.75



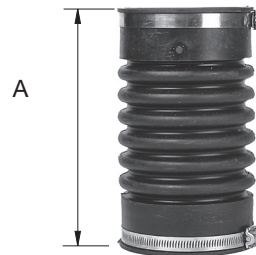
Options for RD-680-VC Series:

Suffix	Description	List Price
-12	Galvanized	\$135.81

RD-900 Neoprene Expansion Coupling

Model Number	Outlet Size	WT., lbs.	List Price
RD-902	2"	1	\$281.85
RD-903	3"	1	464.75
RD-904	4"	2	452.80

Chart A	
Pipe Size	Height
2"	7-1/8"
3"	8-1/8"
4"	8-5/8"



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Downspout Nozzles

RD-940

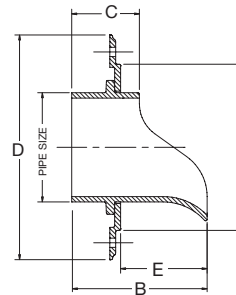
Downspout Nozzle

Model Number	Outlet Size	WT., lbs.	List Price
RD-942, 3, 4"	2, 3, 4"	12	\$916.81
RD-945, 6	5, 6"	18	2,034.23
RD-948	8"	22	2,149.65
RD-9410-NH	10"	25	2,808.61
RD-9412-NH	12"	29	3,778.46

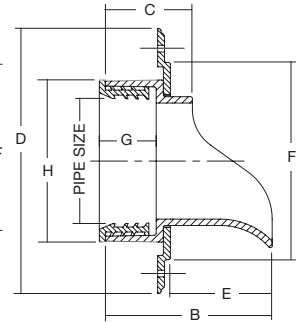


Options for RD-940 Series:

Suffix	Description	List Price
-83	SS Bird Screen	\$645.96
-NH	No Hub	No Add
-P	Push-On Connection (3, 4, 6, 8" Only)	No Add

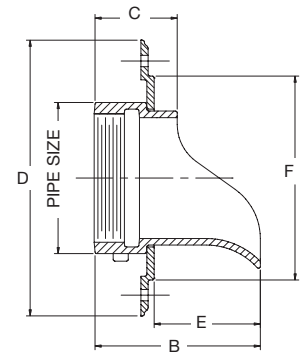


No-Hub



Push-On

IPS Threaded Connection						
Model	Pipe Size	B	C	D	E	F
RD-942	2"(51)	5-1/4"(133)	2-1/4"(57)	6-3/4"	3-1/2"(89)	4-3/4"(121)
RD-943	3"(76)	5-1/4"(133)	2-1/2"(63)	8-1/4"(210)	3-1/2"(89)	6-3/8"(162)
RD-944	4"(102)	5-1/4"(133)	2-3/4"(70)	9-1/8"(232)	3-1/2"(89)	7"(178)
RD-946	6"(152)	5-1/4"(133)	2-3/4"(70)	11-3/8"(289)	3-1/2"(89)	9"(229)
RD-948	8"(200)	6"(152)	3"(76)	13-3/8"(340)	4"(102)	10-3/4"(273)



IPS

No Hub Connection						
Model	Pipe Size	B	C	D	E	F
RD-942-NH	2"(51)	5-1/4"(133)	2-1/4"(57)	6-3/4"(171)	3-1/2"(89)	4-3/4"(121)
RD-943-NH	3"(76)	5-1/4"(133)	2-1/2"(63)	8-1/4"(210)	3-1/2"(89)	6-3/8"(162)
RD-944-NH	4"(102)	5-1/4"(133)	2-3/4"(70)	9-1/8"(232)	3-1/2"(89)	7"(178)
RD-945-NH	5"(130)	5-1/4"(133)	3"(76)	9-1/4"(235)	3-3/8"(86)	7-1/4"(184)
RD-946-NH	6"(152)	5-1/4"(133)	2-3/4"(70)	11-3/8"(289)	3-1/2"(89)	9"(229)
RD-948-NH	8"(200)	6"(152)	3"(76)	13-3/8"(340)	4"(102)	10-3/4"(273)
RD-9410-NH	10"(250)	5-3/4"(146)	3"(76)	15-1/4"(387)	3-3/4"(95)	13-1/16"(332)
RD-9412-NH	12"(305)	6"(152)	3-1/4"(83)	17-1/4"(438)	3-3/4"(95)	15-1/16"(383)

Push-On Connection								
Model	Pipe Size	B	C	D	E	F	G	H
RD-943P	3"(76)	5-3/4"(146)	3"(76)	8-1/4"(210)	3-1/2"(89)	6"(152)	1-3/4"(44)	4-3/4"(121)
RD-944P	4"(102)	5-3/4"(146)	3"(676)	9-1/8"(232)	3-1/2"(89)	6-3/4"(171)	1-3/4"(44)	5-1/2"(140)
RD-946P	6"(152)	6"(152)	3-3/4"(95)	11-3/8"(289)	3-1/2"(89)	8-3/4"(222)	2"(51)	7-3/4"(197)
RD-948P	8"(200)	7"(178)	4"(102)	13-3/8"(340)	4"(102)	10-3/4"(273)	2-1/2"(63)	10"(254)

Consult factory for all applications outside of listed parameters.

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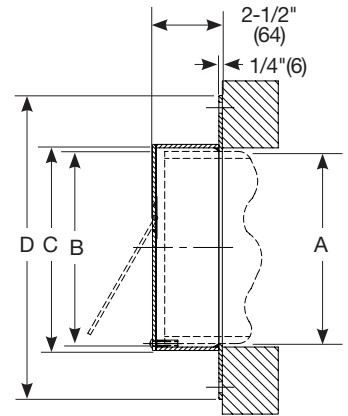
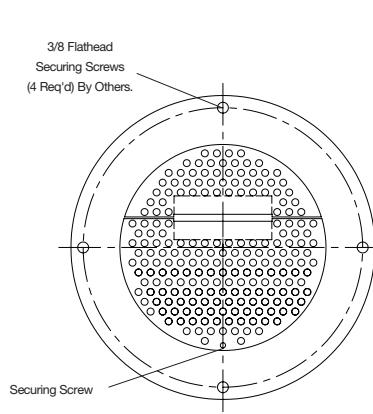


Downspout Nozzles

RD-950

Stainless Steel Downspout Cover

Model Number	Outlet Size	WT., lbs.	List Price
RD-953,4	3, 4"	8	\$3,418.55
RD-956	6"	9	1,606.86
RD-958	8"	10	1,980.00
RD-9510	10"	12	3,817.33
RD-9512	12"	14	3,369.43
RD-9515	15"	16	3,369.43
RD-9516	16"	18	3,369.43
RD-9518	18"	20	3,369.43



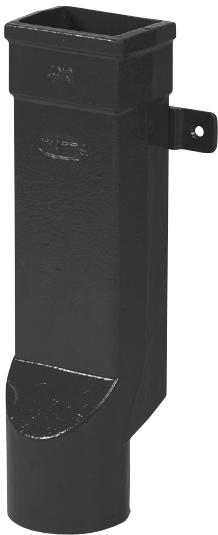
Suffix Description List Price

Suffix	Description	List Price
-6	Vandal Proof	\$175.57

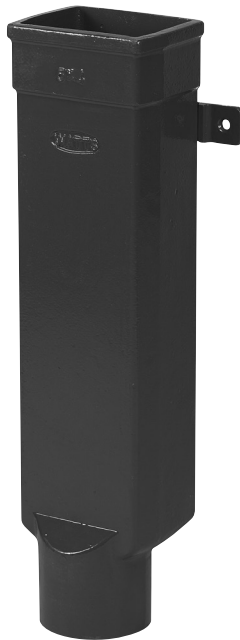
RD-970/980

Downspout Boot

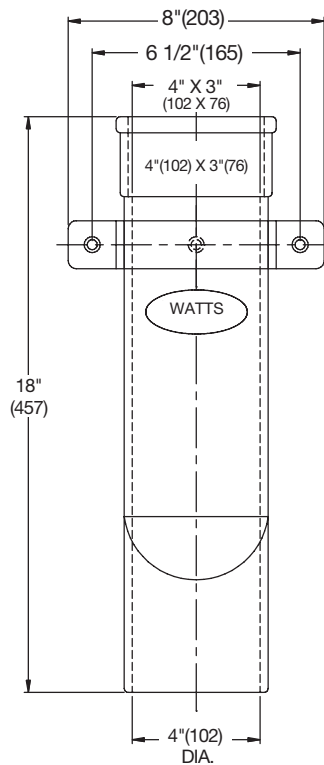
Model Number	Outlet Size	WT., lbs.	List Price
RD-970	4" x 3"	20	\$596.40
RD-980	5" x 4"	30	863.92



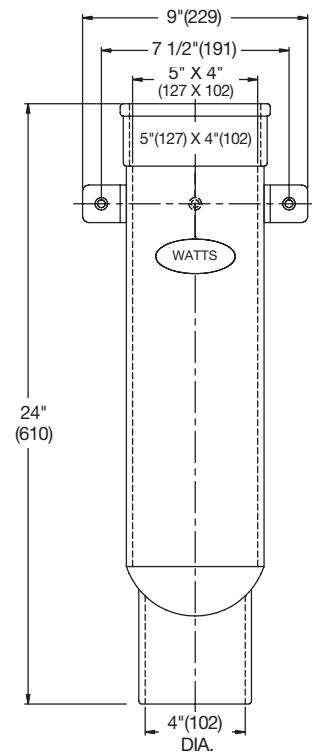
RD-970



RD-980



RD-970



RD-980



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Interceptors

Table Of Contents

- Pictorial Index
- Recommendations
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WATTS[®]

Interceptors

Pictorial Index



WD SERIES
CSA Certified Grease Interceptor



WD-L SERIES
CSA Certified Low Rough-in Grease Interceptor



WD-A SERIES
Semi-Automatic Draw-Off Grease Interceptor



WD-LA SERIES
Low Rough-in Semi-Automatic Grease Interceptor



WD-H SERIES
Grease Interceptor with Access Housing



WD-AH SERIES
Semi-Automatic Grease Interceptor w/Housing



OI SERIES
Oil Interceptor



OI-K SERIES
Large Capacity Oil Interceptor



OI-ST SERIES
Oil Interceptor with Integral Storage Tank



SI-742
Hair, Plaster & Sediment Interceptor



SI-740-L
Sediment & Hair Interceptor



SI-750
Cast Iron Hair Interceptor



SI-750-TO
Chrome Plated Hair Interceptor



SI-762
Bottom Access Hair, Plaster & Sediment Interceptor



SI-770
Solids Interceptor



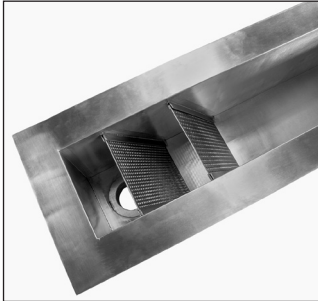
LI-800-SERIES
Lint Interceptor



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Interceptors

Pictorial Index



LI-LT Series
Stainless Steel
Lint Trough



SA-SERIES
Heavy Duty Sand &
Sediment Interceptor



ST-SERIES
Sand Trap

Interceptors

Recommendations

Application	Product
Art rooms, dental labs, metal recovery	SI-742, SI-742-I, SI-762
Cooking, food prep	WD Series, GI-K Series,
Commercial laundry, washing machines	LI-800 Series
Dish cleaning sinks, dishwashers	WD Series, GI-K Series
Elevator pits, oil spill areas	OI Series, OI-K Series
Hair wash sinks	SI-750, SI-750-TO
Sand & sediment run-off	SA Series, ST Series
Vehicle maintenance areas	OI Series, OI-K Series

Grease Interceptors

Design & Operation

Watts hydro-mechanical grease interceptors are designed to remove fats, oils, and grease from waste water. Grease interceptors prevent greasy substances from entering plumbing systems, septic fields, and waste water treatment facilities, where they are difficult to process, and create environmental problems. Commonly specified in commercial kitchen and food processing areas, properly specified and maintained interceptors keep drainage systems free of problematic grease accumulations.

Grease interceptors will separate all lighter-than-water substances, collecting them inside the interceptor, above the static water line. Design criteria is regulated by plumbing code, and generally follows or references criteria set forth by The Plumbing & Drainage Institute (PDI), which tests and certifies standard capacity interceptors. The accepted industry and PDI Standard (PDI-G101) is for interceptors to maintain 90% separation efficiency, up to their rated grease retention capacity (in. lbs.).

The interception process is accomplished by slowing incoming effluent with a flow restrictor (supplied with the interceptor), and directing it through baffling. The slowing and baffling processes enable greasy substances to accumulate on top of the static water line, and treated water to exit into the drainage system, through a trap leg on the outlet side of the interceptor.

Materials

Acid Resistant Epoxy Coated Steel (standard)

Interceptor bodies are 11 ga. cold rolled steel, with an oven cured, acid resistant baked grey epoxy coating, inside and out. Standard cover is epoxy coated 1/4" skid-proof checker plate steel, gasketed, and secured with hex head center bolt(s).

Stainless Steel (-SS)

11 gauge, in accordance with ASTM-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.



Interceptors

Grease Interceptors

Pipe Connections

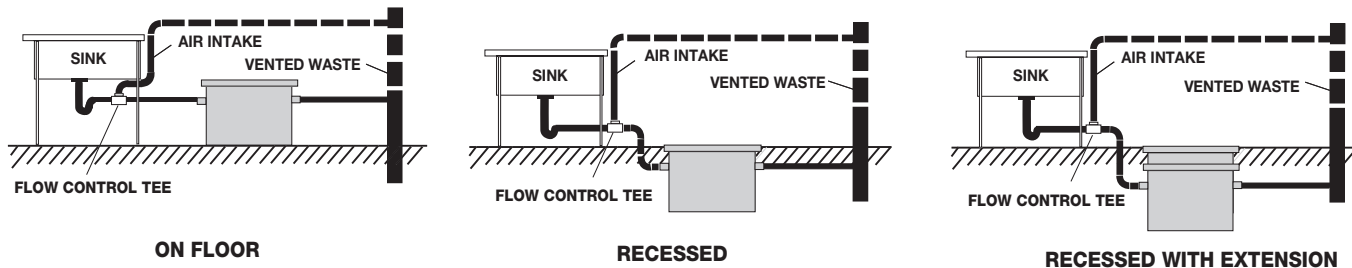
No hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Standard Configurations



Sizing

Grease interceptors are sized according to the rate of incoming flow, in gallons per minute (GPM). Associated with the incoming flow rate is an interceptor's capacity. The rated capacity, in lbs., is listed at twice the flow rate, in GPM. For example, a 10 GPM interceptor has a rated capacity of 20 lbs.

General Procedure:

To Determine the Flow Rate of Each Sink:

1. Calculate the capacity of the sink in cubic inches:
 $\text{____ (LENGTH) x ____ (WIDTH) x ____ (DEPTH) = ____ CU. IN.}$
2. Convert the capacity from cubic inches to gallons per minute (GPM): $\text{____ CU. IN.} \div 231 = \text{____ GPM.}$
3. Adjust for displacement: $\text{____ GPM x 0.75 = ____ GPM.}$
4. **Result is the flow rate required to drain the sink in one minute.***

**Note: If drain down time is not critical, an interceptor with a lesser flow rate, up to half the calculated flow rate may be specified.*

Example:

Three compartment pot sink, each compartment 12" x 12" x 15"

1. $12" \times 12" \times 15" = 2160 \text{ cu. in.} \times 3 \text{ comp.} = 6480 \text{ cu. in.}$
2. $6480 \text{ cu. in.} \div 231 = 28 \text{ GPM.}$
3. $28 \text{ GPM} \times 0.75 = 21 \text{ GPM.}$

A 20 GPM interceptor would permit the sink to drain in slightly more than one minute.

*Discharge from spray hoods is determined by the flow rate of the hood.

Sizing For Multiple Fixtures:

1. Determine the flow rate for each fixture to be serviced by the interceptor.
2. Add together 100% of the largest flow rate, 50% of the second largest, and 25% of all others.
3. **Result is the recommended flow rate of the interceptor.**

Example:

1. Fixture A: 35 GPM Flow Rate
Fixture B: 26 GPM Flow Rate
Fixture C: 18 GPM Flow Rate
Fixture D: 12 GPM Flow Rate
2. $35 \text{ GPM (A) x 100\%} = 35 \text{ GPM}$
 $26 \text{ GPM (B) x 50\%} = 13 \text{ GPM}$
 $30 \text{ GPM (C + D) x 25\%} = 7.5 \text{ GPM}$

Total Flow Rate = 55.5 GPM

A 50 GPM interceptor is recommended for this installation.

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

WATTS®

Interceptors

Grease Interceptors

Commonly Specified Options

-B Sediment Bucket

Epoxy coated steel, located inside the interceptor on the inlet side. Collects large food or other particles.

Note: To the extent possible, solids should be collected prior to the interceptor, or at the fixture. Large particles approaching the interceptor can clog the flow restrictor, slowing drainage, and causing back-up difficulties. See Watts SI-770 Solids Interceptor.

-E Electronic

Electronic level monitoring system for grease and oil interceptors. Includes monitoring panel, transmitter and measuring rods.

-X Extension

Bolt-on extension, increases the invert dimension to accommodate below grade piping. Extensions can be installed after an interceptor is piped in.

-FC Flange & Clamp Device

Specified for above grade installations to secure a waterproofing membrane.

-HD Heavy Duty Traffic Cover

Rated 1000 lbs. maximum safe live load.

-XHDC Extra Heavy Duty Traffic Cover

Rated 10,000 lbs. maximum safe live load.

Note: A minimum 3" extension is required with the -HD option.

-O Inlet and Outlet other than Standard Size

Flow is regulated by the flow restrictor, so mis-matched piping/interceptor connection sizes generally do not affect performance. Piping that does not match the interceptor connection size is typically accommodated with transition couplings or bushings.

Installation Considerations

- a) Grease interceptors should be located as near as possible to the fixture(s) being served. Long piping runs between a fixture and the interceptor will accumulate grease, causing drainage and clogging problems.
- b) Grease interceptors may be floor mounted, under or beside the sink, or recessed in the floor to allow passage of foot traffic, or connect to below grade piping.
- c) Grease interceptors may be installed outside, making sure all piping is below the frost line (see Options - Extension).
- d) WD Series PDI Certified interceptors are supplied with an external flow restrictor, which must be installed between the last fixture serviced and the interceptor inlet. Other models may be supplied with internal flow control plates, located just inside the interceptor inlet. Check local plumbing codes for specific flow control requirements.
- e) Venting is recommended on both the inlet and outlet side of the interceptor, or as governed by local code. Units supplied with external flow controls are vented from the connection on the top of the flow control tee. Interceptor lids are gasketed, but venting is necessary to prevent odors from escaping through the lid.
- f) Grease interceptors do not replace fixture "traps". Fixtures must be trapped separately to prevent odors from the interceptor returning through the fixture drain.

Maintenance & Cleaning

The capacity of the interceptor (lbs.), and the amount of incoming grease determine cleaning frequency. The amount of accumulated grease must be kept below the rated capacity of the interceptor to maintain proper separation efficiency.

Manual operation grease interceptors are cleaned by removing the cover (secured with hex bolts), and scooping out grease accumulated at the top of the interceptor. Grease can be removed manually, or pumped by outside service. Check local ordinances for proper grease disposal.

Semi-automatic interceptors are cleaned as follows:

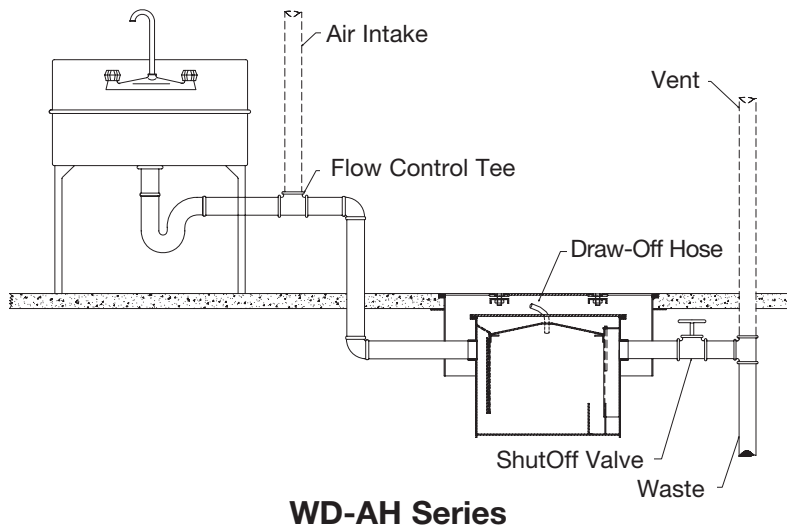
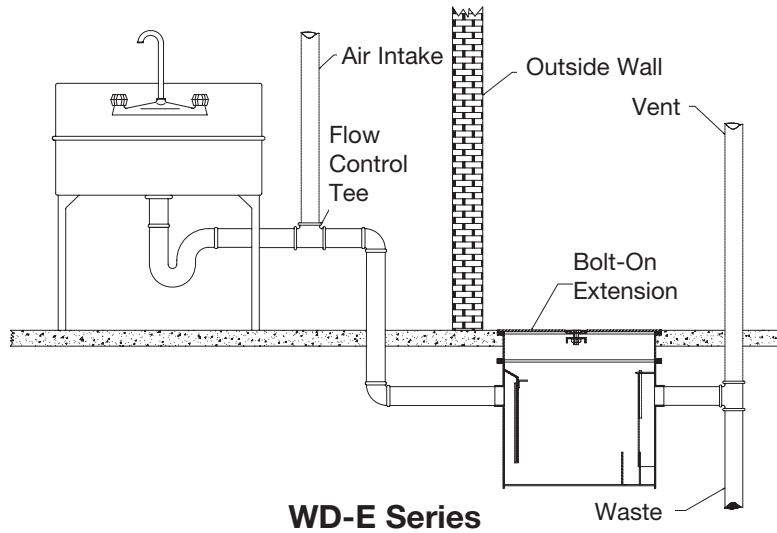
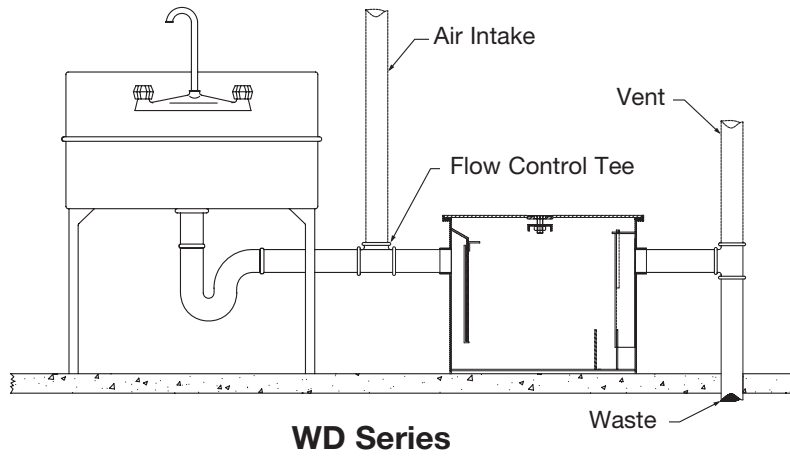
- 1) With the outlet valve open, run a full stream of hot water (140 degrees min.) through the interceptor for at least 2 minutes.
- 2) Allow unit to cool for approx. 3 minutes.
- 3) Close the valve on the outlet side of the interceptor.
- 4) Remove cap from top of interceptor and attach draw-off hose. Position hose to drain into waste receptacle.
- 5) Run hot water through the interceptor at a rate of 1.5-2.5 GPM.
- 6) The interceptor will fill, then force liquefied grease out through the top draw-off hose.
- 7) When clear water begins to discharge, the interceptor is clean.
- 8) Disconnect draw-off hose, and replace pipe cap.
- 9) Reopen valve on outlet. Interceptor is now ready for normal use.



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Interceptors

Typical Grease Interceptor Installations



Consult factory for all applications outside of listed parameters.
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Interceptors

Oil Interceptors

Design & Operation

Watts oil interceptors are designed to separate oily waste from interior drainage systems, or exterior run-off areas. Commonly specified in service stations, vehicle maintenance facilities, and parking areas, oil interceptors prevent environmentally damaging and potentially dangerous oily substances from entering septic fields, run-off areas, and waste water treatment facilities.

Similar to grease interceptors in operation, oil interceptors accumulate lighter-than-water oily waste inside the interceptor, above the static water line. Typically oil is drained automatically from the interceptor through a draw-off valve, and gravity fed to an approved underground oil storage tank (by others), for storage and eventual removal.

Materials

Acid Resistant Epoxy Coated Steel (standard)

Interceptor bodies are 11 ga. cold rolled steel, with an oven cured, acid resistant baked grey epoxy coating, inside and out. Standard cover is epoxy coated 1/4" skid-proof checker plate steel, gasketed, and secured with hex head center bolt(s).

Stainless Steel (-SS)

11 gauge, in accordance with ASTM-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.

Pipe Connections

No Hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Sizing

Oil interceptors are sized according to the incoming rate of flow, in gallons per minute (GPM).

For most indoor applications, the flow rate can be calculated by adding maximum discharge rates of all potential water sources. For example, a standard 3/4" hose connection will discharge approx. 10 GPM. A service garage with three hose connections would have a maximum potential flow rate of $10 \text{ GPM} \times 3 = 30 \text{ GPM}$.

For outdoor applications involving rainwater run-off, flow rate should be derived from local rainfall tables, and the slope characteristics of the area to be drained.

Commonly Specified Options

-B Sediment Bucket

Epoxy coated steel, located inside the interceptor on the inlet side. Collects large food or other particles.

Note: To the extent possible, solids should be collected prior to the interceptor, or at the fixture. Large particles approaching the interceptor can clog the flow restrictor, slowing drainage, and causing back-up difficulties. See Watts SI-770 Solids Interceptor.

-E Electronic

Electronic level monitoring system for grease and oil interceptors. Includes monitoring panel, transmitter and measuring rods.

-X Extension

Bolt-on extension, increases the invert dimension to accommodate below grade piping. Extensions can be installed after an interceptor is piped in.

-FC Flange & Clamp Device

Specified for above grade installations to secure a waterproofing membrane.

-HD Heavy Duty Traffic Cover

Rated 1000 lbs. maximum safe live load.

-XHDC

Rated 10,000 lbs. maximum safe live load.

Note: A minimum 3" extension is required with -HD option.

-O Inlet and Outlet other than Standard Size

Flow is regulated by the flow restrictor, so mismatched piping/interceptor connection sizes generally do not affect performance. Piping that does not match the interceptor connection size is typically accommodated with transition couplings or bushings.



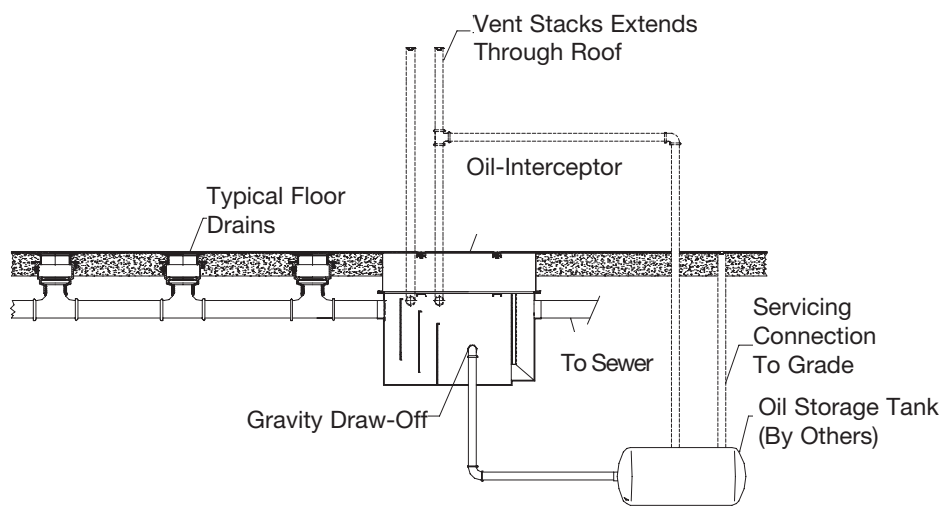
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Interceptors

Oil Interceptors

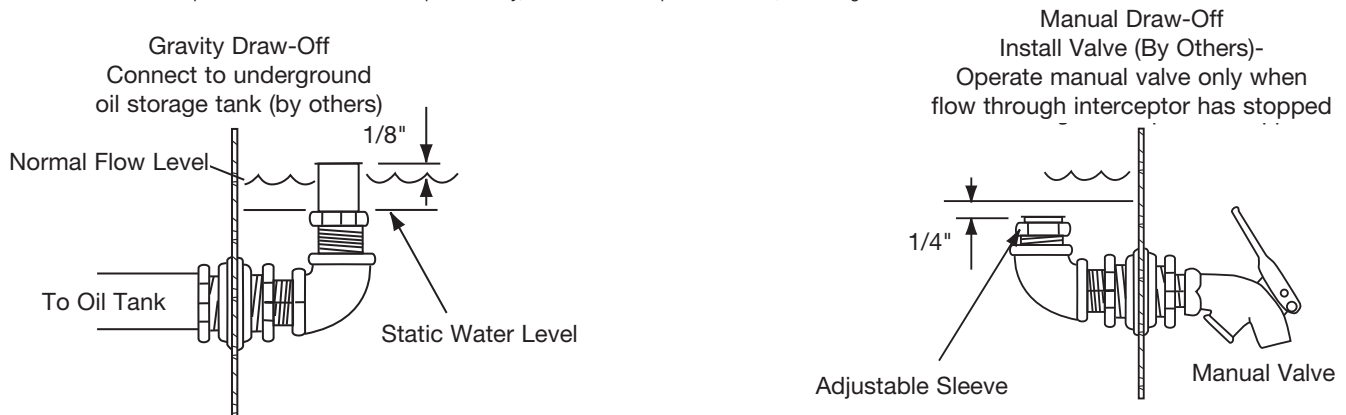
Installation Considerations

- Oil interceptors may be floor mounted, but are typically recessed to connect to below grade piping from floor drains or trench drains.
- Check local ordinances for proper storage of accumulated oil. Typically provisions must be made to connect the oil interceptor to an approved underground oil storage tank (by others). Where conditions and codes permit, the oil interceptor may be housed inside a pit, and drained with a manual valve (by others) attached to the draw-off connection.
- Oil interceptors may be installed outside, making sure all piping is below the frost line (see Options - Extension).
- Vent lines must be attached to the dual no hub vent connections on the side of the interceptor. The lines should be terminated outside the building, 12" apart in elevation, to allow circulation and venting of heavier-than-air fumes. Inlet piping should also be vented through the roof, or as governed by local code.



Maintenance & Cleaning

Oil interceptors are not designed to store oil for an extended period of time. Oil should be drawn off or drained into an approved oil storage tank, which would be serviced as required. If a manual valve is used, accumulated oil should be drained on a regular basis, depending upon the amount of incoming effluent. The oil interceptor lid should be removed periodically, and a visual inspection made, for sludge or other accumulations.



****Note:** Watts Oil Interceptors supplied standard with draw-off connection on right side and vent connections on left (when facing inlet).

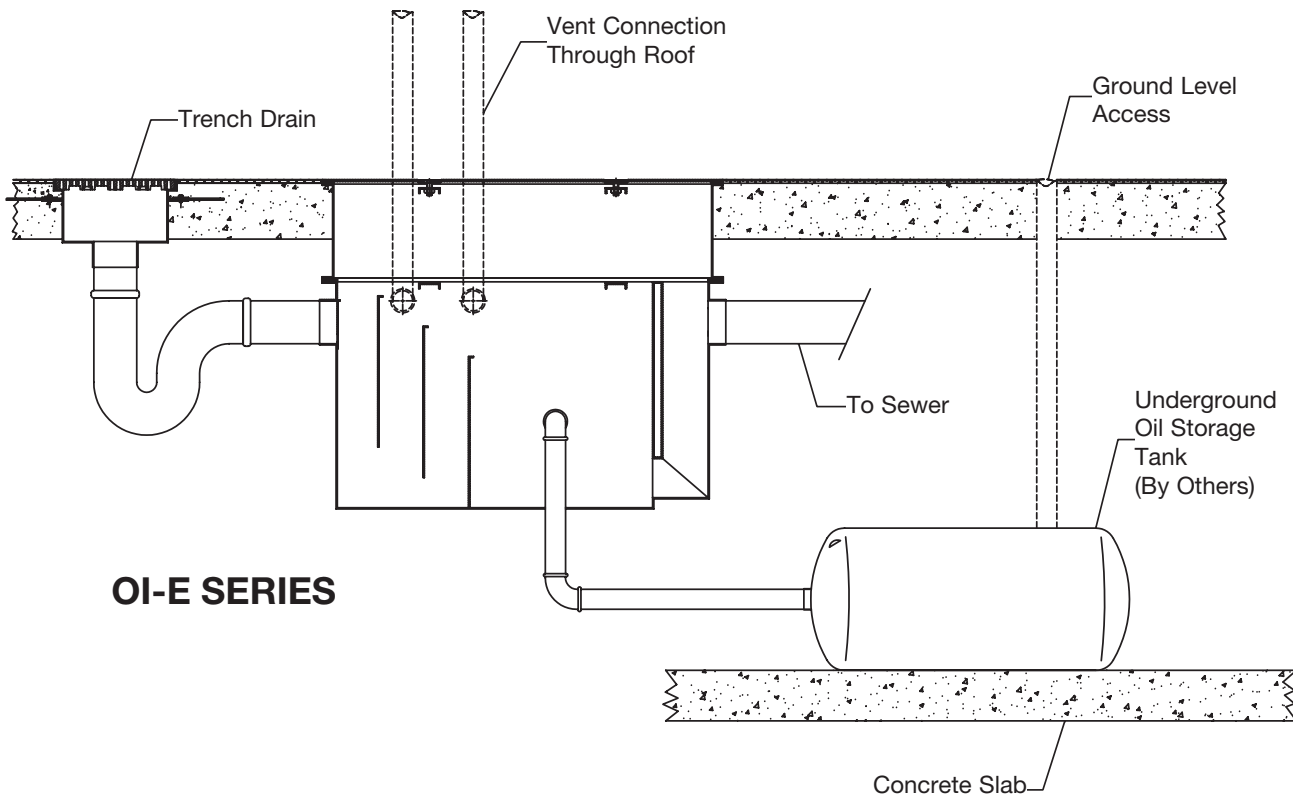
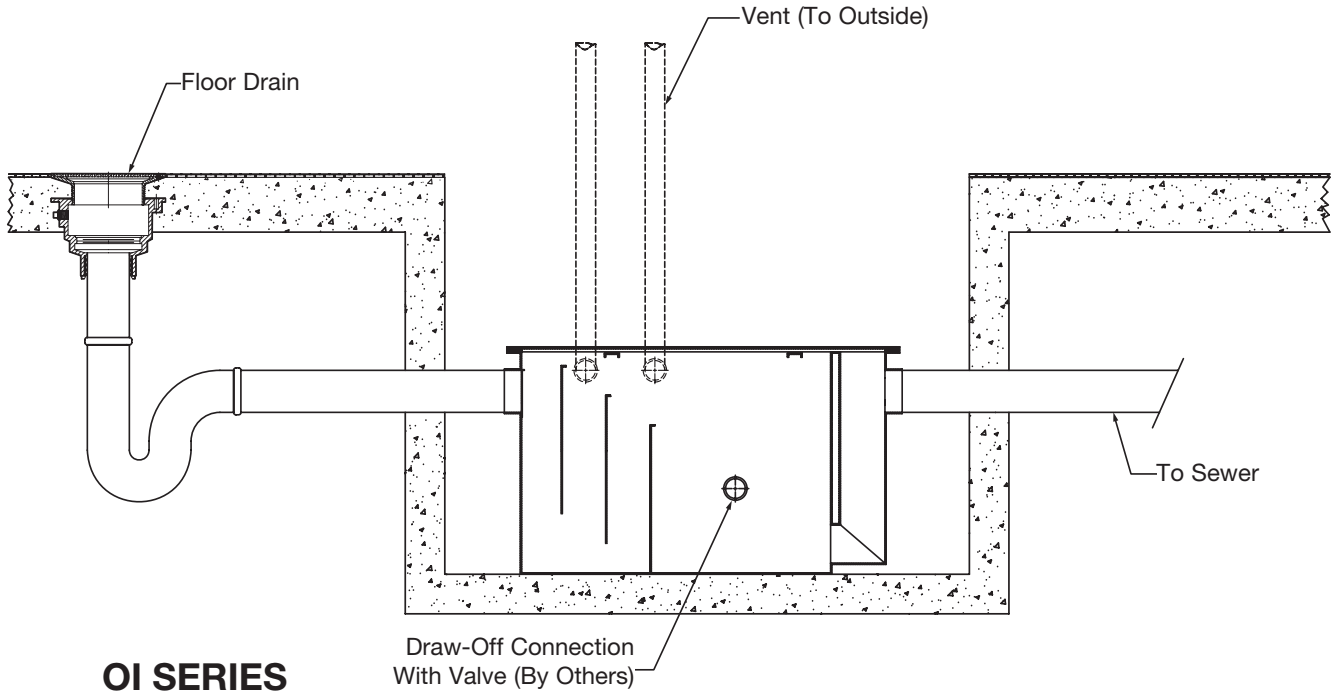
Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

WATTS®

Interceptors

Typical Oil Interceptor Installations



Interceptors

Sediment Interceptors

Design & Operation

Watts sediment interceptors are designed to separate heavier-than water sediment, or floating debris, such as hair or lint, from plumbing waste systems. Sediment interceptors trap debris with a combination of screening, and gravity separation for heavier solids and sediments. Debris accumulates inside the interceptor, and is periodically removed.

Materials

Acid Resistant Epoxy Coated Steel (standard)

Interceptor bodies are 11 ga. cold rolled steel, with an oven cured, acid resistant baked grey epoxy coating, inside and out. Standard cover is epoxy coated 1/4" skid-proof checker plate steel, gasketed, and secured with hex head center bolt(s).

Stainless Steel (-SS)

11 gauge, in accordance with ASTM-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.

Pipe Connections

No Hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Sizing

Sediment interceptors are sized either by rate of flow, or anticipated amount of debris. See specification pages for specific flow rates and sizing.

Commonly Specified Options

-E Extension

Bolt-on extension, increases the invert dimension to accommodate below grade piping. Extensions can be installed after an interceptor is piped in.

-FC Flange & Clamp Device

Specified for above grade installations to secure a waterproofing membrane.

-HD Heavy Duty Traffic Cover

Rated 10,000 lbs. maximum safe live load.

Note: A minimum 3" extension is required with -HD option.

-O Inlet and Outlet other than Standard Size

Flow is regulated by the flow restrictor, so mismatched piping/interceptor connection sizes generally do not affect performance. Piping that does not match the interceptor connection size is typically accommodated with transition couplings or bushings.

-X Cover for Recessed Installation

Allows smaller floor mounted interceptors to be recessed in the floor.

Installation Considerations

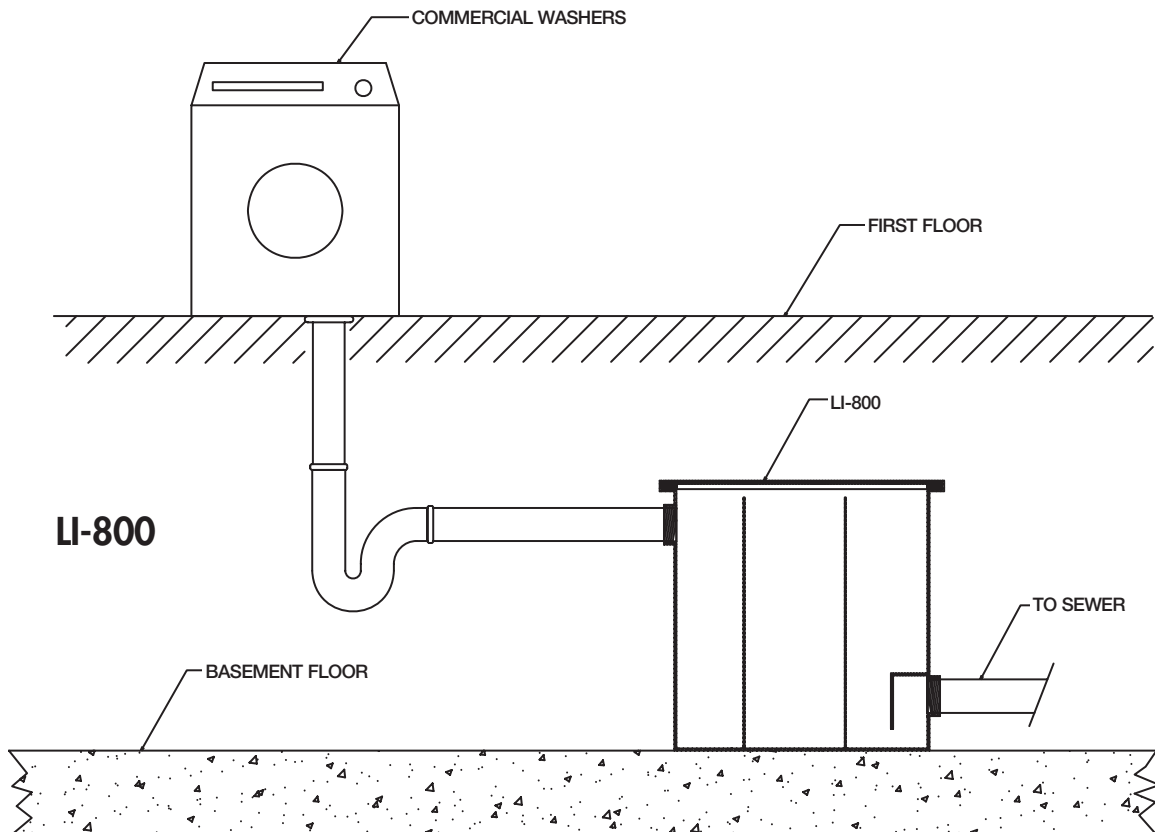
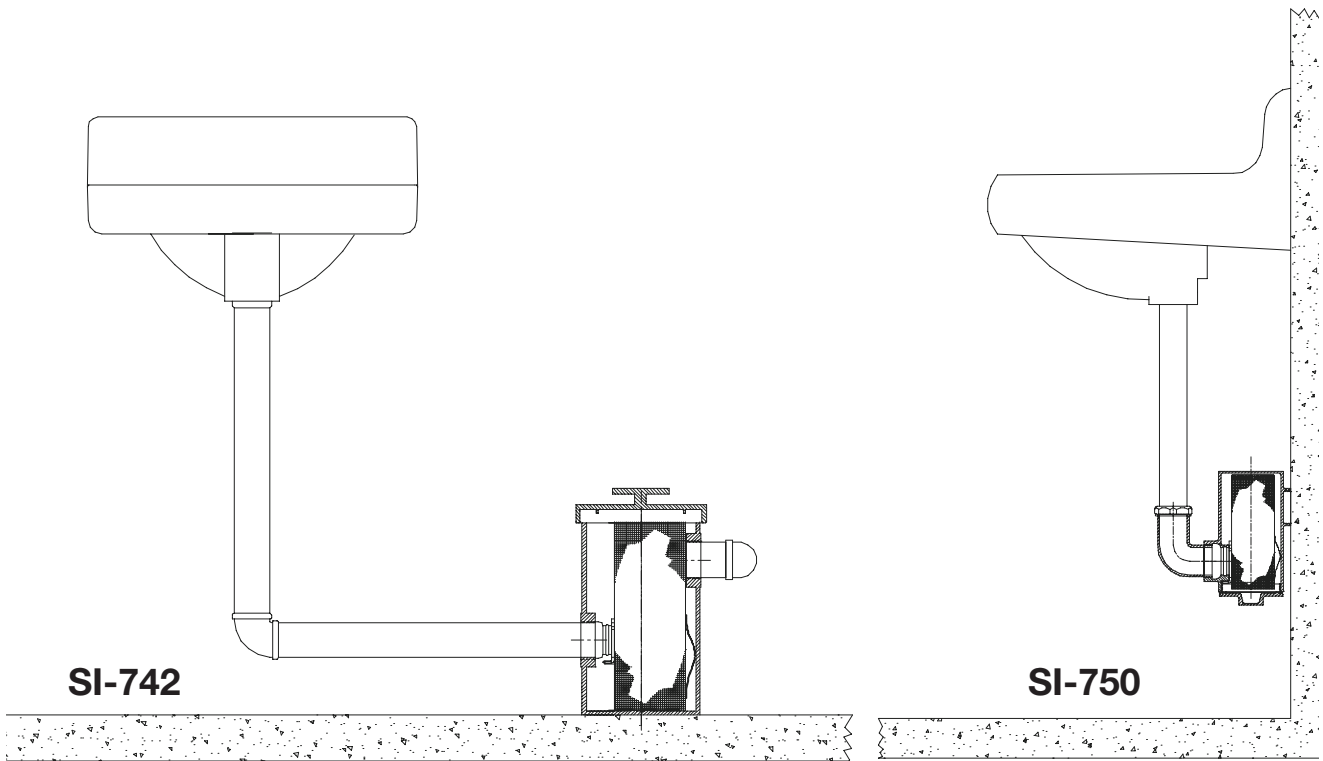
- Sediment interceptors should be located near as possible to the source of debris. Long piping runs prior to the interceptor will accumulate debris, causing drainage and clogging problems.
- Small capacity sediment interceptors are generally mounted under or beside the sink. Larger interceptors may be floor mounted, or recessed, to allow the passage of foot traffic, or connect to below grade discharge lines.
- Sediment interceptors typically contain a removable basket or screens. Be sure to allow enough clearance above the interceptor for cleaning.
- Sediment interceptors may be installed outside, making sure all piping is below the frost line (see Options - Extension).
- Venting of sediment interceptors is generally not required, however installers should reference local codes prior to installation.

Maintenance & Cleaning

Sediment interceptors must be routinely inspected and cleaned, in order to prevent clogging, and maintain operating efficiency. Maintenance frequency is dependent upon the specific application, and amount of incoming debris.

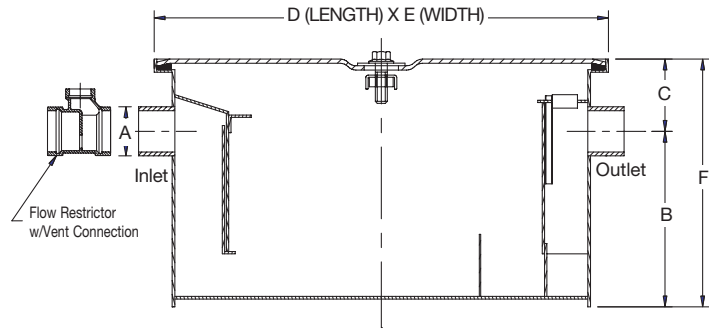
Interceptors

Typical Sediment Interceptor Installations



Grease Interceptors

WD-CSA Series CSA Certified Grease Interceptor



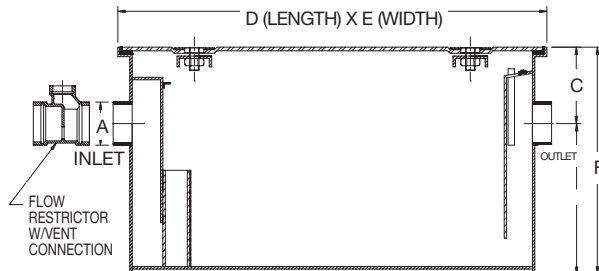
ISO 9001-2008
CERTIFIED



Interceptor Model Number	List Price A.R.E.	Flow Rate GPM	Grease Capacity Lbs.	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	Weight Lbs.	XHDC Add
WD-CSA-104	\$2,139.91	04	08	2"(51)	7-3/4"(197)	6"(152)	16"(406)	10"(254)	13-3/4"(349)	37.48	P.O.A.
WD-CSA-107	2,139.91	07	14	2"(51)	8-1/2"(216)	6"(152)	18"(457)	13"(330)	14-1/2"(368)	54.01	P.O.A.
WD-CSA-110	2,588.76	10	20	2"(51)	8-1/2"(216)	6"(152)	21-3/4"(552)	14"(356)	14-1/2"(368)	63.93	P.O.A.
WD-CSA-115	2,815.68	15	30	2"(51)	10-1/2"(267)	6"(152)	22"(559)	15"(381)	16-1/2"(419)	74.07	P.O.A.
WD-CSA-120	3,549.40	20	40	3"(76)	11-1/2"(292)	6"(152)	24"(610)	15-3/4"(400)	17-1/2"(445)	83.77	P.O.A.
WD-CSA-125	4,356.01	25	50	3"(76)	12"(305)	6"(152)	26"(660)	16-1/2"(419)	18"(457)	95.90	P.O.A.
WD-CSA-135	5,101.33	35	70	4"(102)	14"(356)	6"(152)	30"(762)	18"(457)	20"(508)	123.46	P.O.A.
WD-CSA-150	5,538.58	50	100	4"(102)	16"(406)	6"(152)	32"(813)	22"(559)	22"(559)	160.94	P.O.A.
WD-CSA-150-DI	6,394.68	50	100	4"(102)	16"(406)	6"(152)	32"(813)	22"(559)	22"(559)	160.94	P.O.A.
*WD-175	8,758.38	75	150	4"(102)	18 1/2"(470)	6"(152)	36"(914)	24"(610)	24-1/2"(622)	-	P.O.A.

*Note: WD-175 Not CSA Certified

WD-L Series CSA Certified Low-Rough-In Grease Interceptor



Interceptor Model Number	List Price A.R.E.	Flow Rate GPM	Grease Capacity Lbs.	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	Weight Lbs.
WD-120C-L	\$5,876.50	20	40	3"(76)	7-5/8"(194)	4"(102)	34-7/8"(886)	22-7/8"(581)"	11-7/8"(302)	62.10
WD-135C-L	6,631.15	35	70	4"(102)	7"(178)	4"(102)	40-7/8"(1038)	32-7/8"(835)	11-7/8"(302)	93.70
WD-150-L	8,361.45	50	100	4"(102)	8-1/2"(216)	5-1/2"(139)	54-7/8"(1394)	32-7/8"(835)	13-7/8"(352)	130.70

*Note: WD-50-L *50 GPM Not CSA Certified but conforms to CSA standard

Options for WD & WD-L Series:

Suffix	Description	List Price	Suffix	Description	List Price
AL	Aluminum Cover	P.O.A.	-O	Inlet & Outlet other than Standard Size	P.O.A.
B	Sediment Bucket	P.O.A.	-SS	All Stainless Steel	P.O.A.
E	Electronic Monitoring	P.O.A.	-THD	Threaded Connection	P.O.A.
	Extension over 12" add per inch		-DI	Dual Inlets	P.O.A.
-FC	Flange & Clamp Device	P.O.A.	-IP	Injection Port	P.O.A.
-K	Per inch of extra over 6"	P.O.A.			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Grease Interceptors

WD-GI-200 Series On Floor or Semi Recessed Installation

Interceptor Model Number	Flow Rate GPM	Grease Capacity Lbs.	List Price Base Unit Standard "C" Dimensions	Up to 10" Above Std.	"Each 1" Over 10" to 24"	Dimensions Greater than 24"	Heavy Duty Cover	Anchor Flange No Clamp	-FC Flange & Clamp Device	X Heavy Duty Cover
WD-210-DI	115.76	231.53	\$17,027.77	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WD-215-DI	173.65	347.29	\$18,648.69	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WD-220-DI	231.53	463.05	\$22,334.56	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WD-225-DI	289.41	578.81	\$21,754.72	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WD-230-DI	347.29	694.58	\$29,141.30	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
GI-235	405.17	810.34	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
GI-240	463.05	926.10	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
GI-250	578.81	1,157.63	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
GI-260	694.58	1,389.15	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.

Cubic Capacity of Fixtures in Inches	Model Number	Grease Capacity Lbs.	Flow Rate GPM	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	DI Between Inlet Centers
92001 to 107000	GI-235	700	350	6"(152)	39"(991)	10"(254)	79"(2007)	50"(1270)	49"(1245)	9"(229)
107001 to 122000	GI-240	800	400	6"(152)	42"(1067)	10"(254)	83"(2108)	55"(1397)	52"(1321)	9"(229)
122001 to 154000	GI-250	1000	500	6"(152)	53"(1346)	10"(254)	91"(2311)	60"(1524)	63"(1600)	9"(229)
154001 to 188000	GI-260	1200	600	8"(203)	60"(1524)	10"(254)	100"(2540)	72"(1829)	70"(1778)	12"(305)

WO-300 Series On Floor or Semi Recessed Installation



Model Number	Flow Rate US-GPM	*Oil Capacity Gallons	List Price Base Unit Standard "C" Dimensions	**Up to 6" Above Standard	**Each 1" Over 6" to 24"	Overall "C" Dimensions Greater Than 24"	-DI Dual Inlets
WO-310	10	2.1	\$5,059.40	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-315	15	7.95	\$20,989.32	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-320	20	11.23	\$5,760.21	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-325	25	12.95	\$6,866.04	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-335	35	20.13	\$7,861.85	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-350	50	26.57	\$8,644.60	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-375	75	39.45	\$21,729.19	P.O.A.	P.O.A.	P.O.A.	P.O.A.

*Safe Working Capacity
 **Optional "C" Dimensions
 -X "C" Dimensions Greater Than Standard

Model Number	-T Threaded Conn.	-HDC Heavy Duty Cover	-F Anchor Flange No Clamp	-F.C. Flange & Clamp Device	-O Conn. Other than Standard	-TEFC Threaded Conn. External Flow Control	-MEFC MJ Conn. External Flow Control	-XHDC X Heavy Duty Cover
WO-310	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	\$120.91	\$120.91	P.O.A.
WO-315	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.
WO-320	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.
WO-325	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.
WO-335	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.
WO-350	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.
WO-375	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	120.91	120.91	P.O.A.

Grease Interceptors

WO-500

Oil Interceptor with Secondary Oil Storage Tank

Model Number	Flow Rate USGPM	**Oil Capacity Gallons	List Price Base Unit Standard "C" Dimensions	**Up to 6" Above Standard	**Each 1" Over 6" to 24"	Overall "C" Dimesions Greater Than 24"	-DI Dual Inlets
WO-510	10	14	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-515	15	24.25	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-520	20	32	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-525	25	35	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-535	35	64.5	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-550	50	77.9	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-575	75	130	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.

*Safe Working Capacity
 **Optional "C" Dimensions
 -X "C" Dimensions Greater Than Standard

Model Number	-T Threaded Conn.	-HDC Heavy Duty Cover	-F Anchor Flange No Clamp	-FC. Flange & Clamp Device	-O Conn. Other than Standard	-TEFC Threaded Conn. External Flow Control	-MEFC MJ Conn. External Flow Control	-XHDC X Heavy Duty Cover
WO-510	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-515	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-520	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-525	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-535	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-550	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
WO-575	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.

Model Number	Flow Rate GPM	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	G Base to Center	H	K	DI Between Inlet Centers
WO-510	10	2"(51)	8 1/2"(216)	6"(152)	21 3/4"(552)	14"(356)	14 1/2"(368)	3 1/2"(89)	6"(152)	7"(178)	5"(127)
WO-515	15	2"(51)	10 1/2"(267)	6"(152)	22"(559)	15"(381)	16 1/2"(419)	4"(102)	7"(178)	7"(178)	5"(127)
WO-520	20	3"(76)	11 1/2"(292)	6"(152)	24"(610)	15 3/4"(400)	17 1/2"(443)	5"(127)	7"(178)	7"(178)	5 1/2"(140)
WO-525	25	3"(76)	12"(305)	6"(152)	26"(660)	16 1/2"(419)	18"(457)	6"(152)	7"(178)	7"(178)	5 1/2"(140)
WO-535	35	4"(102)	14"(356)	6"(152)	30"(762)	18"(457)	20"(508)	8"(203)	10"(254)	7"(178)	6 1/2"(165)
WO-550	50	4"(102)	16"(406)	6"(152)	32"(813)	22"(559)	22"(559)	9"(229)	10"(254)	7"(178)	6 1/2"(165)
WO-575	75	4"(102)	18 1/2"(470)	6"(152)	36"(914)	24"(610)	24 1/2"(623)	12"(305)	10"(254)	7"(178)	6 1/2"(165)

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Oil Interceptors

OI-400

Oil Interceptors

Interceptor Model Number	Flow Rate GPM	**Oil Capacity Gallons	List Price Base Unit Standard "C" Dimensions	** Each 1" Over 6" to 24"	Overall "C" Dimensions Greater Than 24"	-DI Dual Inlets	-T Threaded Conn.	-HDC Heavy Duty Cover	-F Anchor Flange No Clamp	-FC Flange & Clamp Device
OI-410	100	147	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-415	150	217	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-420	200	313	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-425	250	422	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-430	300	465	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-435	350	514	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-440	400	650	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-450	500	1,000	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-460	600	1,500	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.

*Safe Working Capacity

**Optional "C" Dimensions
-X "C" Dimensions Greater Than Standard

Interceptor Model Number	-TEFC Threaded Conn. External Flow Control	-MEFC MJ Conn. External Flow Control
OI-410	P.O.A.	P.O.A.
OI-415	P.O.A.	P.O.A.
OI-420	P.O.A.	P.O.A.
OI-425	P.O.A.	P.O.A.
OI-430	P.O.A.	P.O.A.
OI-435	P.O.A.	P.O.A.
OI-440	P.O.A.	P.O.A.
OI-450	P.O.A.	P.O.A.
OI-460	P.O.A.	P.O.A.

Interceptor Model Number	Flow Rate GPM	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	G Base to Center	H	K	DI Between Inlet Centers
OI-410	100	4"(102)	24"(610)	10"(254)	54"(1372)	36"(914)	34"(864)	17 1/2"(445)	20"(508)	13"(330)	6 1/2"(165)
OI-415	150	4"(102)	29"(737)	10"(254)	60"(1524)	38"(965)	39"(991)	22 1/2"(572)	22"(559)	15"(381)	6 1/2"(165)
OI-420	200	4"(102)	31"(787)	10"(254)	69"(1753)	43"(1092)	41"(1041)	24 1/2"(622)	26"(660)	18"(457)	6 1/2"(165)
OI-425	250	4"(102)	37"(940)	10"(254)	74"(1880)	45"(1143)	47"(1194)	30"(762)	26"(660)	20"(508)	6 1/2"(165)
OI-430	300	6"(152)	38"(965)	10"(254)	76"(1930)	48"(1219)	48"(1219)	30 1/2"(775)	27"(686)	20"(508)	9"(229)
OI-435	350	6"(152)	39"(991)	10"(254)	79"(2007)	50"(1270)	49"(1245)	31 1/2"(800)	28"(711)	21"(533)	9"(229)
OI-440	400	6"(152)	42"(1067)	10"(254)	83"(2108)	55"(1397)	52"(1321)	34 1/2"(876)	30"(762)	23"(584)	9"(229)
OI-450	500	6"(152)	53"(1346)	10"(254)	91"(2311)	60"(1524)	63"(1600)	45 1/2"(1156)	32"(813)	25"(635)	9"(229)
OI-460	600	8"(203)	60"(1524)	10"(254)	100"(2540)	72"(1829)	70"(1778)	52"(1321)	34"(864)	27"(686)	12"(305)



Consult factory for all applications outside of listed parameters.
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Oil Interceptors

OI-600 Oil Interceptor with Secondary Oil Storage Tank

Interceptor Model Number	Flow Rate GPM	**Oil Capacity Gallons	List Price Base Unit Standard "C" Dimensions	** Each 1" Over 6" to 24"	Overall "C" Dimensions Greater Than 24"	-DI Dual Inlets	-T Threaded Conn.	-HDC Heavy Duty Cover	-F Anchor Flange No Clamp	-FC Flange & Clamp Device
OI-610	100	285.70	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-615	150	384	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-620	200	526	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-625	250	677	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-630	300	758	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-635	350	837	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-640	400	1027	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-650	500	1438	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.
OI-660	600	2168	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.	P.O.A.

*Safe Working Capacity

**Optional "C" Dimensions
-X "C" Dimensions Greater Than Standard

Interceptor Model Number	-O Conn. Other than Standard	-MEFC MJ Conn. External Flow Control
OI-610	P.O.A.	P.O.A.
OI-615	P.O.A.	P.O.A.
OI-620	P.O.A.	P.O.A.
OI-625	P.O.A.	P.O.A.
OI-630	P.O.A.	P.O.A.
OI-635	P.O.A.	P.O.A.
OI-640	P.O.A.	P.O.A.
OI-650	P.O.A.	P.O.A.
OI-660	P.O.A.	P.O.A.

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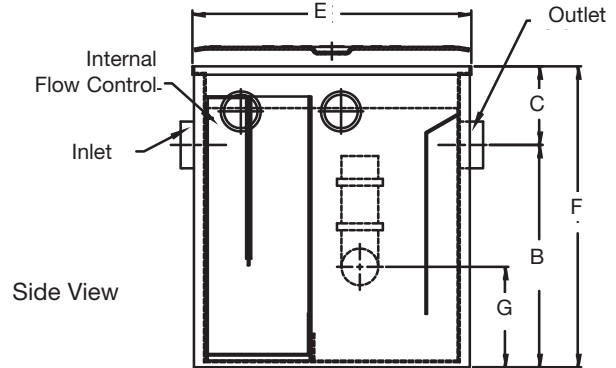
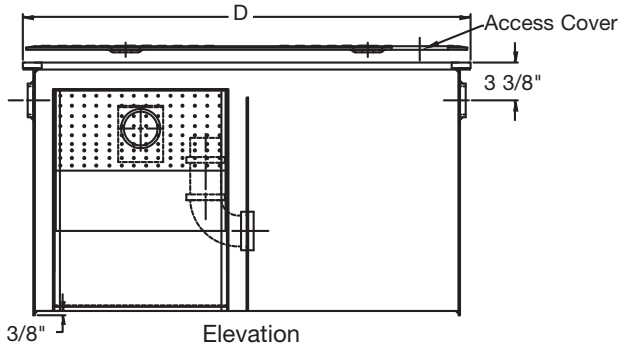
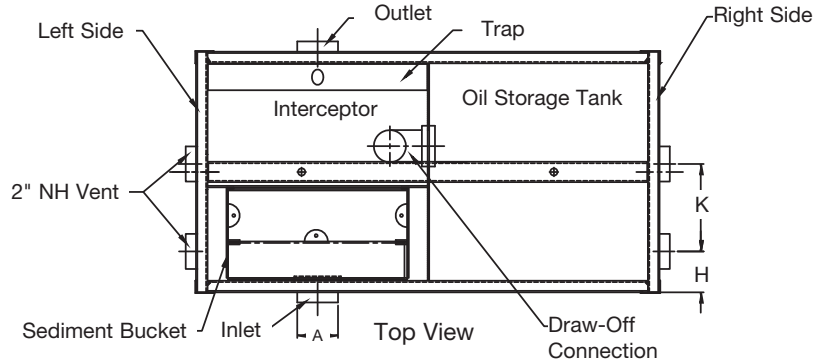


Oil Interceptors

OI-ST Series (OI-700)

Oil Interceptor w/Integral Storage Tank

***Note:** For custom configurations use OI-700 Series.



Inter-ceptor Model Number	Order Code	List Price	-HD 10,000 Lbs. (Traffic Cover)* Add	Flow Rate GPM	Combined Volume Gal.	A Inlet & Outlet	B Base To Center	C Top To Center	D Length	E Width	F Height	G	H	K	J
OI-10-ST	8188471	\$8,013.64	\$11,163.29	10	9	2"	8-1/2"	6"	24"	18"	14-1/2"	3"	4-1/2"	5-1/2"	6"
OI-15-ST	8189085	\$10,967.86	11,858.94	15	26	2"	12-1/2"	6"	33-3/4"	20-7/8"	18-1/2"	5	4-1/2"	7-1/2"	9"
OI-20-ST	8188641	\$13,261.79	12,557.88	20	34	3"	14-1/2"	6"	39-3/4"	20-7/8"	20-1/2"	6"	4-1/2"	7-1/2"	10-1/2"
OI-25-ST	8188760	\$12,853.88	12,607.55	25	40	3"	16-1/2"	6"	39-3/4"	20-7/8"	22-1/2"	7"	4-1/2"	7-1/2"	10-1/2"
OI-35-ST	8188636	\$17,475.36	13,952.45	35	65	4"	14-1/2"	6"	49-3/4"	32-7/8"	20-1/2"	6"	12"	6"	13"
OI-50-ST	8188581	\$23,547.26	14,663.48	50	90	4"	18-1/2"	6"	49-3/4"	32-7/8"	24-1/2"	8"	12"	6"	13"
OI-75-ST	8188538	\$27,191.80	15,416.62	75	176	4"	26-1/2"	6"	49-3/4"	40-7/8"	32-1/2"	16"	12"	12"	13"
OI-100-ST	8188967	\$54,690.21	21,253.30	100	337	4"	24"	10"	72"	54"	34"	17-1/2"	20"	13"	22-1/2"
OI-150-ST	8189060	\$67,678.00	27,278.86	150	494	4"	29"	10"	76"	60"	39"	22-1/2"	22"	15"	19"
OI-200-ST	8188535	P.O.A.	P.O.A.	200	694	4"	31"	10"	86"	69"	41"	24-1/2"	26"	18"	22-1/2"
OI-250-ST	8188916	P.O.A.	P.O.A.	250	951	4"	37"	10"	90"	74"	47"	30"	26"	20"	22-1/2"
OI-300-ST	8188812	P.O.A.	P.O.A.	300	1011	6"	38"	10"	96"	76"	48"	30-1/2"	27"	20"	21-1/2"
OI-350-ST	-	P.O.A.	P.O.A.	350	1129	6"	39"	10"	100"	79"	49"	31-1/2"	28"	21"	23-1/2"
OI-400-ST	8189086	P.O.A.	P.O.A.	400	1423	6"	42"	10"	110"	83"	52"	34-1/2"	30"	23"	22-3/4"
OI-500-ST	8189024	215,563.53	P.O.A.	500	2222	6"	53"	10"	120"	91"	63"	45-1/2"	32"	25"	20-3/4"

*-HD Option Requires Minimum 3" Extension

Options for OI-ST (OI-700) Series:

Suffix	Description	List Price	Suffix	Description	List Price
E	Electronics	P.O.A.	-O	Inlet & Outlet Other Than Standard Size	P.O.A.
X	Extension over 12", add per inch	P.O.A.	-SS	All Stainless Steel	P.O.A.
-FC	Flange & Clamp Device	P.O.A.	-THD	Threaded Connections	No Add

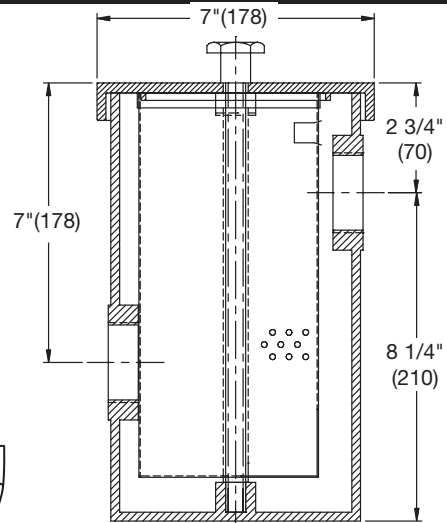
WATTS® Consult factory for all applications outside of listed parameters.
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Hair, Sediment & Solids Interceptors

SI-742

Hair, Plaster, & Sediment Interceptor

Model Number	Order Code	Description	List Price
SI-742T-50	C8135382	cast iron	\$1,197.54
SI-742-SS	8145681	stainless steel	4,101.26



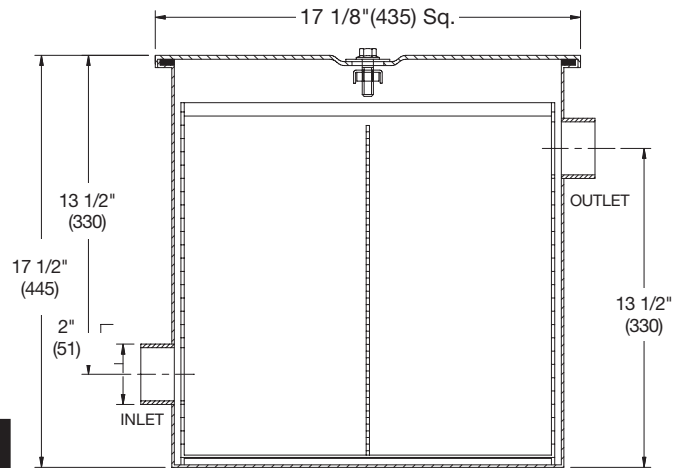
Options for SI-742 Series:

Suffix	Description	List Price
-X	Cover for Recessed Installation	\$646.66

SI-742-L

Large Capacity Sediment Interceptor

Model Number	Order Code	Outlet	Description	List Price
SI-742-L	8187634	2"	Epoxy Coated Steel	\$4,101.26
SI-742-L-SS	-	2"	Stainless Steel	28,997.99

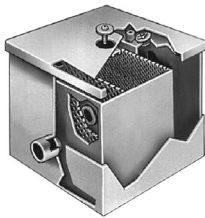


Options for SI-742 -L Series:

Suffix	Description	List Price
-0	Inlet & Outlet other than standard	P.O.A.
-X	Cover for Recessed Installation	P.O.A.

SI-742-M

Sediment & Hair Inteceptor



Model Number	Cover Type	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height	Base to Center of Outlet	Top to Center of Outlet	List Price
SI-742-M	Smooth	2"(51)	4"(102)	9"(229)	11 1/4"(286)	11 1/4"(286)	13"(330)	9"(229)	4"(102)	\$3,556.15
SI-742-M-X	Recessed	2"(51)	4"(102)	9"(229)	12 3/8"(314)	12 3/8"(314)	13"(330)	9"(229)	4"(102)	14,972.97

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Hair, Sediment & Solids Interceptors

SI-750 & SI-750-TO Hair Interceptor

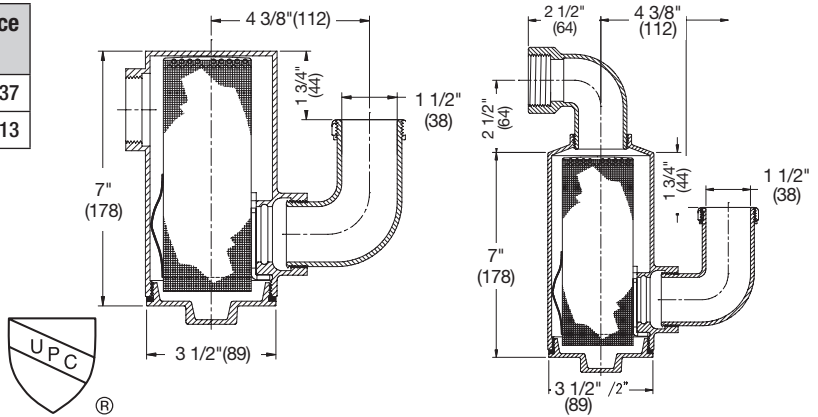
Model Number	Order Code	Description	List Price
SI-750-50	8135385	Cast Iron, Side Outlet	\$994.37
SI-750-TO	8145708	Chrome Plated, Top Outlet	1,796.13



Cast Iron

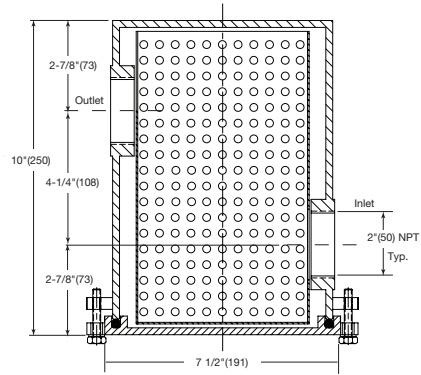


Chrome Plated



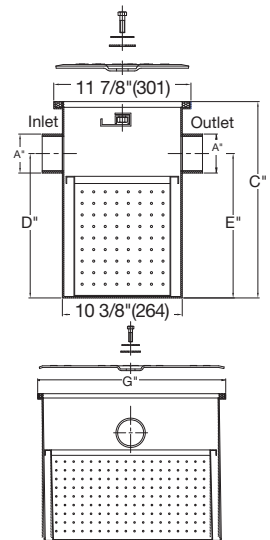
SI-762 Bottom Access Hair, Plaster, & Sediment Interceptor

Model Number	Order Code	Description	Weight Lbs.	List Price
SI-762	8186577	Epoxy Coated Steel	22	\$1,097.97



SI-770 Solids Interceptor

Interceptor Model Number	Order Code	List Price	Inlet/Outlet Size	Flow Rate GPM	Solids Cap. Cubic Ft.	C	D/E	G	Wt. Lbs.
SI-770-100	8188175	\$3,357.26	2	4	0.20	10"	7-1/4"	11-3/4"	13.87
SI-770-200	8188611	3,352.25	2	7	0.29	11-1/8"	8-1/8"	13-3/4"	16.75
SI-770-300	8188329	3,306.48	2	10	0.33	11-3/4"	8-1/4"	15-7/8"	18.98
SI-770-400	8157664	3,713.37	3	15	0.38	13-3/8"	9-3/8"	18-5/8"	23.89
SI-770-500	8188612	3,745.00	3	20	0.66	15"	11-3/4"	19-1/8"	26.34
SI-770-600	8188613	4,246.70	3	25	0.79	17"	12-1/2"	21-3/4"	32.19
SI-770-700	8188614	5,441.15	3	35	1.17	18-3/4"	14-1/4"	24-3/8"	36.59
SI-770-800	8188350	5,833.89	4	50	1.35	21-1/8"	16"	24-3/8"	39.89
SI-770-900	8188658	6,230.93	4	75	1.61	22-3/4"	18-1/2"	24-3/8"	39.00
SI-770-1000	8188659	6,376.86	4	100	1.80	27"	23"	24-3/8"	42.00



Options for SI-770 Series:

Suffix	Description	List Price
-E	Electronics	P.O.A.
-O	Inlet & Outlet Other Than Standard Size	P.O.A.
-SS	All Stainless Steel	P.O.A.
-THD	Threaded Connections	No Add



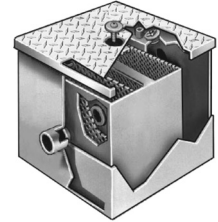
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Lint & Sand Interceptors

SI-800

Large Capacity Hair, Plaster & Sediment Interceptor

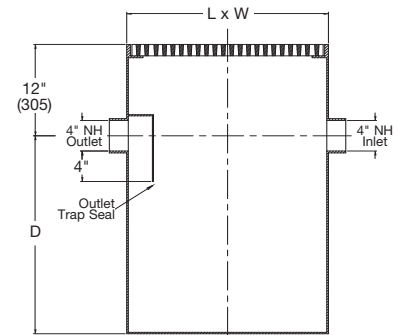
Model Number	List Price	Cu. Capacity of Fixtures (inches)	Flow Rate GPM	A Inlet & Outlet	B Base to Center	C Top to Center	D Length	E Width	F Height
SI-820	\$18,855.43	4601-6150	20	3"(76)	14 1/2"(368)	6"(152)	20 7/8"(530)	19 7/8"(505)	20 1/2"(521)
SI-825	\$19,710.87	6151-7700	25	3"(76)	16 1/2"(419)	6"(152)	20 7/8"(530)	19 7/8"(505)	20 1/2"(521)
SI-835	\$21,659.61	7701-7700	35	4"(102)	14 1/2"(368)	6"(152)	32 7/8"(835)	24 7/8"(632)	20 1/2"(521)
SI-850	\$22,837.75	10751-15400	50	4"(102)	18 1/2"(470)	6"(152)	32 7/8"(835)	24 7/8"(632)	24 1/2"(622)
SI-875	\$26,722.30	15401-23000	75	4"(102)	26 1/2"(673)	6"(152)	40 7/8"(1038)	24 7/8"(632)	32 1/2"(826)



FD-410-ST

Sand Trap

Model Number	List Price	Flow Rate GPM	Inlet & Outlet	L Length	W Width	D Depth	Capacity Gal.	No of Grates
FD-410-ST-20	\$18,881.64	20	4"(102)	24"(610)	24"(610)	26"(660)	60	2
FD-410-ST-50	30,027.34	50	4"(102)	48"(1219)	24"(610)	26"(660)	120	4
FD-410-ST-150	83,307.33	150	4"(102)	48"(1219)	48"(1219)	38"(965)	360	8
FD-410-ST-250	P.O.A.	250	4"(102)	72"(1829)	48"(1219)	39"(991)	540	12
FD-410-ST-500	P.O.A.	500	4"(102)	120"(3048)	48"(1219)	51"(1295)	1200	20



LI-800

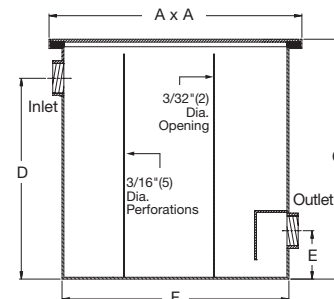
Lint Interceptor

Model Number	Order Code	List Price	Size/No. of Machines	Inlet / Outlet Size	Flow Rate GPM	Approx. Weight/ Lbs.	A	C	D	E	F
LI-803	8185896	\$10,719.92	3	2"	30	93	17"	16-1/2"	13-1/2"	3-1/4"	15-1/4"
LI-807	8145748	12,606.36	7	3"	70	155	25"	20"	16-1/2"	3-1/4"	23-1/4"
LI-810	8145747	14,580.80	10	4"	100	271	33"	28"	20-1/8"	4"	31-1/4"
LI-820	8150855	18,010.32	20	4"	200	404	40"	35"	27-1/8"	4"	38-1/4"
LI-830	8145749	20,925.47	30	6"	300	654	45"	40"	28-1/8"	5"	43-1/4"
LI-840	8185181	CF**	40	6"	400	723	48"	43"	31-1/8"	5"	46-1/4"
LI-850	8185210	27,012.00	50	6"	500	911	52"	47"	35-1/8"	5#	50-1/4"



Options for LI-800 Series:

Suffix	Description	List Price
-X	Extension Up to 12"	P.O.A.
	Each Additional Inch	P.O.A.
-HD	10,000 Traffic Cover*	P.O.A.
-O	Inlet & Outlet Other Than Standard	P.O.A.
-SS	All Stainless Steel	P.O.A.



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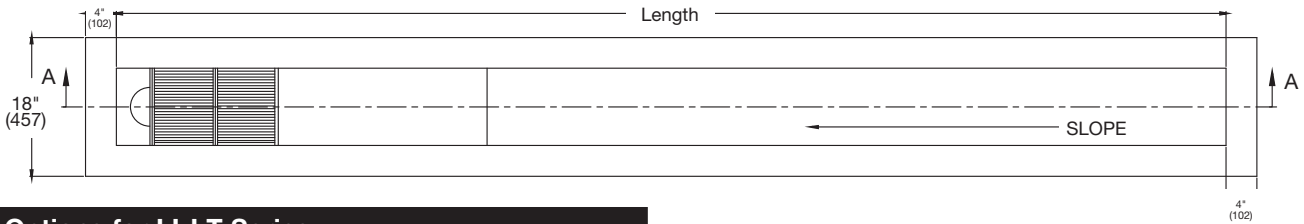
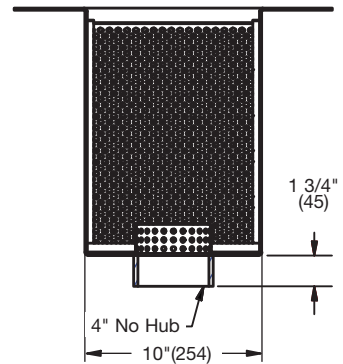
Lint & Sand Interceptors

LI-LT Series

Stainless Steel Lint Trough

Model Number	Order Code	Length	List Price
LI-4-LT	8189401	4'	\$13,433.33
LI-8-LT	8189776	8'	\$19,916.72
LI-12-LT	8189161	12'	\$24,852.16

Note: Custom lengths available at \$4,413.04 per foot.
(Call for Availability)



Options for LI-LT Series:

Suffix	Description	List Price
-4	4' Base Option	\$12,212.13

SA-Series

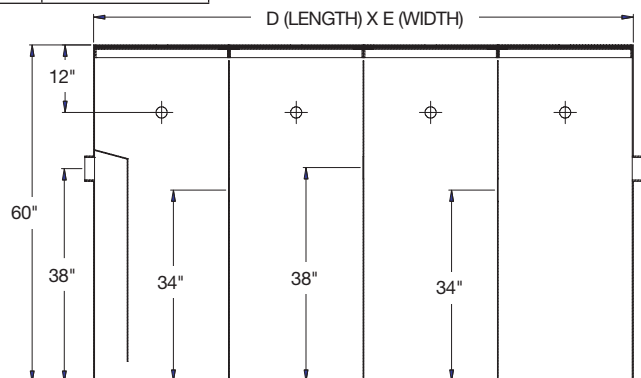
Heavy Duty Sand & Sediment Interceptor

Model Number	Order Code	GPM	Wt. Lbs.	Cu. Ft.	Length	Width	Height	List Price	-HD 10,000 (Add Traffic Cover)
SA-310	8186454	300	1600	43	60"	36"	60"	\$48,297.19	\$1,941.16
SA-410	8187188	400	1750	54	72"	36"	60"	72,982.68	2,438.02
SA-510	8154227	500	2100	72	96"	36"	60"	86,816.62	3,564.29
SA-610	-	600	2500	81	108"	36"	60"	CF**	4,064.51
SA-710	8187789	700	2700	90	120"	36"	60"	111,262.46	4,418.94
SA-810	8190286	800	3000	108	144"	36"	60"	CF**	4,872.76
SA-1010	8201174	1000	3640	135	180"	36"	60"	CF**	6,114.98

*-HD Option Requires Minimum 4" Extension

Options for SA-Series:

Suffix	Description	List Price
-X	Extension Up to 12"	\$3,040.92
	Each Additional Inch	377.62
-HD	10,000 Traffic Cover*	P.O.A.
-O	Inlet & Outlet Other Than Standard	824.84
-SS	All Stainless Steel	P.O.A.



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Cleanouts

Table Of Contents

- Pictorial Index
- Product Recommendations
- Cleanout Selection Factors
 - Materials
 - Pipe Connections
 - Load Ratings
 - Design Considerations
 - Commonly Specified Options
 - Typical Installations

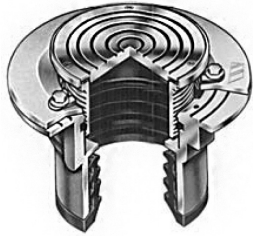


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WATTS[®]

Cleanouts

Pictorial Index



CO-100-C-R
Floor Cleanout
w/Round Top



CO-100-C-RC
Floor Cleanout with
Round Top, Carpet Marker



CO-100-C-RC-7
Surface Membrane
Cleanout



CO-100-C-RX
Floor Cleanout with
Heavy Duty Round Top



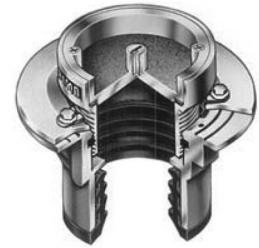
CO-100-C-S
Floor Cleanout with
Square Top



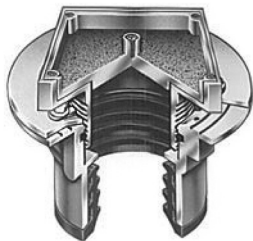
CO-100-C-T
Floor Cleanout with
Round Top, Tile Recess



CO-100-C-TS
Floor Cleanout with
Square Top, Tile Recess



CO-100-C-U
Floor Cleanout w/
Round Top, Terrazzo Recess



CO-100-C-US
Floor Cleanout with
Square Top, Terrazzo Recess

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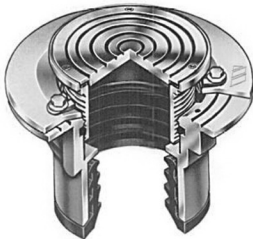
CO-100-C-XHR5
Floor Cleanout with
Heavy Duty Round Top



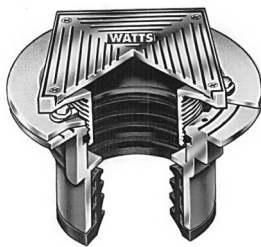
CO-190-PR
Pronto! Cast Iron Adj. Floor
Cleanout w/Integrated Level



CO-190-PR-60
Pronto! PVC Adj. Floor
Cleanout w/Integrated Level



CO-1100-C-R
Adj. Floor Cleanout with
Round Stainless Steel Cover



CO-1100-C-S
Adj. Floor Cleanout with
Square Stainless Steel Cover



CO-200-H
Elastomeric Flange



CO-200-R
Round NB Top



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Cleanouts

Pictorial Index



Consult factory for all applications outside of listed parameters.
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Cleanouts

Pictorial Index



CO-410
Floor Access Housing



WUCO
Wall Cleanout w/Poly Plug



CO-450-RD
CI Wall Cleanout



CO-460
Stack Cleanout



CO-460-RD
Stack Cleanout w/SS cover



CO-480-RD
SS Cover & Screw



CO-590
Brass Plug



CO-590-RD
Wall Cleanout with
Brass Plug



CO-600-R
Isolation Cleanout



CO-1190-PR
Pronto; Cast Iron Adj. Floor
Cleanout w/Integrated Level



CO-1190-PR-60
Pronto; PVC Adj. Floor
Cleanout w/Integrated Level



CO-1200-R
HD Round SS Top



CO-1200-RX
XHD Round SS Top

Cleanouts

Cleanout Selection Factors

Materials

Cast iron epoxy coated*

Industrial grade cast iron, finished with Watts gray acid resistant epoxy coating.

NOTE: Watts Drainage standard epoxy coating is designed for interim protection of iron components during processing, shipping, and construction. It is not intended to protect surfaces subject to traffic, or environmental conditions. Exposed iron surfaces should be expected to show surface oxidation (rusting) after a short period of time.

Nickel bronze

Nickel bronze alloy is homogenous, highly resistant to wear, and will not be discolored by weather or traffic. Appearance is silvery, and compliments most interior and exterior finishes.

Stainless steel

In accordance with ASTM A-351-Grade CF8 (Type 304) standard specification. Highly durable and resistant to corrosion.

Ductile iron epoxy coated*

Superior impact resistance and durability compared to standard cast iron. Watts supplies ductile iron drain grates standard, finished with gray acid resistant epoxy coating.

PVC or ABS

Most floor and area drains can be specified with optional PVC (-60) or ABS (-61) plastic bodies for direct sch. 40 solvent weld connection.

Pipe Connections

No hub (standard)

Butt connection using a no hub or neoprene coupling. Suitable for cast iron, plastic, and most other piping applications.

Push-on (-P)

ASTM C-564 gasket connection, with pipe stop. Suitable for no hub or service weight cast iron, sch. 40 plastic, and steel pipe. Not recommended for above grade.

Inside caulk (-X)

Used for lead and oakum joints, pipe is inserted through a caulk ring on the drain outlet.

PVC (-60) or ABS (-61) socket

For direct solvent weld connection to sch. 40 plastic pipe.

Threaded (-THD)

Female threaded outlet for connection to IPS threaded pipe.

Load Ratings

Load ratings are based upon maximum anticipated traffic, in accordance with American National Standards AMSE A112.21.1M. See specification pages for specific load rating data.

Light Duty (LD) - Safe live load under 2000 obs.

Medium Duty (MD) - Safe live load 2000-4999 lbs.

Heavy Duty (HD) - Safe live load 5000-7499 lbs.

Extra Heavy Duty (XHD) - Safe live load 7500-10,000 lbs.

Special Duty (SD) - Safe live load over 10,000 lbs.

Design Considerations

Cleanout Plugs

Straight thread ANSI gasketed brass plugs are standard in all metal cleanouts. PVC/ABS cleanouts are supplied with a two-piece gasket seal poly plug. All Watts cleanout plugs are gastight, water tight, removable, and hold test.

Finished/Unfinished Areas

Finished area top specifications should be nickel bronze, or optional stainless steel. Ductile iron is typically used in unfinished areas, where appearance is not a primary concern.

Fixed/Adjustable Tops

Adjustable top drains enable vertical adjustment of the top assembly, to more easily match the finished floor level.

Commonly Specified Options

-6 Vandal Proof

Grate secured with Allen Head screws. Security screws (Torx & Pin, Allen and Pin) may be specified for high security applications.

-12 Hot Dipped Galvanized

Standard zinc galvanizing, commonly specified above grade in highly corrosive coastal environments or industrial areas.

-C Membrane Clamp

Specified in floors with a waterproofing membrane, generally in above grade applications.

-CF Carpet Clamping Flange

For CO-200-R, securely clamps carpeting to the cleanout cover.

-US Buy American Compliant

Product will be supplied with minimum 51% domestic content, in compliance with FAR 52.225-9 Buy American Act.

Consult factory for all applications outside of listed parameters.

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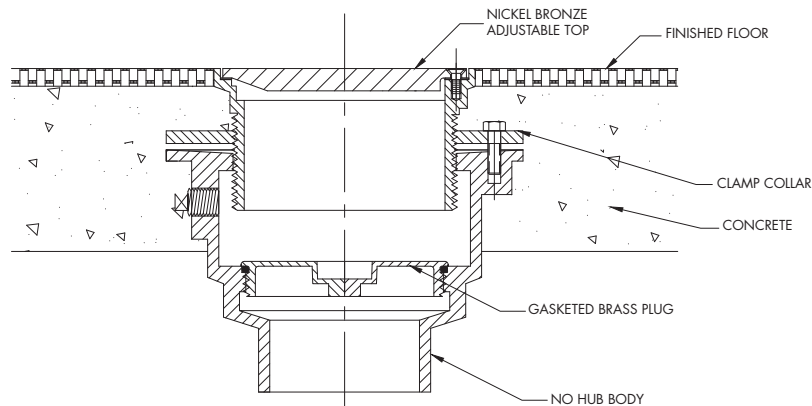


Cleanouts

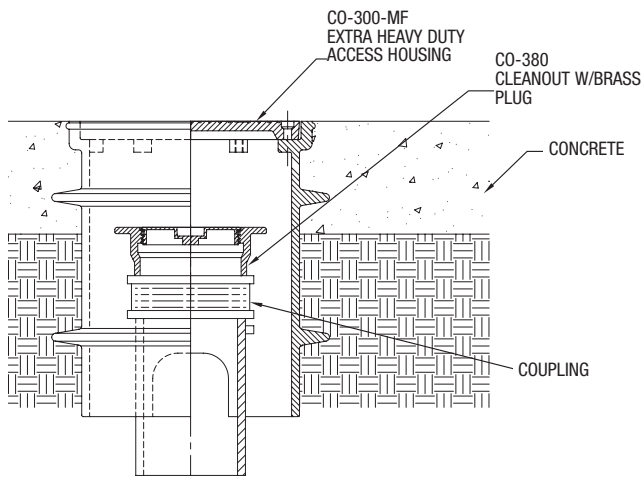
Recommendations

Application	Product	Application	Product
Basement areas	CO-200-RX-4, CO-390-E	Outdoor walkways	CO-200-RX, CO-200-SX
Clinical & surgical areas	CO-1200-R-28, CO-1200-S-28	Rubberized poured flooring	CO-200-H
Floor access covers	CO-300-R, CO-300-S, CO-410	Rubberized sheet flooring	CO-200-RFC7
Food preparation areas	CO-1200-R, CO-1200-S	Sanitary manufacturing areas	CO-1200-RX-28, CO-1200-SX-28
Garage and service bays	CO-260, CO-270	Stack bases	CO-460, CO-460-RD
Industrial and warehouse areas	CO-200-RX, CO-200-RX-4, CO-200-SX, CO-200-SX-4	Stairwells	CO-200-RX-4, CO-390-E
Interior carpeted areas	CO-200-RC, CO-200-CF	Terrazzo floors (recessed cover)	CO-200-U, CO-200-US
Interior finished areas	CO-200-R, CO-200-S	Tile floors (recessed cover)	CO-200-T, CO-200-TS
Maintenance & boiler rooms	CO-200-RX-4, CO-380	Wall access covers	CO-480-RD
Outdoor parking areas	CO-300-MF	Wall stubouts	CO-440-RD, CO-450-RD, CO-590-RD

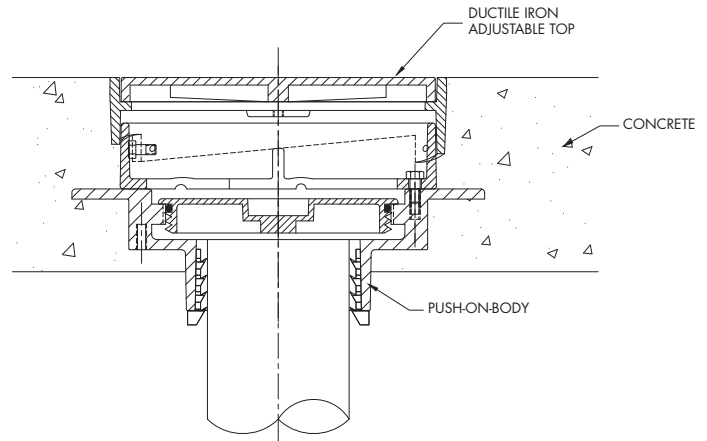
Typical Installations



CO-200-R
FINISHED AREA ABOVE GRADE



CO-300-MF w/CO-380
EXTERIOR YARD AREA



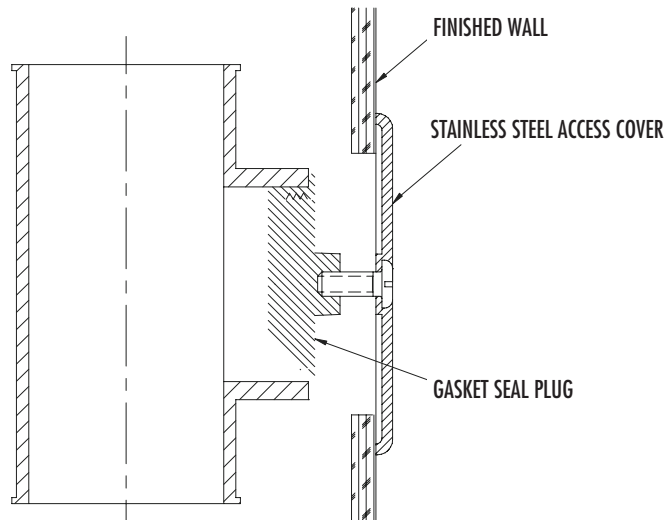
CO-260P
UNFINISHED AREA ON GRADE



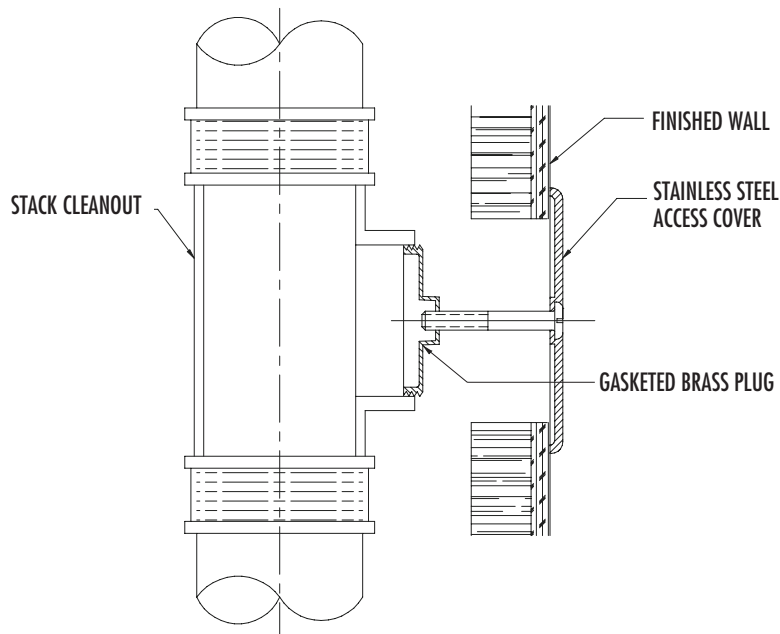
Consult factory for all applications outside of listed parameters.
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Cleanouts

Typical Installations



WUCO
WALL STUB-OUT



CO-460-RD
VERTICAL STACK

Adjustable Floor Cleanouts for Membrane Area

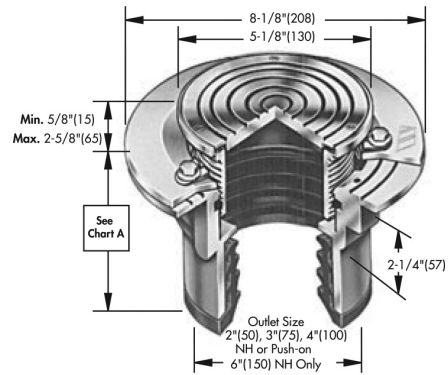
CO-100-C-R

Floor Cleanout with Round Top

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-R-1	10	2, 3, 4"	nickel bronze	\$490.26
CO-106-C-R-1	15	6"	nickel bronze	521.73

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



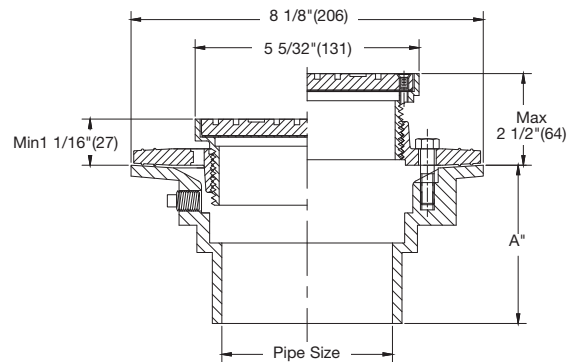
CO-100-C-XHR5

Floor Cleanout with Heavy Duty Round Top

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-100-C-XHR5-1	10	2, 3, 4"	nickel bronze	\$586.76
CO-100-C-XHR5-4	10	2-4"	ductile iron	412.91
CO-100-C-XHR5-1	10	6"	nickel bronze	586.76
CO-100-C-XHR5-4	10	6"	ductile iron	412.91

Chart A

Pipe Size	NH	Push-On	Female Thread	Inside Caulk	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4 1/4"(108)	4 1/2"(114)	4"(102)
6"(152)	3 1/2"(89)				



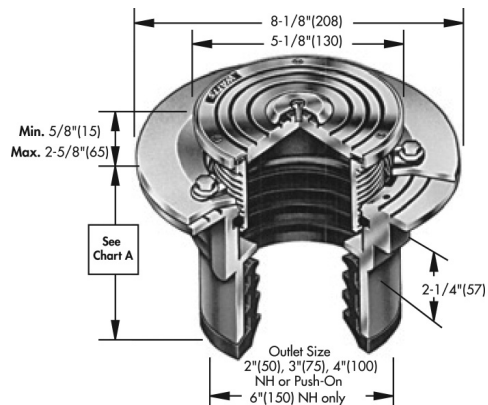
CO-100-C-RC

Floor Cleanout with Round Top, Carpet Marker

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-RC-1	10	2, 3, 4"	nickel bronze	\$490.26
CO-106-C-RC-1	10	6"	nickel bronze	507.04

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86



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Adjustable Floor Cleanouts for Membrane Area

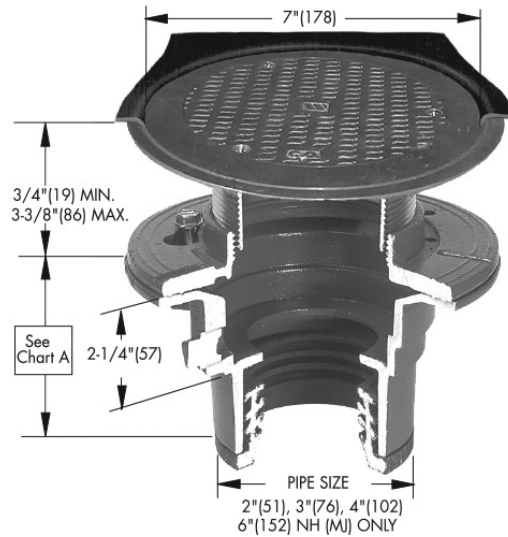
CO-100-C-RC-7

Surface Membrane Cleanout

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-RFC7-1	10	2, 3, 4"	nickel bronze	\$799.22

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



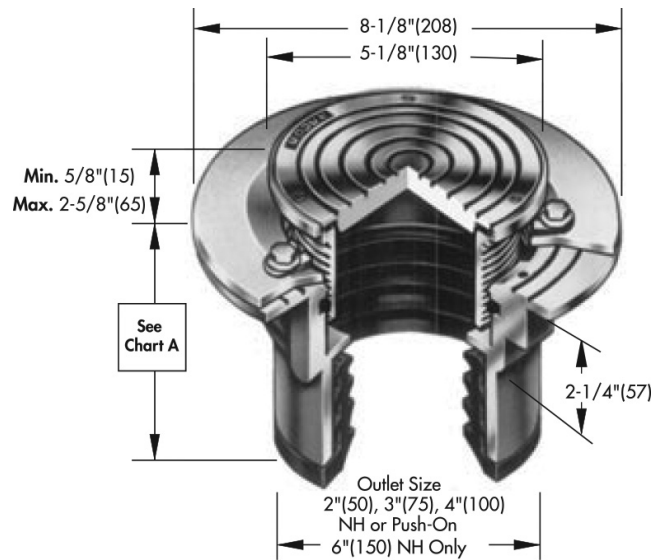
CO-100-C-RX

Floor Cleanout with Heavy Duty Round Top

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-RX-1	10	2, 3, 4"	nickel bronze	\$586.32
CO-106-C-RX-1	10	6"	nickel bronze	418.77
CO-102, 3, 4-C-RX-4	10	2, 3, 4"	ductile iron	412.42
CO-106-C-RX-4	10	6"	ductile iron	449.39

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86

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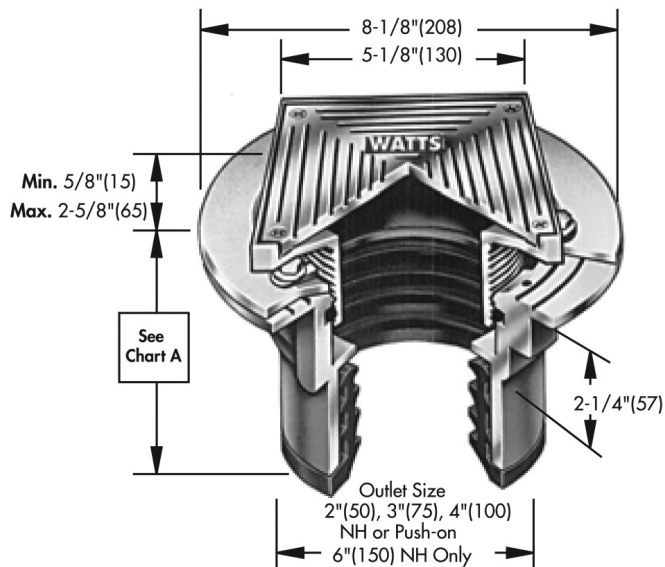
Adjustable Floor Cleanouts for Membrane Area

CO-100-C-S Floor Cleanout with Square Top

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-S-1	10	2, 3, 4"	nickel bronze	\$606.22
CO-106-C-S-1	15	6"	nickel bronze	728.81

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		

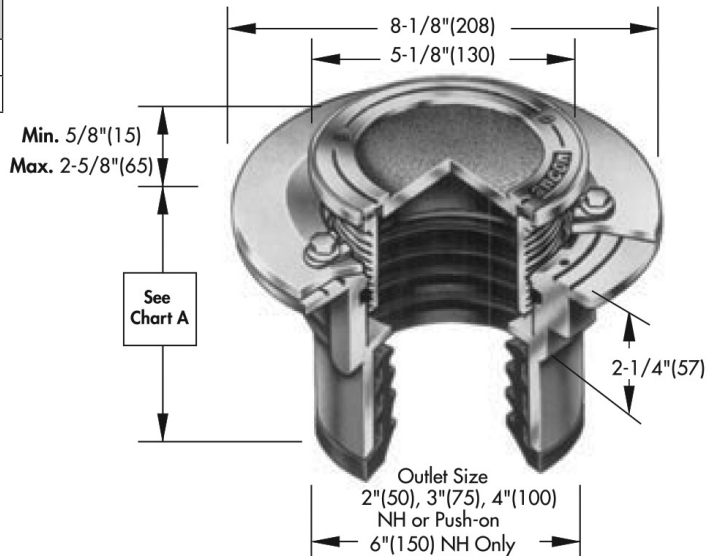


CO-100-C-T Floor Cleanout with Round Top, Tile Recess

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-T-1	10	2, 3, 4"	nickel bronze	\$515.47
CO-106-C-T-1	15	6"	nickel bronze	529.22

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86

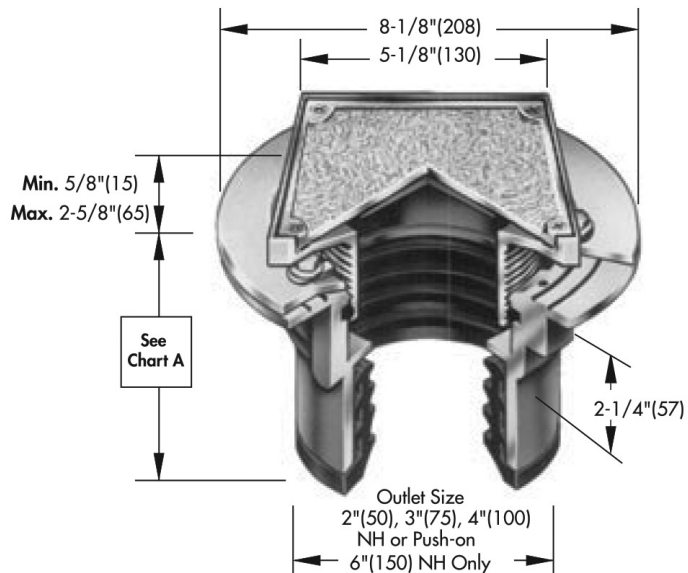
Adjustable Floor Cleanouts for Membrane Area

CO-100-C-TS Floor Cleanout with Square Top, Tile Recess

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-TS-1	10	2, 3, 4"	nickel bronze	\$606.22
CO-106-C-TS-1	15	6"	nickel bronze	CF**

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		

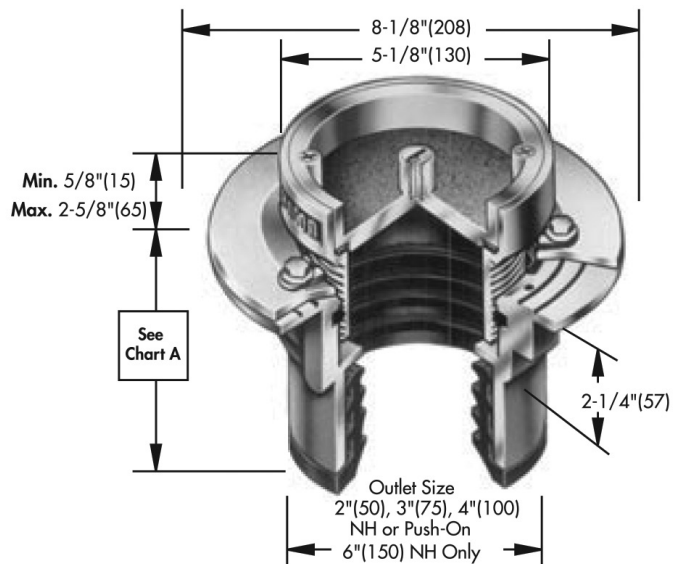


CO-100-C-U Floor Cleanout with Round Top, Terrazzo Recess

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-U-1	10	2, 3, 4"	nickel bronze	\$766.85
CO-106-C-U-1	15	6"	nickel bronze	798.33

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86

Consult factory for all applications outside of listed parameters.
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Adjustable Floor Cleanouts for Membrane Area

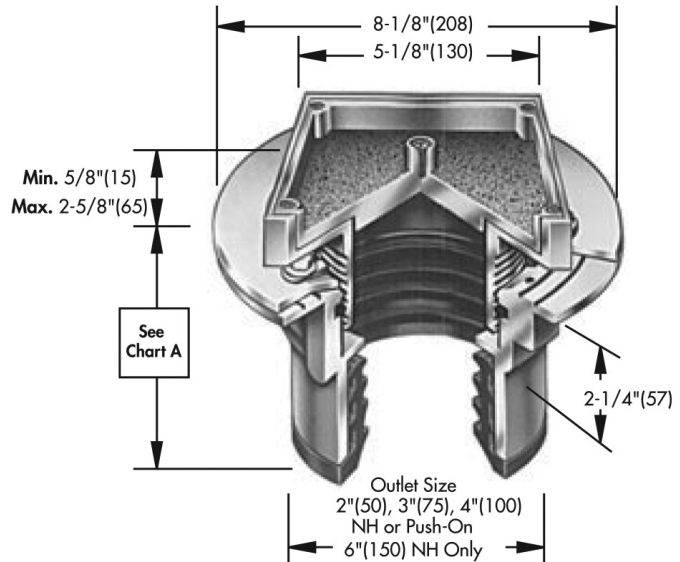
CO-100-C-US

Floor Cleanout with Square Top, Terrazzo Recess

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-102, 3, 4-C-US-1	10	2, 3, 4"	nickel bronze	\$796.67
CO-106-C-US-1	15	6"	nickel bronze	835.27

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86



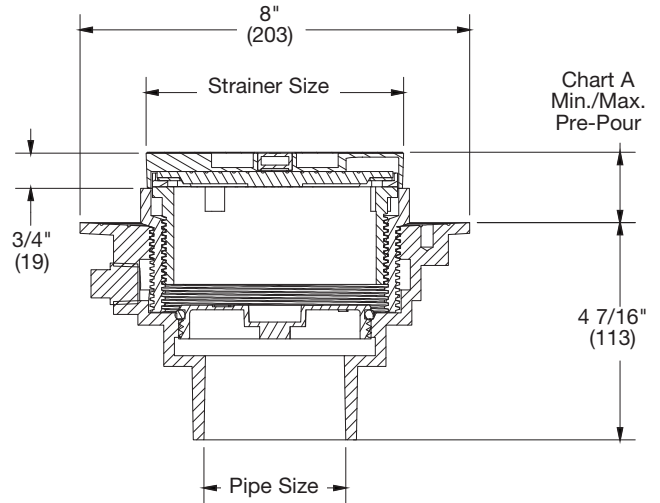
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Adjustable Floor Cleanouts

CO-190-PR

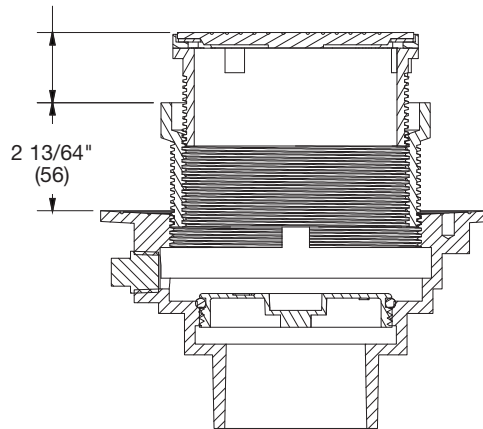
Pronto® Cast Iron Floor Cleanout with Integrated Level

Model Number	Wt., Lbs.	Pipe Size	Cover Size	Cover	List Price
CO-192-PR5	14	2"(51)	5"(127)	nickel bronze	\$1,364.42
CO-192-PR6	16	2"(51)	6"(152)	nickel bronze	1,400.84
CO-193-PR5	14	3"(76)	5"(127)	nickel bronze	1,400.84
CO-193-PR6	16	3"(76)	6"(152)	nickel bronze	1,473.68
CO-194-PR5	14	4"(102)	5"(127)	nickel bronze	1,549.11
CO-194-PR6	16	4"(102)	6"(152)	nickel bronze	1,621.95
CO-192P-PR5	13	2"(51)	5"(127)	nickel bronze	1,364.42
CO-192P-PR6	15	2"(51)	6"(152)	nickel bronze	1,400.84
CO-193P-PR5	13	3"(76)	5"(127)	nickel bronze	1,400.84
CO-193P-PR6	15	3"(76)	6"(152)	nickel bronze	1,473.68
CO-194P-PR5	13	4"(102)	5"(127)	nickel bronze	1,549.11
CO-194P-PR6	15	4"(102)	6"(152)	nickel bronze	1,621.95



PATENTED

0-1" Adj. Post-Pour



Patent No. USD897503 and Patents Pending

Chart A			
Cover Size	Min.	Max.	Load Rating
5"(127)	1 7/16"(37)	2 15/16"(75)	MD
6"(152)	1 7/16"(37)	2 15/16"(75)	LD

Chart B		
Pipe Size	Std. No Hub	P Push On
2"(51)	4 7/16"(113)	4 7/8"(124)
3"(76)	4 7/16"(113)	4 7/8"(124)
4"(102)	4 7/16"(113)	4 7/8"(124)

Options for CO-190-PR Series:

Suffix	Description	List Price
C	SS Membrane Clamp	\$344.03

Consult factory for all applications outside of listed parameters.

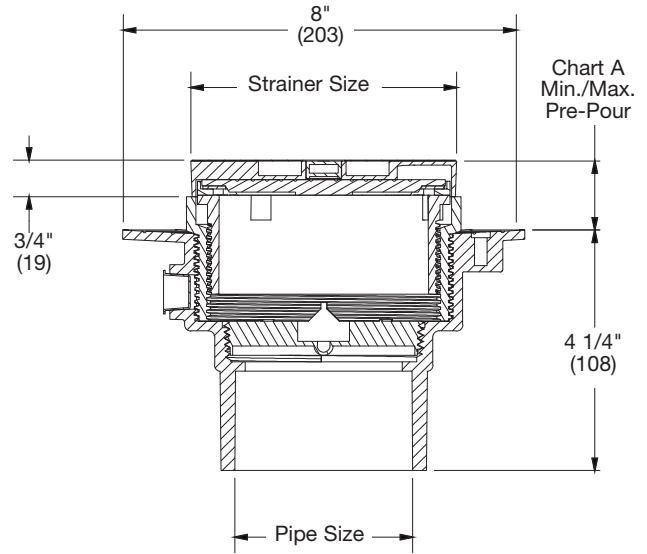
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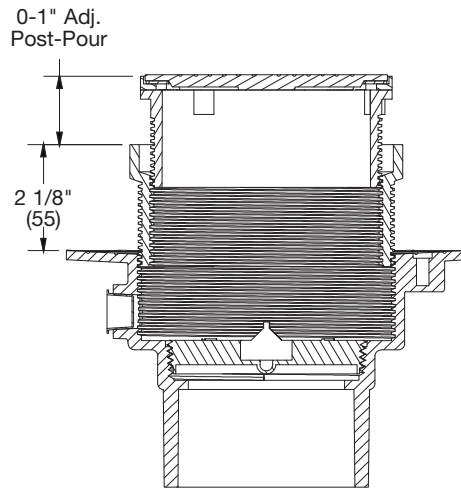
Adjustable Floor Cleanouts

CO-190-PR-60 Pronto!® PVC Floor Cleanout with Integrated Level

Model Number	Wt., Lbs.	Pipe Size	Cover Size	Cover	List Price
CO-192-PR5-60	5	2"(51)	5"(127)	nickel bronze	\$921.54
CO-192-PR6-60	6	2"(51)	6"(152)	nickel bronze	957.95
CO-193-PR5-60	5	3"(76)	5"(127)	nickel bronze	957.95
CO-193-PR6-60	6	3"(76)	6"(152)	nickel bronze	1,032.09
CO-194-PR5-60	5	4"(102)	5"(127)	nickel bronze	1,105.59
CO-194-PR6-60	6	4"(102)	6"(152)	nickel bronze	1,179.07
CO-192N-PR5-60	4	2"(51)	5"(127)	nickel bronze	921.54
CO-192N-PR6-60	5	2"(51)	6"(152)	nickel bronze	957.95
CO-193N-PR5-60	4	3"(76)	5"(127)	nickel bronze	957.95
CO-193N-PR6-60	5	3"(76)	6"(152)	nickel bronze	1,032.09
CO-194N-PR5-60	4	4"(102)	5"(127)	nickel bronze	1,105.59
CO-194N-PR6-60	5	4"(102)	6"(152)	nickel bronze	1,179.07



PATENTED



Patent No. USD897503 and Patents Pending

Chart A			
Cover Size	Min.	Max.	Load Rating
5"(127)	1 7/16"(37)	2 15/16"(75)	MD
6"(152)	1 7/16"(37)	2 15/16"(75)	LD

Chart B		
Pipe Size	Std. 60 PVC	No Hub
2"(51)	4 1/4"(108)	4 3/4"(121)
3"(76)	4 1/4"(108)	4 3/4"(121)
4"(102)	4 1/4"(108)	4 3/4"(121)

Options for CO-190-PR Series:

Suffix	Description	List Price
C	SS Membrane Clamp	\$344.03



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Adjustable Floor Cleanouts for Membrane Area

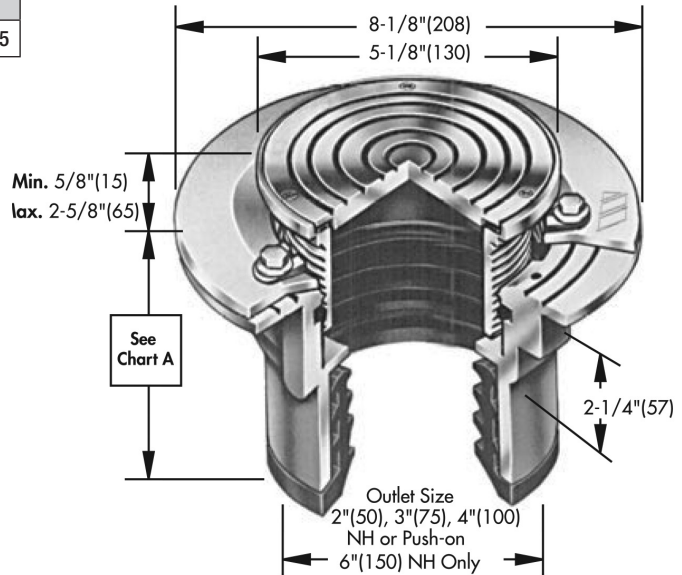
CO-1100-C-RX

Adjustable Floor Cleanout with Round Stainless Steel Cover

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-1102, 3, 4-C-RX-3	13	2, 3, 4"	stainless steel	\$558.15

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



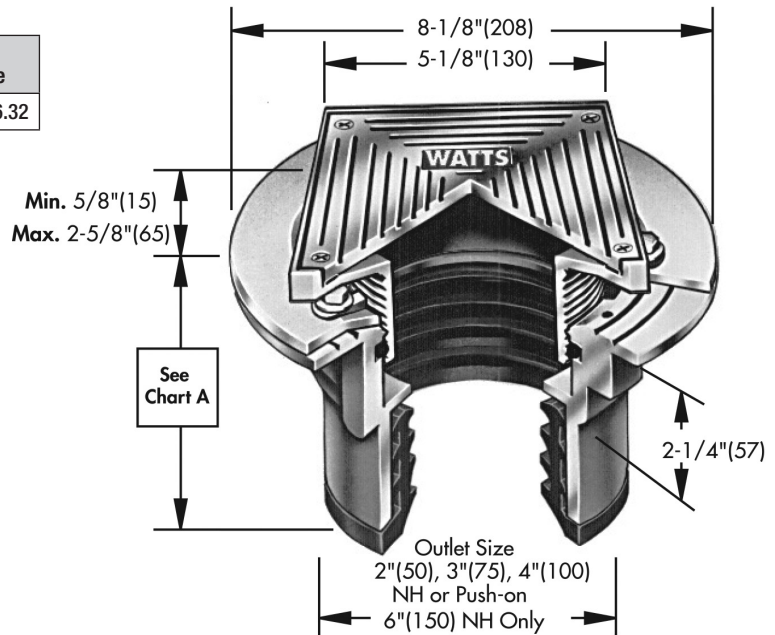
CO-1100-C-S

Adjustable Floor Cleanout with Stainless Steel Cover

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-1102, 3, 4-C-S-3	14	2, 3, 4"	stainless steel	\$586.32

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
3"(76)	3 5/8"(92)	4 1/4"(108)	3 3/4"(94)
4"(102)	3 5/8"(92)	4 1/4"(108)	4"(102)
6"(152)	3 1/2"(89)		



Options for CO-1100 Series:

Suffix	Description	List Price	Suffix	Description	List Price
P	Push-On Outlet	\$44.31	-34G	Gastight ABS Expansion Plug	\$101.02
T	Threaded Outlet	104.33	-60	PVC Body w/Socket Outlet	33.13
-6	Vandal Proof	104.33	-61	ABS Body w/Socket Outlet	33.13
-12	Hot Dipped Galvanized	160.66	-113M	Special Epoxy from 3M Range	130.86

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

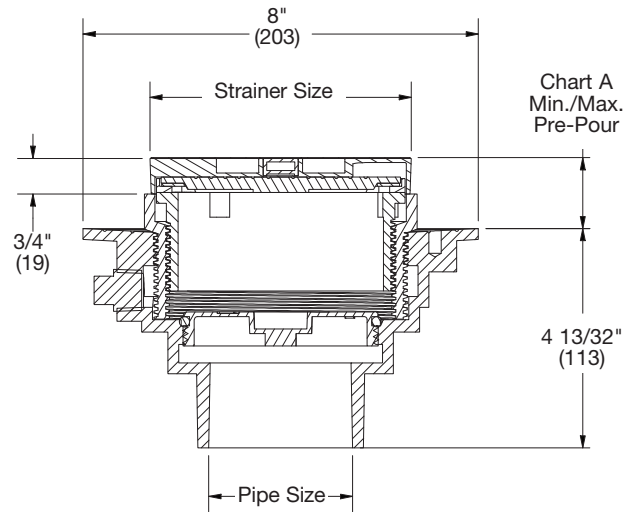


Stainless Steel Top Floor Cleanouts

CO-1190-PR

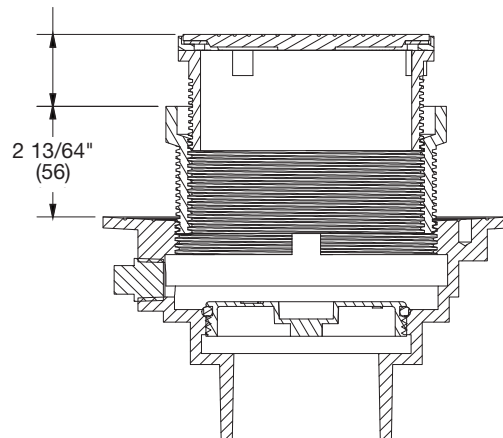
Pronto!® Cast Iron Adjustable Cleanout with Integrated Level

Model Number	Wt., Lbs.	Pipe Size	Cover Size	Cover	List Price
CO-1192-PR5	14	2"(51)	5"(127)	stainless steel	\$1,659.67
CO-1192-PR6	16	2"(51)	6"(152)	stainless steel	1,696.10
CO-1193-PR5	14	3"(76)	5"(127)	stainless steel	1,696.10
CO-1193-PR6	16	3"(76)	6"(152)	stainless steel	1,768.93
CO-1194-PR5	14	4"(102)	5"(127)	stainless steel	1,843.06
CO-1194-PR6	16	4"(102)	6"(152)	stainless steel	1,915.91
CO-1192P-PR5	13	2"(51)	5"(127)	stainless steel	1,659.67
CO-1192P-PR6	15	2"(51)	6"(152)	stainless steel	1,696.10
CO-1193P-PR5	13	3"(76)	5"(127)	stainless steel	1,696.10
CO-1193P-PR6	15	3"(76)	6"(152)	stainless steel	1,768.93
CO-1194P-PR5	13	4"(102)	5"(127)	stainless steel	1,843.06
CO-1194P-PR6	15	4"(102)	6"(152)	stainless steel	1,915.91



PATENTED

0-1" Adj. Post-Pour



Patent No. USD897503 and Patents Pending

Chart A			
Cover Size	Min.	Max.	Load Rating
5"(127)	1 7/16"(37)	2 15/16"(75)	MD
6"(152)	1 7/16"(37)	2 15/16"(75)	LD

Chart B		
Pipe Size	Std. No Hub	P Push On
2"(51)	4 7/16"(113)	4 7/8"(124)
3"(76)	4 7/16"(113)	4 7/8"(124)
4"(102)	4 7/16"(113)	4 7/8"(124)

Options for CO-1190-PR Series:

Suffix	Description	List Price
C	SS Membrane Clamp	\$344.03



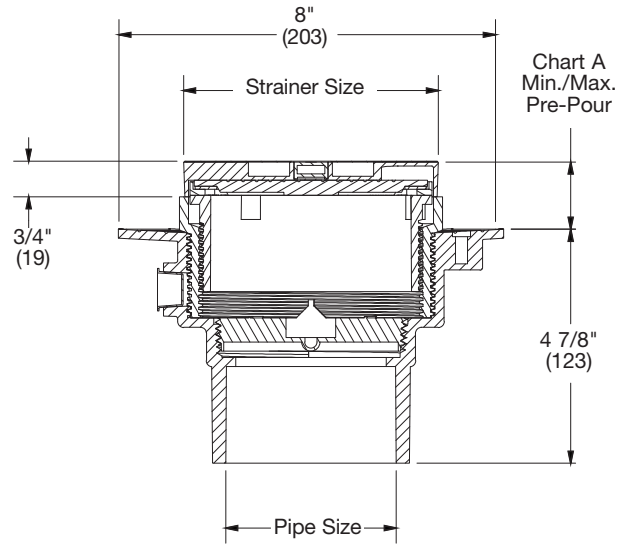
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Stainless Steel Top Floor Cleanouts

CO-1190-PR-60

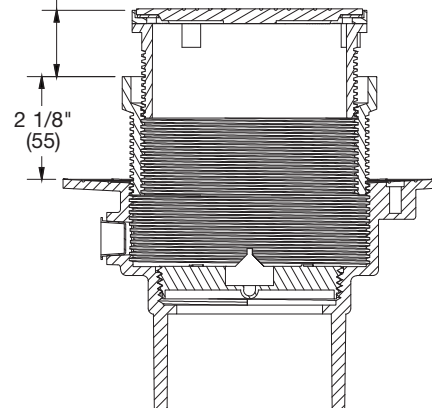
Pronto!® PVC Adjustable Cleanout with Integrated Level

Model Number	Wt., Lbs.	Pipe Size	Cover Size	Cover	List Price
CO-1192-PR5-60	5	2"(51)	5"(127)	stainless steel	\$1,216.14
CO-1192-PR6-60	6	2"(51)	6"(152)	stainless steel	1,253.21
CO-1193-PR5-60	5	3"(76)	5"(127)	stainless steel	1,253.21
CO-1193-PR6-60	6	3"(76)	6"(152)	stainless steel	1,326.70
CO-1194-PR5-60	5	4"(102)	5"(127)	stainless steel	206.03
CO-1194-PR6-60	6	4"(102)	6"(152)	stainless steel	1,473.68
CO-1192N-PR5-60	4	2"(51)	5"(127)	stainless steel	1,216.14
CO-1192N-PR6-60	5	2"(51)	6"(152)	stainless steel	1,253.21
CO-1193N-PR5-60	4	3"(76)	5"(127)	stainless steel	1,253.21
CO-1193N-PR6-60	5	3"(76)	6"(152)	stainless steel	1,326.70
CO-1194N-PR5-60	4	4"(102)	5"(127)	stainless steel	1,473.68
CO-1194N-PR6-60	5	4"(102)	6"(152)	stainless steel	1,543.91



PATENTED

0-1" Adj. Post-Pour



Patent No. USD897503 and Patents Pending

Chart A			
Cover Size	Min.	Max.	Load Rating
5"(127)	1 7/16"(37)	2 15/16"(75)	MD
6"(152)	1 7/16"(37)	2 15/16"(75)	LD

Chart B		
Pipe Size	Std. 60 PVC	No Hub
2"(51)	4 1/4"(108)	4 3/4"(121)
3"(76)	4 1/4"(108)	4 3/4"(121)
4"(102)	4 1/4"(108)	4 3/4"(121)

Options for CO-1190-PR-60 Series:

Suffix	Description	List Price
C	SS Membrane Clamp	\$354.35

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Adjustable Floor Cleanouts

CO-200-R

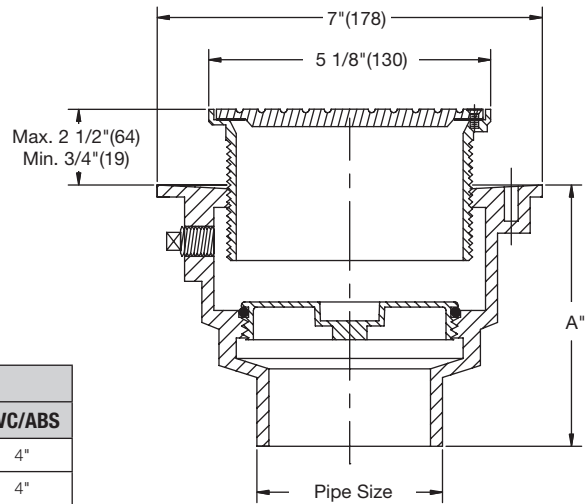
Floor Cleanout with Round Top



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-R	11	2"	nickel bronze	\$412.91
CO-203-R	11	3"	nickel bronze	412.91
CO-204-R	11	4"	nickel bronze	412.91



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



CO-200-RC

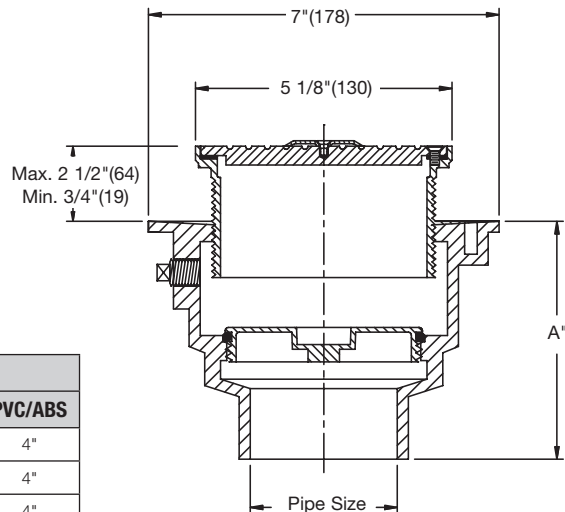
Floor Cleanout with Round Top, Carpet Marker



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-RC	11	2"	nickel bronze	\$398.22
CO-203-RC	11	3"	nickel bronze	398.22
CO-204-RC	11	4"	nickel bronze	398.22



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



Options for CO-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-12	Hot Dipped Galvanized	\$160.66
P	Push-On Outlet	\$44.31	-60	PVC Body w/Poly Plug	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Poly Plug	33.13
-34G	Closure Plug	112.63			
-6	Vandal Proof	104.33			



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Adjustable Floor Cleanouts

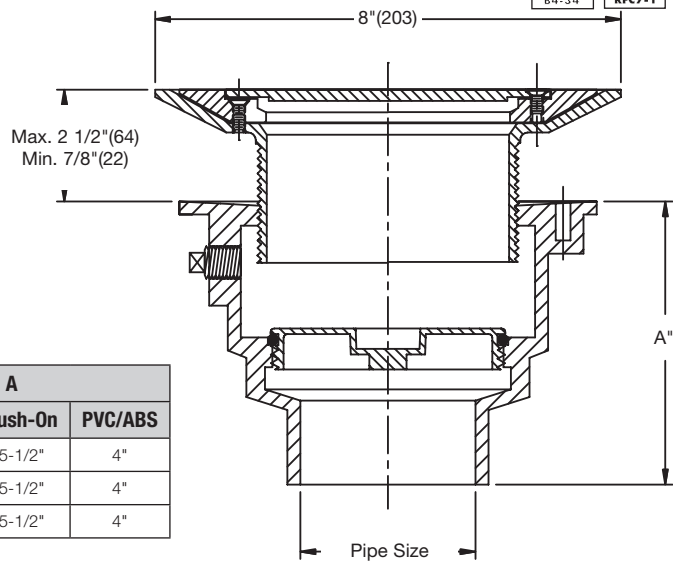
CO-200-RFC7 Floor Cleanout with Surface Membrane Clamp



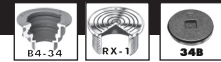
Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-RFC7	13	2"	nickel bronze	\$721.57
CO-203-RFC7	13	3"	nickel bronze	721.57
CO-204-RFC7	13	4"	nickel bronze	721.57



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



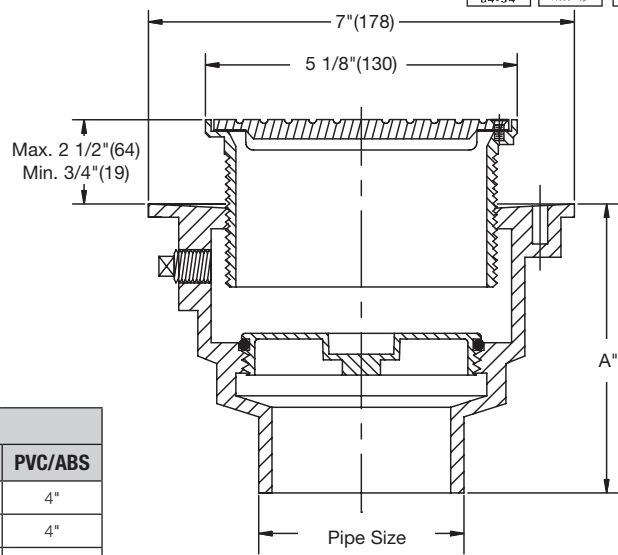
CO-200-RX Floor Cleanout with Heavy Duty Round Top



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-RX	12	2"	nickel bronze	\$509.11
CO-203-RX	12	3"	nickel bronze	509.11
CO-204-RX	12	4"	nickel bronze	509.11



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



Options for CO-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-6	Vandal Proof	\$104.33
P	Push-On Outlet	\$44.31	-12	Hot Dipped Galvanized	160.66
X	Inside Caulk	No Add	-60	PVC Body w/Poly Plug	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Poly Plug	33.13
-34G	Closure Plug	112.63			

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Adjustable Floor Cleanouts

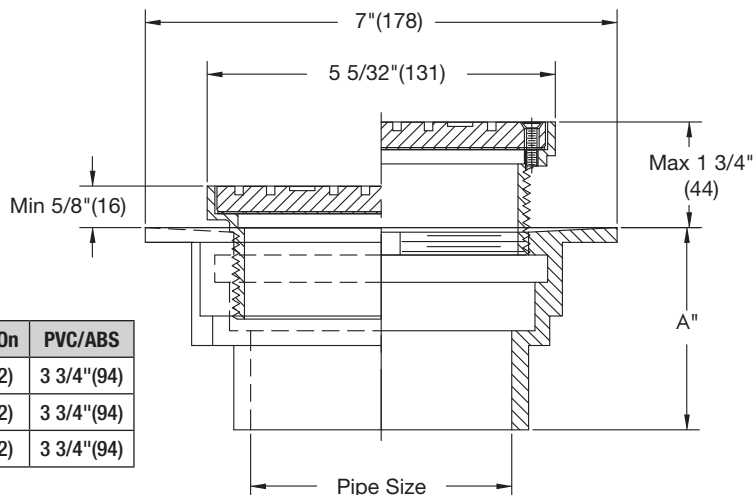
CO-200-XHR5 Floor Cleanout with Heavy Duty Round Top

Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-200-XHR5-1	13	2, 3, 4"	nickel bronze	\$536.32
CO-200-XHR5-4	14	2, 3, 4"	ductile iron	362.81

No Photo Available

Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3"(76)	4"(102)	3 3/4"(94)
3"(76)	3"(76)	4"(102)	3 3/4"(94)
4"(102)	3"(76)	4"(102)	3 3/4"(94)



CO-200-RX-4 Floor Cleanout with Ductile Iron Top

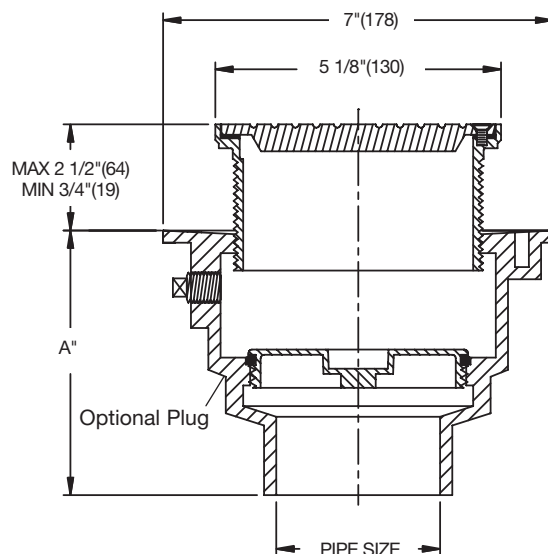


Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-202-RX-4	12	2"(51)	ductile iron	\$340.57
CO-203-RX-4	12	3"(76)	ductile iron	340.57
CO-204-RX-4	12	4"(102)	ductile iron	340.57



Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3"(76)	4"(102)	3 3/4"(94)
3"(76)	3"(76)	4"(102)	3 3/4"(94)
4"(102)	3"(76)	4"(102)	3 3/4"(94)



Options for CO-200-RX-4 Series:

Suffix	Description	List Price
-13	All Galvanized	\$314.71

Options for CO-200 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-6	Vandal Proof	\$104.33
P	Push-On Outlet	\$44.31	-12	Hot Dipped Galvanized	160.66
X	Inside Caulk	No Add	-60	PVC Body w/Socket Outlet	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Socket Outlet	33.13



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Adjustable Floor Cleanouts

CO-200-S Floor Cleanout with Square Top

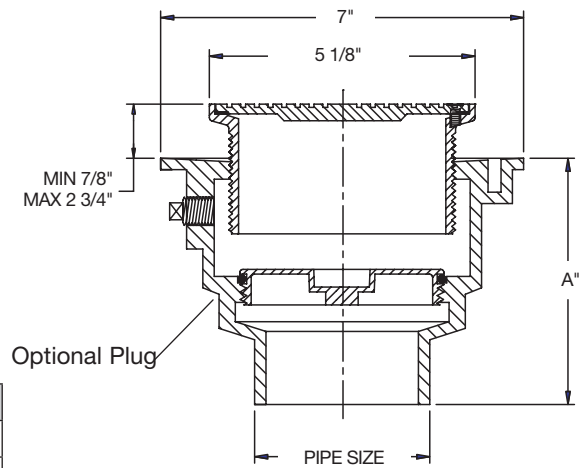


Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-202-S	11	2"(51)	nickel bronze	\$619.99
CO-203-S	11	3"(76)	nickel bronze	619.99
CO-204-S	11	4"(102)	nickel bronze	619.99



Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3"(76)	4"(102)	3 3/4"(94)
3"(76)	3"(76)	4"(102)	3 3/4"(94)
4"(102)	3"(76)	4"(102)	3 3/4"(94)



CO-200-T Floor Cleanout with Round Top, Tile Recess

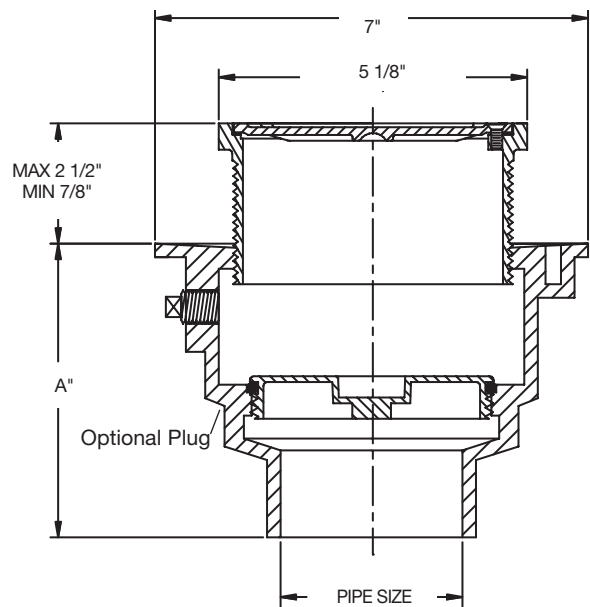


Model Number	Wt. Lbs.	Pipe Size	Cover	List Price
CO-202-T	11	2"(51)	nickel bronze	\$420.40
CO-203-T	11	3"(76)	nickel bronze	420.40
CO-204-T	11	4"(102)	nickel bronze	420.40



Chart A

Pipe Size	NH	Push-On	PVC/ABS
2"(51)	3"(76)	4"(102)	3 3/4"(94)
3"(76)	3"(76)	4"(102)	3 3/4"(94)
4"(102)	3"(76)	4"(102)	3 3/4"(94)



Options for CO-200-T Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-12	Hot Dipped Galvanized	\$160.66
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Socket Outlet	33.13
-6	Vandal Proof	44.73			

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Adjustable Floor Cleanouts

CO-200-TS

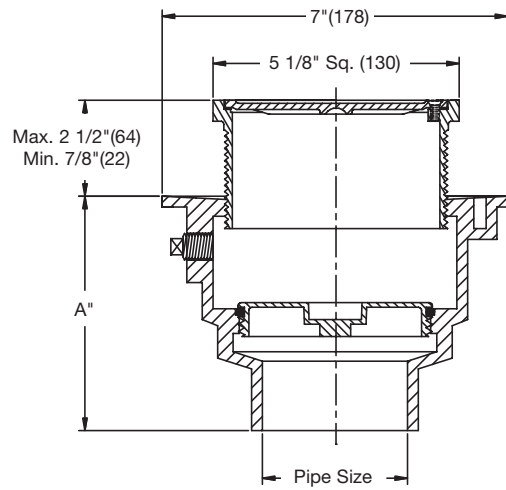
Floor Cleanout with Square Top, Tile Recess



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-TS	11	2"	nickel bronze	\$602.11
CO-203-TS	11	3"	nickel bronze	602.11
CO-204-TS	11	4"	nickel bronze	602.11



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



CO-200-U

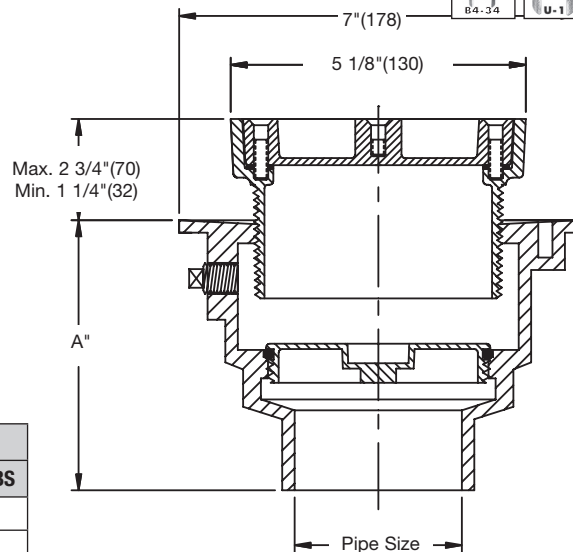
Floor Cleanout with Round Top, Terrazzo Recess



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-U	12	2"	nickel bronze	\$689.51
CO-203-U	12	3"	nickel bronze	689.51
CO-204-U	12	4"	nickel bronze	689.51



Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



Options for CO-200-TS / CO-200-U Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-12	Hot Dipped Galvanized	\$160.66
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Socket Outlet	33.13
-6	Vandal Proof	44.73			



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Adjustable Floor Cleanouts

CO-200-US

Floor Cleanout with Square Top, Terrazzo Recess



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-202-US	12	2"	nickel bronze	\$726.45
CO-203-US	12	3"	nickel bronze	726.45
CO-204-US	12	4"	nickel bronze	726.45

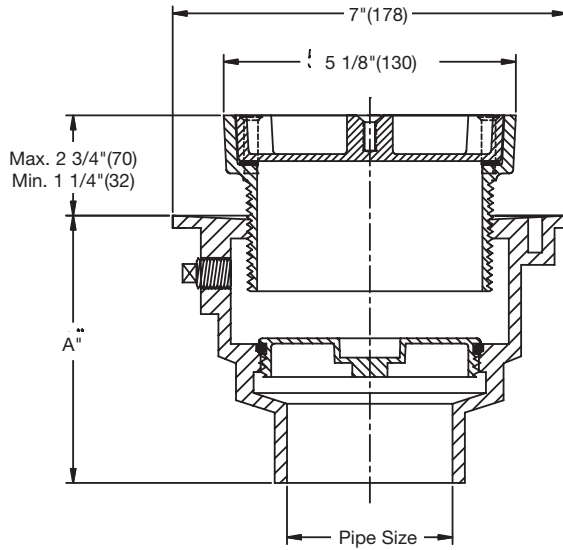


Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"

Options for CO-200-US / CO-200-H Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-12	Hot Dipped Galvanized	\$160.66
P	Push-On Outlet	\$44.73	-60	PVC Body w/Socket Outlet	33.13
-CF	Carpet Clamping Flange	155.69	-61	ABS Body w/Socket Outlet	33.13
-6	Vandal Proof	44.73			

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

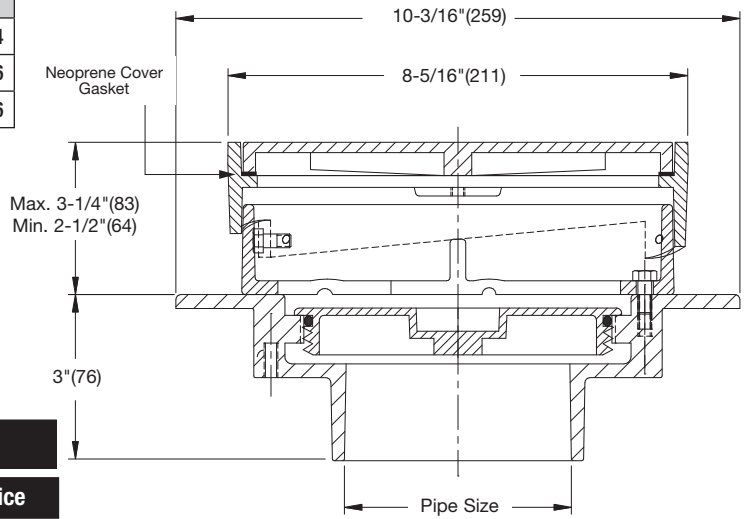


Adjustable Floor Cleanouts

CO-260

Floor Cleanout with 8" Round Adjustable Top

Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-263, 4, 6, 8	20	3, 4, 6, 8"	ductile iron	\$824.84
CO-263, 4, 6, 8-1	20	3, 4, 6, 8"	nickel bronze	1,432.66
CO-263, 4, 6, 8-S-1	20	3, 4, 6, 8"	sq. nickel bronze	1,432.66



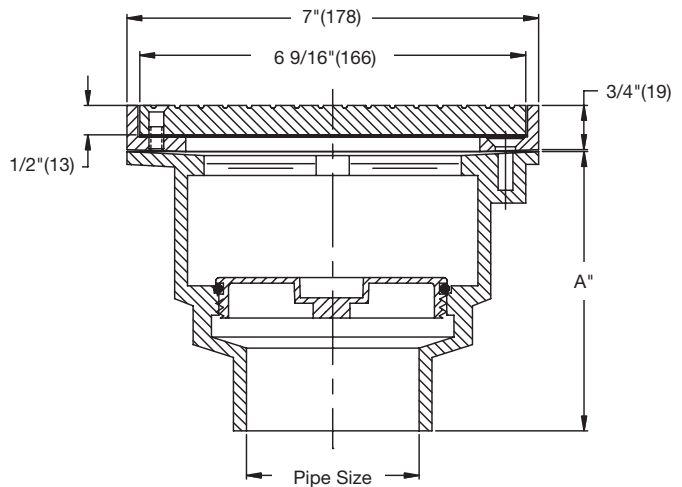
Options for CO-260 Series:

Suffix	Description	List Price
None	No Hub Outlet	No Add
P	Push-On Outlet	\$44.73
-3	Round Stainless Steel	692.33
-6	Vandal Proof	115.94
-12	All Galvanized	160.66

CO-270

Floor Cleanout with Fixed Top

Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-272, 3, 4	12	2, 3, 4"	ductile iron	\$533.32
CO-272, 3, 4-1	12	2, 3, 4"	nickel bronze	758.58



Options for CO-270 Series:

Suffix	Description	List Price
None	No Hub Outlet	No Add
P	Push-On Outlet	\$44.73
-6	Vandal Proof	125.89
-12	All Galvanized	160.66

Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



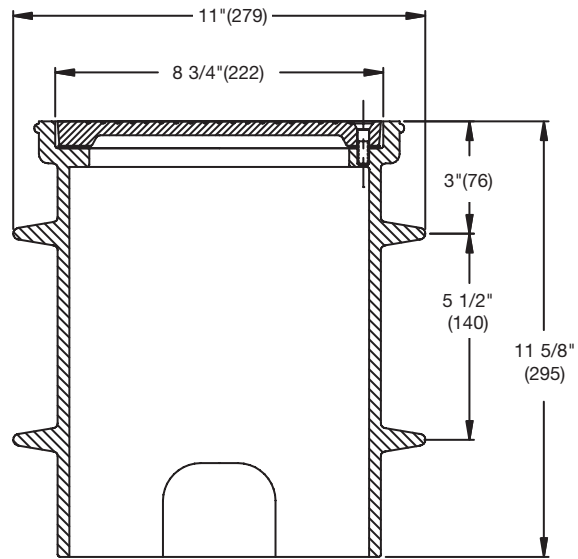
Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Access Housings

CO-300-MF Extra Heavy Duty Access Housing

Model Number	Order Code	Wt., Lbs.	Cover	List Price
CO-300-MF	8134049	35	ductile iron	\$1,250.96

Note: Use CO-380 cleanout if required.



Options for CO-300-MF Series:

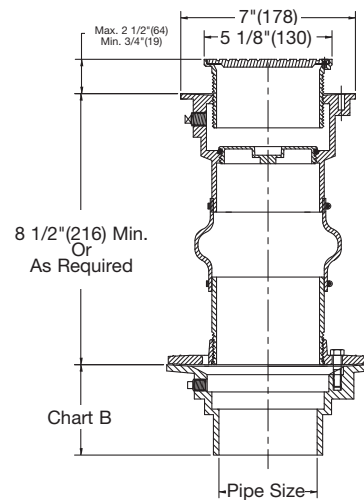
Suffix	Description	List Price
-6	Vandal Proof	\$115.94
-12	All Galvanized	160.66

CO-600-R Isolation Cleanout

Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-602-R	25	2" (51)	nickel bronze	\$1,320.50
CO-603-R	25	3" (76)	nickel bronze	1,320.50
CO-604-R	26	4" (102)	nickel bronze	1,320.50



Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"



Options for CO-600 Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-6	Vandal Proof	\$44.73
P	Push-On Outlet	\$44.73	-12	Hot Dipped Galvanized	160.66
-CF	Carpet Clamping Flange	155.69	-60	PVC Body w/Socket Outlet	33.13
-34G	Closure Plug	112.63	-61	ABS Body w/Socket Outlet	33.13

Consult factory for all applications outside of listed parameters.

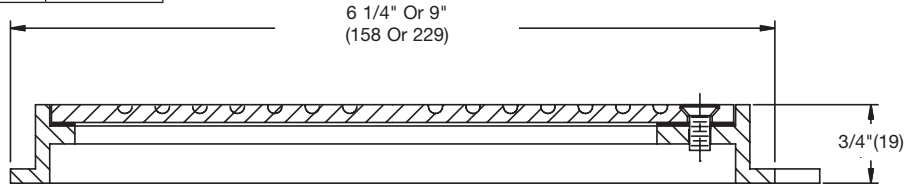
Prices do not include applicable taxes.



Access Covers

CO-300-R Round Serrated Access Cover

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover	List Price
CO-300-R6	8134055	5	6-1/4"	nickel bronze	\$338.38
CO-300-R9	8100586	10	9"	nickel bronze	328.36

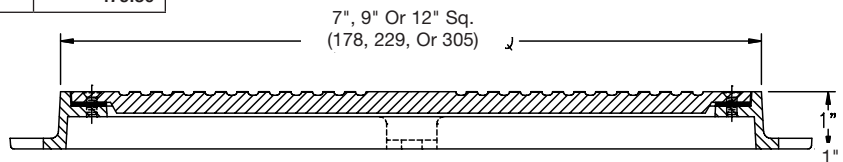


Options for CO-300-R Series:

Suffix	Description	List Price
-6	Vandal Proof	\$116.05

CO-300-S Square Serrated Access Cover

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover	List Price
CO-300-S7	8134075	5	7" x 7"	nickel bronze	\$447.83
CO-300-S8-9	8188398	9	8" x 8"	nickel bronze	1,030.86
CO-300-S9	8134081	10	9" x 9"	nickel bronze	619.68
CO-300-S12	8134067	13	12" x 12"	nickel bronze	1,034.48
CO-300-S9-4	-	7	9" x 9"	ductile	328.36
CO-300-S12-4	-	13	12" x 12"	ductile	479.30



Options for CO-300-S Series:

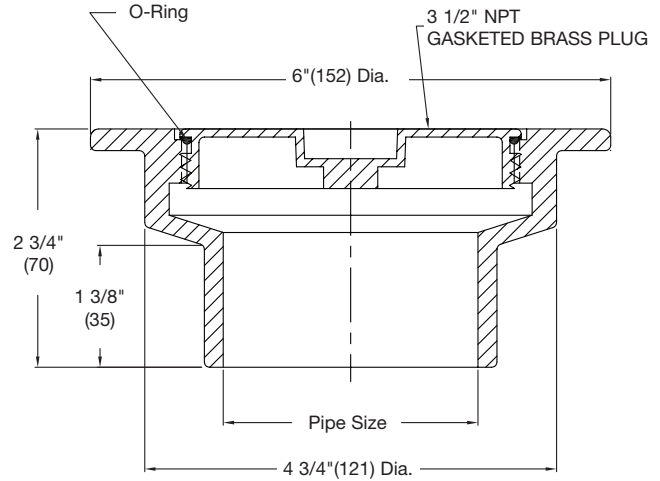
Suffix	Description	List Price
-6	Vandal Proof	\$116.05

General Purpose Floor Cleanouts

CO-380

Cleanout Ferrule with Brass Plug

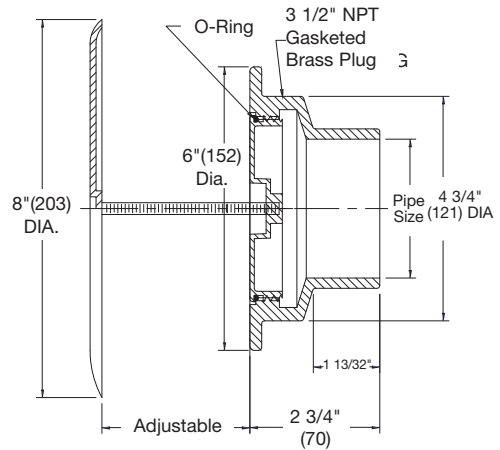
Model Number	Order Cod	Wt., Lbs.	Pipe Size	List Price
CO-382	8185255	2	2"	\$229.66
CO-383	8185014	4	3"	229.66
CO-384	8185015	5	4"	229.66
CO-386	8185016	8	6"	539.51



CO-380-RD

Wall Cleanout Ferrule with Stainless Steel Cover

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover Size	List Price
CO-382-RD	8186182	3	2"	8"	\$446.88
CO-383-RD	8186180	5	3"	8"	446.88
CO-384-RD	8186181	6	4"	8"	451.80
CO-386-RD	8186183	9	6"	8"	970.70



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

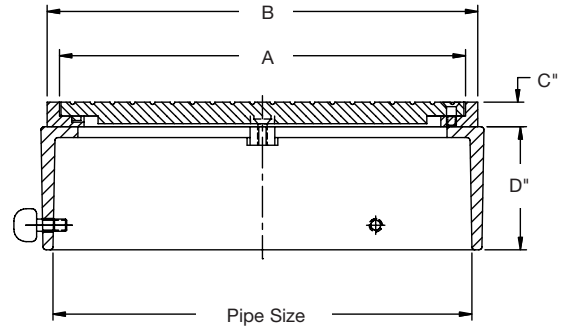


General Purpose Floor Cleanouts

CO-410

Floor Access Housing

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover	List Price
CO-413, 4	8152171	5	3, 4"	ductile iron	\$464.28
CO-413,4-1	-	5	3, 4"	nickel bronze	1,081.76
CO-416	8152175	9	6"	ductile iron	613.08
CO-416-1	8152174	9	6"	nickel bronze	2,189.34



Dimensions in Inches					
Model Number	Pipe Size	A	B	C	D
CO-413	3	5	5-1/4	3/8	2-5/8
CO-414	4	7	7-1/4	1/2	2-3/4
CO-416	6	8-3/4	9	1/2	3

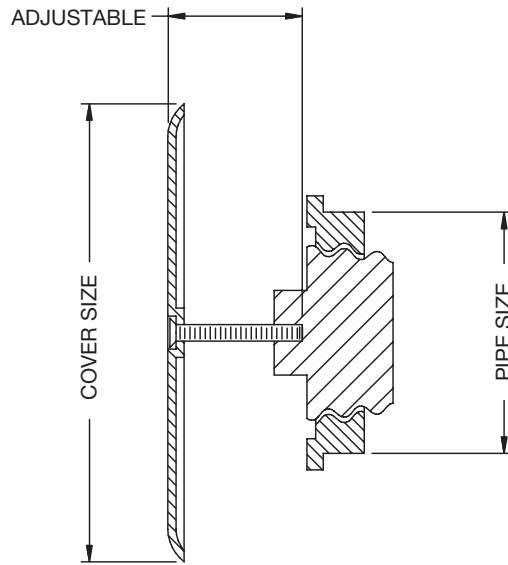
Options for CO-410 Series:

Suffix	Description	List Price
-6	Vandal Proof	\$86.13

Wall Cleanouts

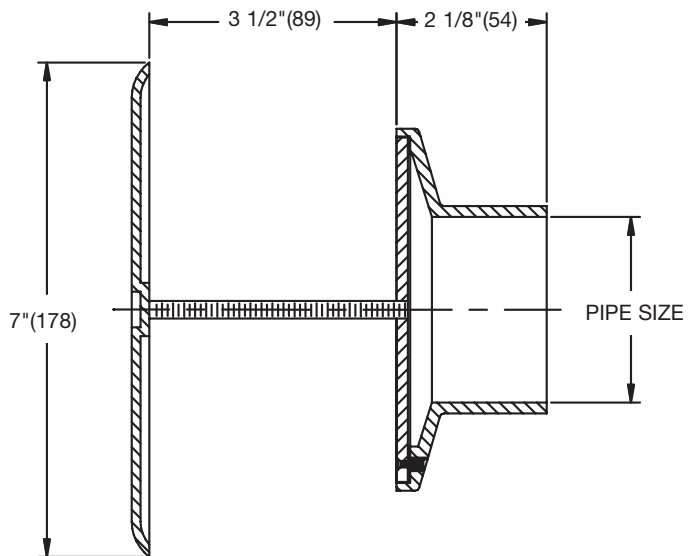
WUCO Series Poly Wall Cleanout with Stainless Steel Cover

Model Number	Wt. Lbs.	Pipe Size	Cover Size	List Price
WUCO-1 1/2-RD	2	1 1/2"(38)	5"(127)	\$215.33
WUCO-2-RD	2	2"(51)	5"(127)	228.59
WUCO-3-RD	2	3"(76)	7"(178)	278.26
WUCO-4-RD	2	4"(102)	7"(178)	367.71



CO-450-RD Line Cleanout with Stainless Steel Cover

Model Number	Wt. Lbs.	Pipe Size	List Price
CO-452-RD	5	2"(51)	\$CF**
CO-453-RD	5	3"(76)	CF**
CO-454-RD	5	4"(102)	CF**



Options for CO-450-RD Series:

Suffix	Description	List Price
-60	PVC Body w/Socket Outlet	No Add
-61	ABS Body w/Socket Outlet	No Add

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Wall Cleanouts

CO-460

Stack Cleanout with Brass Plug

Model Number	Order Code	Wt., Lbs.	Pipe Size	List Price
CO-462	8134183	8	2"	\$316.92
CO-463	8134190	15	3"	417.78
CO-464	8134196	17	4"	581.61

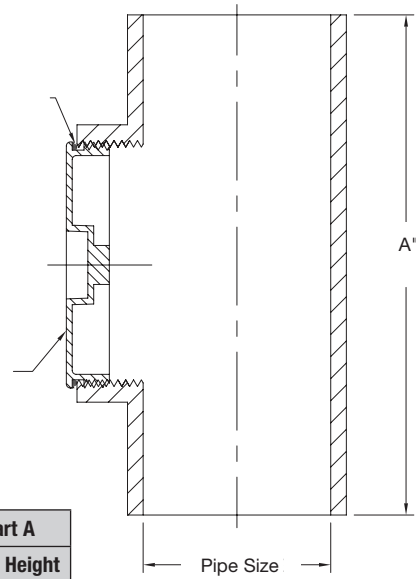


Chart A	
Size	Height
2"	6-1/4"
3"	7-3/4"
4"	9"

CO-460-RD

Stack Cleanout with Brass Plug & Stainless Steel Cover

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover	List Price
CO-462-RD	8185222	9	2"	stainless steel	\$CF**
CO-463-RD	8134193	16	3"	stainless steel	703.93
CO-464-RD	8134199	18	4"	stainless steel	869.90

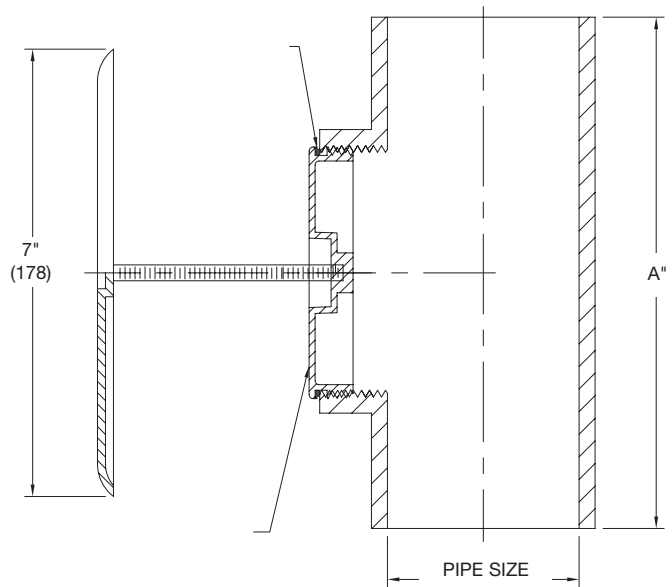


Chart A	
Size	Height
2"	6-1/4"
3"	7-3/4"
4"	9"

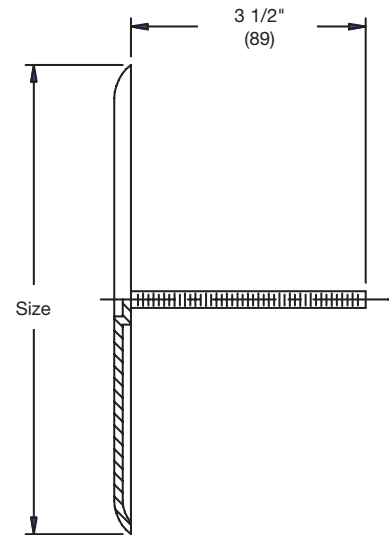


Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Wall Cleanouts

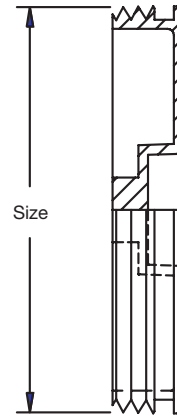
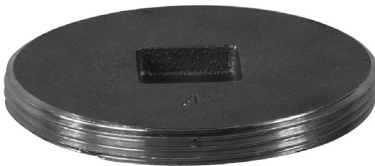
CO-480-RD Stainless Steel Access Cover with Screw

Model Number	Order Code	Wt., Lbs.	Pipe Size	List Price
CO-480-RD6	8134234	1	6"	\$103.01
CO-480-RD7	8134236	1	7"	144.51
CO-480-RD8	8134238	1	8"	290.44
CO-480-RD10	8134228	1	10"	125.91



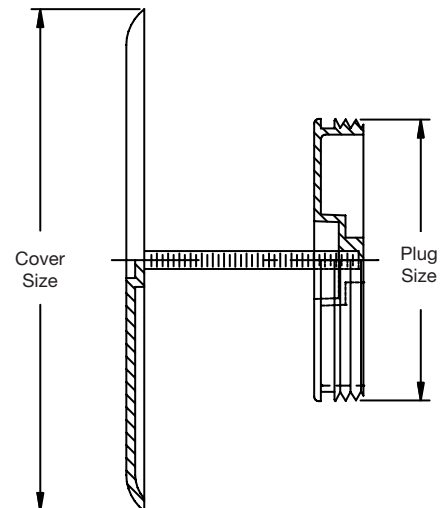
CO-590 Brass Cleanout Plug

Model Number	Order Code	Wt., Lbs.	Size	List Price
CO-591.5	8185019	1/2	1-1/2"	\$37.29
CO-592	8134262	3/4	2"	58.04
CO-593	8134269	1	3"	66.09
CO-594	8134279	1-1/2	4"	202.24
CO-595	8134284	1-1/2	5"	376.63
CO-596	8185020	3	6"	493.61



CO-590-RD Wall Cleanout with Brass Plug, Stainless Steel Cover

Model Number	Order Code	Wt., Lbs.	Pipe Size	Cover Size	List Price
CO-591.5-RD	8185225	1	1-1/2"	5"	\$CF**
CO-592-RD	8134264	1-1/4	2"	5"	160.13
CO-593-RD	8134270	1-1/2	3"	7"	CF**
CO-594-RD	8134280	2	4"	7"	CF**
CO-595-RD	8185229	2	5"	8"	CF**
CO-596-Rd	8185230	3-1/2	6"	8"	610.14



Consult factory for all applications outside of listed parameters.

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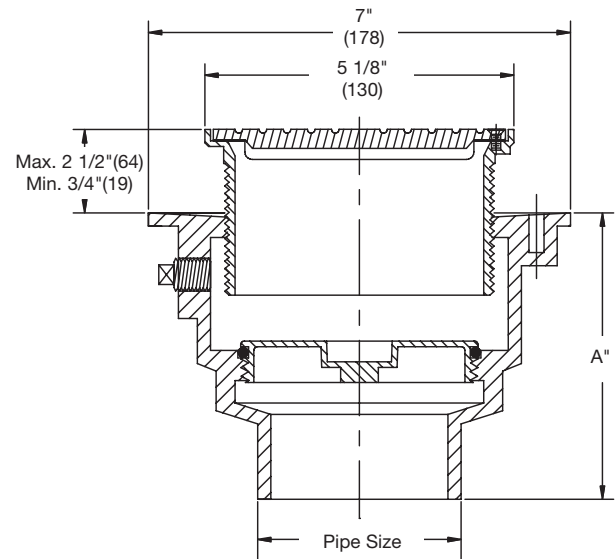
Stainless Steel Top Floor Cleanouts

CO-1200-RX

Floor Cleanout with Heavy Duty Round Stainless Steel Top



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-1202-RX	12	2"	stainless steel	\$463.77
CO-1203-RX	12	3"	stainless steel	463.77
CO-1204-RX	12	4"	stainless steel	463.77



Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"

Options for CO-1200-RX Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-6	Vandal Proof	\$44.73
P	Push-On Outlet	\$44.73	-12	Hot Dipped Galvanized	160.66
-C	Membrane Clamp	155.69	-60	PVC Body w/Poly Plug	33.13
-34G	Closure Plug	112.63	-61	ABS Body w/Poly Plug	33.13



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Stainless Steel Top Floor Cleanouts

CO-1200-S

Floor Cleanout with Square Stainless Steel Top



Model Number	Wt., Lbs.	Pipe Size	Cover	List Price
CO-1202-S	11	2"	stainless steel	\$560.78
CO-1203-S	11	3"	stainless steel	560.78
CO-1204-S	11	4"	stainless steel	560.78

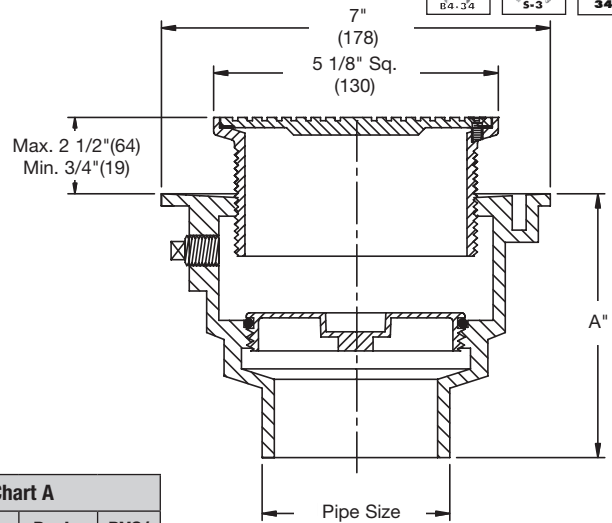


Chart A			
Pipe Size	NH	Push-On	PVC/ABS
2"	4-3/4"	5-1/2"	4"
3"	4-3/4"	5-1/2"	4"
4"	4-3/4"	5-1/2"	4"

Options for CO-1200-S Series:

Suffix	Description	List Price	Suffix	Description	List Price
None	No Hub Outlet	No Add	-6	Vandal Proof	\$44.73
P	Push-On Outlet	\$44.73	-12	Hot Dipped Galvanized	160.66
-C	Membrane Clamp	155.69	-60	PVC Body w/Poly Plug	33.13
-34G	Closure Plug	112.63	-61	ABS Body w/Poly Plug	33.13

Consult factory for all applications outside of listed parameters.

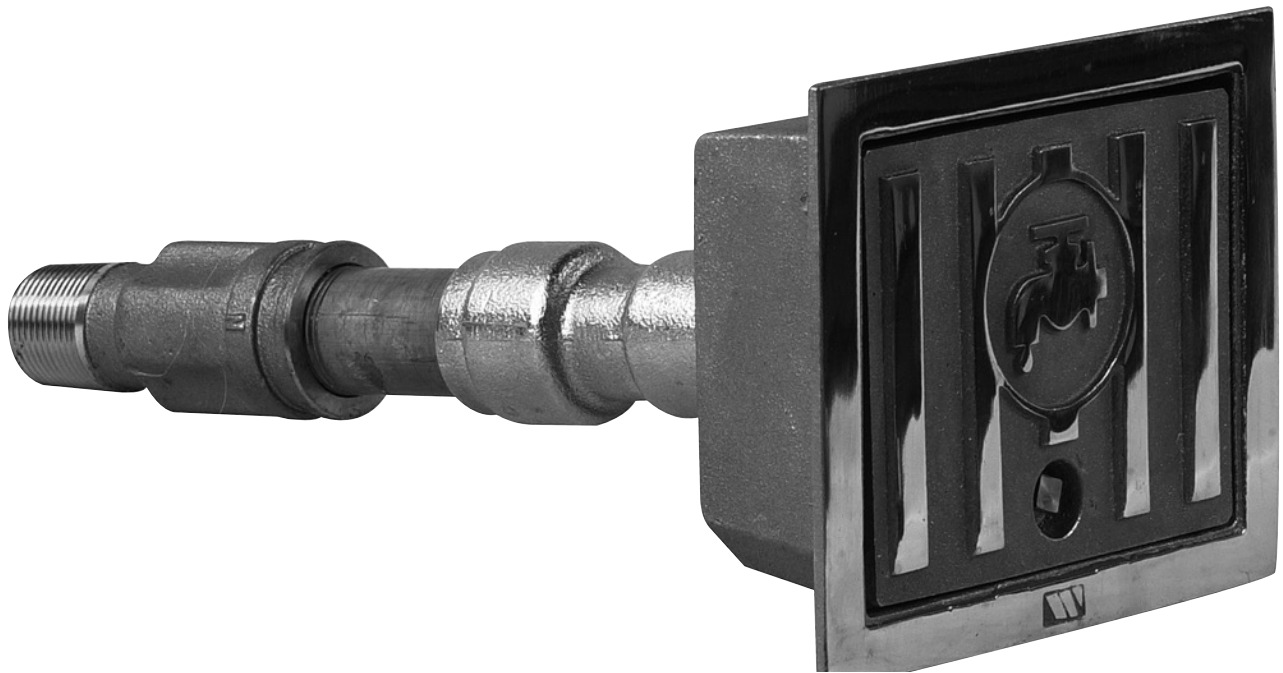
Prices do not include applicable taxes.



Hydrants

Table Of Contents

- Pictorial Index
- Product Recommendations
- Standard Specifications
- Hydrant Selection Factors
- Typical Installations

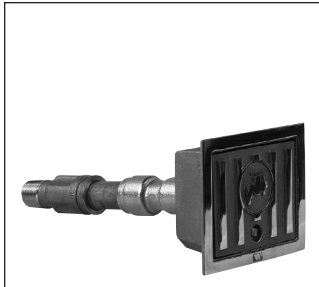


Hydrants

Pictorial Index



HY-420
Non-Freeze



HY-725
Non-Freeze Wall Hydrant w/NB
Box, Integral Vacuum Breaker



HY-430
Moderate Climate



HY-300-2
Mild Climate



HY-330
Moderate Climate w/Box



HY-440
Moderate Climate Narrow
Wall Hydrant



HY-450
Moderate Climate Narrow
Wall Hydrant w/ NB Box



HY-500
Deck Hydrant w/Box



HY-600
Post Hydrant



HY-700
Dual-Temp



HY-800
Non-Freeze Yard Hydrant



HY-900
Non-Freeze Roof Hydrant

Consult factory for all applications outside of listed parameters.
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Hydrants

Recommendations

Application	Product
Exterior Wall Non-Freeze	HY-420, HY-725
Exterior Wall Moderate Climate	HY-430, HY-330
Hot & Cold	HY-700
Interior Wall	HY-440, HY-450
Outdoor Deck	HY-500
Outdoor Post	HY-600, HY-800
Roof	HY-900

Standard Specifications

Watts standard hydrants are key operated, with a 3/4" hose connection, chrome plated face, and all bronze head, wall casing, seat casting, and internal working parts. The piping connection is dual threaded 3/4" male, 1" female. Non-freeze and moderate climate wall hydrants are furnished with a built-in vacuum breaker, which relieves negative pressure in the water supply piping, preventing back siphonage.

Hydrant Selection Factors

Flow rate

Standard 3/4" hydrants discharge approximately 10 GPM under normal operating conditions. Actual flow rates are dependent upon connection sizes and operating pressures.

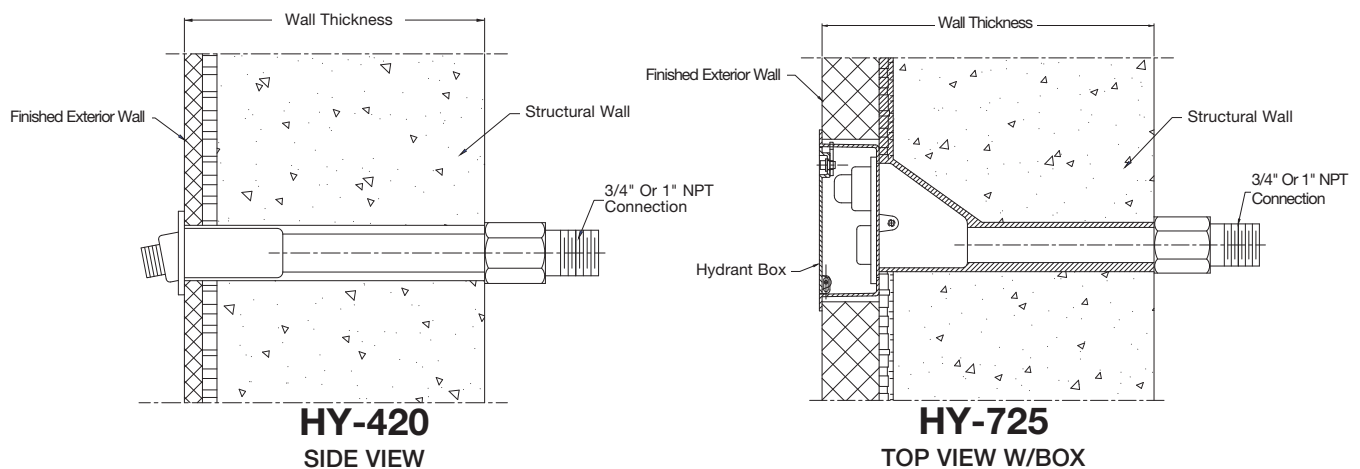
Non-freeze (frost-proof)

Non-freeze hydrants drain automatically when the water is turned off, preventing freezing, and potential damage to the hydrant or piping system.

Operating range

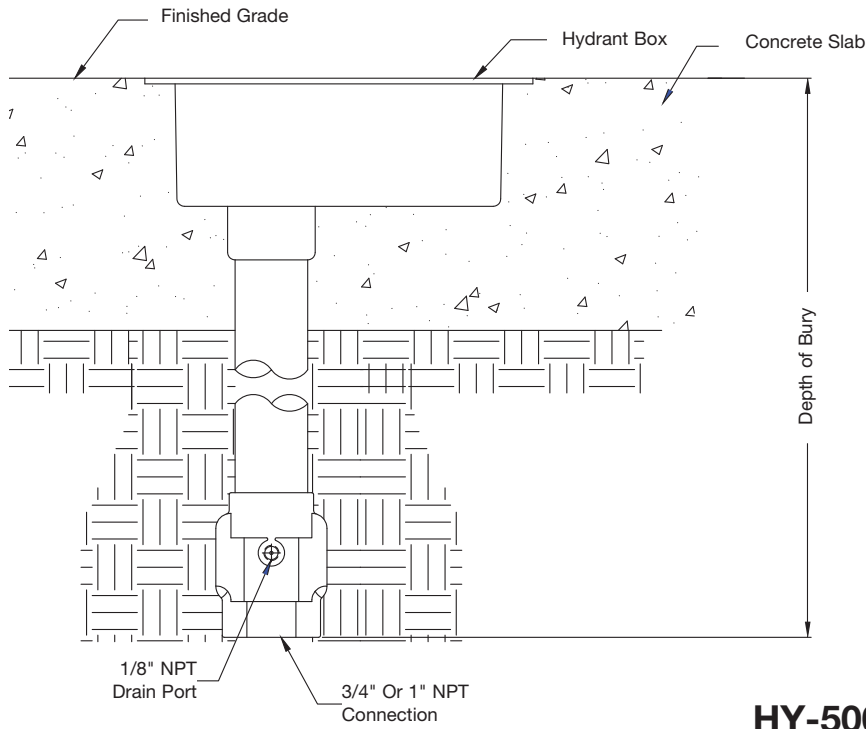
Watts hydrants are designed to operate within a pressure range of 8 PSI to 125 PSI, and a temperature range of 33°F to 140°F.

Typical Installations

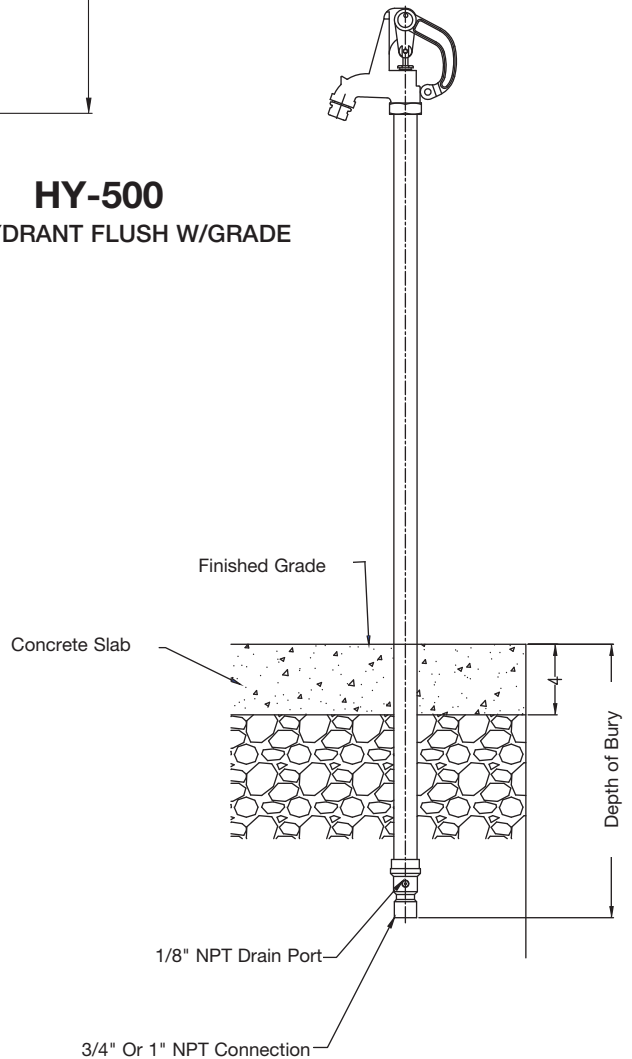


Hydrants

Typical Installations



HY-500
BOX HYDRANT FLUSH W/GRADE



HY-800
POST HYDRANT

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



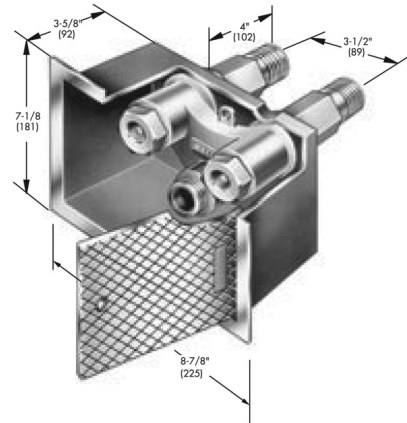
Wall Hydrants

HY-300-2 Dual Temp Mild Climate Wall Hydrant Encased Type

Model Number	Wt. Lbs.	Outlet Size	List Price
HY-300-3/4	10	3/4"(19)	\$4,270.09
HY-300-1	10	1"(25)	5,893.27

Options for HY-300 Series:

Suffix	Description	List Price
-K	Cylinder Lock	\$150.74
-88	Wall Clamp	116.05



HY-330 Moderate Climate Wall Hydrant with NB Box, Integral Vacuum Breaker

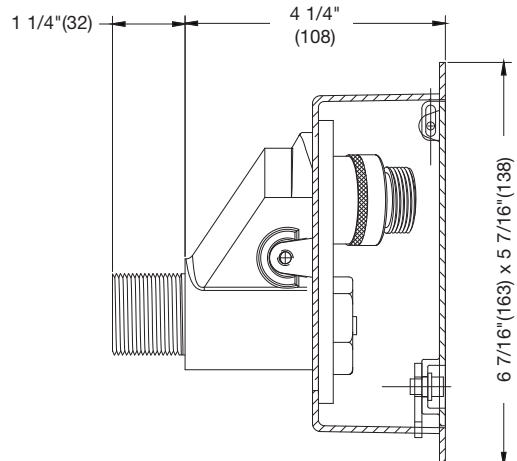
Model Number	Hose Conn.	List Price
HY-330	3/4"	\$1,828.73



Order Code	Description	List Price
8156193	HY-400-PVB Vacuum Breaker	\$230.36
8142272	HY-430-CIA Repair Kit	\$724.68

Options for HY-330 Series:

Suffix	Description	List Price
-K	Cylinder Lock	\$150.74
-3	Stainless Steel Box	No Add



Wall Hydrants

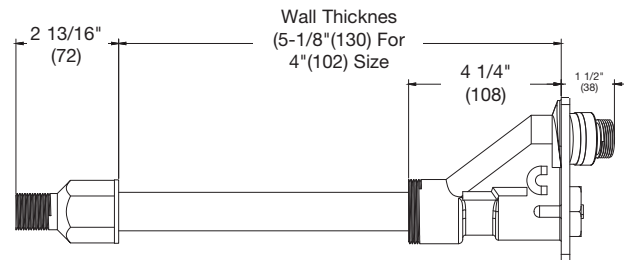
HY-420

Non-Freeze Wall Hydrant with Chrome Face, Integral Vacuum Breaker

Model Number	Wt. Lbs.	Wall Thickness	List Price
HY-420-4, 6, 8	5	4, 6, 8"	\$1,648.23
HY-420-10, 12, 14	6	10, 12, 14"	1,707.61
HY-420-16, 18	7	16, 18"	1,780.58
HY-420-20, 22, 24	8	20, 22, 24"	1,961.56



Order Code	Description	List Price
8156193	HY-400-PVB Vacuum Breaker	\$230.36
8142406	HY-420-CIA Repair Kit	\$558.00



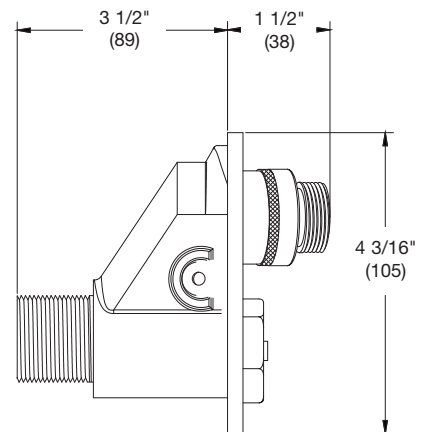
HY-430

Moderate Climate Wall Hydrant with Chrome Face, Integral Vacuum Breaker

Model Number	Hose Conn.	List Price
HY-430	3/4"	\$1,186.09



Order Code	Description	List Price
8156193	HY-400-PVB Vacuum Breaker	\$230.36
8142272	HY-430-CIA Repair Kit	\$724.68



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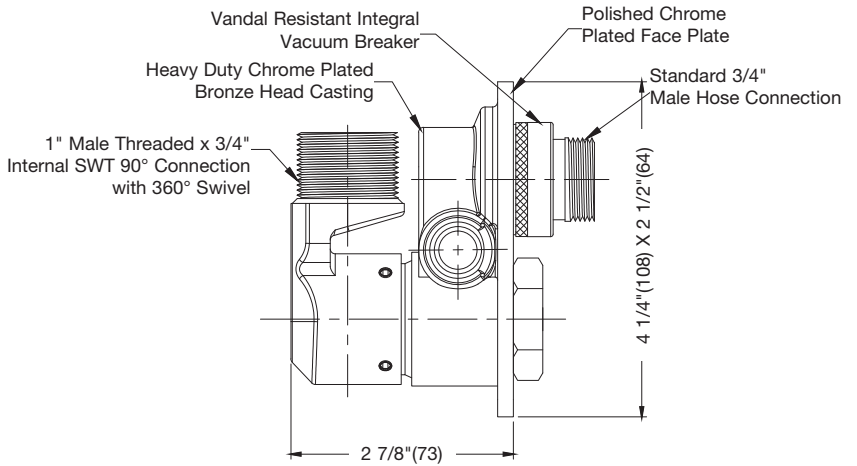
WATTS[®]

Wall Hydrants

HY-440 Moderate Climate Narrow Wall Hydrant

Model Number	Order Code	Hose Conn.	List Price
HY-440	8187868	3/4"	\$1,291.97

Order Code	Description	List Price
8156193	HY-400-PVB Vacuum Breaker	\$230.36
8188776	HY-440-CIA Repair Kit	\$250.38

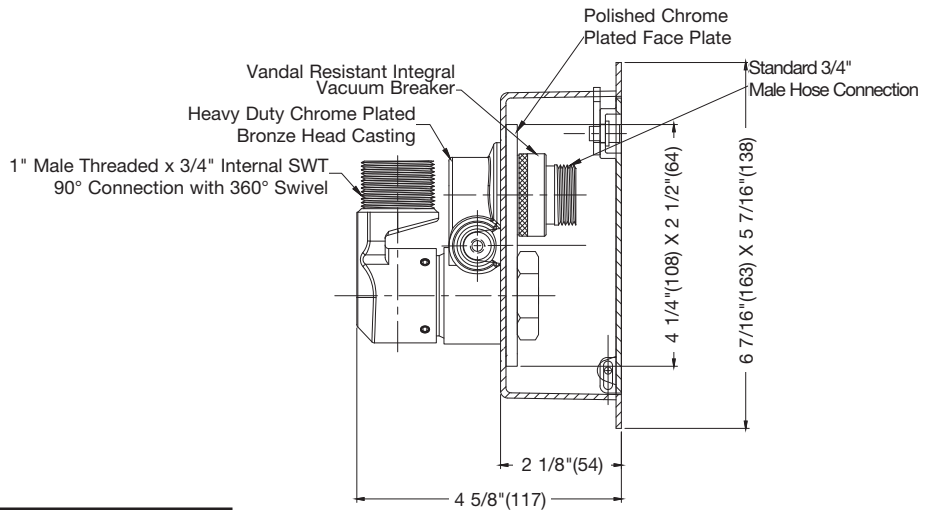
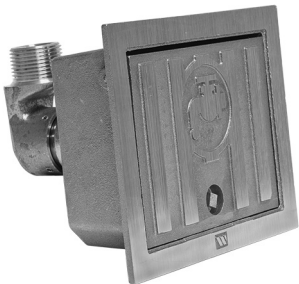


Options for HY-440 Series:

Suffix	Description	List Price
-88	Wall Clamp	\$85.18

HY-450 Moderate Climate Narrow Wall Hydrant w/NB Box

Model Number	Hose Conn.	List Price
HY-450	3/4"	\$1,934.61



Options for HY-450 Series:

Suffix	Description	List Price
-K	Cylinder Lock	\$150.74
-R	Round Box for Tilt-Up Construction (Stainless Steel Only)	No Add
-3	Stainless Steel Box	No Add
-88	Wall Clamp	79.87

Ground Hydrants

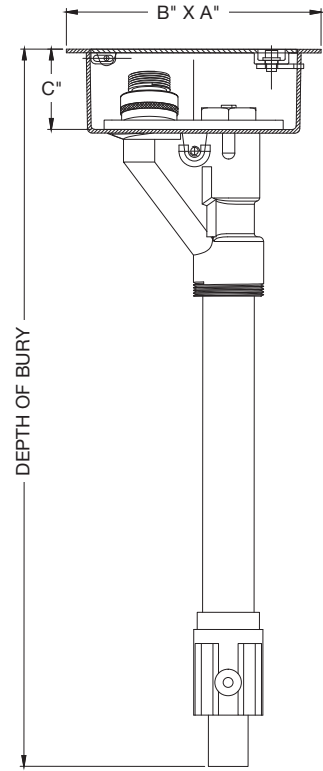
HY-500

Non-Freeze Deck Hydrant with NB Box

Model Number	Depth	Wt. Lbs.	3/4" Conn.	1" Conn.
HY-502	2'	10	\$2,128.48	\$2,262.98
HY-503	3'	14	2,335.94	2,470.44
HY-504	4'	18	2,577.74	2,712.24
HY-505	5'	22	2,812.39	2,946.89
HY-506	6'	26	3,029.85	3,164.35
HY-508	8'	30	3,994.32	4,128.82

Order Code	Description	List Price
8156193	HY-400-PVB Vacuum Breaker	\$230.36

Conn. Size	A	B	C
3/4" & 1"	5-5/8"	6-7/8"	2-1/4"
1 1/2" - 2"	10-1/2"	10-1/2"	3-1/2"



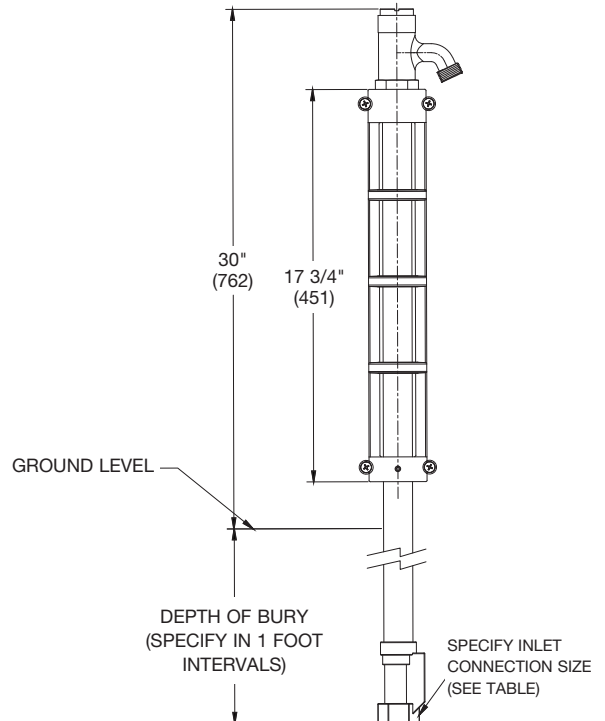
Note: Vacuum Breaker STD on 3/4" - 1"

HY-600

Non-Freeze Post Hydrant

Model Number	Depth	3/4" Conn.	1" Conn.	1-1/2" Conn.	2" Conn.
HY-600-2	2'	\$2,199.54	\$2,655.03	\$9,861.46	\$11,552.62
HY-600-3	3'	2,267.44	2,721.27	9,979.50	11,936.77
HY-600-4	4'	2,328.73	2,780.90	10,100.40	12,115.65
HY-600-5	5'	2,411.55	2,848.79	10,219.23	12,248.15
HY-600-6	6'	2,457.91	2,906.76	10,297.07	12,471.76
HY-600-8	8'	2,790.83	3,262.87	11,405.12	13,169.05

Description	List Price
HY-600-CIA Repair Kit	P.O.A.



Consult factory for all applications outside of listed parameters.

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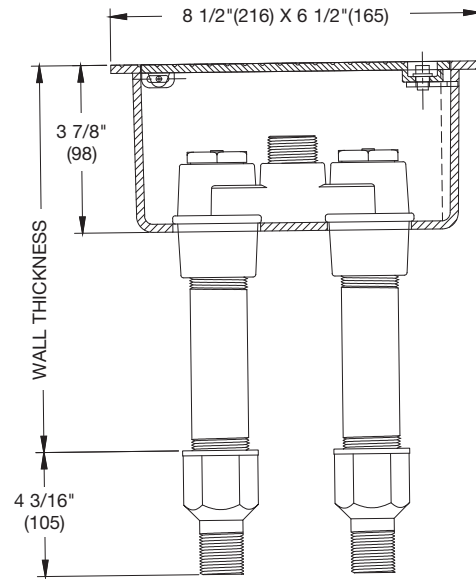


Wall Hydrants

HY-700-2

Non-Freeze Dual-Temp Wall Hydrant with SS Box

Model Number	Order Code	Wt. Lbs.	Wall Thickness	1" Conn.	List Price
HY-700-6, 8	8142651	15	6", 8"	3/4"	\$4,637.80
HY-700-10, 12, 14	8142637	17	10, 12, 14"	3/4"	4,724.35
HY-700-16, 18	8185525	19	16, 18"	3/4"	4,783.73



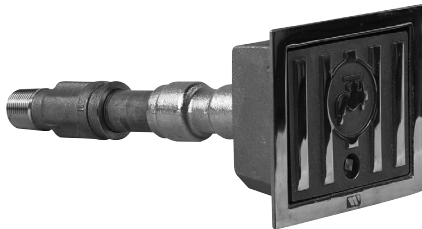
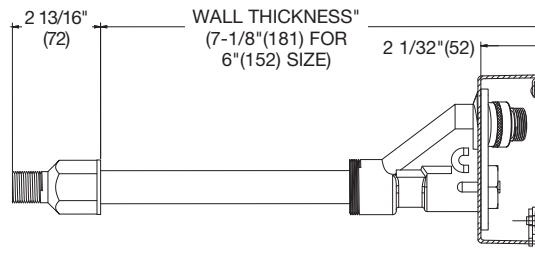
Options for HY-700 Series:

Suffix	Description	List Price
-K	Cylinder Lock	\$150.74
-VB	Vacuum Breaker	89.16

HY-725

Non-Freeze Wall Hydrant with NB Box, Integral Vacuum Breaker

Model Number	Wt. Lbs.	Depth	Hose Conn.	List Price
HY-725-6, 8	7	6", 8"	3/4"	\$2,290.87
HY-725-10, 12, 14	8	10, 12, 14"	3/4"	2,350.25
HY-725-16, 18	9	16, 18"	3/4"	2,423.22
HY-725-20, 22, 24	10	20, 22, 24"	3/4"	2,604.20



STANDARD FINISH IS POLISHED NICKEL BRONZE

Options for HY-725 Series:

Suffix	Description	List Price
-K	Cylinder Lock	\$150.74
-R	Round Box for Tilt-Up Construction (Stainless Steel Only)	720.00
-3	Stainless Steel Box	No Add
-88	Wall Clamp	89.16



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

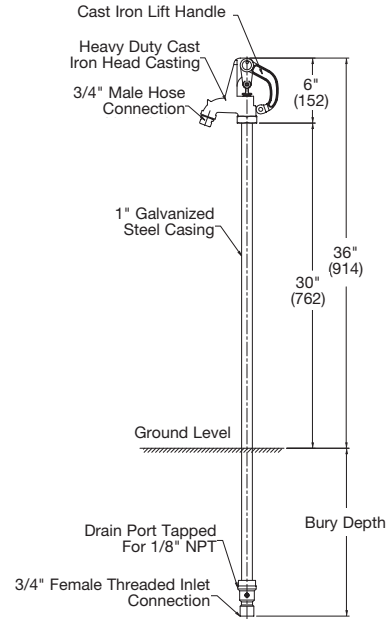
Yard Hydrants

HY-800

Non-Freeze Yard Hydrant

Model Number	Order Code	Wt. Lbs.	Bury Depth	Hose Conn.	List Price
HY-800-1	8187807	13	1'	3/4"	\$1,050.17
HY-800-2	8187658	15	2'	3/4"	1,050.17
HY-800-3	8187659	19	3'	3/4"	1,272.66
HY-800-4	8187660	23	4'	3/4"	1,308.43
HY-800-5	8187661	27	5'	3/4"	1,421.46
HY-800-6	8187662	31	6'	3/4"	1,654.67

Order Code	Description	List Price
8188777	HY-800/900 Repair Kit	\$525.09

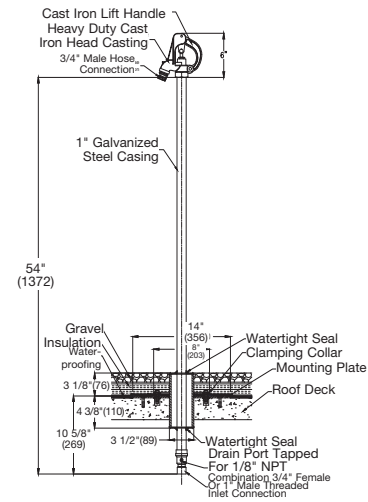


HY-900

Non-Freeze Roof Hydrant

Model Number	Order Code	Wt. Lbs.	Hose Conn.	List Price
HY-900	8188208	28	3/4"	\$3,782.91

Order Code	Description	List Price
8188777	HY-800/900 Repair Kit	\$525.09



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Specialties

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- Pictorial Index
- Water Hammer Arrestors
 - Recommendations
 - Certification
 - Sizing & Placement
- Backwater Valves
 - Typical Installations
- Trap Primers
 - Compliance
 - Pressure & flow characteristics
 - Distribution unit
 - Typical installations
- Misc. Specialties



Specialties

Pictorial Index



LF15M2-DR Series
Copper
Water Hammer Arrestor



SS Series
Stainless Steel
Water Hammer Arrestor



BV-200
Cast Iron In-Line
Backwater Valve



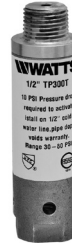
BV-240
In-Line Backwater Valve
With Access Housing



BV-300
Ball Float Backwater
Valve



BV-600
Pit Drain With Backwater
Valve



LFTP300-DR
Trap Primer & Distribution
Unit



MS-930
Trap Primer Adaptor



MS-950
Funnel Trap Adaptor



MS-8000
Fresh Air Inlet



PS-Series
Plastic Pipe Sleeves



BV-230-R
Backwater Valve with
Access Cover

Specialties

Water Hammer Arrestors

Watts water hammer arrestors prevent water hammer in piping systems, which is usually caused by sudden changes in flow velocity. Solenoid actuated and other types of quick closing valves create shock pressure in the line, which leads to water hammer (banging pipes). Properly installed arrestors will absorb the shock, eliminating noise and potential damage to the piping system.

Certification

All Watts arrestors are Certified by the Plumbing & Drainage Institute (PDI), in accordance with Standard PDI-WH201.

Sizing & Placement

The PDI fixture unit methodology takes into consideration probabilities for coincidental valve closings, in addition to pipe size and length, flow pressure, and velocity.

- 1) Calculate the number of fixture units (Table 1) on each hot and cold water line separately. Determine the total number of fixture units on a line by adding the unit values.
- 2) From Table 2, select the Watts arrestor with a fixture unit value rating equal to, or greater than, the total number of fixture units on the line.
- 3) For multiple fixture branch lines over 20' in length, the arrestor should be placed between the last two fixtures (Fig. A).
- 4) For multiple fixture branch lines over 20' in length, two arrestors should be used, with the second unit placed at the approximate midpoint of the line. The sum of the unit ratings for the two arrestors should be equal to, or greater than, the total fixture units for the line (Fig. B).

For long runs of piping terminating at a piece of equipment, the arrestor size should be determined from Table 3. The arrestor(s) should be located as near as possible to the closure valve (Fig. C).

Note: Sizing recommendations are based on an average flow velocity between 5 and 10 feet per second, and an operating pressure less than 65 PSI. For operating pressures over 65 PSI, use the next larger arrestor size. A pressure reducing valve is recommended for line pressures exceeding 85 PSI.

Calculation Example:

Cold water branch (less than 20')
 2 water closets @ 10 fixture units ea. = 20 fixture units
 2 lavatories @ 1-1/2 fixture units ea. = 3 fixture units
 Total fixture units = 23
 Select PDI Size B Water Hammer Arrestor

Sizing & Placement

Fixture	Type Of Supply Control	Fixture Unit Weight			
		Public		Private	
		Cold	Hot	Cold	Hot
Water Closet	Flush Valve	10	-	6	-
Water Closet	Flush Tank	5	-	3	-
Pedestal Urinal	Flush Valve	10	-	-	-
Stall or Wall Urinal	Flush Valve	5	-	-	-
Stall or Wall Urinal	Flush Tank	3	-	-	-
Lavatory		1-1/2	1 1/2	1	1
Bathtub		2	3	1 1/2	1 1/2
Shower Head		2	-	1	2
Bathroom Group		-	-	8	3
Bathroom Group		-	-	6	3
Separate Shower		-	-	1	2
Service Sink		3	3	-	-
Laundry Tubs (1-3)		-	-	3	3
Combination Fixture		-	-	3	3



Consult factory for all applications outside of listed parameters.
 Prices do not include applicable taxes.

Specialties

Water Hammer Arrestors

Sizing & Placement

Table 2

Fixture Unit Weight	1-11	12-32	33-60	61-113	114-154	155-330
PDI Symbol	A	B	C	D	E	F
Watts LF15M2-DR Series	LF15M2-A-DR	LF15M2-B-DR	LF15M2-D-DR	LF15M2-D-DR	LF15M2-E-DR	LF15M2-F-DR
Watts SS Series	SS-A	SS-B	SS-C	SS-D	SS-E	SS-F

Table 3

Length of Pipe	Nominal Pipe Size					
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
25'	A	A	B	C	D	E
50'	A	C	C	D	E	F
75'	B	C	D	A + E	F	E + F
100'	C	D	E	F	C + F	2-F
125'	C	D	F	A + F	E + F	E + 2-F
150'	D	E	F	D + F	2-F	3-F

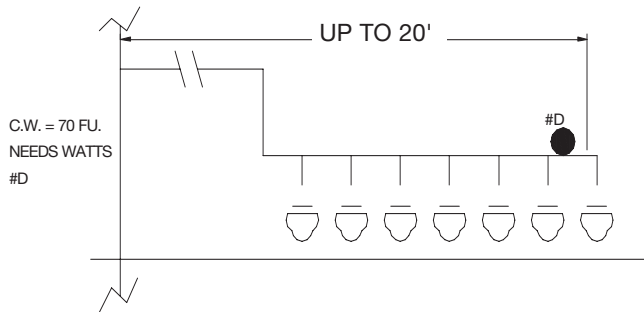


Figure A

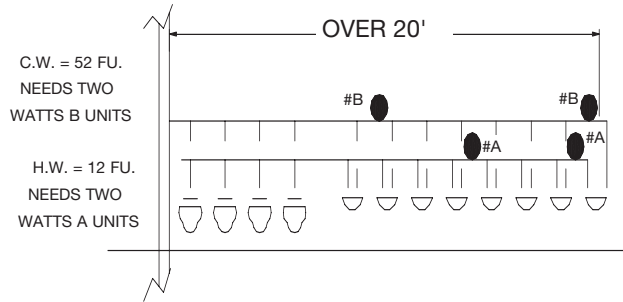


Figure B

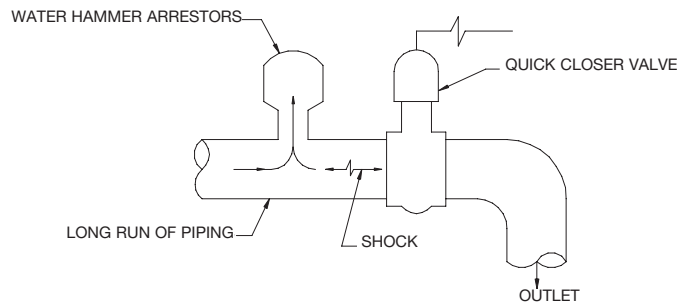


Figure C

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



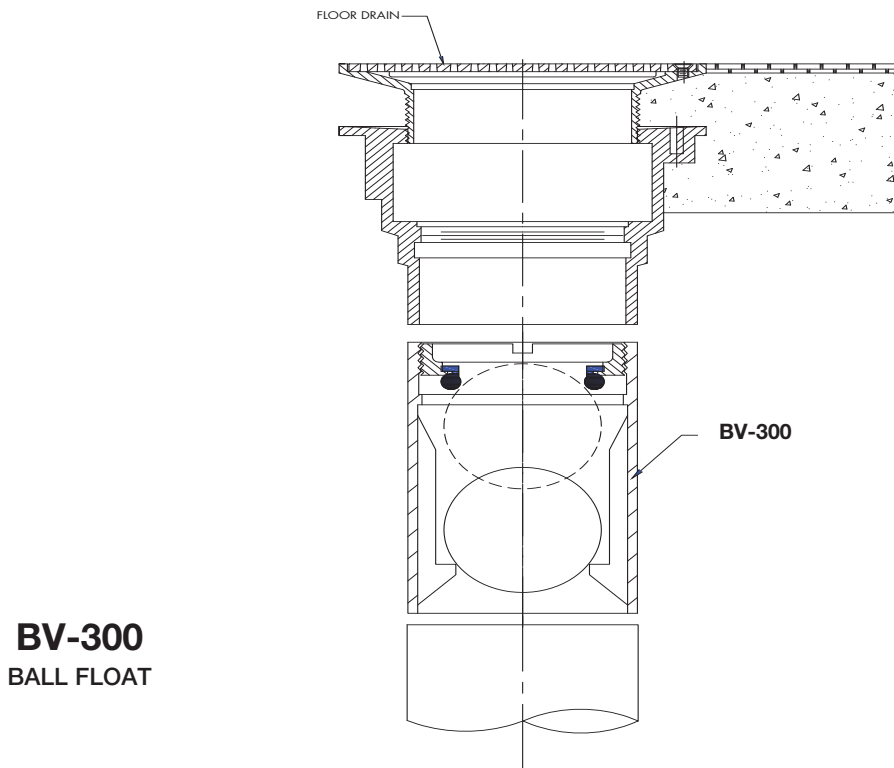
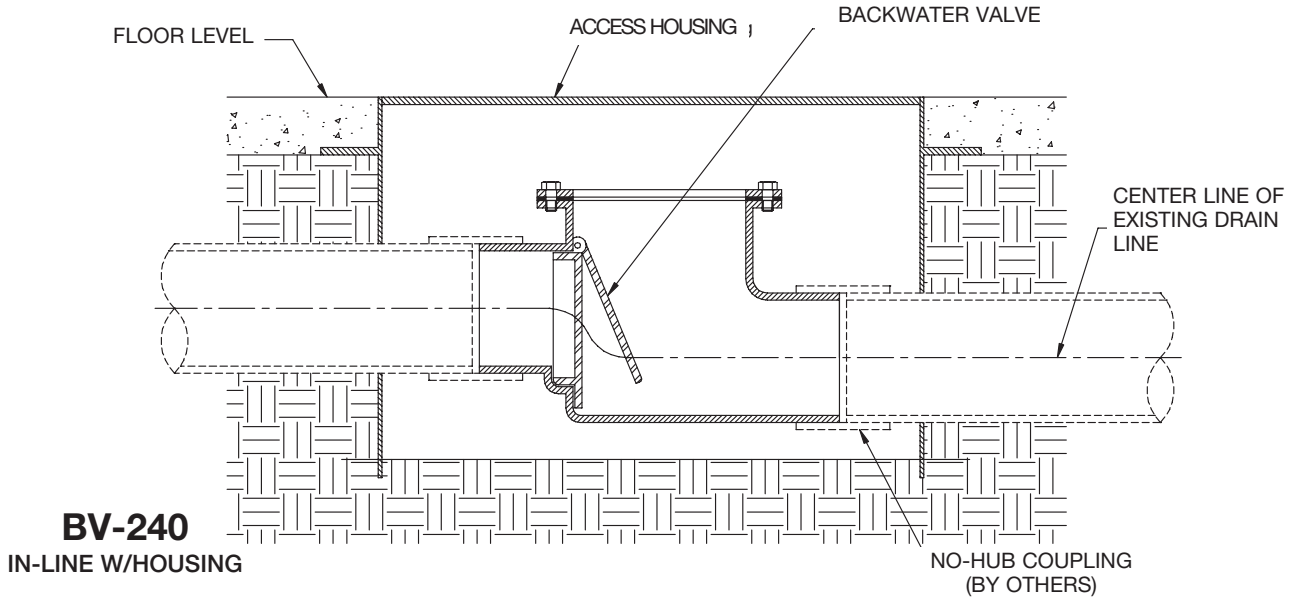
Specialties

Backwater Valves

Watts backwater valves should be specified for gravity flow only, and not used in pressurized applications.

Flapper type backwater valves are specified in gravity flow (non-pressure) applications to restrict backflow from excessive rainfall, tidewater, or other drainage conditions. The bronze flapper valve should be periodically inspected and kept free of debris or other obstruction to assure proper functioning.

Typical Installations



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Specialties

Trap Primers

Compliance

Watts LFTP300-DR trap primers are tested and approved in conformance with ASSE Standard 1018.

Pressure & Flow Characteristics

Minimum supply pressure: 25 PSI

Maximum supply pressure: 125 PSI

FLOW CHART

INLET PRESSURE	25	50	75	100	125
*GPM	1.1	1.6	2.0	2.3	2.4
*LPM	4.2	6.1	7.6	8.7	9.1

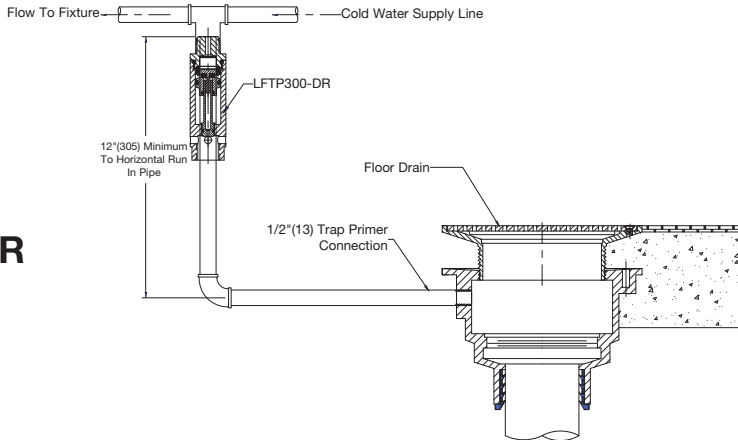
* Minimum cold flow required for proper trap priming.

Distribution Unit

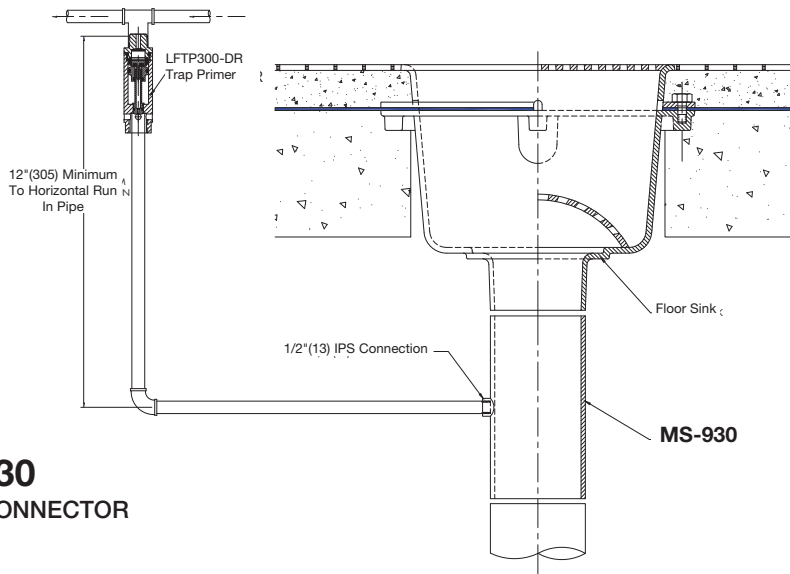
Watts model LFTP300-DU-DR Distribution Unit enables connection to up to four traps with a single trap primer.

Typical Installations

LFTP300-DR
TRAP PRIMER



MS-930
TRAP PRIMER CONNECTOR



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Water Hammer Arrestors

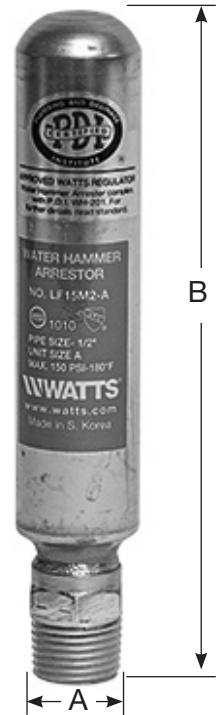
SG-Series

Copper Water Hammer Arrestors



Model Number	PDI Size	List Price
SG-050	A	\$361.08
SG-075	B	422.35
SG-100	C	1,043.46
SG-125	D	1,265.40
SG-150	E	1,687.74
SG-200	F	2,711.31

Technical Data							
Model No.	Connection Threaded	Dimensions				PDI Size	Fixture Units
		A		B			
		In.	MM	In.	MM		
SG-050	1/2"	1 1/8"	28.5	5 15/16"	150.9	A	1-11
SG-075	3/4"	1 3/8"	34.9	8 9/16"	218.0	B	12-32
SG-100	1"	1 5/8"	41.3	8 13/16"	223.5	C	33-60
SG-125	1"	2 1/8"	54.0	9 15/16"	252.5	D	61-113
SG-150	1"	2 1/8"	54.0	12 11/16"	322.5	E	114-154
SG-200	1"	2 5/8"	66.7	11 5/32"	283.5	F	155-330



SS Series

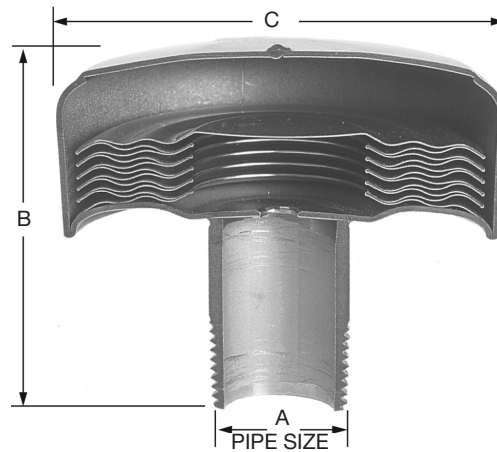
Stainless Steel Shock Arrestors



Model Number	Order Code	PDI SIZE.	Conn. Size	Height	List Price
SS-A	8145635	A	3/4"	3 1/4"	\$367.64
SS-B	8145636	B	1"	4 1/4"	521.74
SS-C	8145637	C	1"	5 3/4"	983.83
SS-D	8145638	D	1"	6 1/2"	1,657.94
SS-E	8145639	E	1"	6 3/4"	2,133.28
SS-F	8145640	F	1"	7 1/4"	2,716.30



Stainless Steel Series



Technical Data						
	SS-A	SS-B	SS-C	SS-D	SS-E	SS-F
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" Connection	3/4"(19)	1"(25)	1"(25)	1"(25)	1"(25)	1"(25)
"B" Height	3-3/16"(81)	4"(102)	4-5/16"(110)	5-1/4"(133)	7"(178)	7"(178)
"C" Diameter	3-1/4"(83)	3-1/4"(83)	3-1/4"(83)	3-1/4"(83)	3-1/4"(83)	3-1/4"(83)
PDI Size	A	B	C	D	E	F



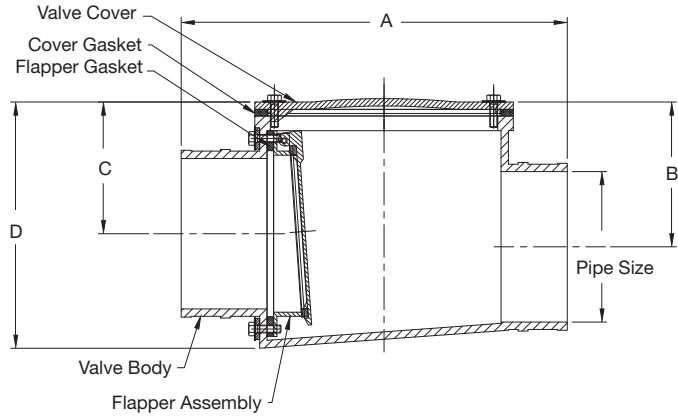
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Backwater Valves

BV-200

Cast Iron In-Line Backwater Valve

Model Number	Order Code	Wt. Lbs.	Size	List Price
BV-203	8132724	16	3"	\$1,286.51
BV-204	8132727	22	4"	1,793.38
BV-206	8132731	30	6"	3,600.75



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"	7-1/4"(184)
6"(152)	14-3/4"(375)	5-1/2"(140)	5"(127)	9-3/8"(238)

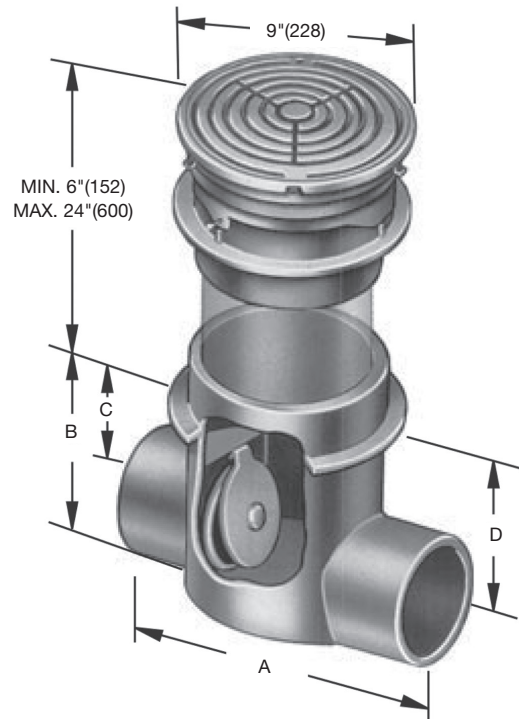
BV-230-R

In-Line Backwater Valve with Access Housing

Model Number	Size	List Price
BV-233-R-50	3"(76)	\$5,129.67
BV-234-R-50	4"(102)	5,655.91
BV-233-R-1	3"(76)	5,129.67
BV-234-R-1	4"(102)	5,655.91

Note: Epoxy coated Steel Access Housing

NH Size	A	B	C	D
2"(51)	10 3/8"(264)	4"(102)	3"(76)	3 1/2"(89)
3"(76)	8"(203)	6"(152)	3 3/8"(86)	4 1/2"(115)
4"(102)	9 1/2"(241)	7 1/2"(191)	4 1/8"(105)	4 3/8"(112)
6"(152)	P.O.A.	P.O.A.	P.O.A.	P.O.A.



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



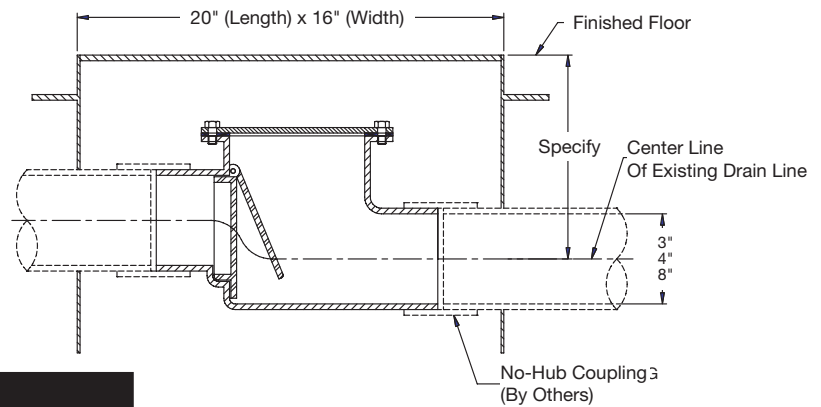
Backwater Valves

BV-240

In-Line Backwater Valve with Access Housing

Model Number	Wt. Lbs.	Size	List Price
BV-243	16	3"	\$14,232.39
BV-244	22	4"	14,739.26
BV-246	30	6"	16,546.63

Note: Epoxy-coated Steel Access Housing



Options for BV-240 Series:

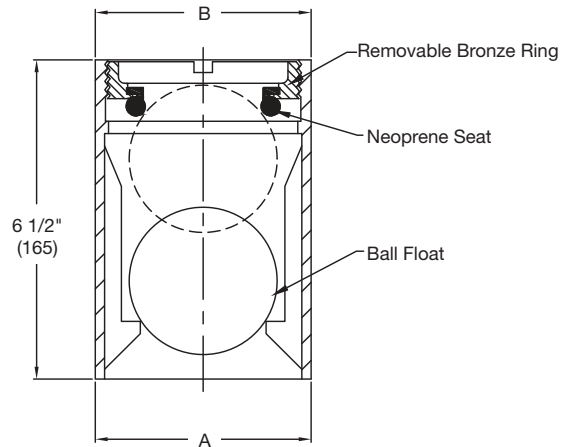
Suffix	Description	List Price
-HD	Heavy Duty Traffic Cover	\$6,081.85

BV-300

Ball Float Backwater Valve

Model Number	Wt. Lbs.	Size	List Price
BV-302	5	3"x2"	\$ 604.50
BV-303	5	3"	604.50
BV-304	5	4"	604.50

Size	A	B
2"(51)	2 11/32"(59)	3 3/8"(86)
3"(76)	3 3/8"(86)	3 3/8"(86)
4"(102)	4 3/8"(111)	4 3/8"(111)



BV-600

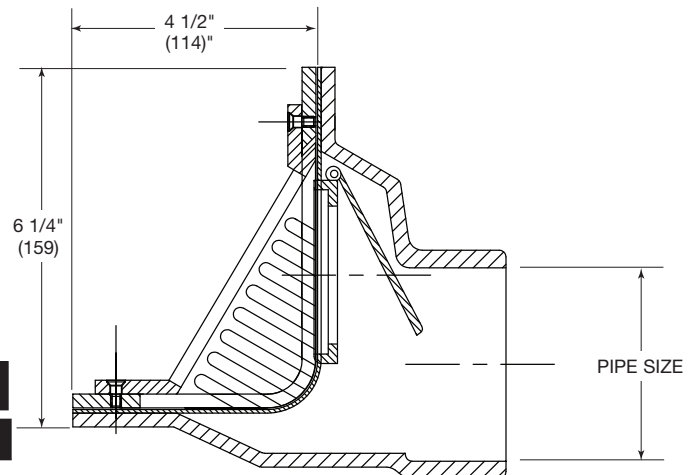
Pit Drain with Backwater Valve

Model Number	Wt. Lbs.	Size	List Price
BV-602,3,4	40	2,3,4"	\$1,355.64
BV-606	40	6"	1,970.14
BV-602,3,4-1	40	2,3,4"	\$2,113.94
BV-606-1	40	6"	2,900.85



Options for BV-600 Series:

Suffix	Description	List Price
-1	Nickel Bronze Grate & Frame	\$679.14
-6	Vandal Proof Grate	172.24

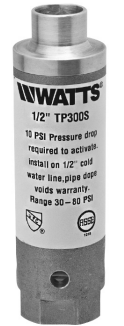


Trap Primers/Miscellaneous Specialties

LFTP300-DR

Trap Primer & Distribution Unit

Model Number	Wt. Lbs.	Size	List Price
LFTP300T-DR	1	1/2"	\$387.02
LFTP300S-DR	1	1/2"	387.02
LFTP300-DU-DR	1	1/2"	106.79



Model LFTP300S-DR



Model LFTP300T-DR

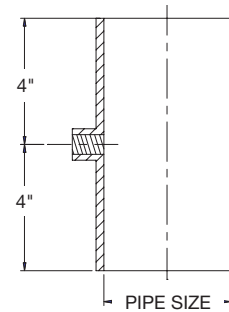


Model LFTP300-DU-DR

MS-930

Trap Primer Adaptor

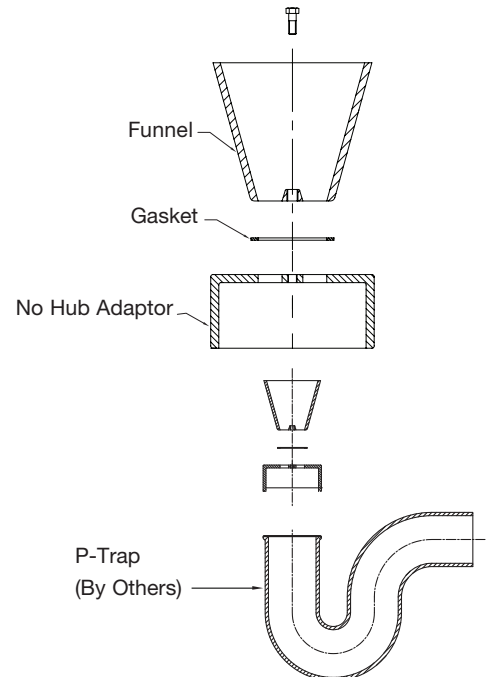
Model Number	Order Code	Size	Material	List Price
MS-932, 3, 4	8143303	2, 3, 4"	cast iron	\$81.53



MS-950

Funnel/Trap Adaptor

Model Number	Size	Funnel	List Price
MS-952,3	2, 3,"	4" Cast Iron	\$198.76



Typical Installation

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



Miscellaneous Specialties

MS-8000

Fresh Air Inlet

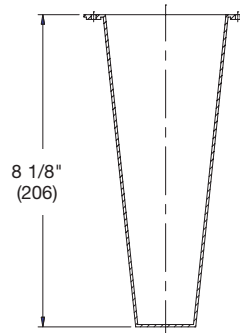
Model Number	Order Code	Size	Material	Wt., Lbs.	List Price
MS-8034	8186273	3, 4"	Nickel Bronze	3	\$1,042.71
MS-8056	8186274	5, 6"	Nickel Bronze	4	CF**



WPS Series

Plastic Pipe Sleeves

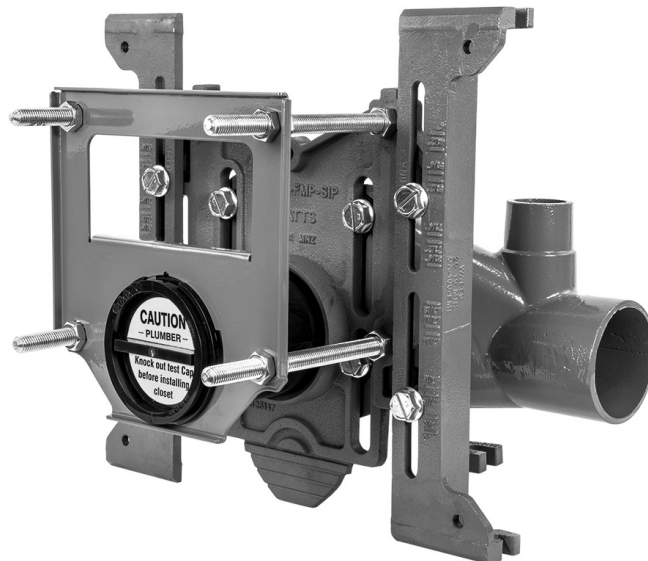
Model Number	Order Code	Size	Taper Degree	Carton Qty.	List Price
WPS-0151	8143770	1-1/2"	3	336	\$8.48
WPS-021	8143771	2"	3	280	9.43
WPS-033	8143773	3"	3	168	10.23
WPS-043	8143775	4"	3	96	13.07
WPS-053	8143777	5"	3	72	14.36
WPS-063	8143779	6"	3	40	14.43
WPS-083	8143780	8"	3	n/a	28.94
WPS-101	8143781	10"	3	n/a	52.22
WPS-121	8143782	12"	3	n/a	54.38



Fixture Carriers

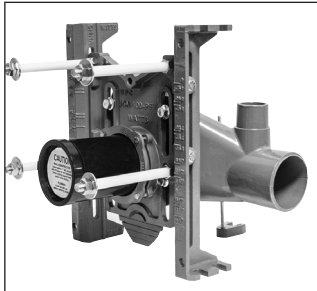
Table Of Contents

- Pictorial Index
- Recommendations
- Water Closet Carriers
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 - QT QuickTurn™ Closet Carriers
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 - Floor Anchoring
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 - Commonly Specified Options
- Wall Hung Fixture Carriers
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 - Service Sink Carriers

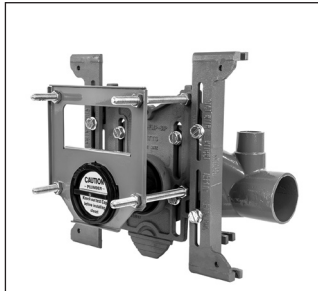


Fixture Carriers

Pictorial Index



ISCA-101-L/R
Single Horizontal
Compression Seal



QT-101-L/R
Single Horizontal
QuickTurn™



ISCA-101-L/R-AUX
Single Horizontal w/Aux.
Inlet Compression Seal



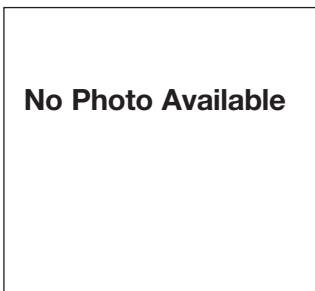
QT-101-L/R-AUX
Single Horizontal w/Aux.
Inlet QuickTurn™



ISCA-101-L/R-BF
Single Horiz. Floor Mounted
Back Outlet - Compression Seal



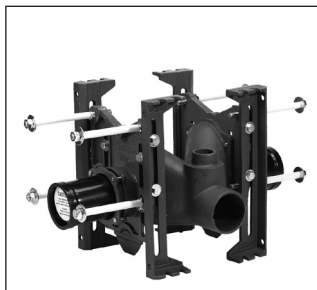
QT-101-L/R-BF
Single Horiz. Floor Mounted
Back Outlet - QuickTurn™



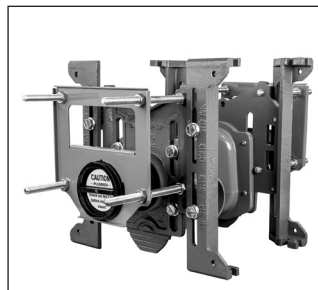
ISCA-101-L/R-TAS
Single Horiz. for 4" Rough-
In Compression Seal



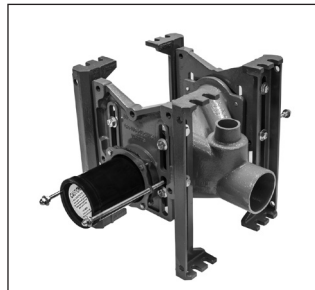
QT-101-L/R-TAS
Single Horiz. for 4" Rough-
In QuickTurn™



ISCA-101-D
Back-to-Back Horizontal
Compression Seal



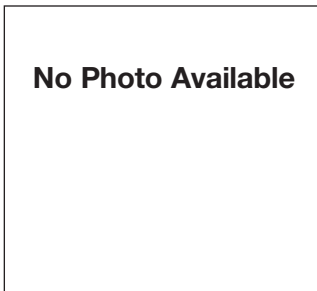
QT-101-D
Back-to-Back Horizontal
QuickTurn™



ISCA-101-D-BF
Back-to-Back Horiz. Floor Mounted
Back Outlet - Compression Seal



QT-101-D-BF
Back-to-Back Horiz. Floor Mounted
Back Outlet - QuickTurn™



ISCA-101-D-TAS
Back-to-Back Horiz. for 4"
Rough-In Compression Seal



QT-101-D-TAS
Back-to-Back Horiz. for 4"
Rough-In QuickTurn™



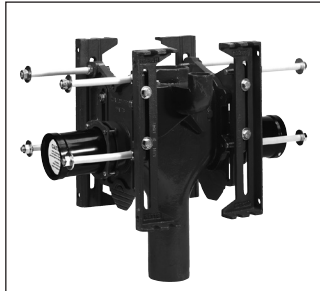
ISCA-121
Single Vertical
Compression Seal



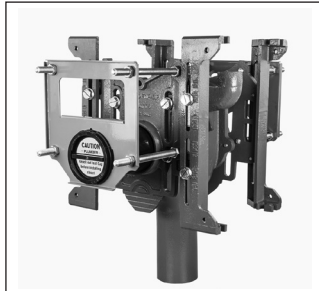
QT-121
Single Vertical
QuickTurn™

Fixture Carriers

Pictorial Index



ISCA-121-D
Back-to-Back Vertical
Compression Seal



QT-121-D
QT QuickTurn™ Back-to-Back
Vertical Adj. Closet Carrier



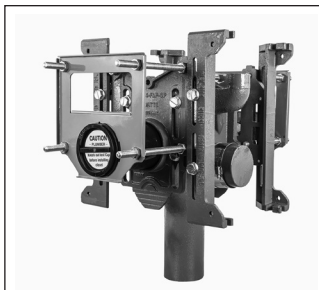
ISCA-131
Single Vertical w/Side Inlet(s)
Compression Seal



QT-131
Single Vertical w/Side Inlet(s)
QuickTurn™



ISCA-131-D
Back-to-Back Vertical w/Side
Inlet(s) - Compression Seal



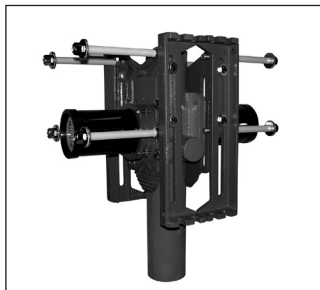
QT-131-D
Back-to-Back Vertical w/
Side Inlet(s) - QuickTurn™



ISCA-141
Single Thin Wall Vertical
Compression Seal



QT-141
Single Thin Wall Vertical
QuickTurn™



ISCA-141-4-D
Back-to-Back Thin Wall
Vertical - Compression Seal



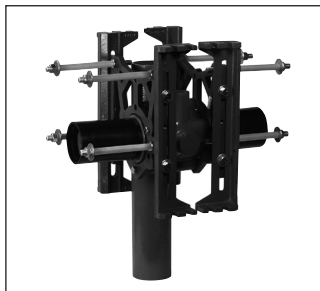
QT-141-4-D
Back-to-Back Thin Wall
Vertical - QuickTurn™



ISCA-151-L/R
Single Offset Thin Wall Vertical
Compression Seal



QT-151-L/R
Single Offset Thin Wall Vertical
QuickTurn™



ISCA-151-D
Back-to-Back Offset Thin Wall
Vertical - Compression Seal



QT-151-D
Back-to-Back Offset Thin
Wall Vertical - QuickTurn™



QT-161-L/R
Single Thin Wall Horizontal
QuickTurn™

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

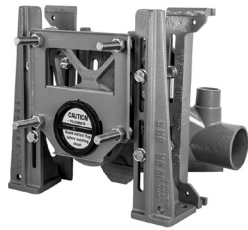


Fixture Carriers

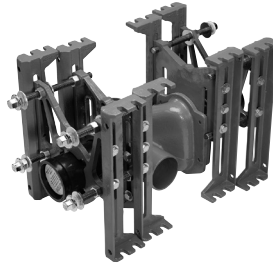
Pictorial Index



ISCA-102-L/R
1000 lb. Single Horizontal
Compression Seal



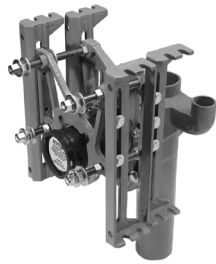
QT-102-L/R
1000 lb. Single Horizontal
QuickTurn™



ISCA-102-D
1000 lb. Back-to-Back
Horizontal - Compression Seal



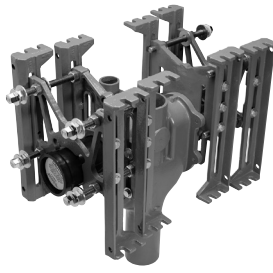
QT-102-D
1000 lb. Back-to-Back
Horizontal - QuickTurn™



ISCA-122
1000 lb. Single Vertical
Compression Seal



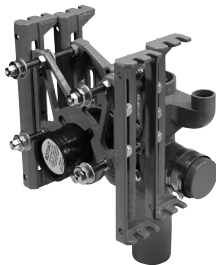
QT-122
1000 lb. Single Vertical
QuickTurn™



ISCA-122-D
1000 lb. Back-to-Back
Vertical - Compression Seal



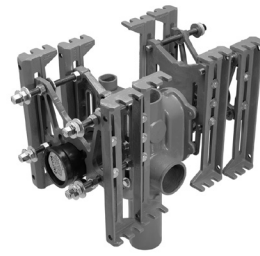
QT-122-D
1000 lb. Back-to-Back
Vertical - QuickTurn™



ISCA-132
1000 lb. Single Vertical w/Side
Inlet(s) - Compression Seal



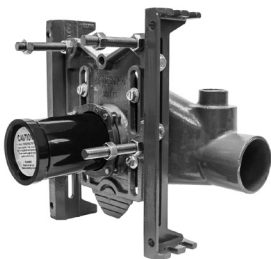
QT-132
1000 lb. Single Vertical w/
Side Inlet(s) - QuickTurn™



ISCA-132-D
1000 lb. Back-to-Back Vertical w/
Side Inlet(s) - Compression Seal



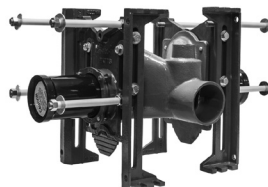
QT-132-D
1000 lb. Back-to-Back Vertical
w/Side Inlet(s) - QuickTurn™



ISCA-103-L/R
750 lb. Single Horizontal
Compression Seal



QT-103-L/R
750 lb. Single Horizontal -
QuickTurn™



ISCA-103-D
750 lb. Back-to-Back Horizontal
- Compression Seal



QT-103-D
7650 lb. Back-to-Back
Horizontal - QuickTurn™



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Fixture Carriers

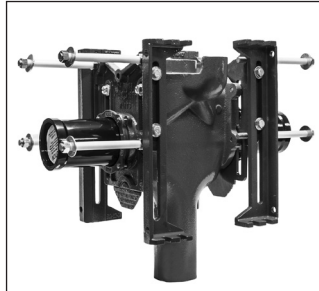
Pictorial Index



ISCA-123
750 lb. Single Vertical
Compression Seal



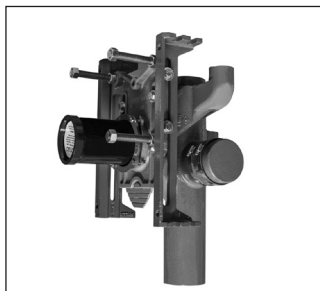
QT-123
750 lb. Single Vertical
QuickTurn™



ISCA-123-D
750 lb. Back-to-Back Vertical
Compression Seal



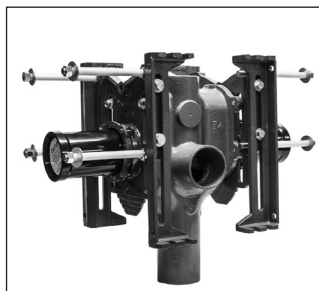
QT-123-D
750 lb. Back-to-Back
Vertical QuickTurn™



ISCA-133
750 lb. Single Vertical w/Side
Inlet(s) - Compression Seal



QT-133
750 lb. Single Vertical w/
Side Inlet(s) - QuickTurn™



ISCA-133-D
750 lb. Back-to-Back Vertical w/
Side Inlet(s) - Compression Seal



QT-133-D
750 lb. Back-to-Back Vertical w/
Side Inlet(s) - QuickTurn™



CA-100-EXT
Water Closet Auxiliary
Support Compression Seal



QT-100-EXT
Water Closet Auxiliary Support
QuickTurn™

Fixture Carriers

Pictorial Index



TCA-411/TCA-411-WC
Concealed Arm "Track"
Lavatory Carrier



WCA-411/WCA-411-WC
Concealed Arm Lavatory
Carrier



TCA-411-D/TCA-411-D-WC
Back-to-Back Concealed Arm
"Track" Lavatory Carrier



WCA-411-D/WCA-411-D-WC
Back-to-Back Concealed Arm
Lavatory Carrier



TCA-411-WLA
FM Concealed Arm Lavatory
Carrier w/Waste Line Access



WCA-411-WLA
FM Concealed Arm Lavatory
Carrier w/Waste Line Access



TCA-411-D-WLA
Back-to-Back Concealed Arm
Lav. Carrier w/Waste Line Access



WCA-411-D-WLA
Back-to-Back Concealed Arm
Lav. Carrier w/Waste Line Access



TCA-411-2/3/4
Extended Concealed Arm
"Track" Lavatory Carrier



CA-311
Urinal Carrier



CA-321
Urinal Carrier w/Bearing
Plate



CA-401
Exposed Arm Lavatory
Carrier



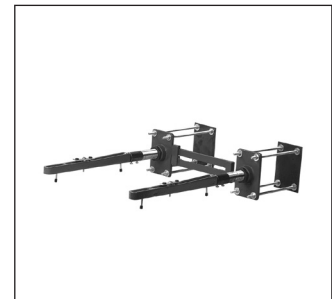
CA-421
Plate Type Lavatory/Water
Cooler Carrier



CA-431-1
Bi-Level Water Cooler
Carrier



TCA-440/TCA-450
Wall Mounted Concealed
Arm "Track" Lavatory Carrier



CA-461
Wall Mounted Concealed
Arm Lavatory Carrier



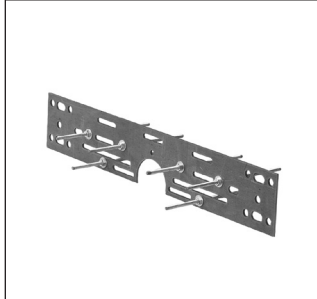
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Fixture Carriers

Pictorial Index



CA-462
Wall Mounted Concealed
Arm Lavatory Carrier



CA-481
Wall Plate



ISCA-550
3-Bolt Service Sink Carrier



ISCA-560
4-Bolt Service Sink Carrier

Fixture Carriers

Recommendations

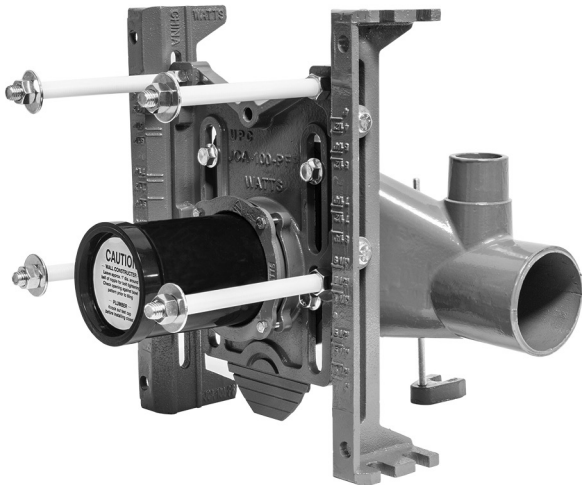
Application	Product
Water closet standard 500 lb.....	ISCA/QT-101, ISCA/QT-121, ISCA/QT-131 Series
Water closet 750 lb.....	ISCA/QT-103, ISCA/QT-123, ISCA/QT-133 Series
Water closet bariatric 1000 lb.....	ISCA/QT-102, ISCA/QT-122, ISCA/QT-132 Series
Water closet/urinal back-to-back.....	ISCA/QT-101-L/R-AUX
Water closet thin wall horizontal.....	QT-161 Series
Water closet thin wall vertical.....	ISCA/QT-141, ISCA/QT-151 Series
Lavatory concealed arm - block wall.....	TCA-411, TCA-411-WC
Lavatory concealed arm - stud wall.....	WCA-411, WCA-411-WC
Lavatory exposed arm.....	CA-401
Urinals.....	CA-311, CA-321
Water coolers, drinking fountains.....	CA-421, CA-431-1
Service sinks.....	ISCA-550, ISCA-560

Water Closet Carriers

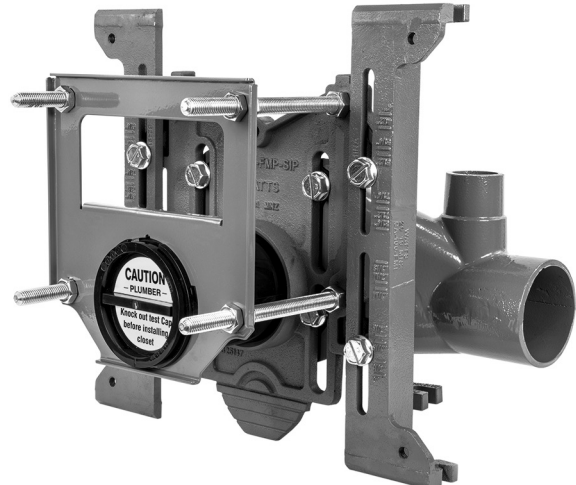
Water Closet Carriers support wall hung "off the floor" water closets. Carriers anchor to the structural floor behind the finished wall, supporting the fixture independent of the wall structure. Watts unique *Industry Standard* and QT QuickTurn™ closet carriers provide exceptional benefits for both pre-fabrication and jobsite installation.

Industry Standard Closet Carriers feature a patented 4-bolt mechanical compression seal nipple. The positive nipple seal holds test without additional sealants, reducing test expenses and eliminating the potential for costly behind the wall leaks.

QT QuickTurn™ Closet Carriers are designed with an exclusive wall plate and locking nipple that can be fully adjusted from outside the finished wall. Designed specifically for pre-fabrication, QT Carriers promote pre-fab assembly speed and jobsite reliability.



Industry Standard Compression Seal Carrier



QT QuickTurn™ Carrier



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Fixture Carriers

Recommendations

Matching Closet & Carrier

Watts carriers can be installed with any commercial 4-bolt (siphon jet) water closet. *Industry Standard* faceplates can be inverted to accommodate 3-bolt (blow-out) fixtures.

Standard Watts closet carriers are tested and third party certified to 500 lb. load rating per AMSE Standard A112.6.1M. Bariatric or other heavy use applications may require 750 lb. and 1000 lb. carriers. Note 750 lb. and 1000 lb. carriers have different wall spacing requirements and a smaller range of adjustment than standard carriers. Special wall construction design and accommodations may be required.

Carrier Selection & Battery Set-Up

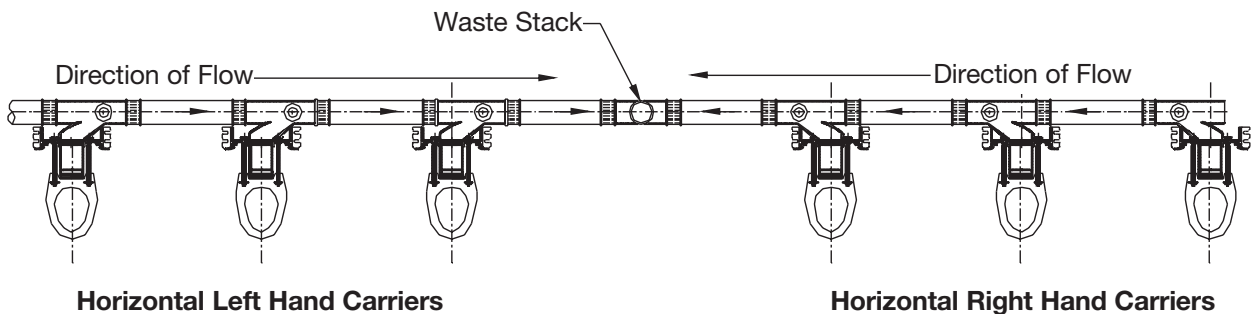
Closet carriers are often installed in groups (batteries) to accommodate multiple fixture and back-to-back bathroom groups. These factors should be considered in the specification of carrier batteries:

1. Location of the waste stack

A waste stack may be located directly behind a water closet, at a midpoint, or at the end of a carrier battery. The position of the stack determines which specific carriers are required, as all waste flows towards the stack.

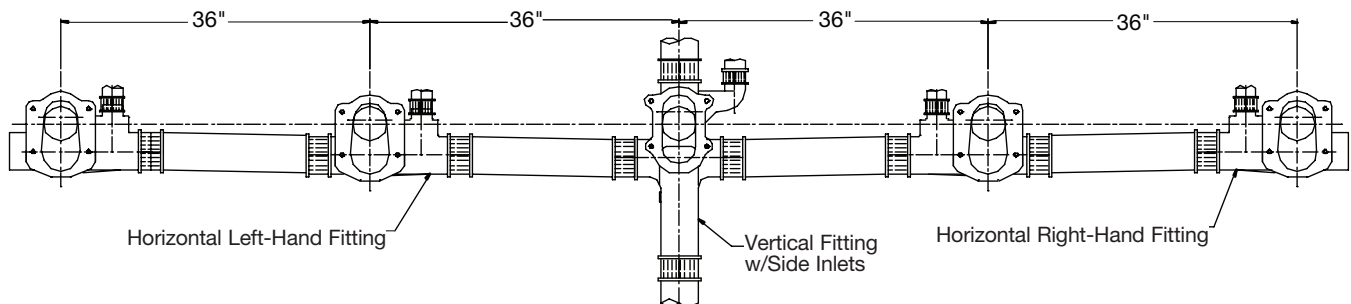
2. Horizontal carrier direction

Single horizontal carriers are specified either left hand or right hand (L or R), depending on the direction of flow. To determine L or R, with your back to the wall, point in the direction of flow. If the flow is to the left, a left hand carrier is required. Back-to-back horizontal carriers are reversible, and do not require a flow direction specification.



3.) Vertical carriers with side inlets (stack fittings)

ISCA/QT-131/132/133 Series carriers are specified in batteries with a waste stack located directly behind one of the bowls. Watts vertical stack fittings are supplied with two open inlets and one no hub cap. The cap can be reversed to open a left or right hand side inlet, or discarded to leave both inlets open



Fixture Carriers

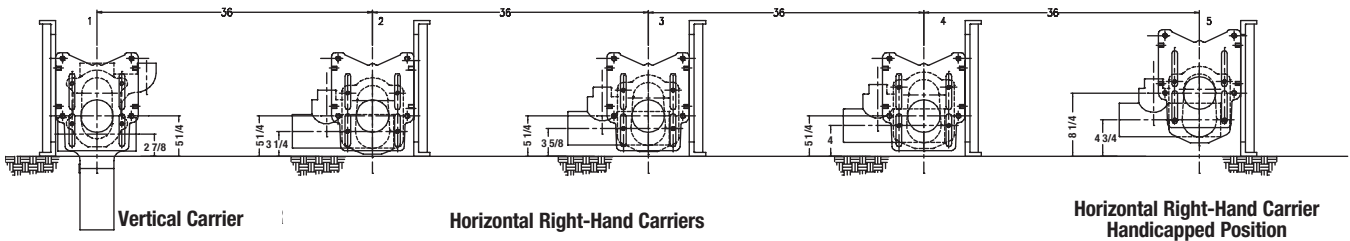
Recommendations

Carrier Selection & Battery Set-Up

4.) Battery pitch & rough-in requirements

Standard bowl installations are typically 15" from the floor to the rim of the bowl, and "Physically Handicapped" (ANSI A112.19.2) installations 18" to the rim of the bowl. Assuming standard rough-in specifications of 1/8" pitch on the horizontal waste line, and 36" between fixtures, batteries can typically be constructed with up to 9 fixtures, provided a stack fitting is used in the center position. Handicapped fixtures can be incorporated into the batteries, and should be placed at the high end of the fixture run. The table below indicates minimum and maximum horizontal waste line positions, dependent upon the specified rough-in height of the bowl outlet.

C/Bowl Outlet From Floor	Min. C/L Horiz. Waste from Floor	Max. C/L Horiz. Waste from Floor
4 1/2"(115)	3"(76)	4 1/12"(115)
5"(127)	3"(76)	5"(127)
5 1/2"(140)	3"(76)	5 1/2"(140)
6"(152)	3"(76)	6"(152)
6 1/2"(165)	3 1/4"(82)	6 1/2"(165)
7"(178)	3 5/8"(92)	7"(178)
7 1/2"(191)	4 1/8"(105)	7 1/2"(191)
8"(203)	4 5/8"(118)	8"(203)
8 1/2"(203)	5"(127)	8 1/2"(203)
9"(229)	5 3/8"(137)	9"(229)
9 3/8"(239)	5 3/4"(146)	9 3/8"(239)



Stud & Nipple Adjustment

Closet horn depths and flange thicknesses from different fixture manufacturers may vary slightly. The closet nipple is usually set 5/16" beyond the face of the finished wall to allow for sufficient closet gasket compression, and ensure a gas and water tight seal (Fig. 2). Carrier studs generally extend 2-1/4" beyond the finished wall, with the back-up nut set flush with the finished wall, and 1/16" back-up washer between the wall and the fixture. Three cap nuts must tighten fully to properly load the carrier (Fig. 3). The fourth cap nut is typically left hand-tight, to avoid stress on the bowl.

Note: *Watts adhesive backed neoprene closet gaskets do not require an additional sealant to form a proper seal.*

These formulas can be used to calculate exact nipple and stud positions:

Nipple Position: $A = B - 7/16"$
Where:
 A = distance nipple should extend beyond finished wall
 B = depth of closet horn

Stud Position: $X = Y + 5/8"$
Where:
 x = distance stud should extend beyond finished wall
 Y = thickness of fixture flange

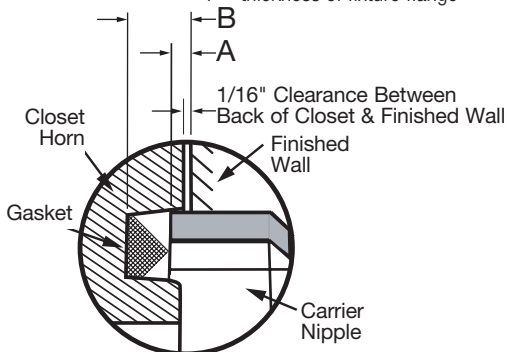


Figure 2

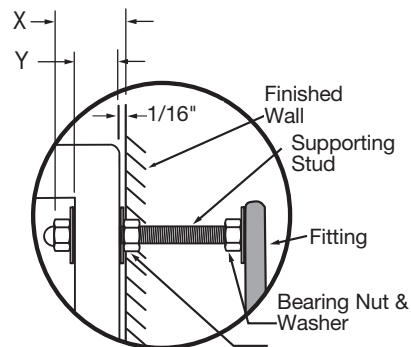


Figure 3

Fixture Carriers

Recommendations

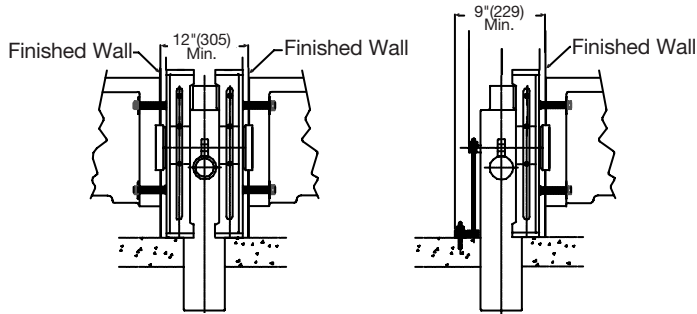
Floor Anchoring

Closet carriers must be securely anchored to the structural floor with min. 1/2" dia. anchor bolts (by others). Particular attention should be paid to the rear anchor support on single horizontal carriers, as unsecure rear anchors are the primary cause of rocking or excessive deflection at the bowl.

Watts closet carrier feet have dual anchor slots which eliminates the problem of single anchors conflicting with concrete support bars (rebar). For standard 500 lb. carriers, only one anchor bolt is required to secure each leg to the floor.

Thin Wall Vertical Carriers

ISCA/QT-141 & ISCA/QT-151 Series vertical carriers are specified in single or multiple story buildings with thin pipe chases. 141 series carriers vent directly off the top of the waste stack, and are generally used in single story installations. 151 series carriers have an offset fitting, and are commonly specified in multi-story and retrofit applications.



Commonly Specified Options

-BF Assembly for Back Outlet Bowl

Yoke assembly enables connection of carrier to a floor mounted back outlet bowl.

CA-100-EXT (Auxiliary Support System)

Additional support at the finished wall for wide pipe chases, recommended when the 'X' dimension exceeds 16". Supplied standard with a 24" nipple (cut to size). Extended 5/8" support rods are supplied by others.

-HS Hub & Spigot Connections

Hub & spigot fitting and vent connections.

-M1 Extended Nipple

24" ABS nipple with integral test cap for installations in wide pipe chases. Can be cut to size.

-M11 Tiling Frame

Creates flat even surface at the finished wall for tile application.

-M16 Vandal Proof Cap Nuts

Cap nuts secured with Allen Head set screws to prevent hand removal.

-M20 Flush Valve Support

Copper support secures and aligns exposed flush valve supply pipe.

-QT-100-EXT (Auxiliary Support QT)

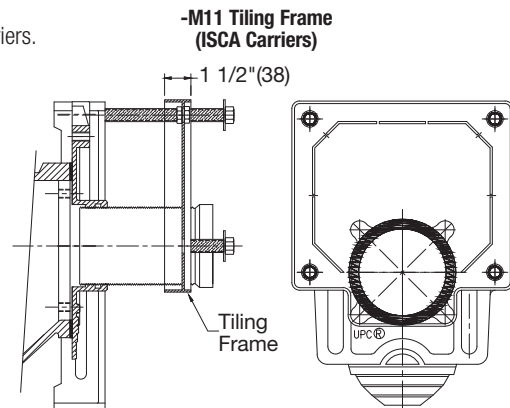
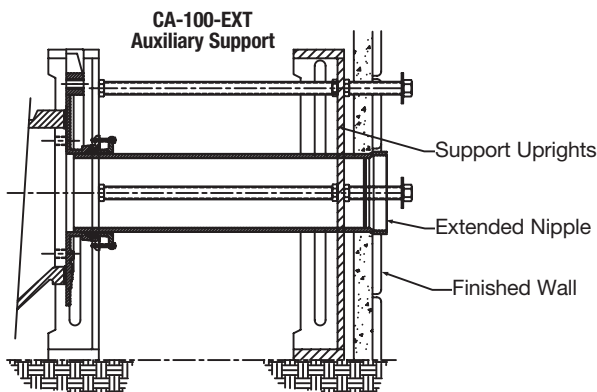
Additional support at the finished wall for wide pipe chases, recommended when the 'X' dimension exceeds 16". Supplied standard with a 24" nipple (cut to size). Extended 5/8" support rods are supplied by others.

-TAS Faceplate for 4" Rough-In

Enables bowl waste rough-in height 4" above finished floor. Specified in elementary schools, day-care centers, and other facilities serving young children.

-36 Long Barrel Horizontal Fitting

36" long fitting enables standard battery set-ups, without additional piping between carriers.



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

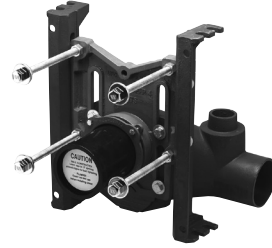
WATTS[®]

Industry Standard Water Closet Carriers

ISCA-101

Horizontal Adjustable 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-101-L	77	Single Horizontal - Left Hand	\$1,522.30
ISCA-101-R	77	Single Horizontal - Right Hand	1,522.30
ISCA-101-L-AUX	77	Single Horizontal - LH - 2" Aux Conn.	1,649.19
ISCA-101-R-AUX	77	Single Horizontal - RH - 2" Aux Conn.	1,624.41
ISCA-101-D	135	Back-to-Back Horizontal	2,759.59



ISCA-101-L



ISCA-101-D

ISCA-121

Vertical Adjustable 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-121	97	Single Vertical	\$1,854.15
ISCA-121-D	160	Back-to-Back Vertical	3,510.50



ISCA-121



ISCA-121-D

ISCA-131

Vertical Adjustable 500 lb. Closet Carrier with Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
ISCA-131	97	Single Vertical - w/Side Inlet(s)	\$2,115.04
ISCA-131-D	160	Back to Back Vertical - w/Side Inlet(s)	3,436.55



ISCA-131



ISCA-131-D

See Pg. 235 for options & parts for all ISCA & QT models.

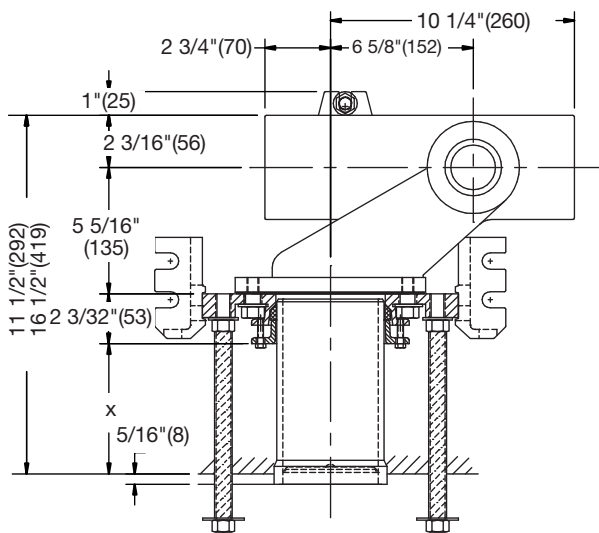


Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

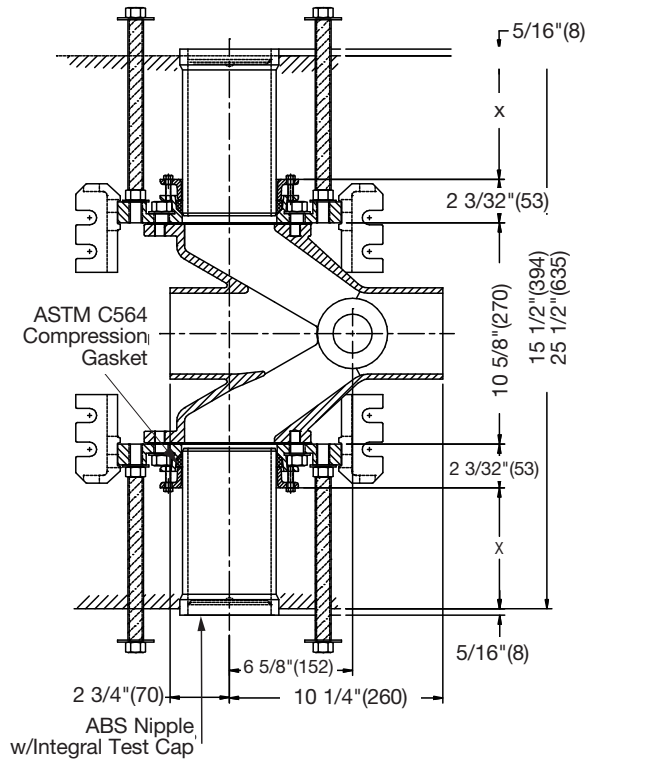
Industry Standard Water Closet Carriers

Water Closet Carrier Options & Parts

Suffix	Description	List Price	Suffix	Description	List Price
-3	3" Horizontal Fitting	No Add	-M11	Tiling Frame - Single (ISCA)	\$172.24
-36	Horizontal Long Barrel (36")	\$773.91		Tiling Frame - Double (ISCA)	344.51
-BF	Assy. for Back Outlet Bowl	384.38	-M16	Vandal Proof Cap Nuts - Single	192.51
CA/QT-100-EXT	Auxiliary Support - Single	887.07		Vandal Proof Cap Nuts - Double	385.00
	Auxiliary Support - Double	1,771.53	-M20	Flush Valve Support - Single	129.42
-CI	8" Cast Iron Nipple	No Add		Flush Valve Support - Double	260.13
-HS	Hub & Spigot Connections	No Add	-TAS	Faceplate for 4" Rough-In	No Add
-M1	24" Nipple - Single	318.79			
	24" Nipple - Double	713.42			



ISCA-101-L/R



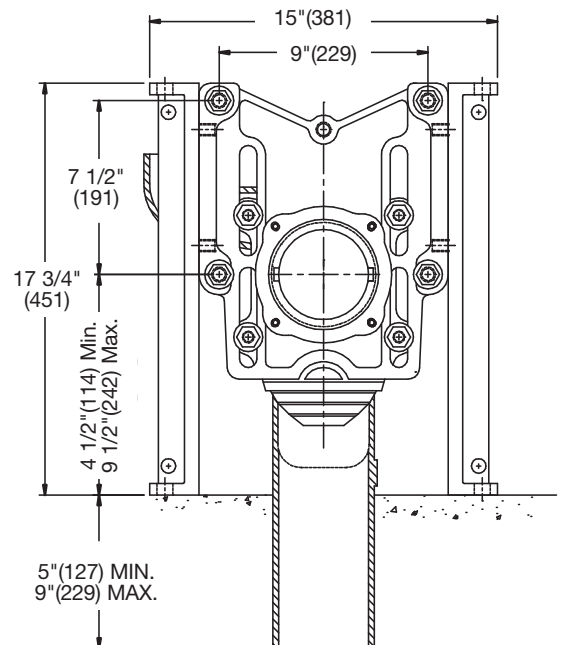
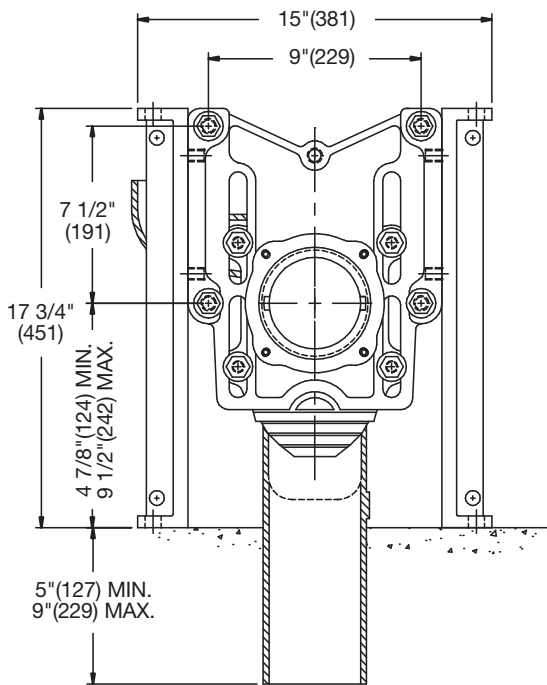
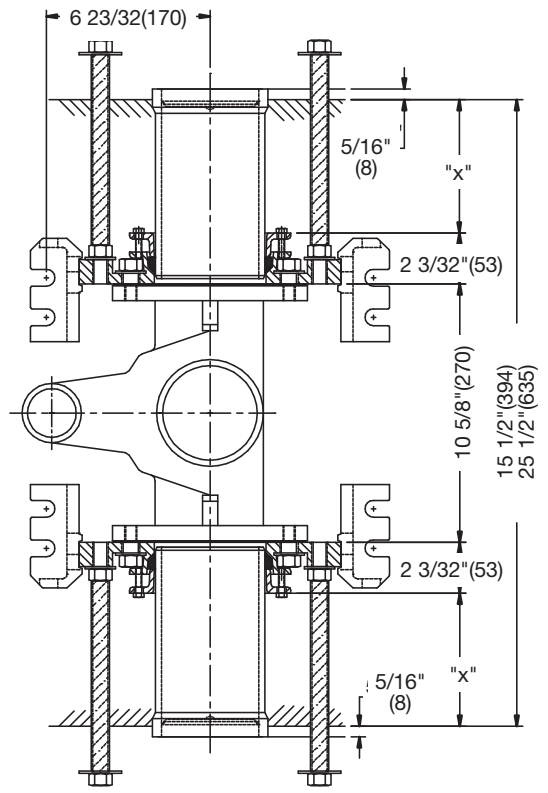
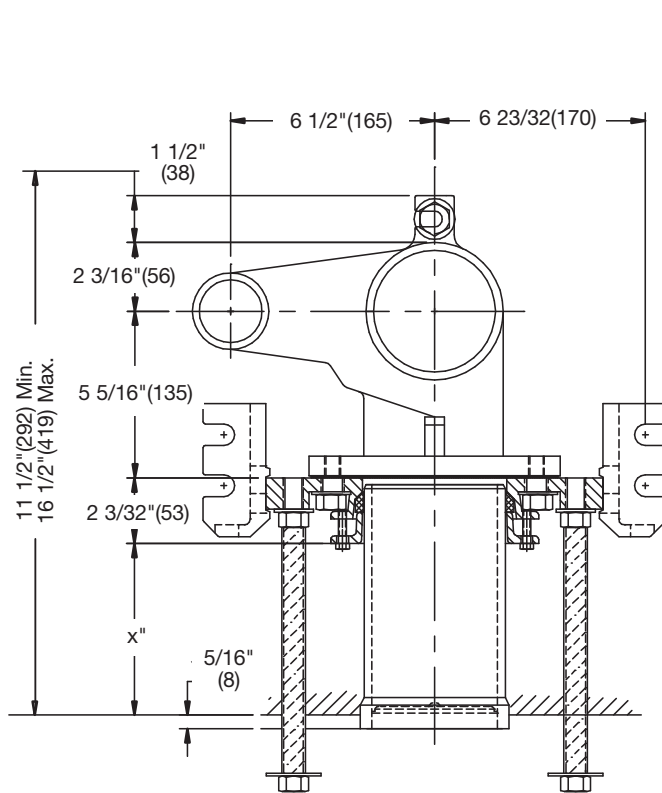
ISCA-101-D

Consult factory for all applications outside of listed parameters.

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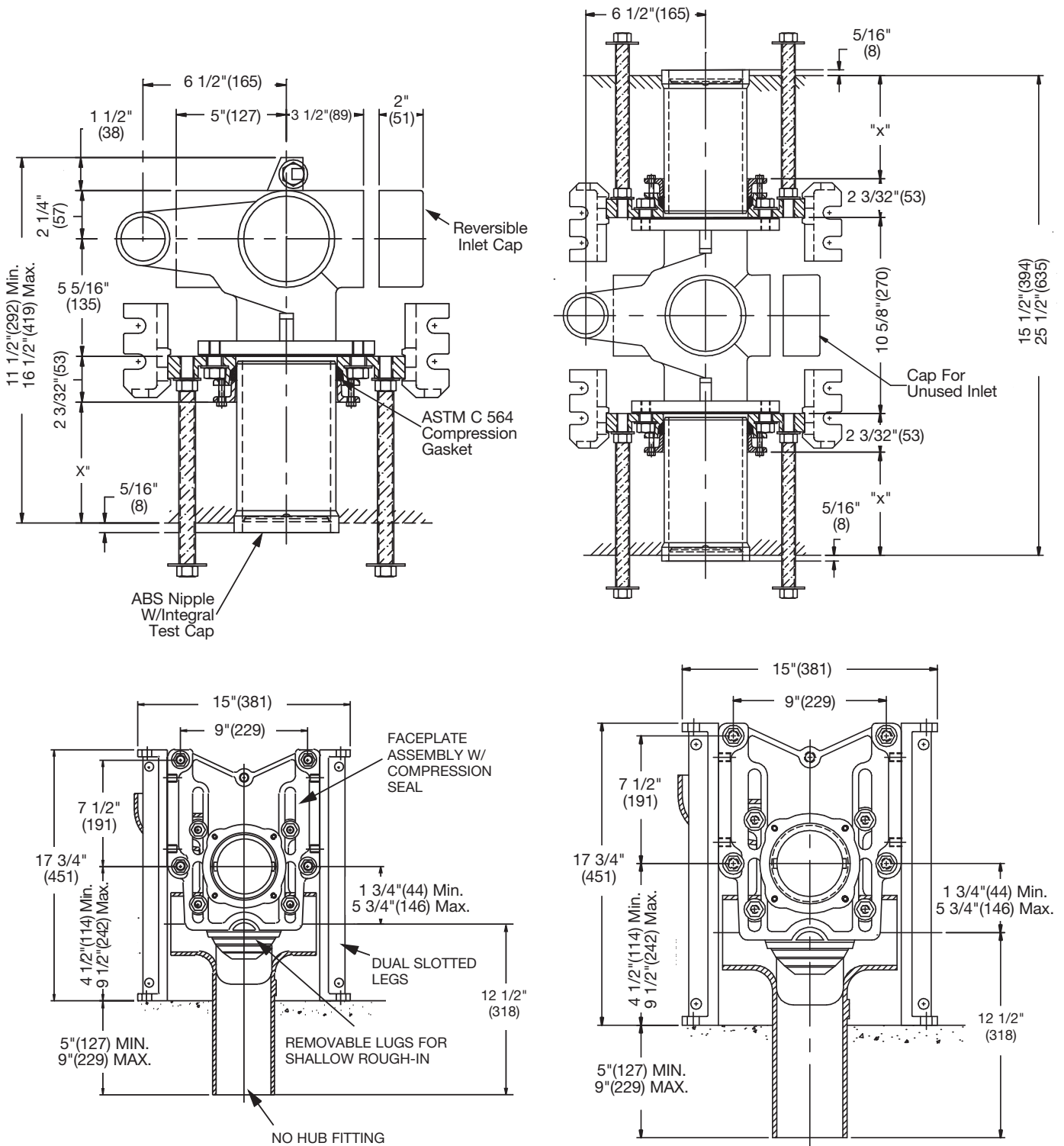
Industry Standard Water Closet Carriers



ISCA-121

ISCA-121-D

Industry Standard Water Closet Carriers



ISCA-131

ISCA-131-D

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



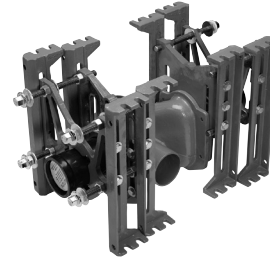
Industry Standard Water Closet Carriers

ISCA-102 Horizontal 1000 lb. Bariatric Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-102-L	108	Single Horizontal - Left Hand	\$2,393.89
ISCA-102-R	108	Single Horizontal - Right Hand	2,393.89
ISCA-102-D	186	Back-to-Back Horizontal	4,502.77



ISCA-102-L/R



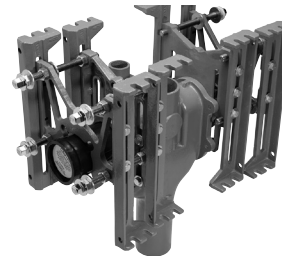
ISCA-102-D

ISCA-122 Vertical 1000 lb. Bariatric Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-122	117	Single Vertical	\$2,725.74
ISCA-122-D	195	Back to Back Vertical	5,253.68



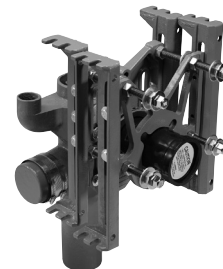
ISCA-122



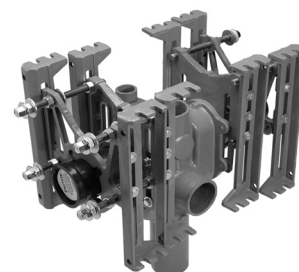
ISCA-122-D

ISCA-132 Vertical 1000 lb. Bariatric Closet Carrier With Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
ISCA-132	121	Single Vertical w/Side Inlet(s)	\$2,986.63
ISCA-132-D	199	Back to Back Vertical w/Side Inlet(s)	5,179.73



ISCA-132



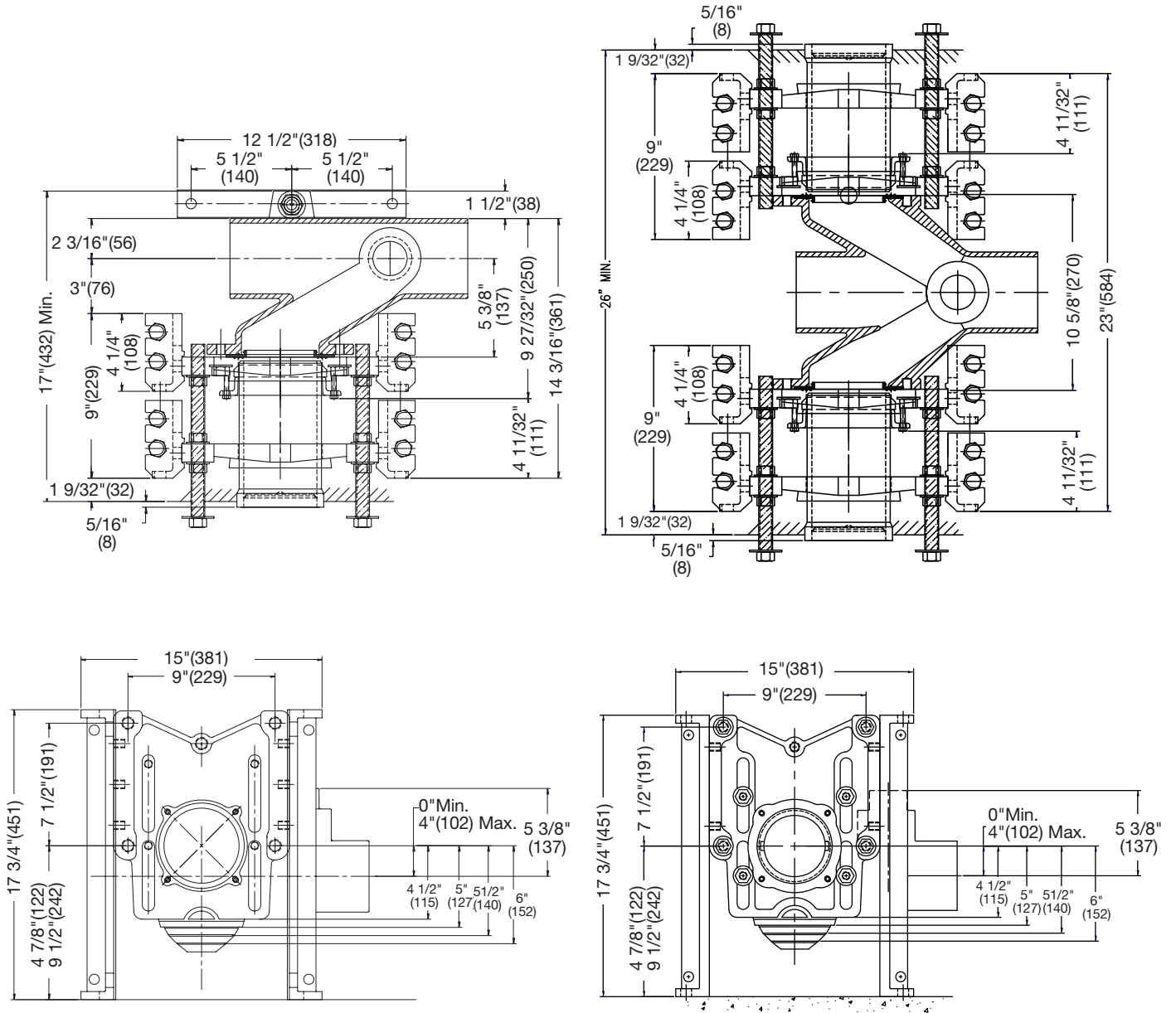
ISCA-132-D

See Pg. 235 for options & parts for all ISCA & QT models.



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

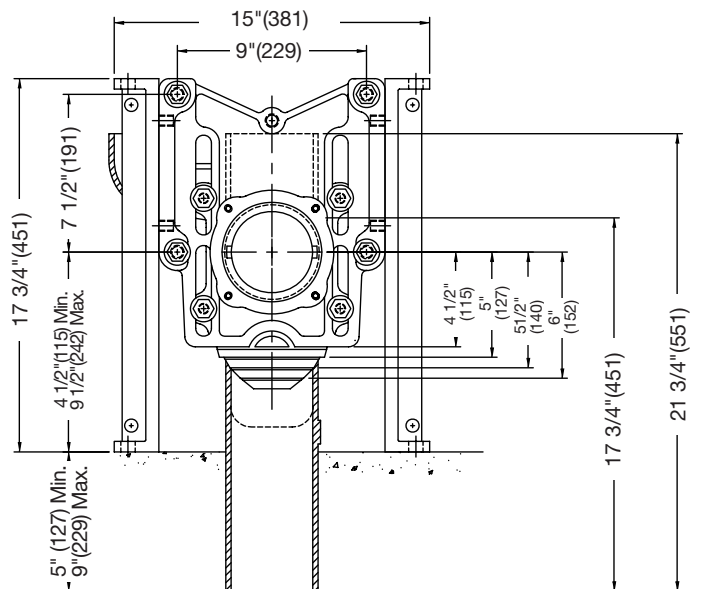
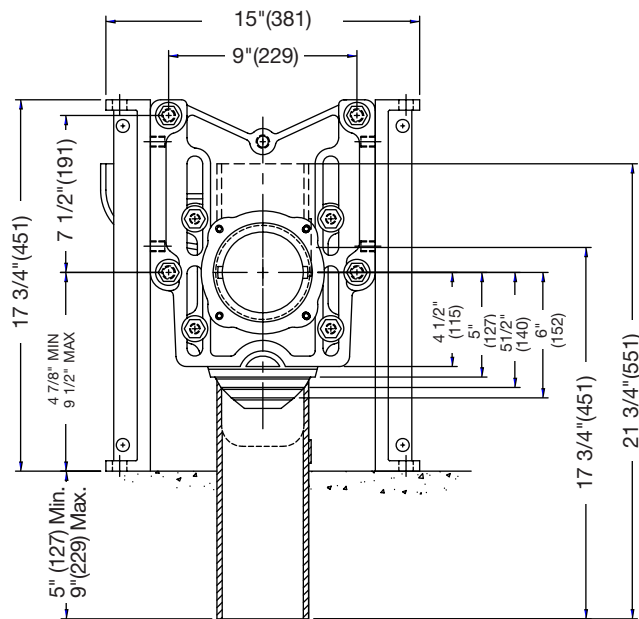
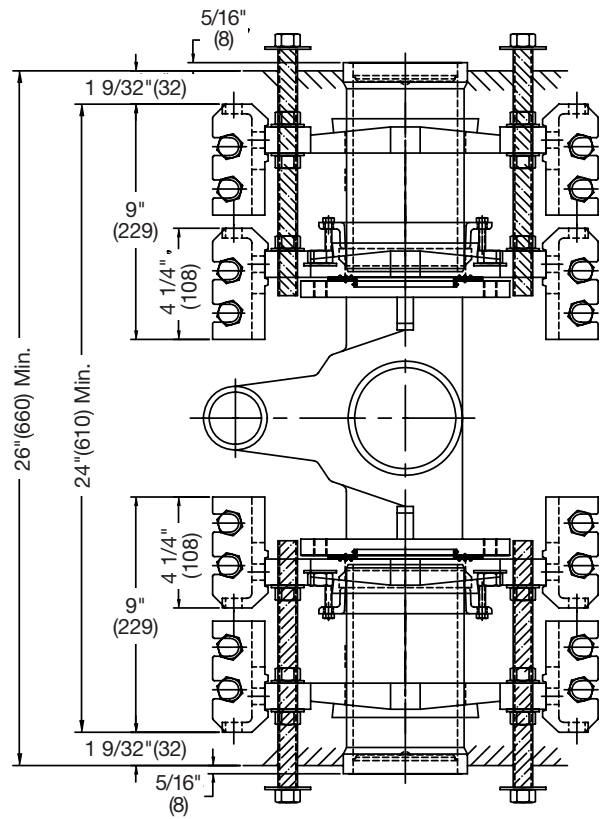
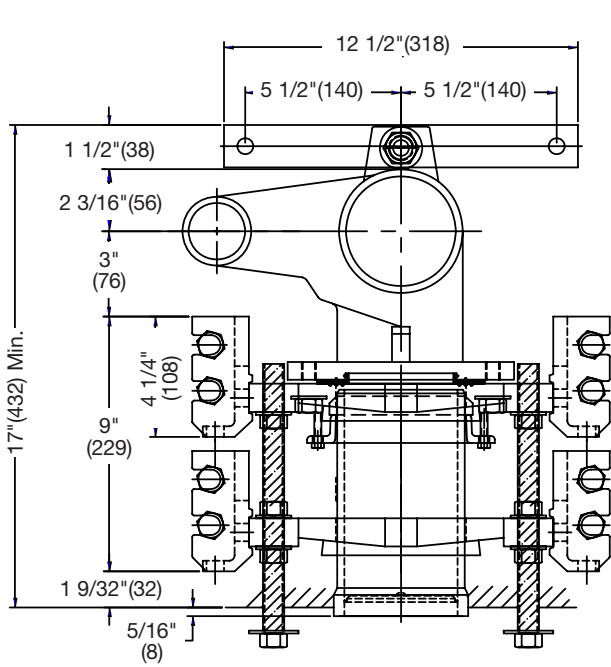
Industry Standard Water Closet Carriers



ISCA-102-L/R

ISCA-102-D

Industry Standard Water Closet Carriers



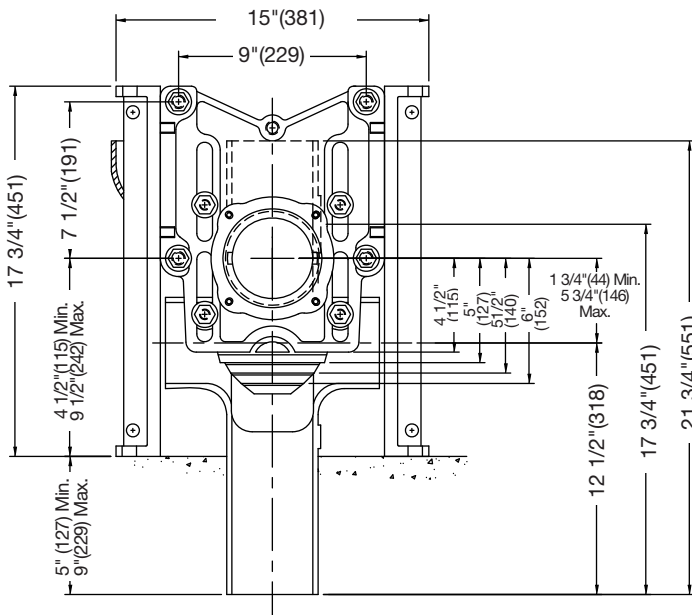
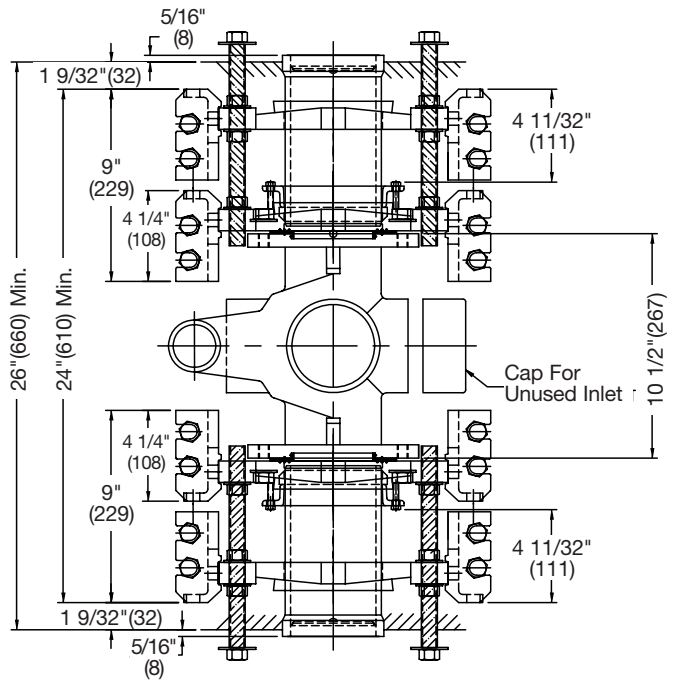
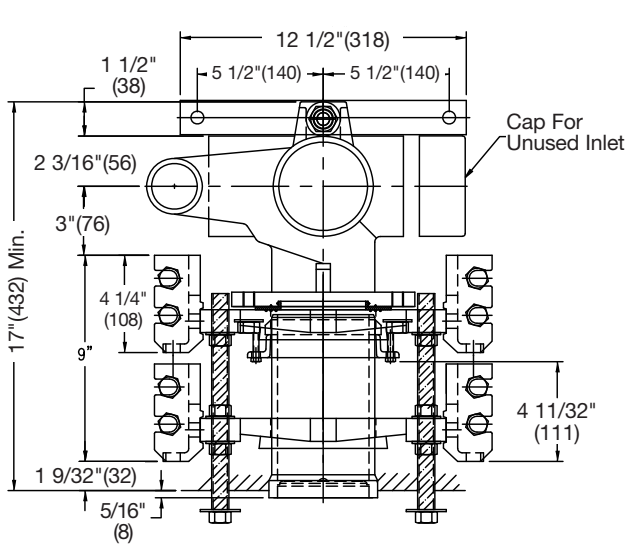
ISCA-122

ISCA-122-D

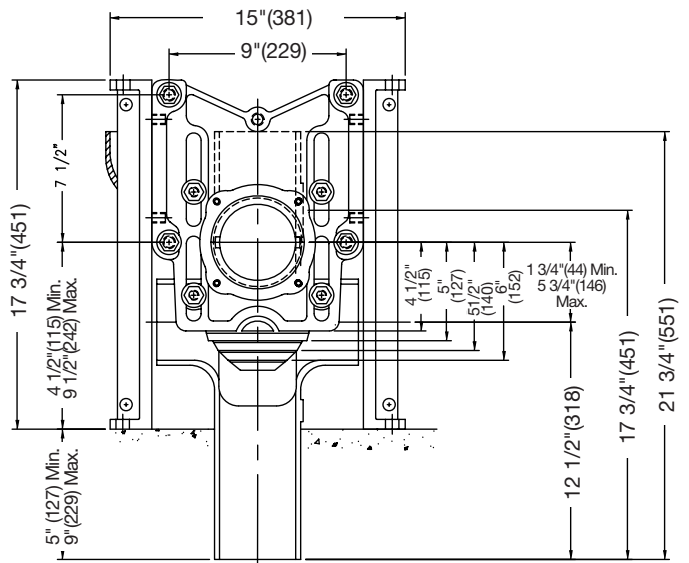


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Industry Standard Water Closet Carriers



ISCA-132



ISCA-132-D

Consult factory for all applications outside of listed parameters.

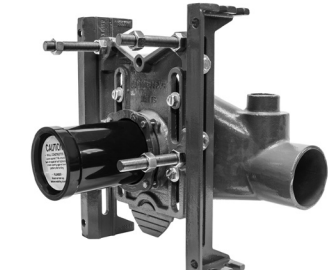
Prices do not include applicable taxes.



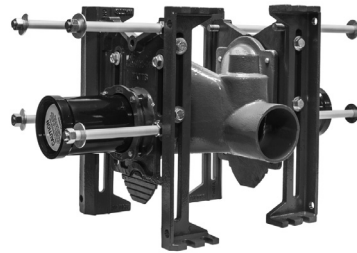
Industry Standard Water Closet Carriers

ISCA-103 Horizontal 750 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-103-L	77	Single Horizontal - Left Hand	\$1,658.87
ISCA-103-R	77	Single Horizontal - Right Hand	1,658.87
ISCA-103-D	135	Back-to-Back Horizontal	3,032.73



ISCA-103-L/R



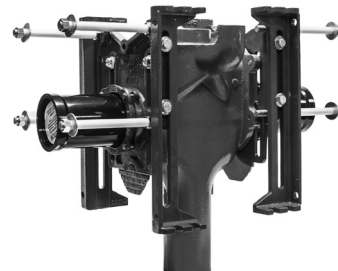
ISCA-103-D

ISCA-123 Vertical 750 lb. Bariatric Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-123	97	Single Vertical	\$1,990.72
ISCA-123-D	160	Back-to-Back Vertical	3,783.64



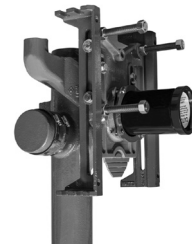
ISCA-123



ISCA-123-D

ISCA-133 Vertical 750 lb. Closet Carrier With Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
ISCA-133	97	Single Vertical w/Side Inlet(s)	\$2,251.61
ISCA-133-D	160	Back-to-Back Vertical w/Side Inlet(s)	3,709.69



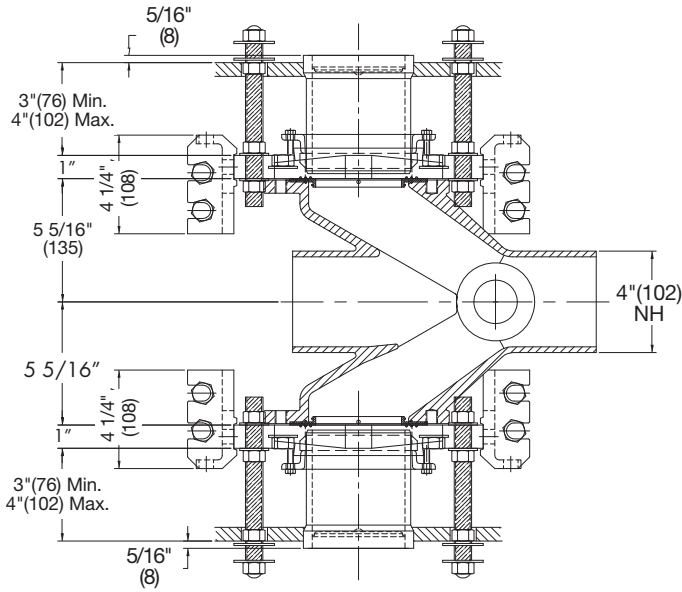
ISCA-133



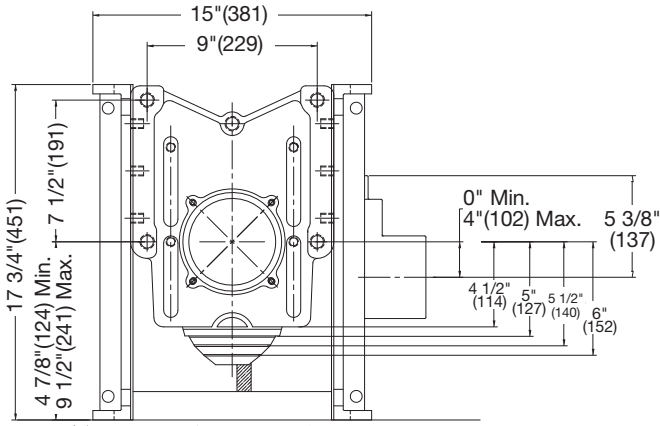
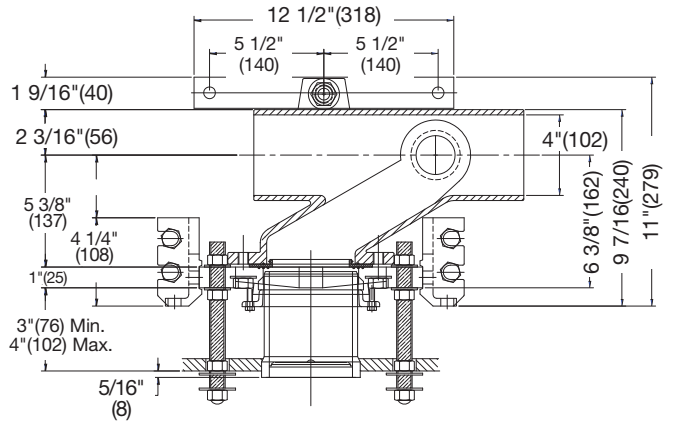
ISCA-133-D

See Pg. 235 for options & parts for all ISCA & QT models.

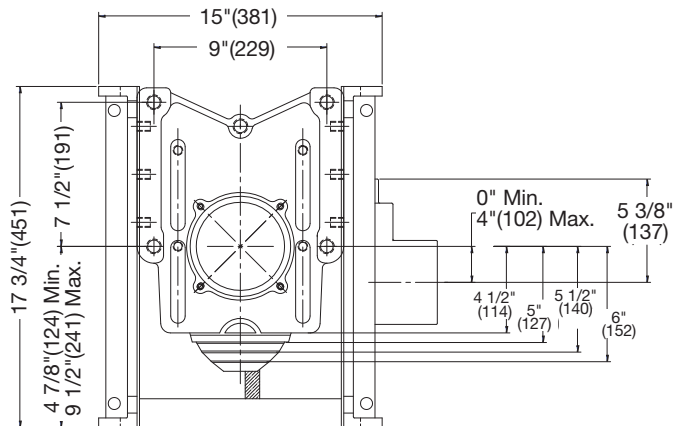
Industry Standard Water Closet Carriers



Top View



Front View



ISCA-103-D

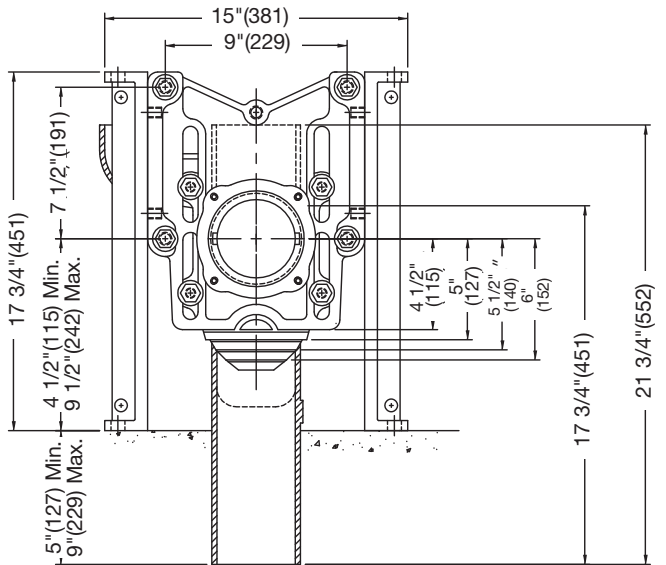
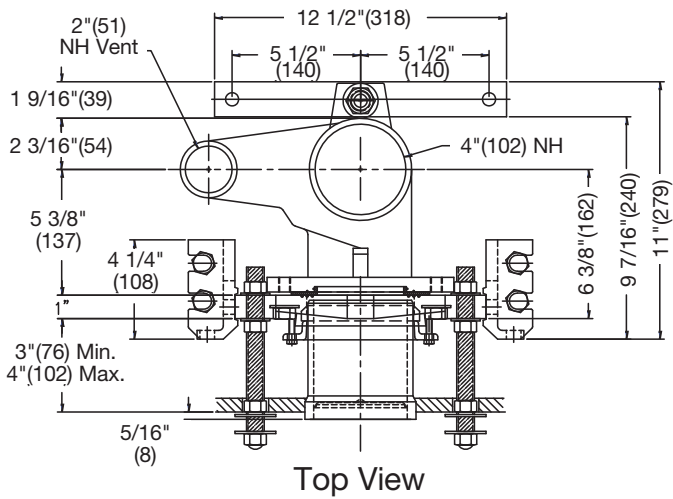
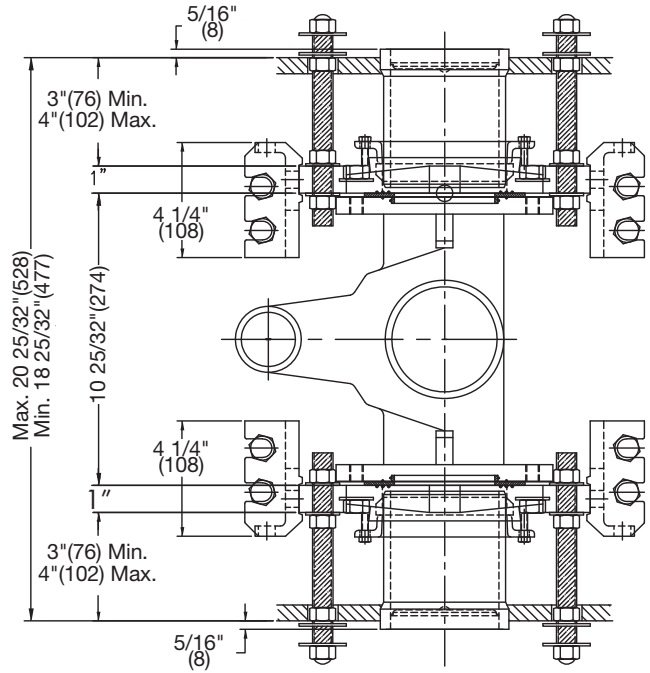
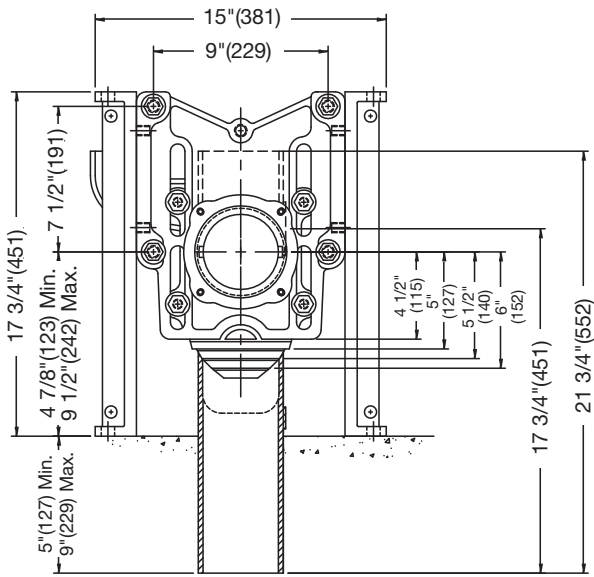
ISCA-103-L/R

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Industry Standard Water Closet Carriers



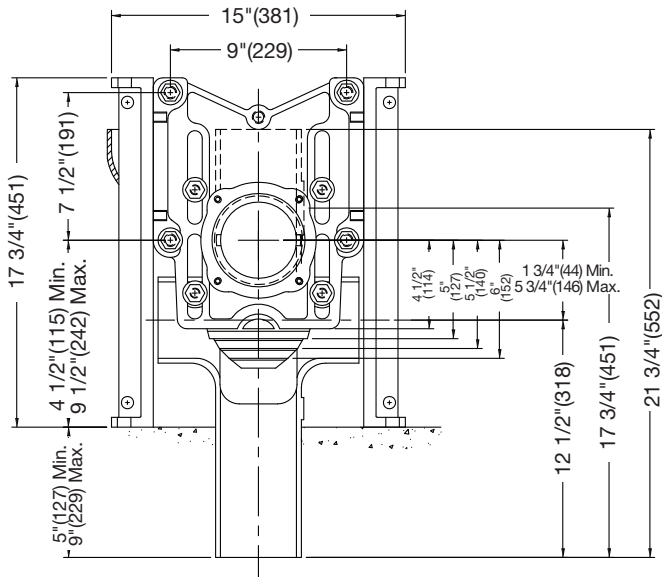
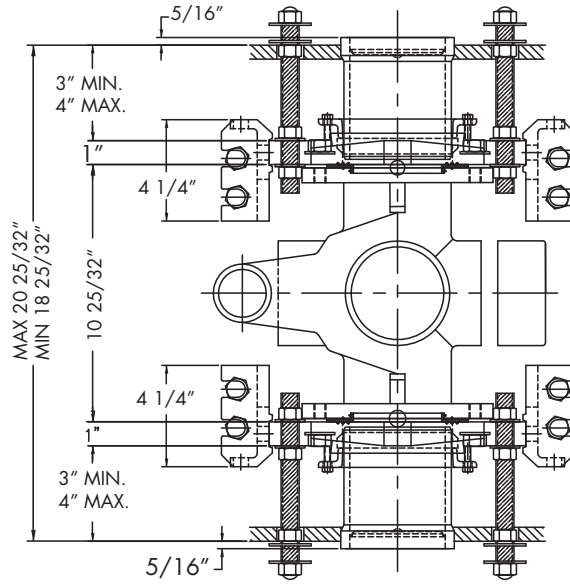
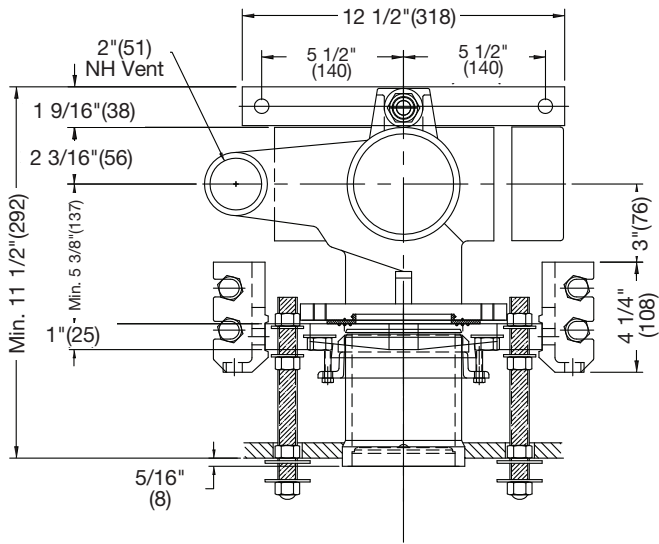
ISCA-123

ISCA-123-D

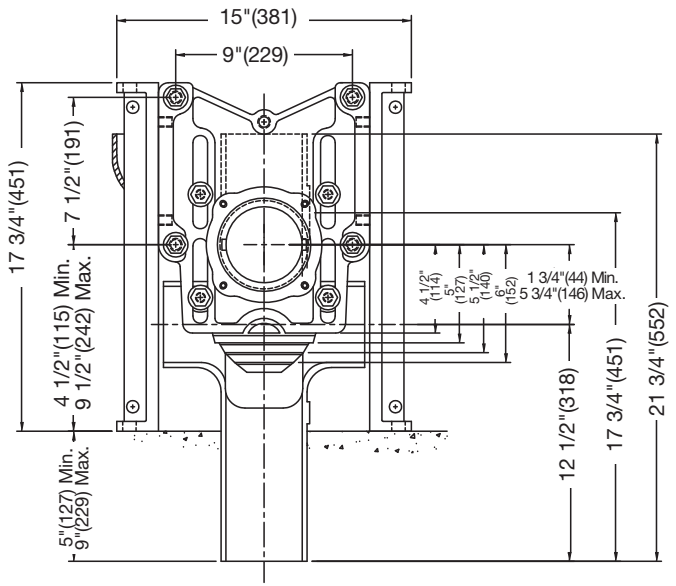


Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Industry Standard Water Closet Carriers



ISCA-133-L/R



ISCA-133-D

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



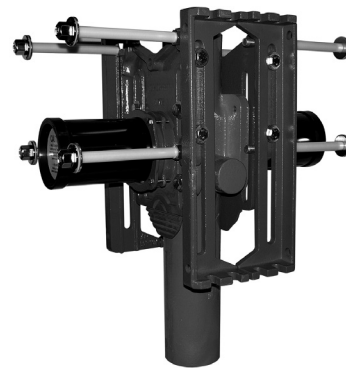
Industry Standard Thin Wall Water Closet Carriers

ISCA-141 Thin Wall 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-141-3	52	3" Waste, 2" Vent	\$1,605.75
ISCA-141-4-V2	62	4" Waste, 2" Vent	1,773.93
ISCA-141-4-V4	62	4" Waste, 4" Vent	2,001.26
ISCA-141-4-D-V2	94	Back-to-Back, 4" Waste, 2" Vent	3,228.56
ISCA-141-4-D-V4	94	Back-to-Back, 4" Waste, 4" Vent	3,458.16



ISCA-141



ISCA-141-D

ISCA-151 Thin Wall 500 lb. Offset Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
ISCA-151-L	72	Single - Left Hand	\$2,335.89
ISCA-151-R	72	Single - Right Hand	2,335.89
ISCA-151-D	107	Back-to-Back	3,523.76



ISCA-151



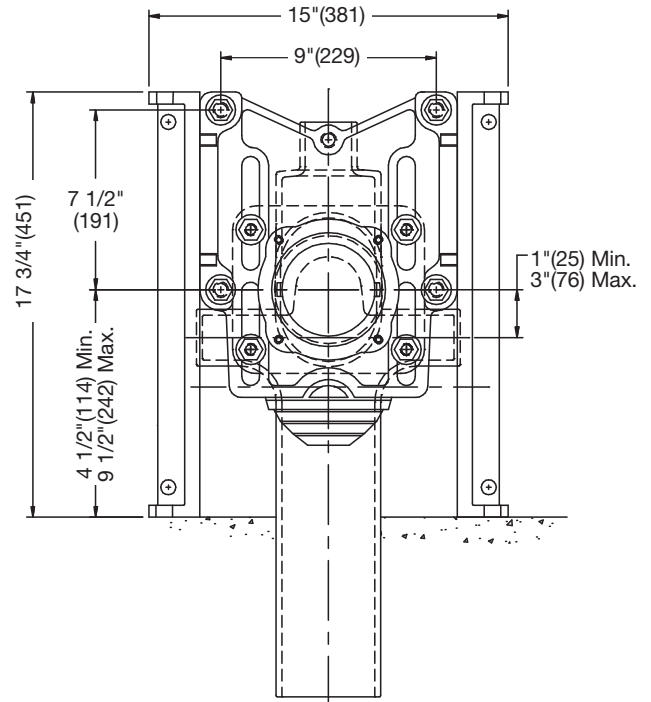
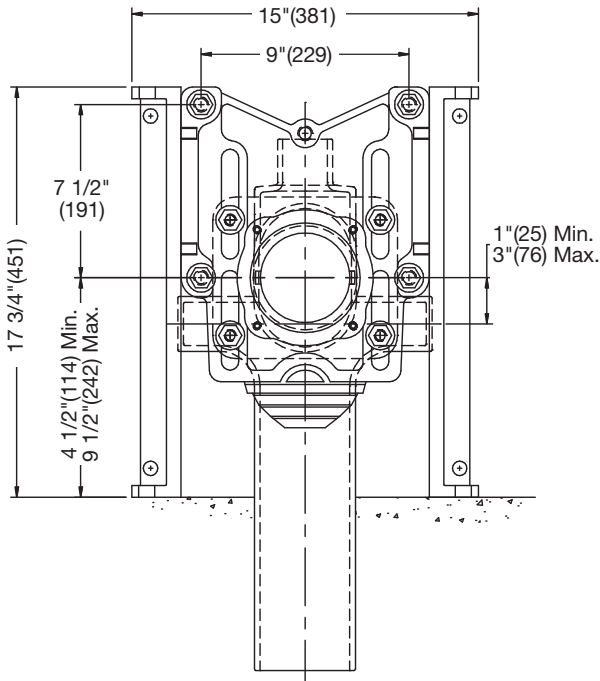
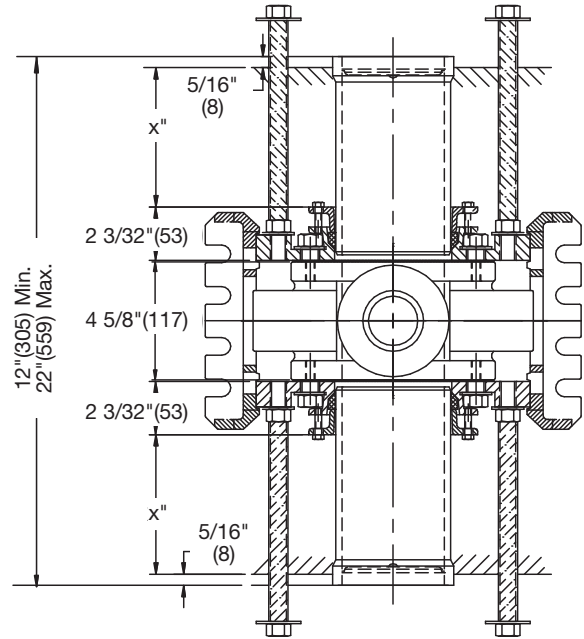
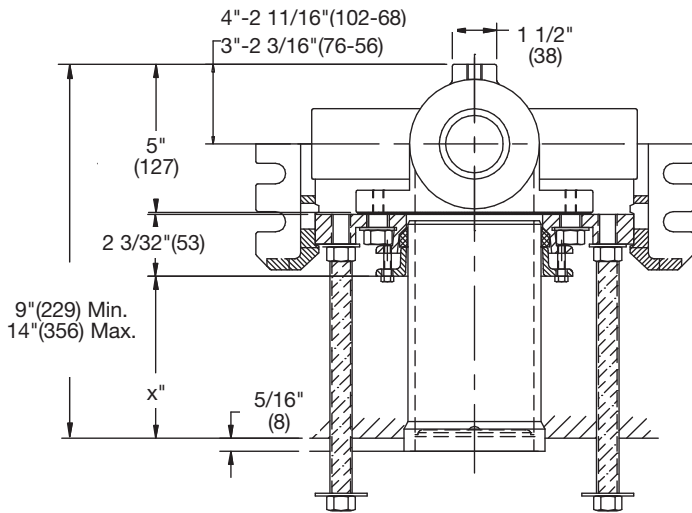
ISCA-151-D

See Pg. 235 for options & parts for all ISCA & QT models.



Consult factory for all applications outside of listed parameters. Prices do not include applicable taxes.

Industry Standard Thin Wall Water Closet Carriers



ISCA-141

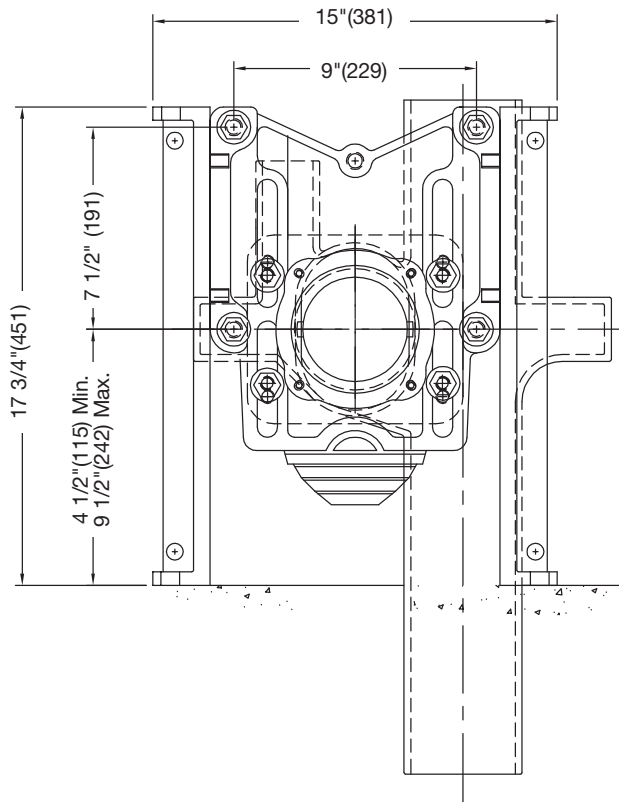
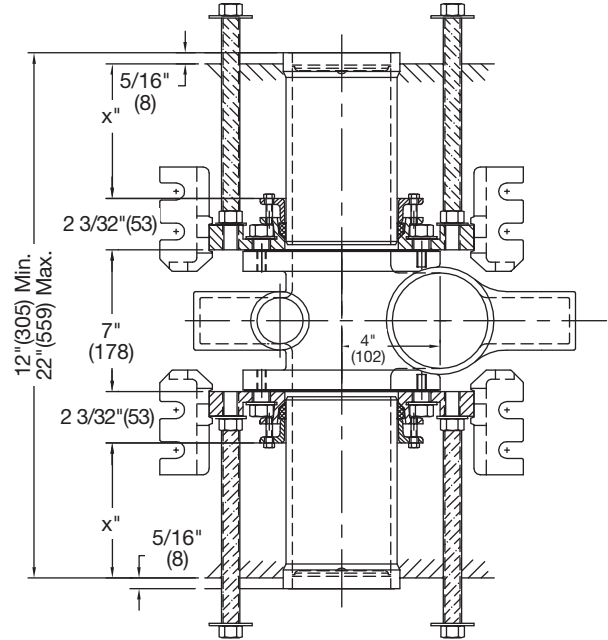
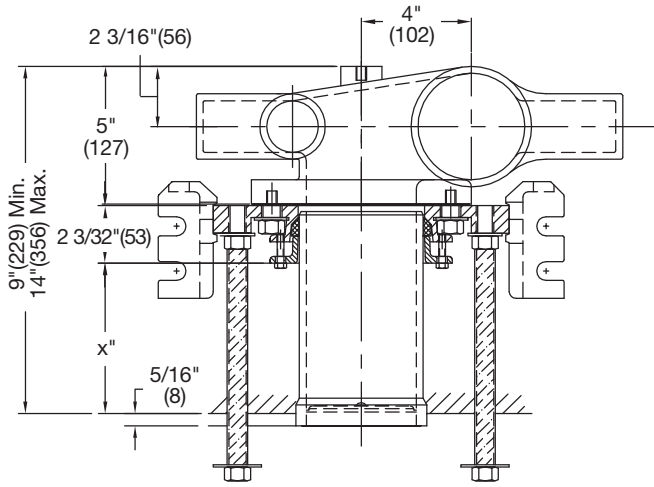
ISCA-141-D

Consult factory for all applications outside of listed parameters.

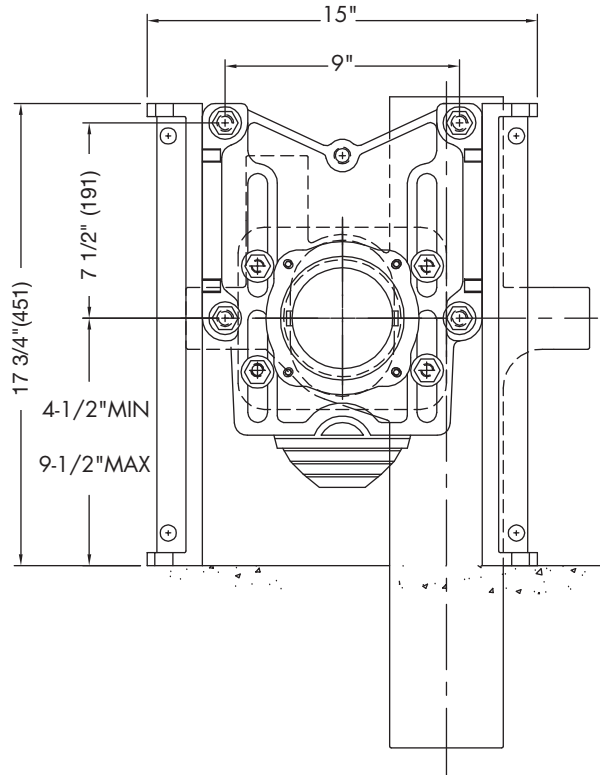
Prices do not include applicable taxes.



Industry Standard Thin Wall Water Closet Carriers



ISCA-151



ISCA-151-D



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Water Closet Carriers

QT-101

Horizontal Adjustable 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-101-L	66	Single Horizontal - Left Hand	\$1,799.32
QT-101-R	66	Single Horizontal - Right Hand	1,799.32
QT-101-L-AUX	67	Single Horizontal - LH - 2" Aux Conn.	1,926.21
QT-101-R-AUX	67	Single Horizontal - RH - 2" Aux Conn.	1,901.43
QT-101-D	122	Back-to-Back Horizontal	3,313.60



QT-101-L



QT-101-D

QT-121

Vertical Adjustable 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-121	81	Single Vertical	\$2,131.17
QT-121-D	132	Back-to-Back Vertical	3,469.41



QT-121



QT-121-D

QT-131

Vertical Adjustable 500 lb. Closet Carrier with Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
QT-131	82	Single Vertical - w/Side Inlet(s)	\$2,392.06
QT-131-D	138	Back to Back Vertical - w/Side Inlet(s)	3,990.59



QT-131



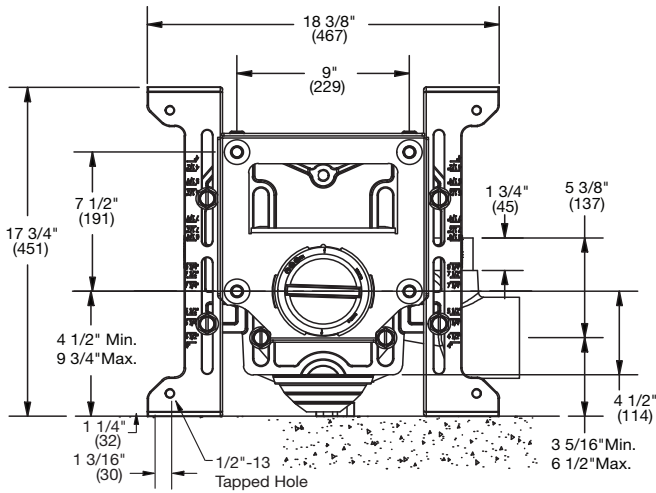
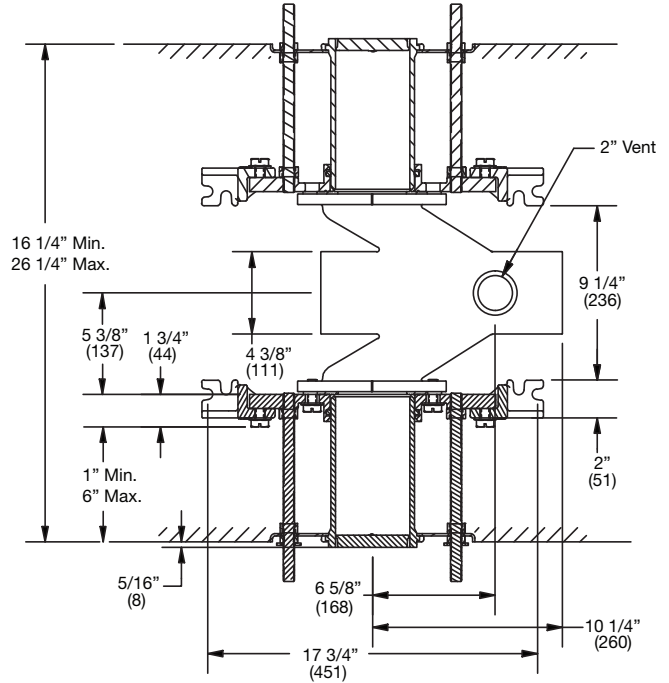
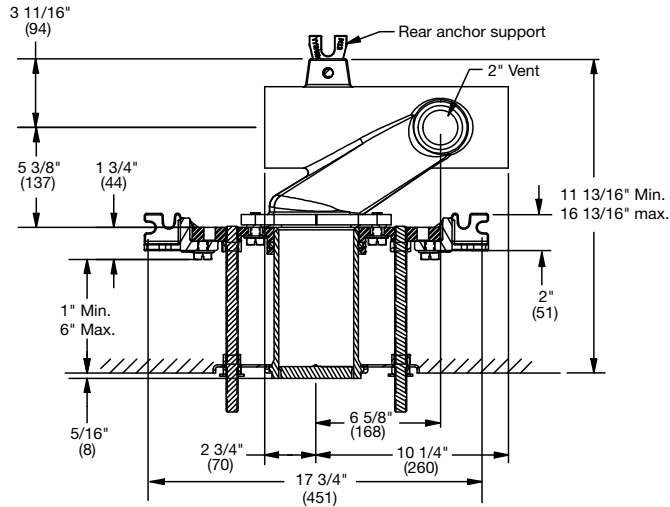
QT-131-D

See Pg. 235 for options & parts for all ISCA & QT models.

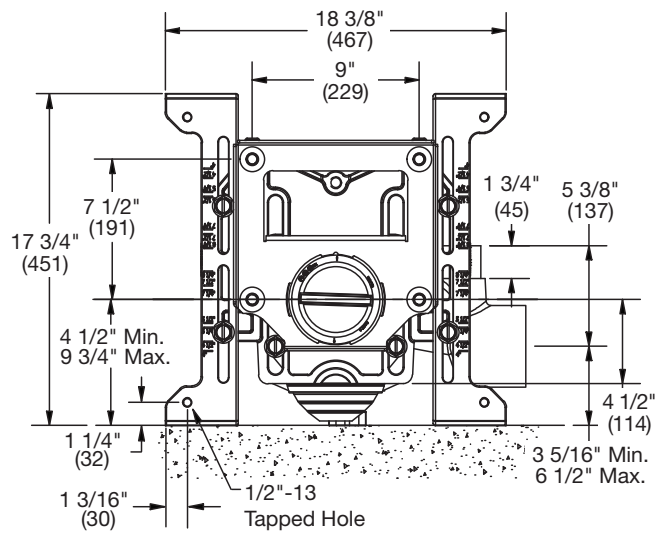
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers

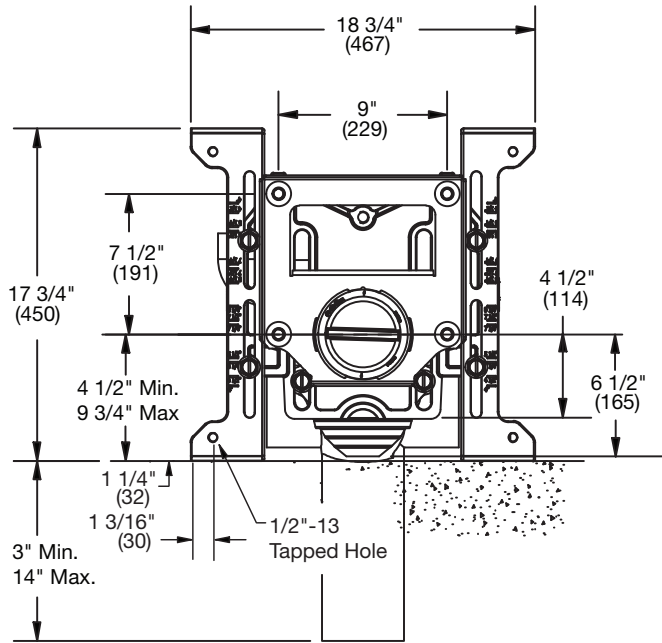
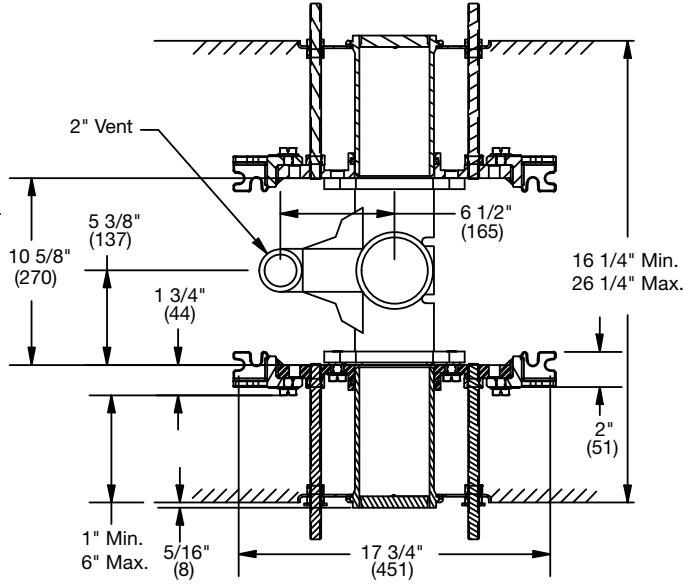
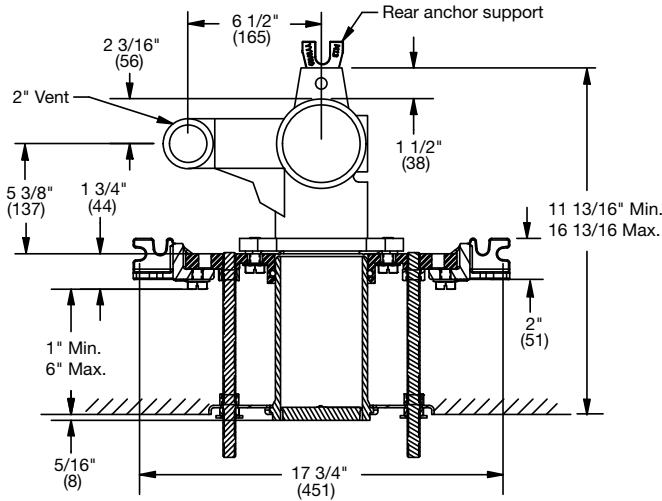


QT-101-L/R

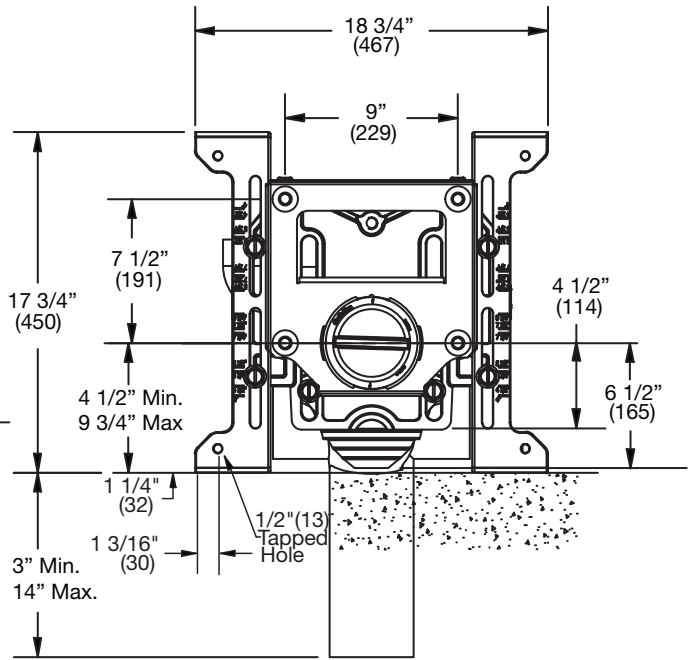


QT-101-D

QT QuickTurn™ Water Closet Carriers



QT-121



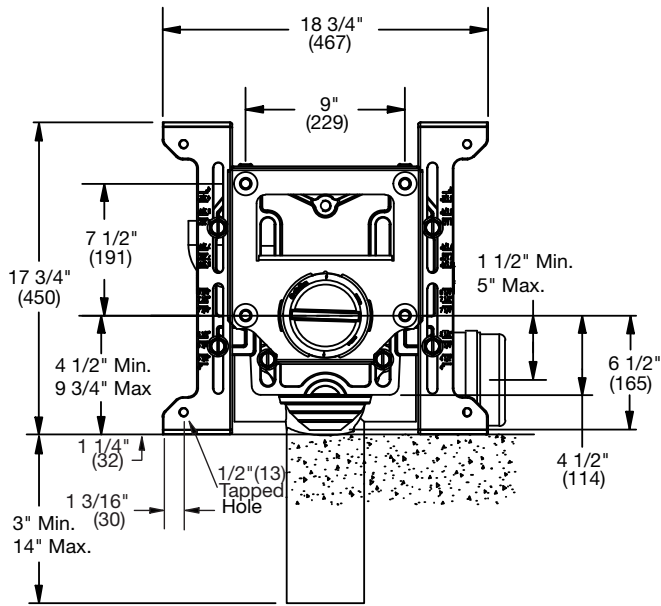
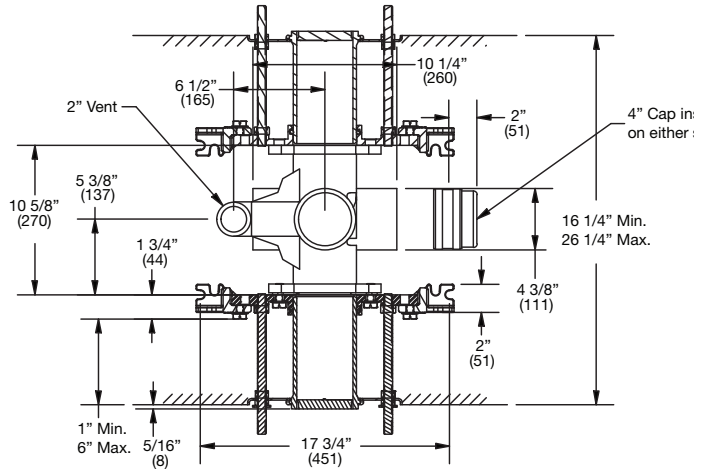
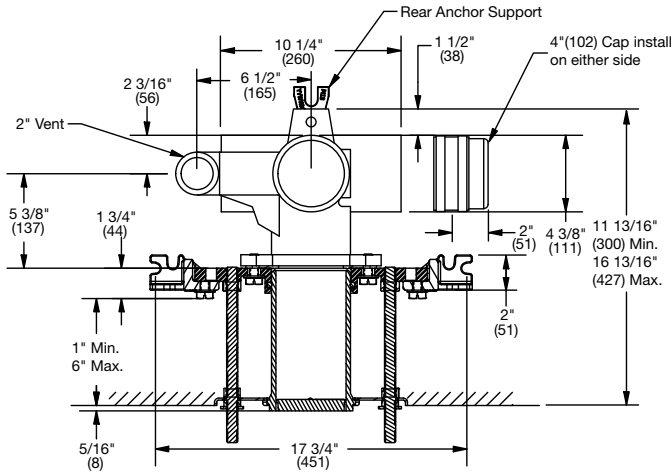
QT-121-D

Consult factory for all applications outside of listed parameters.

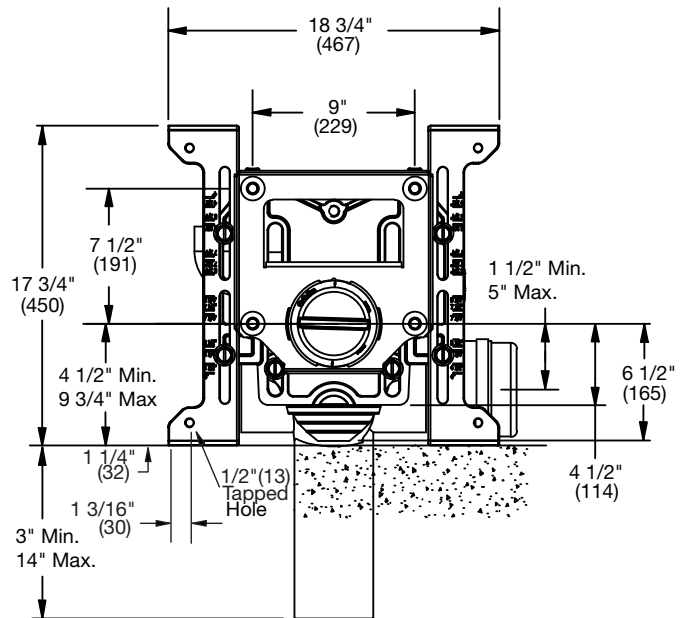
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-131



QT-131-D



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Water Closet Carriers

QT-102

Horizontal Adjustable 1000 lb. Bariatric Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-102-L	104	Single Horizontal - Left Hand	\$4,505.08
QT-102-R	104	Single Horizontal - Right Hand	4,505.08
QT-102-D	198	Back-to-Back Horizontal	8,725.15



QT-102-L



QT-102-D

QT-122

Vertical Adjustable 1000 lb. Bariatric Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-122	119	Single Vertical	\$4,836.93
QT-122-D	208	Back-to-Back Vertical	9,479.06



QT-122



QT-122-D

QT-132

Vertical Adjustable 1000 lb. Bariatric Closet Carrier with Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
QT-132	120	Single Vertical w/Side Inlet(s)	\$5,097.82
QT-132-D	214	Back-to-Back Vertical w/Side Inlet(s)	9,402.11



QT-132



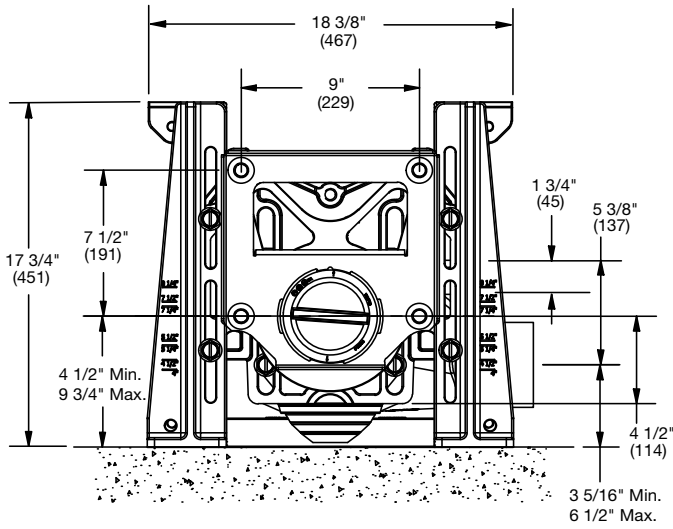
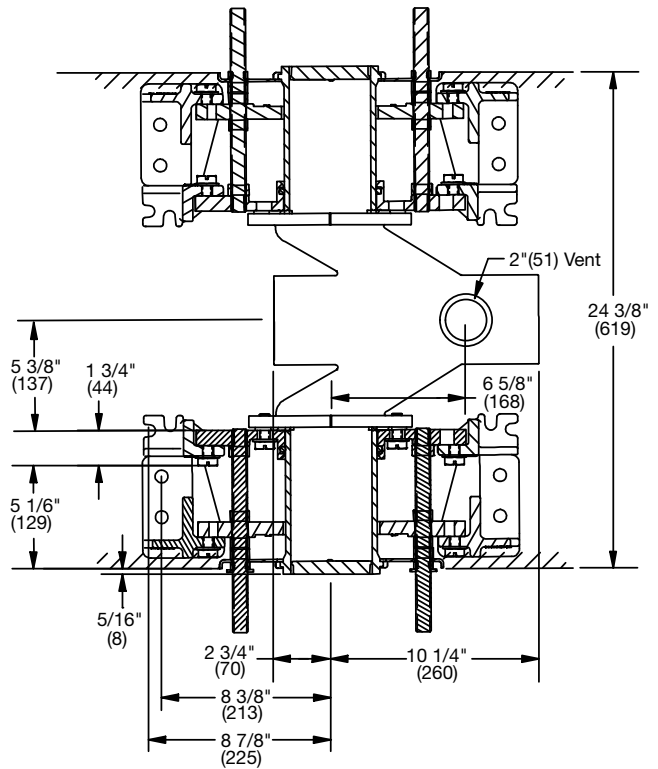
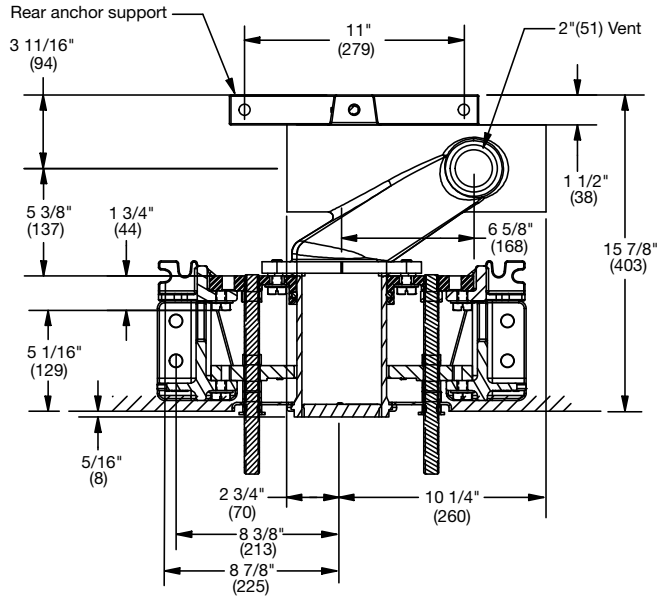
QT-132-D

See Pg. 235 for options & parts for all ISCA & QT models.

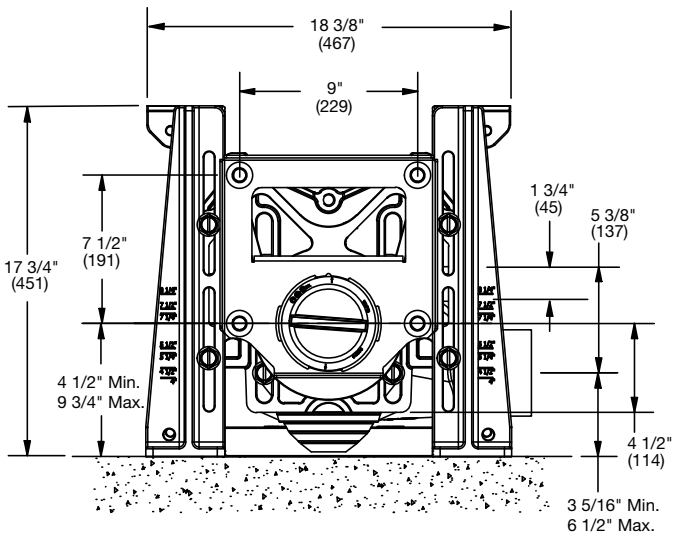
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-102-LR

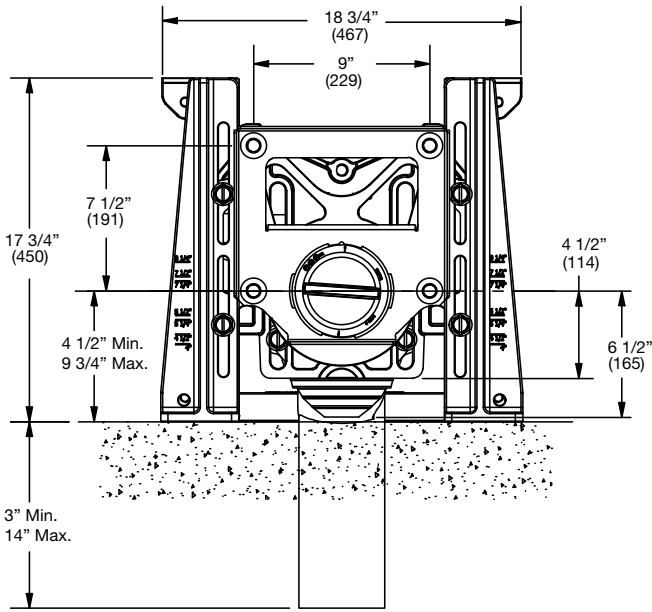
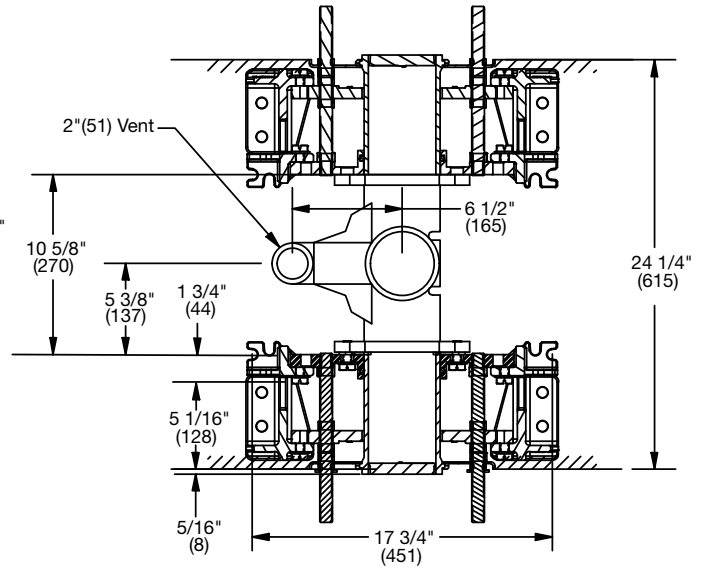
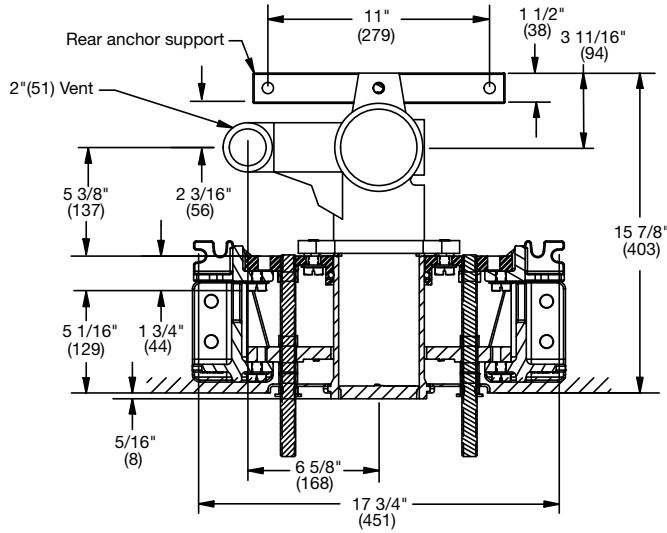


QT-102-D

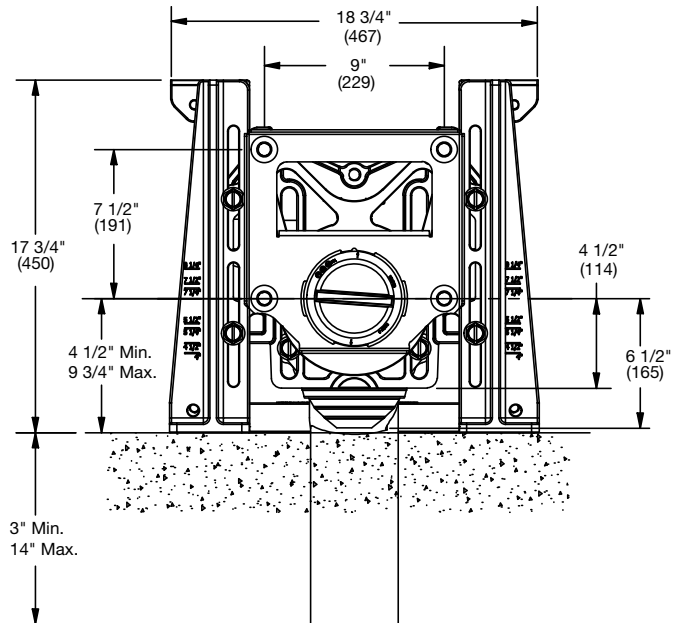


Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Water Closet Carriers



QT-122



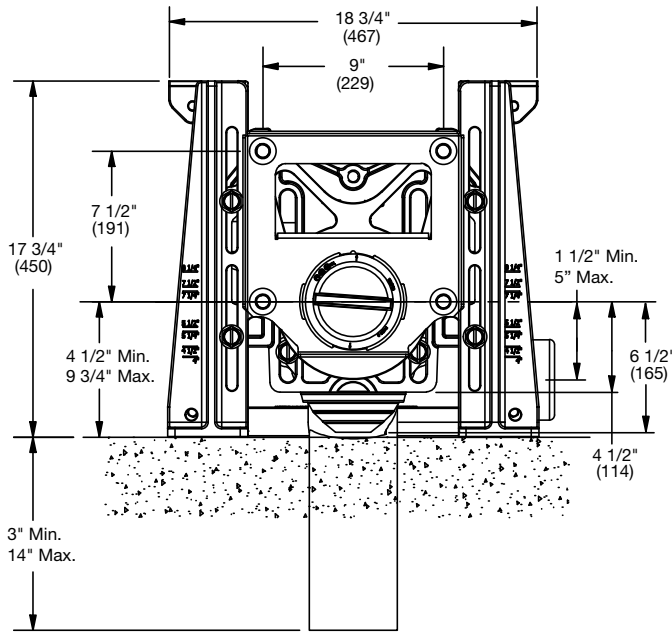
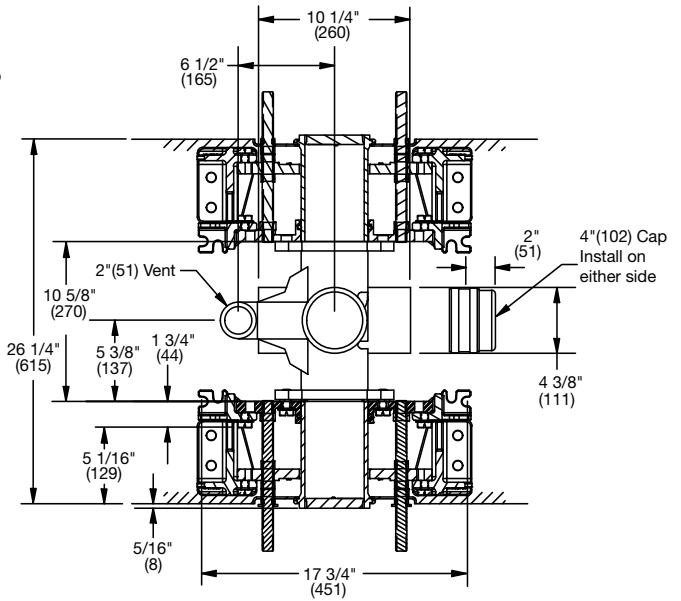
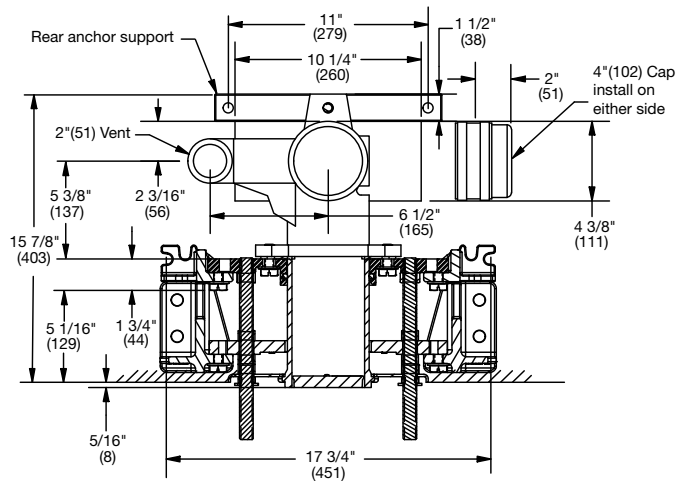
QT-122-D

Consult factory for all applications outside of listed parameters.

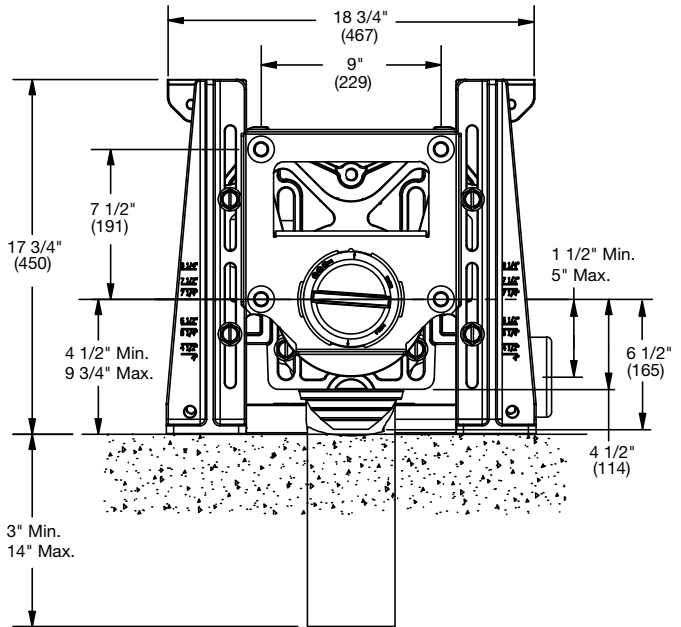
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-132



QT-132-D

QT QuickTurn™ Water Closet Carriers

QT-103 Horizontal Adjustable 750 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-103-L	81	Single Horizontal - Right Hand	\$1,968.47
QT-103-R	81	Single Horizontal - Left Hand	1,968.47
QT-103-D	152	Back-to-Back Horizontal.	3,651.93



QT-103-L



QT-103-D

QT-123 Vertical Adjustable 750 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-123	96	Single Vertical	\$2,300.32
QT-123-D	162	Back-to-Back Vertical	4,402.84



QT-123



QT-123-D

QT-133 Vertical Adjustable 750 lb. Closet Carrier with Side Inlet(s)

Model Number	Wt. Lbs.	Description	List Price
QT-133	97	Single Vertical - w/Side Inlet(s)	\$2,561.21
QT-133-D	168	Back to Back Vertical - w/Side Inlet(s)	4,328.89



QT-133



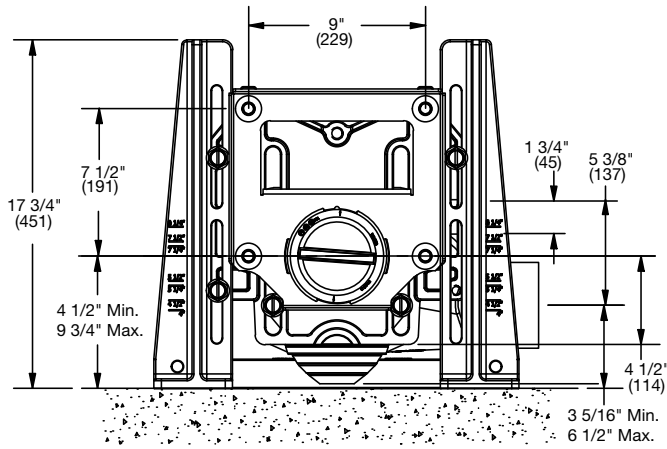
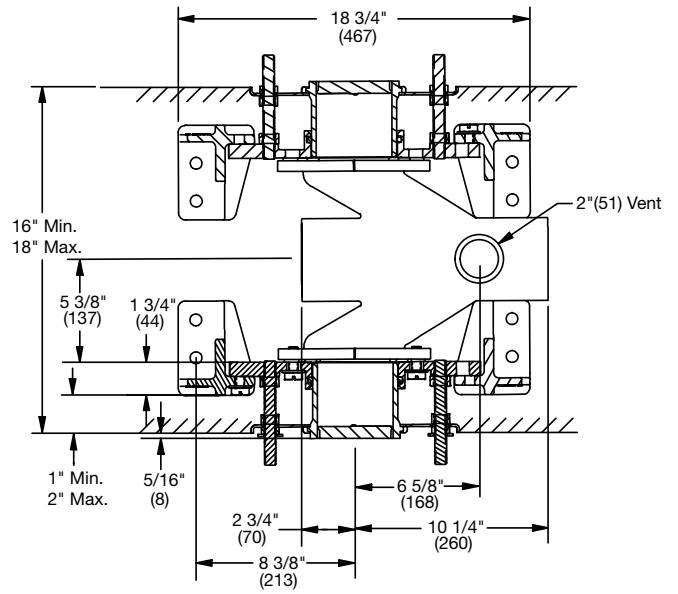
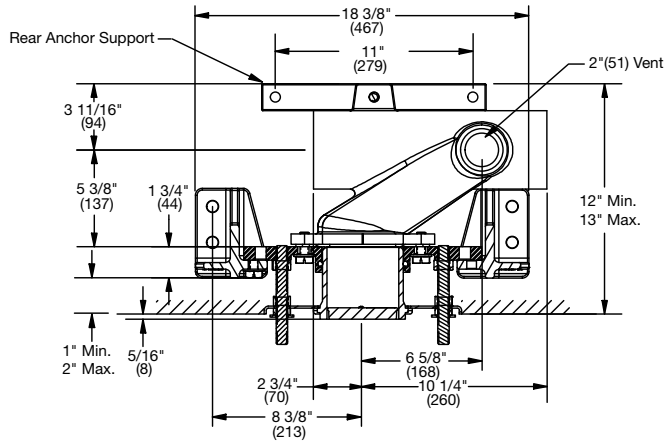
QT-133-D

See Pg. 235 for options & parts for all ISCA & QT models.

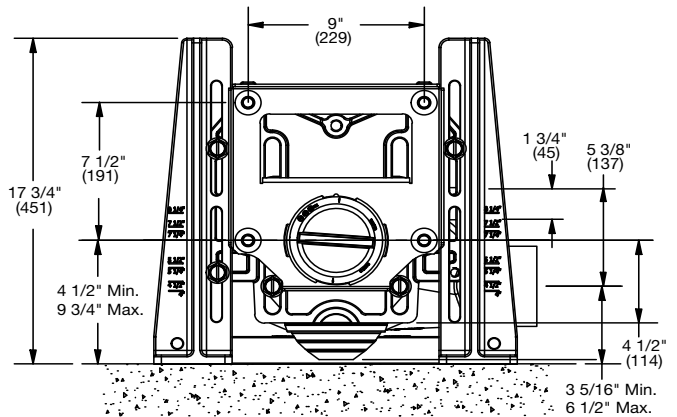
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-103-L/R

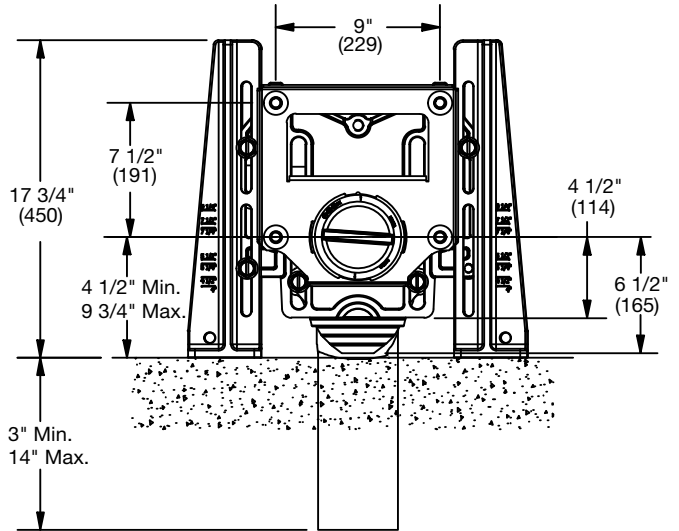
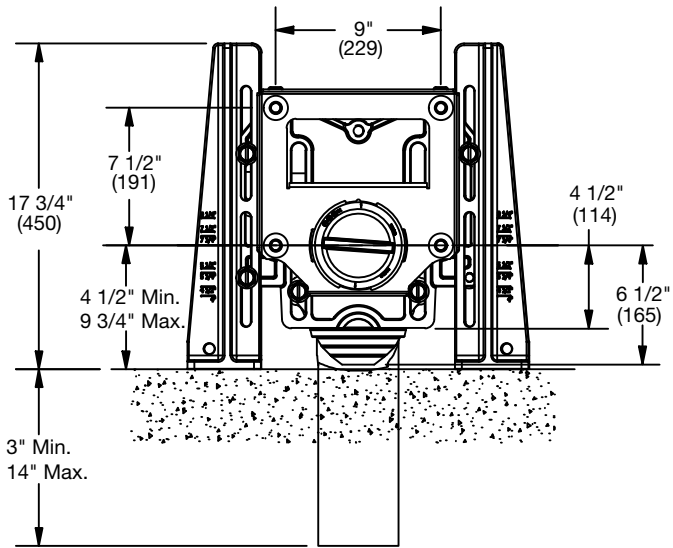
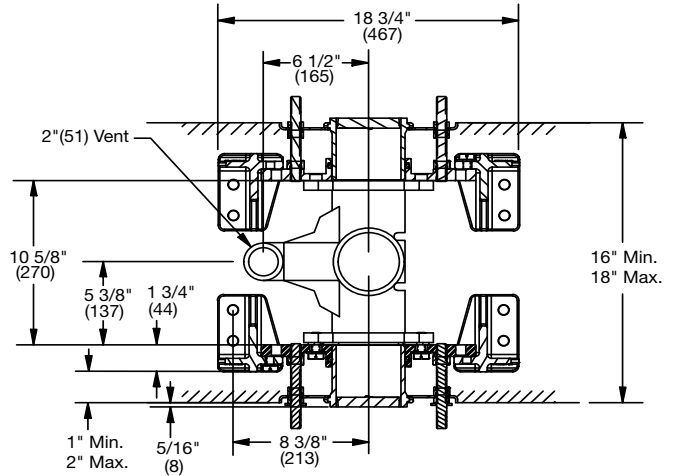
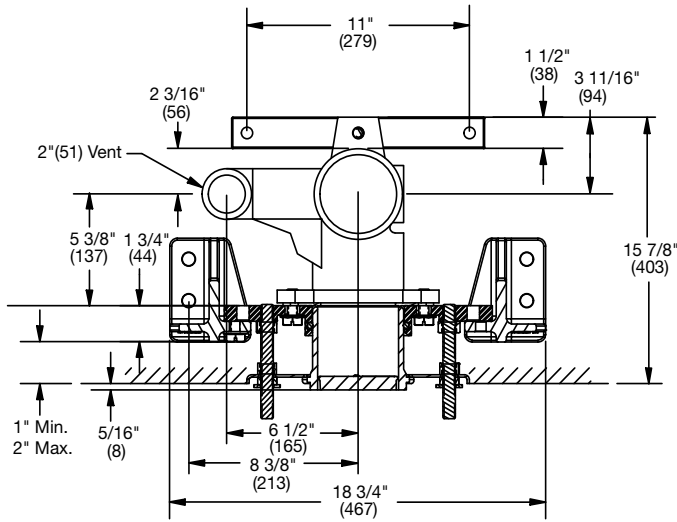


QT-103-D



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Water Closet Carriers



QT-123

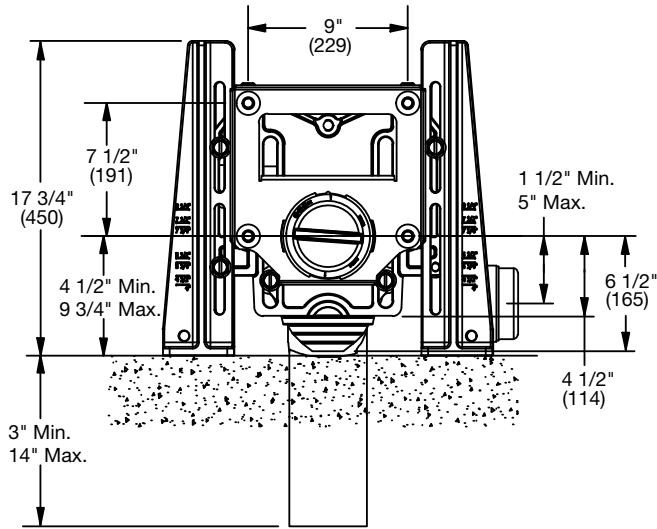
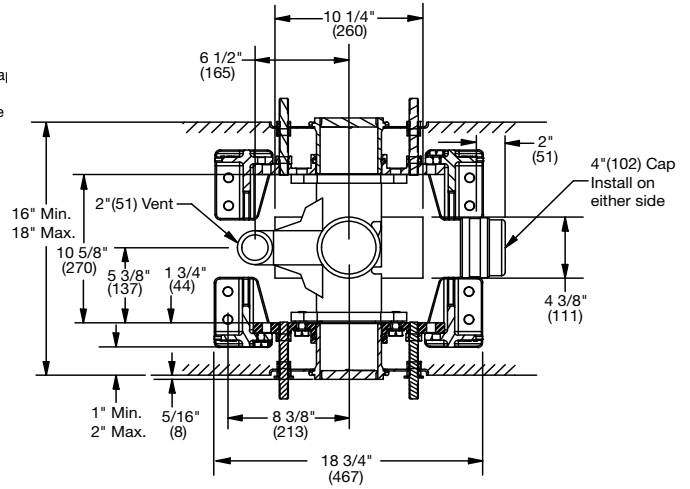
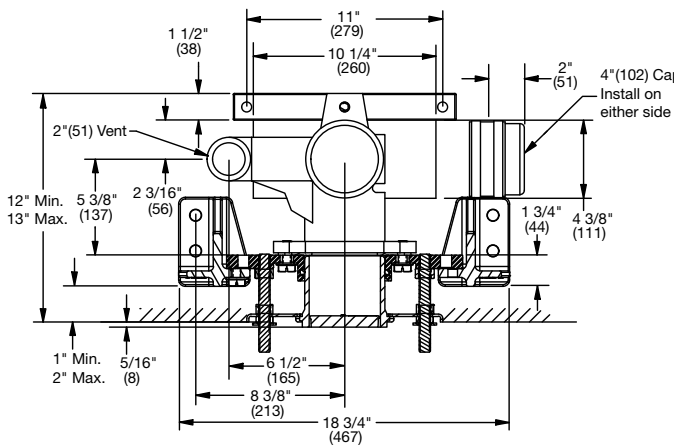
QT-123-D

Consult factory for all applications outside of listed parameters.

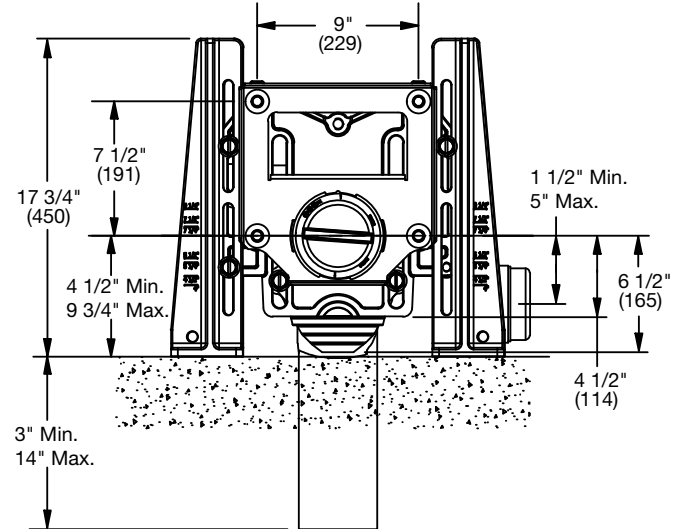
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-133



QT-133-D

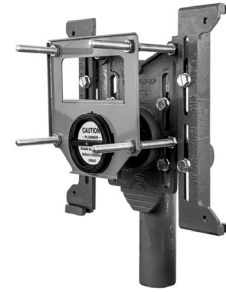


Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Thin Wall Water Closet Carriers

QT-141 Thin Wall 500 lb. Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-141-3	76	3" Waste, 2" Vent	\$1,882.77
QT-141-4-V2	76	4" Waste, 2" Vent	2,050.95
QT-141-4-V4	76	4" Waste, 4" Vent	2,278.28
QT-141-4-D-V2	120	Back-to-Back, 4" Waste, 2" Vent	3,782.60
QT-141-4-D-V4	127	Back-to-Back, 4" Waste, 4" Vent	4,012.20



QT-141-3



QT-141-4-D-V2

QT-151 Thin Wall 500 lb. Offset Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-151-L	77	Single - Left Hand	\$2,612.91
QT-151-R	77	Single - Right Hand	2,612.91
QT-151-D	128	Back to Back	4,077.80



QT-151-L



QT-151-D

QT-161-L/R Thin Wall 500 lb. Horizontal Closet Carrier

Model Number	Wt. Lbs.	Description	List Price
QT-161-L	78	Single - Left Hand	\$2,261.46
QT-161-R	78	Single - Right Hand	2,261.46

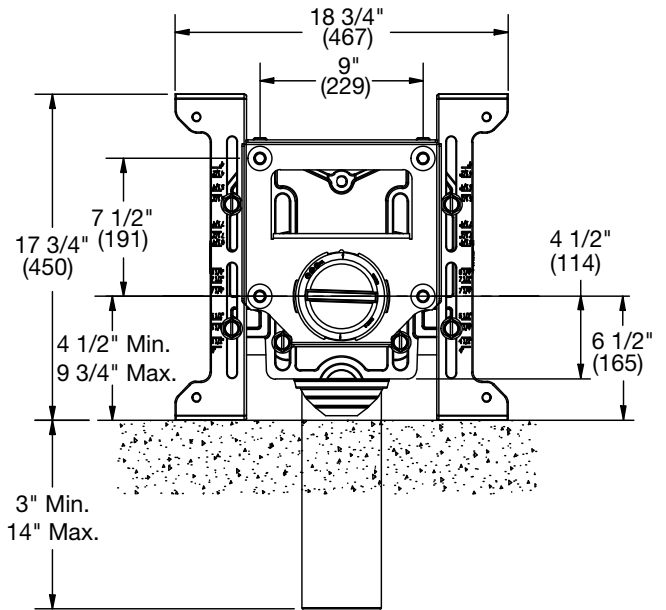
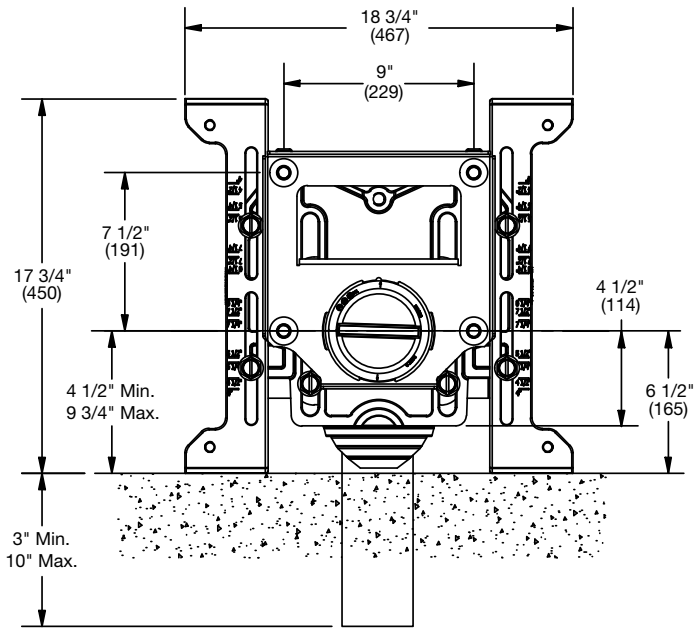
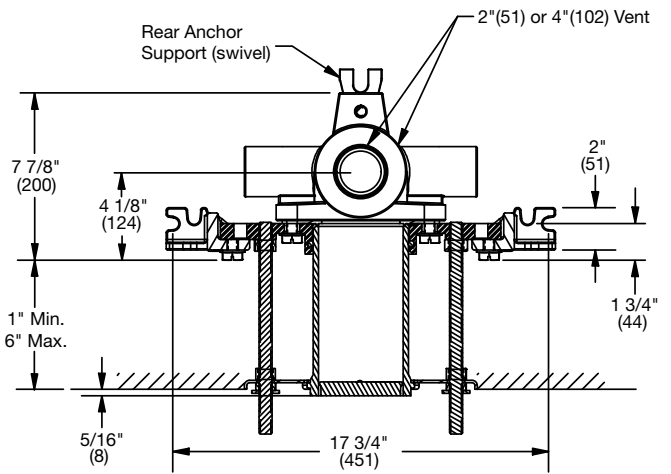
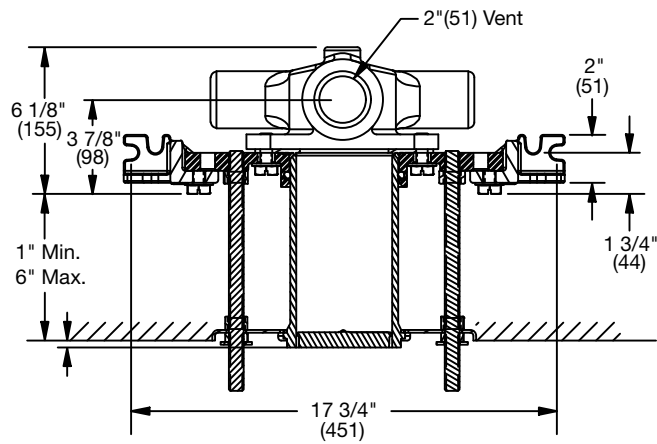


QT-161-L

Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



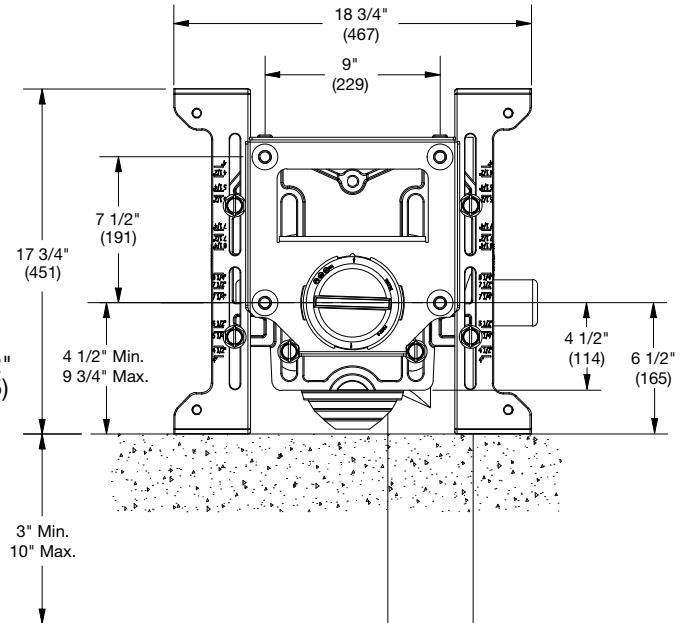
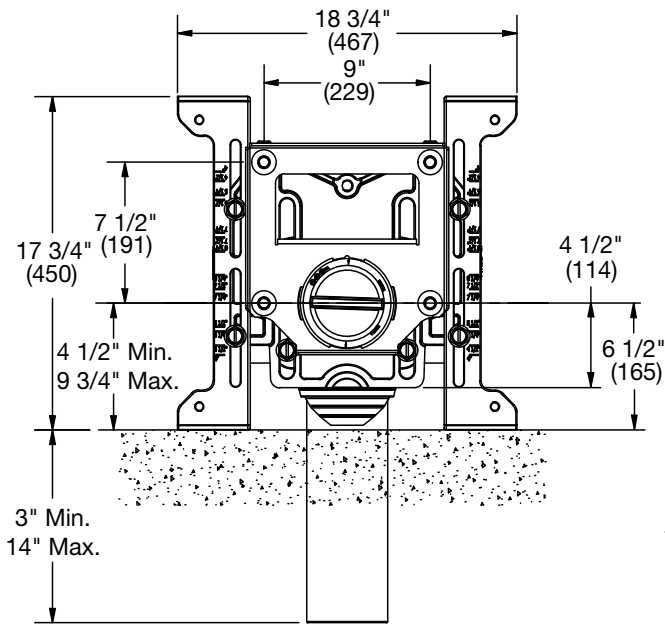
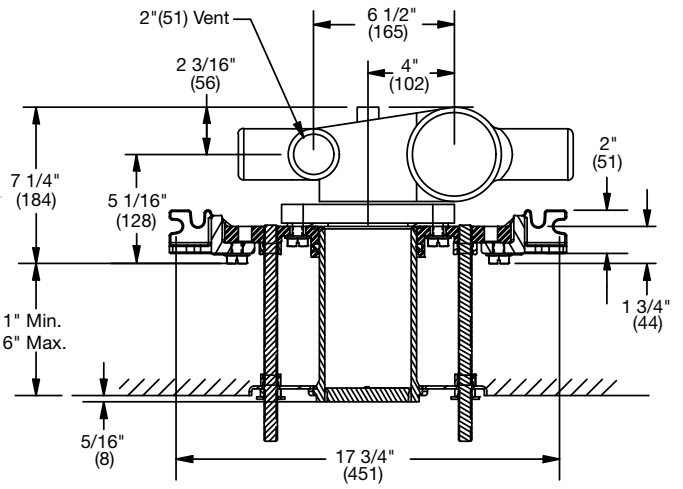
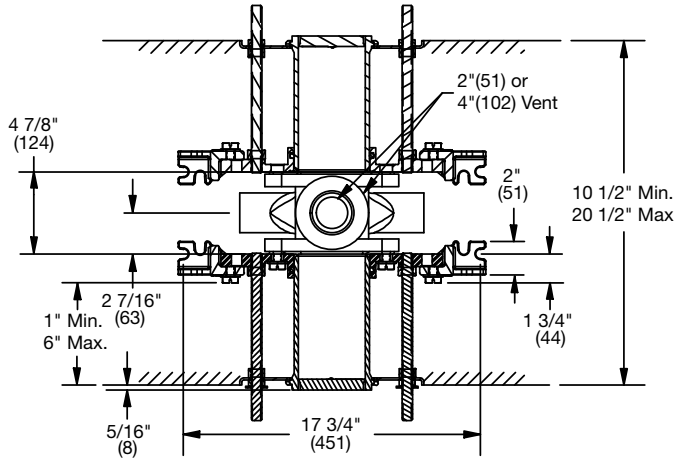
QT-141-3

QT-141-4



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

QT QuickTurn™ Water Closet Carriers



QT-141-4-D

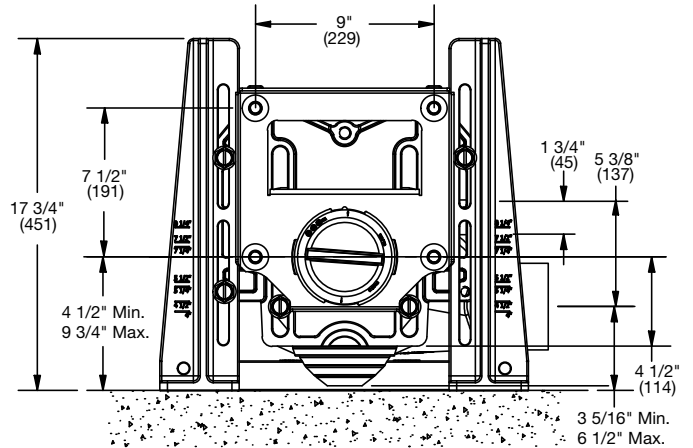
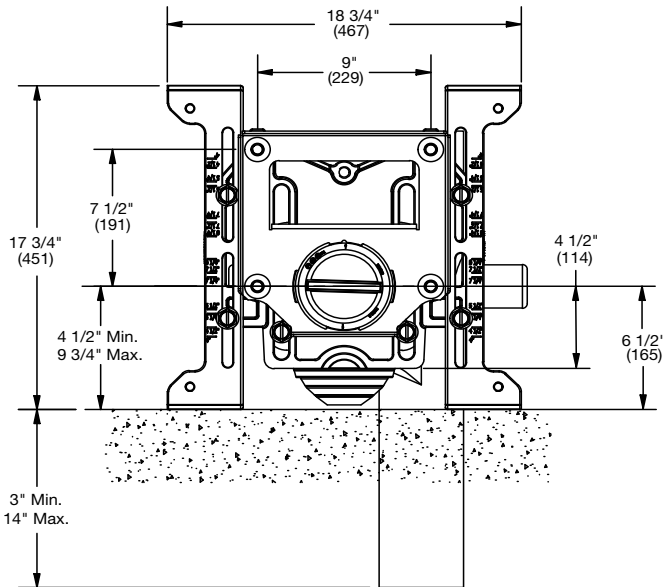
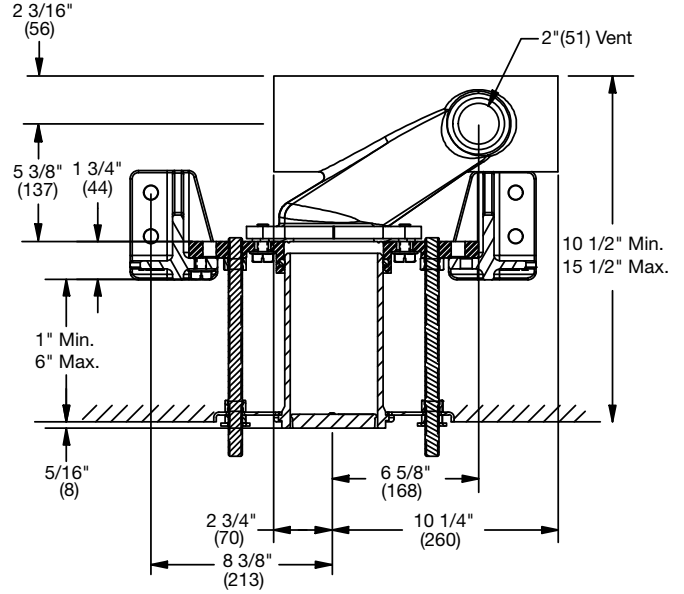
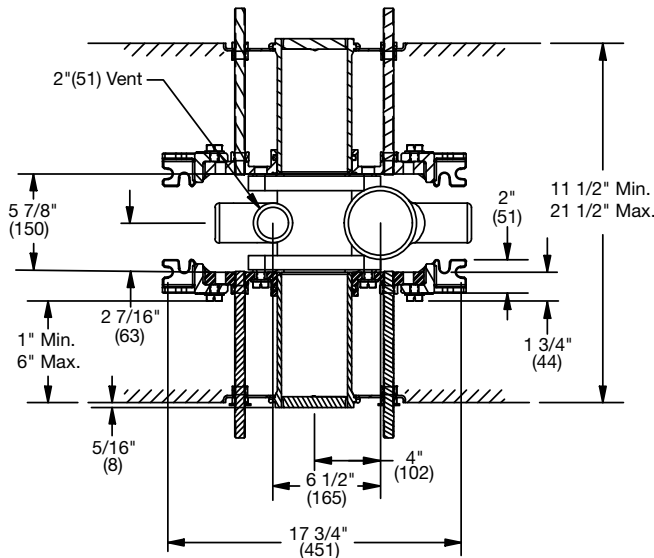
QT-151-L/R

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



QT QuickTurn™ Water Closet Carriers



QT-151-D

QT-161-L/R

Fixture Carriers

Wall Hung Fixture Carriers

Wall hung fixture carriers provide structural support for off-the-floor lavatories, urinals, water coolers, and service sinks. Floor mounted carriers are anchored to the structural floor, and work independently of the wall structure. Wall mounted carriers may be suitable in some light commercial or residential applications, provided they are securely fastened to a suitable structural wall.

Lavatory Carriers

Floor mounted lavatory carriers are recommended for installation of all wall hung lavatories. Lavatories attached to a wall with only a fixture mounting bracket will eventually become unstable, causing damage to the wall, and creating a hazardous condition.

Lavatories are most commonly designed for installation with a concealed arm carrier. Concealed arm carriers have supporting arms that extend through cavities in the back of the fixture, and are entirely hidden by the lavatory and the wall. For aesthetic reasons, concealed arm carriers are preferred in commercial construction.

Watts patented TCA-411 "Track" Lavatory Concealed Arm Carriers are specifically designed for block wall construction. In commercial construction, floor mounted lavatory carriers are typically mounted behind a block wall. Standard TCA-411 nipples extend through the wall, and arms adjust horizontally, with the carrier anchored to the floor. These unique features greatly reduce installation time and labor in block wall construction.

Less common plate type or exposed arm carriers may be required for specific lavatories. Plate type carriers bolt directly to the fixture mounting bracket. Exposed arm carriers are designed with L-shaped support brackets, which extend from the carrier, and bolt to the underside of the fixture.

Urinal & Water Cooler Carriers

Urinal and water coolers are floor mounted plate type carriers, recommended for all commercial construction. These carriers bolt directly to the fixture mounting bracket(s), and are entirely concealed by the fixture and the wall.

Service Sink Carriers

Service sink carriers are specified in clinical applications, to support flushing rim, or surgical scrub sinks. Similar in function to water closet carriers, service sink carriers provide structural support, and facilitate a connection to the waste line.



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

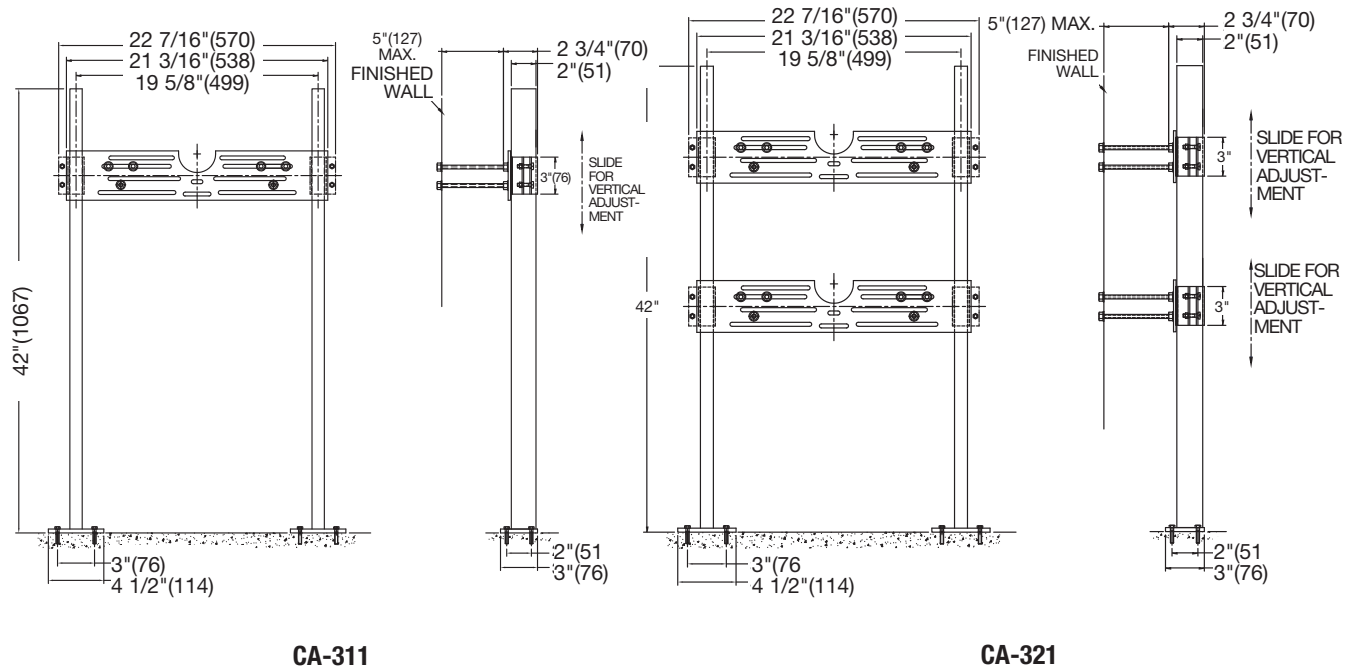
WATTS[®]

Lavatory/Urinal Carriers

CA-311, 321

Urinal Carriers

Model Number	Wt. Lbs.	Description	List Price
CA-311	26	Single Plate	\$505.37
CA-321	26	with Bearing Plate	652.43



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Lavatory Carriers

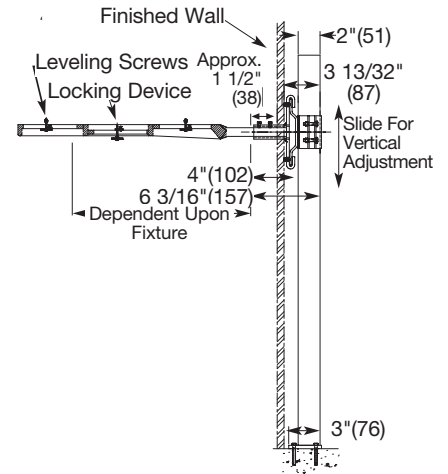
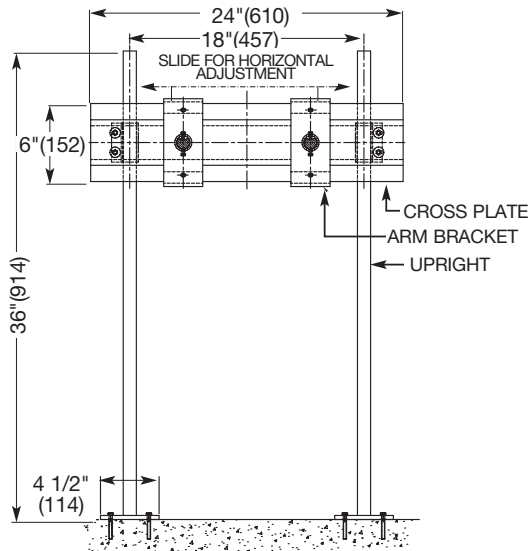
TCA-411

Floor Mounted "Track" Lavatory Carrier w/Concealed Arms

Model Number	Wt., Lbs.	Description	List Price
TCA-411	35	Single, Concealed Arms	\$1,355.36
TCA-411-D	60	Back to Back, Concealed Arms	2,528.82
TCA-411-WC	37	Single, Concealed Arms, 27 x 20 Lavatory	1,355.36
TCA-411-D-WC	64	Double, Concealed Arms, 27x20 Lavatory	2,528.82

Options for TCA-411 Series:

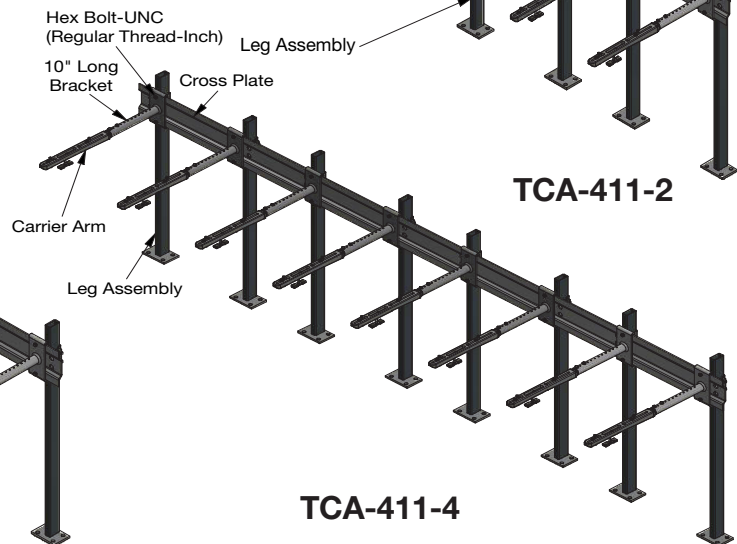
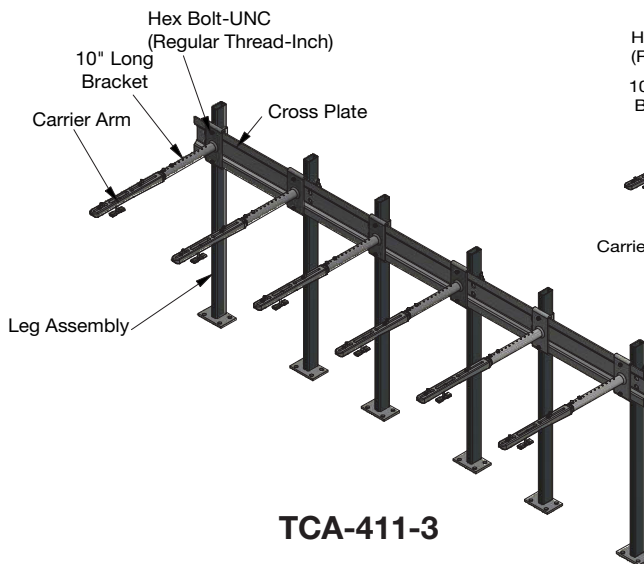
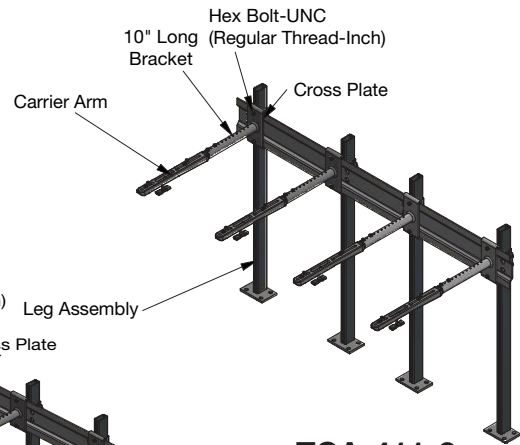
Suffix	Description	List Price
-M54	2" Chrome Plated Escutcheons, Single	\$177.68
	2" Chrome Plated Escutcheons, Double	355.35
-M55	4" Chrome Plated Escutcheons, Single	319.22
	4" Chrome Plates Escutcheons, Double	638.41
-M60	Valve Support Plate, Single	159.61
	Valve Support Plate Double	319.22



TCA-411-2/3/4

Floor Mounted "Track" Extended Lavatory Carrier with Concealed Arms

Model Number	Order Code	Wt., Lbs.	Description	List Price
TCA-411-2	8190012	80	2 Sink w/Concealed Arms	\$3,451.73
TCA-411-3	8190011	120	3 Sink w/Concealed Arms	CF**
TCA-411-4	8190010	160	4 Sink w/Concealed Arms	CF**



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Lavatory Carriers

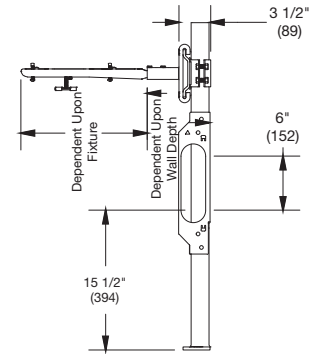
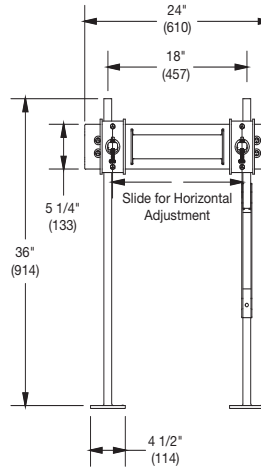
TCA-411-WLA Floor Mounted "Track" Lavatory Carrier w/Concealed Arms & Waste Line Access

Model Number	Order Code	Wt., Lbs.	Description	List Price
TCA-411-WLA	8201171	35	Single, Concealed Arms w/Waste Line Access	\$2,952.94
TCA-411-D-WLA	8201172	60	Back to Back, Concealed Arms w/Waste Line Access	4,531.46
WCA-411-WC-WLA	8201200	37	Single, Concealed Arms, 27 x 20 Lavatory w/Waste Line Access	3,199.55
WCA-411-D-WC-WLA	8201201	64	Double, Concealed Arms, 27x20 Lavatory w/Waste Line Access	4,048.85



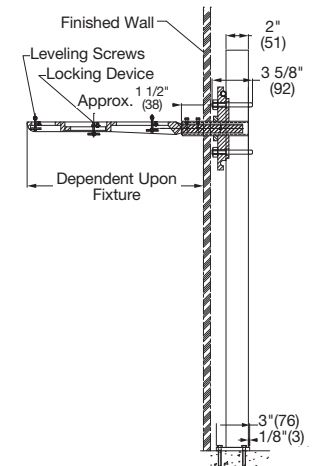
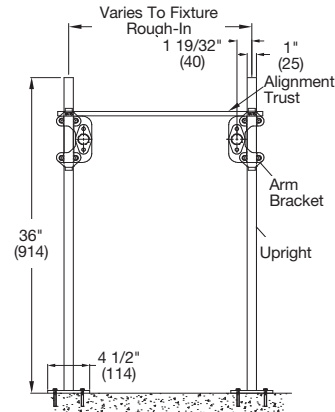
Options for TCA-411-WLA

Suffix	Description	List Price
-CI	Arms for Cast Iron Lavatory	No Add
-M54	2" Chrome Plated Escutcheons, Single	\$251.13
	2" Chrome Plated Escutcheons, Double	499.69
-M55	4" Chrome Plated Escutcheons, Single	454.59
	4" Chrome Plated Escutcheons, Double	908.66
-M60	Valve Support Plate, Single	228.58
	Valve Support Plate Double	453.56



WCA-411 Floor Mounted Lavatory Carrier w/Concealed Arms

Model Number	Order Code	Wt., Lbs.	Description	List Price
WCA-411	8133205	35	Single, Concealed Arms	\$580.24
WCA-411-D	8133213	60	Back to Back, Concealed Arms	1,399.00
WCA-411-WC	8133225	37	Single, Concealed Arms, 27 x 20 Lavatory	672.81
WCA-411-D-WC	8133212	64	Double, Concealed Arms, 27x20 Lavatory	1,230.22



Options for WCA-411 Series:

Suffix	Description	List Price
-M54	2" Chrome Plated Escutcheons, Each	\$173.59
-M55	4" Chrome Plated Escutcheons, Each	290.77
-M60	Valve Support Plate, Each	219.81



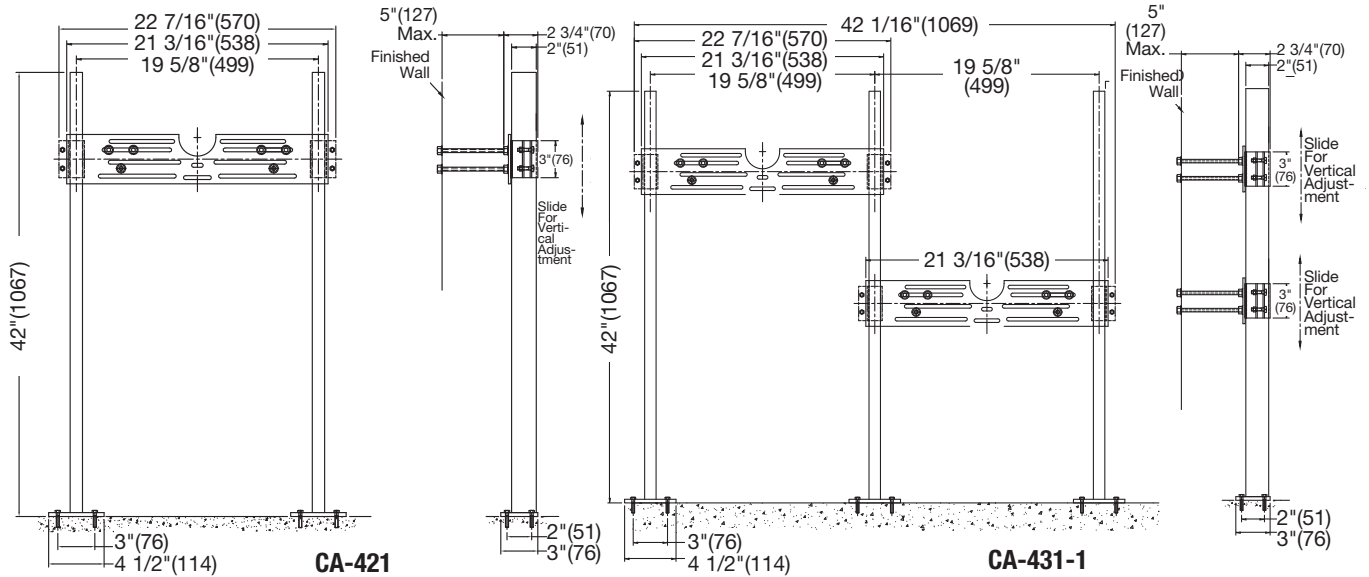
Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Lavatory/Water Cooler Carriers

CA-421
CA-431-1

Floor Mounted Plate Type Lavatory/
Water Cooler Carrier

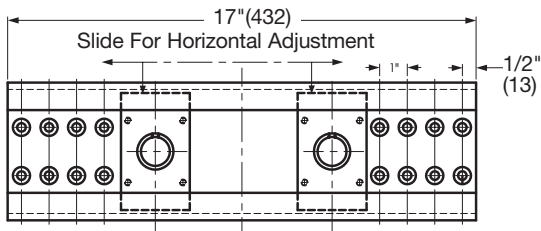
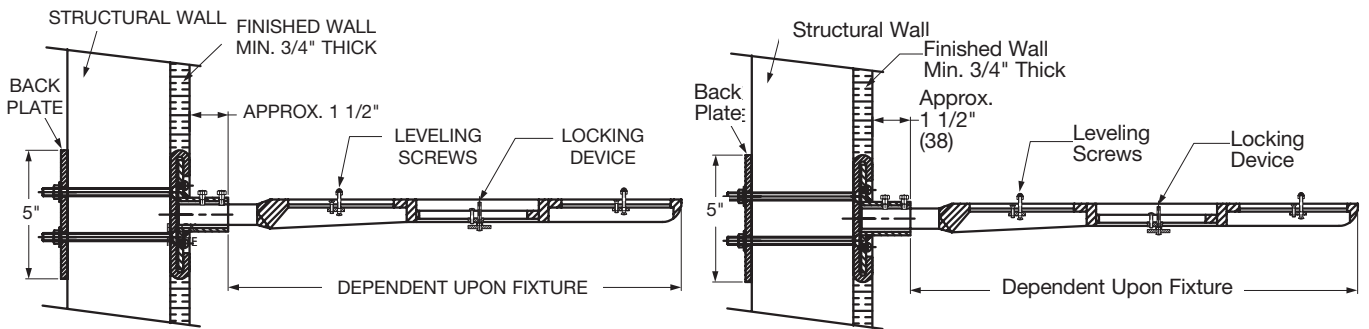
Model Number	Wt., Lbs.	Description	List Price
CA-431-1	50	Plate Type for Hi-Low Water Cooler	965.39



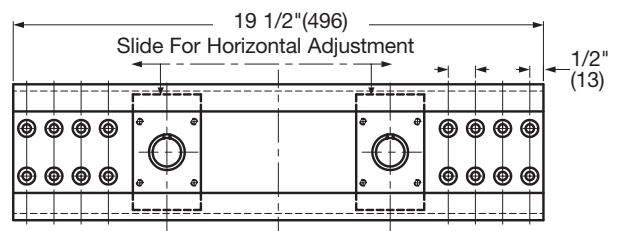
TCA-440
TCA-450

Wall Mounted "Track" Lavatory Carrier
with Concealed Arms

Model Number	Order Code	Wt., Lbs.	Description	List Price
TCA-440	8187152	28	Concealed Arms, Standard Lavatory	\$505.70
TCA-450	8187153	30	Concealed Arms, 27x20 Lavatory	941.78



TCA-440



TCA-450

Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.

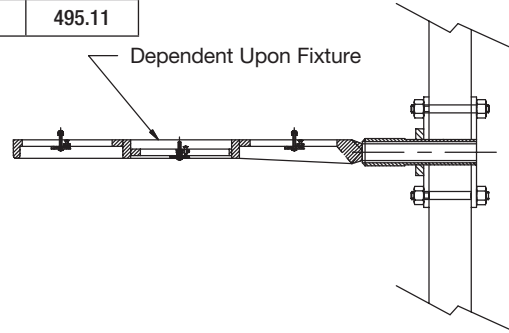
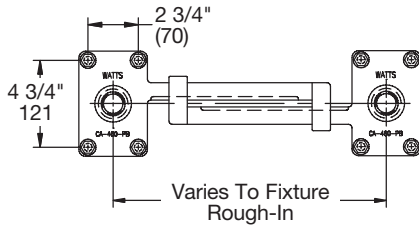


Lavatory/Service Sink Carriers

CA-461
CA-462

Wall Mounted Concealed Arm Lavatory Carriers

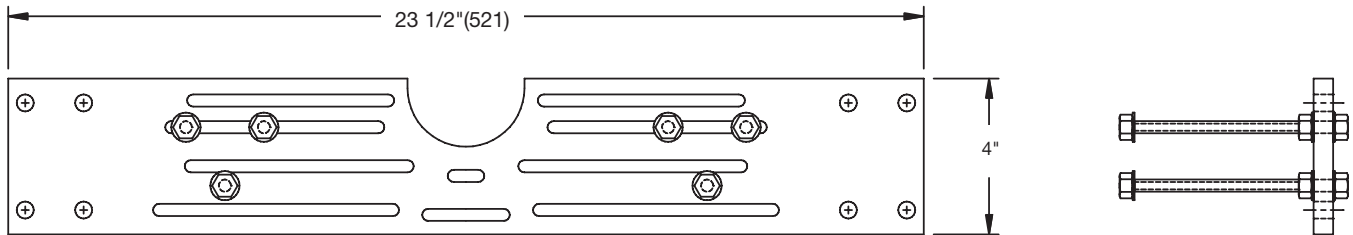
Model Number	Order Code	Wt., Lbs.	Description	List Price
CA-461	8133254	30	Concealed Arms with Back Plate	\$624.38
CA-462	8133260	24	Concealed Arms	495.11



CA-481

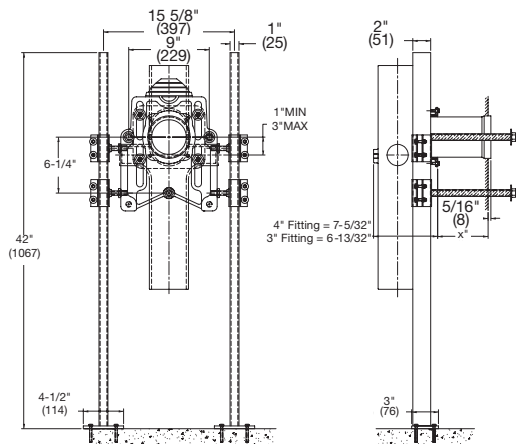
Wall Plate

Model Number	Order Code	Description	List Price
CA-481	8133262	Wall Plate with Studs	\$235.28

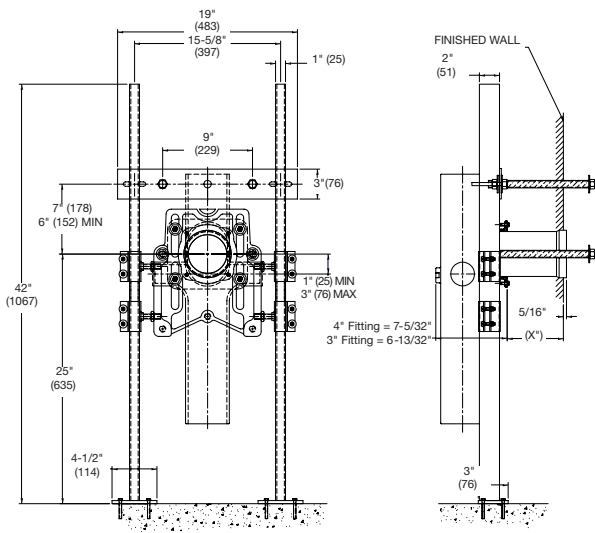


ISCA-550, ISCA-560 Service Sink Carriers

Model Number	Order Code	Wt., Lbs.	Description	List Price
ISCA-550-3	8187116	60	3" Waste, 2" Vent	\$2,231.29
ISCA-550-4-V2	8187117	60	4" Waste, 2" Vent	2,422.83
ISCA-550-4-V4	8187118	60	4" Waste, 4" Vent	2,646.45
ISCA-560-3	8155496	60	3" Waste, 2" Vent	2,539.46
ISCA-560-4-V2	8187120	60	4" Waste, 2" Vent	2,713.54
ISCA-560-4-V4	8187121	60	4" Waste, 4" Vent	CF**



ISCA-550



ISCA-560



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Specification Drainage Modular Parts

Modular Bodies For Floor Drains & Cleanouts

Catalogue No.	Description	List Price
B2 Cast Iron Body (*Side Outlet Add \$198.71)		
B2-2*	No Hub	\$256.71
B2-3*	No Hub	256.71
B2-4*	No Hub	256.71
B2-6	No Hub	256.71
B2-8	No Hub	376.29
B2-2P	Push On	301.45
B2-3P	Push On	301.45
B2-4P	Push On	301.45
B2-2X	Caulk	256.71
B2-4X	Caulk	256.71



B2 PVC & ABS Bodies

B2-2-60	PVC Socket	\$289.87
B2-3-60	PVC Socket	289.87
B2-4-60	PVC Socket	289.87
B2-2-61	ABS Socket	289.87
B2-3-61	ABS Socket	289.87
B2-4-61	ABS Socket	289.87



B3 Cast Iron Body (*Side Outlet Add \$176.56)

B3-2*	No Hub	\$107.65
B3-3*	No Hub	107.65
B3-4*	No Hub	107.65
B3-6	No Hub	138.82
B3T-2NH	No Hub	115.57
B3T-3NH	No Hub	117.92
B3T-4NH	No Hub	115.57
B3T-2P	Push On	158.11
B3T-3P	Push On	158.11
B3T-4P	Push On	158.11
B3-2P	Push On	154.52
B3-3P	Push On	167.60
B3-4P	Push On	224.23
B3-2X	Caulk	107.65
B3-3X	Caulk	107.65
B3-4X	Caulk	107.65
B3-2T	Threaded Outlet	248.08
B3-3T	Threaded Outlet	213.91
B3-4T	Threaded Outlet	206.31



B3 PVC & ABS Bodies

B3-2-60	PVC Socket	\$140.93
B3-3-60	PVC Socket	140.93
B3-4-60	PVC Socket	140.93
B3-2-61	ABS Socket	140.93
B3-3-61	ABS Socket	140.93
B3-4-61	ABS Socket	140.93

B4 Cast Iron Body

B4-2	No Hub	\$94.90
B4-3	No Hub	77.85
B4-4	No Hub	77.85
B4-2P	Push On	151.34
B4-3P	Push On	157.51
B4-4P	Push On	200.59



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Specification Drainage Modular Parts

Strainer & Grates For Watts Modular Drains

Catalogue No.	Description	List Price
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"Standard" Round Strainer with 1/2" Thick Grate

5-1	Std NB (Heavy Duty 1/2")	\$299.78
6-1	Std NB (Heavy Duty 1/2")	422.35
8-1	Std NB (Heavy Duty 1/2")	687.37
5-4	Std Ductile Iron (Heavy Duty 1/2")	142.45
5-3	Std Stainless (Heavy Duty 1/2")	331.26
6-3	Std Stainless (Heavy Duty 1/2")	581.88



"A" Round Strainer with 1/4" Thick Grate

A5-1	1/4" Nickel Bronze	\$203.72
A6-1	1/4" Nickel Bronze	311.37
A7-1	1/4" Nickel Bronze	462.11



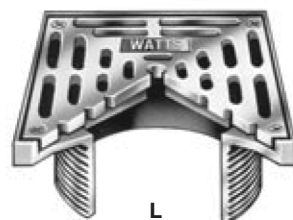
Funnels

EF-1	4" Nickel Bronze	\$465.40
EF-50	4" Cast Iron	236.70
EG-1	4" x 9" Nickel Bronze	583.01
EG-3	4" x 9" Stainless Steel	1,098.10
EG-50	4" x 9" Cast Iron	293.16
F4-1	4" Nickel Bronze Bolt-On Funnel	263.98
F4-50	4" Cast Iron Bolt-On Funnel	128.06
F6-1	6" Nickel Bronze Bolt-On Funnel	263.98
F6-50	6" Cast Iron Bolt-On Funnel	125.89
G-1	Bolt-On Oval Funnel 4" x 9" Nickel Bronze	361.27
G-50	Bolt-On Oval Funnel 4" x 9" Cast Iron	174.55



"L" Square Strainer with 1/2" Reinforced Grate

L5-1	Std NB (Heavy Duty 1/2")	\$425.67
L6-1	Std NB (Heavy Duty 1/2")	480.34
L8-1	Std NB (Heavy Duty 1/2")	886.11
L5-3	Std Stainless (Heavy Duty 1/2")	442.24
L6-3	Std Stainless (Heavy Duty)	458.79



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

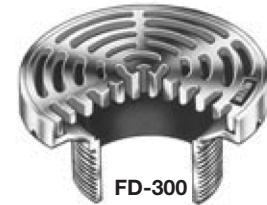
Specification Drainage Modular Parts

Strainer & Grates for Watts Modular Drains

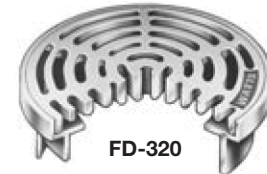
Catalogue No.	Description	List Price
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Cast Iron Top Assemblies for Floor/Area Drains

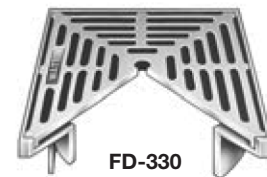
FD-300-4	Ductile	\$188.83
FD-300-101	Nickel Bronze	766.85



FD-320-50	Cast Iron	\$266.66
FD-320-1	Nickel Bronze	664.16
FD-320-Y	Ductile	180.53



FD-330-1	Nickel Bronze	\$935.80
FD-330-50	Ductile	697.38



FD-340-50	Ductile	\$904.35
FD-340-Y-50	Ductile	662.53
FD-340-101	Nickel Bronze	3,982.13
FD-340-Y-101	Non-Adjustable Nickel Bronze Top	3,198.53



FD-360-4	Ductile	\$2,739.49
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FD-450-AF-101	Nickel Bronze	\$3,370.54
FD-450-AF-4	Ductile	1,717.56



FD-460-AF-4-9	Ductile	\$1,382.99
FD-460-F-4-9	Ductile	763.54
FD-460-AF-1	Nickel Bronze	2,555.63
FD-460-F-1	Nickel Bronze	1,874.90



Consult factory for all applications outside of listed parameters.

Prices do not include applicable taxes.



Specification Drainage Modular Parts

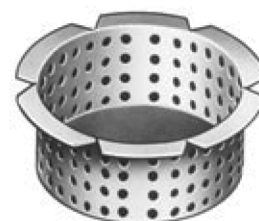
Parts for Watts Modular Drains

Catalogue No.	Description	List Price
Membrane Clamps & Body Collars for Floor Drains		
BLT3-XYC	Reversible Collar for B3 Body	\$CF**
B3-C1	Plain Clamp	29.82
B3-CB	Fixed Collar for FD-300 Series	CF**



Sediment Bucket for Floor Drains

B1B-61 ABS SED BCKT	Sediment Bucket	\$56.32
B2B-61 ABS SED BCKT	Sediment Bucket	210.35
B3B-SED BCKT	Sediment Bucket	56.32



B1B-61

Cast Iron Adjustable Extension for Floor Drains

B2-XY	For: FD-340, FD-360, FD-460-AF	\$264.99
B3-XY	For: FD-320, FD-330, FD-870-TG	132.51
DD-1	For: FD-100, FD-300, RD-200	601.22
DD-XY-50	MPT For: FD-100, FD-200, FD-300	106.01



B2B-61



B3-XY



B3-CB

Replacement Floor Drain Strainer Grates & Cleanout Covers

A5PG-1	A-5" Nickel Bronze Strainer grate with 3 screws	\$96.23
FD-300-PG-4	6" Diameter Heavy Duty Ductile Grate	110.43
FD-320-PG-4	7-1/4" Diameter Ductile Iron Grate	143.55
FD-320-PG-1	7-1/4" Diameter Grate w/NB Veneer	429.05
FD-340-PG-4	11-11/16" Ductile Iron Grate	493.73
FD-340-PG-1	11-11/16" Cast Iron Grate	1,089.99
FD-460-AF-PG-4	12" Square Ductile Area Drain Grate	402.24
FD-460-AF-PG-1	12" Square Ductile Iron Area Drain Grate w/NB Veneer	1,184.93
FD-450-AF-PG-4	15" Square Ductile Area Drain Grate	919.63
R5G-1	5" Diameter Nickel Bronze CO cover w/gasket & 3 screws	203.88
RXPG-1	1/2" NH CO Cover w/gasket & 3 screws	260.27
RXPG-4	1/2" Ductile Iron CO Cover w/gasket & 3 Screws	61.52



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.

Specification Drainage Modular Parts

Parts for Watts Modular Drains

Catalogue No.	Description	List Price
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Roof Drain Components

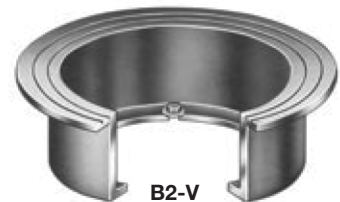
B2-DM	RD-100 Poly	\$69.58
B2-KDM-L-4	RD-100 Low Ductile	261.70
B2-KDM-4	RD-100 Ductile	296.66
B2-KDM-80	RD-100 Aluminum	233.13
B3DM	RD-200 Poly	69.58
B3KDM-80	RD-200 Aluminum	151.02



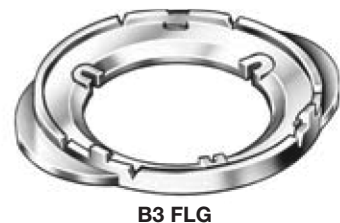
B2-FLG	RD-100 Flashing Ring, Deck Clamp	\$CF**
B2-FLG-W-80	RD-100 Aluminum w/ABS Standpipe	308.06
B2-S	RD-100 Sump Receiver	187.15



B2-V2	Fixed 2" Extension	\$321.32
B2-V3	Fixed 3" Extension	323.36
B2-V4	Fixed 4" Extension	323.36



B3-FLG	RD-200 Flashing Ring, Deck Clamp	\$CF**
B3-FLG-W-50	RD-200 Aluminum w/ABS Standpipe	180.74
B3-S	RD-200 Sump Receiver	104.33



Consult factory for all applications outside of listed parameters.
Prices do not include applicable taxes.



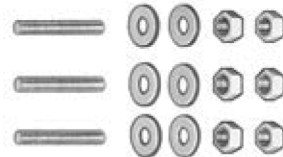
Specification Drainage Modular Parts

Parts for Watts Modular Drains

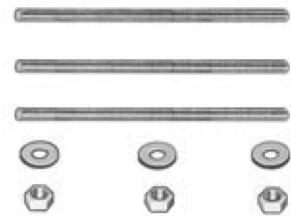
Catalogue No.	Description	List Price
Hardware Packs		
FC-1	Cap Screw w/Integral Washer	\$8.29
FC-2	Bolts, Washers & Nuts for Roof Drains	8.29
FC-3	Bolts, Washers & Nuts for Deck Clamps	16.56
FC-4	Bolts, Washers & Nuts for Extensions	16.56



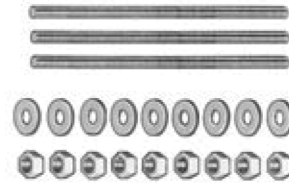
FC-1



FC-2



FC-3



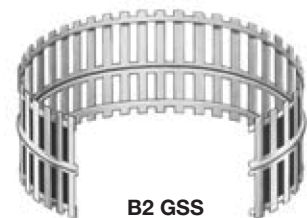
FC-4

Ballast Guards (IRMA)

B2-GSS	RD-100 SS Ballast Guard	\$498.53
B2-H	C.I. Ballast Guard	412.42
B3-GSS	RD-200 SS Ballast Guard	216.98



B2H



B2 GSS



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Prices do not include applicable taxes.

Specification Drainage Modular Parts

Cleanouts for Watts Modular Drains

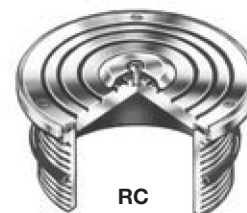
Catalogue No.	Description	List Price
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Top Assemblies for CO-100 & CO-200 Series Cleanouts

R-1	Nickel Bronze	\$318.01
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RX-3	Stainless Steel	\$479.96
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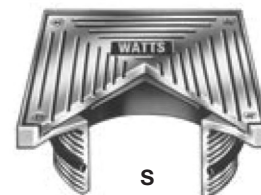
RC-1	Nickel Bronze	\$318.01
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RFC71	Nickel Bronze	\$624.41
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RX-1	Nickel Bronze	\$414.21
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RX-4	Ductile	\$238.94
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S-1	Nickel Bronze	\$434.24
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S-3	Stainless Steel	\$414.08
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T-1	Nickel Bronze	\$356.25
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TS-1	Nickel Bronze	\$500.06
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U-1	Nickel Bronze	\$595.19
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US-1	Nickel Bronze	\$624.41
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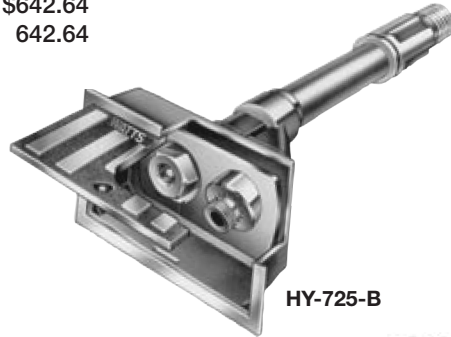
Specification Drainage Modular Parts

Parts for Wall Hydrants

Catalogue No.	Description	List Price
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HY-725 Box for use with HY-400 through HY-430

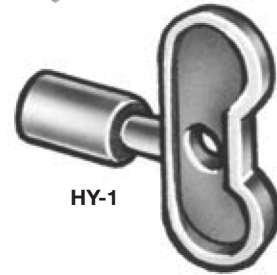
HY-725-B	Box (-1NB) Nickel Bronze	\$642.64
	(-28 SS) Stainless Steel	642.64



HY-725-B

Universal Hydrant Replacement Key

HY-1	Replacement Key for all HD Hydrants	\$39.75
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HY-1

Miscellaneous Parts for Watts Drainage Products

Catalogue No.	Description	List Price
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Neoprene Gasket for Wall Hung Water Closets

CA-1G	Self-Adhesive Neoprene Gasket	\$56.32
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CA-1G



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Prices do not include applicable taxes.

Notes

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Notes

Notes



Watts Drainage Solutions are engineered to deliver superior performance for commercial drainage designers, specifiers, and installers. Anchored by innovative designs and unique functionality, our Specification Drainage, Orion Chemical Waste, and BLÜCHER Stainless Steel drainage systems satisfy the most demanding industry requirements.

Watts Drainage offers a complete line of specification drainage products.

- Cleanouts
- Dead Level® Trench Drains
- Fixture Carriers
- Floor & Area Drains
- Green Roof Drains
- Hydrants
- Interceptors
- Parking Deck Drains
- Light Commercial
- Roof Drains
- Sanitary Floor Sinks
- Specialties

To locate your nearest Watts representative, please click on our *find a sales rep* locator on watts.com.

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