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## Linear Trench Drainage Solutions



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## Linear Trench Drainage Solutions

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New hinged trench assembly improves ergonomics and ease of access by reducing the lifting force required to 35 lb or less.

### If You Don't See It, Ask Us

Products listed in this catalog are not all inclusive. Visit [ejco.com](http://ejco.com), or contact your EJ sales representative, for our full line of products, information, product drawings, and additional support.

### Made in the USA

All products are Made in the USA and meet Buy America requirements.

Linear drainage systems capture a vast volume of water from a site—helping prevent safety and maintenance issues. EJ offers a comprehensive range of trench drainage solutions designed for pedestrian areas to roadways and up to the heaviest rated products for the world's airports and ports.

Products are available in traditional standard designs, designer patterns, and more advanced ergonomic options.



**Type A, 6950 Series Trench Grate**

Available bolted or unbolted, these heavy duty standard trench grate assemblies are ideal for traffic areas. Covers and grates available.



**Designer Trench Grates**

Make an impression with our cast iron ADA compliant designer trench grates. Coordinate with our matching exclusive tree grates for a beautiful custom design in your pedestrian areas.



**Innovative Hinged Trench Assembly**

Simplify access for supply lines and collection systems with these innovative airport extra heavy duty assemblies. Optional mechanical strut improves ergonomics by reducing lifting force to 35 lb or less. Covers and grates available.



# Linear Trench Drainage Solutions

Water build up causes risk of erosion and hydroplaning. Our modern trench grates increase water capture efficiency to help with these safety and maintenance issues. With each site being unique, engineers at EJ can design a custom water management plan for your application. From 2" wide to 48" wide trench systems, we have you covered.

Trench grating can be ordered as standard, non-bolted units or as a bolted assembly. For your convenience, bolted grating and rail units are assembled in 24" length sections, using four stainless steel hex head bolts. Trench frames and accessories complete the product offering. For installation guidelines, find the preferred method starting on page 32.

EJ offers linear trench drainage solutions for all load rating applications. You will find drainage systems in this catalog organized by the following applications:



## Heavy Duty Trench Drainage

Our most popular drainage system category, these grates are used on roads and highways. Our standard heavy duty grates and covers are suitable for general traffic service and AASHTO H-20 loading conditions.



## Airport and Extra Heavy Duty Trench Drainage

Designed for the heaviest loading applications, these grates and covers are made with ductile iron and are proof load tested to 200,000 pounds.



## Designer and Pedestrian Trench Drainage

ADA compliant designer grates and light duty grates are designed for pedestrian areas. Designer trench grates offer standalone architectural enhancements or can accompany matching EJ tree grate designs. Many are rated for up to heavy duty use in case the area is ever subjected to heavy delivery vehicle traffic.



## Fabricated Steel Trench Drainage

Custom designed solutions by our fabrication team, these grates can be used for on road and off road applications.

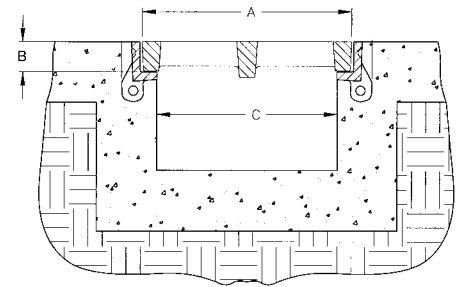
# How to Order Drainage Systems

Before ordering it is important to consider your site and how it is used. What is the application? Will there be heavy traffic? Load rating standards (see page 5) must be considered, as well as material. Choose a style grate (below) that will work best. Decide between bolted or unbolted grates, and choose the frame style. Determine if you would like to use end plates (page 30). Frame styles available are listed throughout product charts and on page 30. For a full list of all EJ series numbers available, see page 7. For help determining the best system for your application, contact your local EJ Sales Representative at 800 626 4653.

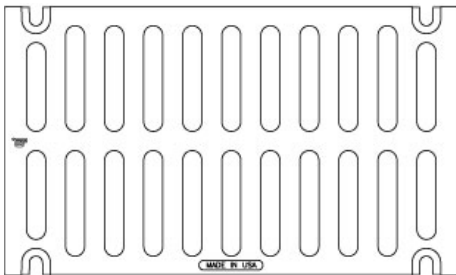


## When ordering trench products please specify the following:

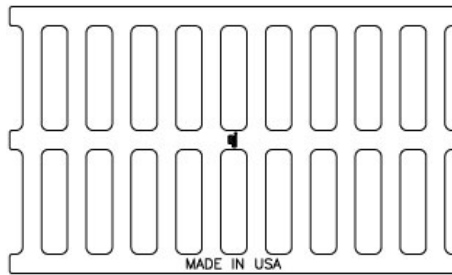
1. Width of trench opening, dimension "A" (right)
2. Seat depth, dimension "B" (right)
3. Clear opening of trench, dimension "C" (right)
4. Length of trench installation
5. Type of grate or solid cover (below)
6. Are side frames required?
7. Are grates/covers bolted to the frames?
8. Load requirement/material choice
9. How is the site used and how much water will fall on the site?
10. How fast do you want the water to drain?



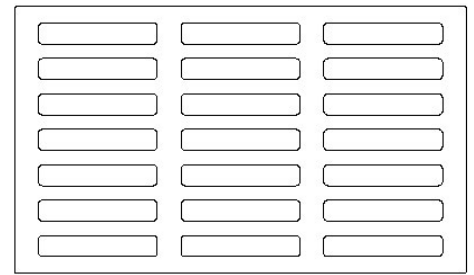
## Available trench grate types:



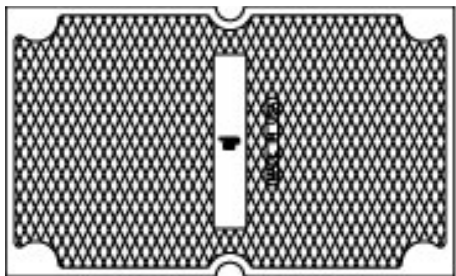
**Type A:** 6900 & 6950 Series



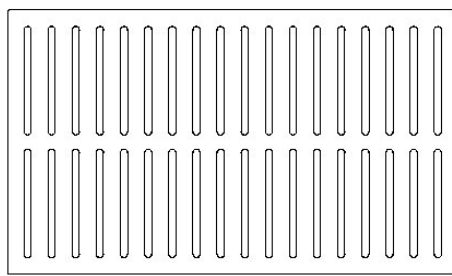
**Type A:** V-7300 Series



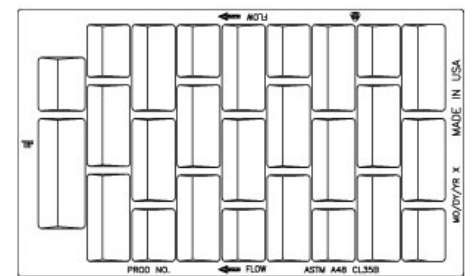
**Type C:** Cross Drainage V-7340 & V-7360 Series



**Type D:** Solid Cover



**Type P:** ADA Pedestrian V-7380 Series



**Type L:** Vane Style 6970 Series

# Trench Grate and Cover Casting Load Ratings

## Loading Requirements

All products manufactured by EJ are designed to meet or exceed the specified loading requirements. They conform to AASHTO and ASTM standards. These standards specify material quality and load requirements. Castings rated higher than needed can be used in any application. For example, choosing heavy duty rated castings for a pedestrian area ensures safety should the site be subject to heavy duty vehicle traffic in the future.

## Proof Load Testing

All proof load testing is done per AASHTO M 306-10 test setup. Proof load is applied to a 9" x 9" plate in the center of the center of the cover.

After passing a proof load test, all castings are carefully inspected. Cracks or permanent deformation are cause for rejection. Frequently, EJ castings are tested far beyond the specified proof load, often to destruction. Contact your EJ Sales Representative if you have custom or specific loading criteria.

## Load Rating Descriptions

**Non-traffic:** Castings are intended for use in areas that are not subject to vehicle traffic. Generally nothing over 2,500 lbs. should be placed on these items. Duty rating is 0 - 2,500 lbs.

**Light duty:** Castings are able to withstand some vehicular loading, but are not designed to accept roadway traffic. Items can accept loading from 2,500-16,000 lbs. These products may be subject to occasional traffic from process maintenance, mowers, etc.

**Medium duty:** Castings accept loading from 16,000 - 40,000 lbs. These castings can accept standard traffic loading, and are in conformance with H-20/HS-20 (wheel load of 16,000 lbs. on a tire contact area of 10" x 20") or Federal Specification RR-F-621D (25,000 lbs. on a 9" x 9" load contact area).

**Heavy duty:** All H20 traffic rated construction castings must pass a proof load test conducted in accordance with AASHTO M306 -10 guidelines. The proof load testing procedure calls for the load to be concentrated on a 9" x 9" contact area in the center of the cover or grate and hold 40,000 pounds for one minute (or 50,000 pounds for H25).

**Extra heavy duty:** Castings have been proof load tested to 100,000 - 200,000 lbs. This includes an additional safety factor over FAA design loading.

**Airport extra heavy duty:** Castings have been proof load tested to a minimum 200,000 lbs.

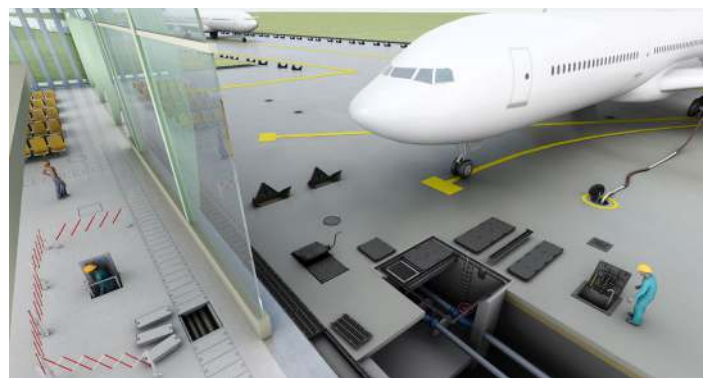
Gray and Ductile Iron Proof Load Ratings

Rating Description	Minimum Proof Load (lbs)
Non-traffic	under 2,500
Light Duty	2,500
Medium Duty	16,000
Heavy Duty (H20)*	40,000
Extra Heavy Duty	100,000
Airport Extra Heavy Duty	200,000

\*This proof load rating is designed to withstand the loads of a 16,000 lb truck tire per AASHTO M 306-10 (40,000 lb proof load equals 16,000 lb x 2.5 safety factor).

## Material Selection

Depending on the model, our construction castings can be manufactured using either gray iron or ductile iron. Gray iron has an unequalled record of success as a material for construction castings. Gray iron is highly resistant to corrosion and maintains compressive strength, abrasion resistance, vibration absorption, and low-notch sensitivity. Additionally, gray iron has a long service life and is very cost effective. Ductile iron combines the advantages of gray iron with greater strength, toughness, higher impact resistance and increased durability without additional weight. Because it has the ability to withstand greater loads without failure, it is often specified for extra-heavy load applications.





# Series Numbers by Width and Type

When searching for a trench grate solution, decide on the type (page 5) and width of the trench opening. Below are all of the product series numbers EJ offers. Locate the trench width (opening) on the left column and the trench type on the top row to find the right series number to fit your application. Find all series information in the following sections or find using the index starting on page 40.

Available Trench Grate Series by Trench Width and Type

Trench Width (In.)	Type A Grate Non Bolt HD	Type A Grate Bolted HD	Type A Grate Bolted/ Non Bolt Airport Extra HD	Type C Cross Drainage Grate Non Bolt	Type C Cross Drainage Grate Bolted	Type D Solid Cover Non Bolt HD	Type D Solid Cover Bolted HD	Type D Solid Cover Airport Extra HD	Type P ADA Style Grate Non Bolt	Type P ADA Style Grate Bolted	Type L Vane Style Bolted	Designer ADA Style Grates
2												6896
4												6897
6	6951, V-7301	6951	6901	V-7341		6951A	6951A		V-7381	V-7381-20		6898, 6861
8	6952, V-7302	6952, V-7322	6902	V-7342		6952A	6952A	6902A	V-7382	V-7382-20		
10	6953, V-7303	6953	6903	V-7343	V-7363	6953A	6953A		V-7383	V-7383-20		6873, 6883, 6893
12	6954, V-7304	6954	6904	V-7344, 6954M3	V-7364, 6954M3	6954A	6954A	6904A	V-7384, 6954M3	V-7384- 20, 6954		6874
15	6955, V-7305	6955	6905	V-7345	V-7365	6955A			V-7385	V-7385-20		
18	6956, V-7306	6956	6906, Hinged- 6906M5	V-7346	V-7366	6956A		6906A	V-7386	V-7386-20		
21	6957, V-7307	6957	6907	V-7347	V-7367	6957A						
24	6958, V-7308	6958	6908	V-7348	V-7368	6958A		6908A, Hinged- 6808			5358	
27	V-7309		6909M2	V-7349	V-7369	V-7509	V-7509				6970	
30	V-7310		6909M1	V-7350	V-7370	V-7510	V-7530					
32			6910									
33	V-7311	V-7311	5436									
36	V-7312	V-7332		V-7352		V-7512	V-7532	Hinged- 6811				
39			5437									
42	V-7313				V-7373	V-7513	V-7533					
48	V-7314, 6912	V-7334	6912	V-7354	V-7334	V-7514	V-7534					

## Heavy Duty Trench Drainage



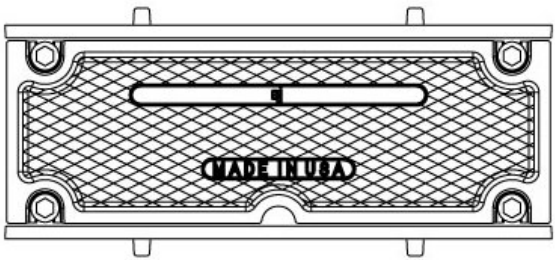


6950 TRENCH GRATE, FRAME AND COVER SERIES

Heavy Duty, Type A  
Bolted or unbolted (standard)



6950 Type A Bolted 24" Assembly



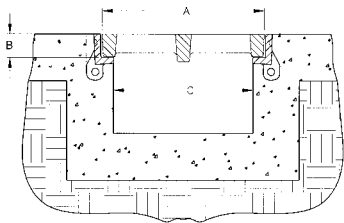
00695123B01 Cover

Features	Grate	Frame Series	Lock Type	Other
Heavy Duty, Type A Holes in frame for rebar Bolted or unbolted Standard 24" lengths Also available in extra heavy duty Type C cross drainage slot style available Solid colors available	Ductile or gray iron	Angle style (bolted or unbolted) Gray or ductile iron  24" - 6950Z1 36" - 6950Z3 48" - 6950Z2	Stainless steel 1/2" hex bolts	Caution: Do not disassemble bolted grates or covers before setting sections in concrete.

6950 Series, Angle Style Frame and Grate Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft
6951	8	1 1/2	6	23
6952	10	1 1/2	8	34
6953*	12	1 1/2	10	45
6954*	14	1 1/2	12	56
6955*	17	1 1/2	15	73
6956	20	1 1/2	18	89
6957	23	1 1/2	21	106
6958*	26	1 1/2	24	122

Note: All dimensions are in inches.  
\*Ductile Iron extra heavy duty available. See product drawings for load ratings.



6950 Series



## V-7300 TRENCH GRATE AND FRAME SERIES

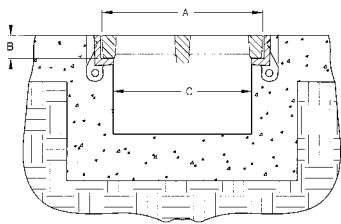
Heavy Duty, Type A

Standard trench grates are furnished in 23 7/8" lengths

Frames are available in 24", 36" and 48" lengths

Trench frame ends available

Extra heavy duty available



V-7300

V-7300 Trench Grate & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft	Angle Frame Series
V-7301	8	1 1/2	6	42	24" - 6950Z1
V-7302	10	1 1/2	8	57	36" - 6950Z3
V-7303	12	1 1/2	10	64	48" - 6950Z2
V-7304*	14	2	12	78	
V-7305	17	2	15	99	24" - 6900Z1
V-7306	20	2	18	120	36" - 6900Z3
V-7307	23	2	21	133	48" - 6900Z2
V-7308*	26	2	24	154	
V-7309	30	2 1/2	27	182	
V-7310	33	2 1/2	30	190	
V-7311	36	2 1/2	33	211	
V-7312	39	2 1/2	36	232	
V-7313	45	2 1/2	42	266	
V-7314	51	2 1/2	48	305	

Note: All dimensions are in inches.

\*Extra heavy duty available

## V-7320 BOLTED TRENCH GRATE AND FRAME SERIES

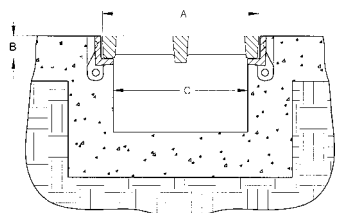
Heavy Duty, Type A

Bolted trench grate units are assembled in 24" sections only

using stainless steel 5/8" hex bolts and flat washers

Trench frame ends available

Caution: Do not disassemble bolted grates before setting frame/grate sections in concrete.



V-7320

V-7320 Bolted Trench Grate & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft	Angle Frame Series
V-7322	11	1 1/2	8	63	24" - V-7320-1
V-7332	39	2 1/2	36	231	
V-7334	51	2 1/2	48	305	24" - V-7320-3

Note: All dimensions are in inches.

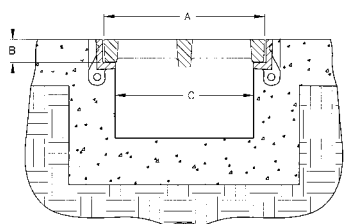
## V-7340 CROSS DRAINAGE TRENCH GRATE AND FRAME SERIES

Heavy Duty, Type C

Designed for cross-street drainage with slot openings perpendicular to traffic

Standard trench grates are furnished in 23 7/8" lengths

Frames are available in 24", 36" and 48" lengths



V-7340

V-7340 Cross Drainage Trench Grate & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft	Angle Frame Series
V-7341	8	1 1/2	6	40	24" - 6950Z1
V-7342	10	1 1/2	8	50	36" - 6950Z3
V-7343	12	1 1/2	10	64	48" - 6950Z2
V-7344	14	2	12	80	
V-7345	17	2	15	93	24" - 6900Z1
V-7346	20	2	18	115	36" - 6900Z3
V-7347	23	2	21	124	48" - 6900Z2
V-7348	26	2	24	154	
V-7349	30	2 1/2	27	162	
V-7350	33	2 1/2	30	183	24", 48" - V7300-3
V-7352	39	2 1/2	36	216	
V-7354	51	2 1/2	48	290	

Note: All dimensions are in inches.

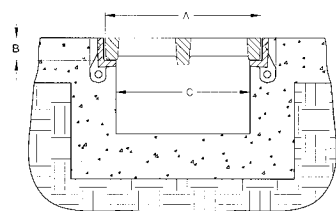
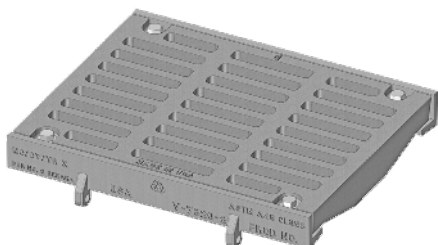
## V-7360 CROSS DRAINAGE BOLTED TRENCH GRATE AND FRAME SERIES

Heavy Duty, Type C

Designed for cross-street drainage with slot openings perpendicular to traffic

Bolted trench grate units are assembled in 24" sections using stainless steel 5/8" hex bolts and flat washers

Caution: Do not disassemble bolted grates before setting frame/grate sections in concrete.



V-7360

V-7360 Cross Drainage Bolted Trench Grate & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft.	Angle Frame Series
V-7363	13	1 1/2	10	73	24" - V7320-1
V-7364	15	2	12	87	
V-7365	18	2	15	101	24" - V7320-2
V-7366	21	2	18	120	
V-7367	24	2	21	138	
V-7368	27	2	24	160	
V-7369	30	2 1/2	27	162	
V-7370	33	2 1/2	30	183	24" - V7320-3
V-7373	45	2 1/2	42	250	

Note: All dimensions are in inches.



## V-7380 ADA TRENCH GRATE AND FRAME SERIES

Heavy Duty, Type P

ADA compliant

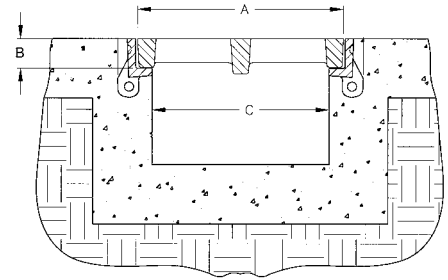
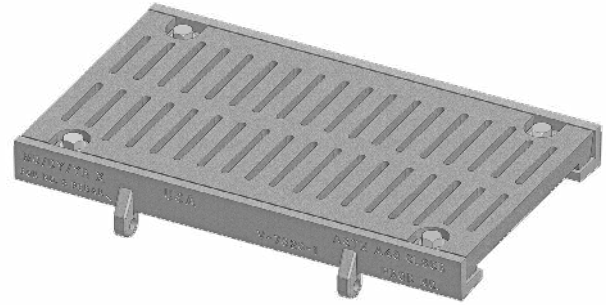
Available bolted or unbolted (standard)

Designed with 3/8" slot openings

Standard trench grates are furnished in 23 7/8" lengths

Frames are available in 24", 36" and 48" lengths

Bolted trench grate units are assembled in 24" sections only using stainless steel 5/8" hex bolts and flat washers



V-7380

V-7380 ADA Assemblies

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft.	Angle Frame Series
V-7381	8	1 1/2	6	21	24" - 6950Z1
V-7382	10	1 1/2	8	28	36" - 6950Z3
V-7383	12	1 1/2	10	29	48" - 6950Z2
V-7384	14	2	12	39	24" - 6900Z1
V-7385	17	2	15	48	36" - 6900Z3
V-7386	20	2	18	58	48" - 6900Z2

Note: All dimensions are in inches.

V-7380 ADA Bolted Assemblies

Series Number	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft.	Angle Frame Series
V-7381-20	9	1 1/2	6	21	24" - V-7320-1
V-7382-20	11	1 1/2	8	28	
V-7383-20	13	1 1/2	10	32	
V-7384-20	15	2	12	36	24" - V-7320-2
V-7385-20	18	2	15	48	
V-7386-20	21	2	18	58	

Note: All dimensions are in inches.

## 6970 BOLTED VANE STYLE TRENCH GRATE, FRAME AND COVER SERIES

Heavy Duty

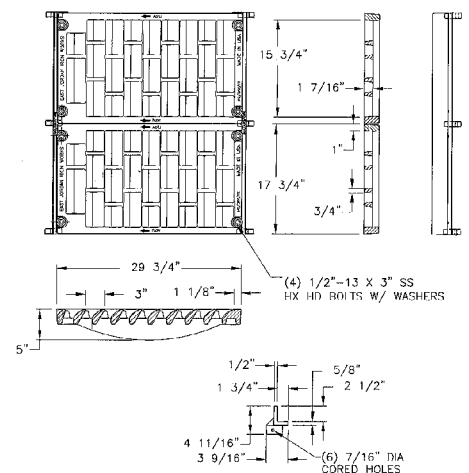
Available in 18" and 36" assemblies

Riser frame available

6970 Bolted Vane Style Trench Grate Series

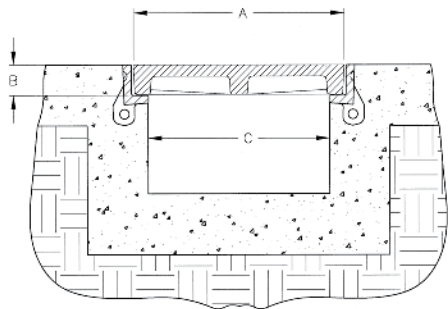
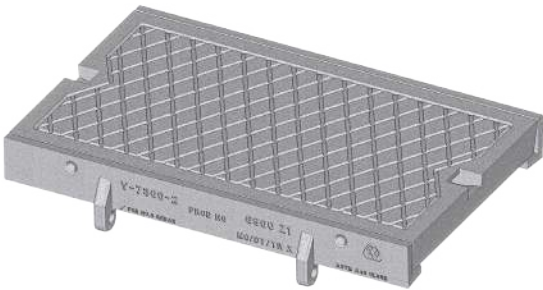
Assembly Length	Open Area per Assembly/Sq. In.
18	186
36	372

Note: All dimensions are in inches.



V-7500 TRENCH COVER AND FRAME SERIES

Heavy Duty, Type D  
Standard trench covers are furnished in 23 7/8" lengths  
Frames are available in 24", 36" and 48" lengths



V-7500

V-7500 Trench Cover & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Pick Type	Angle Frame Series
V-7504	14	2	12	Pick Hole	24" - 6900Z1 36" - 6900Z3 48" - 6900Z2
V-7508	26	2	24	Pick Bar	
V-7509	30	2 1/2	27	Pick Bar	
V-7510	33	2 1/2	30	Pick Bar	24", 48" - V-7300-3
V-7512	39	2 1/2	36	Pick Bar	
V-7513	45	2 1/2	42	Pick Bar	
V-7514	51	2 1/2	48	Pick Bar	

Note: All dimensions are in inches.

V-7520 BOLTED TRENCH COVER AND FRAME SERIES

Heavy Duty, Type D  
Bolted trench cover units are assembled in 24" sections using stainless steel 5/8" hex bolts and flat washers

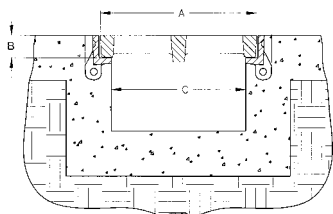
Caution: Do not disassemble bolted grates before setting frame/grate sections in concrete.



V-7520 Bolted Trench Cover & Frame Series

Series Number	A Grate Width	B Seat Depth	C Trench Width	Pick Type	Angle Frame Series
V-7530	33	2 1/2	30	Pick Bar	24" - V7320-3
V-7532	39	2 1/2	36	Pick Bar	
V-7533	45	2 1/2	42	Pick Bar	
V-7534	51	2 1/2	48	Pick Bar	

Note: All dimensions are in inches.



V-7520

## 7743 GUTTER INLET WITH END OUTLET

Heavy Duty

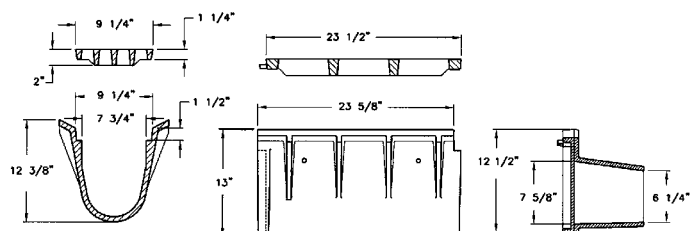
Approximate 94 sq. in. open area

Expandable to any length

Options

Adjusting risers

End caps



## 7744 GUTTER INLET WITH SIDE OUTLET

Heavy Duty

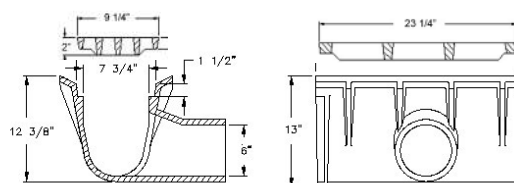
Accepts 7743 grate

Expandable to any length

Options

Adjusting risers

End caps

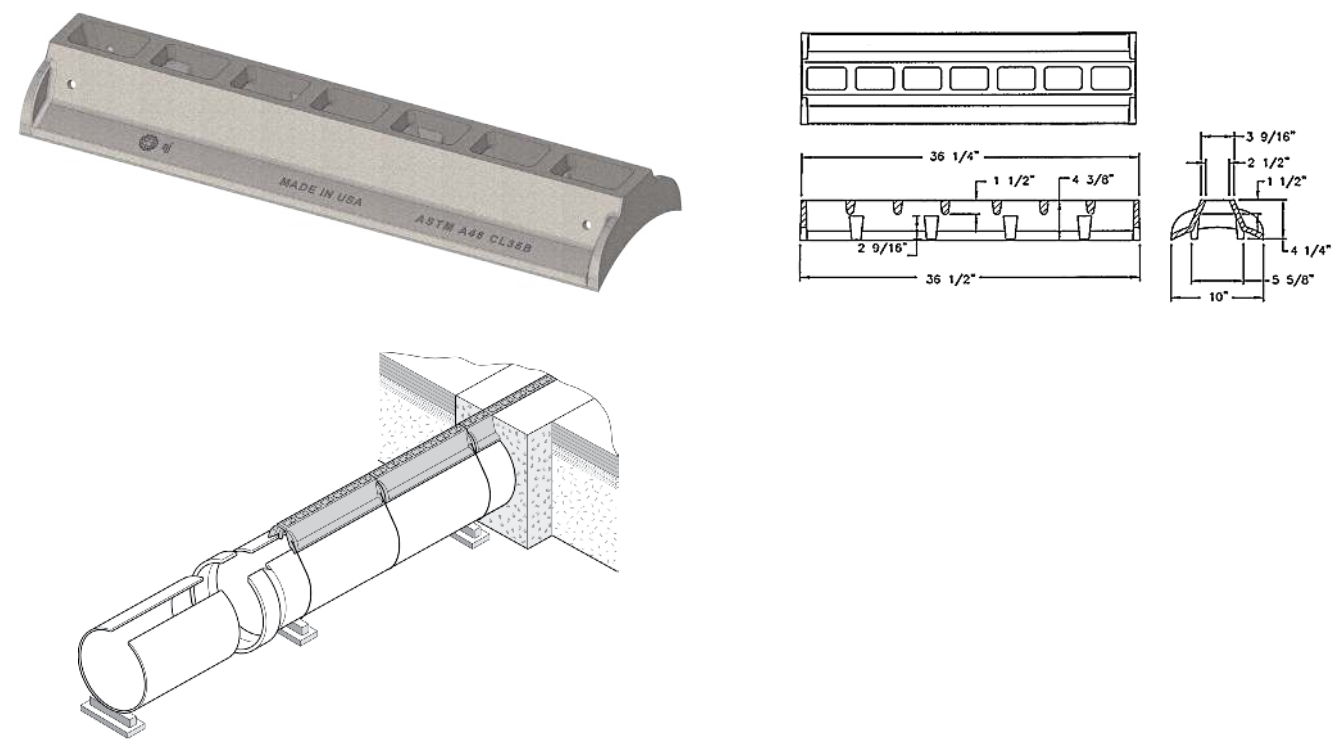




V-7950 SLOTTED GRATE FOR PIPE

Heavy Duty

For alternative slot drain product offerings also see the 6979 series on page 26.



## Designer - Pedestrian Trench Drainage





# Designer - Pedestrian Trench Drainage

## ADA Compliant



Garland linear trench grate installed in pedestrian sidewalk area.

### Designer Trench Drainage

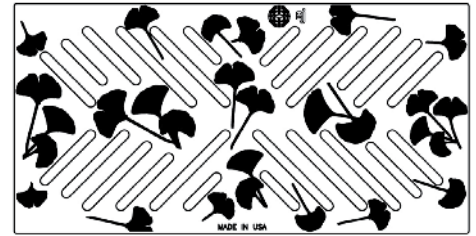
Surface drainage for dynamic public spaces require a unique solution. Make an impression with our cast iron ADA designer trench grates.

Patterns that coordinate with our exclusive tree grates are cast in 24" lengths, 1 1/2" seat. Optional 6950 cast iron frames are available in 24", 36", and 48" lengths.

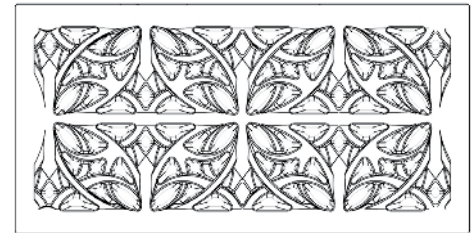
For security, bolted trench grate units are assembled in 24" sections using stainless steel 1/2" hex bolts. Call for additional widths.



# Designer and Pedestrian Trench Drainage



6883 Ginkgo 12" x 24"



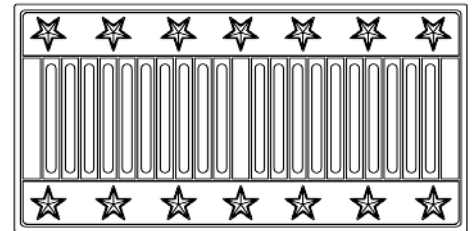
6873 Garland 12" x 24"

## Designer and Pedestrian Trench Drainage Series

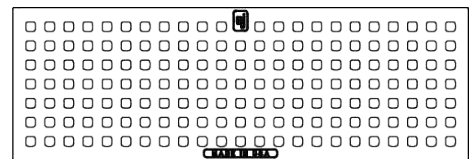
Series Name	Series Number	Size	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft	Load Rating
Ginkgo	6883*	12 x 24	12	1 1/2	10	25	Heavy duty
Garland	6873*	12 x 24	12	1 1/2	10	13	Medium duty
Garland	6874*	14 x 24	14	1 1/2	12	13	Medium duty
Patriot	6893*	12 x 24	12	1 1/2	10	28	Heavy duty
Manhattan	6896	4 x 24	4	1	2	16	Non-traffic
Manhattan	6897	6 x 24	6	1	4	27 1/4	Non-traffic
Manhattan	6898	8 x 24	8	1 1/2	6	37	Non-traffic
Pedestrian	V7381*	8 x 24	8	1 1/2	6	21	Heavy duty
Pedestrian	V7382*	10 x 24	10	1 1/2	8	28	Heavy duty
Pedestrian	V7383*	12 x 24	12	1 1/2	10	29	Heavy duty
Pedestrian	V7384*	14 x 24	14	2	12	39	Heavy duty
Pedestrian	V7385*	17 x 24	17	2	15	48	Heavy duty
Pedestrian	V7386*	20 x 24	20	2	18	58	Heavy duty
Pedestrian	6861*	8 x 48	8	1	6	33 1/2	Heavy duty
Pedestrian	6932*	9 x 36	9	1 1/4	7	20	Heavy duty
Pedestrian	6954*	14 x 24	14	1 1/2	12	56	Extra HD

Note: All dimensions are in inches.

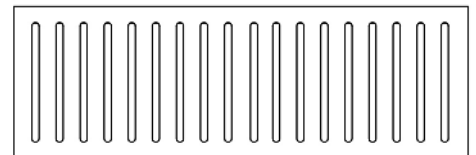
\*Bolting available



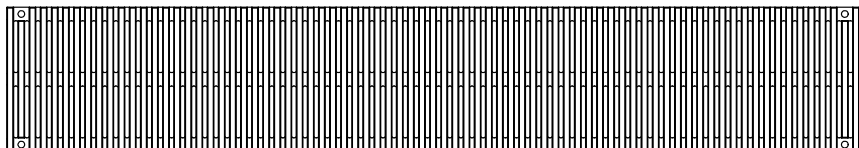
6893 Patriot 12" x 24"



6898 Manhattan 8" x 24"



V7381 Trench Grate 8" x 24"



6861M Trench Grate 8" x 48"

6954 ADA STYLE CROSS DRAINAGE GRATE

Type C  
For bolting  
Extra heavy duty rated



6954 Type C Bolted 24" Assembly

6954, ADA Style Cross Drainage Grate

Series No.	A Grate Width	B Seat Depth	C Trench Width	Open Area Sq. In/Ft
6954	14	1 1/2	12	56

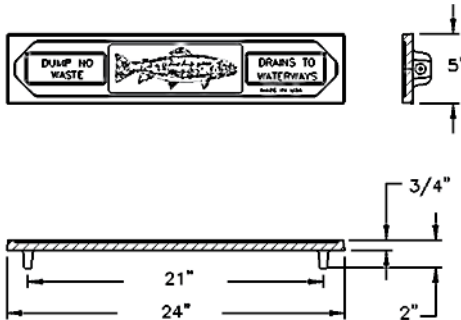
Note: All dimensions are in inches.

7001 CURB PLATE

Used in sidewalk above a trench grate  
Embedded into concrete during construction  
Customized messages available

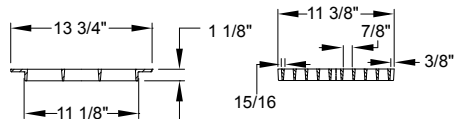


Rebar can be installed on underside to secure into concrete



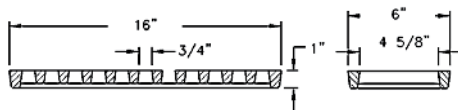
7796 TRENCH GRATE

Non-traffic



7799 TRENCH GRATE

Light Duty  
Typically installed in steel angle iron frames or cast concrete shelf



## Airport - Extra Heavy Duty Trench Drainage





HINGED TRENCH ASSEMBLY

The hinged trench assembly simplifies access for supply lines and collection systems. Available with hinged covers or grates, the system can be configured to any length of trench needed. Optional mechanical strut improves ergonomics by reducing lifting force to 35 lb or less for the entire range of motion—available for both cover and grate versions. The covers offer optional cable cut outs for electrical, telecommunications, and other supply lines to be temporarily exposed for use while the covers remain in the closed position.

Features

- Airport extra heavy duty
- Ductile Iron
- Top flange design
- Frame vent slots
- Self-engaging safety bar
- Rebar holes in gussets
- Bolt holes for connecting frames together

Hinged Trench Available Options

Options	Grate	Cover
Bolting	Yes	Yes
Cam Lock	—	Yes
Cable Cut Outs	—	Yes
Lift Assist	Yes	Yes
Pick Bar	—	Yes

Hinged Trench Sizes

Series Number	Trench Width	Length	Type
6906M5	18	24	Grate
6808*	24	24, 36, 48	Cover
6811**	36	24, 36, 48	Cover

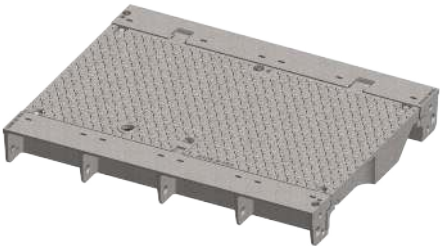
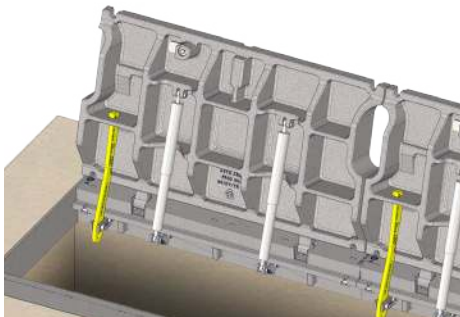
\*Steel and ductile iron end plates available  
\*\*Only steel end plate available

Note: All dimensions are in inches.

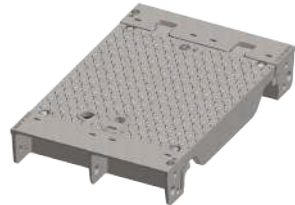


Self-engaging safety bar with optional mechanical lift assist make the hinged trench covers and grates safe and easy to use.

Covers

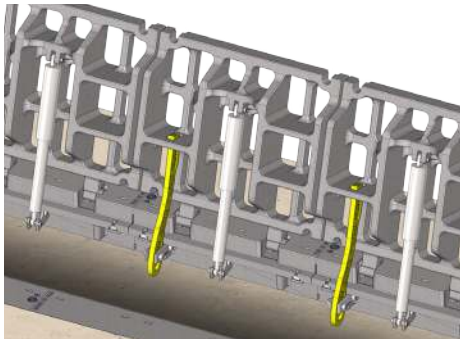


48" long solid cover



24" long solid cover

Grate

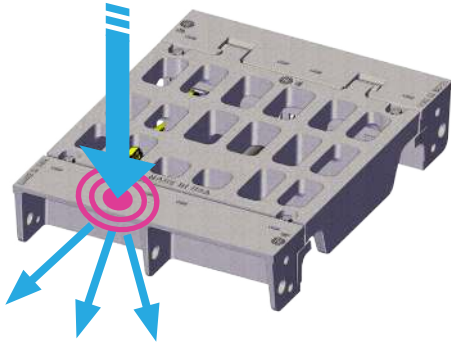


24" long grate



37 3/8" wide steel end plate

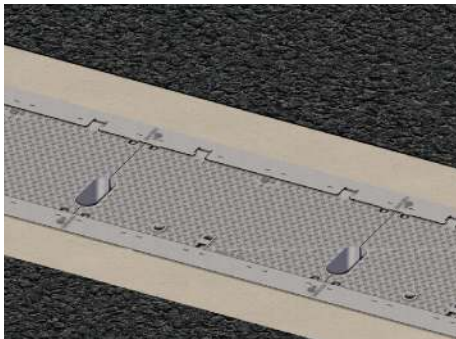


**Top Flange Design**

The top flange design with a wide flange, fully supported with concrete underneath, distributes heavy loads over a larger area which reduces cracking and spalling of the surrounding concrete.



Venting slots in the frame rail allow for air to escape during the pouring process, fully filling the voids with concrete for support and weight distribution.

**Cable Cut Outs†**

Optional cable cut outs for covers allow for temporary access to supply lines while keeping the covers closed.

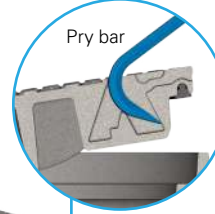
**Cam Lock Security Option†****Safety Bar**

Patented Self-engaging Safety Bar keeps the trench open and protects from unintended closure

**Lift Assist Option**

Lift Assist is a corrosion-resistant stainless steel mechanical spring strut. The rugged design is clean and maintenance free. The strut takes up less space in the clear opening than a traditional spring assist. It is fully self-contained, protecting coils from exposure to the elements.

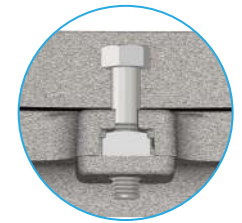
Made without internal gases or seals, the struts have an effective operating temperature range of -30° F to 400° F. The durability has been tested at over 150,000 cycles.

**MPIC® Multi-tool Pick Bart**

Cable cut out†

**EON LOCK® Bolting**

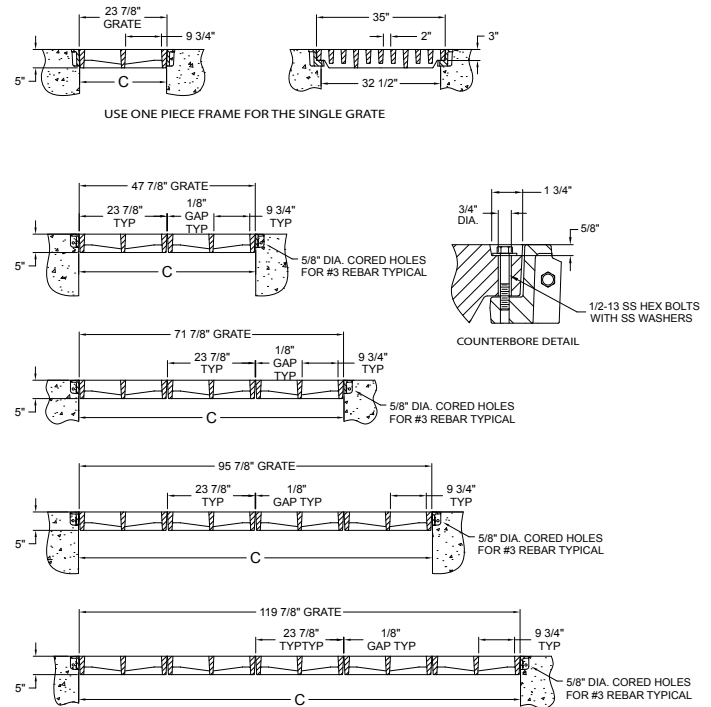
Compatible with standard hex bolts or special security designs, the EON LOCK design retains the nut when the cover is unbolted and allows the nut to be removed in the future should it need to be replaced.



Designed to work with EPS/styrofoam, the concrete trench forming system improves the speed of installation versus traditional installation. Using concrete, no liners are needed—eliminating combustible material in applications where fire suppression measures are needed. See installation guide on page 32.

†Not available for grates

## 5436 TRENCH GRATE, FRAME, AND COVER SERIES

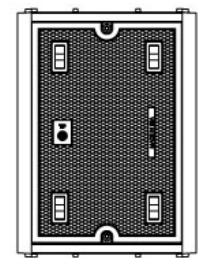


Caution: Do not disassemble bolted grates before setting sections in concrete

Features	Solid Covers	Grate	Frame Series	Lock Type	Other
Airport Extra Heavy Duty Solid covers available	Ductile iron Available for 1, 2, 3 and 4 grate	Ductile iron 385 sq. in. of open area per grate	Ductile iron <b>Top Flange—One Piece</b> Single grate or cover 5436Z5 <b>Top Flange—Two Piece</b> Double grate or cover 5436Z6 <b>Top Flange—Modular/Expandable</b> Multiple grate/cover assemblies 5436Z1—Load bearing support side frame (with 1 1/2" thick support area) 5436Z2—End side frame	Hex bolts Pent head bolting	Custom badging/lettering on cover available  Monolithic frame available for single and double assemblies for ease of assembly

5436 Standard Drainage Inlet, Frame and Grate Assembly Series

Series Number	Grates	Grate Width	Seat Depth	Trench Clear Opening Width	Trench Opening Length	Open Area Sq. In
00543633B03	1 Grate*	23 7/8	3	23 3/4	32	385
00543632B03	2 Grate*	48 1/8	3	47 7/8	32 1/2	769
00543606	3 Grate*	72 1/8	3	71 7/8	32 1/2	1155
00543608	4 Grate*	96 1/4	3	95 7/8	32 1/2	1538
00543734B01	5 Grate	120 1/8	3	119 7/8	38 7/8	1930

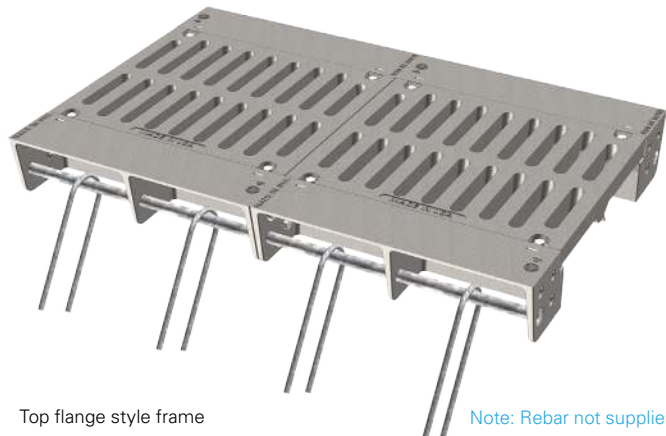


00543601 Cover

Note: All dimensions are in inches.

\*Solid covers available

## 6900 LINEAR TRENCH DRAINAGE SERIES



Top flange style frame

Note: Rebar not supplied



Angle style frame

Note: Rebar (not supplied) to be installed in all trench frames per engineer or designer's direction

Features	Grate	Frame Series	Lock Type	Other
Airport extra heavy duty Holes in rail for rebar Also available in standard heavy duty Solid covers available	Ductile or gray iron	<b>Top Flange</b> Gray iron, 24" lengths: 6900Z4 (6-11/16" wide) 6900Z5 (5" wide)  <b>Angle Style</b> Gray iron or ductile iron 24": 6900Z1 48": 6900Z2	Hex bolts Pent head bolts	End cap for 10", 24" and 36" wide trench 45 degree turns—18", 48" wide trenches 90 degree turns—18", 24" wide trenches 90 degree tee—18", 24" wide trenches 90 degree cross intersection—18", 24" wide trenches

Caution: Do not disassemble bolted grates before setting sections in concrete

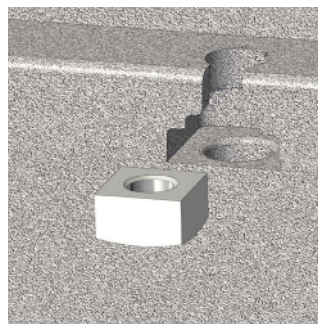
6900 Top Flange Trench Frame and Grate Series

Series Number	Grate Width	Seat Depth	Trench Width	Open Area Sq. In/Ft
6901	8	2	6	29
6902*	10	2	8	33
6903	12	2	10	40
6904*	14	2	12	49
6905	17	2	15	66
6906*	20	2	18	90
6907	23	2	21	92
6908*	26	2	24	102
6909	32	2	30	254
6910	34	2	32	138
6912	51	2	48	248

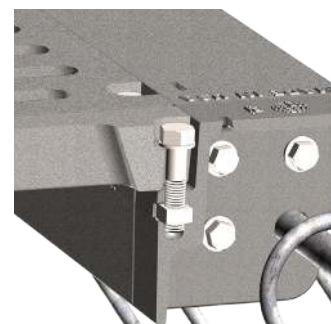
Note: All dimensions are in inches.

\*Solid covers available

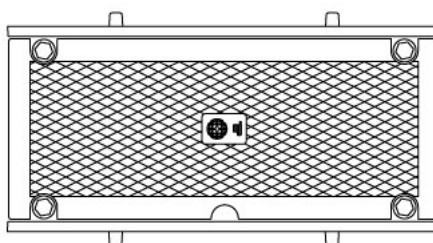
### Trench frame and grate with EON LOCK® security feature



EON LOCK® square nut out horizontally

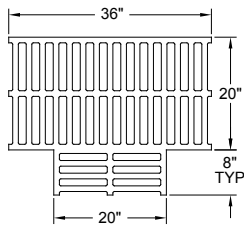
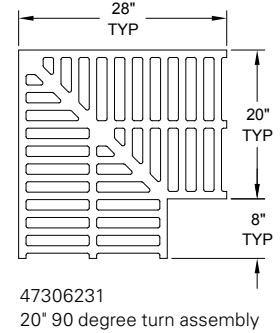
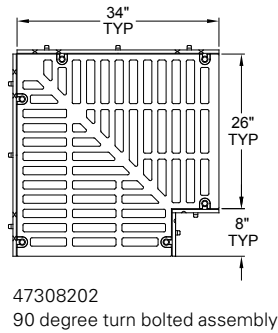
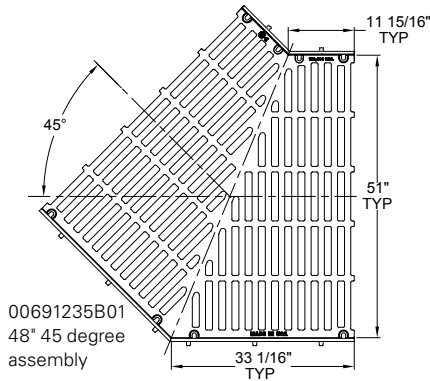
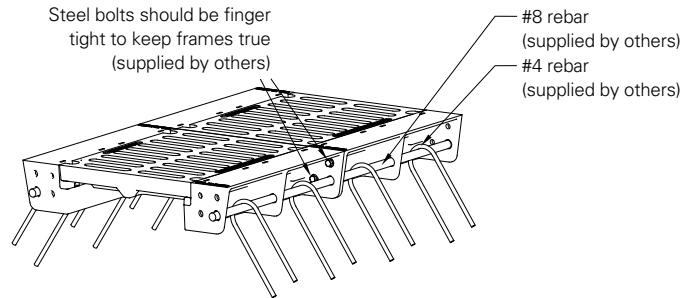
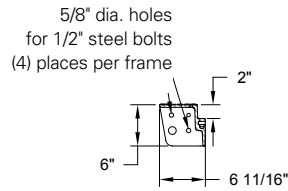
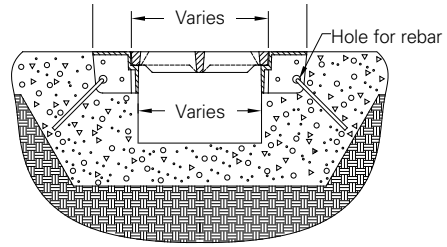
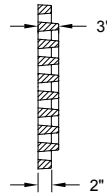
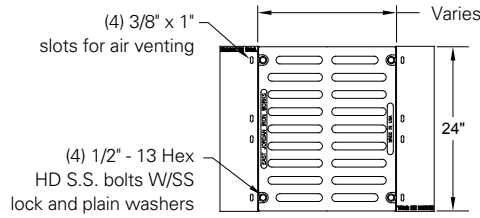


EON LOCK® square nut in horizontally

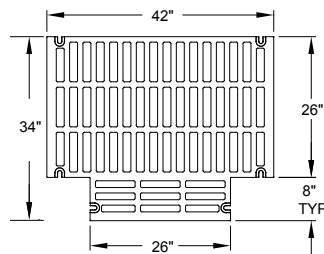


00690222B01 Cover

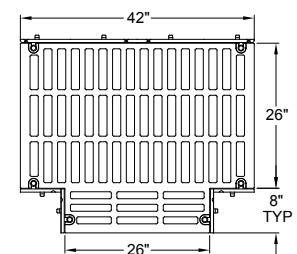
## 6900 LINEAR TRENCH DRAINAGE SERIES (CONTINUED)



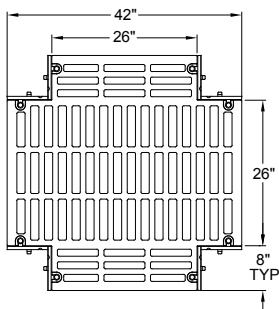
47306331  
20° 90 degree tee trench grate



47308332  
26° 90 degree tee intersection trench  
grate



47308302  
24° 90 degree tee assembly



47308402 24° 90 degree cross  
bolted assembly



## 6979 LINEAR SLOTTED DRAIN VANE GRATE

Airport Extra Heavy Duty

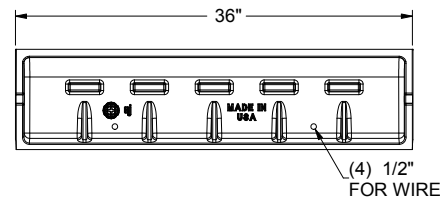
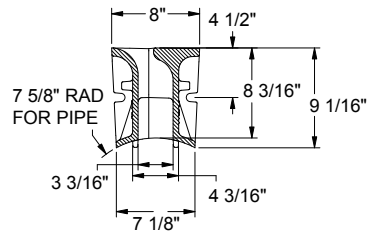
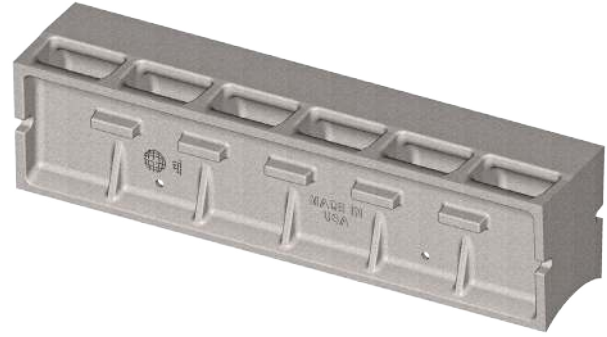
9" tall

Vane style grate

Fits into slot cut into pipe

Allows for capture of surface water between catch basins

For alternative slot drain product offerings also see the V-7950 series on page 15.



Cross section view

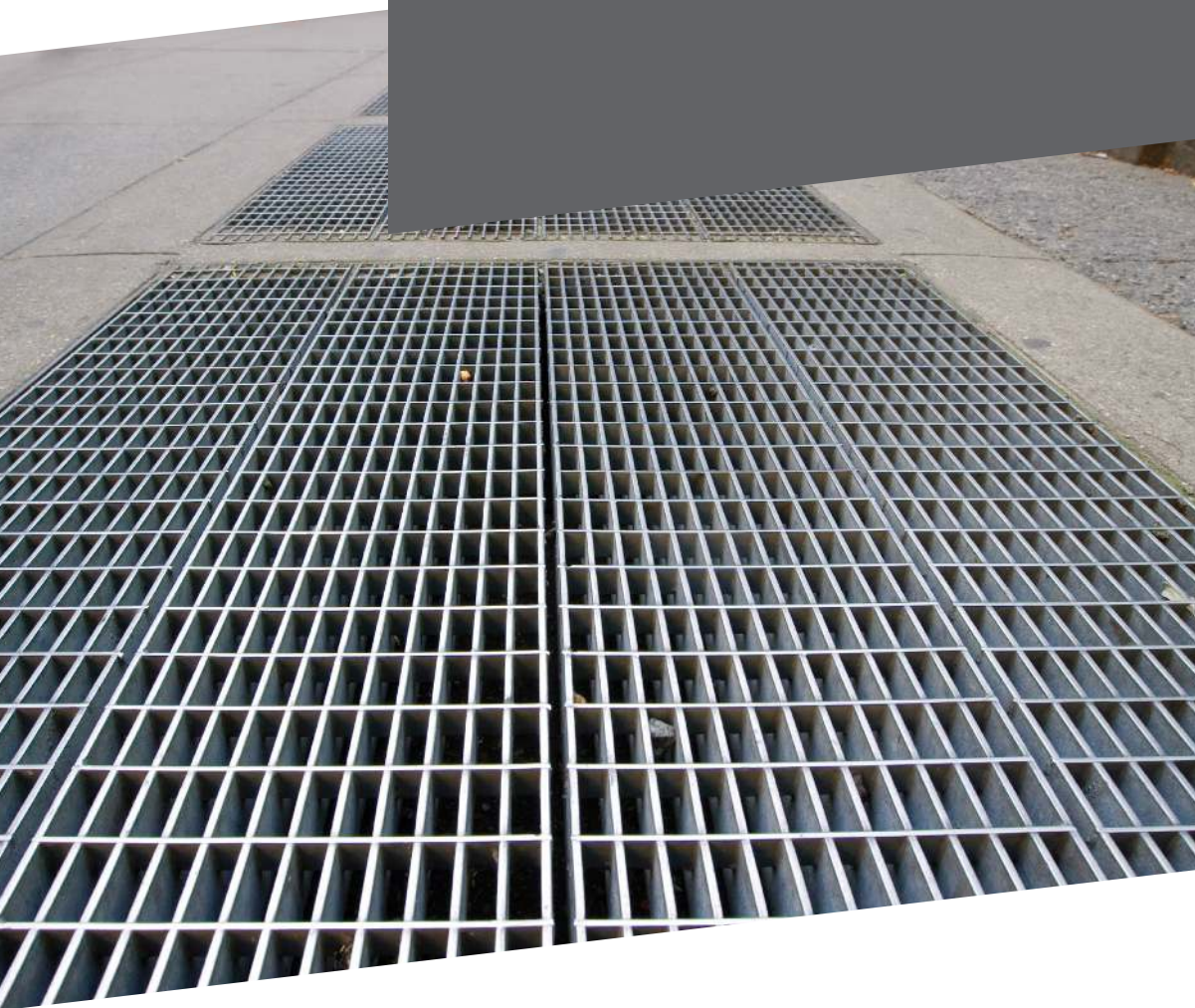


Linear slotted drain vane grate during installation



View inside PVC pipe

## Fabricated Steel Trench Drainage





## FABRICATED STEEL TRENCH DRAINAGE

EJ offers a variety of fabricated solutions for both on road and off road applications. Our fabricated steel drainage grating conforms to rigorous DOT and municipal standards. Approved products are used on federal highway projects across the USA.

Customers often turn to EJ for products that help existing infrastructure problems because many trench systems are not designed to withstand the expected load condition. The design teams at EJ frequently design replacement grating solutions for retrofit applications engineered to meet the load requirements and ADA standards.

Contact our expert design team the next time you need a custom solution for your project.

### Products

- Steel grate frames
- Steel replacement trench grates
- Roadway grates
- Bar grates
- Reticuline grates
- Other custom fabricated solutions to satisfy your specific application



Steel grate frames built to any length of drainage required incorporate cast iron or fabricated steel grates to meet your project needs.



Custom steel replacement trench grate designed to fit existing iron frame.

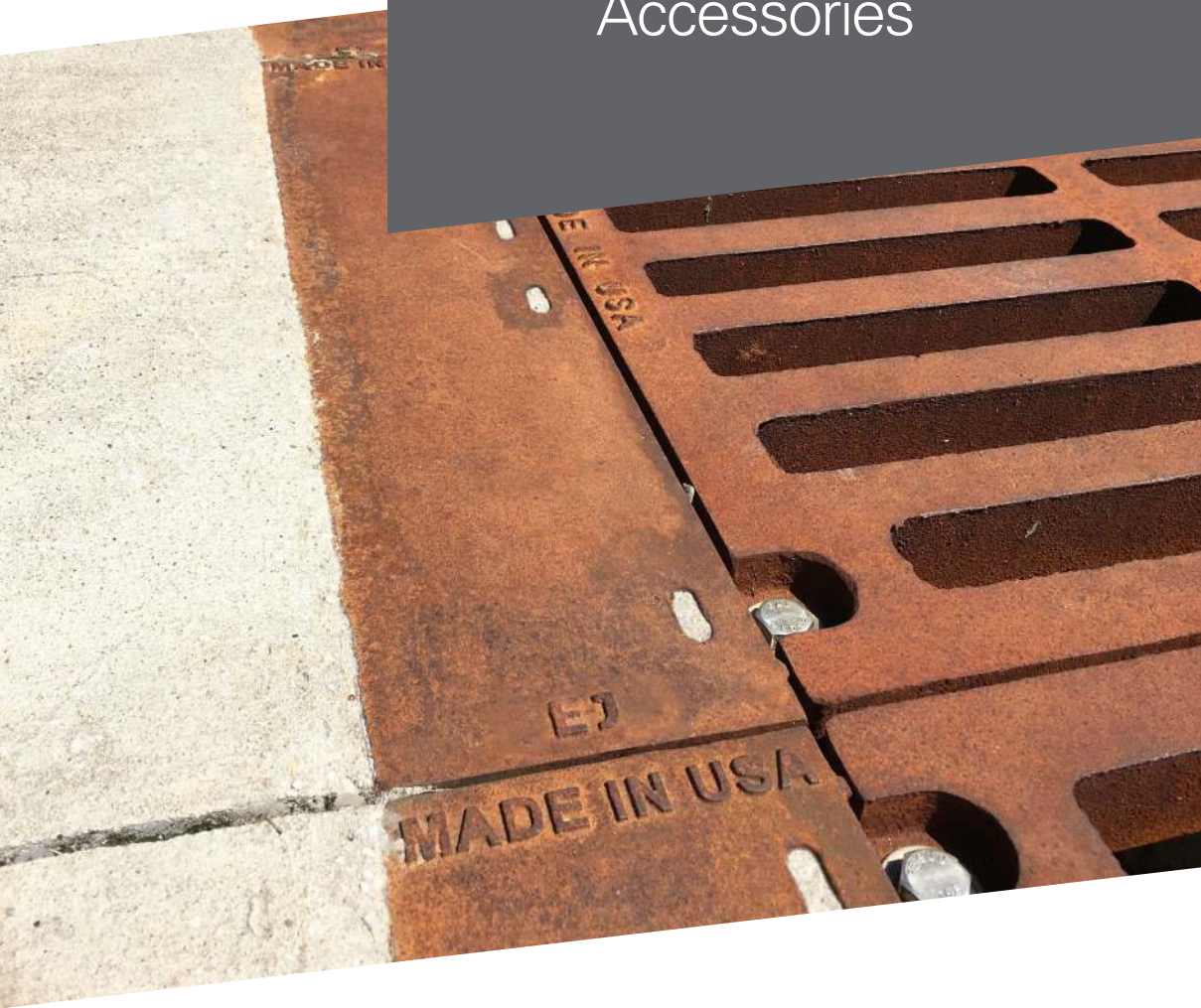


Fabricated roadway grating can be customized to fit existing drainage structures.



Galvanized steel trench designed to retrofit the existing frame and take the H-20 loading where the existing trench grates were failing.

# Trench Grate Frames and Accessories





## TRENCH GRATE FRAMES AND ACCESSORIES

EJ offers a variety of trench grate frames and accessories to make your linear trench project successful. Frames are available in 24", 36", and 48" lengths in top flange and angle styles. Available for bolted and unbolted grates. Specify the frame style desired when ordering trench grate assembly.

Note: 6900 not interchangeable with V7320-2. 6950 not interchangeable with V7320-1.

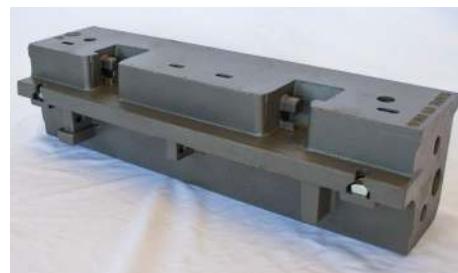
Trench Grate Frame Series

Seat Depth	Series Number	Frame Style	Length	Width	Use with Grate Type
1 1/2	6950Z1	Angle	24		Bolted and unbolted
1 1/2	6950Z2	Angle	48		Bolted and unbolted
1 1/2	6950Z3	Angle	36		Bolted and unbolted
1 1/2	V7320-1	Angle	24		Bolted
2	6900Z1	Angle	24		Bolted and unbolted
2	6900Z2	Angle	48		Bolted and unbolted
2	6900Z3	Angle	36		Bolted and unbolted
2	6900Z4	Top Flange	24	6 11/16	Bolted and unbolted
2	6900Z5	Top Flange	24	5	Bolted and unbolted
2	V7320-2	Angle	24		Bolted
2 1/2	V7300-3	Angle	24		Unbolted
2 1/2	V7300-3	Angle	48		Unbolted
2 1/2	V7320-3	Angle	24		Bolted

Note: All dimensions are in inches.

Trench Grate Accessories

Series Number	Product Number	Description
6808	00680895	6808 Accessory Ductile Iron End Plate
6808	00680898	6808 Galvanized Steel End Plate Accessory
6808	00680899	6808 Accessory Galvanized Steel End Plate
6811	00681198	6811 Steel Painted End Plate
6811	00681199	6811 Accessory Galvanized Steel End Plate
6861	00686113	6861 Square Trench End Frame
6900	00690090	6900Z4 Trench End Cap for 24" Wide Trench, Use with 6900Z4 Top Flange Trench Assembly 00690855B01
6903	00690399	6903 Accessory Galvanized Steel End Plate
V7301	47301010	V7301 Trench End Piece for 8" Wide Trench Grate
V7304	47304010	V7304 Trench End Piece for 14" Wide Trench Grate
V7308	47308010	V7308 Trench End Piece for 26" Wide Trench Grate
V7314	47314010	V7314 Trench End Piece for 51" Wide Trench Grate



6900Z4 top flange frame with EON LOCK® pockets



Top flange installed frame



Hinged trench assembly with end piece

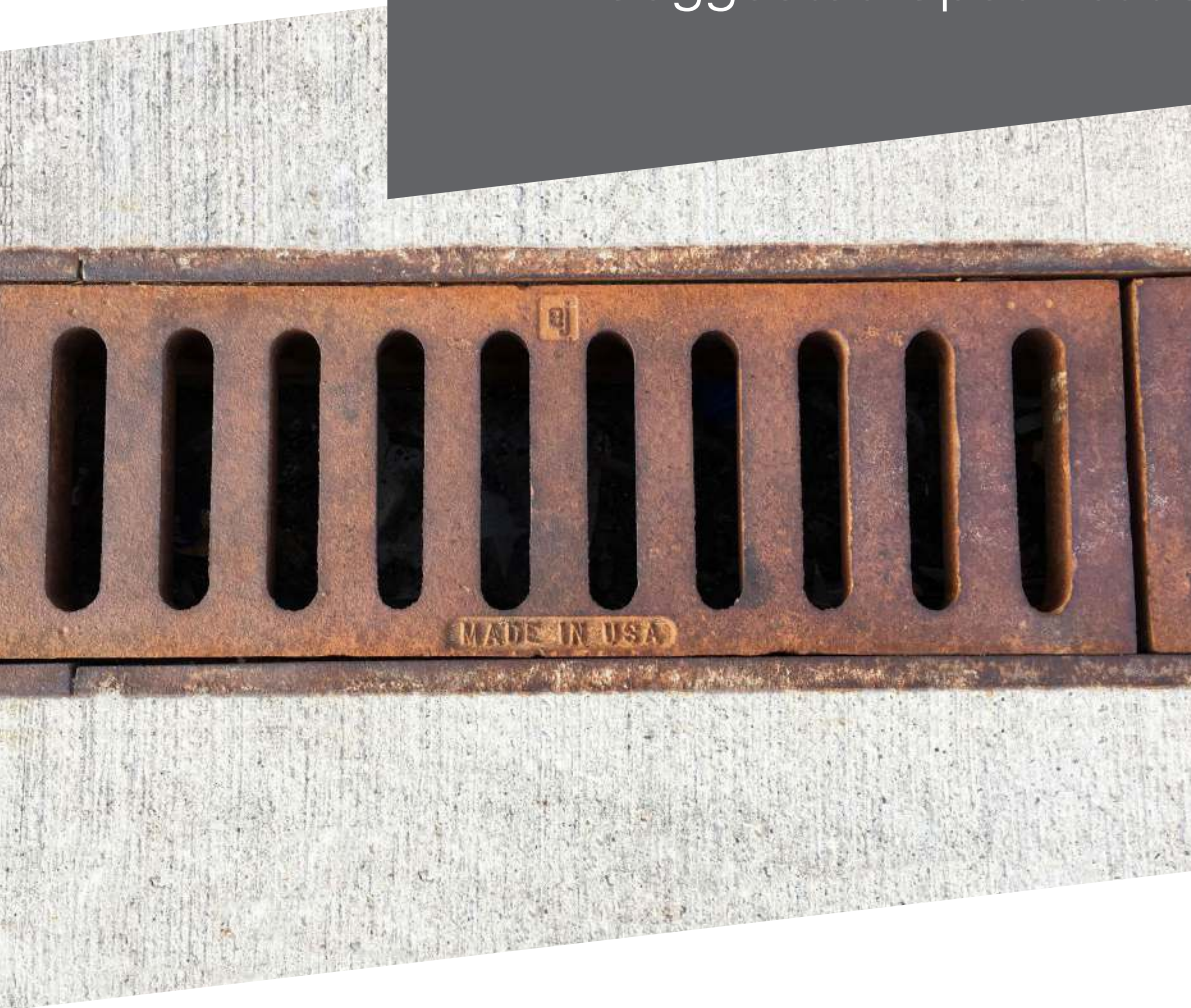


Angled frame with EON LOCK® pockets for nuts



Angled frame with EON LOCK® pocket close up

# Installation Guidelines and Suggested Specification





## EXPANDED POLYSTYRENE (EPS) TRENCH FORMING INSTALLATION GUIDELINES

The alternate EPS trench forming system can be installed much faster and less expensively than traditional forming procedures. Meant to work with the 6800, 6808 and 6900 series bolted top flange trench frames, it is installed at the end of a project instead of the beginning, ensuring that the trench drain will be lower than the surrounding area.

To use this system, determine the length of individual runs. Note that the most cost effective trenches come in 8' increments, but others are available. Also determine the starting depth and ending depth of each run, if incorporating in a slope. Note that a neutral slope (start depth equals ending depth) can also drain water effectively and is the most cost effective option. Select a trench cross sectional profile- note that the classic trapezoidal look can be designed to accept a flat blade shovel on the bottom of trench for ease of cleaning and routine maintenance.

### Basic items needed for installation:

1. 2" x 4" boards – 8' long. These are used to fasten the forms to the trench assemblies. Use one for trenches under 15" wide. Use two for trenches over 15" wide.
2. 4" x 4" boards– Length depends on how wide of a trench is selected. These are used to hang the trench assemblies in the open area. Two are needed per 8' long assembly.
3. 12" long J Hooks – four needed per 8' long assembly. You can also bend long 1/2" bolts so the head of the bolt can be hooked under a bar of the trench grate assembly.
4. 10" to 12" long wood screws – eight needed per 8' long assembly. These are used to connect the forms to the trench drain assemblies.
5. Various shims of thicknesses ranging from 1/16" – 1".
6. Rebar – per the plans or engineer's specification.
7. 1/2" bolts (2 3/4" long), nuts, and washers to bolt assemblies together. Two needed per foot of trench.

**Step 1.** The trench assemblies can be fabricated off site to minimize impact on construction area. Prepare trench frame and grate assemblies by laying them out in manageable sections that can be safely lifted with equipment. Each frame and grate section should be bolted end to end with four 1/2" bolts. To expedite assembly these can be then stacked once assembled. The top flange trench assemblies shall be assembled in the length of the forms.

**Step 2.** Select the correct foam sections based on the layout profile and remove forms from their shipping shell. Turn foam sections upside down and apply two coats of the supplied form release. Apply the form release by brush or roller in accordance with product instructions. Let forms cure for 24 hours between coats.



Step 1



Step 1, stacked assemblies.



Step 2



## EXPANDED POLYSTYRENE (EPS) TRENCH FORMING INSTALLATION GUIDELINES (CONTINUED)

**Step 2. (continued)** Also note that alternatively the second coat of form release can be applied immediately before the trench assemblies are installed prior to pouring concrete. The forms need to remain dry as moisture activates the form release agent.

**Step 3.** Once the form release has cured prepare foam sections for attachment to the trench assemblies. Plastic sheets will help prevent the mold release from transferring to the floor when the foam core invert section is turned over. Insert 2" x 4" in channels cut in foam core. You can now set the trench frame section on the invert channel section and secure them together with the ten 12" deck screws. Typically, two to four in each grate section is sufficient. (Note: If using a parabolic or rounded bottom profile, save the protective shipping pieces so they can be re-used to provide a flat bottom to attach trench assemblies). Several sections can be prepared for trench installation.



Step 3

**Step 4.** The area where the trench is to be installed shall have an open area in the concrete that is at least 2' wider than the clear opening of the trench drain assembly. Rebar cages can be assembled and installed into the trench opening. Transport the trench drain assemblies to the job location. Attach 4" x 4" to the top of each trench drain assembly near the ends of each trench drain and form assembly. Use the J Hooks and drill holes through the 4" x 4" boards, hooking the J- hooks under a bar on the trench drain assembly. Using washers and nuts, secure the 4" x 4" tightly to the trench drain assembly.



Step 4

**Step 5.** Transport the trench drain assemblies to the job location. Attach 4" x 4" to the top of each trench drain assembly near the ends of each trench drain and form assembly. Use the J Hooks and drill holes through the 4" x 4" boards, hooking the J- hooks under a bar on the trench drain assembly. Using washers and nuts, secure the 4" x 4" tightly to the trench drain assembly.

**Step 6.** Set the trench drain and form sections into trench in the order shown on the layout detail sheet. Set the correct height of each section by using shims placed under the 4" x 4" boards on the adjacent concrete. Typically, the trench assembly is placed 1/8" to 1/4" below the adjacent concrete. After the height is set on an assembly, install the next assembly and bolt the flanges of each assembly together. Holes are provided in cast iron frame sections if continuous rebar is required. Install it at some point during this assembly to tie into the pretied rebar cage.

**Note:** If using a hinged trench product, take care to cover the hinge pockets so that excess concrete does not foul the hinge pocket area. DO NOT cover vent holes in frame, these allow trapped air escape and ensure complete embedment of the frame section. Attach the trench end section if using.



Step 6

## EXPANDED POLYSTYRENE (EPS) TRENCH FORMING INSTALLATION GUIDELINES (CONTINUED)

**Step 7.** Pour concrete equally from both sides of the trench. Fill the trench until the trench is about 3/4 full (concrete just touching the bottom of the trench frame). Be sure to properly use vibratory equipment during the concrete pouring process. When the concrete is just touching the bottom of the trench frame, place weights on top of the trench assemblies. These will ensure that the assemblies do not float while the trench is filled to the top. Come back and fill the trench to the surface and use vibratory equipment to ensure that concrete comes through the vent holes. Continue to check the height of the trench assemblies to ensure that it is still correct. Additional weight may be needed to maintain proper elevation in trench. The foam sections will float when vibratory equipment is used to consolidate the concrete when placement is occurring.

**Step 8.** Finish concrete as required by project details/plans. Allow concrete to hard cure set (green cure). You can now start to remove surface timber and counterweight materials. The trench can be left with the forming materials in place until several sections are ready for removal. It is recommended that the forms remain installed for at least 48 hours before removal.

**Step 9.** To remove forming materials, unbolt grate sections and remove them (hinged grates have a self engaging safety arm). Remove center wedge section, then collapse side wall sections. Foam sections are NOT re-usable. Remove 2" x 4" boards from center core sections and dispose of foam in accordance with local laws/ordinances. Sweep up and dispose of any debris that may be remaining in the trench. If additional hardware (lift assist struts) is required, they can be installed in designated sections using provided hardware. To lower the grate, lift the "Yellow" safety arm until the arm "disengages." Lower the grate down until it sits flush in the frame. Do NOT allow the grate to slam shut. Resecure the grates using previously removed hardware.

For more information, please call 800 626 4653.



Step 7



Step 8, 9



Step 8, 9



## TOP FLANGE TRADITIONAL TRENCH GRATE INSTALLATION GUIDELINES

These instructions are meant to be a guide and do not encompass all situations. The contractor or owner has the discretion to modify as they see fit to meet special conditions if they exist. Local civil engineering codes should be followed to ensure long term installation success.

**Step 1.** Establish overall grade of trench installation and pour base slab of trench. The width and thickness of this base slab will vary depending on site conditions and expected loading. A typical trench base slab is between 10" and 16" thick, and the width of the trench plus the width of the side walls. An example is if an 18" wide trench is being installed with 12" wide side walls the base slab will be 42". Typically #4 rebar is added to the base slab and the rebar is extended above the top of the slab to allow for the side wall rebar to tie into it. The base slab is sloped to allow for collected drainage water to flow to the collection point. The exact slope and depth of the trench is determined by site conditions and by the specifying engineer. Often the base slab is poured monolithically without expansion joints. If expansion joints are desired they can be added as determined by local conditions.

**Step 2.** Following an appropriate curing time, the side walls of the trench are constructed. An inside form is created that is strong enough for the trench grating assemblies to sit on top of the form. Typically 3/4" plywood or similar is used. The trench product is designed to rest on the form. It should rest on the underside of the grate and be pushed against the vertical inside wall of the trench rail. The grade of the finished product can be established by measuring the thickness of grate where the form rests and subtracting that number from where the final grade shall be. One method that can be used to construct the forms is to build the trench run, then establish the final grade on the outside of the form with various markings. Next, make markings below the grade markings that account for the thickness of the grate. Then, make a chalk line along the outside of the form. Finally, take a circular saw and cut along the chalk line, which should put the form at the proper height.

**Step 3.** Place the trench product on top of the forms. The trench product must be placed on the form as a complete assembly in order to ensure that the bolting features line up. Trench assemblies shall be placed next to one another and bolted together. They shall be bolted snugly. EJ recommends using a minimum of 2 bolts be used at each joint, but the contractor can use what locations are convenient.

**Step 4.** Install rebar in the vertical sidewall of the trench. Typically a #8 rebar is installed in the one main gusset hole in the underside of the trench frame. Typically #4 to #8 rebar is used to connect to the rebar that is sticking out from the base slab and it is looped appropriately inside where the trench side wall will be. Typical spacing of the #4 rebar is a loop every 12".



Step 1



Step 2, Step 3



Step 4



## TOP FLANGE TRADITIONAL TRENCH GRATE INSTALLATION GUIDELINES (CONTINUED)

**Step 5.** Construct either an expansion joint or a cold joint. Typically, rebar is stopped on either side of an expansion joint, although having rebar run through an expansion joint is done as well. Often longer bolts are used to bolt the adjacent top flange frames to one another through the expansion joint. Expansion joints can be evenly spaced on a trench run. Cold joints can also be constructed where a pour is halted. Often, one would want to run dowels into the area being poured and extending out past the cold joint so that the next pour can be dowelled into the original pour.

**Step 6.** Place the outer forms around the trench to form the outer side wall. If desired, dowels can be placed into the side wall of the trench so that when the final slab is poured the trench will be incorporated into the surface slab. It is recommended that the concrete be evenly distributed on either side of the trench at the same time so the weight on forms is evenly distributed. Hand finishing of the top edge of the trench is recommended as well. When pouring the trench, the side walls shall be vibrated properly and concrete shall be witnessed coming out of the vent holes. This ensures that the concrete is fully underneath the trench frame.

**Note A:** If using a hinged product, take care to cover the hinge pockets so that excess concrete does not foul with hinges after installation.

**Note B:** For aesthetic reasons, plastic sheeting may be placed over the trench product and taped to the top of the product. This will prevent concrete from inadvertently being poured into the trench and will help keep the product clean. There are a number of air vent holes on the top of the frame that will need to be exposed by making small cuts in the plastic sheet over the vent holes.

**Step 7.** After an appropriate curing time, the forms can be stripped and the plastic sheeting removed. Remove the grates and the inner forms. Clean the inside of the trench of any debris. Place the grates back in their original location and bolt them down appropriately. Clean the top of the grating and the trench.



Step 5



Step 6



Note A



Step 7

## ANGLE TRENCH GRATE INSTALLATION GUIDELINES

### Standard Trench Grate Installation

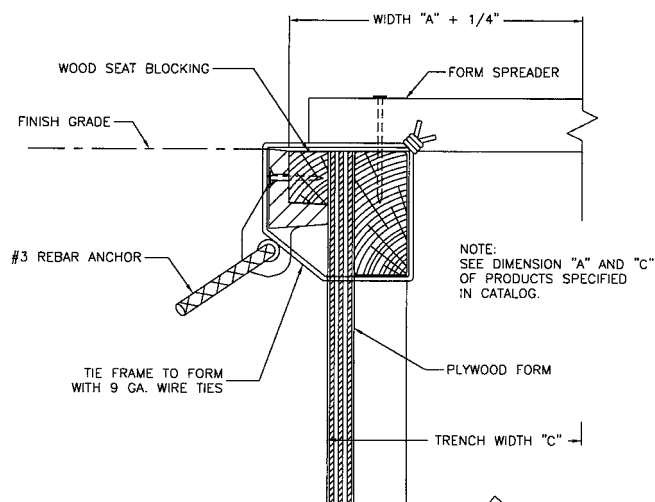
**Step 1.** Pour and finish trench bottom concrete to proper depth and slope and allow curing time. After the bottom has cured, begin erecting the trench form. For properly fitted grates, the form must be plumb, level, and straight. The width of the trench (clear opening) must correspond to the outside edge of the form. This width corresponds to dimension "C" in the catalog. The height of the form will determine the finished grade elevation of the installed grates.

**Step 2.** Extend the spreader beyond the edge of the form to provide a stop for the wood seat blocking. The wood seat blocking is nailed to the form and the cast iron frame is nailed to the wood seat blocking using the bolts in the face of the frame.

**Step 3.** The cast iron frame and wood seat blocking are then secured with 9 gauge tie wire. The frames should be butted together to leave as little gap as possible.

**Step 4.** Place at least eight inches of bent #3 rebar through the anchor lug holes to provide anchorage to the concrete. The frames should be spaced according to the catalog dimension "A" plus 1/4 inch. Trench side frames are not designed to be bolted to each other.

**Step 5.** The concrete for the trench side walls may then be poured. Once the concrete has cured, complete installation by stripping all forming material and tie wires.



### Bolted Trench Grate Installation

**Step 1.** The bolted grates are shipped assembled to the frame. These units should not be disassembled during installation. Pour and finish trench bottom concrete to proper depth and slope and allow curing time.

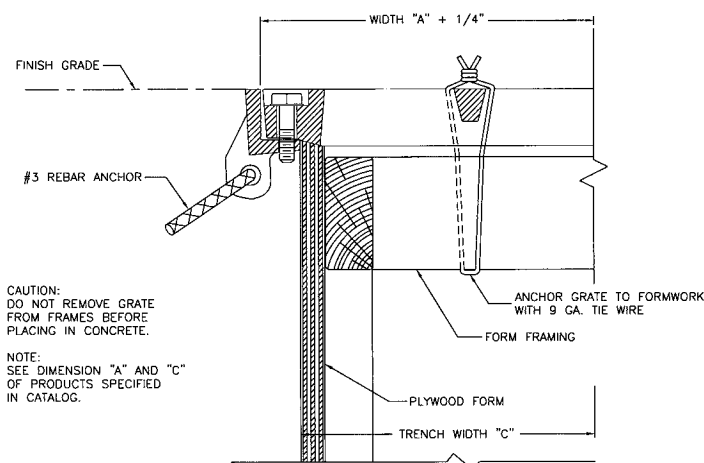
**Step 2.** After the bottom has cured begin erecting the trench form. For properly fitted grates, the form must be plumb, level, and straight. The width of the trench (clear opening) must correspond to the outside edge of the form. This width corresponds to dimension "C" in the catalog. The height of the form will determine the finished grade elevation of the installed grates.

**Step 3.** The frame and grate units should be butted together to leave as little gap as possible. Bolted trench grate assemblies may change during shipping and handling. Make sure the side frames are spaced according to dimension "A" plus 1/4" as illustrated.

**Step 4.** The frame and grate units are then secured with 9 gauge wire tied to the forming brace.

**Step 5.** Place at least eight inches of bent #3 rebar through the anchor lug holes to provide anchorage to the concrete.

**Step 6.** The concrete for the trench side walls may then be poured. Once the concrete has cured, complete installation by stripping all forming material and tie wires.



## SUGGESTED SPECIFICATION FOR CONSTRUCTION AND UTILITY CASTINGS

### General

This specification is applicable for gray iron and ductile iron trench grate, trench cover, and trench frames. Castings shall be Made in USA and shall be EJ Model number(s) XXXXX or approved equal.

### Material

Manufacturer shall certify that all gray iron castings conform to ASTM A48 Class 35B and/or AASHTO M105 Class 35B. Ductile iron casting shall conform to ASTM A536. Castings must contain a minimum of 85% recycled content.

### Markings

All trench grates, trench covers and trench frames shall have text permanently cast onto the product. Frames and covers shall have the approved foundry's name, part number, country of origin preceded by "Made in" (example: MADE IN USA) in compliance with the country of origin law of 1984, and production date (example: mm/dd/yy) for tracking purposes.

Each casting must be marked with such that the material used in the product is readily identifiable. Castings shall be badged in accordance with the casting specifications. Castings without proper markings shall be rejected.

Each casting shall be identifiable and show at a minimum the following: Name of producing foundry, country of manufacture (such as Made in USA), ASTM material designation, individual part number, cast date and include all lettering as shown on the specification drawings.

### Manufacture

Castings shall be of uniform quality, free from sand holes, gas holes, shrinkage, cracks, and other surface defects. Castings shall be ground smooth and well cleaned by shot blasting. As-cast dimensions may vary within accepted foundry tolerances as outlined in the Iron Casting Handbook published by the American Foundry Society, Inc. Nominally, casting dimensional tolerances shall be  $\pm 1/16"$  per foot. All published castings weights may vary  $\pm 5\%$ . Castings shall be provided without coatings, unless otherwise specified.

### Certifications / Standards Compliance

A producing foundry certification shall be furnished to the purchaser that states compliance with the specification.

### Proof Load Testing

Castings intended for traffic service shall have a first article proof load test conducted and the results of that proof load shall be made available to the purchaser upon request. The proof load test shall be conducted in accordance with the method and procedure that is outlined in AASHTO M306.

The castings shall be tested with a 9" x 9" footprint in the center of the casting, unless the trench design is such that it has a clear opening smaller than 9". In that event the castings shall be tested in accordance with the procedure outlined in AASHTO M306. It shall be tested on a suitable and calibrated load testing machine. The castings shall hold a load of 40,000 lbs. for 1 minute in order to qualify for traffic rating (Or alternate loading as specified in AASHTO M306). If alternate load ratings are desired the load held shall be in the following duty ratings: Extra Heavy Duty (100,000- 200,000 lbs.), Extra Heavy Duty Airport (200,000 lbs. and higher).

### Sampling and Records

Random checks on the castings may be conducted by the purchaser and test results for each cast date shall be maintained by the producing foundry for a minimum of seven years and shall be made available to the purchaser upon request.

### Casting Features and Options

Where specified, the trench products shall be provided with the following features. The features shall be specified and ordered at the time of purchase to verify that the feature is available on the product selected. (Note to purchaser: Not all features are available on all sizes. To determine which options available on a specific products use the EJ Americas website located at [americas.ejco.com](http://americas.ejco.com). This resource will have the up to date features and options available for the various trench products). Examples of the types of features and options that can be specified include:

Trench Width: Specify width of Trench (clear opening of trench)

Trench Frame Style: Top Flange, Angle

Grate Options: ADA, Bar, Herringbone, Vane

Lock Type: Unbolted, Hex Bolted, Penthead Bolted, Tamperproof Bolted



## ADDITIONAL PRODUCT LINES

### Street Castings

- Manhole Frames and Covers
- Curb Inlets and Frames
- Utility Castings
- Airport and Port Authority Castings
- Tree Grates
- Trench Grates
- Drainage Grates
- DURALAST® Detectable Warning Plates



### Fabricated Products

- Grating
- Riser Rings
- INFRA-RISER® Adjustment Risers
- Aluminum Access Hatches
- Custom Fabrications



### Water Products

- WaterMaster® Fire Hydrants
- FlowMaster® RW Gate Valves
- Valve Boxes
- Meter Boxes

### Innovative Access Solutions

- Captive Hinge Grates/Covers
- ERGO® and ERGO® XL Access Assemblies
- Ductile Hinged Hatch Access Assemblies
- 5624 Heavy Duty Hinged Grates
- SELFLEVEL® Access Assemblies
- REVOLUTION® Access Assemblies
- ERMATIC® Modular Covers
- MULTILEAF™ Hinged Covers
- CAMPRESSION® Access Assemblies
- Composite Access Solutions



### Innovative Features

- LOCKEO® Security Feature
- Mechanical Strut Lift Assist
- Cam Lock
- EON LOCK® Designs
- EPIC® Pick Bar
- MPIC® Multi-tool Pick Bar



CAMPRESSION, DURALAST, EON LOCK, EPIC, ERGO, ERMATIC, HINGECO, INFRA-RISER, MPIC, REVOLUTION, SAFE HATCH, and SELFLEVEL are registered trademarks of EJ Group, Inc.

MULTILEAF is a trademark of EJ Group, Inc.

## Series Product Listing-Index



## Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
<b>Heavy Duty Trench Grates</b>							
<b>6950 Trench Grate, Frame and Cover Series (Heavy Duty)</b>							
6950 Frames	00695024	6950Z1 Trench Rail for Bolting, 24" Length, 1-1/2" Seat Thickness	Yes		1 1/2		9
	00695030	6950 Trench Rail: 48" Length, 1 1/2" Seat Thickness	Yes		1 1/2		9
	00695031	6950Z2 Trench Rail, 48" Length, 1-1/2" Seat Thickness			1 1/2		9
	00695041	6950Z3 Trench Rail, 36" Length, 1-1/2" Seat Thickness			1 1/2		9
6951	00695102	6951 6" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	8	1 1/2	6	9
	00695142	6951M2 8" x 24" Trench Grate for Bolting, Heavy Duty	Yes	8	1 1/2	6	9
	00695141	6951M2 8" x 24" Trench Grate, Heavy Duty		8	1 1/2	6	9
	00695121	6951A 8" x 24" Solid Trench Cover, Heavy Duty		8	1 1/2	6	9
	00695123B01	6951 6" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	8	1 1/2	6	9
	00695123	6951A 8" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	8	1 1/2	6	9
6952	00695204	6952 8" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	10	1 1/2	8	9
	00695202	6952 8" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	10	1 1/2	8	9
	00695222	6952A 10" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	10	1 1/2	8	9
	00695240	6952M2 10" x 24" Trench Grate, Heavy Duty		10	1 1/2	8	9
	00695242	6952M2 10" x 24" Trench Grate for Bolting, Heavy Duty	Yes	10	1 1/2	8	9
	00695221	6952A 10" x 24" Solid Trench Cover, Heavy Duty		10	1 1/2	8	9
6953	00695306	6953 10" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	12	1 1/2	10	9
	00695302	6953 10" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	12	1 1/2	10	9
	00695320	6953A 12" x 24" Solid Trench Cover, Heavy Duty		12	1 1/2	10	9
	00695322	6953A 12" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	12	1 1/2	10	9
	00695342	6953M2 12" x 24" Trench Grate for Bolting, Heavy Duty	Yes	12	1 1/2	10	9
	00695331	6953M4 Vane Style Trench Grate for Bolting, Heavy Duty	Yes	12	1 1/2	10	9
	00695341	6953M2 12" x 24" Trench Grate, Heavy Duty		12	1 1/2	10	9
	00695331B01	6953 10" Wide Vane Style Bolted Trench Drain Assembly, Heavy Duty	Yes	12	1 1/2	10	9
	00695342B02	6953 10" Wide Bolted Trench Drain Assembly with 2 Grates and 48" Long Trench Rails, Heavy Duty	Yes	12	1 1/2	10	9
	00695341S01	6953M2 12" x 24" Trench Grate with Seat Machined to 1" Thick, Heavy Duty		12	1	10	9
6954	00695406	6954 12" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	14	1 1/2	12	9
	00695402	6954 12" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	14	1 1/2	12	9
	00695420	6954A 14" x 24" Solid Trench Cover, Heavy Duty		14	1 1/2	12	9
	00695422	6954A 14" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	14	1 1/2	12	9
	00695442	6954M2 14" x 24" Trench Grate for Bolting, Heavy Duty	Yes	14	1 1/2	12	9
	00695441	6954M2 14" x 24" Trench Grate, Heavy Duty		14	1 1/2	12	9
	00695422	6954A 14" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	14	1 1/2	12	9
6955	00695520	6955A 17" x 24" Solid Trench Cover, Heavy Duty		17	1 1/2	15	9
6956	00695620	6956A 20" x 24" Solid Trench Cover, Heavy Duty		20	1 1/2	18	9
	00695641	6956M2 20" x 24" Trench Grate, Heavy Duty		20	1 1/2	18	9
	00695602	6956 18" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	20	1 1/2	18	9
	00695643	6956M2 20" x 24" Trench Grate for Bolting, Heavy Duty	Yes	20	1 1/2	18	9
6957	00695703	6957 21" Trench Drain Assembly: Heavy Duty, Bolted	Yes	23	1 1/2	21	9
	00695720	6957A 23" x 24" Solid Trench Cover, Heavy Duty		23	1 1/2	21	9
	00695742	6957 23" x 24" Trench Grate: Heavy Duty		23	1 1/2	21	9
	00695741	6957 23" x 24" Trench Grate: Heavy Duty		23	1 1/2	21	9



## Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6958	00695820	6958A 26" x 24" Solid Trench Cover, Heavy Duty		26	1 1/2	24	9
<b>6950 Trench Grate, Frame and Cover Series (Ductile Iron-Extra Heavy Duty)</b>							
6953	00695351	6953M3 12" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		12	1 1/2	10	9
	00695352	6953M3 12" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	12	1 1/2	10	9
6954	00695401	6954 12" Wide Bolted ADA Style Trench Drain Assembly with Type C Cross Drainage Slots, Extra Heavy Duty	Yes	14	1 1/2	12	19
	00695434	6954M3 14" x 24" Ductile Iron ADA Style Trench Grate with Type C Cross Drainage Slots, Extra Heavy Duty		14	1 1/2	12	19
	00695403	6954 12" Wide Bolted Trench Drain Assembly, Extra Heavy Duty	Yes	14	1 1/2	12	9
	00695446	6954M2 14" x 24" Ductile Iron Trench Grate, Extra Heavy Duty		14	1 1/2	12	9
	00695444	6954M2 14" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty	Yes	14	1 1/2	12	9
	00695433	6954M3 14" x 24" Ductile Iron ADA Style Trench Grate for Bolting with Type C Cross Drainage Slots, Extra Heavy Duty	Yes	14	1 1/2	12	19
6955	00695541	6955M2 17" x 24" Ductile Iron Trench Grate, Extra Heavy Duty		17	1 1/2	15	9
	00695503	6955 15" Wide Bolted Trench Drain Assembly, Extra Heavy Duty	Yes	17	1 1/2	15	9
	00695547	6955M2 17" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty	Yes	17	1 1/2	15	9
6958	00695802	6958 24" Wide Bolted Trench Drain Assembly, Extra Heavy Duty	Yes	26	1 1/2	24	9
	00695842	6958M2 26" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty	Yes	26	1 1/2	24	9
	00695841	6958M2 26" x 24" Ductile Iron Trench Grate, Extra Heavy Duty		26	1 1/2	24	9
<b>V-7300 Trench Grate &amp; Frame Series (Heavy Duty)</b>							
V7300-3 Frame	47300311	V7300 Trench Rail, 48" Length, 2-1/2" Seat Thickness			2 1/2		10
	47300312	V7300 Trench Rail: 24" Length, 2-1/2" Seat Thickness			2 1/2		10
V7301	47301030	V7301 8" x 24" Trench Grate, Heavy Duty		8	1 1/2	6	10
V7302	47302030	V7302 10" x 24" Trench Grate, Heavy Duty		10	1 1/2	8	10
V7303	47303030	V7303 12" x 24" Trench Grate, Heavy Duty		12	1 1/2	10	10
V7304	47304030	V7304 14" x 24" Trench Grate, Heavy Duty		14	2	12	10
	47304232	V7304 14" Trench Grate: Heavy Duty		14	2	12	10
V7305	47305030	V7305 17" x 24" Trench Grate, Heavy Duty		17	2	15	10
V7306	47306030	V7306 20" x 24" Trench Grate, Heavy Duty		20	2	18	10
	47306130	V7306 20" Trench Grate for 45 Degree Turn, Heavy Duty		20	2	18	10
V7307	47307030	V7307 23" x 24" Trench Grate, Heavy Duty		23	2	21	10
V7308	47308030	V7308 26" x 24" Trench Grate, Heavy Duty		26	2	24	10
	47308130	V7308 26" Trench Grate for 45 Degree Turn, Heavy Duty		26	2	24	10
V7309	47309010	V7309 Trench Rail: 2" Seat Thickness			2		10
	47309030	V7309 30" x 24" Trench Grate, Heavy Duty		30	2 1/2	27	10
V7310	47310030	V7310 33" x 24" Trench Grate, Heavy Duty		33	2 1/2	30	10
V7311	47311030	V7311 36" x 24" Trench Grate, Heavy Duty		36	2 1/2	33	10
	47311033	V7311 36" x 24" Trench Grate for Bolting, Heavy Duty	Yes	36	2 1/2	33	10
	47311033B01	V7311 33" Bolted Trench Drain Assembly, Heavy Duty	Yes	36	2 1/2	33	10
V7312	47312030	V7312 39" x 24" Trench Grate, Heavy Duty		39	2 1/2	36	10
V7313	47313030	V7313 45" x 24" Trench Grate: Heavy Duty		45	2 1/2	42	10
V7314	47314030	V7314 51" x 24" Trench Grate, Heavy Duty		51	2 1/2	48	10
<b>V-7300 Trench Grate &amp; Frame and Series (Ductile Iron - Extra Heavy Duty)</b>							
V7304	47304032	V7304 14" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		14	2	12	10
V7306	47306331	V7306 20" Ductile Iron Trench Grate 90 Degree Tee, Extra Heavy Duty		20	2	18	10
V7305	47306231	V7306 20" Ductile Iron Trench Grate for 90 Degree Turn, Extra Heavy Duty Airport		20	2	18	10
V7308	47308202	V7308 24" 90 Degree Turn Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	26	2	24	10
	47308302	V7308 24" 90 Degree Tee Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	26	2	24	10
	47308233	V7308 26" 90 Degree Turn Ductile Iron Trench Grate, Extra Heavy Duty Airport		26	2	24	10

## Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
V7308	47308333	V7308 26" 90 Degree Tee Intersection Ductile Iron Grate, Extra Heavy Duty Airport		26	2	24	10
V7312	47312031	V7312 39" x 24" Ductile Iron Trench Grate, Extra Heavy Duty		39	2 1/2	36	10
<b>V-7320 Bolted Trench Grate &amp; Frame Series (Heavy Duty)</b>							
V7320-1 Frame	47320110	V7320-1 Trench Rail for Bolting, 24" Length, 1-1/2" Seat Thickness	Yes		1 1/2		10
V7320-2 Frame	47320210	V7320-2 Trench Rail for Bolting, 24" Length, 2" Seat Thickness	Yes		2		10
V7320-3 Frame	47320310	V7320-3 Trench Rail for Bolting, 24" Length, 2-1/2" Seat Thickness	Yes		2 1/2		10
V7322	47322061	V7322 9" Trench Drain Assembly: Heavy Duty, Bolted	Yes	11	1 1/2	9	10
	47322032	V7322 11" x 24" Trench Grate, Heavy Duty		11	1 1/2	9	10
	47322030	V7322 11" x 24" Trench Grate for Bolting, Heavy Duty	Yes	11	1 1/2	8	10
V7332	47332061	V7332 36" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	39	2 1/2	36	10
	47332030	V7332 39" x 24" Trench Grate for Bolting, Heavy Duty	Yes	39	2 1/2	36	10
V7334	47334061	V7334 48" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	51	2 1/2	48	10
	47334030	V7334 51" x 24" Trench Grate for Bolting, Heavy Duty	Yes	51	2 1/2	48	10
<b>V-7340 Cross Drainage Trench Grate &amp; Frame Series (Heavy Duty)</b>							
V7341	47341030	V7341 8" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		8	1 1/2	6	11
V7342	47342030	V7342 10" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		10	1 1/2	8	11
V7343	47343030	V7343 12" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		12	1 1/2	10	11
	47343032	V7343 12" x 24" Trench Grate with 1-1/2" Seat Thickness, Type C Cross Drainage Grate, Heavy Duty		12	1 1/2	10	11
V7344	47344030	V7344 14" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		14	2	12	11
V7345	47345030	V7345 17" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		17	2	15	11
V7346	47346030	V7346 20" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		20	2	18	11
	47346031B01	V7346 18" Wide Bolted Trench Drain Assembly with Type C Cross Drainage	Yes	20	2	18	11
V7347	47347030	V7347 23" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		23	2	21	11
V7348	47348030	V7348 26" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		26	2	24	11
V7349	47349030	V7349 30" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		30	2 1/2	27	11
V7350	47350030	V7350 33" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		33	2 1/2	31	11
V7352	47352030	V7352 39" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		39	2 1/2	36	11
V7354	47354030	V7354 51" x 24" Type C Cross Drainage Trench Grate, Heavy Duty		51	2 1/2	48	11
<b>V-7360 Cross Drainage Bolted Trench Grate &amp; Frame Series (Heavy Duty)</b>							
V7363	47363061	V7363 10" Wide Bolted Type C Cross Drainage Trench Drain Assembly, Heavy Duty	Yes	13	1 1/2	10	11
	47363030	V7363 13" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty		13	1 1/2	10	11
V7364	47364061	V7364 12" Wide Bolted Type C Cross Drainage Trench Drain Assembly, Heavy Duty	Yes	15	2	12	11
	47364030	V7364 15" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	15	2	12	11
V7365	47365061	V7365 16" Trench Drain Assembly: Heavy Duty, Bolted	Yes	18	2	16	11
	47365030	V7365 18" x 24" Trench Grate: Heavy Duty		18	2	16	11
V7366	47366061	V7366 19" Trench Drain Assembly: Heavy Duty, Bolted	Yes	21	2	19	11
	47366030	V7366 21" x 24" Trench Grate: Heavy Duty		21	2	19	11
V7367	47367061	V7367 21" Wide Bolted Type C Cross Drainage Trench Drain Assembly, Heavy Duty	Yes	24	2	21	11
	47367030	V7367 24" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	24	2	21	11
V7368	47368061	V7368 25" Trench Drain Assembly: Heavy Duty, Bolted	Yes	27	2	25	11
	47368030	V7368 27" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	27	2	24	11
V7369	47369061	V7369 27" Wide Bolted Type C Cross Drainage Trench Drain Assembly, Heavy Duty	Yes	30	2 1/2	27	11
	47369030	V7369 30" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	30	2 1/2	27	11
V7370	47370061	V7370 Trench Drain Assembly: Bolted	Yes		2 1/2		11
	47370030	V7370 33" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	33	2 1/2	30	11
V7373	47373061	V7373 42" Wide Bolted Type C Cross Drainage Trench Drain Assembly, Heavy Duty	Yes	45	2 1/2	42	11

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Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
V7373	47373030	V7373 45" x 24" Type C Cross Drainage Trench Grate for Bolting, Heavy Duty	Yes	45	2 1/2	42	11
<b>V-7380 ADA Trench Grate &amp; Frame Series (Heavy Duty)</b>							
V7381	47381030	V7381 8" x 24" ADA Style Trench Grate, Heavy Duty		8	1 1/2	6	12
V7381-20	47381261	V7381-20 6" Wide Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	9	1 1/2	6	12
	47381230	V7381-20 9" x 24" ADA Style Trench Grate for Bolting, Heavy Duty	Yes	9	1 1/2	6	12
V7382	47382030	V7382 10" x 24" ADA Style Trench Grate, Heavy Duty		10	1 1/2	8	12
V7382-20	47382261	V7382-20 8" Wide Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	11	1 1/2	8	12
	47382230	V7382-20 11" x 24" ADA Style Trench Grate for Bolting, Heavy Duty	Yes	11	1 1/2	8	12
V7383	47383030	V7383 12" x 24" ADA Style Trench Grate, Heavy Duty		12	1 1/2	10	12
V7383-20	47383261	V7383-20 10" Wide Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	13	1 1/2	10	12
	47383203	V7383-20 13" x 24" ADA Style Trench Grate for Bolting, Heavy Duty	Yes	13	1 1/2	10	12
	47383203A01	V7383-20 10" Wide Tamperproof Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	13	1 1/2	10	12
V7384	47384030	V7384 14" x 24" ADA Style Ductile Iron Trench Grate, Heavy Duty		14	1 1/2	12	12
V7384-20	47384202	V7384-20 12" Wide Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	15	2	12	12
	47384230	V7384-20 15" x 24" Trench Grate: Heavy Duty		15	2	13	12
V7385	47385030	V7385 17" x 24" ADA Style Ductile Iron Trench Grate, Heavy Duty		17	2	15	12
V7385-20	47385262	V7385-20 15" Wide Bolted ADA Style Trench Drain Assembly, Heavy Duty	Yes	18	2	15	12
	47385231	V7385-20 18" x 24" ADA Style Ductile Iron Trench Grate for Bolting, Heavy Duty	Yes	18	2	15	12
V7386	47386030	V7386 20" x 24" ADA Style Ductile Iron Trench Grate, Heavy Duty		20	2	18	12
V7386-20	47386261	V7386-20 18" Wide Bolted ADA Style Trench Drain Assembly, Medium Duty	Yes	21	2	18	12
	47386230	V7386-20 21" x 24" ADA Style Trench Grate for Bolting, Medium Duty	Yes	21	2	18	12
<b>6970 Bolted Vane Style Trench Grate, Frame and Cover Series (Heavy Duty)</b>							
6970	00697001	6970 26-1/2" Wide Bolted Vane Style Trench Drain Assembly, Heavy Duty	Yes	29.75	2 1/2	26.5	12
	00697002	6970 26-1/2" Wide Bolted Double Vane Style Trench Drain Assembly, Heavy Duty	Yes	29.75	2 1/2	26.5	12
	00697013	6970Z1 Trench Rail for Bolting, 18" Length, 2-1/2" Seat Thickness	Yes	0	2 1/2	0	12
	00697015	6970 Trench Rail: 35" Length, 2 1/2" Seat Thickness		0	2 1/2	0	12
	00697017	6970Z2 Trench Rail for Bolting, 36" Length, 2-1/2" Seat Thickness-Uses 2 6970M Vane Grates-	Yes	0	2 1/2	0	12
	00697031	6970 17.75" x 29.75" Trench Grate: Heavy Duty		17.75	2 1/2	15.75	12
	00697033	6970M 29-3/4" x 17-3/4" Vane Style Trench Grate for Bolting, Heavy Duty	Yes	29.75	2 1/2	26.5	12
6971	00697120	6971C Vented 24" x 28-1/2" Ductile Iron Trench Cover for Bolting SDG&E, Heavy Duty, Black Asphaltic Coated SDG&E Standard	Yes	28.5	1 1/4	24	12
	00697121	6971C Vented 2 Hole 24" x 28-1/2" Ductile Iron Trench Cover Electric for Bolting Heavy Duty, Black Asphaltic Coated	Yes	28.5	1 1/4	24	12
	00697123	6971C Vented 2 Hole 24" x 28-1/2" Ductile Iron Trench Cover for Bolting, Blank Tag Area, Heavy Duty, Black Asphaltic Coated	Yes	28.5	1 1/4	24	12
	00697122	6971C Vented 2 Hole 24" x 28-1/2" Ductile Iron Trench Cover for Bolting Communications, Heavy Duty, Black Asphaltic Coated	Yes	28.5	1 1/4	24	12
6972	00697220	6972C Vented 26" x 28-1/2" Ductile Iron Trench Cover for Bolting SDG&E, Heavy Duty, Black Asphaltic Coated SDG&E Standard	Yes	28.5	1 1/4	24	12
	00697222	6972C Vented 2 Hole 26" x 28-1/2" Ductile Iron Trench Cover for Bolting, Heavy Duty, Black Asphaltic Coated	Yes	24	1 1/4	28.5	12
	00697221	6972C Vented 2 Hole 26" x 28-1/2" Ductile Iron Trench Cover for Bolting Electric, Heavy Duty, Black Asphaltic Coated	Yes	24	1 1/4	28.5	12
<b>V-7500 Trench Cover &amp; Frame Series (Heavy Duty)</b>							
V7504	47504031	V7504 14" x 24" Solid Trench Cover, Heavy Duty		14	2	12	13
V7508	47508031	V7508 26" x 24" Solid Trench Cover, Heavy Duty		26	2	24	13
V7509	47509063B01	V7509 27" Wide Solid Bolted Trench Cover Assembly, Heavy Duty	Yes	30	2 1/2	27	13
	47509031	V7509 30" x 24" Trench Cover: Heavy Duty, Cam	Yes	30	2 1/2	0	13
	47509063	V7509 30" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	30	2 1/2	27	13



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Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
V7510	47510031	V7510 33" x 24" Solid Trench Cover, Heavy Duty		33	2 1/2	30	13
V7512	47512031	V7512 39" x 24" Solid Trench Cover, Heavy Duty		39	2 1/2	36	13
V7513	47513031	V7513 45" x 24" Solid Trench Cover, Heavy Duty		45	2 1/2	42	13
V7514	47514031	V7514 51" x 24" Solid Trench Cover, Heavy Duty		51	2 1/2	48	13
<b>V-7520 Bolted Trench Cover &amp; Frame Series (Heavy Duty)</b>							
V7530	47530061	V7530 30" Wide Bolted Solid Trench Cover Assembly, Heavy Duty	Yes	33	2 1/2	30	13
	47530031	V7530 33" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	33	2 1/2	30	13
	47530032	V7530 33" x 24" Trench Cover for Bolting, Confined Space Do Not Enter, Heavy Duty	Yes	33	2 1/2	30	13
	47530032B01	V7530 30" Wide Bolted Solid Trench Cover Assembly Confined Space Do Not Enter, HD	Yes	33	2 1/2	30	13
V7532	47532061	V7532 36" Wide Bolted Solid Trench Cover Assembly, Heavy Duty	Yes	39	2 1/2	36	13
	47532033	V7532 39" x 24" Solid Trench Cover for Bolting RTA Traction Power, Heavy Duty	Yes	36	2 1/2	39	13
	47532032	V7532 39" x 24" Solid Trench Cover for Bolting RTA C&S, Heavy Duty	Yes	36	2 1/2	39	13
	47532032B01	V7532 36" Wide Bolted Solid Trench Cover Assembly, RTA C&S, Heavy Duty	Yes	39	2 1/2	36	13
	47532033B01	V7532 36" Wide Bolted Solid Trench Cover Assembly, RTA Traction Power, Heavy Duty	Yes	39	2 1/2	36	13
V7533	47533031	V7533 Trench Cover, Bolted, 45" x 24"		23.875	2	23.875	13
	47533031B01	V7533 42" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	45	2 1/2	42	13
V7534	47534061	V7534 51" x 24" Trench Cover Assembly: Heavy Duty, Bolted	Yes	51	2 1/2	49	13
	47534031	V7534 51" x 24" Trench Cover: Heavy Duty		51	2 1/2	49	13
<b>7743 Gutter Inlet with End Outlet (Heavy Duty)</b>							
7743	00774310	7743Z Gutter Inlet with end outlet frame					14
	00774330	7743M Curb Inlet Grate					14
	00774340	7743 End Outlet					14
	00774350	7743 End Cap with Slot					14
	00774352	7743 End Cap					14
	00774394	7743H Rectangular 4 Sided 3" Adjusting Riser for Grate 23 1/2" x 9-1/4" x 1-1/4"					14
<b>7744 Gutter Inlet with Side Outlet (Heavy Duty)</b>							
7744	00774410	7744 Catch Basin Inlet Frame with Side Outlet					14
<b>V-7950 Slotted Vane Grate for Pipe (Heavy Duty)</b>							
V7950	47950010	V7950 3-1/2" x 36" Slotted Trench Grate for Installation on Plastic Pipe, Heavy Duty		3.562		3.562	15
<b>Designer - Pedestrian Trench Grates</b>							
<b>6880 Ginkgo Designer Trench Grate</b>							
6883	00688331	6883M 12" x 24" Ginkgo Trench Grate, Heavy Duty		12	1 1/2	10	18
	00688333	6883M 12" x 24" Ginkgo Trench Grate for Bolting, Heavy Duty	Yes	12	1 1/2	10	18
<b>6870 Garland Designer Trench Grate</b>							
6873	00687301	6873 10" Wide Bolted Garland Trench Drain Assembly, Medium Duty	Yes	12	1 1/2	10	18
	00687331	6873M 12" x 24" Garland Trench Grate, Medium Duty		12	1 1/2	10	18
	00687333	6873M 12" x 24" Garland Trench Grate for Bolting, Medium Duty	Yes	12	1 1/2	10	18
6874	00687431	6874M 14" x 24" Garland Trench Grate, Medium Duty		14	1 1/2	12	18
<b>6890 Patriot Designer Trench Grate</b>							
6893	00689301	6893 10" Wide Bolted Patriot Trench Drain Assembly, Heavy Duty	Yes	12	1 1/2	10	18
	00689331	6893M 12" x 24" Patriot Trench Grate, Heavy Duty		12	1 1/2	10	18
	00689333	6893M 12" x 24" Patriot Trench Grate for Bolting, Heavy Duty	Yes	12	1 1/2	10	18
<b>6896 Manhattan Designer Trench Grate</b>							
6896	00689631	6896M 4" x 24" Manhattan Trench Grate, Non-Traffic		4	1	2	18
6897	00689730	6897M 6" x 24" Manhattan Trench Grate, Non-Traffic		6	1	4	18
	00689731	6897M Manhattan ADA Trench Grate, Non-Traffic		6	1	4	18

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Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6898	00689831	6898M 8" x 24" Manhattan ADA Trench Grate, Non-Traffic		8	1 1/2	6	18
<b>6861 Pedestrian Trench Grate</b>							
6861	00686131B01	6861 4-3/4" Tall Bottom Flange Bolted ADA Style 48" Long Trench Grate Assembly	Yes	8.062	1	6.125	18
	00686131	6861M 8" x 48" Ductile Iron ADA Style Trench Grate for Bolting, Medium Duty	Yes	8.062	1	6.125	18
<b>6932 Pedestrian Trench Grate</b>							
6932	00693231	6932M 9" x 36" Ductile Iron ADA Style Trench Grate for Bolting, Heavy Duty	Yes	9	1 1/4	7	18
	00693233	6932M2 9" x 47-3/4" Ductile Iron Trench Grate, Heavy Duty		9	1 1/4	7	18
	00693235	6932M3 13" x 47.75" Ductile Iron Trench Grate with Beveled Top Edge, Heavy Duty		13	1 1/4	7	18
	00693237	6932M3 13" x 47.75" Ductile Iron Trench Grate with Beveled Top for Bolting, Heavy Duty	Yes	13	1 1/4	7	18
<b>7001 Curb Plate</b>							
7001	00700160	7001 Drainage Marker with Anchor Lugs, Dump No Waste! Drains to Waterways!					19
<b>7796 Trench Grate (Non-Traffic)</b>							
7796	00779631	7796M 13-3/4" x 11-3/8" Top Flange Style Trench Grate, Fits into 12" Wide Trench, Light Duty		13.75	1/4	12	19
<b>7799 Trench Grate (Light Duty)</b>							
7799	00779930	7799M 6" x 16" Trench Grate, Light Duty		6	1	4	19
<b>Airport - Extra Heavy Duty Trench Grates</b>							
<b>Hinged Trench Assembly Innovative Access Solution (Airport Extra Heavy Duty)</b>							
6906M5	00690631	6906M5 20" x 24" Ductile Iron Trench Grate with Hinges for Bolting, Extra Heavy Duty Airport	Yes	20	2	18	21
	00690631B01	6906M5 18" Wide Hinged and Bolted Top Flange Trench Drain Assembly with Safety Hold Open Arm, Extra Heavy Duty Airport	Yes	20	2	18	21
6808	00680811	6808Z Ductile Iron Top Flange Trench Rail with Cast in Hinges for Bolting, 48" Length, 2" Seat Thickness, use with 6800Z Rail	Yes		2		21
	00680813	6808Z1 Ductile Iron Top Flange Trench Rail with Hinges for use with 6808 Series, 36" Length, 2" Seat Thickness	Yes		2		21
	00680821	6808A 26" x 24" Solid Ductile Iron Trench Cover with Hinges for Bolting, Extra Heavy Duty Airport Rated	Yes	26	2	24	21
	00680823	6808A 24" x 26" Solid Ductile Iron Trench Cover with Hinges for Bolting, Electric, Extra Heavy Duty Airport Rated	Yes	26	2	24	21
	00680823B01	6808 24" Wide Top Flange Bolted Hinged Trench Cover Assembly, Electric, Lift Assist Not Included, Extra Heavy Duty Airport Rated	Yes	26	2	24	21
	00680823B02	6808 48" x 24" Top Flange Hinged Trench Cover Assembly, 2 Covers Electric, No Lift Assist, Steel End Caps, Airport Rated	Yes	26	2	24	21
	00680847	6808A 26" x 24" Solid Ductile Iron Trench Cover with Hinges, Left and Right Hand Cutouts for Cables, for Cam, Airport Rated	Yes	26	2	24	21
	00680851	6808A1 48" x 26" Solid Ductile Iron Trench Cover with Hinges for Bolting, Extra HD	Yes	26	2	24	21
	00680862	6808A1 48" x 26" Solid Ductile Iron Trench Cover with Hinges for Bolting and Cam, Potable Water, Extra Heavy Duty Airport	Yes	26	2	24	21
	00680862B01	6808 48" x 24" Bolted and Cam Locking Trench Cover Assembly Potable Water, Extra HD	Yes	26	2	24	21
	00680867	6808A1 48" x 26" Solid Ductile Iron Trench Cover with Hinges, Left and Right Hand Cutouts for Cables, for Cam, Airport Rated	Yes	26	2	24	21
	00680870	6808A2 36" x 26" Solid Ductile Iron Trench Cover with Hinged for Bolting, Extra HD	Yes	26	2	24	21
	00680871	6808A2 36" x 26" Solid Ductile Iron Trench Cover with Hinges for Cam Lock, Extra HD	Yes	26	2	24	21
	00680871B01	6808 36" x 24" Bolted and Cam Locking Top Flange Trench Cover Assembly, Lift Assist Not Included, Extra Heavy Duty Airport	Yes	26	2	24	21
	00680871B02	6808 36" x 24" Bolted, Cam Locking Top Flange Trench Cover Assembly, special 5" Wide Trench Rail, No Lift Assist, Airport Rated	Yes	26	2	24	21
6811	00681121	6811A 38" x 24" Solid Ductile Iron Trench Cover with Hinges for Bolting, Extra Heavy Duty	Yes	38	2	36	21
	00681123	6811A 38" x 24" Solid Ductile Iron Trench Cover with Hinges for Bolting and Cam Lock Electric, Extra Heavy Duty	Yes	38	2	36	21

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Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6811	00681123B01	6811 36" Wide Hinged Trench Cover Assembly Electric with Top Flange Trench Rails and Lift Assist, Extra Heavy Duty	Yes	38	2	36	21
	00681141B01	6811 36" Wide Bolted and Cam Locking Trench Cover Assembly with Lift Assist, Extra Heavy Duty Airport	Yes	38	2	36	21
	00681147	6811A 38" x 24" Solid Ductile Iron Trench Cover with Hinges for Bolting and Cam Lock, Side Cutouts for Cables, Extra Heavy Duty	Yes	38	2	36	21
	00681151	6811A1 38" x 48" Solid Ductile Iron Trench Cover with Hinges for Bolting, Extra HD	Yes	38	2	36	21
	00681153	6811A1 38" x 48" Solid Ductile Iron Trench Cover for Bolting and Cam Locking, Electric, Extra Heavy Duty	Yes	38	2	36	21
	00681161B01	6811 36" Wide Bolted and Cam Locking Top Flange Hinged Trench Cover Assembly with Lift Assist and 48" Long Cover, Airport Rated	Yes	38	2	36	21
	00681167	6811A1 38" x 48" Solid Ductile Iron Trench Cover for Bolting and Cam Locking, Edge Slots for Cables, Extra Heavy Duty	Yes	38	2	36	21
	00681170	6811A2 38" x 36" Solid Ductile Iron Trench Cover with Hinges for Bolting, Extra HD	Yes	38	2	36	21
	00681171	6811A2 38" x 36" Solid Ductile Iron Trench Cover with Hinges for Bolting and Cam Lock, Electrical, Extra Heavy Duty Airport	Yes	38	2	36	21
	00681172	6811A2 38" x 36" Solid Ductile Iron Hinged Trench Cover with Hinges for Bolting and Cam Lock, COMM, Extra Heavy Duty Airport	Yes	38	2	36	21
	00681173	6811A2 38" x 36" Solid Ductile Iron Trench Cover with Hinges for Bolting and Cam Lock, Extra Heavy Duty Airport	Yes	38	2	36	21
<b>5436 Trench Grate, Frame and Cover Series (Airport Extra Heavy Duty)</b>							
5436	00543633B03	5436 Top Flange Bolted 1 Grate Catch Basin Assembly with 1 Piece Frame, Extra HD	Yes	23.875	3	23.75	23
	00543604	5436 Top Flange Bolted 2 Grate Catch Basin Assembly, Extra Heavy Duty Airport Rated, Black Asphaltic Coated	Yes	48.125	3	47.875	23
	00543606	5436 Top Flange Bolted 3 Grate Catch Basin Assembly Extra Heavy Duty Airport Rated, Black Asphaltic Coated	Yes	72.125	3	71.875	23
	00543608	5436 Top Flange Bolted 4 Grate Catch Basin Assembly, Extra Heavy Duty Airport Rated, Black Asphaltic Coated	Yes	96.25	3	95.875	23
	00543734B01	5437 Top Flange Bolted 5 Grate Ductile Iron Catch Basin Assembly, Extra Heavy Duty Airport Rated, Black Asphaltic Coated	Yes	120.125	3	119.875	23
	00543601	5436 24" x 32-1/2" Top Flange Bolted 1 Cover Ductile Modular Manhole Assembly, EHD	Yes	24.125	3	24	23
	00543603	5436 32-1/2" x 72" Top Flange Bolted 3 Cover Ductile Modular Manhole Assembly, EHD	Yes	96	3	95.88	23
	00543605	5436 Top Flange Bolted 3 Grate Catch Basin Assembly Extra Heavy Duty Airport Rated	Yes	72.125	3	71.875	23
	00543603B01	5436 32-1/2" x 48" Top Bolted 2 Cover Ductile Modular Manhole Assembly, Extra Heavy Duty Airport	Yes	48.125	3	47.875	23
	00543624B01	5436 32-1/2" x 96" Top Flange Bolted 4 Cover Modular Manhole Assembly, Extra Heavy Duty Airport, Black Asphaltic Coated	Yes	101	3	95.25	23
	00543631	5436M1 35" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport	Yes	23.875	3	23.75	23
	00543621	5436A Solid Ductile Iron Modular Trench Cover for Bolting, Extra Heavy Duty Airport	Yes	24	3	23.875	23
	00543626	5436A 35" x 24" Solid Ductile Iron Modular Trench Cover for Bolting, Communication, Extra Heavy Duty Airport	Yes	24	3	23.875	23
	00543625	5436A 35" x 24" Solid Ductile Iron Modular Trench Cover for Bolting, Electric, Extra HD	Yes	24	3	23.875	23
	00543623	5436A 35" x 24" Solid Ductile Iron Modular Trench Cover for Bolting, Extra Heavy Duty Airport	Yes	24	3	23.875	23
	00543627	5436A 35" x 24" Solid Ductile Iron Modular Trench Cover for Bolting, Power, Extra Heavy Duty Airport	Yes	24	3	23.875	23
	00543633	5436M1 Ductile Iron Grate for Bolting, Extra Heavy Duty Airport	Yes	23.875	3	23.75	23
	00543633G01	5436M1 Ductile Iron Grate of Bolting, Extra Heavy Duty Airport, Galvanized	Yes	23.875	3	23.75	23
<b>6900 Linear Trench Drainage (Airport Extra Heavy Duty)</b>							
6900 Frames	00690023	6900Z1 Trench Rail for Bolting, 24" Length, 2" Seat Thickness	Yes		2		24



Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6900	00690031	6900Z2 Trench Rail, 48" Length, 2" Seat Thickness			2		24
	00690034	6900Z2 Ductile Iron Trench Rail, 48" Length, 2" Seat Thickness			2		24
	00690013	6900Z1 Trench Rail for Bolting with EON Feature, 24" Length, 2" Seat Thickness	Yes		2		24
	00690022	6900Z Trench Rail, 24" Length, 2" Seat Thickness			2		24
	00690041	6900Z3 Ductile Iron Trench Rail, 36" Length, 2" Seat Thickness			2		24
	00690031G01	6900Z2 Trench Rail, 48" Length, 2" Seat Thickness, Galvanized			2		24
	00690011	6900Z4 Top Flange Trench Rail for Bolting with EON Feature, 24" Length, 2" Seat	Yes		2		24
	00690015	6900Z5 Ductile Iron Trench Rail for Bolting with EON Feature, 24" Length, 2" Seat	Yes		2		24
	6901	6901 6" Wide Bolted Trench Drain Assembly with Gray Iron Trench Grate, Extra HD	Yes	8	2	6	24
	00690120	6901A 8" x 24" Solid Trench Cover, Heavy Duty		8	2	6	24
6901	00690130	6901M 8" x 24" Trench Grate, Extra Heavy Duty Airport		8	2	6	24
	00690132	6901M 8" x 24" Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	8	2	6	24
	00690133	6901M 8" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport		8	2	6	24
	00690133B01	6901 6" Wide Bolted Trench Drain Assembly with Ductile Iron Trench Grate, Extra HD	Yes	8	2	6	24
	00690132B01	6901 6" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	8	2	6	24
	6902	6902M2 8" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	10	2	8	24
	00690244	6902M2 10" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	10	2	8	24
	00690222B01	6902 8" Wide Bolted Trench Cover Assembly Extra Heavy Duty	Yes	10	2	8	24
	00690248	6902M2 10" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		10	2	8	24
	00690244B01	6902 8" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	10	2	8	24
6903	00690306	6903 10" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	12	2	10	24
	00690348	6903M2 12" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		12	2	10	24
	00690321	6903A 12" x 24" Solid Ductile Iron Trench Cover, Extra Heavy Duty Airport		12	2	10	24
	00690346B01	6903 10" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	12	2	10	24
	00690346	6903M2 12" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	12	2	10	24
	6904	6904M2 12" Wide Bolted Trench Drain Assembly, Airport Extra Heavy Duty, Bolted	Yes	14	2	12	24
	00690420	6904A 14" x 24" Solid Trench Cover, Extra Heavy Duty		14	2	12	24
	00690422	6904A 14" x 24" Solid Trench Cover for Bolting, Extra Heavy Duty	Yes	14	2	12	24
	00690409	6904 12" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	14	2	12	24
	00690457B01	6904 12" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	14	2	12	24
6904	00690457	6904M2 14" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	14	2	12	24
	00690456	6904M2 14" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		14	2	12	24
	00690422B01	6904 12" Wide Bolted Trench Cover Assembly, Extra Heavy Duty	Yes	14	2	12	24
	6905	6905M2 17" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	17	2	15	24
	00690544B01	6905 15" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	17	2	15	24
	00690504	6905 15" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	17	2	15	24
	00690502	6905 15" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	17	2	15	24
	00690541	6905M2 17" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		17	2	15	24
	6906	6906M4 20" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		20	2	18	24
	00690608	6906 18" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	20	2	18	24
6906	00690600	6906M4 18" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty	Yes	20	2	18	24
	00690601	6906 18" Wide Bolted Trench Cover Assembly, Extra Heavy Duty Airport	Yes	20	2	18	24
	00690654	6906M4 20" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	20	2	18	24
	00690651	6906A1 Ductile Iron Trench Cover for Bolting, Extra Heavy Duty Airport	Yes	20	2	18	24
	00690652	6906A1 20" x 24" Ductile Iron Trench Cover, Extra Heavy Duty		20	2	18	24
	6907	6907 21" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	23	2	21	24
	00690744	6907M3 23" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	23	2	21	24
	6908	6908M4 26" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		26	2	24	24

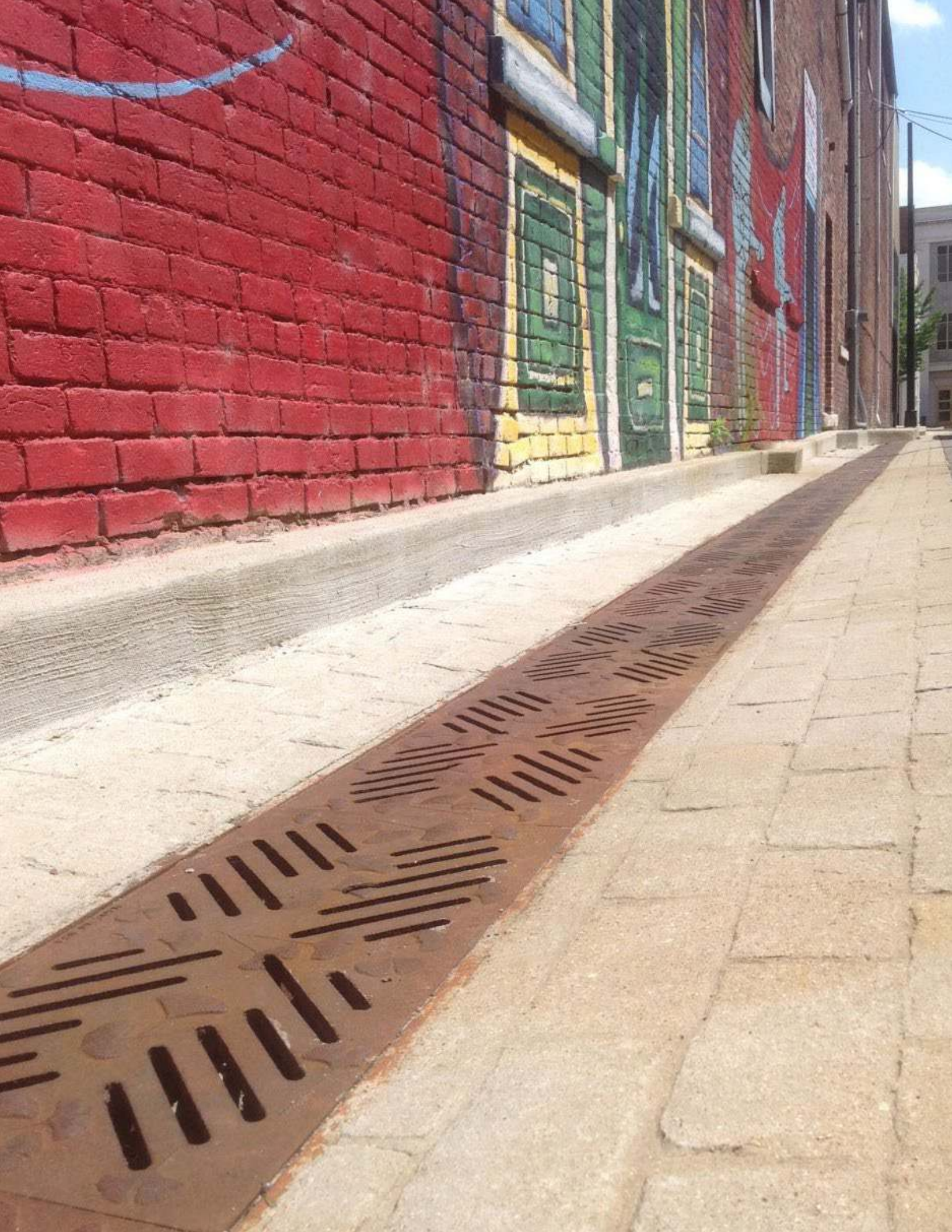
## Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6908	00690834G01	6908M4 26" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport, Galvanized		26	2	24	24
	00690837B02	6908 24" Wide Bolted Trench Drain Assembly with Special 4" x 6" Opening in Center of Grate, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690831	6908A 26" x 24" Solid Ductile Iron Trench Cover, Extra Heavy Duty Airport		26	2	24	24
	00690837B01	6908M4 24" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty A.	Yes	26	2	24	24
	00690837S01	6908M4 26" x 24" Ductile Iron Trench Grate for Bolting with Special 4" x 6" Opening in Center of Grate, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690829	6908A2 26" x 24" Ductile Iron Trench Cover for Bolting, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690829B01	6908 24" Wide Bolted Trench Cover Assembly, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690837	6908M4 26" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690850	6908M4 26" x 24" Ductile Iron Trench Grate for Bolting, Left Hand Side of 4-1/4" Hole, Extra Heavy Duty Airport	Yes	26	2	24	24
	00690851	6908M4 26" x 24" Ductile Iron Trench Grate for Bolting, Right Hand Side of 4-1/4" Hole, Extra Heavy Duty Airport	Yes	26	2	24	24
6909	00690930	6909M 27" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		27	2	25	24
	00690933	6909M1 32" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	32	2	30	24
	00690933B01	6909 30" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty	Yes	32	2	30	24
	00690940	6909M2 Ductile Iron 29" x 24" (737mm x 606mm) Trench Grate for Bolting, Extra HD	Yes	29	2	27	24
	00690940B01	6909 26-3/4" (680mm) Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty	Yes	29	2	26.75	24
	00690940B02	6909 27" (685mm) Bolted Trench Drain Assembly, Extra Heavy Duty Airport (F900)	Yes	29	2	27	24
6910	00691007	6910 31" Wide Bolted Trench Drain Assembly with LBIW Badging, Extra HD	Yes	34	2	31	24
	00691047	6910M2 34" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	34	2	31	24
	00691008	6910 31" Wide Bolted Trench Drain Assembly, Extra Heavy Duty Airport	Yes	34	2	31	24
	00691048B01	6910 32" Wide Bolted Top Flange Trench Drain Assembly, Extra Heavy Duty Airport	Yes	34	2	32	24
	00691048	6910M2 34" x 24" Ductile Iron Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	34	2	31	24
	00691040	6910M2 34" x 24" Ductile Iron Trench Grate, Extra Heavy Duty Airport		34	2	31	24
6912	00691231	6912M 51" x 24" Trench Grate for Bolting, Extra Heavy Duty Airport	Yes	51	2	48	24
	00691235	6912M1 Ductile Iron 45 Degree Turn Trench Grate for Bolting use for 48" Wide Trench	Yes	51	2	48	24
	00691235B01	6912 48" Wide Bolted 45 Degree Turn Ductile Iron Trench Drain Assembly, Extra HD	Yes	51	2	48	24
	00691231B01	6912 48" Wide Bolted Ductile Iron Trench Drain Assembly, Extra Heavy Duty Airport	Yes	51	2	48	24
	00691236	6912M 51" x 24" Trench Grate, Heavy Duty		51	2	48	24
<b>6900 Linear Trench Drainage (Heavy Duty)</b>							
6901	00690120	6901A 8" x 24" Solid Trench Cover, Heavy Duty		8	2	6	24
6902	00690202	6902 8" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	10	2	8	24
	00690220	6902A 10" x 24" Solid Trench Cover, Heavy Duty		10	2	8	24
	00690222	6902A 10" x 24" Solid Trench Cover for Bolting, Heavy Duty	Yes	10	2	8	24
	00690240	6902M2 10" x 24" Trench Grate, Heavy Duty		10	2	8	24
	00690242	6902M2 10" x 24" Trench Grate for Bolting, Heavy Duty	Yes	10	2	8	24
6903	00690320	6903A 12" x 24" Solid Trench Cover, Heavy Duty		12	2	10	24
	00690330	6903M1 12" x 24" Trench Grate, Heavy Duty		12	2	10	24
	00690340	6903M2 12" x 24" Trench Grate, Heavy Duty		12	2	10	24
	00690340G01	6903M2 12" x 24" Trench Grate, Heavy Duty, Galvanized		12	2	10	24
6904	00690402	6904 12" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	14	2	12	24
	00690440	6904M2 14" x 24" Trench Grate, Heavy Duty		14	2	12	24
	00690442	6904M2 14" x 24" Trench Grate for Bolting, Heavy Duty	Yes	14	2	12	24
	00690440S01	6904M2 14" x 24" Trench Grate with Special Machined 1-1/2" Seat Thickness		14	1 1/2	12	24

## Trench Grate Series Product Listing-Index

Series	Product Number	Product Description	Bolting	A Grate Width	B Seat Depth	C Trench Width	Page
6905	00690502	6905 15" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	17	2	15	24
	00690540	6905M2 17" x 24" Trench Grate, Heavy Duty		17	2	15	24
6906	00690542	6905M2 17" x 24" Trench Grate for Bolting, Heavy Duty	Yes	17	2	15	24
	00690605	6906 18" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	20	2	18	24
	00690606	6906 18" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	20	2	18	24
	00690620	6906A 20" x 24" Trench Cover, Heavy Duty		20	2	18	24
	00690622	6906A 20" x 24" Trench Cover for Bolting, Heavy Duty	Yes	20	2	18	24
6907	00690642	6906M2 20" x 24" Trench Grate for Bolting, Heavy Duty	Yes	20	2	18	24
	00690647	6906M2 20" x 24" Trench Grate, Heavy Duty		20	2	18	24
	00690740	6907M2 23" x 24" Trench Grate, Heavy Duty		23	2	21	24
	00690742	6907M2 23" x 24" Trench Grate for Bolting, Heavy Duty	Yes	23	2	21	24
	00690742B01	6907 21" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	23	2	21	24
6908	00690804	6908 24" Wide Bolted Trench Drain Assembly, Heavy Duty	Yes	26	2	24	24
	00690840	6908M2 26" x 24" Trench Grate, Heavy Duty		26	2	24	24
	00690842	6908M2 26" x 24" Trench Grate for Bolting, Heavy Duty	Yes	26	2	24	24
	00690803	6908 24" Wide Bolted Trench Cover Assembly, Heavy Duty	Yes	26	2	24	24
	00690821	6908A 26" x 24" Trench Cover, Heavy Duty		26	2	24	24
6912	00690823	6908A 26" x 24" Trench Cover for Bolting, Heavy Duty	Yes	26	2	24	24
	00691236	6912M 51" x 24" Trench Grate, Heavy Duty		51	2	48	24
<b>6979 Linear Slotted Drain Vain Grate (Airport Extra Heavy Duty)</b>							
6979	00697931	6979M 8" x 36" Slotted Vane Trench Drain for Installation on Pipe, Extra HD Airport Rated		8		8	26
<b>Trench Grate Accessories</b>							
6808	00680895	6808 Accessory Ductile Iron End Plate					30
	00680898	6808 Galvanized Steel End Plate Accessory					30
	00680899	6808 Accessory Galvanized Steel End Plate					30
6811	00681198	6811 Steel Painted End Plate					30
	00681199	6811 Accessory Galvanized Steel End Plate					30
6861	00686113	6861 Square Trench End Frame					30
6900	00690090	6900Z4 Trench End Cap for 24" Wide Trench, use with Trench Assembly 00690855B01					30
6903	00690399	6903 Accessory Galvanized Steel End Plate					30
V7301	47301010	V7301 Trench End Piece for 8" Wide Trench Grate					30
V7304	47304010	V7304 Trench End Piece for 14" Wide Trench Grate					30
V7308	47308010	V7308 Trench End Piece for 26" Wide Trench Grate					30
V7314	47314010	V7314 Trench End Piece for 51" Wide Trench Grate					30







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