TRENCH **DRAINS**

PC-1

POLYCAST®

HUBBELL®

DANGER
OVERHEAD
POWER LINES

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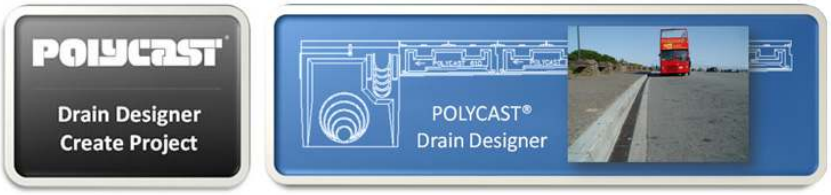


Polycast Drain Designer

Have you tried the Polycast Drain Designer yet? Answer a few questions, and in just seconds, Drain Designer will produce a detailed drawing, specification, and bill of material/sales quote for your project.

Visit http://www.hpsapps.com/draindesigner to enter your project details today.

Unpredictable Environments. Damaging Conditions.

Our Competitive Edge

Through its distinguished POLYCAST® brand, Hubbell has harnessed one of its competitive strengths and offers a full line of trench drain systems to meet customer needs.

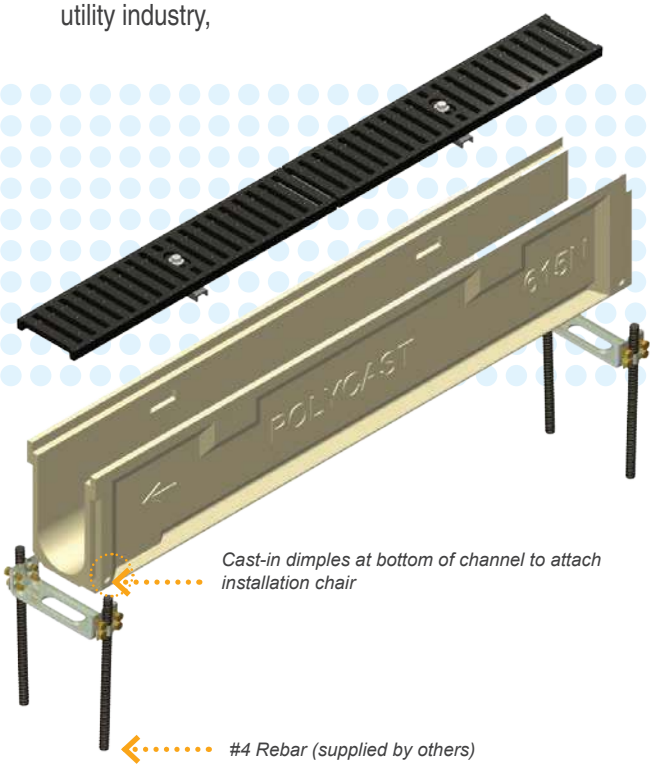
Well versed in delivering the utility industry with reliable solutions for unpredictable, damaging environments, Hubbell brings that same level of expertise to the civil construction and transportation industries with a superior drain system – POLYCAST®.

Hubbell Power Systems employs over 14,500+ people worldwide and leads the way in the production of products and components for the utility industry,

The 20% Advantage

48" vs. 1 Meter Channel Lengths

- Fewer Channels
- Fewer Joints
- Faster Installation
- Fewer Problems



Cast-in dimples at bottom of channel to attach installation chair

#4 Rebar (supplied by others)

A Superior Drain System

Based in Lenoir City, TN, Polycast was formed in 1981 and specializes in polymer concrete and fiberglass drainage systems for a variety of both indoor and outdoor applications. As the system of choice, Polycast installations include professional sports stadiums, airports and numerous industrial facilities around the country.

The smooth interior finish of Polycast drains assures complete drainage

Polycast. Proven Superior.

Made of a high strength, chemical resistant, composite material, Polycast drains offer a high degree of chemical resistance and have a water absorption value of less than one percent (ASTM C140). In short, Polycast Polymer Concrete is more than four times stronger than ordinary Portland Cement Concrete, simplifies installation and lowers overall costs.

- Ideal for indoor and outdoor applications
- Rapid drainage and durability
- Resistant to freeze/thaw cycles (ASTM C666)
- Offers superior versatility with 24" and 48" components

Applications

COMMERCIAL

- Vehicle Maintenance
- Airports
- Highway, Roads, Curbs
- Schools

INDUSTRIAL

- Manufacturing
- Chemical Plants
- Bottling
- Food Processing

Choosing A Drain System

For Your Application...

There are a multitude of applications that warrant a trench drain system and it's often difficult to determine the best product for a given application. Although seemingly insignificant, choosing components for your drain system deserves careful consideration as they can determine the life and effectiveness of your linear drain. We can help with your product selection.

The following section will help determine which POLYCAST® Trench Drain System best meets your specific needs and includes such factors as rainwater run-off, grade, wheel loadings and pedestrian traffic. Many of the topics discussed in this section relate to all modular and pour-in-place systems.

Hydraulic Capacity

Determine the amount of liquid that will be flowing through the trench drain in a given time period.

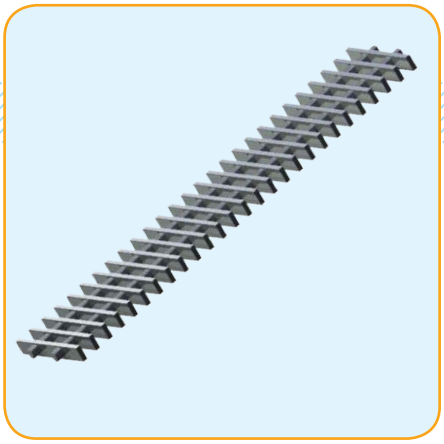
- Calculate Flow
- Site Conditions
- Fluid Characteristics

Application

Choose a load rating for the area for which the grate will be installed. Environmental factors and types of traffic should be considered to ensure long life of the trench drain system.

- Load Rating
- Wheel Types / Edge Protection
- Material Properties

Job Specific



Specific job requirements will often play a role in channel and grate selection. This could include everything from material selection to grate lockdowns and legal requirements.

- Aesthetics
- ADA & Pedestrian Safety
- Country of Origin Requirements

Hydraulic Capacity

To ensure that the correct trench drain is selected for each site, several factors should be evaluated. The most important of these is hydraulic performance, or the ability of the drain to evacuate water without flooding.

Calculate Flow

The catch basin or drain outlet must be sized to meet the maximum amount of water to be evacuated from the site.

This model is designed for rainfall run-off, but can be easily converted to industrial or overflow drainage.

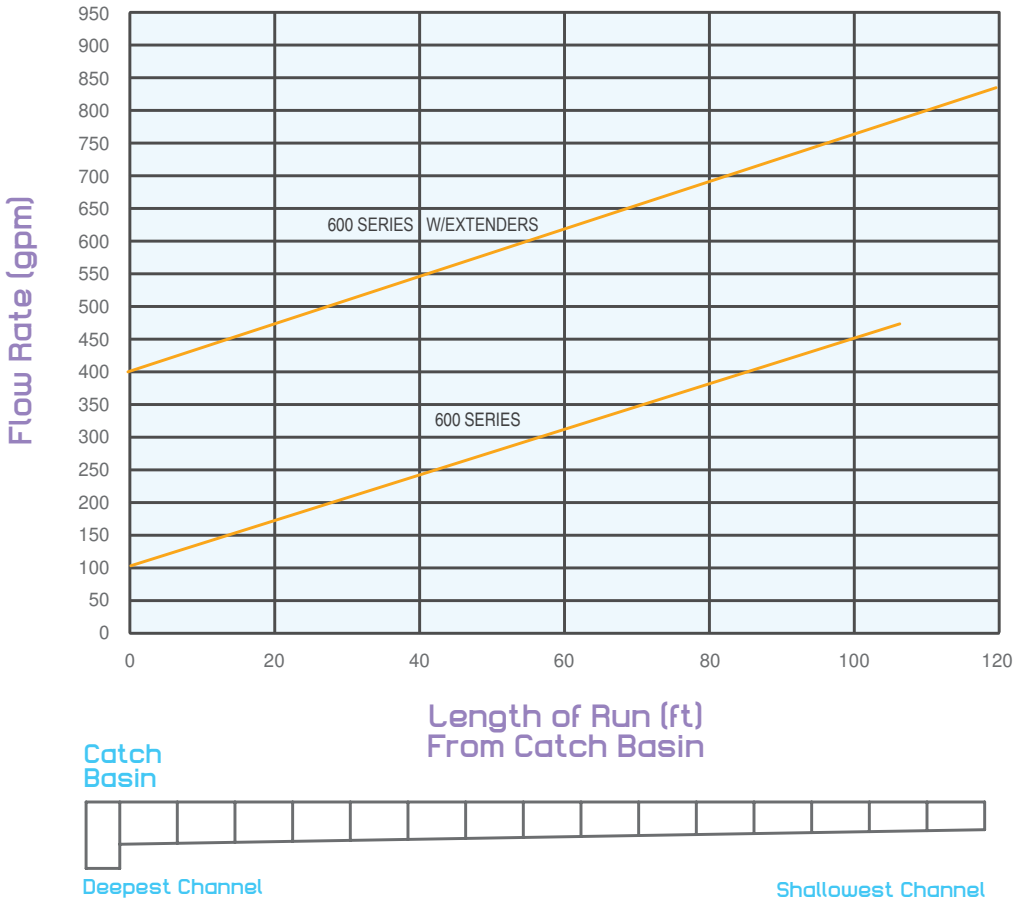
To calculate flow (Q) in gpm, the following parameters are needed:

Drainage area = length x width (A x B)

Rainfall intensity in inches per hour (C)

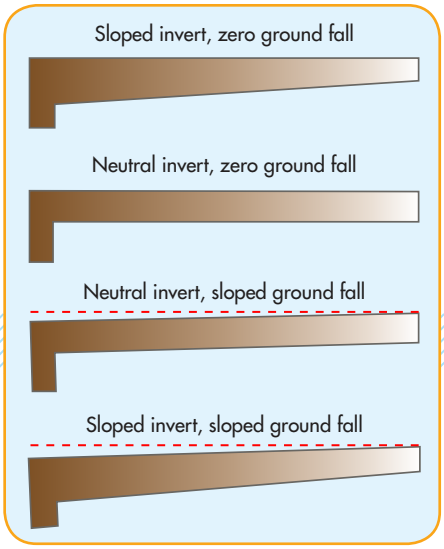
$$Q\ (GPM) = \frac{\text{Area (AxB) x Rainfall (C)}}{\text{60 (minutes) x 1.6 (conversion to gallons)}}$$

Flow capacity for POLYCAST® drains



Site Conditions

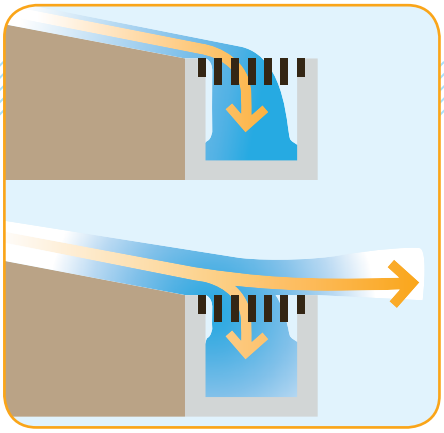
The specific conditions of each site will affect the performance of a drain system. These factors should be taken into account on a case-by-case basis and may include complex slopes, interference with underground structures, piping types, and landscaping.



Grade & Slope

POLYCAST® Trench Drains are available in both sloped and non-sloped designs.

When the trench drain is installed in an area where slope already exists, a neutral or smaller drain design may be used to net similar performance. If too much slope is present, flooding may occur due to the wave effect or drain outlet limitations.



Sheeting

Sheeting over drain grates occurs when there is too much liquid or when the liquid is at too high of a velocity to fully enter the drain grate. Generally the trench drain will reach its maximum capacity before sheeting over the grates becomes an issue. This can be an important factor to consider when using perforated or intricate decorative grate designs.

Grate flow inlet charts are located in the technical section of this catalog on pages 35, 44 and 49.

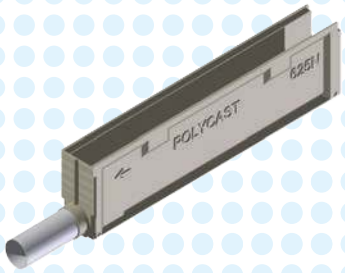
GR8 TIPS

We Take the Guesswork Out

Rainfall: Rainfall frequency and intensity charts can be found at: www.noaa.gov.

Outlet Type

The type of outlet for a drain will greatly affect the drain's performance. Whether using a pipe outlet or a catch basin, the outlet should be sized to handle greater or equal flow capacity of the trench drain. This will ensure that flooding does not occur.

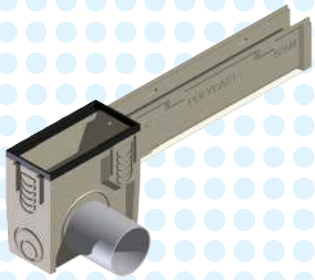


End Pipe Outlet

Standard end pipe outlet. Lowest capacity.

Bottom Pipe Outlet

Vertical pipe outlet. Offers more capacity due to gravity.



Catch Basin Outlet

Catch basins allow trash baskets to collect debris and offer the most capacity as larger pipes can be used.

Fluid Characteristics

Not all trench drains carry run-off water. When used in chemical plants or industrial facilities, special care should be taken to ensure that the trench drain is appropriate for the specific application.

Chemical Resistance

For highly corrosive drainage situations, POLYCAST® manufactures drainage components with DERAKANE® 470 Vinyl Ester resin. Trench drains may also be ordered with Vinyl Ester fiberglass grating and corrosion resistant locking devices.

Vinyl Ester drain systems are ideally suited for handling most highly corrosive fluids. These are ideal for use in areas where EPA pollution control requirements dictate that manufacturers concentrate and collect these corrosive materials.

A full chemical application guide is available in the technical section of this catalog starting on page 48.

Temperature

Certain applications require a liquid at elevated temperatures be drained into containment areas. These applications may include industrial plants, breweries, and food processing facilities. All POLYCAST drain systems are rated for 120°F continuous service. When higher temperatures are required, vinyl ester channels may be substituted which are rated for 180°F continuous service.

GR8 TIPS

We Take the Guesswork Out

Choke Points: Outlet pipes must be capable of more flow capacity than the trench drain system or the whole system can back up.

Applications

The types of traffic a drain will be subjected to determines the style of grating and edge protection to be used. Trench drains are subjected to forces in various directions once installed, which can make grate selection challenging. POLYCAST® products adhere to third party application standards to provide peace of mind to every customer.

Load Ratings

POLYCAST grates are designed to meet load ratings as defined by DIN/EN 1433. This well recognized, international standard classifies potential drainage applications into 6 classes. These classes take into account both proof loading and catastrophic loads to ensure the user's product is selected correctly and is reliable.

LOAD RATINGS

DIN Class A - 3,372 lbs - 15 kN
Residential, pedestrian, and cyclist traffic

DIN Class B - 28,100 lbs - 125 kN
Sidewalks, parking lots, and car parking decks

DIN Class C - 56,200 lbs - 250 kN
Curb sides, highway shoulders, and parking areas

DIN Class D - 89,920 lbs - 400 kN
Trafficked sections of roads and highways

DIN Class E - 134,800 lbs - 600 kN
Industrial areas, forklifts traffic, ports, and dock sides

DIN Class F - 202,320 lbs - 900 kN
Aircraft runways, docks, and high impact wheel loads

Wheel Types / Edge Protection

Hard wheel traffic such as forklifts can cause unprotected drain edges to deteriorate. This exposed edge helps hold grates in position and transfers the loads into the surrounding concrete. If this edge fails, the grate can be allowed to move, causing channel cracking and eventually failure.

Material Properties

POLYCAST offers both metal and plastic edge options. These edge rails form a mechanical bond into the surrounding concrete and are designed to withstand the long term abuse of traffic, snow plows, and forklifts. Edge protection is recommended for any application of Load Class D or greater.

Job Specific

Aesthetics

The grate is the most visible portion of any trench drain system. POLYCAST grates can be used to mimic or even enhance the surrounding landscape. Use stainless steel edge rails to gain an even more dramatic border.

Country of Origin Requirements

Certain construction projects require that some materials be manufactured within the United States. If country of origin certification is required, details must be noted and discussed at the time of order.

Polycast Drain Designer

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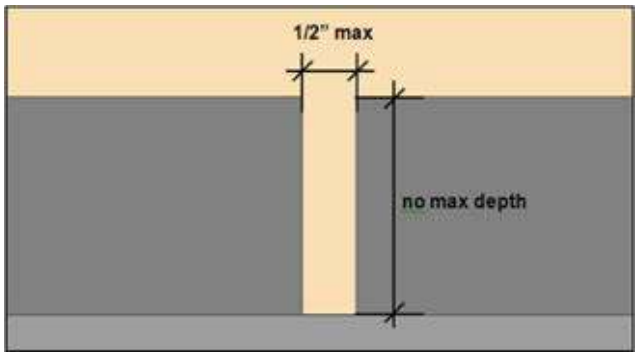
ADA & Pedestrian Safety

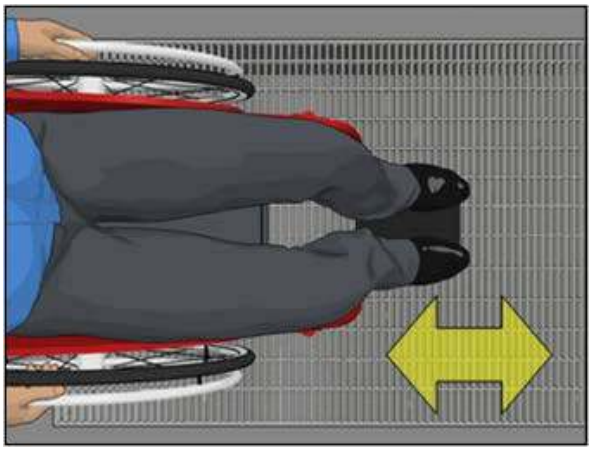
ADA Grates

All polycast grates with the ADA icon can meet the ADA requirements if installed in accordance with the guidelines from the ADA Standard listed below.

ADA Standard Section 302.3

Openings in ground and floor surfaces such as grates, are limited in width to prevent passage of a 1/2" diameter sphere.





Elongated openings, like those of most grates, must be oriented so that the long dimension is perpendicular to the dominant travel direction. In locations where there is no dominant flow pattern, openings must be limited to ½" in both dimensions. Where an accessible route is available to bypass openings completely, they can be oriented in any direction.

Heel Resistant Grates

All Polycast grates with the high heel icon comply with ASME A112.6.3: Section 7.12 Heel Resistant Strainers and Grates: "A grate designed to resist entry of high-heeled shoes, in which the maximum grate hole size in least direction shall be 5/16 in. (8mm)." These grates are designed to help avoid injury or falls by preventing small stiletto-style heels from getting stuck.

Bicycle Safe Grates

All Polycast grates with the bicycle icon comply with Australian Standard AS 3996 – 2006 Clause 3.3.6, which defines the maximum slot dimensions for "Bicycle Tire Penetration Resistant" grates. These grates are designed to help avoid injury or falls by preventing bicycle tires from getting stuck.

400 Series Residential

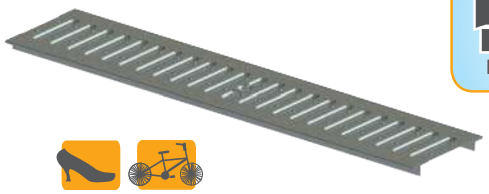
Residential Solutions

The POLYCAST® 400 Series is a complete surface drainage system with a precast polyester polymer concrete trench and a tight-fitting galvanized steel grate. The steel grate is bicycle and wheelchair resistant and will support limited automotive traffic. The precast trench and grate is available in 2' and 4' lengths. Every 4' section has a 4" bottom cut-out for a pipe connection. Solid and drain end caps are available for 3" PVC pipe. Inexpensive and long lasting, POLYCAST 400 Series is the perfect drainage system for tennis courts, swimming pools, walkways, patios, garage entrances, etc. Use with Installation Chair DA0634. Grate hold-down device DA0642 is recommended.

I.D. Depth: 4.5"
I.D. Width: 4.25"

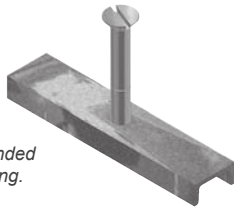
Accessories

Grates



(2' Slotted Grating - Part No. DG0441)
(4' Slotted Grating - Part No. DG0442)

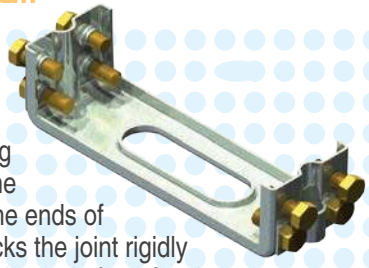
Grate Hold-Down Device



One hold-down device is recommended per every 2' of grating.

(Grate Hold-Down Device - Part No. DA0642)

Installation Chair



The POLYCAST Installation Chair is the most efficient and economical means of setting a precast trench system. The installation chair supports the ends of the channels, aligns and locks the joint rigidly together, and prevents the channels from floating. Adjusting channel elevation is easy with the POLYCAST Installation Chair.

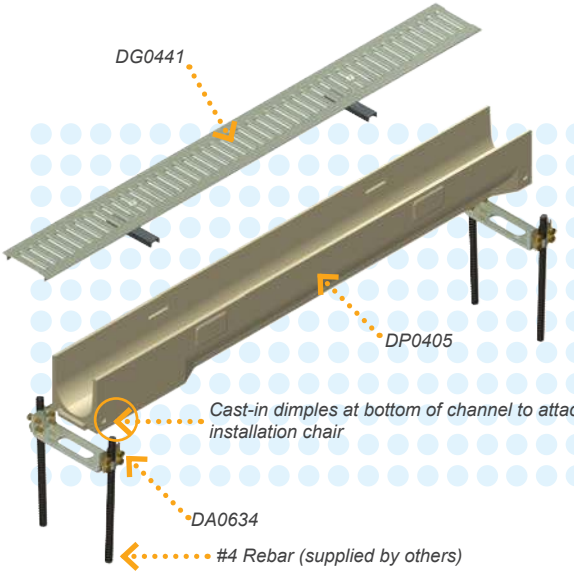
(Installation Chair - Part No. DA0634)

End Caps

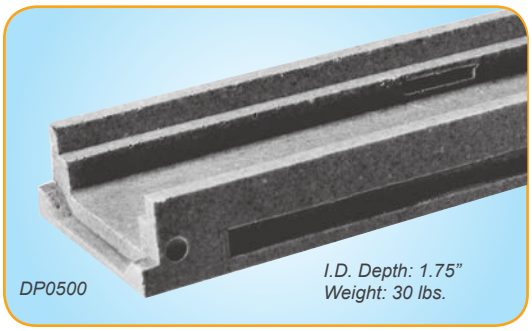
Drain end caps are available for 3" PVC pipe. Solid end caps are also available toseal off the ends of the channels.

(3" Drain End Cap - Part No. DP0405D)
(Closed End Cap - Part No. DP0405C)

Installation Diagram



500 Series Deck Drain



The POLYCAST® 500 Series Deck Drain System is ideally suited for a variety of above grade applications requiring drainage of incidental water run-off. The 500 Series is POLYCAST's shallowest drain, measuring O.D. 48" x 6.25" x 2.5" and I.D. of 48" x 4.25" x 1.75". It is designed to be installed in suspended slab applications, such as parking structures, pool deck areas, and many other thin slab applications. The precast sections are made up of 4' lengths. Each section has a 4" bottom cut-out for pipe connections. The POLYCAST 500 Series is available in either polyester or Vinyl Ester polymer concrete. The polyester polymer concrete is used for most drainage applications. Vinyl Ester polymer concrete is used for high corrosive and high temperature applications. The 500 Series drains are designed for pneumatic tire traffic only. For added depth and/or solid tire forklift and full traffic applications, the 700 Series HARDNOSE frame can be added. Grate hold-down device DA0542 is recommended.

PEDESTRIAN — A — DIN LOAD CLASS

500 Series Grates

Galvanized Steel Slotted

An economical alternative, the galvanized grate is appropriate for many general use conditions. For use with Grate hold-down device Part No. DA0542.

ADA Compliant.

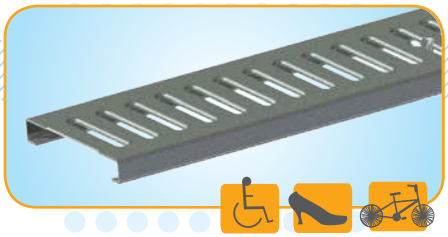
Part No. DG0640

Open Area: 10.2 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 0.28" x 3.00"



See ADA Installation Guidelines Page 11

Stainless Steel Slotted

Application for use where sanitary conditions are essential. For use with Grate hold-down device Part No. DA0542S.

ADA Compliant.

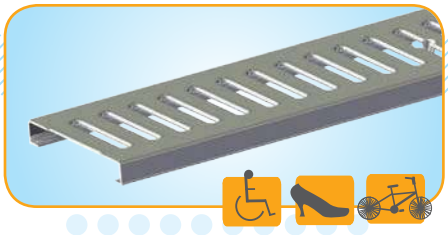
Part No. DG0647

Open Area: 10.2 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 0.28" x 3.00"



See ADA Installation Guidelines Page 11

Galvanized Steel Perforated

Designed for use in pedestrian areas to minimize heel hazards and prevent entrance of large objects. For use with Grate hold-down device Part No. DA0542.

ADA Compliant.

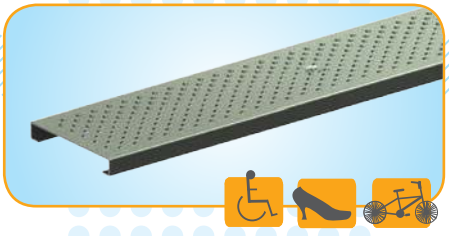
Part No. DG0646

Open Area: 8.5 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 1/4" dia.



See ADA Installation Guidelines Page 11

Stainless Steel Perforated

Designed for use where sanitary conditions are essential, as well as the need for heel-resistant gratings. For use with Grate hold-down device Part No. DA0542S.

ADA Compliant.

Part No. DG0657

Open Area: 8.5 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 1/4" dia.

See ADA Installation Guidelines Page 11

Galvanized Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Removable cover allows full access. For use with Grate hold-down device Part No. DA0542.

ADA Compliant.

Part No. DG0645

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: N/A

See ADA Installation Guidelines Page 11

Stainless Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Especially suited for areas exposed to mild acids or bases. Removable cover allows full access. For use with Grate hold-down device Part No. DA0542S.

ADA Compliant.

Part No. DG0667

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: N/A

See ADA Installation Guidelines Page 11

Fiberglass

Designed for use with POLYCAST® Vinyl Ester trench in areas requiring extreme chemical resistance. The clear opening between the bars is 5/8". For use with Grate hold-down device Part No. DA0542F.

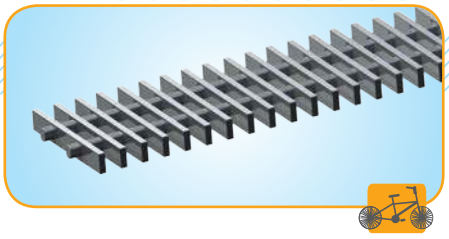
Part No. DG0644

Open Area: 29.6 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 2-1/2 lbs. or 5 lbs.

Slot Size: 0.63"



Gray Iron Slotted

The gray iron grate is appropriate for many general use conditions. For use with Grate hold-down device Part No. DA0542B.

ADA Compliant.

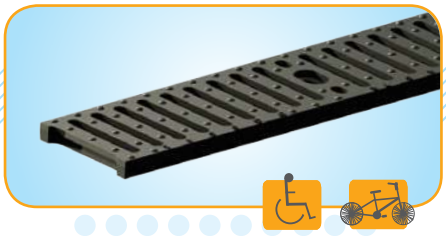
Part No. DG0641

Open Area: 19.8 in²/Linear Foot

Dimensions: 5-1/4" x 24"

Weight: 15 lbs.

Slot Size: 0.50" x 4.19"



See ADA Installation Guidelines Page 11

Fiberglass

Designed for use with POLYCAST® Vinyl Ester trench in areas requiring extreme chemical resistance. For use with Grate hold-down device Part No. DA0542F.

ADA Compliant.

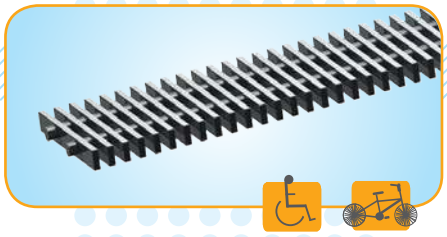
Part No. DG0644SP

Open Area: 25.5 in²/Linear Foot

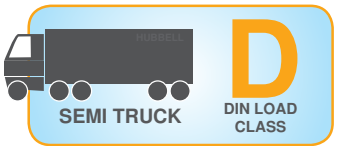
Dimensions: 5-1/4" x 24" or 48"

Weight: 3 lbs. or 6 lbs.

Slot Size: 0.38



See ADA Installation Guidelines Page 11



Ductile Iron Longitudinal Slotted

Designed for general use and pedestrian traffic applications, as well as heavy vehicular traffic applications. For use with Grate hold-down device Part No. DA0542B.

ADA Compliant.

Part No. DG0675HD

Open Area: 32 in²/Linear Foot

Dimensions: 5-1/4" x 24"

Weight: 16 lbs.

Slot Size: 0.32" wide

See ADA Installation Guidelines Page 11

500 SERIES GRATES

Ductile Iron Slotted

Designed for general use and pedestrian traffic applications. This heavy duty grate is also suitable for frequent traffic applications. Exceeds AASHTO H-20 and FAA requirements. For use with Grate hold-down device Part No. DA0542BH.

NOTE: 500 Series Class E grates require a frame. When used without a frame, DIN E-F grates are suitable for DIN D applications.

Part No. DG0641D

Open Area: 19.8 in²/Linear Foot

Dimension: 5-1/4" x 24"

Weight: 15 lbs.

Slot Size: 0.50" x 4.19"

See ADA Installation Guidelines Page 11

Gray Iron Solid

Designed for pipe raceway, e.g., secondary containment, and cable runs. Removable cover allows full access. For use with Grate hold-down device Part No. DA0542BH.

NOTE: 500 Series Class F grates require a frame. When used without a frame, DIN E-F grates are suitable for DIN D applications.

Part No. DG0641S

Open Area: N/A

Dimensions: 5-1/4" x 24"

Weight: 18 lbs.

Slot Size: N/A

See ADA Installation Guidelines Page 11

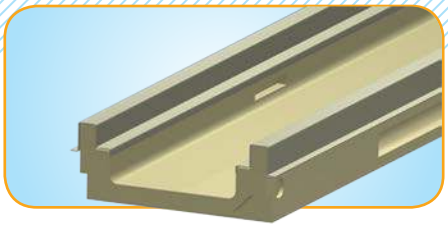
500 Series Frames

POLYGUARD®

Part No. DA0620A / DA0620B

POLYGUARD is a formed steel edge rail available in both galvanized and stainless steel. This provides an outstanding visual finish to any trench drain application. POLYGUARD is recommended for DIN class C - D applications.

- Moderate speed traffic
- Lightweight
- Provides unobstructed channel access for easy cleanout



Duraguard®

Part No. DG0700PE

The DURAGUARD® series frame is an innovative design that improves heavy load impact performance. Utilizing a high density polyethylene composite, the DURAGUARD® channel frame reinforces the channel edge to dramatically improve the load performance and impact resistance of standard 500 Series and 600 Series channels. DURAGUARD® frames are recommended for DIN class C - E applications.

- Moderate speed traffic
- Exceptional chemical resistance
- Lightweight
- Impact resistant
- Cost effective

NOTE: Must use with Grate hold-down device. Part No. DA0542BH

Hardnose

Part No. DG0700AA

HARDNOSE - Frames are designed for the most harsh vehicle applications, including heavy aircraft traffic, hard wheel forklifts, industrial equipment, and construction equipment. These gray iron frames are inlaid on the top of conventional 500 Series and 600 Series channels. HARDNOSE® frames are recommended for DIN class D - F applications.

- High speed traffic
- Solid wheel traffic
- Aircraft
- Industrial facilities

NOTE: Must use with Grate hold-down device. Part No. DA0542BH

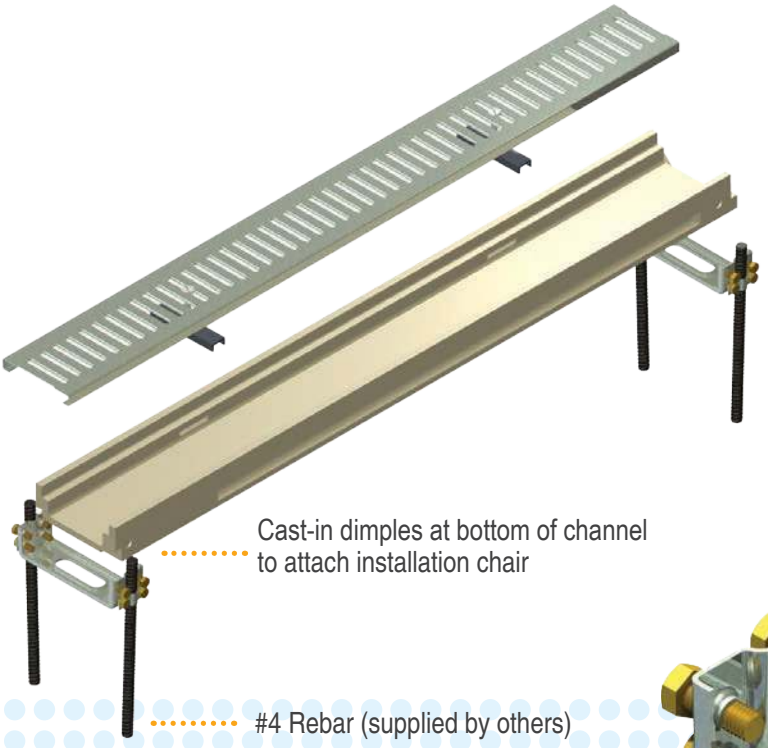
Channel Installation Alignment Chair

Installation Rates of 60'- 90' Per Hour Are Easily Attainable With a 2-Person Crew.

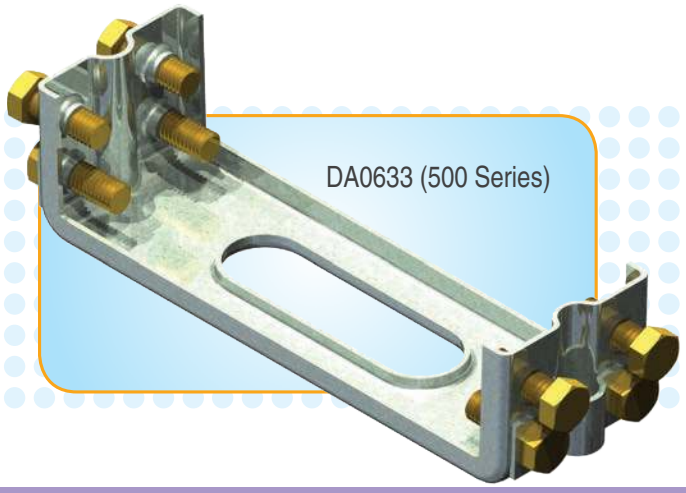
The POLYCAST® Installation Chair is the most efficient and economical means of setting a precast trench system. The installation chair supports the ends of the channels, aligns and locks the joint rigidly together, and prevents the channels from floating. Adjusting channel elevation is easy with the POLYCAST Installation Chair.

The installation chair is attached by tightening the alignment bolts into the channel "dimples". Two pieces of rebar are set every 4' to correspond with the channel joints, placed through the connecting clamp on the installation chair, and driven into the sub-base. The channels are then aligned and adjusted to achieve the proper elevation.

One chair per joint required.

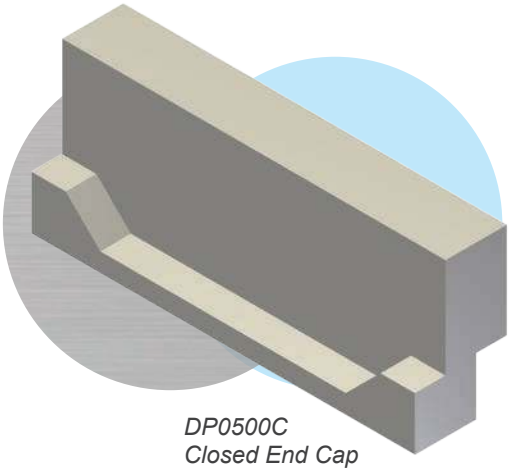


- Rapid, accurate installation
- Aligns channels
- Sets elevation
- Tightens joint
- Reduces leakage during concrete placement
- Prevents channels from floating during concreting



Accessories

End Caps



DP0500C
Closed End Cap

POLYCAST® end caps are used to enclose where catch basins are not being used.

GR8 TIPS

We Take the Guesswork Out

HDPE: Although plastic is a low cost channel material, its poor thermal properties can lead to buckling and cracking. A 100ft long plastic drain's length can change up to 4.3in.

Drain System

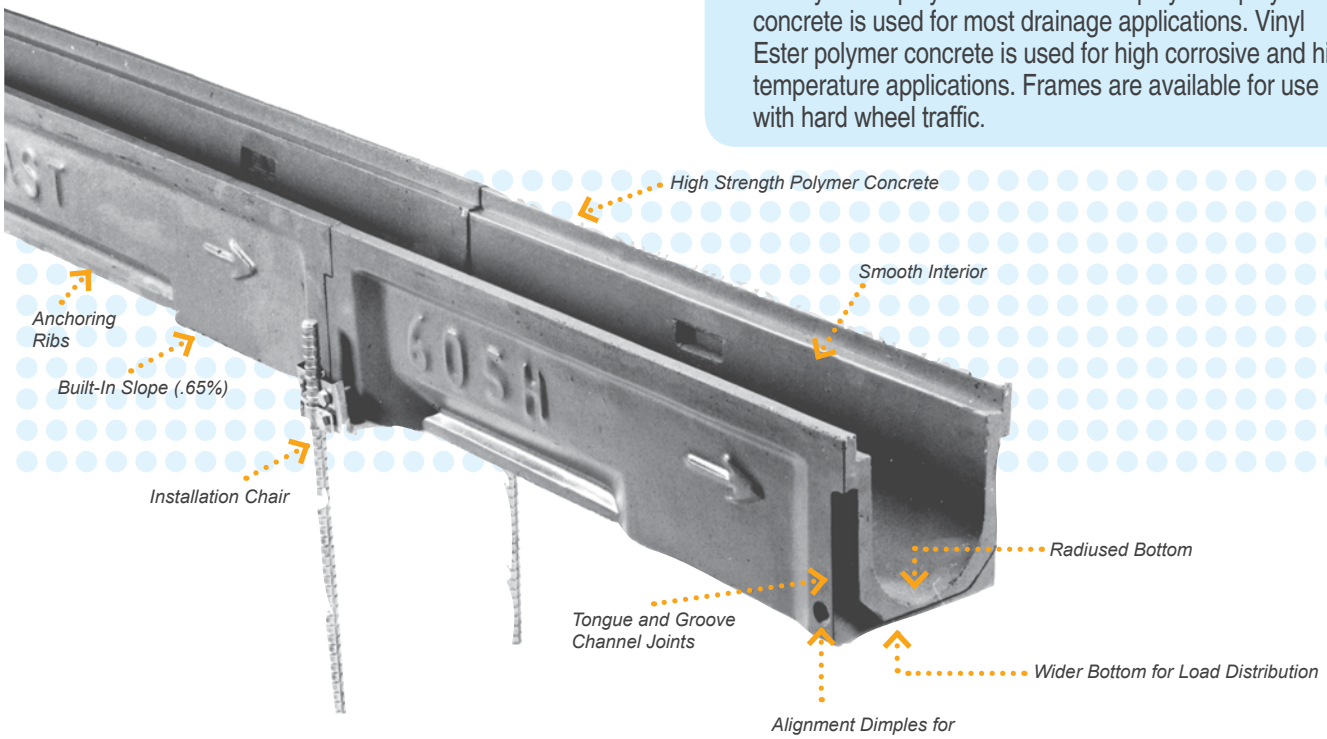
The 20% Advantage

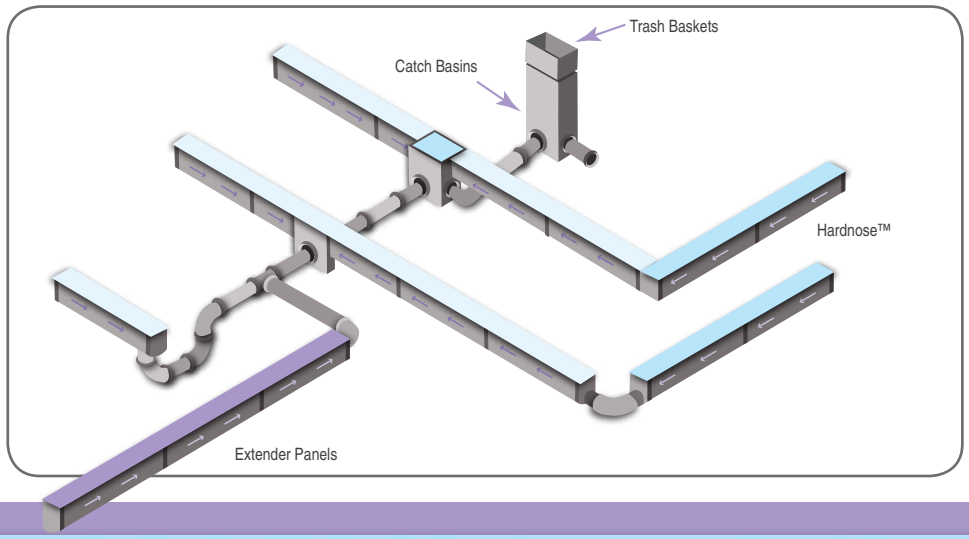
48" vs. 1 Meter channel lengths

- Fewer Channels
- Fewer Joints
- Fewer Problems
- Faster Installation

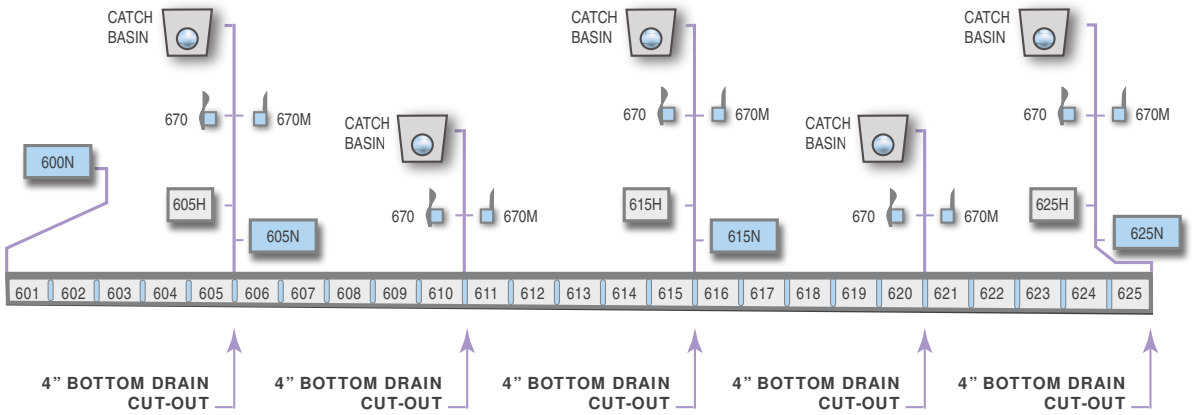
600 Series Presloped

The POLYCAST® 600 Series Presloped System is ideally suited for a variety of commercial and industrial applications. It is designed to have flow rates equal to or greater than, most larger poured-in-place trench drains. With the proper components, flow rates of 470 GPM per outlet are attainable. The precast trench sections and grates are made up of 2' and 4' lengths. Certain 4' channels and all 2' channels have 4" bottom cut-outs for pipe connections. The POLYCAST 600 Series is available in either polyester or Vinyl Ester polymer concrete. The polyester polymer concrete is used for most drainage applications. Vinyl Ester polymer concrete is used for high corrosive and high temperature applications. Frames are available for use with hard wheel traffic.





Drain Configuration

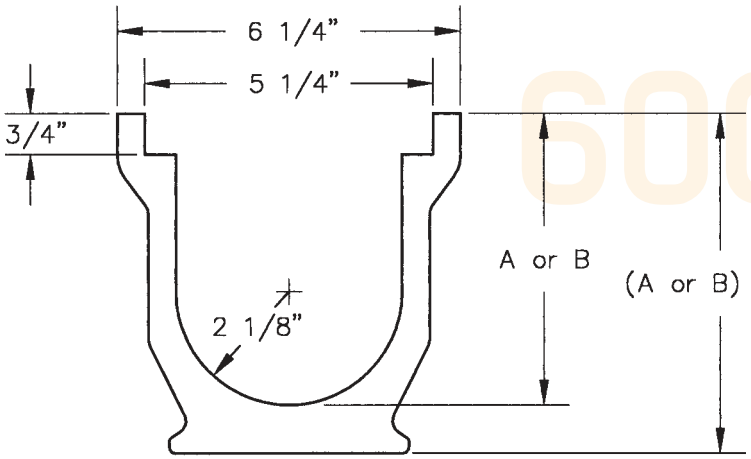


NOTE 1: All half and non-sloped channels have bottom cut outs.
NOTE 2: All half and non-sloped channels accept the corresponding end caps.

Depth and Weight Dimensions

Channel Number	Weight Lbs.	Inlet DIM 'A'	Outlet DIM 'B'
600N (non-sloped)	43	4-1/16	4-1/16
601	44	4-1/16	4-3/8
602	45	4-3/8	4-11/16
603	46	4-11/16	5
604	46	5	5-5/16
605	47	5-5/16	5-5/8
605N (non-sloped)	48	5-5/8	5-5/8
605H (non-sloped 24")	22	5-5/8	5-5/8
606	49	5-5/8	5-15/16
607	50	5-15/16	6-1/4
608	51	6-1/4	6-9/16
609	52	6-9/16	6-7/8
610	54	6-7/8	7-3/16
611	55	7-3/16	7-1/2
612	56	7-1/2	7-13/16
613	57	7-13/16	8-1/8

Channel Number	Weight Lbs.	Inlet DIM 'A'	Outlet DIM 'B'
614	58	8-1/8	8-7/16
615	59	8-7/16	8-3/4
615N (non-sloped)	61	8-3/4	8-3/4
615H (non-sloped 24")	29	8-3/4	8-3/4
616	62	8-3/4	9-1/16
617	63	9-1/16	9-3/8
618	64	9-3/8	9-11/16
619	65	9-11/16	10
620	66	10	10-5/16
621	68	10-5/16	10-5/8
622	71	10-5/8	10-15/16
623	72	10-15/16	11-1/4
624	75	11-1/4	11-9/16
625	76	11-9/16	11-7/8
625N (non-sloped)	76	11-7/8	11-7/8
625H (non-sloped 24")	38	11-7/8	11-7/8



700 Series HARDNOSE and DURAGUARD® frames add 1-3/16" to dimensions A or B.

Extender Panels add 7-13/16" to dimensions A or B.

600 Series

600 Series Grates

Galvanized Steel Slotted

An economical alternative, the galvanized grate is appropriate for many general use conditions. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

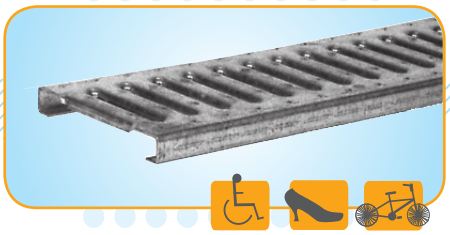
Part No. DG0640

Open Area: 10.2 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 0.28" x 3.00"



See ADA Installation Guidelines Page 11

Stainless Steel Slotted

Application for use where sanitary conditions are essential. For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

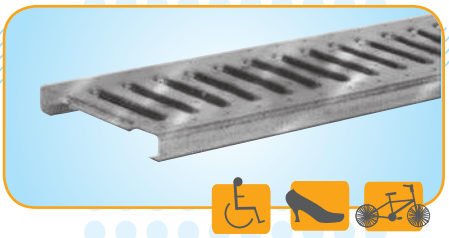
Part No. DG0647

Open Area: 10.2 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 0.28" x 3.00"



See ADA Installation Guidelines Page 11

DURAGUARD® Slotted

A high density polyethylene slotted grate appropriate for corrosive applications or where sanitary conditions are necessary. Provides excellent chemical resistance and durability. Polyethylene construction helps protect bare feet. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

Part No. DG0670

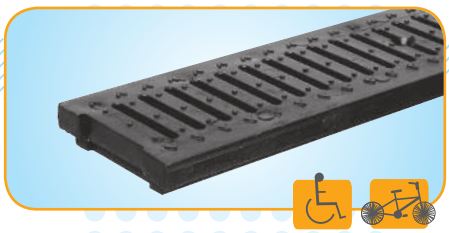
Open Area: 11 in²/Linear Foot

Dimensions: 5-1/4" x 24"

Weight: 4 lbs.

Slot Size: 0.32" x 2.95"

NOTE: Part No. DG0670G available, color: gray



See ADA Installation Guidelines Page 11

DURAGUARD® Longitudinal Slotted

A versatile and economical alternative high density polyethylene composite grate. When used in high velocity transverse sheet flow applications, the longitudinal slots create turbulence to improve entry of flow into the channel. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

Part No. DG0675

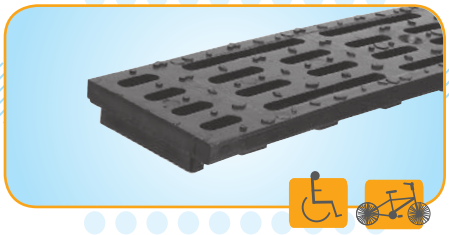
Open Area: 12.6 in²/Linear Foot

Dimensions: 5-1/4" x 24"

Weight: 3.5 lbs.

Slot Size: 0.50" x 0.88" - 5.45"

NOTE: Part No. DG0675G available, color: gray



See ADA Installation Guidelines Page 11

Galvanized Steel Perforated

Designed for use in pedestrian areas to minimize heel hazards and prevent entrance of large objects. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

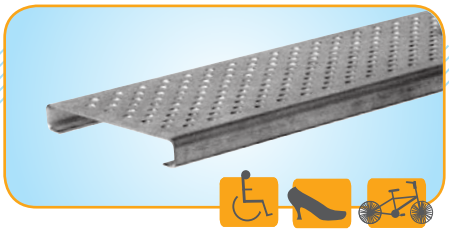
Part No. DG0646

Open Area: 8.5 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 1/4" dia.



See ADA Installation Guidelines Page 11

Stainless Steel Perforated

Designed for use where sanitary conditions are essential, as well as the need for heel-resistant gratings. For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

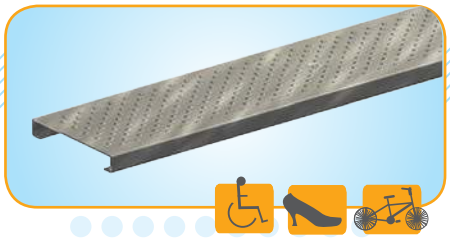
Part No. DG0657

Open Area: 8.5 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: 1/4" dia.



See ADA Installation Guidelines Page 11

Galvanized Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Removable cover allows full access. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

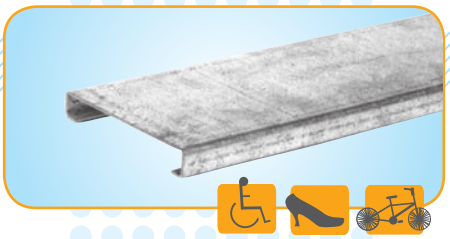
Part No. DG0645

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: N/A



See ADA Installation Guidelines Page 11

Stainless Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Especially suited for areas exposed to mild acids or bases. Removable cover allows full access. For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

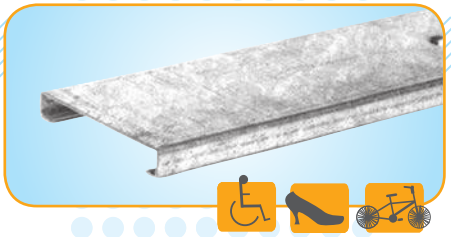
Part No. DG0667

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 4 lbs. or 8 lbs.

Slot Size: N/A



See ADA Installation Guidelines Page 11

Fiberglass

Designed for use with POLYCAST® Vinyl Ester trench in areas requiring extreme chemical resistance. For use with Grate hold-down device Part No. DA0642F.

ADA Compliant

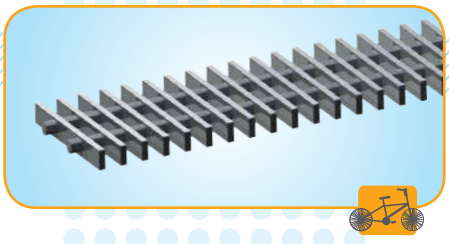
Part No. DG0644

Open Area: 29.6 in²/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 2-1/2 lbs. or 5 lbs.

Slot Size: 0.63" wide



600 SERIES GRATES

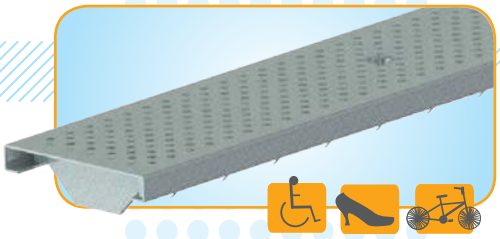
Galvanized Steel Perforated

Designed for use in pedestrian areas to minimize heel hazards and prevent entrance of large objects. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

Part No. DG0646R

Open Area: 8.5 in²/Linear Foot
Dimensions: 5-1/4" x 24" or 48"
Weight: 7 lbs. or 14 lbs.
Slot Size: 1/4" dia.



See ADA Installation Guidelines Page 11

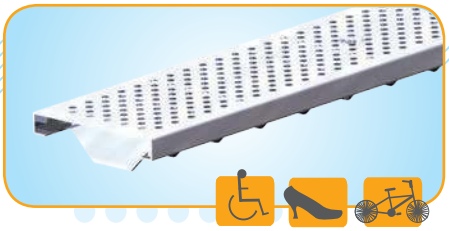
Stainless Steel Perforated

Designed for use where sanitary conditions are essential, as well as the need for heel-resistant gratings. For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

Part No. DG0657R

Open Area: 8.5 in²/Linear Foot
Dimensions: 5-1/4" x 24" or 48"
Weight: 6 lbs. or 12 lbs.
Slot Size: 1/4" dia.



See ADA Installation Guidelines Page 11

Galvanized Steel Slotted

An economical alternative, the galvanized reinforced slotted grate is appropriate for many heavy use applications. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

Part No. DG0640R

Open Area: 10.2 in²/Linear Foot
Dimensions: 5-1/4" x 24" or 48"
Weight: 6 lbs. or 12 lbs.
Slot Size: 0.28" x 3.00"

See ADA Installation Guidelines Page 11

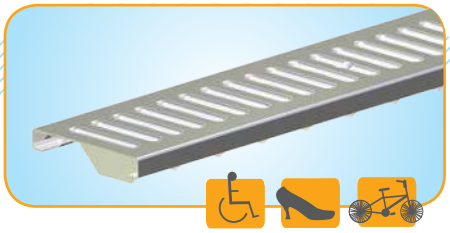
Stainless Steel Slotted

Designed for use where sanitary conditions are essential. For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

Part No. DG0647R

Open Area: 10.2 in²/Linear Foot
Dimensions: 5-1/4" x 24" or 48"
Weight: 6 lbs. or 12 lbs.
Slot Size: 0.28" x 3.00"



See ADA Installation Guidelines Page 11

Stainless Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Especially suited for areas exposed to mild acids or bases. Removable cover allows full access.For use with Grate hold-down device Part No. DA0642S.

ADA Compliant

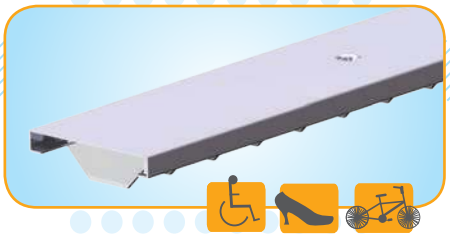
Part No. DG0667R

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 7 lbs. or 14 lbs.

Slot Size: N/A



See ADA Installation Guidelines Page 11

Galvanized Steel Solid

Designed for pipe runs, e.g., secondary containment, or cable runs. Removable cover allows full access. For use with Grate hold-down device Part No. DA0642.

ADA Compliant

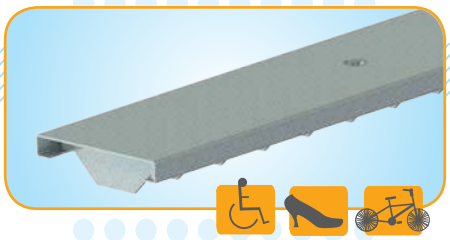
Part No. DG0645R

Open Area: N/A

Dimensions: 5-1/4" x 24" or 48"

Weight: 7 lbs. or 14 lbs.

Slot Size: N/A



See ADA Installation Guidelines Page 11

Fiberglass

Designed for use with POLYCAST® Vinyl Ester trench in areas requiring extreme chemical resistance. For use with Grate hold-down device Part No. DA0642F.

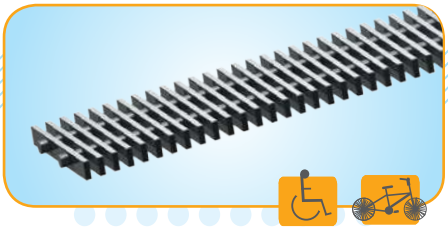
Part No. DG0644SP

Open Area: 25.5 in^2/Linear Foot

Dimensions: 5-1/4" x 24" or 48"

Weight: 3 lbs. or 6 lbs.

Slot Size: 0.38" wide



See ADA Installation Guidelines Page 11

Gray Iron Slotted

The gray iron grate is appropriate for many general use conditions. For use with Grate hold-down device Part No. DA0642B.

Part No. DG0641

Open Area: 19.8 in^2/Linear Foot

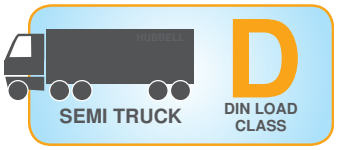
Dimensions: 5-1/4" x 24"

Weight: 15 lbs.

Slot Size: 0.50" x 4.19"

See ADA Installation Guidelines Page 11

600 SERIES GRATES



Ductile Iron Longitudinal Slotted

Designed for general use and pedestrian traffic applications, as well as heavy vehicular traffic applications. For use with Grate hold-down device Part No. DA0642B.

ADA Compliant

Part No. DG0675HD

Open Area: 32 in^2/Linear Foot (26%)

Dimensions: 5-1/4" x 24"

Weight (grate plus frame): 30 lbs.

Slot Size: 0.32" wide

See ADA Installation Guidelines Page 11

NOTE: 600 Series Class E grates require a frame. When used without a frame, DIN E-F grates are suitable for DIN D applications.

Ductile Iron Slotted

Designed for general use and pedestrian traffic applications. This heavy duty grate is also suitable for frequent traffic applications. Exceeds AASHTO H-20 and FAA requirements. For use with Grate hold-down device Part No. DA0642BH.

ADA Compliant

Part No. DG0641D

Open Area: 19.8 in^2/Linear Foot

Dimensions: 5-1/4" x 24"

Weight: 15 lbs.

Slot Size: 0.50" x 4.32"

See ADA Installation Guidelines Page 11

NOTE: 600 Series Class F grates require a frame. When used without a frame, DIN E-F grates are suitable for DIN D applications.

Gray Iron Solid

Designed for pipe raceway, e.g., secondary containment, and cable runs. Removable cover allows full access. For use with Grate hold-down device Part No. DA0642BH.

ADA Compliant

Part No. DG0641S

Open Area: N/A

Dimensions: 5-1/4" x 24"

Weight: 18 lbs.

Slot Size: N/A.

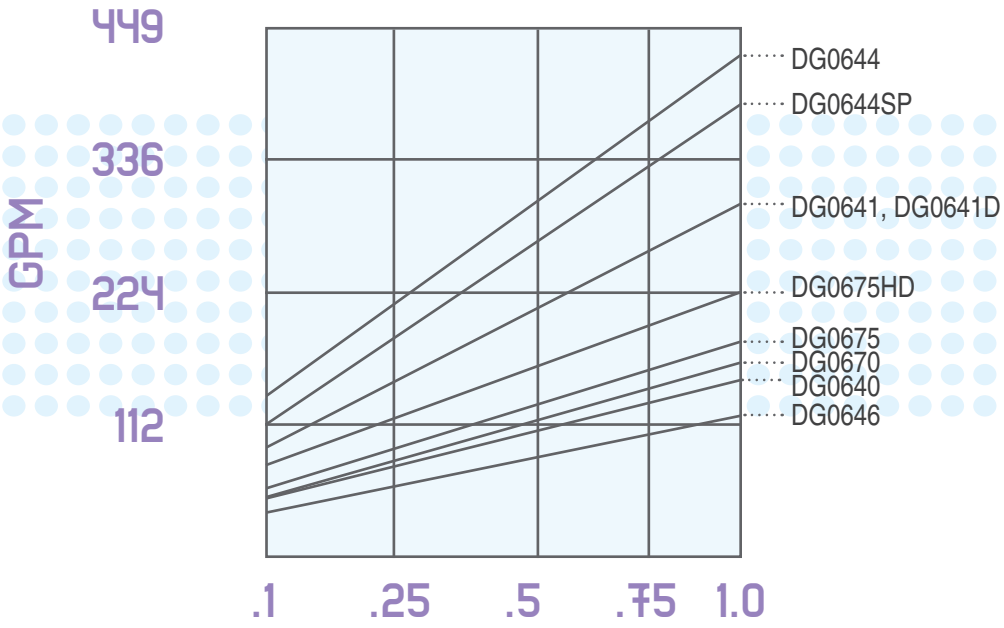
See ADA Installation Guidelines Page 11

Grate In-Flow Chart

Quantity of Flow Through 600 Series Grates

Based on 1' 600 Series Channel

Computed using Orifice Equation $Q=CA\sqrt{2gh}$



head of water above grate in feet

600 Series

GR8 TIPS

We Take the Guesswork Out

Layouts: POLYCAST® provides a site plan layout service to all customers, which includes outlet recommendations, piping schematics, and a full bill of materials.

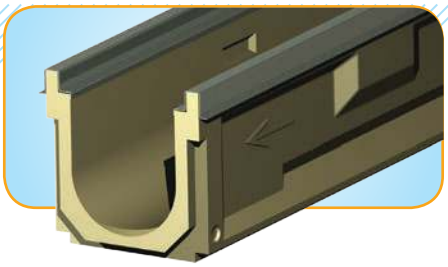
600 Series Frames

POLYGUARD®

Part No. DA0620A / DA0620B

POLYGUARD is a formed steel edge rail available in both galvanized and stainless steel. This provides an outstanding visual finish to any trench drain application. POLYGUARD is recommended for DIN class C - D applications.

- Moderate speed traffic
- Lightweight
- Provides unobstructed channel access for easy cleanout



700 Series Frames

DURAGUARD®

Part No. DG0700PE

The DURAGUARD® series frame is an innovative design that improves heavy load impact performance. Utilizing a high density polyethylene composite, the DURAGUARD® channel frame reinforces the channel edge to dramatically improve the load performance and impact resistance of standard 500 Series and 600 Series channels. DURAGUARD® frames are recommended for DIN class C - E applications.

- Moderate speed traffic
- Exceptional chemical resistance
- Lightweight
- Impact resistant
- Cost effective

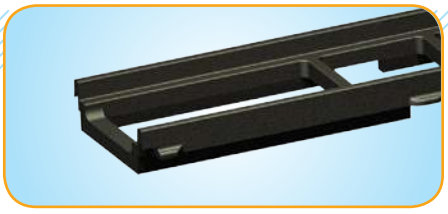
NOTE: Must use with Grate hold-down device. Part No. DA0642BH

HARDNOSE – 700 SERIES

Part No. DG0700AA

HARDNOSE - 700 Series Frames are designed for the most harsh vehicle applications including heavy aircraft traffic, hard wheel forklifts, industrial equipment, and construction equipment. These gray iron frames are inlaid on the top of conventional 500 Series and 600 Series channels. HARDNOSE® frames are recommended for DIN class D - F applications.

- High speed traffic
- Solid wheel traffic
- Aircraft
- Industrial facilities



NOTE: Must use with Grate hold-down device. Part No. DA0642BH

Channel Installation Alignment Chair

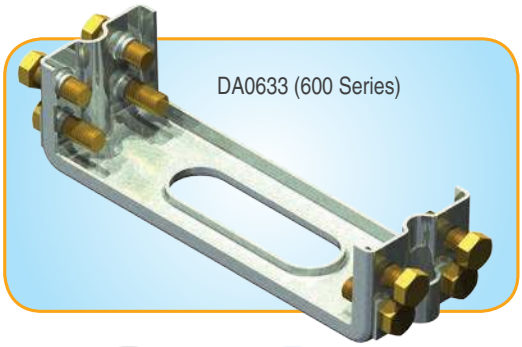
Installation Rates of 60`- 90` Per Hour Are Easily Attainable With a 2-Person Crew.

The POLYCAST® Installation Chair is the most efficient and economical means of setting a precast trench system. The installation chair supports the ends of the channels, aligns and locks the joint rigidly together and prevents the channels from floating. Adjusting channel elevation is easy with the POLYCAST Installation Chair.

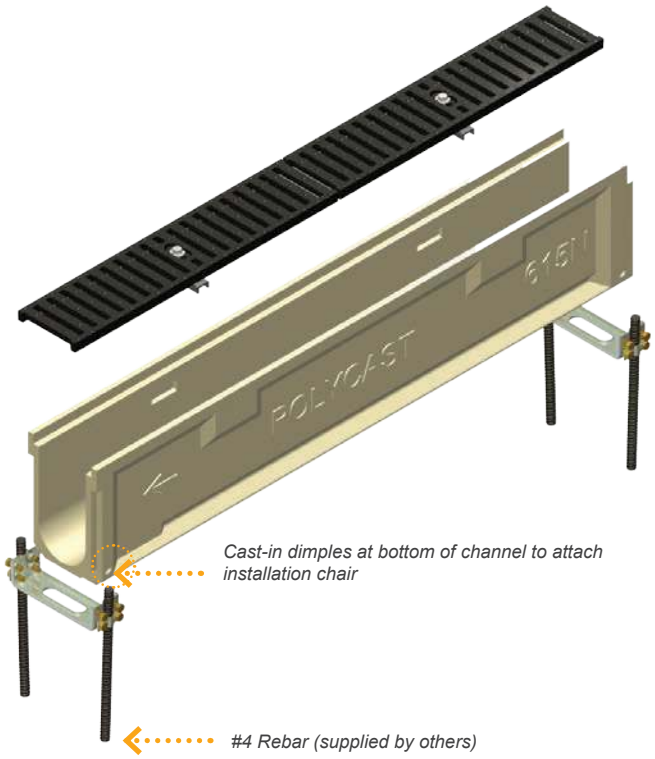
The installation chair is attached by tightening the alignment bolts into the channel "dimples". Two pieces of rebar are set every 4' to correspond with the channel joints, placed through the connecting clamp on the installation chair and driven into the sub-base. The channels are then aligned and adjusted to achieve the proper elevation.

One chair per joint required.

NOTE: *For use with 600 Series Channels.*

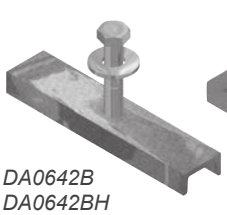


- Rapid, accurate installation
- Aligns channels
- Sets elevation
- Tightens joint
- Reduces leakage during concrete placement
- Prevents channels from floating during pour

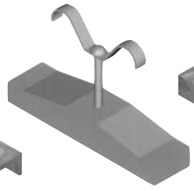


Accessories

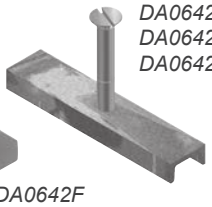
Grate Hold-Down Devices



DA0642B
DA0642BH



DA0642F



DA0642
DA0642S (stainless)
DA0642H

Grate hold-down devices are to be used with all grating systems where wheel traffic occurs. This is necessary to provide system integrity.

End Caps

POLYCAST® end caps are used to enclose or provide piping transitions to the female and male ends of the channels where catch basins are not being used.

ABS Plastic End Caps

DA0670*
FEMALE
Universal Closed/ Outlet (cutout)

DA0670M*
MALE
Universal Closed/ Inlet (cutout)

Male End Caps

POLYCAST® Universal Male End Caps are used to enclose or provide 4” pipe inlets to the female channel ends. Inlets accommodate 4” pipes.

Female End Caps

POLYCAST® Universal Female End Caps are used to enclose or provide 4” pipe inlets to the male channel ends. Outlets accommodate 4” pipes.

***Fits ALL POLYCAST® 600 Series Channels**

Polymer Concrete End Caps

DP0620D6
DP0625D6

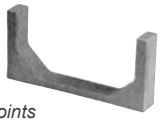
DP0625DM6

These inlets and outlets accommodate 6” pipes.

Fits CORRESPONDING 600 Series Channels

Channel Adapters

DP0699F
Female/Female Joints



DP0699M
Male/Male Joints

Male and Female Transition Devices (699F & 699M) are available where channel runs are in opposite directions and two channels are set either female to female or male to male. A female transition piece (699F) is used to fill the top space of the female to female joint (this applies to 600 Series only). An epoxy grout or urethane sealer can be used to smooth over the gap on the inside bottom of the channel. A male transition piece (699M) is used to lap under the male to male joint.

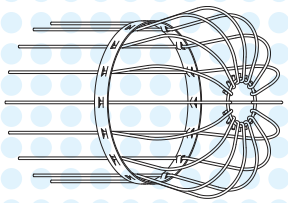
Use a DP0699F channel adapter to create high points in the middle of a drain run

Use a DP0699M channel adapter to join two drain run ends together at a low point

Debris Strainer

Debris Outlet strainers are ideal for outdoor environments where debris can clog outlets.

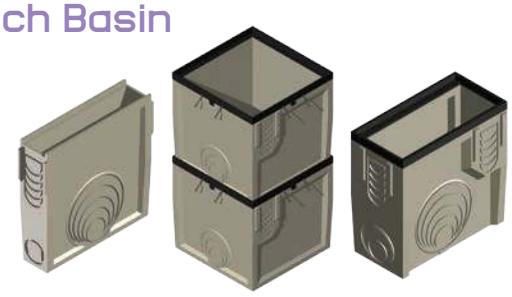
Debris Outlet Strainer



For use with 4" Pipe, Channel and End Cap Outlets.

Part No. DA0662

Catch Basin



Information about Catch Basins can be found on Pages 36-38.

POLYCAST© Sample Specifications

600 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 600 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 4.25" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 0.5". Sloped and non-sloped channels shall be used as shown in contract plans. The sloped channels shall be 48" long with an invert slope of 0.65%. Channels shall have interlocking joints and side height extension panels. The maximum system capacity without extensions shall be 460 GPM at flat and level grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength	ASTM C-109	12,000 psi
Tensile strength	ASTM C-307	1,700 psi
Water absorption	ASTM D-570	<1%
Chemical resistance	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of steel (ASTM A-36), ductile iron (ASTM A-536 minimum grade 65-45-12), gray iron (ASTM A-48), Fiberglass, or HDPE. The frames shall be non-removable from the concrete. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 pounds after salt exposure per ASTM B-117.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of a defacto expansion joint.

900 Series Grated Line Drain

The POLYCAST® 900 Series Grated Line Drain for highway and airport drainage systems collects run-off before it travels onto road or airplane taxi surfaces where water and ice can cause hazardous conditions. POLYCAST Grated Line Drain exceeds AASHTO highway standards for vehicles operating at highway speeds. It is a safe, economical, and low maintenance solution for roadway (DOT) surface drainage systems.

POLYCAST® Grated Line Drain features:

- Flow rates of up to 470 GPM per outlet
- Corrosion, chemical, and UV-resistant polymer concrete channels
- Integral embedment anchor flanges secure the nonremovable grate to prevent pullout from high-speed highway traffic
- Removable grates with locking devices also available
- Coefficient of thermal expansion similar to concrete

POLYCAST precast polymer concrete drain channels are available in 2' and 4' lengths and have a built-in slope of .65%. Tongue-and-groove channel joints interlock fully and evenly with adjoining channels. Each channel has a horizontal anchoring rib located along both sides of the bottom of the channel to mechanically engage the channel into the adjacent concrete.

Polymer concrete is resistant to salt, oil, most acids, and alkalis. This makes it excellent for containing and transporting run-off in any roadway application. It also maintains structural properties under freeze/thaw conditions.

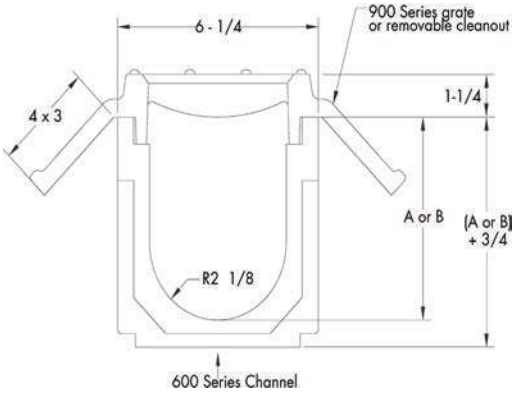
POLYCAST® 900 Series Grates

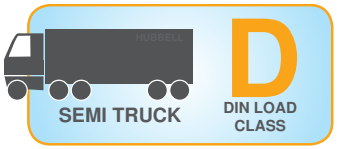
The ductile iron grates developed for the POLYCAST® 900 Series Grated Line Drain was designed to provide maximum inlet capacity. Both one-piece and removable designs incorporate positive anchoring flanges or bolts on each corner to help the grate withstand pull-out from high-speed highway traffic and snowplow blades.

One-piece (non-removable) assemblies are used in most instances. A removable grate assembly can be added where needed on any given run to provide open access for “clean-outs”.

The POLYCAST 900 Series grates comply with the provisions cited in CALTRANS Section 10-1.35, "Grated Line Drain" and are made in compliance with CALTRANS Section 75-1.02, "Miscellaneous Iron and Steel" utilizing ASTM A-536, Grade 65-45-12 ductile iron. All grates and frames resist pullout forces in excess of 10 kN per meter (685 lbs. per foot) of length of grated line drains.

Drain Configuration





900 SERIES GRATES

Ductile Iron Slotted

Heavy duty slotted iron grate designed for full highway traffic. This grate features 4 integral cast lugs every 16" to permanently and securely anchor it to the surrounding slab. One-piece (Non-removable) Frame and Grate with 9/16" diameter integral lugs. ASTM A536 Class 65-45-12.

Part No. DG0900

Open Area: 41 in^2/Linear Foot (60% open area)

Dimensions: 5.25" X 16"

Weight: 14 lbs.

Slot Slot: 1.63" x 4.72"

Ductile Iron - Cleanout Grate

Heavy duty slotted iron removable cleanout grate. This features a cast iron frame with steel lugs to anchor it into the surrounding concrete. Locking devices engage frame above the flow area and do not impede flow. Grate Locking Device Part No. DAO942 (1 per grate required)

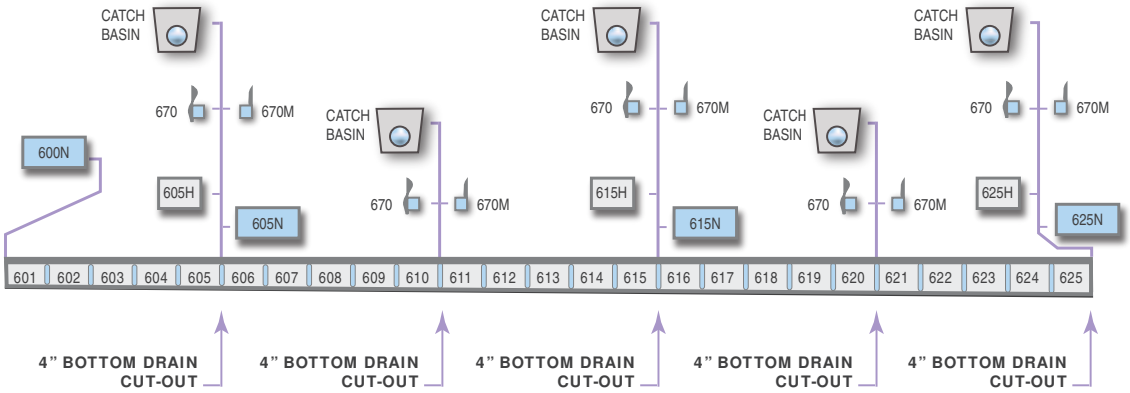
Part No. DG0941D

Open Area: 37 in2/Linear Foot (60% open area)

Dimensions: 5.19" x 23.88" (6.25" x 24" overall)

Weight (grate plus frame): 22 lbs.

Slot Size: 1.63" x 4.31"



NOTE: All half and non-sloped channels have bottom cut outs.

Channel Number	Weight Lbs.	Inlet DIM 'A'	Outlet DIM 'B'
600N (non-sloped)	97	5-1/4	5-1/4
601	98	5-1/4	5-9/16
602	103	5-9/16	5-7/8
603	103	5-7/8	5-7/8
604	104	6-3/16	6-1/2
605	105	6-1/2	6-13/16
605N (non-sloped)	106	6-13/16	6-13/16
605H (non-sloped 24")	52	6-13/16	6-13/16
606	107	6-13/16	7-1/8
607	110	7-1/8	7-1/16
608	111	7-7/16	7-3/4
609	112	7-3/4	8-1/16
610	114	8-1/16	8-3/8
611	115	8-3/8	8-11/16
612	116	8-11/16	9
613	117	9	9-5/16

Channel Number	Weight Lbs.	Inlet DIM 'A'	Outlet DIM 'B'
614	119	9-5/16	9-5/8
615	120	9-5/8	9-15/16
615N (non-sloped)	121	9-15/16	9-15/16
615H (non-sloped 24")	60	9-15/16	9-15/16
616	121	9-15/16	10-1/4
617	122	10-1/4	10-9/16
618	123	10-9/16	10-7/8
619	124	10-7/8	11-3/16
620	127	11-3/16	11-1/2
621	128	11-1/2	11-13/16
622	131	11-13/16	12-1/8
623	133	12-1/8	12-7/16
624	135	12-7/16	12-3/4
625	136	12-3/4	13-1/16
625N (non-sloped)	137	13-1/16	13-1/16
625H (non-sloped 24")	68	13-1/16	13-1/16

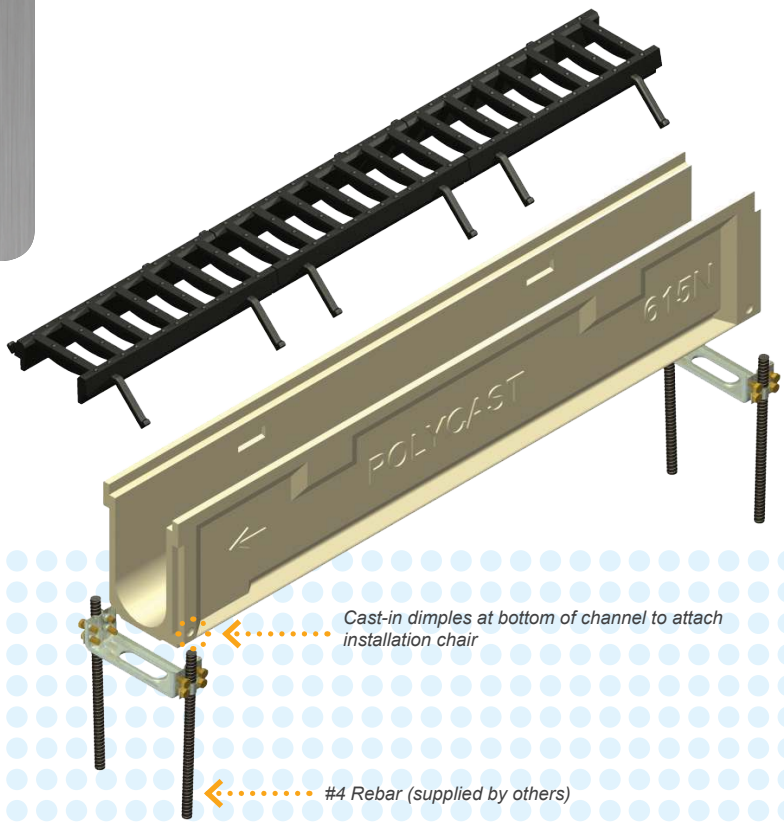
900 Series Installation & Details

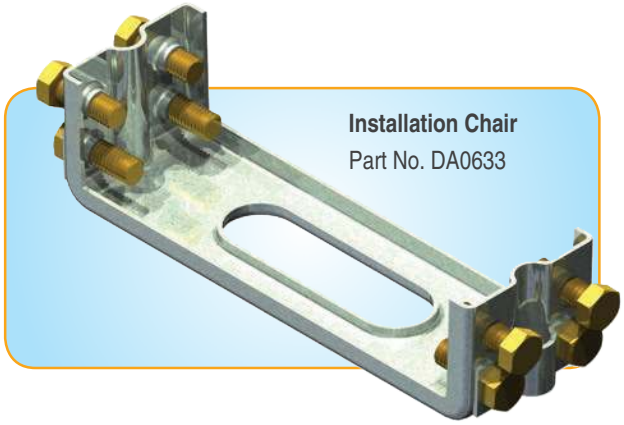
Installation

The POLYCAST® Installation Chair (part DA0633) is the most efficient and economical means of setting a precast trench system. The installation chair supports the ends of the channels, aligns and locks the joints rigidly together, and prevents the channels from floating without any additional formwork. Adjusting channel elevation is easy with the POLYCAST Installation Chair.

The installation chair is attached by tightening the alignment bolts into the channel “dimples”. Two pieces of #4 rebar are set every 4’ to correspond with the channel joints, placed through the connecting clamp on the installation chair, and driven into the sub-base. The channels are then aligned and adjusted to achieve the proper elevation.

One chair per joint required.





Installation Chair
Part No. DA0633

GR8 TIPS

We Take the Guesswork Out

Feet and Inches: Using English system of measurement for product dimensions make site layout simpler and faster.

POLYCAST© Specifications

900 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 900 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 4.25" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 0.5". Sloped and non-sloped channels shall be used as shown in contract plans. The sloped channels shall be 48" long with an invert slope of 0.65%. Channels shall have interlocking joints and side height extension panels. The maximum system capacity without extensions shall be 460 GPM at flat and level grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength:	ASTM C-109	12,000 psi
Tensile strength:	ASTM C-307	1,700 psi
Water absorption:	ASTM D-570	<1%
Chemical resistance:	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of steel (ASTM A-36), ductile iron (ASTM A-536 minimum grade 65-45-12), or gray iron (ASTM A-48) and meet AASHTO HS-20 and FAA load requirements. The frames shall be non-removable from the concrete. The grates shall be removable or non-removable as shown on the contract plans. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 pounds after salt exposure per ASTM B-117. Non-removable grates shall have integrally cast anchoring lugs with terminus interlock.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of or as a defacto expansion joint.

CATCH BASINS

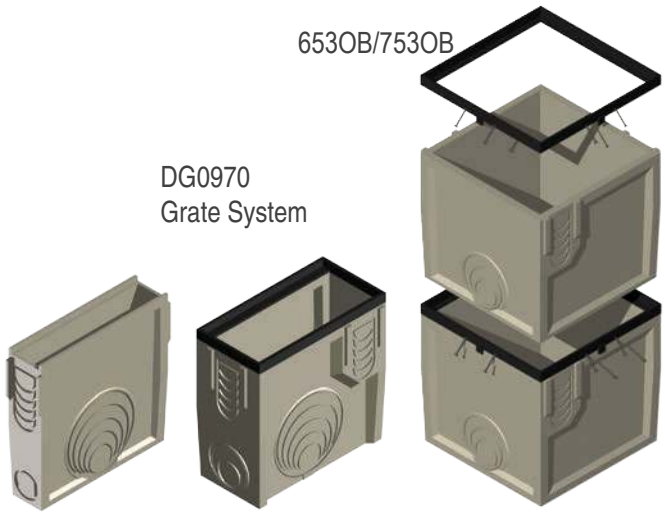
Catch Basins

The POLYCAST® Catch Basins are an important part of the versatile POLYCAST Presloped Drain System. The catch basins are manufactured with the same high strength, corrosion-resistant polyester and Vinyl Ester polymer concrete used for the POLYCAST Drain Channels. They are designed to be used as collection points, drain run transitions, and interceptors to collect solid debris. POLYCAST Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N and H. POLYCAST Catch Basins have a selection of grates available for specific needs.

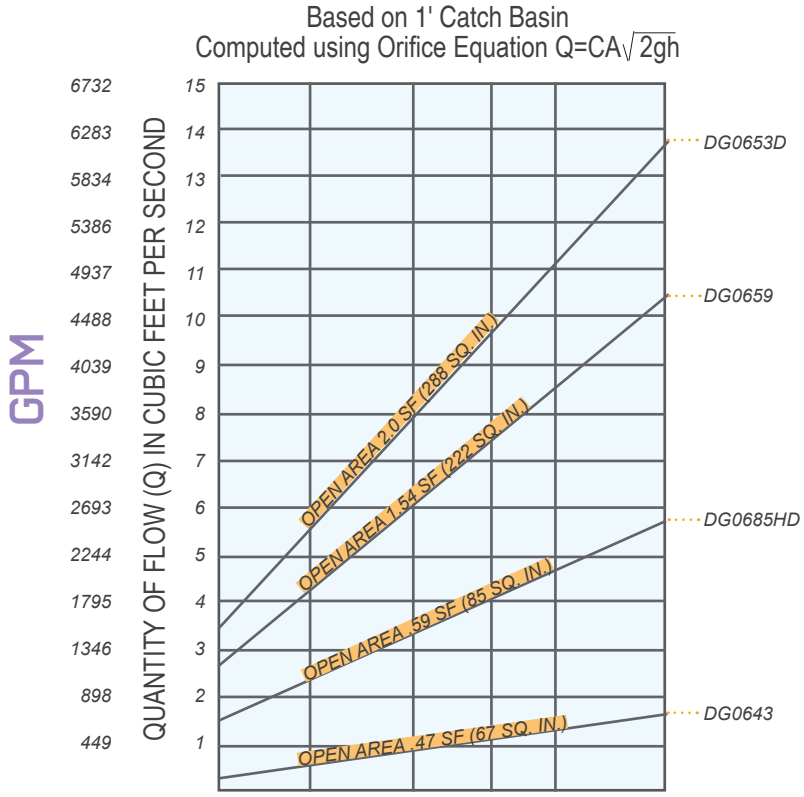
The POLYCAST Catch Basins can be used with the POLYCAST Drain System or can be used as an individual catch basin. In either case, costly, labor-intensive on-site forming is eliminated.

POLYCAST 700 Series HARDNOSE® Catch Basins are also available. They have the same features as the corresponding 600 Series Catch Basin. The 700 Series Catch Basins have a one-piece metal assembly for additional grating load distribution. HARDNOSE Catch Basins should be used in areas where solid tire and heavy commercial vehicles are anticipated.

The 650 Catch Basin is available with any of the gratings/ covers available for the 600 Series Channels. The 651 Catch Basin is available with cast iron or fiberglass grates. The 653OB and 653SB Catch Basins are available with cast iron or fiberglass grates.



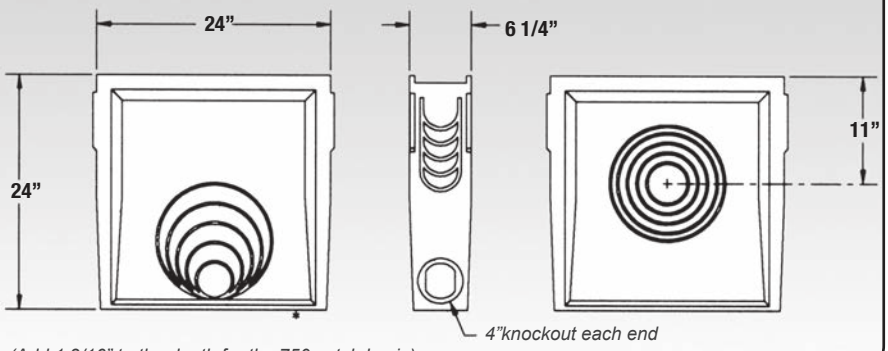
Quantity Of Flow Through Grates



GR8 TIPS

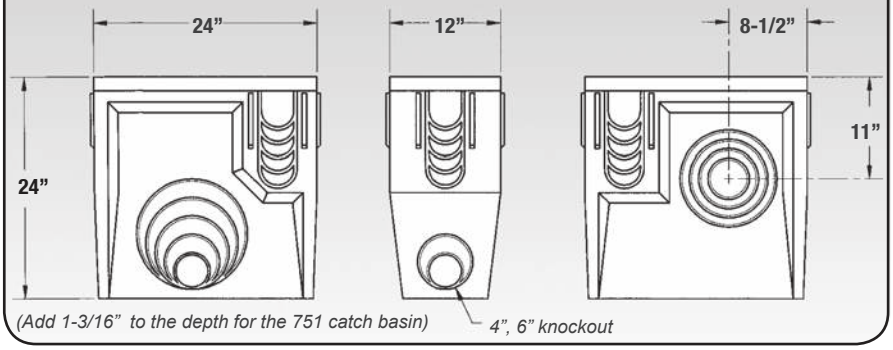
Vinyl Ester: When harsh chemicals are being drained, Vinyl Ester drain systems protect the integrity of the surrounding floor.

Fig. 1 650/750 Catch Basin
Wt. 90 lbs./105 lbs. - 11 Gallon Capacity



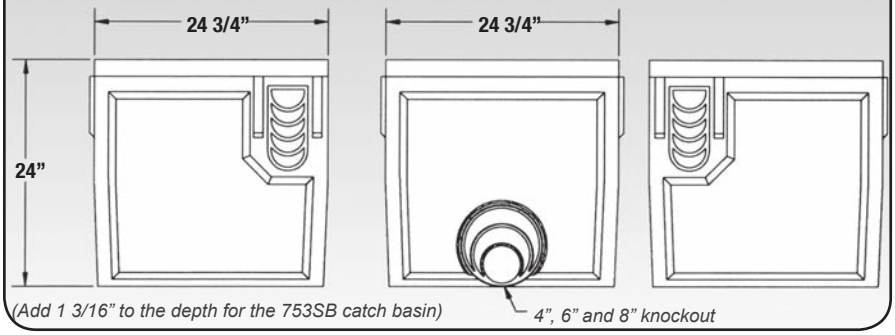
(Add 1 3/16" to the depth for the 750 catch basin)

Fig. 2 651/751 Catch Basin
Wt. 160 lbs./180 lbs. - 17 Gallon Capacity



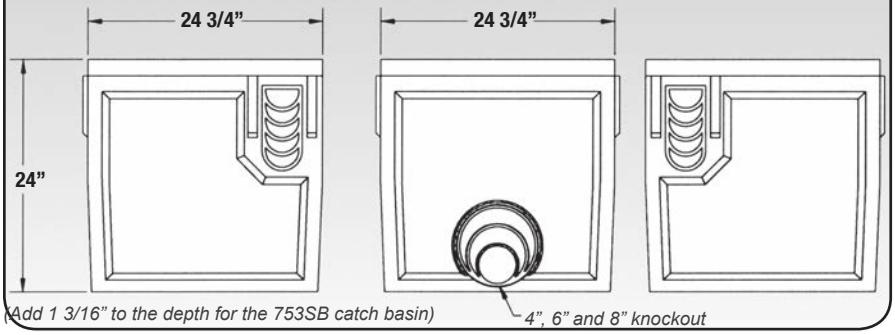
(Add 1-3/16" to the depth for the 751 catch basin)

Fig. 3 6530B/7530B Catch Basin (Open Bottom Stacking)
Wt. 142 lbs./154 lbs. - 46 Gallon Capacity



(Add 1 3/16" to the depth for the 753SB catch basin)

Fig. 4 653SB/7535B Catch Basin (Solid Bottom)
Wt. 165 lbs./177 lbs. - 46 Gallon Capacity (92 gallons with (1) 6530B)



(Add 1 3/16" to the depth for the 753SB catch basin)

4" and 6" Bottom Cut-Outs

Catch Basin cut-outs accept the following channels: *605, 610, 615, 620, 625 and their corresponding halves and neutrals.*

Drain channel cut-out connections are located on both ends of the catch basin. Pipe discharge cut-outs for 4", 6", 8", 10" and 12" pipe are located on both sides. The pipe cut-outs are located near the bottom of the catch basin on one side and on the other side the pipe cut-outs are located toward the middle. The 650/750 and 651/751 catch basins also have one 4" pipe cut-out on each end and one 4" and 6" pipe cut-out on the bottom.

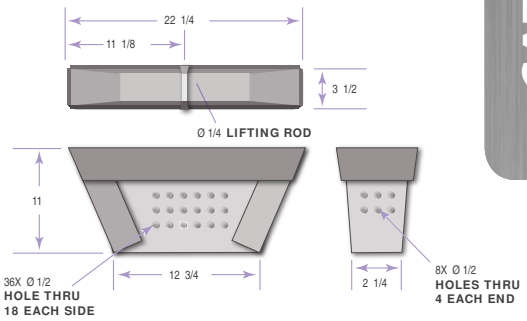
Debris Baskets

Corrugated plastic debris baskets are available for the 650/750 and 651/751 catch basins.

NOTE: Debris baskets are not removable when used with Clean out Grate Part No. DG0941D.

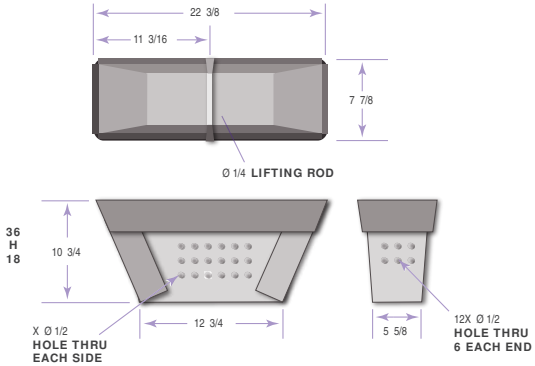
HDPE Corrugated Plastic Debris Basket for 650/750 Catch Basin

Part No. DA0650TA



HDPE Corrugated Plastic Debris Basket for 651/751 Catch Basin

Part No. DA0651TA



NOTE: A debris basket is not available for the 653 catch basins.

CATCH BASIN GRATES

651/751/653OB/653SB/753OB/753SB

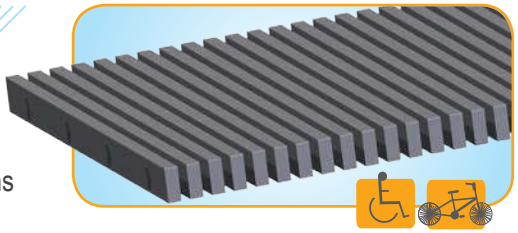
Fiberglass

Designed for use with the POLYCAST® Vinyl Ester Catch Basins in areas requiring extreme chemical resistance.

ADA Compliant.

Part No. DG0659

Open Area: 222 in²/Linear Foot
Dimensions: 23-3/4" x 23-3/4"
Weight: 20 lbs.
For use with 653OB/653SB Basins
Vinyl Ester
Slot Size: 0.41" wide



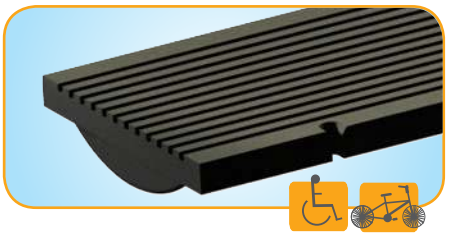
Ductile Iron Slotted

Designed for frequent heavy traffic.

ADA Compliant.

Part No. DG0685HD

Open Area: 85 in²/Linear Foot
Dimensions: 10-3/4" x 22-3/4"
Weight: 49 lbs.
ASTM A536 Class 65-45-12
For use with 651/751 Basins
Black Finish
Size Slot: 0.32" wide

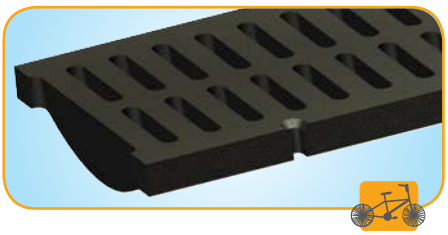


Gray Iron Slotted

Designed for frequent heavy traffic. Grate hold-down devices are included and should be maintained secure.

Part No. DG0643

Open Area: 32 in²/Linear Foot
Dimensions: 10-3/4" x 22-3/4"
Weight: 63 lbs.
For use with 651/652 Basins
Black Finish
Slot Size: 0.63" x 3.75"

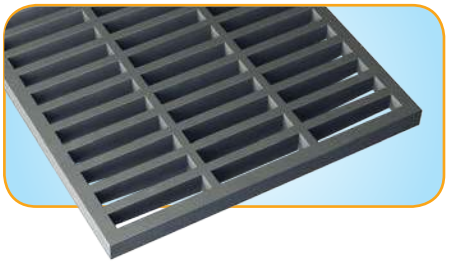


Ductile Iron Slotted

Designed for frequent heavy traffic.

Part No. DG0653D

Open Area: 288 in²/Linear Foot
Dimensions: 23-3/4" x 23-3/4"
Weight: 130 lbs.
ASTM A536 Class 65-45-12
For use with 653OB/653SB Basins
Black Finish
Slot Size: 1.25" x 6.75"

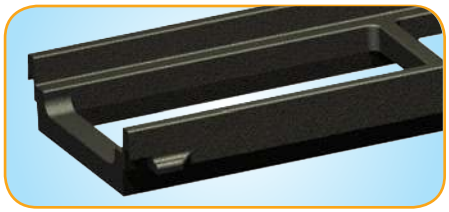


700 Series HARDNOSE End Frame

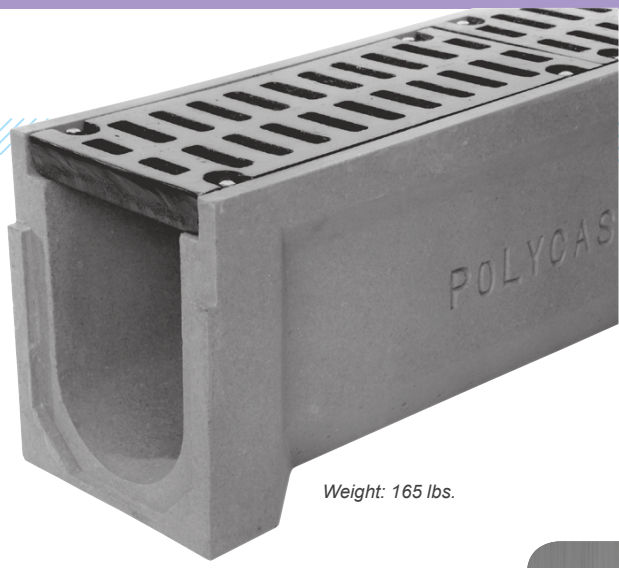
For use with the DP0650 Catch Basin. Prevents concrete back fill from spilling into the catch basin during concrete placement.

Part No. DG0700AC

Dimensions: 6-1/4" x 24"
Weight: 15 lbs.
Black Finish

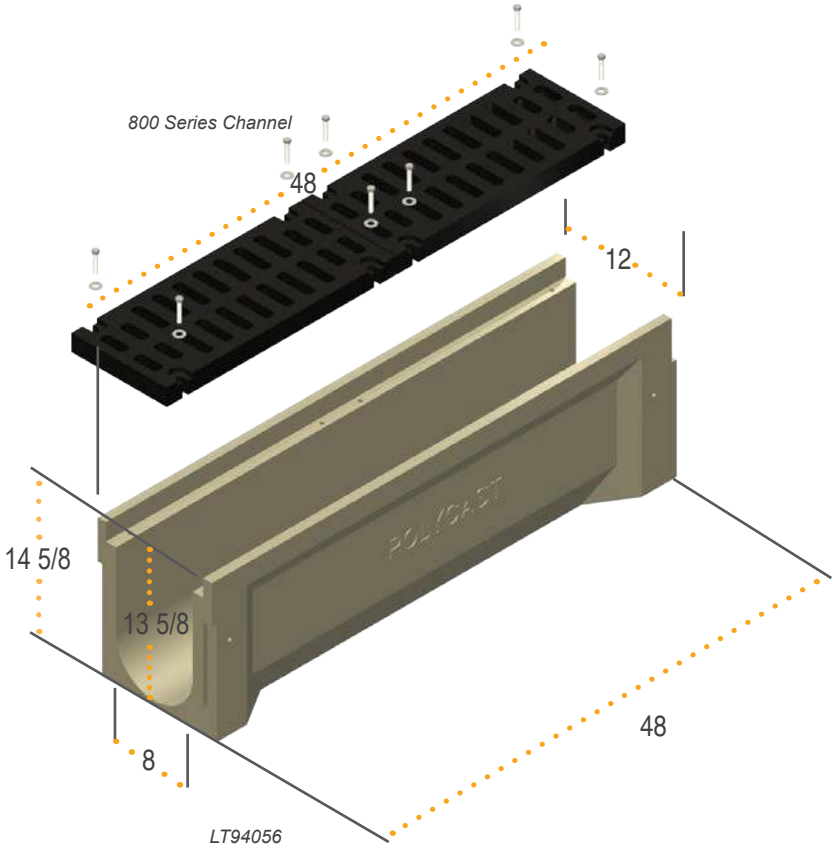


800 Series MAXI Heavy Duty



Weight: 165 lbs.

The POLYCAST® 800 Series Channel is designed for those high volume situations that exceed the capacity of the POLYCAST® 600 Series. The 800 Series Channel is approximately double the width of the standard 600 Series channels. The 825 Section is a neutral channel with interlocking tongue-and-groove joints. The 825 channel is designed for areas of high volume cross-flow interception, or areas where the larger cross-section is necessary. Channels can also be used as a corrosion-resistant, secondary containment system. The 825 channel is available in either polyester or Vinyl Ester polymer concrete. The polyester polymer concrete is used for most drainage applications; the Vinyl Ester polymer concrete should be used for highly corrosive situations or higher temperature applications. All POLYCAST® 800 Series gratings, except the fiberglass grating, are 2' long with two grates required for the 4' channel. The fiberglass grate is 4' in length. The iron grates and covers for the 825 channel come with locking bolts. The bolts fit threaded inserts in the channel bearing ledges. The bolts are recessed to fit below the grating surface. Three different end caps are available for the 825 channel. The closed end cap is designed to fit either end of the channel. Drain end caps fit the downstream end and can be ordered with a 6" or 8" pipe stub. The flow rate of the 825 channel varies with the slope of the installation. The 825 channel is not presloped and any slope required should be designed into the slab.



LT94056

GR8 TIPS

Up Against a Wall: Trench drains should be placed at least 4" away from walls to ensure proper encasement.

800 Series Grates

MAXI/Fiberglass

Designed for use with the POLYCAST® Vinyl Ester trench in areas requiring extreme chemical resistance. Securing bolts are included and should be used and maintained secure.

ADA Compliant

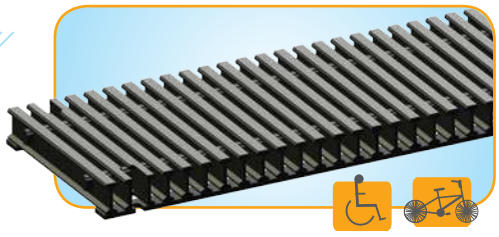
Part No. DG0844

Open Area: 31 in²/Linear Foot

Dimensions: 10” x 48”

Weight: 15 lbs.

Slot Size: 0.38" wide



See ADA Installation Guidelines Page 11

MAXI/Gray Iron Slotted

Designed for general use. Grate hold-down devices are included and should be maintained secure.

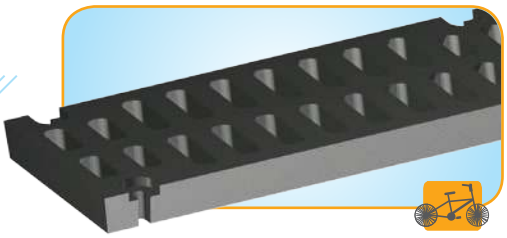
Part No. DG0841

Open Area: 32 in²/Linear Foot

Dimensions: 10” x 24”

Weight: 62 lbs.

Slot Size: 1.00" x 3.50"



MAXI/Gray Iron Solid

Designed for pipe raceway, e.g., secondary containment, and cable runs. Removable cover allows full access. Grate hold-down devices are included and should be maintained secure.

ADA Compliant

Part No. DG0842

Open Area: N/A

Dimensions: 10” x 24”

Weight: 75 lbs.

Slot Size: N/A

See ADA Installation Guidelines Page 11

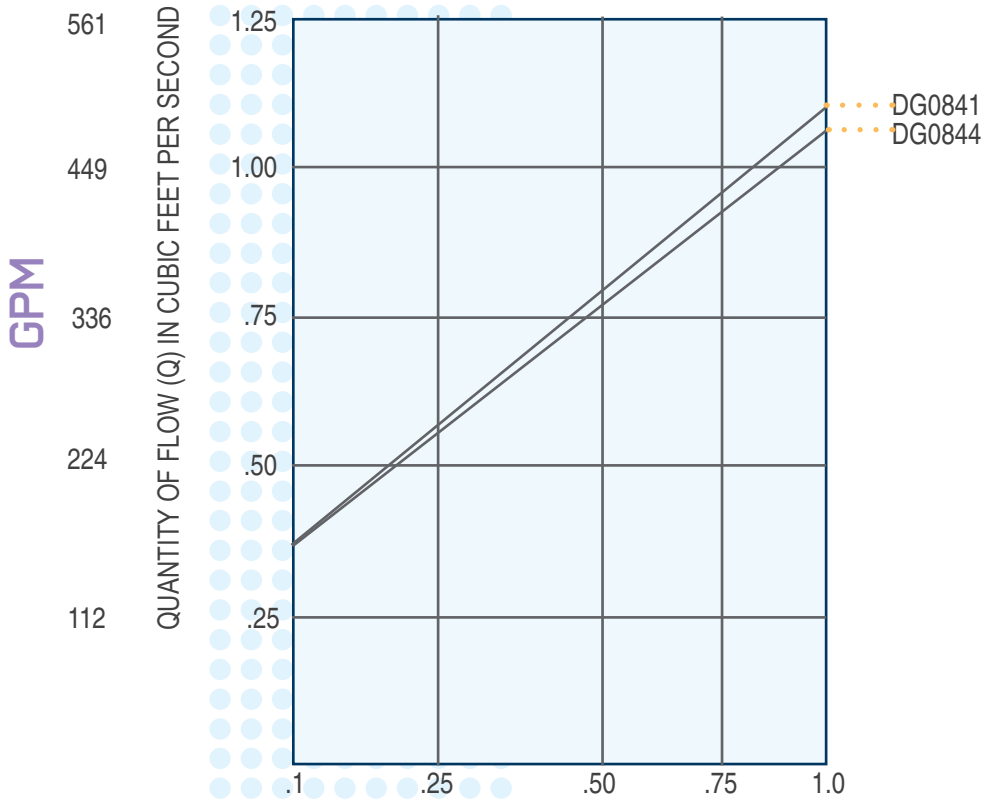
800 series

Grate In-Flow Chart

Quantity of Flow Through 800 Series Grates

Based on 1' 825 Channel

Computed using Orifice Equation $Q=CA\sqrt{2gh}$



Head of Water Above Grate in Feet

GR8 TIPS

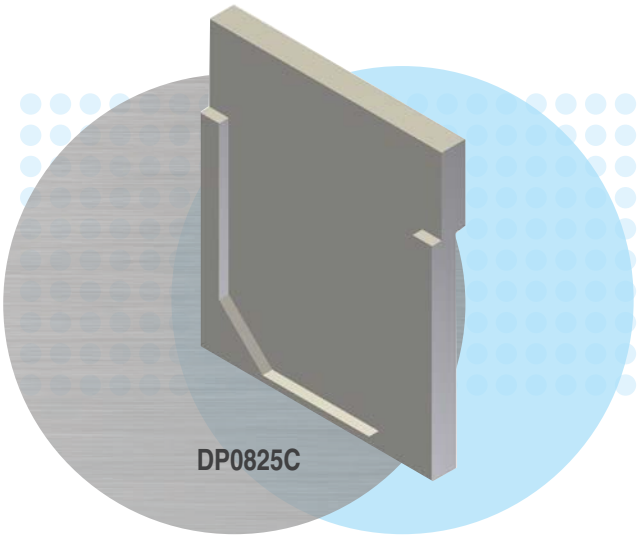
Expansion Joints: Trench drain channels should never be used as expansion joints as this can cause weak points in both the drain and, surrounding slab.

Accessories

End Caps

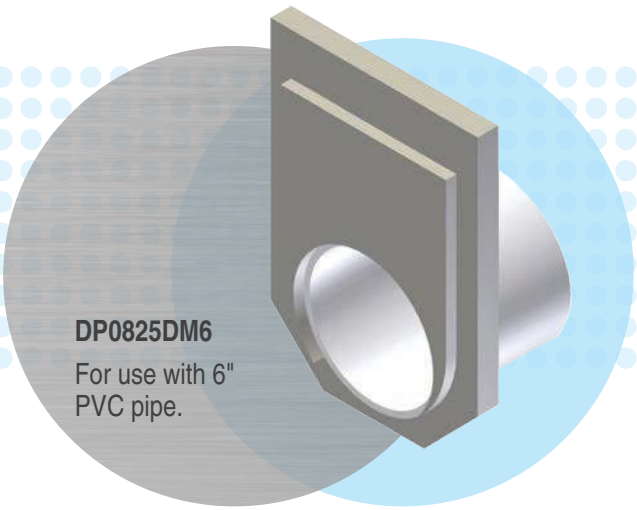
POLYCAST® End Caps are used to enclose or provide piping transitions to the female and male ends of the channels where catch basins are not being used.

Closed End Cap



DP0825C

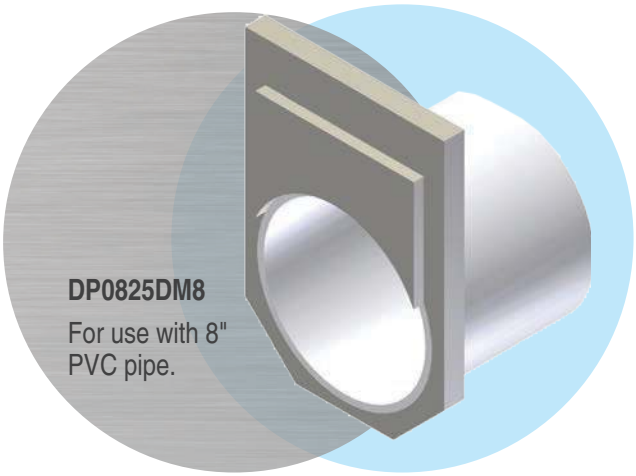
Inlet/Outlet



DP0825DM6

For use with 6" PVC pipe.

Inlet/Outlet



DP0825DM8

For use with 8" PVC pipe.

maxi

POLYCAST© Sample Specifications

800 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 800 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 8" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 1 1/16". Channels shall have interlocking joints and side height extension panels. The system will be of a neutral slope design, with maximum capacity dependent on the slope of the surrounding grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength:	ASTM C-109	12,000 psi
Tensile strength:	ASTM C-307	1,700 psi
Water absorption:	ASTM D-570	<1%
Chemical resistance:	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of gray iron (ASTM A-48) or fiberglass. The frames shall be non-removable from the concrete. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 lbs. after salt exposure per ASTM B-117.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of an expansion joint.

Applicable Standards

900 Series

AASHTO H-20 or HS-20

AASHTO M306-07 modified 9"x 9" load plate replaced with 18" long x 4" diameter steel rod

ASTM A536 Class 65-45-12

CALTRANS Section 10-1.35, "Grated Line Drain"

CALTRANS Section 75-1.02, "Miscellaneous Iron and Steel"

FAA publication AC 150/5320-6D, "Airport Pavement Design and Evaluation"

DIN/EN 1433

Load Ratings

POLYCAST® grates are designed to meet load ratings as defined by DIN/EN 1433. This well recognized, international standard classifies potential drainage applications into 6 classes. These classes take into account both proof loading and catastrophic loads to ensure the user's product is selected correctly and is reliable.

DIN Application Load Class A - 3,372 lbs. - 15 kN

A

Residential, pedestrian, and cyclist traffic

DIN Application Load Class B - 28,100 lbs. - 125 kN

B

Sidewalks, parking lots, and car parking decks

DIN Application Load Class C - 56,200 lbs. - 250 kN

C

Curb sides, highway shoulders, and parking areas

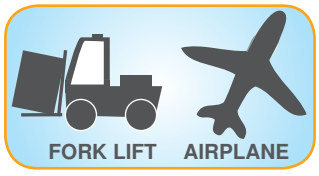
DIN Application Load Class D - 89,920 lbs. - 400 kN

D

Trafficked sections of roads and highways

DIN Application Load Class E - 134,800 lbs. - 600 kN

E



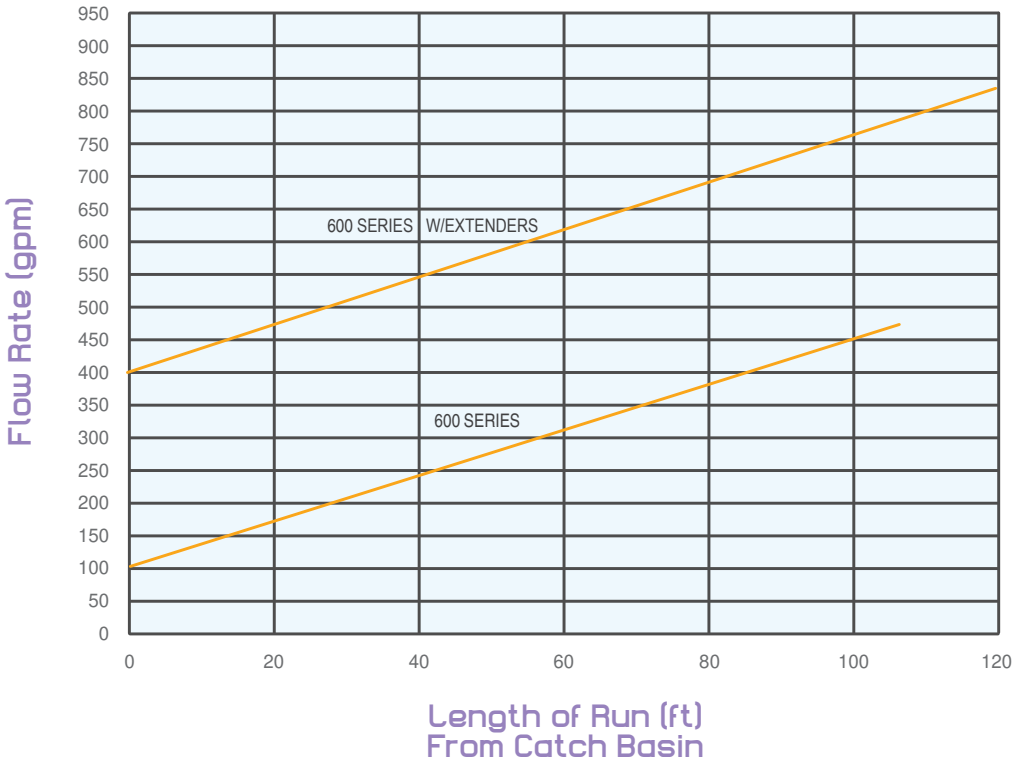
Industrial areas, forklifts, traffic, ports, and dock sides

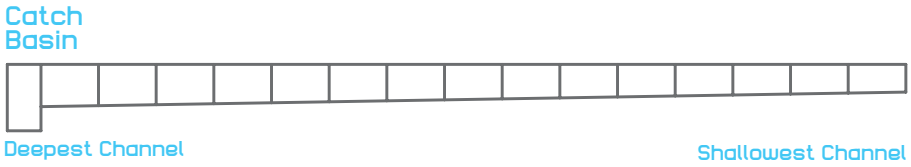
DIN Application Load Class F - 202,320 lbs. - 900 kN

F

Aircraft runways, docks, and high impact wheel loads

Flow capacity for POLYCAST® drains





600 series

@ CATCH BASIN 478.7 GPM

@ 100 FT. 113.8 GPM

600 series w/extenders

@ CATCH BASIN 840 GPM

@ 120 FT. 404 GPM

Effect of Non-Sloped Channels on Flow Capacity

Percent Non-Sloped Channels

+ This graph is based on the Manning Equation

Corrosion Resistence Guide

For those highly corrosive drainage situations, Hubbell-Lenoir City Division manufactures polymer concrete drainage components with Vinyl Ester resin. This includes all series of precast drainage systems and components.

The Vinyl Ester trench drains can be ordered with a highly corrosion-resistant Vinyl Ester fiberglass grating.

A corrosion-resistant fiberglass grate hold-down device is also available. The Vinyl Ester trench drains can also be ordered with any of the gratings offered.

POLYCAST® polymer concrete products fabricated with Vinyl Ester resin are ideally suited for drainage and handling of most highly corrosive fluids.

The POLYCAST Vinyl Ester based drains are especially suitable for drainage in areas where manufacturers must concentrate and contain corrosive materials to meet EPA pollution control requirements.

POLYCAST drain components are manufactured with only quality polyester and Vinyl Ester resins.

Vinyl Ester Resin:

- Performs very well at high temperatures
- Can be used in many applications involving combinations of acids, halogenated organics, caustics, and solvents
- Displays high resistance to chlorinated solvents
- Has proven track record for many industrial applications

POLYCAST recommends job site emersion testing to verify suitability of chemical resistance before ordering material. Test coupons of Vinyl Ester and polyester are available by contacting POLYCAST Customer Service.

Corrosion Resistence Guide

CHEMICAL	% CONCENTRATION	MAX TEMP °F
A		
Acetaldehyde	100	N.R.
Acetic Acid	10	180
Acetic Acid, Glacial	100	N.R.
Acetic Anhydride	100	N.R.
Acetone	10	150
Acetone	100	N.R.
Acrylamide	50	65
Adipic Acid	23	150
Alum	All	180
Aluminum Chloride	All	180
Aluminum Chlorohydrate	All	180
Aluminum Nitrate	100	150
Aluminum Potassium Sulfate	All	180
Aluminum Sulfate	All	180
Ammonium Acetate	65	65
Ammonium Bicarbonate	50	135
Ammonium Bifluoride	100	125
Ammonium Bromide	43	135
Ammonium Carbonate	All	125
Ammonium Chloride	All	180
Ammonium Fluoride	All	125
Ammonium Hydroxide	20	125
Ammonium Nitrate	All	180
Ammonium Persulfate	All	150
Ammonium Phosphate, dibasic	All	180
Ammonium Sulfate	All	180
Ammonium Thiocyanate	20	180
Aniline	100	N.R.
B		
Barium Carbonate	All	180
Barium Chloride	All	180
Barium Cyanide	All	135
Barium Hydroxide	All	125
Beer		100
Benzene	100	N.R.
Benzoic Acid	Sat'd.	180
Benzyl Alcohol	All	N.R.
Benzyl Chloride	100	N.R.
Black Liquor (Pulp Mill)	All	150
Bleaches:		
Calcium Hypochlorite	All	150
Chlorine Dioxide, Wet	Sat'd.	170
Sodium Hypochlorite	18	153
Borax	100	180
Boric Acid	All	180
Brine	All	180
Bromine, Liquid	100	N.R.
Bunker C Fuel Oil	100	180
Butyl Acetate	100	100
Butyl Alcohol	All	100
Butyric Acid	100	65
C		
Calcium Bisulfite	All	150
Calcium Bromide	All	180
Calcium Carbonate	All	150
Calcium Chlorate	All	180
Calcium Chloride	All	180
Calcium Hydroxide	100	180
Calcium Hypochlorite	All	150
Calcium Nitrate	All	180
Calcium Sulfate	All	180
Calcium Sulfite	All	180
Capric Acid	All	65
Carbon Disulfide	100	N.R.
Carbon Tetrachloride	100	125
CARBOWAX Polyethylene Glycol	100	150
Carboxylethyl Cellulose	10	150
Castor Oil	100	125
Chlorine Water	Sat'd	200
Chlorine, Wet Gas	100	180
Chloroacetic Acid	25	100
Chlorobenzene	100	N.R.
Chloroform	100	N.R.
Chloropyridine (tetra)	100	100
CHLOROTHENE SM 1,1,1-Trichloroethane inhibited	100	85
Chromic Acid	120	130
Citric Acid	All	180
Coconut Oil	All	150
Copper Chloride	All	180
Copper Nitrate	All	180
Copper Sulfate	All	180
Corn Oil		150
Corn Starch	Slurry	180
Crude Oil	100	180
Cyclohexane	100	100
D		
Di-ammonium Phosphate	65	180
Dibutyl Sebacate	All	100
Dichloropropane	100	N.R.
Diesel Fuel	100	150
Diethanolamine	100	100

Corrosion Resistence Guide

CHEMICAL	% CONCENTRATION	MAX TEMP °F
Dimethyl Formamide	100	N.R.
Dimethyl Phthalate	100	125
Dioctyl Phthalate	100	125
Diphenyl Oxide	100	65
E		
ESTERON Herbicide	100	100
Esters, Fatty Acid	100	150
Ethanol	95	65
Ethanolamine	100	N.R.
Ethyl Acetate	100	N.R.
Ethylene Glycol	All	180
Ethylenediaminetetraacetic Acid		85
F		
Ferric Chloride	All	180
Ferric Sulfate	All	180
Ferrous Chloride	All	180
Ferrous Sulfate	All	180
Fluosilicic Acid	10	150
Formaldehyde	All	125
Formic Acid	10	150
Fuel Oil	100	150
G		
Gasohol (5% MEOH)	100	100
Gasoline, Aviation	100	150
Gasoline, No Lead, No Methanol	100	100
Glyconic Acid	50	150
Glucose	100	180
Glycerine	100	180
Glycolic Acid (Hydroxyacetic)	70	85
H		
Herbicides		100
Hydraulic Fluid	100	150
Hydrazine	100	N.R.
Hydrobromic Acid	48	125
Hydrochloric Acid	20	150
Hydrofluoric Acid	10	125
Hydrogen Peroxide	30	125
Hypophosphorous Acid	50	100
I		
Insecticides		100
Isodecanol		100
Isopropyl Alcohol	All	100
Isopropyl Myristate	100	100
J		
Jet Fuel (JP-4)	100	150
K		
Kerosene	100	150

CHEMICAL	% CONCENTRATION	MAX TEMP °F
L		
Lactic Acid	All	180
Lauryl Alcohol	100	125
Lead Acetate	All	180
Linseed Oil	100	180
Lithium Chloride	Sat'd	180
Lithium Hypochlorite	All	150
M		
Magnesium Carbonate	All	150
Magnesium Chloride	All	180
Magnesium Fluosilicate	All	150
Magnesium Hydroxide	100	180
Magnesium Sulfate	All	180
Maleic Acid	100	180
Manganese Chloride	All	180
Mercurous Chloride	All	180
Methanol	5	100
Methyl Ethyl Ketone	100	N.R.
Milk	100	180
Mineral Oils	100	180
Molasses	100	100
Molybdenum Disulfide (Manufacturing)		170
Morpholine	100	N.R.
Motor Oil		180
Myristic Acid	100	180
N		
Nickel Chloride	All	180
Nickel Sulfate	All	180
Nitric Acid	20	100
Nitrobenzene	100	N.R.
O		
Octanoic Acid (Caprylic Acid)	100	150
Oleic Acid	All	180
Olive Oils	100	180
Oxalic Acid	Sat'd.	100
P		
Palmitic Acid	100	180
Paper Mill Effluent		150
Peanut Oil	100	150
Perchlorethylene	100	65
Perchloric Acid	10	125
Perchloric Acid	30	85
Phosphoric Acid	100	180
Phosphorous Trichloride		N.R.
Pine Oil	100	N.R.
Polyethyleneimine	12	125
Polyvinyl Alcohol	All	85

Corrosion Resistence Guide

CHEMICAL	% CONCENTRATION	MAX TEMP °F
Potassium Bicarbonate	50	150
Potassium Carbonate	50	150
Potassium Chloride	All	180
Potassium Dichromate	All	180
Potassium Hydroxide	10	125
Potassium Iodide	All	100
Potassium Nitrate	All	180
Potassium Permanganate	All	180
Potassium Persulfate	All	180
Potassium Sulfate	All	180
Propionic Acid	50	155
Pyridine	100	N.R.
Q		
R		
S		
Salicylic Acid	100	115
Skydrol	100	100
Sodium Acetate	All	180
Sodium Aluminate	All	100
Sodium Benzoate	100	155
Sodium Bicarbonate	Sat'd	155
Sodium Bisulfate	All	180
Sodium Borate	Sat'd	180
Sodium Bromide	All	180
Sodium Carbonate	35	155
Sodium Chlorate	50	180
Sodium Chloride, pH 5-10, Cl_2	Sat'd	155
Sodium Ferricyanide	All	180
Sodium Fluoride	All	155
Sodium Hydroxide	10	155
Sodium Hydroxide	50	180
Sodium Hypochlorite	18	180
Sodium Lauryl Sulfate	All	135
Sodium Phosphate	10	180
Sodium Sulfate	All	180
Sodium Sulfide	All	180
Sodium Sulfite	All	180
Sodium Thiosulfate	All	155
Sorbital Solutions	All	135
Stearic Acid	All	180
Styrene	100	N.R.
Styrene-Butadiene Latex		110
Surfuric Acid	70	155
Surfuric Acid	75	85
T		
Tartaric Acid	All	180
Tetrachloroethylene (Perchloroethylene)	100	65
Thioglycolic Acid (Mercaptoacetic Acid)	All	N.R.
Thionyl Chloride		N.R.
Toluene	100	65
Trichloracetic Acid	50	180
Trisodium Phosphate	All	180
Turpentine	100	125
U		
Urea	50	125
V		
Vinegar	100	180
W		
X		
Xylene	100	65
Y		
Z		
Zinc Chloride	70	180
Zinc Sulfate	All	180

POLYCAST polymer concrete products are manufactured using polyester resin for normal environments and **Vinyl Ester** resins when higher temperature capabilities or increased corrosion resistance is required. Additional benefits include high strength-to-weight ratio, excellent impact resistance, low water absorption, and nonconductivity.

This bulletin lists various chemical reagents and provides recommended corrosion resistance data for each. The recommendations are based upon tests performed by POLYCAST's Vinyl Ester resin suppliers using coupons of the binding polymer under laboratory conditions. These laboratory tests may not be representative of the conditions in your application. This bulletin is intended to be used as a guide only and specifically for **Vinyl Ester** resin products manufactured by POLYCAST. At the time of publication, the information and recommendations contained herein were considered accurate and reliable.

POLYCAST recommends that a coupon of polymer concrete be exposed to the environment for a minimum period of 60 days to verify suitability. POLYCAST will provide these coupons upon request and can analyze the effects of the exposure if the coupons are returned to our laboratory.

SPECIFICATIONS AND SUBMITTAL SHEETS

Note: These are available for for download:

1. On our website at http://www.hubbellpowersystems.com/literature/drain-systems/
2. Via the HPS Library at http://hubbellpowersystems.cld.bz/Polycast-Trench-Drains-PC-1
3. Via your phone with the "HPS Library" app

POLYCAST© Sample Specifications

600 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 600 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 4.25" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 0.5". Sloped and non-sloped channels shall be used as shown in contract plans. The sloped channels shall be 48" long with an invert slope of 0.65%. Channels shall have interlocking joints and side height extension panels. The maximum system capacity without extensions shall be 460 GPM at flat and level grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength	ASTM C-109	12,000 psi
Tensile strength	ASTM C-307	1,700 psi
Water absorption	ASTM D-570	<1%
Chemical resistance	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of steel (ASTM A-36), ductile iron (ASTM A-536 minimum grade 65-45-12), gray iron (ASTM A-48), Fiberglass, or HDPE. The frames shall be non-removable from the concrete. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 pounds after salt exposure per ASTM B-117.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of a defacto expansion joint.

POLYCAST© Specifications

900 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 900 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 4.25" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 0.5". Sloped and non-sloped channels shall be used as shown in contract plans. The sloped channels shall be 48" long with an invert slope of 0.65%. Channels shall have interlocking joints and side height extension panels. The maximum system capacity without extensions shall be 460 GPM at flat and level grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength:	ASTM C-109	12,000 psi
Tensile strength:	ASTM C-307	1,700 psi
Water absorption:	ASTM D-570	<1%
Chemical resistance:	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of steel (ASTM A-36), ductile iron (ASTM A-536 minimum grade 65-45-12), or gray iron (ASTM A-48) and meet AASHTO HS-20 and FAA load requirements. The frames shall be non-removable from the concrete. The grates shall be removable or non-removable as shown on the contract plans. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 pounds after salt exposure per ASTM B-117. Non-removable grates shall have integrally cast anchoring lugs with terminus interlock.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of or as a defacto expansion joint.

POLYCAST© Sample Specifications

800 SERIES

General: The work specified in this section shall consist of furnishing and installing preformed trench drains including drain channels, frames, grates, and accessories as shown on the contract plans. The surface drainage system shall consist of 800 Series Precast Polymer Concrete Trench Drain. One manufacturer shall provide all drain components unless noted otherwise at piping connections. The number of component joints shall be minimized for products in this section.

Materials: The precast trench drain shall be cast of polyester polymer concrete as shown on the contract plans. The dimensions shall be 8" inside width with a full radius bottom. The grate bearing ledge shall be a minimum of 1 1/16". Channels shall have interlocking joints and side height extension panels. The system will be of a neutral slope design, with maximum capacity dependent on the slope of the surrounding grade.

The polymer concrete shall have minimum material properties as follows:

DESCRIPTION	TEST METHOD	VALUES
Compressive strength:	ASTM C-109	12,000 psi
Tensile strength:	ASTM C-307	1,700 psi
Water absorption:	ASTM D-570	<1%
Chemical resistance:	ASTM D-543	75% strength, <2% change in weight/dimension
Accelerated service	ASTM D-7566-E	75% strength, <2% change in weight/dimension
CTE (coefficient of thermal expansion)		15x10-6 in/in/°F

Grates and Frames: The grating and frames shall be made of gray iron (ASTM A-48) or fiberglass. The frames shall be non-removable from the concrete. The removable grates shall have threaded bolt lockdowns that do not unduly impede fluid flow in the channel. The lockdowns shall withstand cyclical loads of 700 lbs. after salt exposure per ASTM B-117.

Installation: The manufacturer's installation recommendations shall be followed. The reinforcement in the concrete surrounding the drain shall be adequate for the anticipated loads. The trench drain shall not be used in place of an expansion joint.

POLYCAST®

500 Series

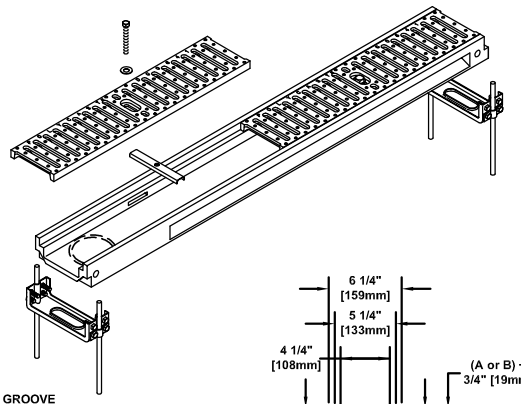
Non-Sloped Trench Drain System

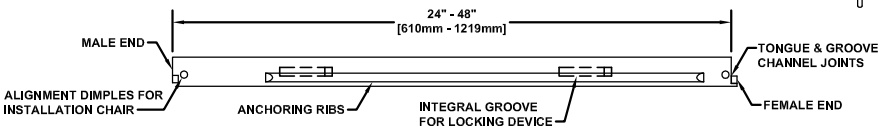
PROJECT ID/
CONTRACT NO: _____

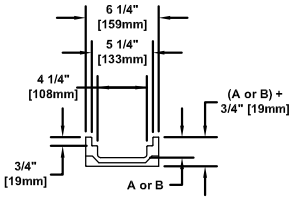
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® 500 Series Non-Sloped Trench Drain System is a non-sloping trench drain, with 6 1/4" [159mm] wide x a nominal 48" [1219mm] long (standard) polyester polymer concrete channels with tongue and groove connections. Channel will be supplied with drill outs for a 4" [102mm] bottom outlet. Grating locking devices, installation chairs and end caps with a 4" [102mm] drain drill out as required. Installation chairs are recommended for installation of drainage channels.







✓	Channel Number	Weight (LBS.)	Inlet Dim 'A'	Outlet Dim 'B'
☐	500 w/ 4" Bottom Drill Out (Non-Sloped)	25	1-3/4	1-3/4
☐	500H w/ 4" Bottom Drill Out (Non-Sloped 24")	12	1-3/4	1-3/4

Frame/Grate Options (Select One)

✓	Frame/Grate Type	Part No.	DIN Load Class
☐	Galvanized Steel Solid (ADA Compliant)	DG0645	Class A
☐	Galvanized Steel Perforated (ADA Compliant)	DG0646	Class A
☐	Stainless Steel Perforated (ADA Compliant)	DG0657	Class A
☐	Stainless Steel Solid (ADA Compliant)	DG0667	Class A
☐	Galvanized Steel Slotted	DG0640	Class A
☐	Plastic Coated Galvanized Slotted	DG0640C	Class A
☐	Stainless Steel Slotted	DG0647	Class A
☐	DURAGUARD® Slotted	DG0670	Class A
☐	DURAGUARD® Longitudinal (ADA Compliant)	DG0675	Class A
☐	Fiberglass (5/8" Spacing)	DG0644	Class B
☐	Fiberglass (3/8" Spacing)	DG0644SP	Class C
☐	Cast Iron Slotted	DG0641	Class C
☐	Abbott, Decorative Iron	DG0693	Class C
☐	Patriot, Decorative Iron	DG0692	Class C
☐	Spiral, Decorative Iron	DG0694	Class C
☐	Cobblestone, Decorative Iron	DG0695	Class C
☐	Ductile Iron Slotted	DG0641D	Class D
☐	Cast Iron Solid (ADA Compliant)	DG0641S	Class D
☐	Ductile Iron Longitudinal Slotted (ADA Compliant)	DG0675HD	Class D
☐	DURAGUARD® Composite Frame w/Ductile Iron Slotted	DG0700PE w/DG0641D	Class E
☐	DURAGUARD® Composite Frame w/Cast Iron Solid	DG0700PE w/DG0641S	Class E
☐	DURAGUARD® Composite Frame w/Ductile Iron Longitudinal Slotted	DG0700PE w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Slotted	DG0700AA w/DG0641D	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Longitudinal Slotted	DG0700AA w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Cast Iron Solid	DG0700AA w/DG0641S	Class F

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Vinyl Ester Concrete Channels	DV0500	
☐	Closed End Cap (Inlet/Outlet)	DP0500C	
☐	Galvanized Steel POLYGUARD	DA0620A	
☐	Stainless Steel POLYGUARD	DA0620B	
☐	Installation Alignment Chair	DA0633	
☐	Locking Device For Galvanized & DURAGUARD® Grates	DA0542	
☐	Locking Device For Cast & Ductile Iron Grates	DA0542B	
☐	Locking Device For Cast & Ductile Iron Frames & Grates	DA0542BH	
☐	Locking Device For Fiberglass Grates	DA0542F	
☐	Locking Device For Stainless Steel Grates	DA0542S	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

HUBBELL®

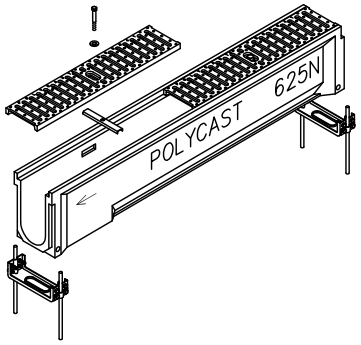
www.polycastdrain.com
Toll Free Number:
1-800-346-3062

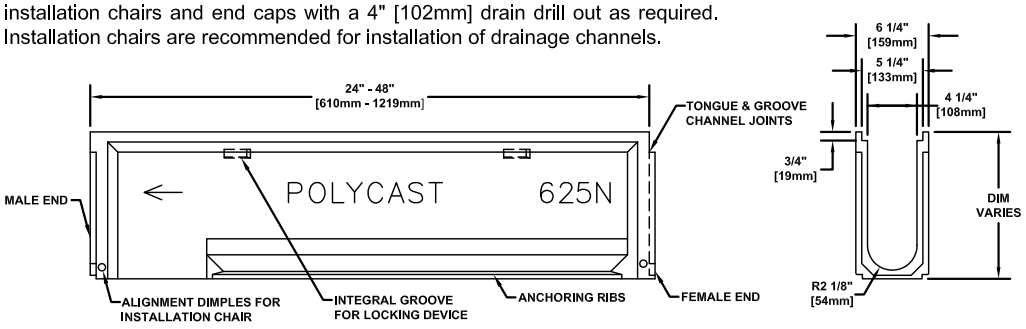
PROJECT ID/
CONTRACT NO: _____

600 Series
Pre-Sloped Trench Drain System

LOCATION: _____

ENGINEERING SPECIFICATION:
POLYCAST® 600 Series Pre-Sloped Trench Drain System is a .65% sloped trench drain, with 6 1/4" [159mm] wide x a nominal 48" [1219mm] long (standard) polyester polymer concrete channels with tongue and groove connections. Channels 605/610/615/620/625 and non-sloping (neutrals) will be supplied with drill outs for a 4" [102mm] bottom outlet. Grating locking devices, installation chairs and end caps with a 4" [102mm] drain drill out as required. Installation chairs are recommended for installation of drainage channels.





✓	Channel Number	Part No.
☐	Polyester Concrete Channels	DP06 _ _
☐	Vinyl Ester Concrete Channels	DV06 _ _

Grate Options (Select One)

✓	Grate Type	Part No.	DIN Load Class
☐	Galvanized Steel Solid (ADA Compliant)	DG0645	Class A
☐	Galvanized Steel Perforated (ADA Compliant)	DG0646	Class A
☐	Stainless Steel Perforated (ADA Compliant)	DG0657	Class A
☐	Stainless Steel Solid (ADA Compliant)	DG0667	Class A
☐	Galvanized Steel Slotted	DG0640	Class B
☐	Plastic Coated Galvanized Sheet	DG0640C	Class A
☐	Stainless Steel Slotted	DG0647	Class A
☐	DURAGUARD® Slotted	DG0670	Class A
☐	DURAGUARD® Longitudinal (ADA Compliant)	DG0675	Class A
☐	Fiberglass (5/8" Spacing)	DG0644	Class B
☐	Double Galvanized Steel Slotted	DG0640R	Class C
☐	Fiberglass (3/8" Spacing)	DG0644SP	Class C
☐	Double Galvanized Steel Solid (ADA Compliant)	DG0645R	Class C
☐	Double Galvanized Steel Perforated (ADA Compliant)	DG0646R	Class C
☐	Double Stainless Steel Slotted	DG0647R	Class C
☐	Double Stainless Steel Perforated (ADA Compliant)	DG0657R	Class C
☐	Double Stainless Steel Solid (ADA Compliant)	DG0667R	Class C
☐	Abbott, Decoratvie iron	DG0693	Class C
☐	Patriot, Decorative Ductile Iron	DG0692	Class C
☐	Spriral Decorative Ductile Iron	DG0694	Class C
☐	Cobblestone, Decorative Ductile Iron	DG0695	Class C
☐	Cast Iron Slotted	DG0641	Class C
☐	Ductile Iron Slotted	DG0641D	Class D
☐	Ductile Iron Longitudinal Slotted (ADA Compliant)	DG0675HD	Class D
☐	Cast Iron Solid (ADA Compliant)	DG0675HD	Class D

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Galvanized Steel POLYGUARD	DA0620A	
☐	Stainless Steel POLYGUARD	DA0620B	
☐	Drain End Cap (6" Outlet)	DA0620D6	
☐	Installation Alignment Chair	DA0633	
☐	Locking Device For Galvanized & DURAGUARD® Grates	DA0642	
☐	Locking Device For Cast & Ductile Iron Grates	DA0642B	
☐	Locking Device For Fiberglass Grates	DA0642F	
☐	Locking Device For Stainless Steel Grates	DA0642S	
☐	6 1/4 x 24 Catch Basin	DP0650	
☐	12 x 24 Catch Basin	DP0651	
☐	24 x 24 Open Bottom Catch Basin	DP0653OB	
☐	24 x 24 Solid Bottom Catch Basin	DP0653SB	
☐	Extender Panels	DP0660	
☐	Shovel Head	DA0661	
☐	4" Strainer (For Bottom/End Outlet)	DA0662	
☐	End Cap (Inlet/Outlet)	DA0670M/DA0670	
☐	Channel Adaptor (Male/Female)	DP0699M/DP0699F	

Meets the following Standards & Specifications:
- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

POLYCAST®

700 Series

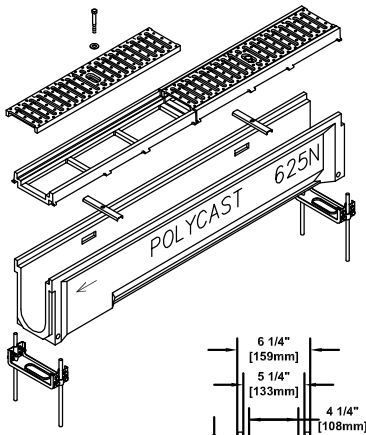
Pre-Sloped Extra
Heavy Duty System

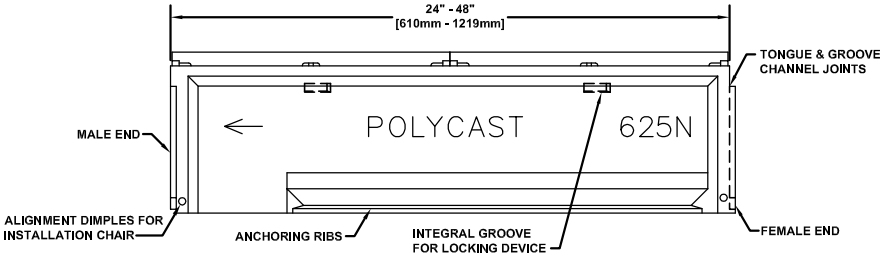
PROJECT ID/
CONTRACT NO: _____

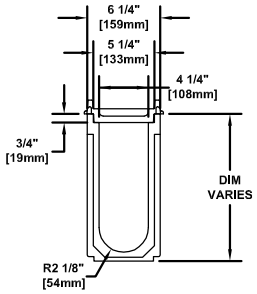
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® 700 Series Pre-Sloped Extra Heavy Duty Trench Drain System is a .65% sloped trench drain, with 6 1/4" [159mm] wide x a nominal 48" [1219mm] long (standard) polyester polymer concrete channels with tongue and groove connections. Channels 605/610/615/620/625, non-sloping (neutrals) will be supplied with drill outs for a 4" [102mm] bottom outlet. Grating locking devices, installation chairs and end caps with a 4" [102mm] drain drill out as required. Locking devices engage the iron frame and stay clear of the channel flow area. Drain sidewall pockets are available to hang channels from edge of forms during construction. Installation chairs are recommended for installation of drainage channels.







✓	Channel Number	Part No.
☐	Polyester Concrete Channels	DP06 _ _
☐	Vinyl Ester Concrete Channels	DV06 _ _

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- Federal Aviation Administration (FAA) Advisory Circular AC 150/5320-6E Appendix 3. Design of Structures for Heavy Airplanes
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

Frame/Grate Options (Select One)			
✓	Frame/Grate Type	Part No.	DIN Load Class
☐	DURAGUARD® Composite Frame w/Ductile Iron Slotted	DG0700PE w/DG0641D	Class E
☐	DURAGUARD® Composite Frame w/Cast Iron Solid	DG0700PE w/DG0641S	Class E
☐	DURAGUARD® Composite Frame w/Ductile Iron Longitudinal Slotted	DG0700PE w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Slotted	DG0700AA w/DG0641D	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Longitudinal Slotted	DG0700AA w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Cast Iron Solid	DG0700AA w/DG0641S	Class F

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Drain End Cap (6" Outlet)	DA0620D6	
☐	Installation Alignment Chair	DA0633	
☐	Locking Device For Cast & Ductile Iron Frames & Grates	DA0642BH	
☐	6 1/4 x 24 Catch Basin	DP0750	
☐	12 x 24 Catch Basin	DP0751	
☐	24 x 24 Open Bottom Catch Basin	DP0753OB	
☐	24 x 24 Solid Bottom Catch Basin	DP0753SB	
☐	Extender Panels	DP0660	
☐	Shovel Head	DA0661	
☐	4" Strainer (For Bottom/End Outlet)	DA0662	
☐	End Cap (Inlet/Outlet)	DA0670M/DA0670	
☐	Channel Adaptor (Male/Female)	DP0699M/DP0699F	

POLYCAST®

900 Series

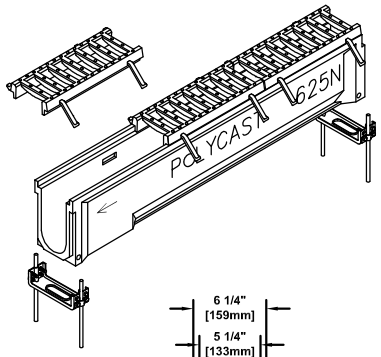
w/ Non-Removable Grates
Pre-Sloped Extra Heavy Duty System

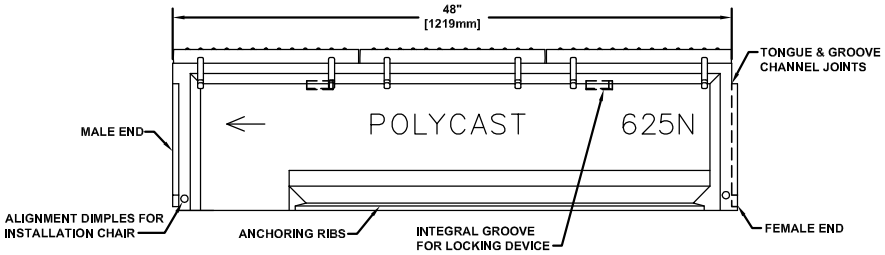
PROJECT ID/
CONTRACT NO: _____

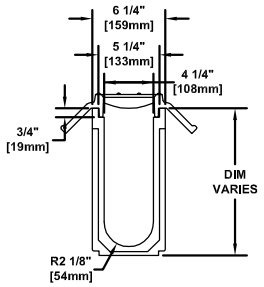
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® 900 Series Pre-Sloped Trench Drain System is a .65% sloped trench drain, with 6 1/4" [159mm] wide x a nominal 48" [1219mm] long (standard) polyester polymer concrete channels with tongue and groove connections. Channels 605/610/615/620/625 and non-sloping (neutrals) will be supplied with drill out for a 4" [102mm] bottom outlet. Installation chairs and end caps with a 4" [102mm] drain drill out as required. Installation chairs are recommended for installation of drainage channels.







✓	Channel Number	Part No.
☐	Polyester Concrete Channels	DP06 _ _
☐	Vinyl Ester Concrete Channels	DV06 _ _

Frame/Grate Options (Select One)			
✓	**Frame/Grate Type**	**Part No.**	**DIN Load Class**
☐	One-Piece (Non-Removable) Ductile Frame & Grate	DG0900	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**
☐	Drain End Cap (6" Outlet)	DA0620D6	
☐	Installation Alignment Chair	DA0633	
☐	Extender Panels	DP0660	
☐	Shovel Head	DA0661	
☐	4" Strainer (For Bottom/End Outlet)	DA0662	
☐	End Cap (Inlet/Outlet)	DA0670M/DA0670	
☐	Channel Adaptor (Male/Female)	DP0699M/DP0699F	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- Federal Aviation Administration (FAA) Advisory Circular AC 150/5320-6E Appendix 3. Design of Structures for Heavy Airplanes
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

HUBBELL®

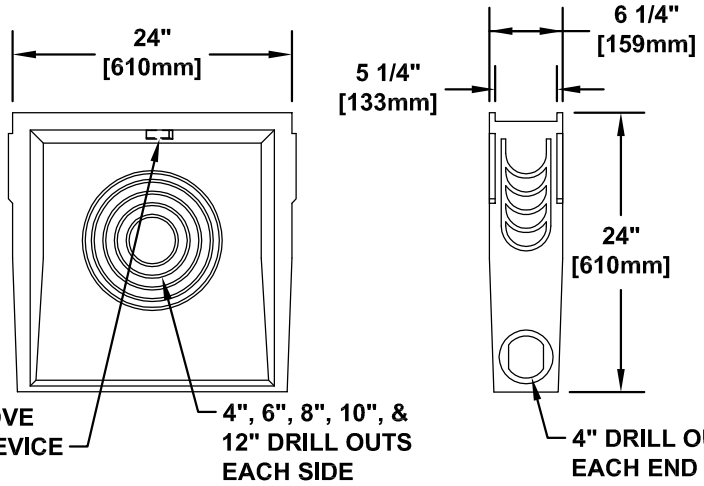
www.polycastdrain.com
Toll Free Number:
1-800-346-3062

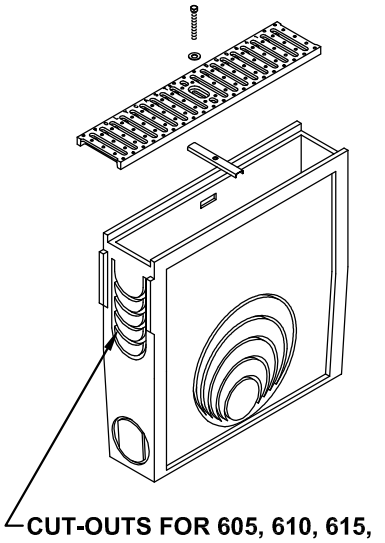
PROJECT ID/
CONTRACT NO: _____

650 Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:
POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.





Grate Options (Select One)			
✓	Grate Type	Part No.	DIN Load Class
☐	Galvanized Steel Solid (ADA Compliant)	DG0645	Class A
☐	Galvanized Steel Perforated (ADA Compliant)	DG0646	Class A
☐	Stainless Steel Perforated (ADA Compliant)	DG0657	Class A
☐	Stainless Steel Solid (ADA Compliant)	DG0667	Class A
☐	Galvanized Steel Slotted	DG0640	Class A
☐	Plastic Coated Galvanized Slottedt	DG0640C	Class A
☐	Stainless Steel Slotted	DG0647	Class A
☐	DURAGUARD® Slotted	DG0670	Class A
☐	DURAGUARD® Longitudinal (ADA Compliant)	DG0675	Class A
☐	Fiberglass (5/8" Spacing)	DG0644	Class B
☐	Double Galvanized Steel Slotted	DG0640R	Class C
☐	Fiberglass (3/8" Spacing)	DG0644SP	Class C
☐	Double Galvanized Steel Solid (ADA Compliant)	DG0645R	Class C
☐	Double Galvanized Steel Perforated (ADA Compliant)	DG0646R	Class C
☐	Double Stainless Steel Slotted	DG0647R	Class C
☐	Double Stainless Steel Perforated (ADA Compliant)	DG0657R	Class C
☐	Double Stainless Steel Solid (ADA Compliant)	DG0667R	Class C
☐	Cast Iron Slotted	DG0641	Class C
☐	Abbott, Decorative Iron	DG0693	Class C
☐	Patriot, Decorative Iron	DG0692	Class C
☐	Spiral, Decorative Iron	DG0694	Class C
☐	Cobblestone, Decorative Iron	DG0695	Class C
☐	Ductile Iron Slotted	DG0641D	Class D
☐	Cast Iron Solid (ADA Compliant)	DG0641S	Class D
☐	Ductile Iron Longitudinal Slotted (ADA Compliant)	DG0675HD	Class D

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Vinyl Ester Concrete Channels	DV0650	
☐	Galvanized Steel POLYGUARD	DA0620AH	
☐	Stainless Steel POLYGUARD	DA0620BH	
☐	Locking Device For Galvanized & DURAGUARD® Grates	DA0642	
☐	Locking Device For Cast & Ductile Iron Grates	DA0642B	
☐	Locking Device For Fiberglass Grates	DA0642F	
☐	Locking Device For Stainless Steel Grates	DA0642S	
☐	HDPE Corrugated Plastic Debris Basket	DA0650TA	

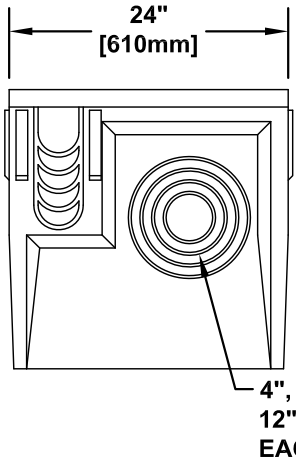
Meets the following Standards & Specifications:
- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

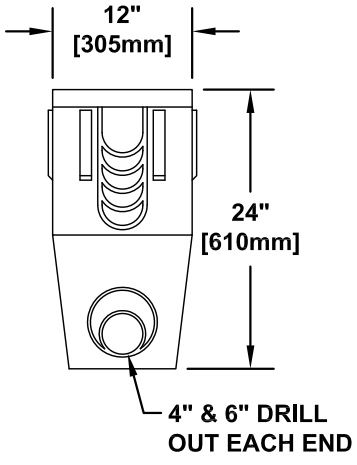
PROJECT ID/
CONTRACT NO: _____

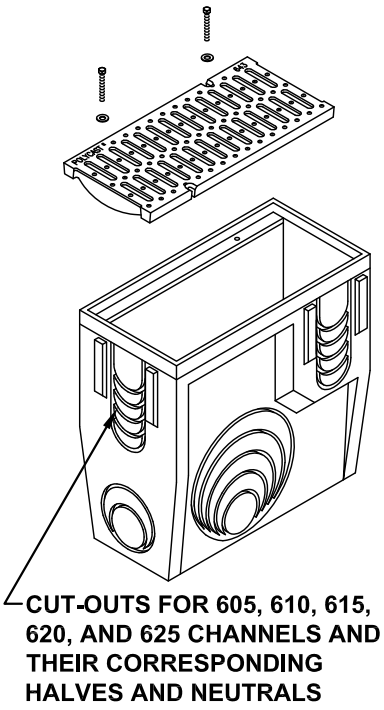
651 Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:
POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.







Grate Options (Select One)			
✓	**Grate Type**	**Part No.**	**DIN Load Class**
☐	Ductile Iron Longitudinal Slotted	DG0685HD	Class E
☐	Cast Iron Slotted	DG0643	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**
☐	Vinyl Ester Concrete Channels	DV0651	
☐	HDPE Corrugated Plastic Debris Basket	DA0651TA	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

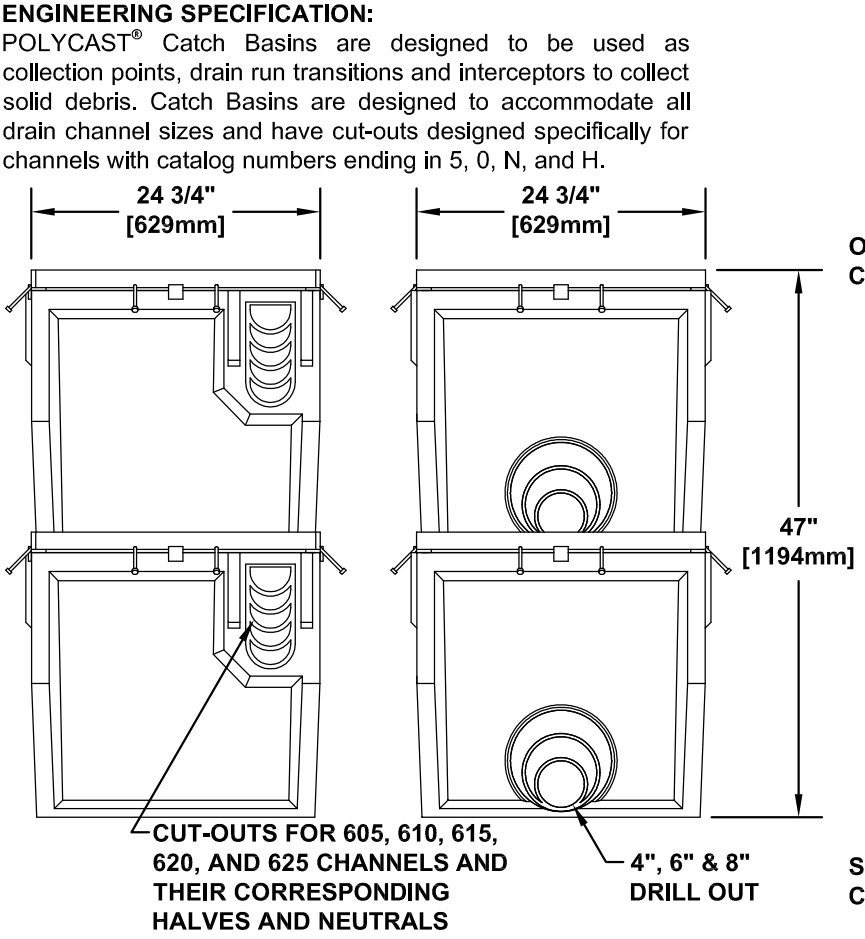
PROJECT ID/
CONTRACT NO: _____

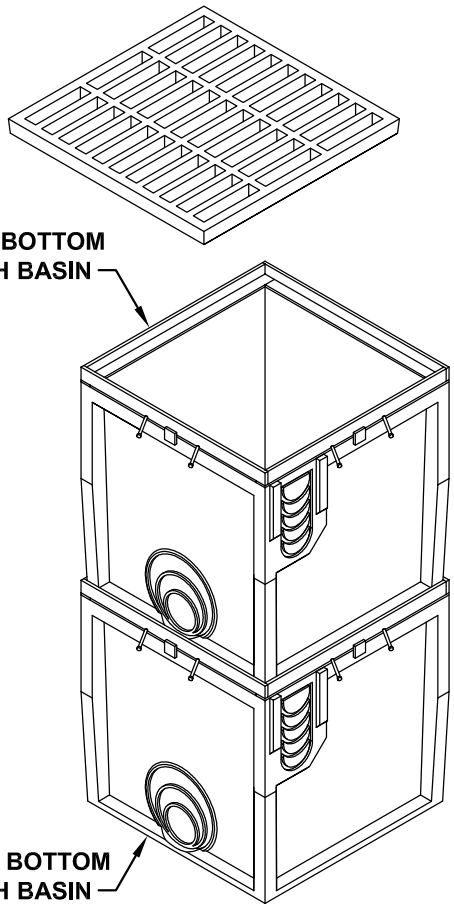
653OB & 653SB
Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.





Grate Options (Select One)			
✓ Grate Type		Part No.	DIN Load Class
☐ Fiberglass		DG0659	Class A
☐ Ductile Iron Slotted		DG0653D	Class D
✓ Options (Select All That Apply)	Part No.	Additional Specifications:	
☐ Vinyl Ester Concrete Channels	DV0653OB/SB		

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

HUBBELL®

www.polycastdrain.com
Toll Free Number:
1-800-346-3062

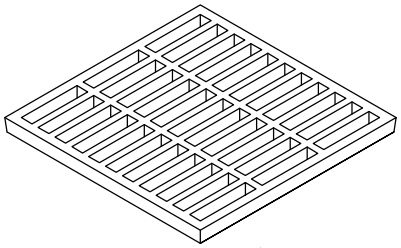
PROJECT ID/
CONTRACT NO: _____

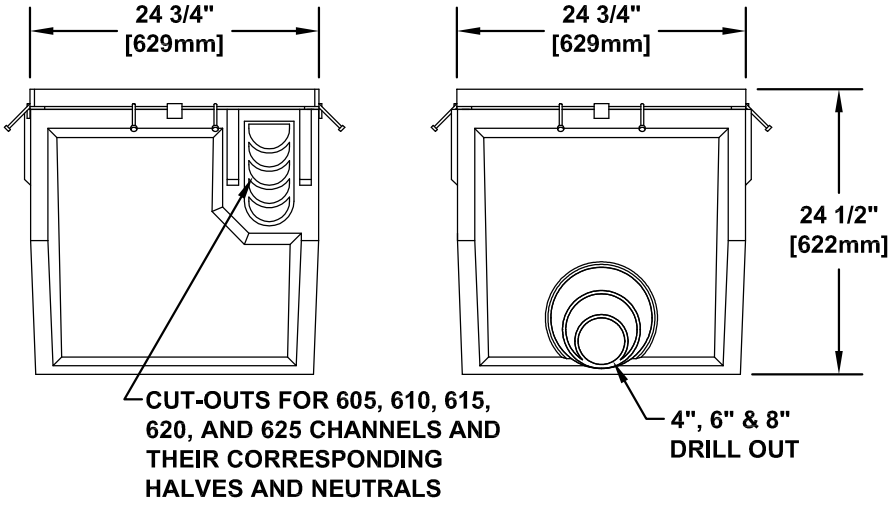
653SB Catch Basin

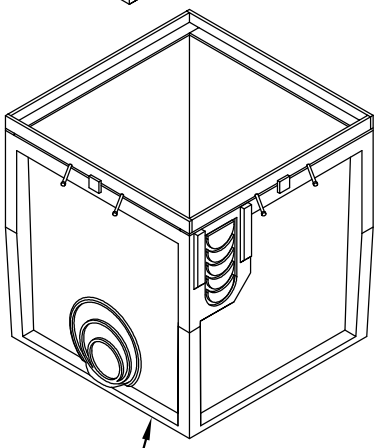
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.







Grate Options (Select One)			
✓	**Grate Type**	**Part No.**	**DIN Load Class**
☐	Fiberglass	DG0659	Class A
☐	Ductile Iron Slotted	DG0653D	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**
☐	Vinyl Ester Concrete Channels	DV0653SB	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

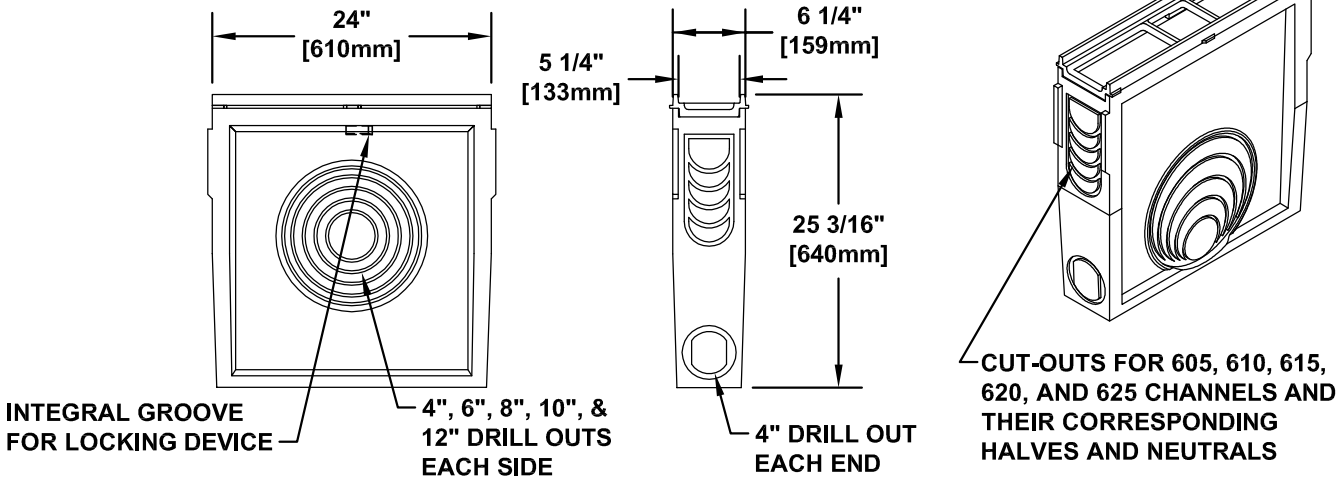
PROJECT ID/
CONTRACT NO: _____

750 Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.



Grate Options (Select One)			
✓	Frame/Grate Type	Part No.	DIN Load Class
☐	DURAGUARD® Composite Frame w/Ductile Iron Slotted	DG0700PE w/DG0641D	Class E
☐	DURAGUARD® Composite Frame w/Cast Iron Solid	DG0700PE w/DG0641S	Class E
☐	DURAGUARD® Composite Frame w/Ductile Iron Longitudinal Slotted	DG0700PE w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Slotted	DG0700AA w/DG0641D	Class E
☐	HARDNOSE Iron Frame w/Ductile Iron Longitudinal Slotted	DG0700AA w/DG0675HD	Class E
☐	HARDNOSE Iron Frame w/Cast Iron Solid	DG0700AA w/DG0641S	Class F

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Vinyl Ester Concrete Channels	DV0750	
☐	Locking Device For Cast & Ductile Iron Frames & Grates	DA0642BH	
☐	HDPE Corrugated Plastic Debris Basket	DA0750TA	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- Federal Aviation Administration (FAA) Advisory Circular AC 150/5320-6E Appendix 3. Design of Structures for Heavy Airplanes
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

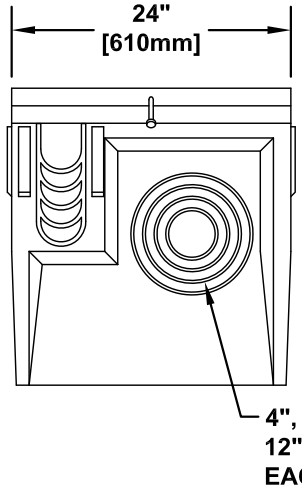
PROJECT ID/
CONTRACT NO: _____

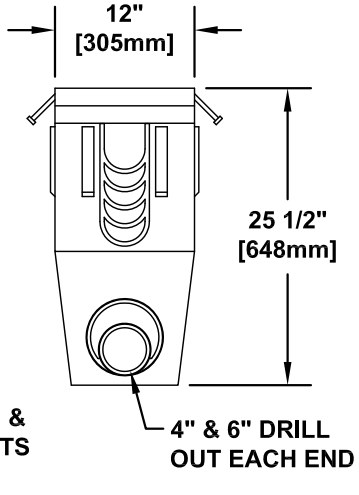
751 Catch Basin

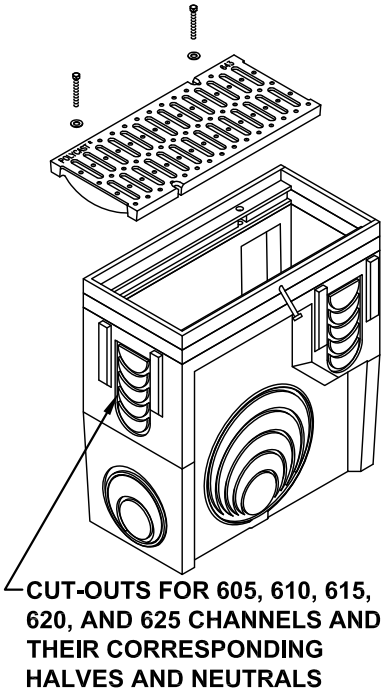
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.







Grate Options (Select One)			
✓	**Grate Type**	**Part No.**	**DIN Load Class**
☐	Dutile Iron Longitudinal Slotted	DG0685HD	Class E
☐	Cast Iron Slotted	DG0643	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**
☐	Vinyl Ester Concrete Channels	DV0751	
☐	HDPE Corrugated Plastic Debris Basket	DA0751TA	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

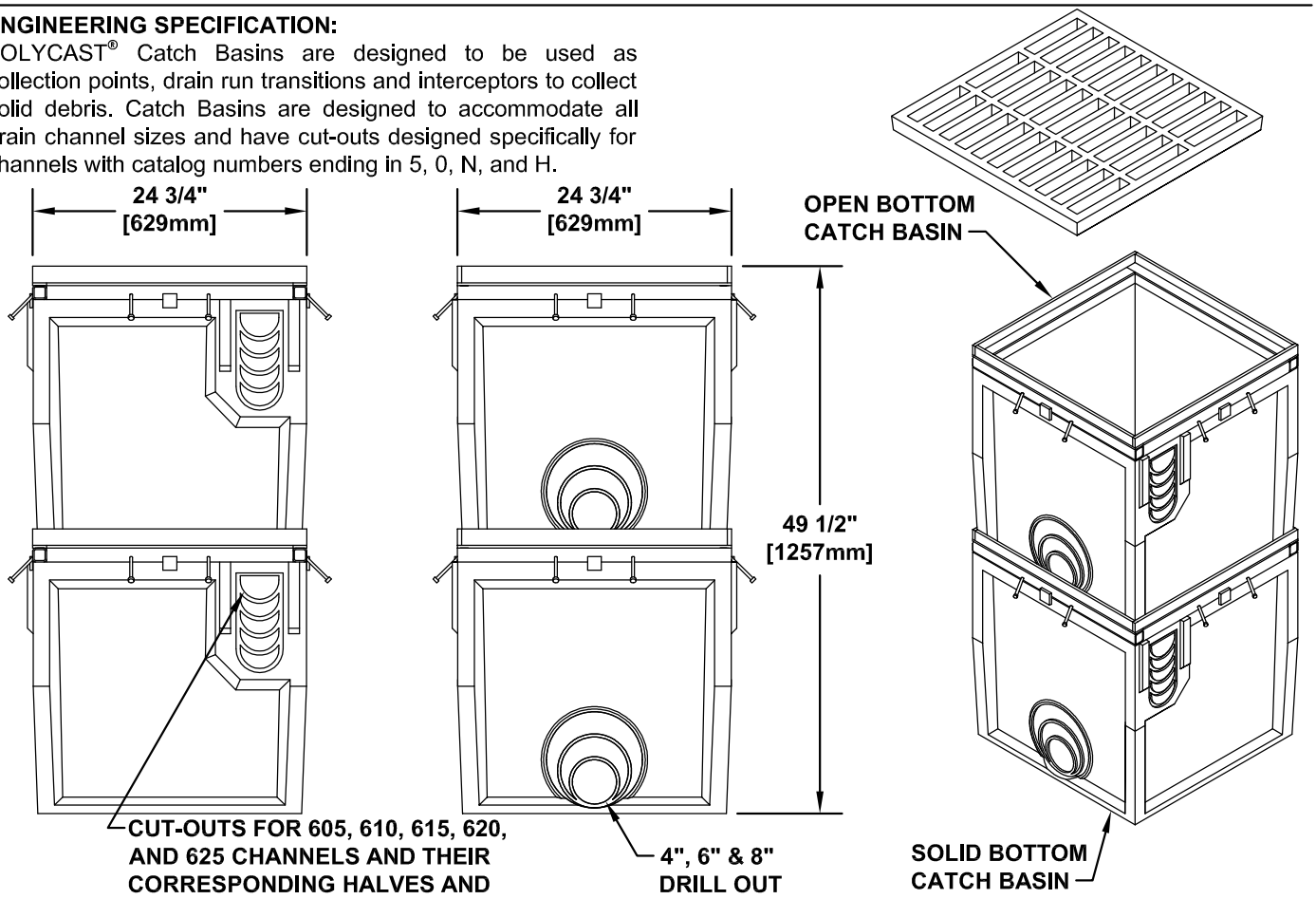
PROJECT ID/
CONTRACT NO: _____

753OB & 753SB
Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.



Grate Options (Select One)			
✓	**Grate Type**	**Part No.**	**DIN Load Class**
☐	Fiberglass	DG0659	Class A
☐	Ductile Iron Slotted	DG0653D	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**
☐	Vinyl Ester Concrete Channels	DV0753OB/SB	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

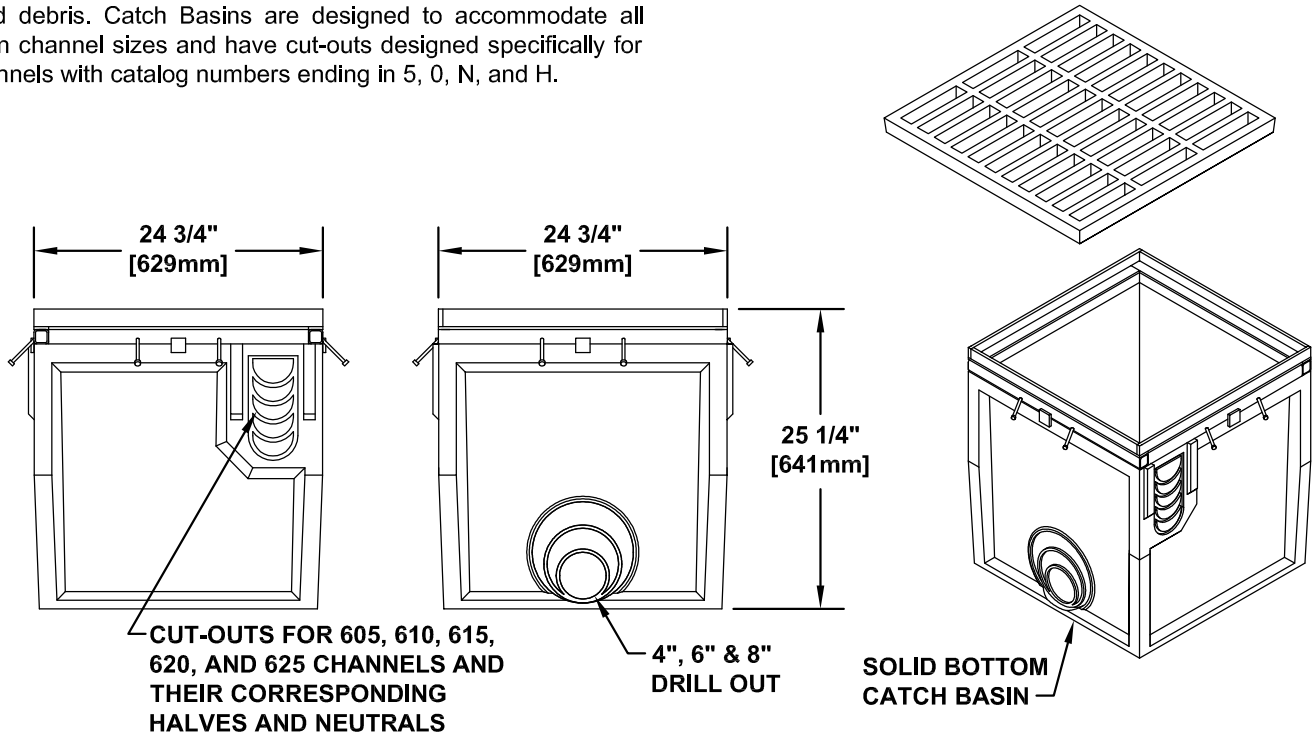
PROJECT ID/
CONTRACT NO: _____

753SB Catch Basin

LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® Catch Basins are designed to be used as collection points, drain run transitions and interceptors to collect solid debris. Catch Basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N, and H.



Grate Options (Select One)				
✓	**Grate Type**		**Part No.**	**DIN Load Class**
☐	Fiberglass		DG0659	Class A
☐	Ductile Iron Slotted		DG0653D	Class D
✓	**Options (Select All That Apply)**	**Part No.**	**Additional Specifications:**	
☐	Vinyl Ester Concrete Channels	DV0753SB		

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
- ASTM Standard D570, Test Method for Water Absorption of Plastic
- ASTM Standard D576, Practice for Determination of Weight and Shape Change of Plastics Under Accelerated Service Conditions
- ASTM Standard G53, Recommended Practice for Operating Light and Water Exposure Apparatus for Exposure of Non-Metallic Materials
- ASTM Standard C78, Test Method for Flexural Strength of Concrete
- ASTM Standard C579, Test Method for Compressive Strength of Chemical Resistant Mortars and Monolithic Surfacing's

800 Series MAXI

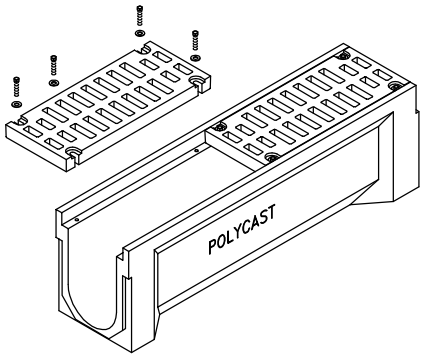
Non-Sloped
Heavy Duty System

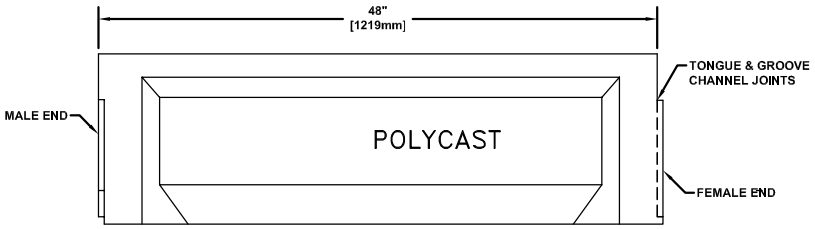
PROJECT ID/
CONTRACT NO: _____

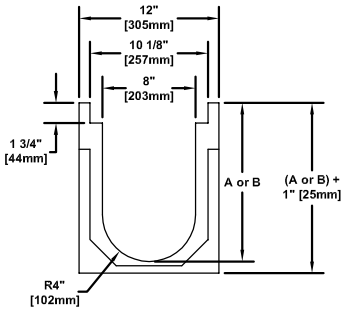
LOCATION: _____

ENGINEERING SPECIFICATION:

POLYCAST® 800 Series MAXI Heavy Duty System is a non-sloping trench drain, with 12" [305mm] wide x 48" [1219mm] long (standard) polyester polymer concrete channels with tongue and groove connections. End caps with a 4" (102mm), 6" [152mm] or a 8" [203mm] drain drill out as required.







✓	Channel Number	Weight (LBS.)	Inlet Dim 'A'	Outlet Dim 'B'
☐	825B w/ 4" Bottom Drill Out (Non-Sloped)	165	13-3/4	13-3/4

Grate Options (Select One)			
✓	**Grate Type**	**Part No.**	**DIN Load Class**
☐	MAXI/ Fiberglass	DG0844	Class B
☐	MAXI/ Cast Iron Slotted	DG0841	Class C
☐	MAXI/ Cast Iron Solid	DG0842	Class E

✓	Options (Select All That Apply)	Part No.	Additional Specifications:
☐	Vinyl Ester Concrete Channels	DV0825B	
☐	Closed End Cap (Inlet/Outlet)	DP0825C	
☐	Drain End Cap (4" Outlet)	DP0825DM4	
☐	Drain End Cap (6" Outlet)	DP0825DM6	
☐	Drain End Cap (8" Outlet)	DP0825DM8	

Meets the following Standards & Specifications:

- DIN 19580 / DIN EN 1433 Drainage Channels for Vehicular and Pedestrain Areas
- AASHTO H-20 and H-25 per AASHTO M-306 Drainage, Sewer, Utility and Related Castings
- ASTM Standard D543, Test Method for Resistance of Plastics to Chemical Reagents
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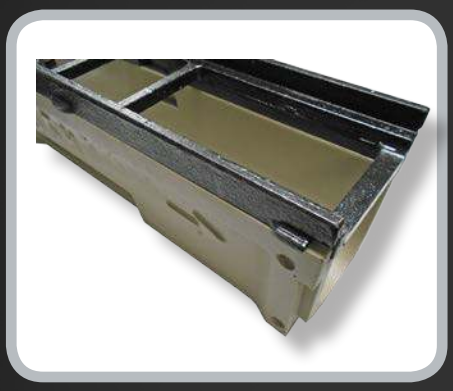

Hubbell Enclosures & Drains
Hubbell Lenoir City, Inc
3621 Industrial Park Drive • Lenoir City, Tennessee 37771
Phone: 800.346.3062 or 865.986.9726 • Fax: 865.986.0585
hubbellenclosures@hubbell.com
www.polycastdrain.com

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