



WEAVER CONSTRUCTION MANAGEMENT, INC.

3679 S. Huron St., Suite 404

Englewood, CO 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

October 19, 2011

WGC Submittal No: 15400-002

PROJECT: Harold Thompson Regional WRF
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: GMS, Inc.
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: Lower Fountain Metropolitan
Sewage Disposal District
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: TMA Construction Supply
5635 Franklin Street, Unit B
Denver, CO 80216
303-295-6050
ron@tmasupply.com

SUBJECT: 600 Polycast Trench Drain for Equipment & Maintenance Building. Load Class E Rating, 500 Series Gratings

SPEC SECTION: 15400 - Plumbing

PREVIOUS SUBMISSION DATES: None

DEVIATIONS FROM SPEC: ___ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by WCM and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto:

Contractor's Stamp:

Engineer's Stamp:

Date: 10/19/11

Reviewed by: H.C. Myers

(X) Reviewed Without Comments

() Reviewed With Comments

**ENGINEER'S
COMMENTS:** _____

POLYCAST[®]

PRESLOPED TRENCH DRAIN SYSTEM

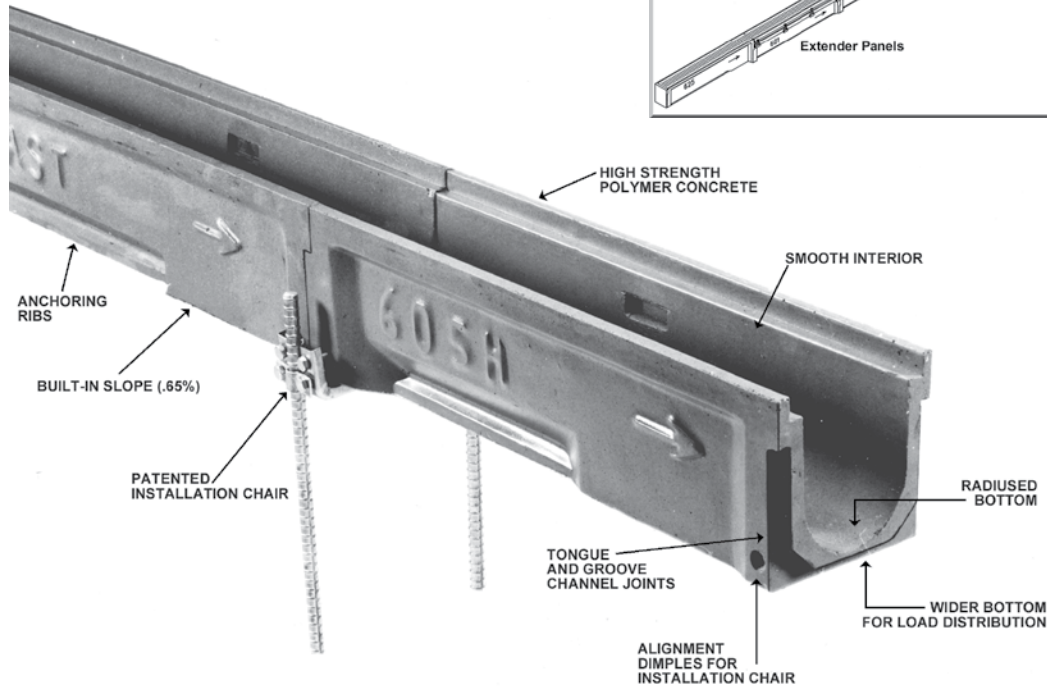
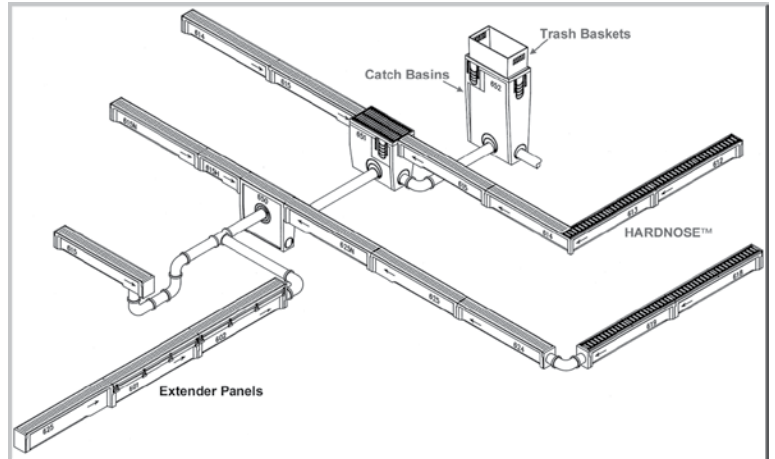


Drain System

The 20% Advantage

48" vs. Meter Channel Lengths

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



All sizes and styles of POLYCAST® Trench Drain are available in either polyester or vinyl ester polymer concrete. For extreme chemical resistance, vinyl ester is recommended.

The POLYCAST® Presloped System is designed for a variety of applications, both indoors and outdoors. POLYCAST® is made of polymer concrete, a high strength, chemical resistant, closed cell material. As a result, POLYCAST® drains offer a high degree of chemical resistance, have a water absorption value of less than one percent, and are more than four times stronger than ordinary Portland cement concrete. Rapid drainage, durability and resistance to freeze/thaw cycles make POLYCAST® ideal for outdoor applications. The 24- and 48-inch components make POLYCAST® extremely versatile. With the proper components, a flowrate of 840 GPM per outlet is attainable.

Combining simplified installation, high durability, and lower overall cost, POLYCAST® systems are proven superior in surface drainage.

Applications

INDUSTRIAL

- Manufacturing
- Chemical Plants
- Bottling
- Food Processing
(USDA Applications)

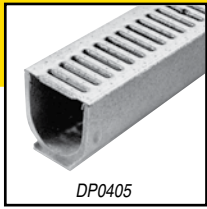
COMMERCIAL

- Vehicle Maintenance
- Airports
- Highway and Roads/Curbs
- Schools



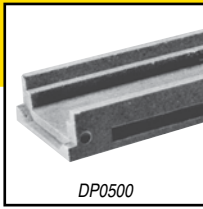
ABOVE - Smooth interior finish of drain assures complete drainage.

Sizes and Styles



DP0405

400 Series



DP0500

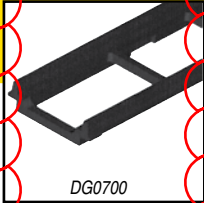
500 Series

POLYCAST® 400 Series is a complete surface drainage system with a precast polymer trench and a tight-fitting, galvanized steel grate. Ideal for tennis courts, swimming pools, walkways, patios, garage entrances, etc.

POLYCAST® 500 Series Deck Drain is designed for above-grade floor applications such as multi-level parking structures and suspended slabs.

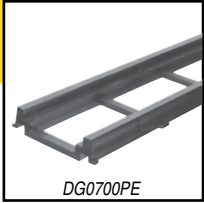


600 Series



DG0700

700 Series Frame



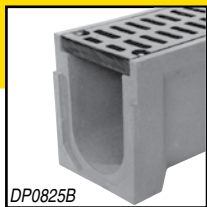
DG0700PE

DURAGUARD® Frame

POLYCAST® 600 Series Presloped System is for commercial and industrial applications (pneumatic tire vehicles only). It has flow rates equal to or greater than most larger poured-in-place trench drains.

POLYCAST® 700 Series Presloped Cast Iron Channel Frame System is for heavy commercial and military aircraft taxiways at moderate speeds, hard wheel forklifts, pallet jacks, solid wheel carts, construction vehicle equipment, etc.

DURAGUARD® Frame 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 the standard 600 Series polymer concrete channel. DURAGUARD® is also extremely resistant to environmental exposure and many corrosive chemicals. The anchoring flanges on the outer edge of the DURAGUARD® frame permanently and mechanically engage the frame into the concrete. DURAGUARD® is ideal for many markets including utilities, agriculture, food processing, public/government housing, industry, manufacturing, recreation and chemical plants.



DP0825B

800 Series

POLYCAST® 800 Series Channel is for high volume situations that exceed the capacity of the POLYCAST® 600 Series. This channel is designed for areas of high volume, cross-flow interception, or areas where the large cross section is necessary.

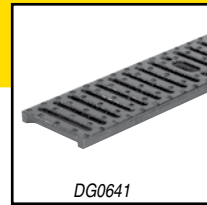


3000 Series

POLYCAST® 3000 Series High Capacity Drain System is designed for airports, roadways and other applications needing high volume flow rates. The flow rate for this system is more than 3,000 gallons per minute for 120' of drain. The system channels are manufactured using the pultrusion process to produce a lightweight, high strength fiber reinforced polymer composite channel.

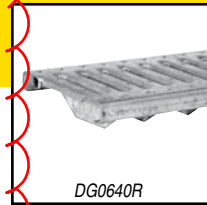
Gratings

POLYCAST® offers a wide range of grating designs and materials to meet virtually any need (more gratings available than pictured here). For a secure fit, POLYCAST® grates are held tight to the drain by special hold-down bars which lock into insert slots cast into the channel walls.



DG0641

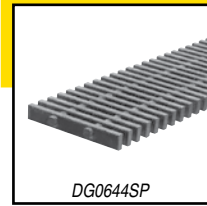
Gray Iron



DG0640R

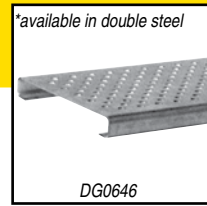
Double Galvanized or Stainless Steel

POLYCAST® Gray Iron and Double Steel Gratings are designed for pneumatic tire vehicles and highway vehicles at low to moderate speed.



DG0644SP

Fiberglass

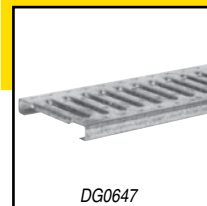


*available in double steel

DG0646

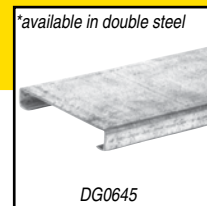
Perforated Galvanized* Stainless Steel

Fiberglass Gratings are designed for use in areas requiring chemical resistance. The clear opening between the bars is 5/8".



DG0647

Slotted Galvanized Stainless Steel

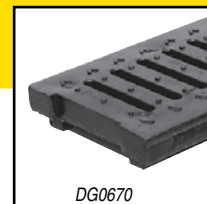


*available in double steel

DG0645

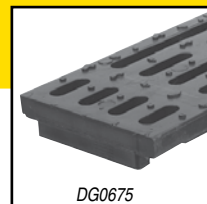
Solid Galvanized* Stainless Steel

POLYCAST® Galvanized and Stainless Steel Gratings are designed for use in areas which have only pedestrian and/or periodic, light vehicular traffic, and for use in areas where sanitary conditions are essential.



DG0670

Slotted Grating



DG0675

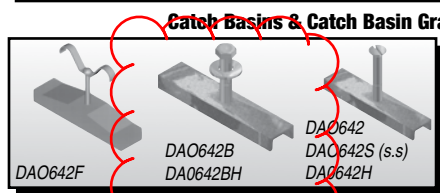
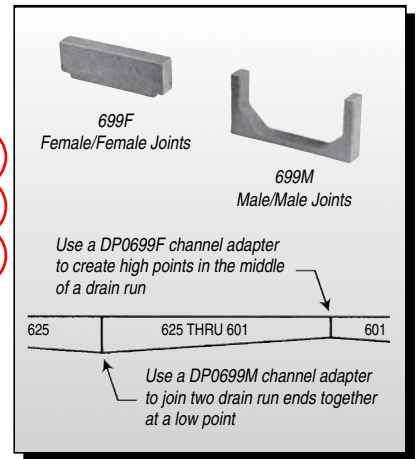
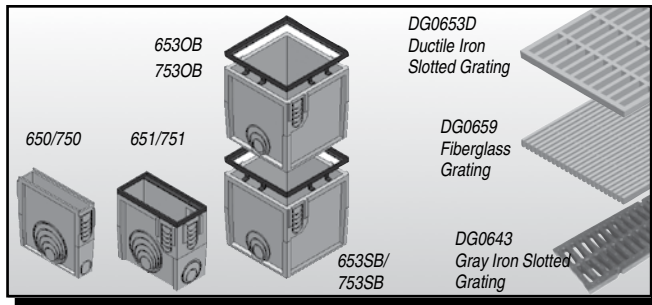
Transverse Grating

DURAGUARD® Slotted is a high density polyethylene slotted grate appropriate for medium duty loads and corrosive applications. DURAGUARD® Slotted is an economical alternative for high strength and durability.

DURAGUARD® Transverse is a versatile and economical high density polyethylene grate suitable for light duty vehicles and pedestrian traffic. The longitudinal slots create turbulence to improve entry of flow into the channel in high velocity transverse sheet flow applications.

Accessories

POLYCAST® offers a full line of accessories giving maximum latitude in the design of drainage systems. Stackable catch basins, end caps, removable debris baskets, pipe cut-outs and neutral channels (without slope) are all available for use in conjunction with POLYCAST® systems.



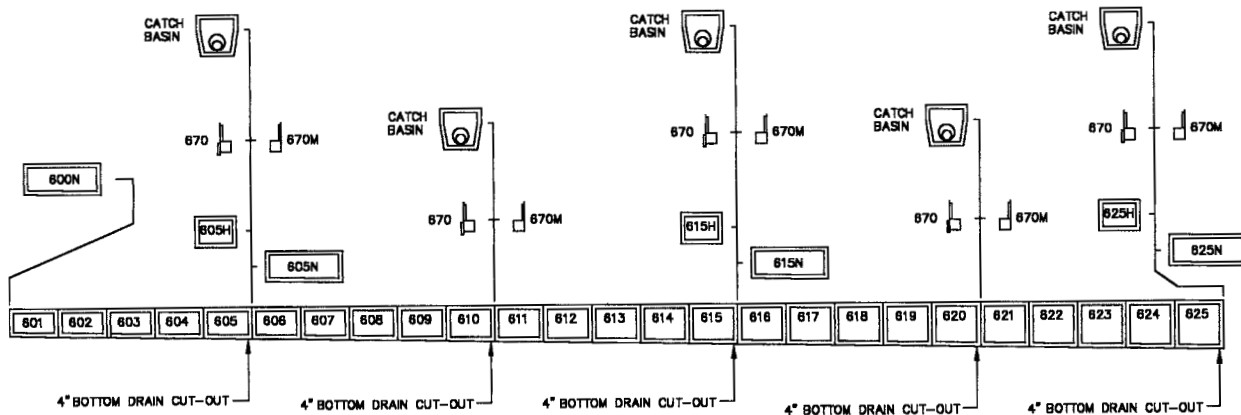
Catch Basins & Catch Basin Gratings

Grating Hold Downs

End Caps

Channel Adapters

600 Series Channel Data

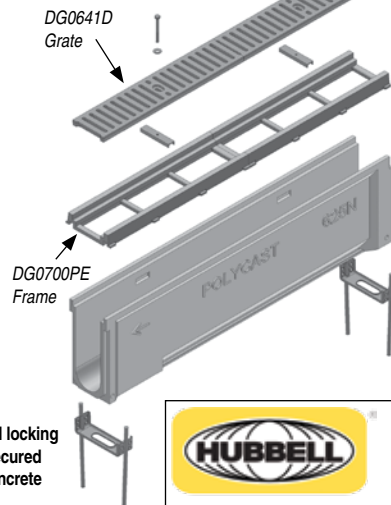


NOTE 1: All half and neutral channels have bottom cut outs. NOTE 2: All half and neutral channels accept the corresponding end caps.

DURAGUARD®

The POLYCAST® DURAGUARD® Channel Frame is extremely chemical resistant and greatly improves the impact and wear resistance of the standard 600 Series channels. When combined with the rugged slotted ductile iron grating Part No. DG0641D, you get a drainage system with superior chemical resistance. The system is suitable for lightly loaded forklifts at low to moderate speeds.

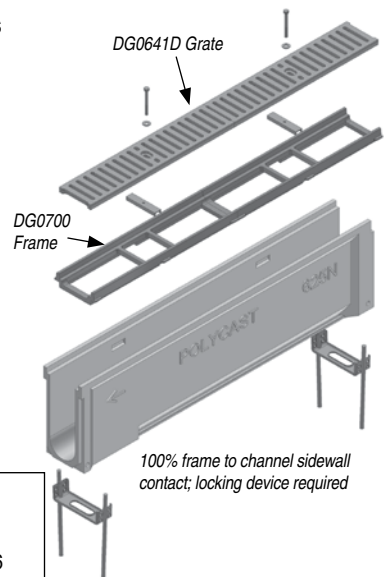
100% frame to channel sidewall contact; locking device required



Note - Gratings and locking devices must be secured in place prior to concrete placement

700 Series

The POLYCAST® 700 Series offers exceptional impact resistance. Designed for extreme loads, the HARDNOSE cast iron frame strengthens the grating and drain assembly for extra durability. The POLYCAST® 700 Series is recommended for heavy commercial and military aircraft taxi-ways at moderate speeds, hard wheel forklift, pallet jacks, solid wheel carts, construction equipment and off-road vehicles. It meets FAA Airport pavement design loads per AC 150/5320-6D.



100% frame to channel sidewall contact; locking device required



POLYCAST®
 3621 Industrial Park Drive
 Lenoir City, TN 37771
 Phone: 800-346-3061 or 865-986-9726
 Fax: 865-986-0585
 Web: <http://www.polycastdrain.com>
 e-mail: hpsliterature@hps.hubbell.com

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NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

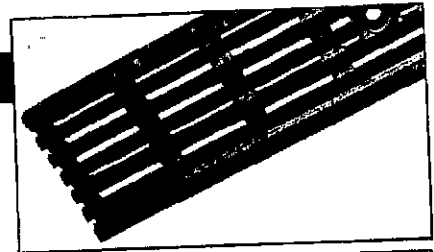
500 Series Gratings



Ductile Iron Longitudinal Slotted Part No. DG0675HD

Designed for general use and pedestrian traffic applications, as well as heavy vehicular traffic applications. Grating hold-down device Part No. DA0642B (not shown) should be used and maintained secure.
ADA Compliant

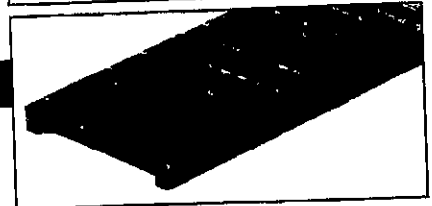
Open Area: 32 in²/Linear Foot (26%)
Dimensions: 5-1/4" x 24"
Weight (grate plus frame): 30 lbs.
ASTM A536 Class 65-45-12
Black Finish
Grate In-Flow: See chart pg. 20



Gray Iron Slotted Part No. DG0641

The gray iron grate is appropriate for many general use conditions. Grating hold-down device Part No. DA0542B (not shown) should be used and maintained secure.

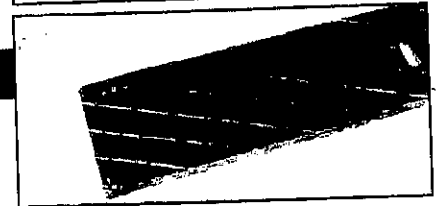
Open Area: 19.8 in²/Linear Foot
Dimensions: 5-1/4" x 24"
Weight: 15 lbs.



Gray Iron Solid Part No. DG0641S

Designed for pipe raceway, e.g., secondary containment and cable runs. Removable cover allows full access. Grating hold-down device Part No. DA0542 (not shown) should be used and maintained secure.
ADA Compliant

Dimensions: 5-1/4" x 24"
Weight: 18 lbs.
Black Finish

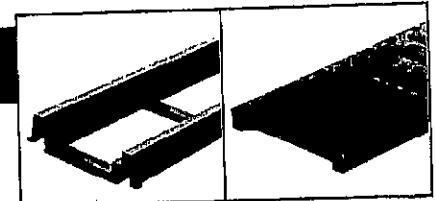


500 Series Frames and Grates

DURAGUARD® Frame w/ Gray Iron Slotted Part No. DG0700PE w/ DG0641

DG0700PE Series Frame and Part No. DG0641 gray iron are designed for moderate heavy use conditions. Grating hold-down device Part No. DA0542BH (not shown) **must be used and maintained secure.** Improves strength and impact resistance. Infrequent forklift traffic, low speed. Light duty.

Open Area: 19.8 in²/Linear Foot
Dimensions: 6-1/4" x 24"
Weight (grate plus frame): 16 lbs.
NOTE: Grates & locking devices must be in place and secure prior to concrete placement.



DG0700PE

DG0641



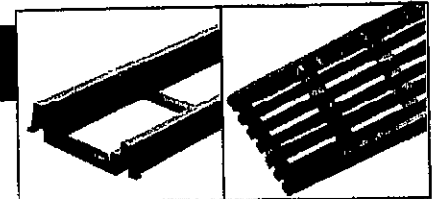
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DURAGUARD® Frame w/ Ductile Longitudinal Slotted Part No. DG0700PE w/ DG0675HD

The DURAGUARD® Frame and Ductile Iron Slotted Grate, Part No. DG0675HD, provide increased strength and durability for general to moderately heavy use applications. Offers exceptional corrosion resistance and low maintenance. Grating hold-down device Part No. DA0642BH (not shown) **must be used and maintained secure.** Moderate frequency forklift traffic, low speed. Moderate duty.
ADA Compliant

Open Area: 32 in²/Linear Foot (26%)
Dimensions: 5-1/4" x 24"
Weight (grate plus frame): 16 lbs.
ASTM A536 Class 65-45-12
Grate In-Flow: See chart pg. 29
NOTE: Grates & locking devices must be in place and secure prior to concrete placement.



DG0700PE

DG0675HD

NOTE: ADA Code—4.5.4 gratings. If gratings are located in walking surfaces, then they shall have spaces no greater than 1/2" (13mm) wide in one direction. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominate direction of travel.