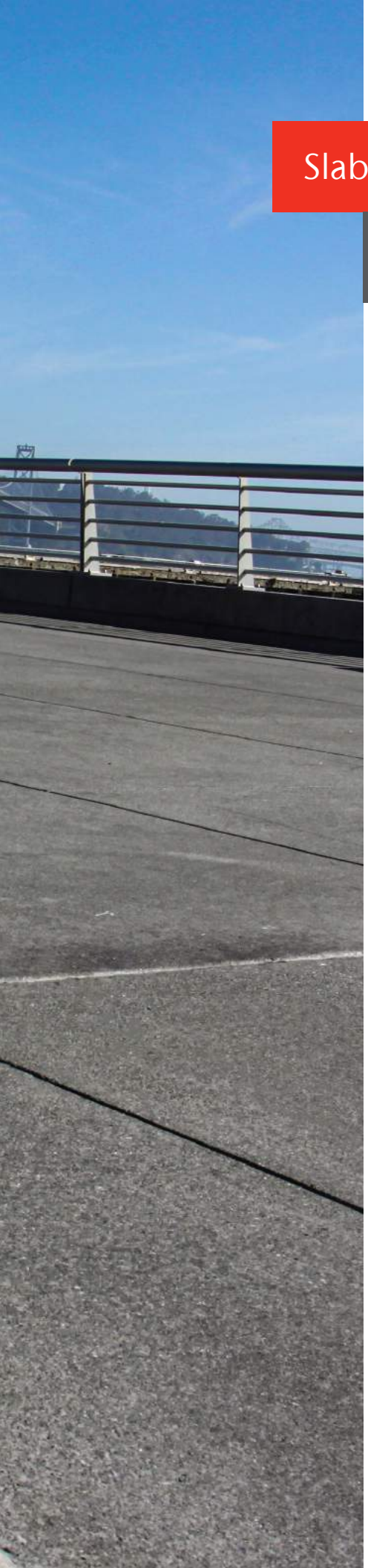


Slab Solutions

Trench Drains for Concrete Slabs

SlabDrains are problem-solving trench drains. Due to the nature of their use, they are usually installed in concrete slabs, but not always.

The most common use of SlabDrain is in shallow depth installations. Whether due to elevated slabs or depth restrictions, SlabDrains allow a practical tench drain solution. In addition to shallow channels, FlowDrain gives a unique trench drain ideal for draining large concrete slabs.

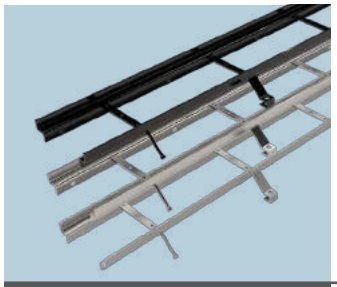
Features & Benefits

FG200 Bolted Grates

FG200 grates are lockable with two ½" - 13 x 1½" bolts fixing directly into steel frame at 18" (457 mm) intervals.

Ductile Iron Grates

Heavy duty ductile iron grates in choice of Load Class F slotted or longitudinal ADA compliant (H200SK & H300SK ADA grates are rated to Load Class E). A 4-Bolt slotted grate is also available.

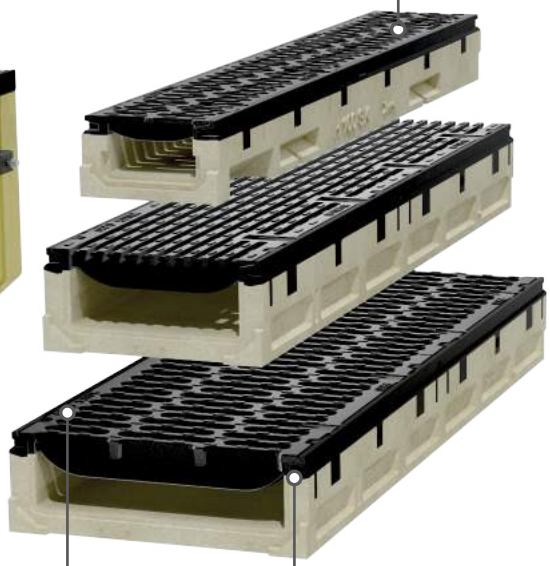


Choice of Steel Frame

Provides grate support and protects channel edge from damage. Available in black coated, galvanized and stainless steel.

FG200 Fiberglass

A lightweight material that is made from polyester resin binder reinforced by glass matting and fibers. Available in 9' and 3' lengths.



Anti-Shunt Lugs

Recesses in grate fit around lugs on the edge rail to prevent longitudinal movement.

H100SK/H200SK/H300SK Integrally Cast-In Ductile Iron Edge Rail

Provides maximum strength and protection for channel body.

H100K/H200K/H300K Integrally Cast-In Galvanized Steel Edge Rail

Provides maximum strength and protection for channel body.

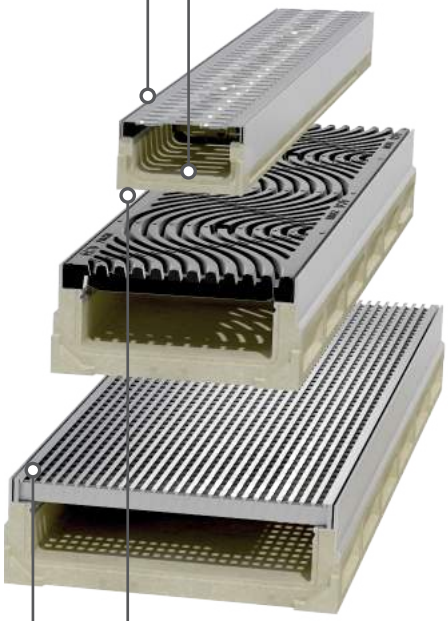
Interconnecting End Profiles

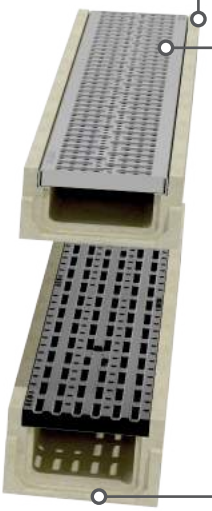
Allow easy and effective joining of channels.

SF Sealant Groove - A groove is cast into the ends of every channel. The combined groove this creates allows for a positive bead of appropriate flexible sealant to be inserted at joints.

H100 Polymer Concrete Edge

Ideal for situations where metals cannot be used.





Wide Choice of Grates

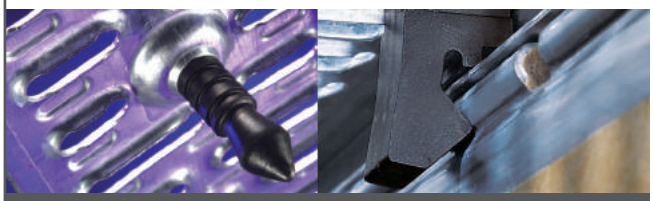
In various materials, styles and slot configurations (including ADA compliant).
H100 - From Load Class A to Load Class C (25 tons).
H100K/H200K/H300K - From Load Class A to Load Class E (60 tons).

Bottom Drill-Outs

Included on all channels to allow vertical evacuation of the system at any point in the run.
Drill-outs sized for:
4" pipes - H100/H100K/H100SK
4" & 6" pipes - H200K/H200SK
6" & 8" pipes - H300K/H300SK

Cross Sidewalk Drain

Allows water from a down spout to drain safely, through the SlabDrain, across the sidewalk to the curb.

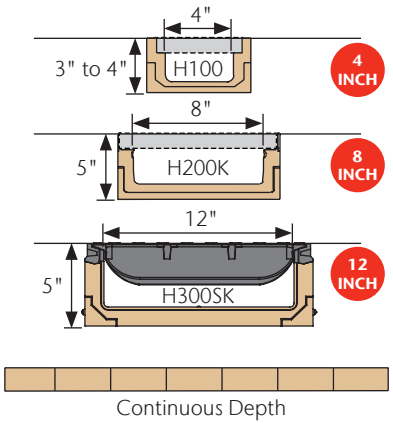


QuickLok® & DrainLok on H100K/H200K/H300K

Patented, boltless locking systems provide quick fitting and removal of grates. Helps reduce installation/maintenance time and cost.
H100 will accept QuickLok® grates only.

SlabDrain

Shallow Invert Trench Drain



On occasion, installation constraints are of greater concern than hydraulics. The most common constraint is lack of depth. To offer solutions where shallow trench drains are required, SlabDrain is available in 3 edge versions and 3 widths - all constant depth.

Loading varies for each system, depending upon edge rail and grate, up to heavy duty Class F (90 tons) EN 1433. All grates are secured to the channel body by either QuickLok® or PowerLok.

Typical Applications:

- Restricted depth applications
- Threshold applications
- Elevated slabs
- Parking decks
- Retro-fit

SLABDRAIN SELECTION CRITERIA

A ▶▶ F 200K LBS	Light to heavy industrial duty loads - dependent on type
	Product can be used towards LEED & EPA requirements
	Resistant to many everyday chemicals
	Polymer concrete edge rail on H100-8/H100-10 can be used to provide a non-metallic drainage option
	Multiple grate options to meet legal requirements
SAFE	Multiple grate options to meet design requirements
	Limited hydraulic capacity
	Constant depth channels

SlabDrain - H100K/H200K/H300K & H100KS/H200KS/H300KS System Layouts

Removable Grates

Constant Depth Channels

Closing Cap

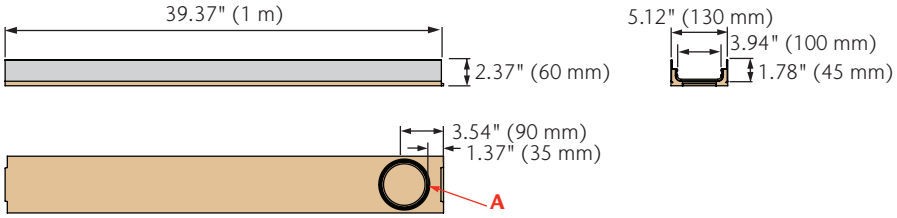
Bottom Knockout
H100K-8 - 4"
H200K-13 - 4" & 6"
H300K-13 - 6" & 8"

OUTLET FLOW RATES

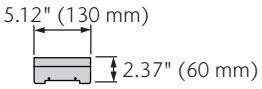
Channel Outlet	Channel	Size (SCH 40)	Invert in	GPM	CFS
A	Bottom Outlet - H100K-6/H100SK-6	4" round	1.78	72	0.16
	Bottom Outlet - H100K-8/H100SK-8	4" round	2.56	87	0.20
	Bottom Outlet - H200K-13/H200SK-13	4" round	4.00	108	0.24
	Bottom Outlet - H300K-13/H300SK-13	6" round	4.00	243	0.54
B	Bottom Outlet - H200K-13/H200SK-13	6" round	4.00	243	0.54
	Bottom Outlet - H300K-13/H300SK-13	8" round	4.00	432	0.96

Note: These are pipe flow rates at specified outlet, NOT channel flow rates.

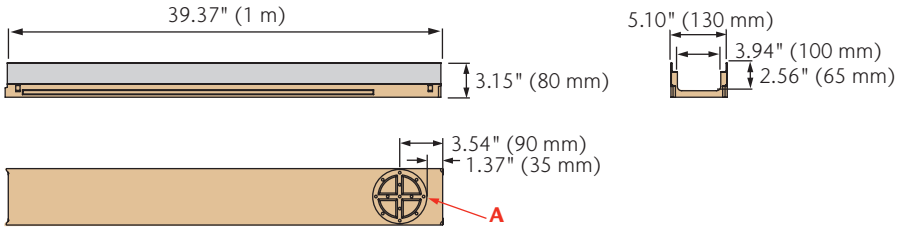
H100K-6/H100KS-6 Channel



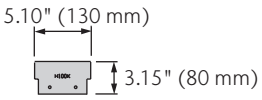
Closing Cap



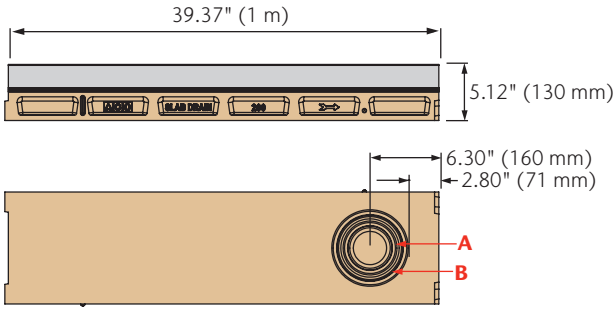
H100K-8/H100KS-8 Channel



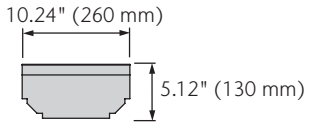
Closing Cap



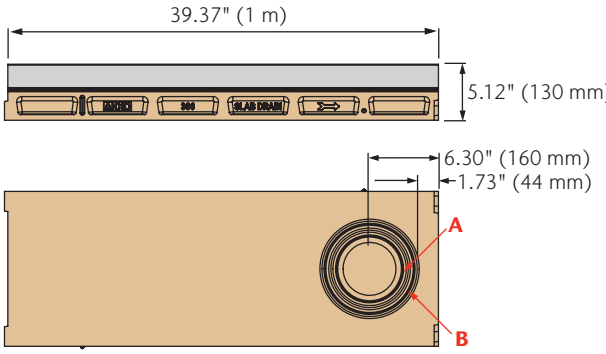
H200K-13/H200KS-13 Channel



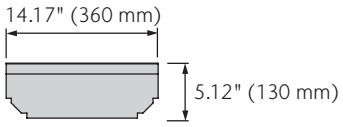
Closing Cap



H300K-13/H300KS-13 Channel



Closing Cap



SlabDrain Parts

	Part No.		Invert Depth		Overall Depth		Volume	Weight
	K	KS	in	mm	in	mm	gal	lbs
H100K-6/H100KS-6								
Constant Depth Channel - 39.37" (1 m)	**141803**	**141804**	1.78	45	2.37	60	1.2	7.6
Steel Closing Cap	**141805**	**296097**	-	-	2.37	60	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**		-	-	-	-	-	0.1
Grate Removal Tool	**01318**		-	-	-	-	-	0.1

Notes:
1. H100KS-6 has Grade 304 stainless steel rails and Closing Cap.
2. See pages 35–38 for details on grates; for optimum channel flow, use DrainLok grates.

H100K-8/H100KS-8								
Constant Depth Channel - 39.37" (1 m)	**95365**	**95373**	2.56	65	3.15	80	1.2	16.0
Steel Closing Cap	**98462**	**98471**	-	-	3.15	80	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**		-	-	-	-	-	0.2
QuickLok® Locking Bar for 4" Systems	**02899**		-	-	-	-	-	0.1
Grate Removal Tool	**01318**		-	-	-	-	-	0.3

Notes:
1. H100KS-8 has Grade 304 stainless steel rails and Closing Cap.
2. See pages 35–38 for details on grates; for optimum channel flow, use DrainLok grates.
3. For Debris Strainer details, see page 138.

H200K-13/H200KS-13								
Constant Depth Channel - 39.37" (1 m)	**93454**	**93455**	4.00	100	2.37	60	1.2	57.4
Steel Closing Cap	**93458**	**93459**	-	-	6.89	175	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**		-	-	-	-	-	0.2
QuickLok® Locking Bar for 8" Systems	**10457**		-	-	-	-	-	0.5
Grate Removal Tool	**01318**		-	-	-	-	-	0.3

Notes:
1. H200KS-13 has Grade 304 stainless steel rails and Closing Cap.
2. See pages 55–56 for details on grates; for optimum channel flow, use DrainLok grates.
3. For Debris Strainer details, see page 138.

H300K-13/H300KS-13								
Constant Depth Channel - 39.37" (1 m)	**93464**	**93465**	4.00	100	2.37	60	1.2	71.6
Steel Closing Cap	**93468**	**93469**	-	-	7.48	190	-	1.4
QuickLok® Locking Bar for 12" Systems	**10458**		-	-	-	-	-	0.7
Grate Removal Tool	**01318**		-	-	-	-	-	0.3

Notes:
1. H300KS-13 has Grade 304 stainless steel rails and Closing Cap.
2. See pages 77–78 for details on grates; for optimum channel flow, use DrainLok grates.

SlabDrain - H100SK/H200SK/H300SK System Layouts

Removable Grates

Constant Depth Channels

Closing Cap

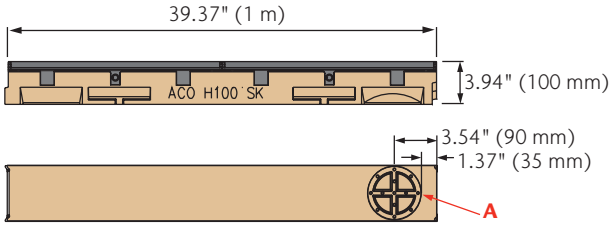
Bottom Knockout
H100SK-10 - 4"
H200SK-13 - 4" & 6"
H300SK-13 - 6" & 8"

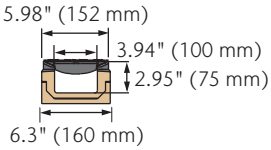
OUTLET FLOW RATES

Channel Outlet	Channel	Size (SCH 40)	Invert in	GPM	CFS
A	Bottom Outlet - H100SK-10	4" round	2.56	87	0.20
	Bottom Outlet - H200SK-13		4.00	108	0.24
	Bottom Outlet - H300SK-13		4.00	243	0.54
B	Bottom Outlet - H200SK-13	6" oval	4.00	243	0.54
	Bottom Outlet - H300SK-13		4.00	432	0.96

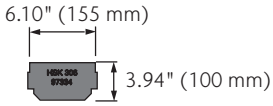
Note: These are pipe flow rates at specified outlet, NOT channel flow rates.

H100SK-10 Channel

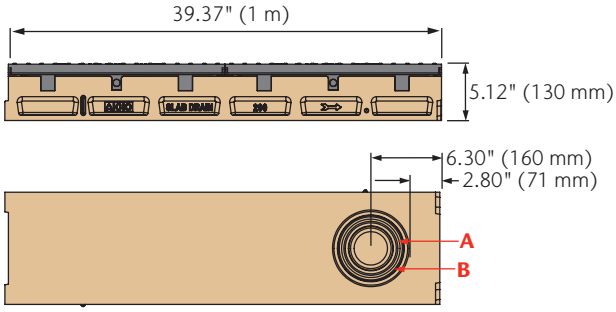


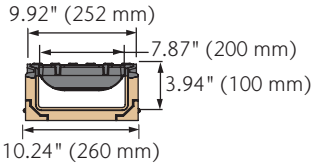


Closing Cap

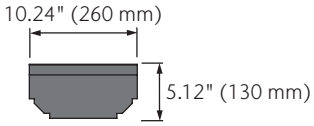


H200SK-13 Channel

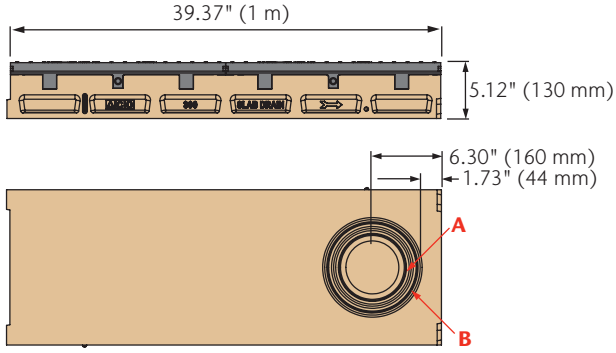


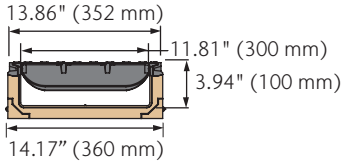


Closing Cap

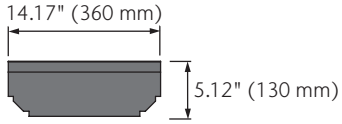


H300SK-13 Channel





Closing Cap



SlabDrain Parts

	Part No.	Invert Depth		Overall Depth		Volume	Weight
		in	mm	in	mm	gal	lbs
H100SK-10							
Constant Depth Channel (no Grate) - 39.37" (1 m)	**93412**	2.83	72	3.15	80	1.2	43.5
Load Class F Longitudinal Grate - 19.69" (0.5 m) PowerLok	**96096**	-	-	-	-	-	13.6
Load Class F Slotted Grate - 19.69" (0.5 m) PowerLok	**96082**	-	-	-	-	-	12.3
Load Class F 4-Bolt Grate - 19.69" (0.5 m)	**99590**	-	-	-	-	-	10.8
Replacement Bolt	**95526**	-	-	-	-	-	0.1
Tamper-Resistant Bolt for 4-Bolt Grate	**138127**	-	-	-	-	-	0.1
PowerLok Safety Clip	**10443**	-	-	-	-	-	0.1
Steel Closing Cap	**93410**	-	-	3.15	80	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**	-	-	-	-	-	0.2
Grate Removal Tool	**01318**	-	-	-	-	-	0.3

Notes:
1. See pages 99–100 for details on Grates.
2. Debris Strainer details for 4" dia. outlet below.

H200SK-13							
Constant Depth Channel (no Grate) - 39.37" (1 m)	**63456**	3.94	100	5.12	130	3.7	66.4
Load Class E Longitudinal Grate - 19.69" (0.5 m) PowerLok	**72263**	-	-	-	-	-	26.4
Load Class F Slotted Grate - 19.69" (0.5 m) PowerLok	**02449**	-	-	-	-	-	30.8
Load Class F 4-Bolt Grate - 19.69" (0.5 m)	**99591**	-	-	-	-	-	26.4
Replacement Bolt	**95526**	-	-	-	-	-	0.1
Tamper-Resistant Bolt for 4-Bolt Grate	**138127**	-	-	-	-	-	0.1
PowerLok Safety Clip	**10443**	-	-	-	-	-	0.1
Steel Closing Cap	**93460**	-	-	5.12	130	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**	-	-	-	-	-	0.2
Grate Removal Tool	**01318**	-	-	-	-	-	0.3

Notes:
1. See pages 113–114 for details on Grates.
2. Debris Strainer details for 4" dia. outlet below.

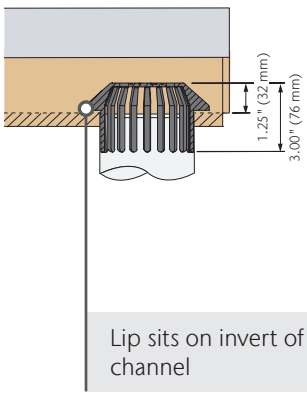
H300SK-13							
Constant Depth Channel (no Grate) - 39.37" (1 m)	**63466**	3.94	100	5.12	130	5.5	82.2
Load Class E Longitudinal Grate - 19.69" (0.5 m) PowerLok	**96833**	-	-	-	-	-	64.0
Load Class F Slotted Grate - 19.69" (0.5 m) PowerLok	**02445**	-	-	-	-	-	50.0
Load Class F 4-Bolt Grate - 19.69" (0.5 m)	**99592**	-	-	-	-	-	50.2
Replacement Bolt	**95526**	-	-	-	-	-	0.1
Tamper-Resistant Bolt for 4-Bolt Grate	**138127**	-	-	-	-	-	0.1
PowerLok Safety Clip	**10443**	-	-	-	-	-	0.1
Steel Closing Cap	**93470**	-	-	5.12	130	-	1.4
Grate Removal Tool	**01318**	-	-	-	-	-	0.3

Notes:
1. See pages 127–128 for details on Grates.

Debris Strainer

Plastic strainer used to catch leaves and other items fallen in channel. Can be used with any ACO Drain® channel with 4" vertical outlet.
Cannot be used with H100K-6 (height restriction).

Part no. 93488



SlabDrain - H100 System Layout

Removable Grates

Constant Depth Channels

Closing Cap

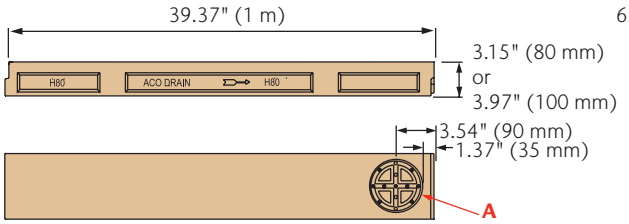
Bottom Knockout H100-8/H100-10 - 4"

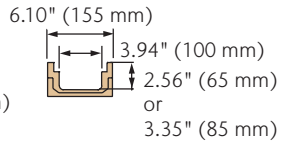
OUTLET FLOW RATES

Channel Outlet	Channel	Size (SCH 40)	Invert in	GPM	CFS
A	Bottom Outlet - H100-8	4" round	2.56	87	0.20
	Bottom Outlet - H100-10		3.35	99	0.23

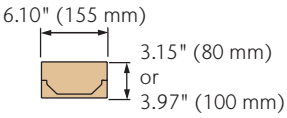
Note: These are pipe flow rates at specified outlet, NOT channel flow rates.

H100-8/10 Channel





Closing Cap



SlabDrain Parts

	Part No.	Invert Depth		Overall Depth		Volume	Weight
		in	mm	in	mm	gal	lbs
H100-8/H100-10							
H100-8 Constant Depth Channel - 39.37" (1 m)	**00985**	2.56	65	3.15	80	1.16	20.0
H100-10 Constant Depth Channel - 39.37" (1 m)	**00549**	3.35	85	3.95	100	1.70	25.0
H100-8 Polymer Concrete Closing Cap	**05935**	-	-	3.15	80	-	1.0
H100-10 Polymer Concrete Closing Cap	**05939**	-	-	3.95	100	-	1.0
Debris Strainer for 4" Bottom Knockout	**93488**	-	-	-	-	-	0.2
Grate Removal Tool	**01318**	-	-	-	-	-	0.3
QuickLok® Locking Bar for 4" System	**02899**	-	-	-	-	-	0.1

Notes:

1. See page 37 for details on suitable QuickLok® grates, max. load Class C (56,202 lbs - 1,934 psi).

2. Debris strainer details for 4" dia. outlet on page 138.

3. Use with Black Plastic Longitudinal grate (part no. 97393) or Gray Plastic Longitudinal grate (part no. 97385) for non-metallic, non-locking option (see ACO Sport® System 4000 Brochure - SP202).

VETERANS MEMORIAL BRIDGE

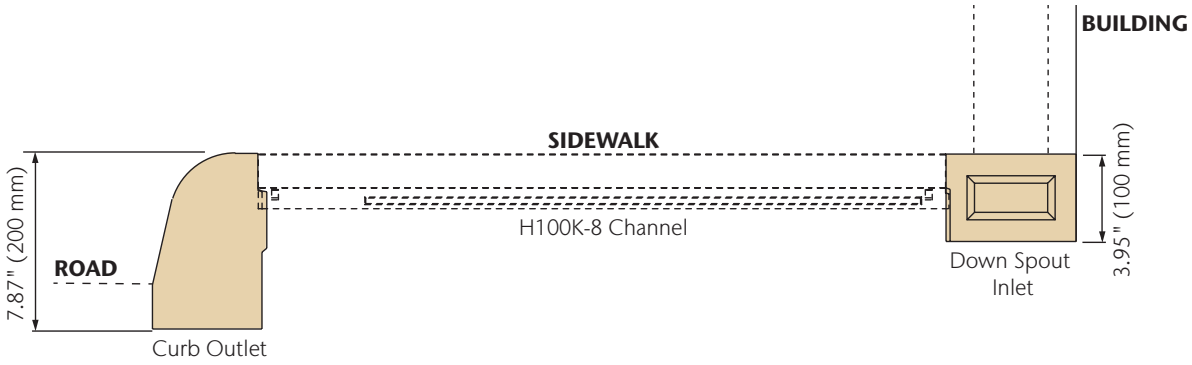
Cleveland, OH
United States

Veterans Memorial Bridge was originally The Detroit Superior Bridge established in 1917. The bridge was renamed Veterans Memorial Bridge on Veterans Day, 1989.

When refurbishing the 3,112' structure, a trench drain was needed to run the length of the bridge to remove rainfall. With the road and sidewalk at the same level, a single run of trench drain located away from vehicle traffic could not drain both areas. Due to depth restrictions, a shallow system was needed and SlabDrain H100 with Type 494 ADA plastic grates was selected.

PORTFOLIO

Cross Sidewalk Drain (CSD) System Layout



CSD is a cross-sidewalk drainage system which has a polymer concrete curb unit, that is cast into the curb line, to allow water from the H100K-8 or H100KS-8 SlabDrain to discharge into the road. A down spout inlet, also manufactured from polymer concrete, allows rainwater down spouts to drain into the channel.

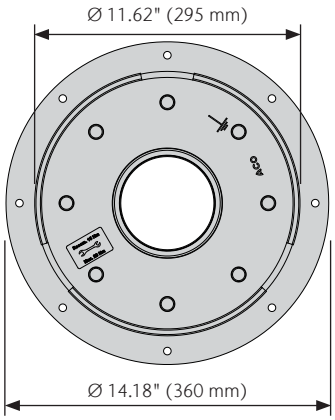
CSD Parts

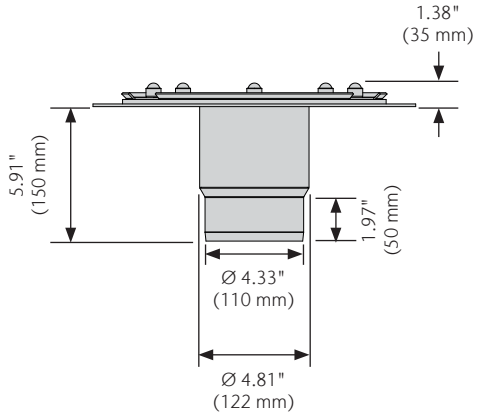
	Part No.	Invert Depth		Overall Depth		Weight
		in	mm	in	mm	lbs
Curb Outlet - Type 6 Profile	**96924**	3.50	90	7.87	200	12.7
Down Spout Inlet	**96932**	3.20	82	3.95	100	6.0

Notes:
1. For use with H100K-8 or H100KS-8 channels only - see page 136 for details.

Membrane No-Hub Drain

	Part No.	Outlet Size	GPM	CFS	Weight
		in (mm)			lbs
Membrane No-Hub Drain - Stainless Steel	**01043**	4.33 (110)	79.25	0.18	8.9





ONE WELLS FARGO CENTER

Charlotte, NC
United States

Formerly known as One Wachovia Center, this skyscraper is located in the heart of downtown Charlotte and is the headquarters for Wells Fargo's east coast division.

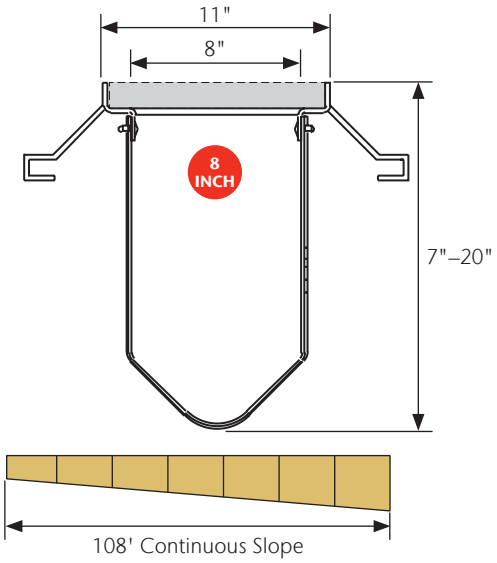
During renovations a drain system was requested that could remove rainwater from the pedestrian area and fit into an existing shallow recess. ACO's H100KS SlabDrain with stainless steel grates and shallow invert fit easily into the existing elevated slab.

The trench drain with stainless steel edge railing and ADA stainless steel grates provided superior aesthetics and added to the overall look of the plaza while removing excess stormwater.

PORTFOLIO

FlowDrain FG200

8" Internal Width Fiberglass System



FG200 is an 8" wide fiberglass system with choice of steel slotted Class C (25 ton) or ductile iron Class E (60 ton) grates. Grates are bolted into the steel frame with 2 bolts per 18" section.

Typical Applications:

- Parking lots & garages
- Internal applications
- Commercial areas
- Industrial areas
- Gas stations
- Airports

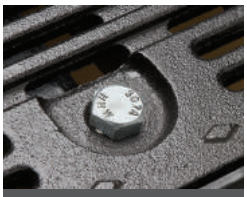
FLOWDRAIN SELECTION CRITERIA

A ▶▶ E	Light to heavy industrial duty loads
	Product can be used towards LEED & EPA requirements
	Resistant to many everyday chemicals
	Multiple grate options to meet legal requirements
SAFE	Multiple grate options to meet design requirements
	Increased hydraulic capacity
	Constant depth and/or sloped depth channels

Features & Benefits

Choice of Grates

In various materials and styles (including ADA compliant) for applications up to Load Class E.



Bolted Grates

FG200 grates are lockable with two ½" - 13 x 1½" bolts fixing directly into steel frame at 18" (457 mm) intervals.

K200 8" INTERNAL WIDTH

Bracing Blocks

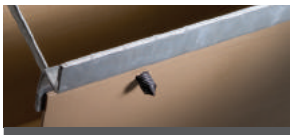
Supplied to brace deeper channels during concrete pour, details on how to position are shown on a sticker on each channel.

Interconnecting end profiles

Allow easy and effective joining of channels. Sealant can be used to create sealed joints.

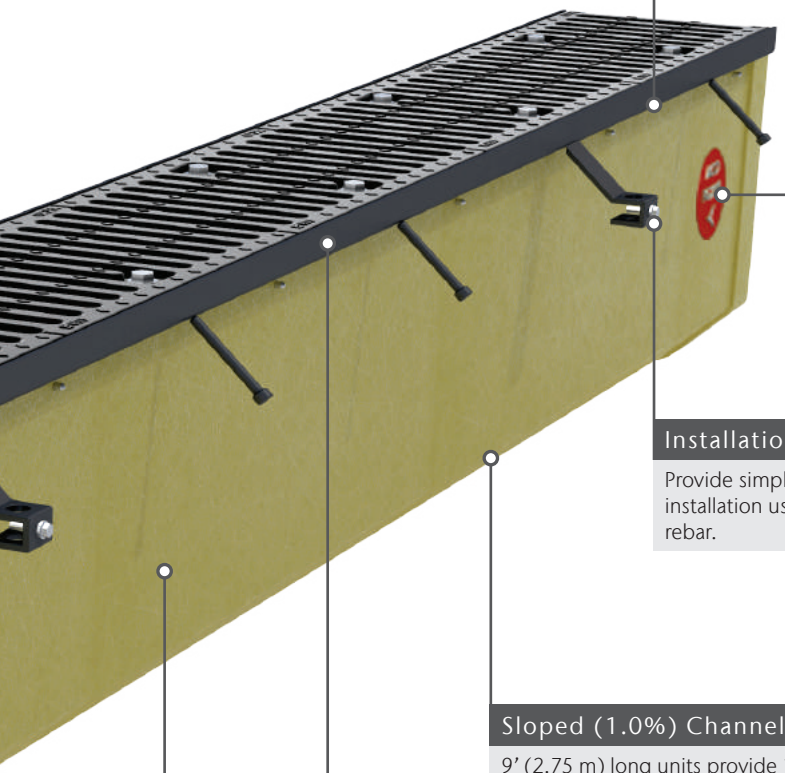
Nelson Studs

Attached to frame, act as concrete anchors to secure channels into concrete surround.



Snap-Fit Studs

Hold channel body securely to frame and allows quick assembly on-site. Supplied with frame.



Directional Arrows

Sticker on side of channel indicates flow direction and ensures channels are installed correctly.

Installation Brackets

Provide simple and easy installation using No. 4 or 5 rebar.

Sloped (1.0%) Channel Units

9’ (2.75 m) long units provide 108' (32.9 meter) continuous slope. Equates to 1/8" fall per linear foot. Four constant depth channels extend run lengths. Four 3’ (0.915 m) units and accessories also available.

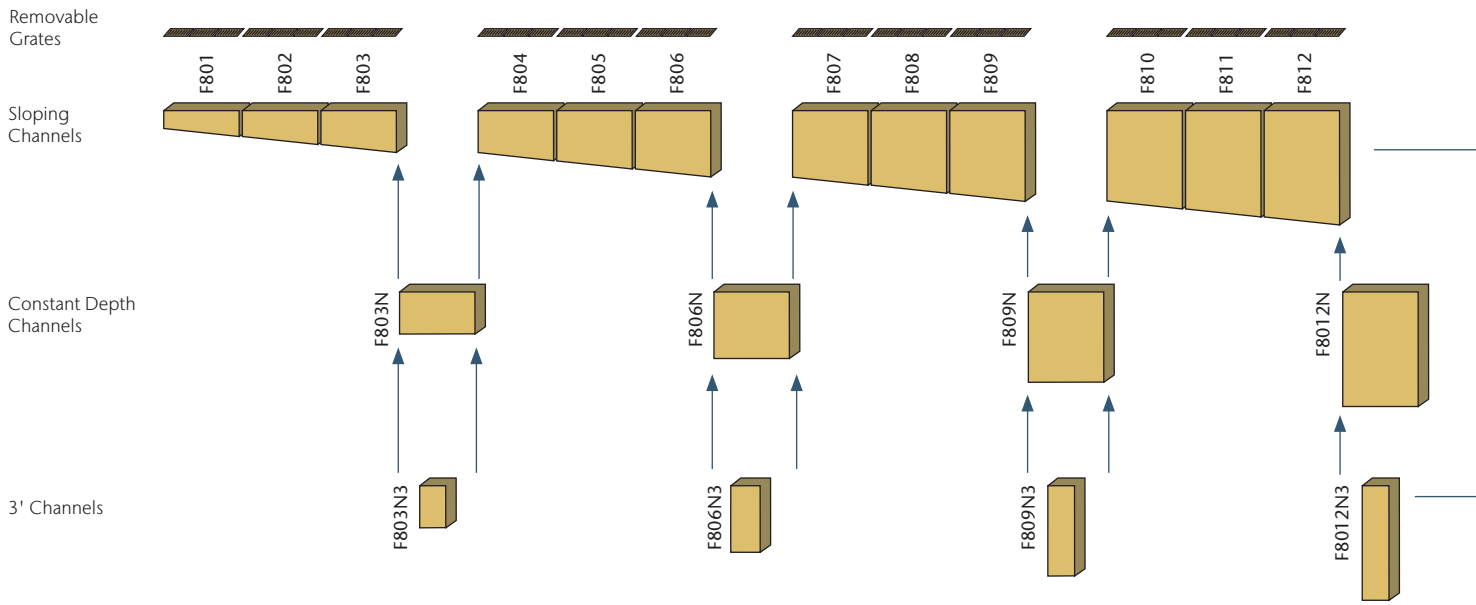
Choice of Steel Frame

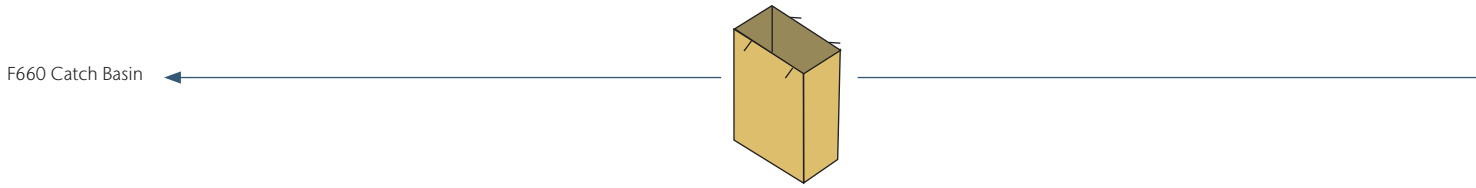
Provides grate support and protects channel edge from damage. Available in black coated, galvanized and stainless steel.

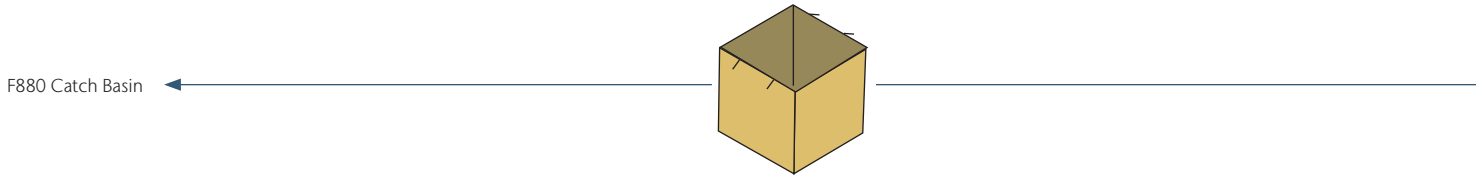
Fiberglass

A lightweight material that is made from polyester resin binder reinforced by glass matting and fibers.
See page 170 for material properties.

FG200 System Layout







9' Channels

1.0% sloped channels in 9’ lengths and 12 depths which connect to create 108’ (32.9 m) continuously sloping trench run. Constant depth channels are available in 4 depths and can be used to create non-sloped runs or inserted in sloped runs to increase length. Choice of 9’ black coated, stainless or galvanized steel frame connects to channel body using simple snap-fit studs.

3' Channels

Constant depth channels in 4 depths to supplement the 9’ channels for easier layouts. Choice of 3’ black coated, stainless or galvanized steel frame connects to channel body using simple snap-fit studs.

Male Closing Cap

Fits outside deep/male end of all channels. Manufactured from plastic with choice of black coated, stainless or galvanized steel end rail. Guides aid cutting to correct height. Seal using appropriate flexible sealant.

Female Closing Cap

Fits inside shallow/female end of channel. Manufactured from plastic with choice of black coated, stainless or galvanized steel end frame. Guides aid cutting to correct height. Seal using appropriate flexible sealant.

Outlet Cap

Fits outside deep/male end of all channels. Manufactured from plastic with choice of black coated, stainless or galvanized steel end rail. Guides aid cutting to correct height. Seal using appropriate flexible sealant. Bell end connection to fit 4", 6" or 8" SCH 40 pipes.

Note: For depth 801-804 channels ACO recommends removal of unused sections of the bell end to ensure adequate pavement material coverage.

Vertical Outlet Adapter

4", 6" or 8" SCH 40 vertical outlet adapter manufactured from plastic. Can be secured to underside of channel using appropriate flexible sealant to provide vertical bell end for easy attachment to 4", 6" or 8" SCH 40 pipe. Can be used anywhere along channel.

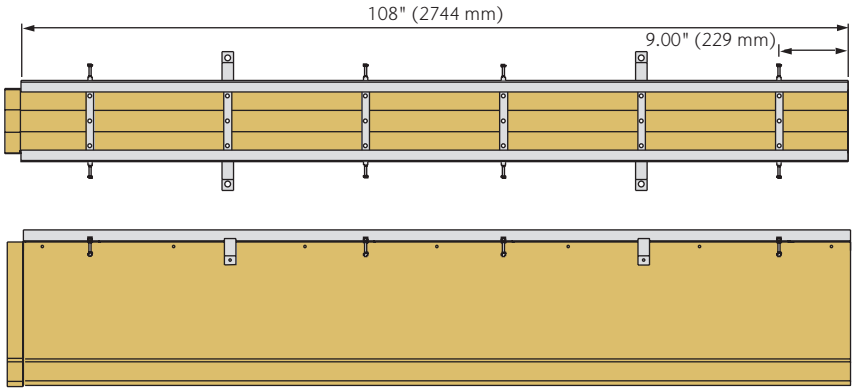
F660 & F880 Catch Basins

One piece fiberglass catch basins with choice of black coated, stainless or galvanized steel frame, lockable steel bar or ductile iron slotted grate and plastic trash bucket.

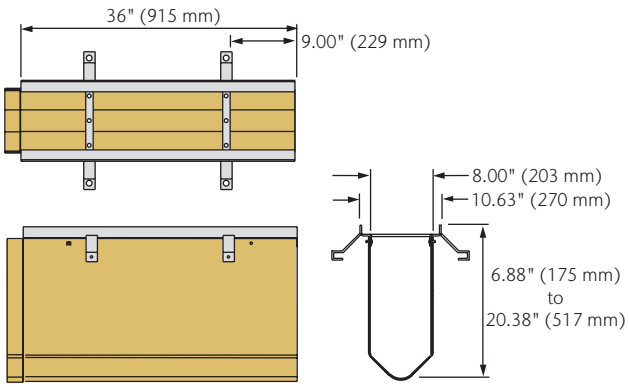
Accessories include 4", 6" and 8" SCH 40 pipe adapters and channel collars to connect channel to catch basin. See page 151 for details.

Channel Dimensions & Flow Rates

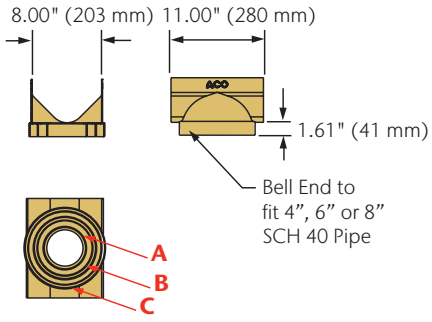
9' Channel



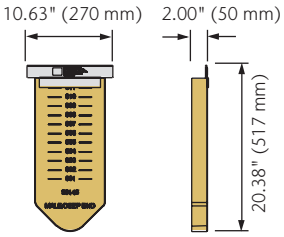
3' Channel



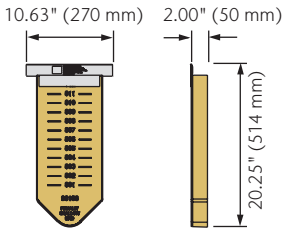
Vertical Outlet Adapter



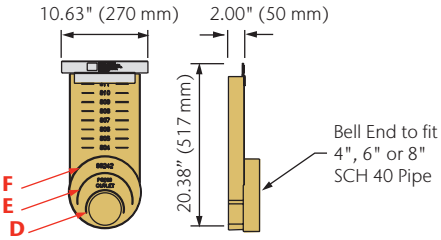
Male Closing Cap



Female Closing Cap



Outlet End Cap



OUTLET FLOW RATES

Channel Outlet	Size (SCH 40)	Invert in	GPM	CFS
A	4" round	7.88	154	0.34
		20.25	246	0.54
B	6" round	7.88	346	0.77
		20.25	553	1.23
C	8" round	7.88	616	1.37
		20.25	982	2.18
D	4" round	9.00	145	0.33
		20.25	233	0.54
E	6" round	10.13	330	0.76
		20.25	510	1.17
F	8" round	12.38	635	1.46
		20.25	880	2.03

FG200 Parts

	Part No.	Invert Depth				Overall Depth				Volume	Weight
		in		mm		in		mm		gal	lbs
		female	male	female	male	female	male	female	male		
F801 Sloped Channel - 108" (2.75 m)	**99006**	6.75	7.88	172	200	6.88	8.01	175	203	18.37	11.0
F802 Sloped Channel - 108" (2.75 m)	**99013**	7.88	9.00	200	229	8.01	9.13	203	232	22.58	12.0
F803 Sloped Channel - 108" (2.75 m)	**99021**	9.00	10.13	229	257	9.13	10.26	232	260	26.79	13.0
F803N Constant Depth Channel - 108" (2.75 m)	**99048**	**10.13**	**10.13**	**257**	**257**	**10.26**	**10.26**	**260**	**260**	**28.80**	**15.5**
F803N3 Constant Depth Channel - 36" (0.915 m)	**99034**	**10.13**	**10.13**	**257**	**257**	**10.26**	**10.26**	**260**	**260**	**9.60**	**5.2**
F804 Sloped Channel - 108" (2.75 m)	**99055**	10.13	11.25	257	286	10.26	11.38	260	289	31.00	14.1
F805 Sloped Channel - 108" (2.75 m)	**99062**	11.25	12.38	286	314	11.38	12.51	289	318	35.21	15.2
F806 Sloped Channel - 108" (2.75 m)	**99071**	12.38	13.50	314	343	12.51	13.63	318	346	39.42	16.3
F806N Constant Depth Channel - 108" (2.75 m)	**99095**	**13.50**	**13.50**	**343**	**343**	**13.63**	**13.63**	**346**	**346**	**41.50**	**16.3**
F806N3 Constant Depth Channel - 36" (0.915 m)	**99084**	**13.50**	**13.50**	**343**	**343**	**13.63**	**13.63**	**346**	**346**	**13.83**	**5.5**
F807 Sloped Channel - 108" (2.75 m)	**99109**	13.50	14.63	343	371	12.63	14.76	346	375	43.63	17.4
F808 Sloped Channel - 108" (2.75 m)	**99116**	14.63	15.75	371	400	14.76	15.88	375	403	47.84	18.5
F809 Sloped Channel - 108" (2.75 m)	**99123**	15.75	16.87	400	429	15.88	17.00	403	432	52.05	19.6
F809N Constant Depth Channel - 108" (2.75 m)	**99145**	**16.87**	**16.87**	**429**	**429**	**17.00**	**17.00**	**432**	**432**	**54.10**	**19.6**
F809N3 Constant Depth Channel - 36" (0.915 m)	**99132**	**16.87**	**16.87**	**429**	**429**	**17.00**	**17.00**	**432**	**432**	**18.00**	**6.5**
F810 Sloped Channel - 108" (2.75 m)	**99156**	16.87	18.00	429	457	17.00	18.13	432	460	56.26	20.7
F811 Sloped Channel - 108" (2.75 m)	**99162**	18.00	19.13	457	486	18.13	19.26	460	489	60.47	21.8
F812 Sloped Channel - 108" (2.75 m)	**99175**	19.13	20.25	486	514	19.26	20.38	489	518	64.68	23.0
F812N Constant Depth Channel - 108" (2.75 m)	**99192**	**20.25**	**20.25**	**514**	**514**	**20.38**	**20.38**	**518**	**518**	**66.76**	**23.0**
F812N3 Constant Depth Channel - 36" (0.915 m)	**99186**	**20.25**	**20.25**	**514**	**514**	**20.38**	**20.38**	**518**	**518**	**22.25**	**7.7**
Black-coated Steel Frame - 108" (2.75 m)	**97066**	-	-	-	-	-	-	-	-	-	57.9
Black-coated Steel Frame - 36" (0.915 m)	**98524**	-	-	-	-	-	-	-	-	-	19.3
Galvanized Steel Frame - 108" (2.75 m)	**97079**	-	-	-	-	-	-	-	-	-	57.9
Galvanized Steel Frame - 36" (0.915 m)	**98538**	-	-	-	-	-	-	-	-	-	19.3
Stainless Steel Frame - 108" (2.75 m)*	**97087**	-	-	-	-	-	-	-	-	-	57.9
Stainless Steel Frame - 36" (0.915 m)*	**98545**	-	-	-	-	-	-	-	-	-	19.3
Closing Cap (female) with Black End Frame	**98365**	-	-	-	-	20.38	20.38	518	518	-	1.1
Closing Cap (female) with Galvanized Steel End Frame	**98386**	-	-	-	-	20.38	20.38	518	518	-	1.1
Closing Cap (female) with Stainless Steel End Frame	**98375**	-	-	-	-	20.38	20.38	518	518	-	1.1
Closing Cap (male) with Black End Frame	**98363**	-	-	-	-	20.38	20.38	518	518	-	1.3
Closing Cap (male) with Galvanized Steel End Frame	**98382**	-	-	-	-	20.38	20.38	518	518	-	1.3
Closing Cap (male) with Stainless Steel End Frame	**98372**	-	-	-	-	20.38	20.38	518	518	-	1.3
Outlet Cap (male) with Black End Frame	**98361**	20.25	20.25	514	514	20.38	20.38	518	518	-	1.8
Outlet Cap (male) with Galvanized Steel End Frame	**98381**	20.25	20.25	514	514	20.38	20.38	518	518	-	1.8
Outlet Cap (male) with Stainless Steel End Frame	**98373**	20.25	20.25	514	514	20.38	20.38	518	518	-	1.8
Vertical Outlet Adapter - 4", 6" or 8" Outlet	**98103**	20.25	20.25	514	514	20.38	20.38	518	518	-	1.6

Notes

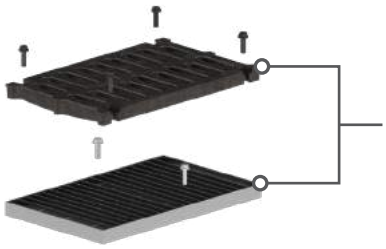
1. Invert depths are for the channel body & frame assembled.
2. Channel weights are for fiberglass body only.
3. Closing/Outlet caps can be cut down to suit all channels.
4. Add 2" to length of each channel for female joining flange (only applicable at shallowest end of trench run).
5. Frames supplied with plastic snap-fit studs for connecting to fiberglass body.
6. See page 155 for grate details.
7. See Catch Basin Parts List on page 151.
** Grade 304 stainless steel frames, ACO recommends the use of non-galvanized grates with stainless steel frames to avoid galvanic corrosion.*

Fiberglass Catch Basins

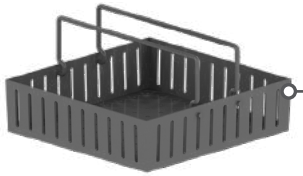
Fiberglass catch basins are available with a variety of frames and grates. Channel collars are available to connect all depths of channel on any side of the catch basin.

Pipe adapters are available to allow inlet/outlet pipe connections at any position on the catch basin.

F660 CATCH BASIN

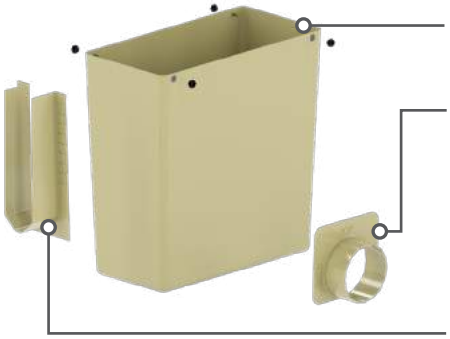


Grates - a choice of galvanized or stainless steel bar or slotted ductile iron grates, locked in place with 2 bolts. See page 156.



Trash Bucket - plastic trash bucket designed to collect debris that has collected in the trench and washed into the catch basin.

Frame - coated black, galvanized or stainless steel frame attached to catch basin body with snap-fit studs.

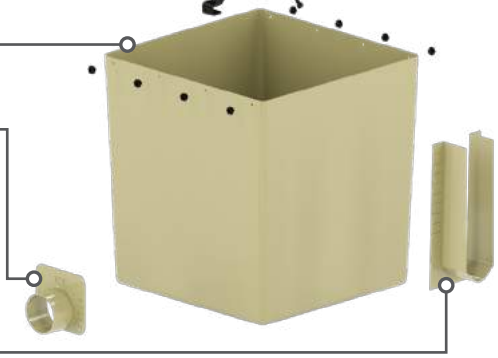


Catch Basin Body - fiberglass body in choice of 2 sizes.

Pipe Adapter - plain end adapter to allow inlet or outlet pipes to be easily attached to the outer wall of catch basin at any position. Available for 4", 6" and 8" SCH 40 pipes.

Channel Collar - adapter to enable smooth transition of any depth FG200 channel on any side. Can be cut to correct height.

F880 CATCH BASIN



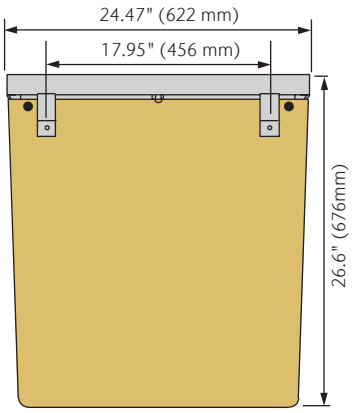
FG200 Catch Basin Parts

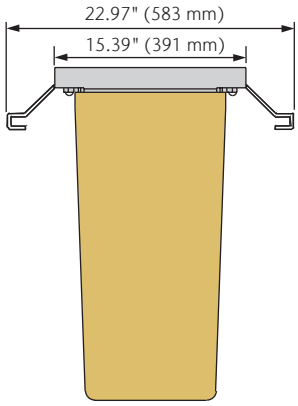
	Part No.	Volume gal	Weight lbs
F660 Catch Basin - 24" x 12"	**98069**	27.00	22.0
F660 Black-coated Steel Frame	**97995**	-	13.8
F660 Galvanized Steel Frame	**98008**	-	14.4
F660 Stainless Steel Frame*	**98013**	-	14.4
F660 Plastic Trash Bucket	**98067**	-	5.0
F880 Catch Basin - 24" x 24"	**98075**	55.00	22.0
F880 Black-coated Steel Frame	**98021**	-	23.2
F880 Galvanized Steel Frame	**98034**	-	24.2
F880 Stainless Steel Frame*	**98048**	-	24.2
F880 Plastic Trash Bucket	**98059**	-	8.4
FG200 Channel/Catch Basin Adapter	**98171**	-	1.1
4" Pipe Plain End Adapter	**97425**	-	0.4
6" Pipe Plain End Adapter	**97438**	-	0.6
8" Pipe Plain End Adapter	**97444**	-	0.9

**Grade 304 Stainless Steel Frames.*
ACO recommends use of non-galvanized grates with Stainless Steel Frames to avoid galvanic corrosion.

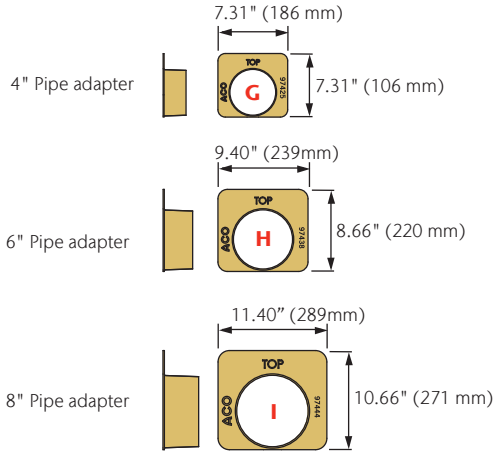
Catch Basin Dimensions & Flow Rates

F660 Catch Basin

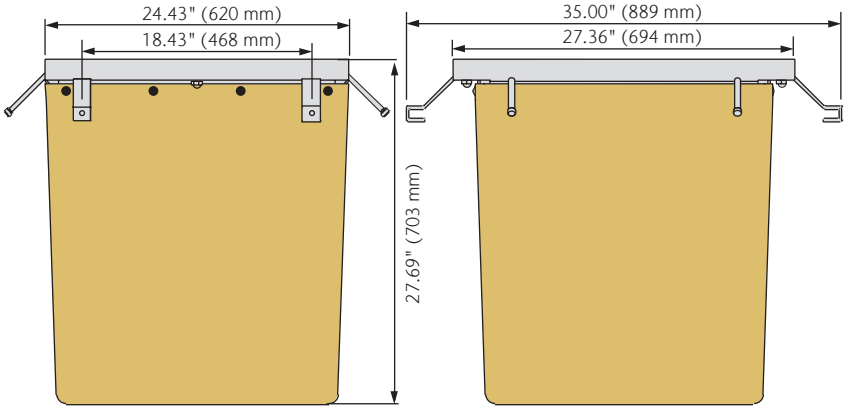




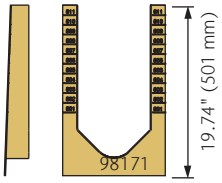
Pipe Adapter



F880 Catch Basin



Channel Collar



		F660			F880		
Catch Basin Outlet	Size (SCH 40)	Invert in	GPM	CFS	Invert in	GPM	CFS
G	4" round	26.50	269	0.60	27.50	275	0.61
H	6" round	26.50	594	1.32	27.50	606	1.35
I	8" round	26.50	1,032	2.30	27.50	1,055	2.35

Note: These are pipe flow rates at specified outlet—NOT channel flow rates—and are assuming that pipe adapter is fitted at lowest level on catch basin. Catch Basin flow rates without trash bucket - using trash bucket reduces flow.


N590AA

MCCARRAN INTERNATIONAL AIRPORT
Las Vegas, NV
United States

Built in 1942, McCarran International Airport is the main government airport for public use in the Las Vegas Valley and is the busiest airport in the United States that does not operate as a carrier hub.

Airports require prompt removal of surface water and need to have many locations of integrated drainage. 513' of FG200's lightweight fiberglass bodies and Ductile Iron bolted grates made the perfect solution.

PORTFOLIO

FG200 Grates - Bolted

KEY

ADA Compliant
Compliant with Americans with Disabilities Act of 2010, Section 302.3 (page 174)

Heel-Resistant
ASME A112.6.3 - 2001 Heel-resistant slot width less than 0.31" (8 mm) (page 174)

Heel-Safe
Heel-safe slot width equal or less than 0.25" (6.5 mm) (page 174)

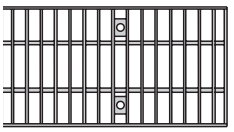
Slip-Resistant Grates
BPN over 24 (page 174)

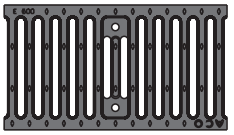
Bicycle-Safe
Compliant to Australian Standard AS 3996 - 2006 (page 174)

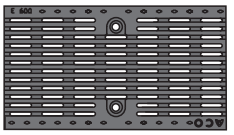
Non-Metallic
No metallic/magnetic parts included (page 170)

For details on how psi is determined, see pages 161-166.

Part No.	Length in (m)	Slot Size in	Intake Area in²	Weight lbs					
LOAD CLASS C (EN 1433) - 56,202 LBS - 967 PSI (COMMERCIAL VEHICLE TRAFFIC)									
BAR STEEL									
Galvanized[3]	**93899**	36.00 (0.9)	1.0 x 3.6	264.0	28.6	✓	×	×	×	×
Stainless[1,2]	**93891**	36.00 (0.9)	1.0 x 3.6	264.0	28.6	✓	×	×	×	×
LOAD CLASS E (EN 1433) - 134,885 LBS - 2,321 PSI (INDUSTRIAL TRAFFIC)									
SLOTTED IRON[2,5]									
Iron	**93896**	18.00 (0.45)	0.61 x 7.87	58.7	25.2	✓	×	×	×	×
LONGITUDINAL IRON[2,5]									
Iron	**93893**	18.00 (0.45)	1.75 x 0.25	35.0	28.2	✓	✓	✓	✓	✓







4-BOLT GRATE LOCKING

Bolted FG200 grates offer mechanical, secure fixing of grates into the channel frame. Two bolts per 18" grate section lock into cross bars in the steel frame. Care must be taken to ensure that all bolts are secure and are not overtightened which can damage the frame.

1

Fit grate

Position grate onto channel, align holes in grate with matching holes in edge rail.

2

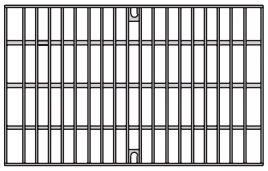
Use wrench or socket set to tighten. If using a torque wrench, do not set to more than 15 ft. lbs.

3

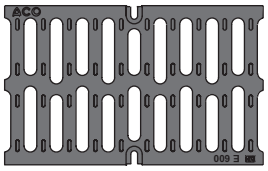
Remove grate

To remove grates, use wrench or socket set. Carefully store bolts for refitting of grates. Tamper-resistant bolts require a tamper-resistant drive bit.

F660 Grates - Bolted

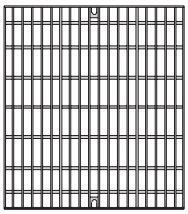


	Part No.	Length in (m)	Slot Size in	Intake Area in²	Weight lbs					
LOAD CLASS C (EN 1433) - 56,202 LBS - 739 PSI (COMMERCIAL VEHICLE TRAFFIC)										
BAR STEEL										
Galvanized[3]	**97443**	24.00 (0.6)		267.0	35.2					
			1.0 x 3.3			✓	×	×	×	✓
Stainless[1,4]	**97442**	19.69 (0.5)		267.0	35.2					

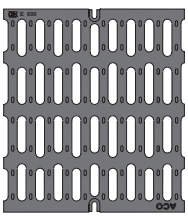


	Part No.	Length in (m)	Slot Size in	Intake Area in²	Weight lbs					
LOAD CLASS E (EN 1433) - 134,885 LBS - 1,773 PSI (INDUSTRIAL TRAFFIC)										
SLOTTED IRON[2,5]										
Iron	**97449**	24.00 (0.6)	1.2 x 6.1 avg.	130.0	75.0	✓	×	×	×	✓

F880 Grates - Bolted



	Part No.	Length in (m)	Slot Size in	Intake Area in²	Weight lbs					
LOAD CLASS C (EN 1433) - 56,202 LBS - 739 PSI (COMMERCIAL VEHICLE TRAFFIC)										
BAR STEEL										
Galvanized[3]	**97452**	24.00 (0.6)								
			1.0 x 3.3	456.0	63.8	✓	×	×	×	✓
Stainless[1,4]	**97455**	24.00 (0.6)								



	Part No.	Length in (m)	Slot Size in	Intake Area in²	Weight lbs					
LOAD CLASS E (EN 1433) - 134,885 LBS - 1,773 PSI (INDUSTRIAL TRAFFIC)										
SLOTTED IRON[2,5]										
Iron	**97453**	24.00 (0.6)	1.2 x 5.5 avg.	226.0	206.0	✓	×	×	×	✓

Notes

1. *Grade 304 stainless steel*
2. *Ductile iron to ASTM A536 Grade 80-55-06.*
3. *Supplied with 4 galvanized steel socket head bolts (½" - 13 x 1½") - replacement part no. 93895.*
4. *Supplied with 4 stainless steel socket head bolts (½" - 13 x 1½") - replacement part no. 93897.*
5. *Supplied with 2 stainless steel hex head bolts (½" - 13 x 1½") - replacement part no. 93892.*