



# ZF812-E4

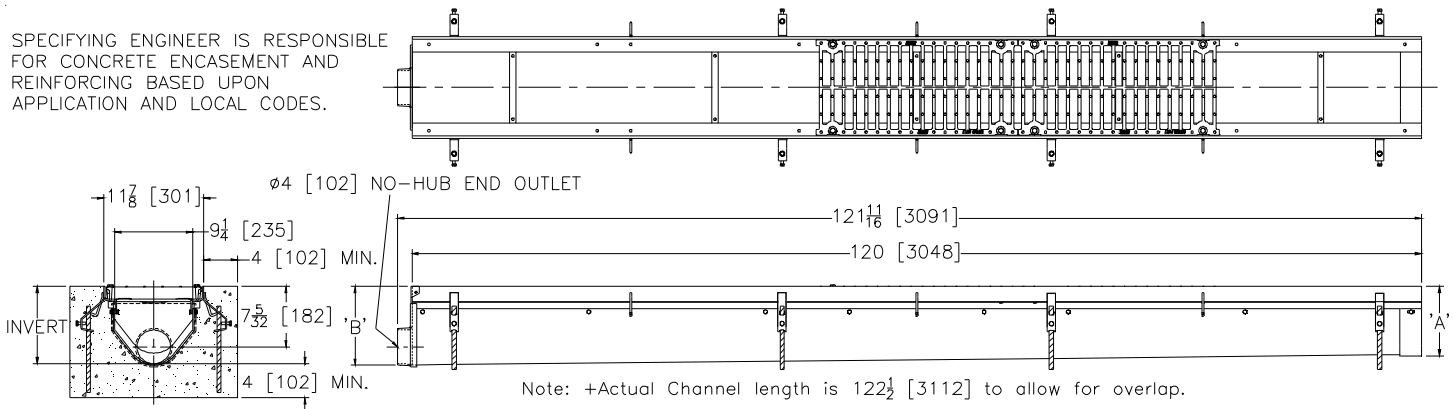
# SPECIFICATION SHEET

## 12 [305] WIDE REVEAL FIBER REINFORCED POLYMER TRENCH DRAIN SYSTEM W/ STEEL FRAME & 4 [102] END OUTLET

TAG \_\_\_\_\_

Dimensional Data (inches and [ mm ]) are Subject to Manufacturing Tolerances and Change Without Notice

SPECIFYING ENGINEER IS RESPONSIBLE FOR CONCRETE ENCASEMENT AND REINFORCING BASED UPON APPLICATION AND LOCAL CODES.



### ENGINEERING SPECIFICATION: Zurn ZF812-E4

Channels are 120 [3048] long, 12 [305] wide reveal and have a 9-1/4 [235] throat. Modular channel sections are made of Fiber Reinforced Polymer (FRP), and have a positive mechanical connection between channel sections that will not separate during the installation. Channels weigh less than 5.05 lbs. [2.29 kg] per linear foot, have a smooth, 3 [76] radiused self cleaning bottom with a Manning's coefficient of .009 and 1.04% or neutral 0% built in slope. Drainage system has Ø4 [102] No-Hub End Outlet. Channels are provided with standard DGC grates that lock down to frame. Zurn 12 [305] wide reveal Ductile Iron Slotted Grate conforming to ASTM specification A536, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN 1433 top load classifications. Supplied in 24 [608] nominal lengths with 13/16 [21] wide slots, and 1-1/2 [38] bearing depth. Grate has an open area of 80.6 sq. in per ft. [171,027 sq. mm per meter]. The #7 gage thick Heavy-Duty Carbon Steel Frame Assembly conforms to ASTM specification A36. Frames shall mechanically lock into the concrete surround at a maximum spacing of every 21 [533], with 14 anchors per 120 [3048]. Frames have rebar attachment brackets as standard to secure trench to its final location. Grate lockdown bars are to be integral to the frame. The frame is supplied with a powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames and Channels shall be produced in the U.S.A.

### PREFIX OPTIONS (Check/specify appropriate options)

\_\_\_ ZF Ten-foot Fiber Reinforced Polymer (FRP) \*

### SUFFIX OPTIONS (Check/specify appropriate options)

#### Frame Options

\_\_\_ -CWF White Acid Resistant Coated Top Frame

#### Grate Options (Load Classifications are per DIN EN1433)

- \_\_\_ -DC Ductile Iron Solid Cover - Class C
- \_\_\_ -DGC Ductile Iron Slotted Grate - Class C \*
- \_\_\_ -DGE Ductile Iron Slotted Grate - Class E
- \_\_\_ -DGF Ductile Iron Slotted Grate - Class F
- \_\_\_ -GDC Galvanized Ductile Slotted Grate - Class C
- \_\_\_ -GDE Galvanized Ductile Slotted Grate - Class E
- \_\_\_ -GDF Galvanized Ductile Slotted Grate - Class F
- \_\_\_ -GG Fiberglass Grate - Class A
- \_\_\_ -GHPDE Galvanized Heel-Proof Ductile Slotted Grate - Class E
- \_\_\_ -HPD Heel-Proof Ductile Slotted Grate - Class C
- \_\_\_ -HPDE Heel-Proof Ductile Slotted Grate - Class E
- \_\_\_ -RFGC Reinforced Slotted Galvanized Grate - Class C
- \_\_\_ -RPGC Reinforced Perforated Galvanized Grate - Class C
- \_\_\_ -RPGRC Reinforced Perforated Galvanized Reverse Punch Grate - Class C
- \_\_\_ -RFSC Reinforced Slotted Stainless Steel Grate - Class C
- \_\_\_ -RPSC Reinforced Perforated Stainless Steel Grate - Class C
- \_\_\_ -RPSRC Reinforced Perforated Stainless Steel Reverse Punch Grate - Class C

Trench No.	'A' Shallow Inv.	'B' Deep Inv.	Flow		
			(cfs)	(gpm)	(lps)
2002	7.93 [201]	9.18 [233]	2.088	937	59
2002N	9.18 [233]	9.18 [233]	-	-	-
2003	9.18 [233]	10.43 [265]	2.730	1225	77
2004	10.43 [265]	11.68 [297]	3.388	1521	96
2004N	11.68 [297]	11.68 [297]	-	-	-
2005	11.68 [297]	12.93 [328]	4.058	1821	115
2006	12.93 [328]	14.18 [360]	4.736	2125	134
2007	14.18 [360]	15.43 [392]	5.420	2432	153
2008	15.43 [392]	16.68 [424]	6.109	2742	173
2008N	16.68 [424]	16.68 [424]	-	-	-
2009	16.68 [424]	17.93 [455]	6.802	3053	193
2010	17.93 [455]	19.18 [487]	7.498	3365	212

#### Miscellaneous Options

- \_\_\_ -DB Bottom Dome Strainer
- \_\_\_ -JC Joint Connector
- \_\_\_ -SW Sidewall Extensions - 11-1/4 [286] High
- \_\_\_ -VP Vandal-Proof Lockdown

#### Note:

The maximum fluid temperature through the system must not exceed 150°F [66°C] and the range (Max. Temp. to Min. Temp.) must not exceed 100°F [38°C].

### MADE in the U.S.A.

- |   |  |
|---|--|
| ___ -ADA-USA Meets Americans with Disabilities Act Requirements - Class C | ___ -HPDE-USA Heel-Proof Ductile Slotted Grate - Class E       |
| ___ -BG Galvanized Steel Bar Grate - Class D                              | ___ -PG Perforated Galvanized Steel Grate - Class A            |
| ___ -DGC-USA Ductile Iron Slotted Grate - Class C                         | ___ -PS Perforated Stainless Steel Grate - Class A             |
| ___ -DGE-USA Ductile Iron Slotted Grate - Class E                         | ___ -RFG Reinforced Galvanized Slotted Grate - Class B         |
| ___ -FG Fabricated Galvanized Steel Slotted Grate - Class A               | ___ -RFS Reinforced Stainless Steel Slotted Grate - Class B    |
| ___ -FS Fabricated Stainless Steel Slotted Grate - Class A                | ___ -RPG Reinforced Galvanized Perforated Grate - Class B      |
| ___ -GADA-USA Galvanized Ductile ADA Slotted Grate - Class C              | ___ -RPS Reinforced Stainless Steel Perforated Grate - Class B |
| ___ -GDC-USA Galvanized Ductile Slotted Grate - Class C                   | ___ -SBG-L Stainless Steel Bar Grate - Class C                 |
| ___ -GDE-USA Galvanized Ductile Slotted Grate - Class E                   |  |
| ___ -GHPDE-USA Galvanized Heel-Proof Ductile Slotted Grate - Class E      |  |

\*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. B DATE: 03/25/13 C.N. NO. 129001

PROD./DWG. NO. ZF812-E4

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