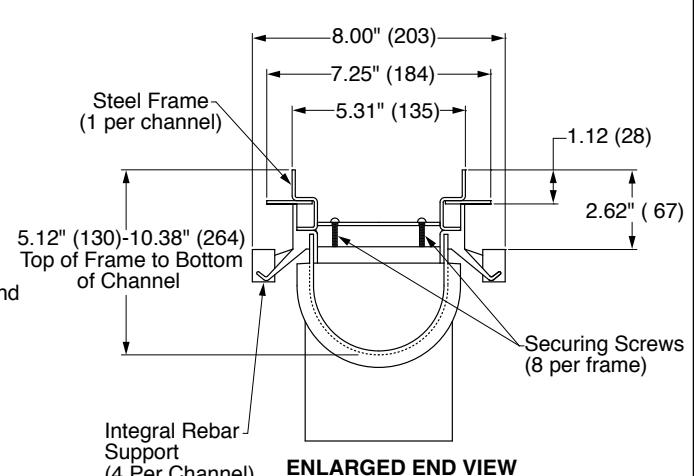
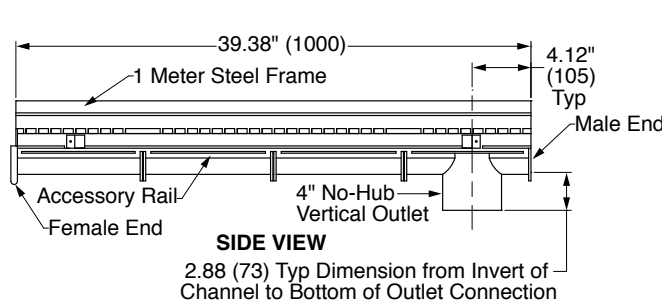
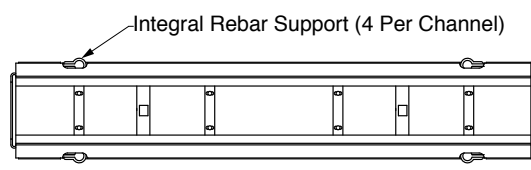
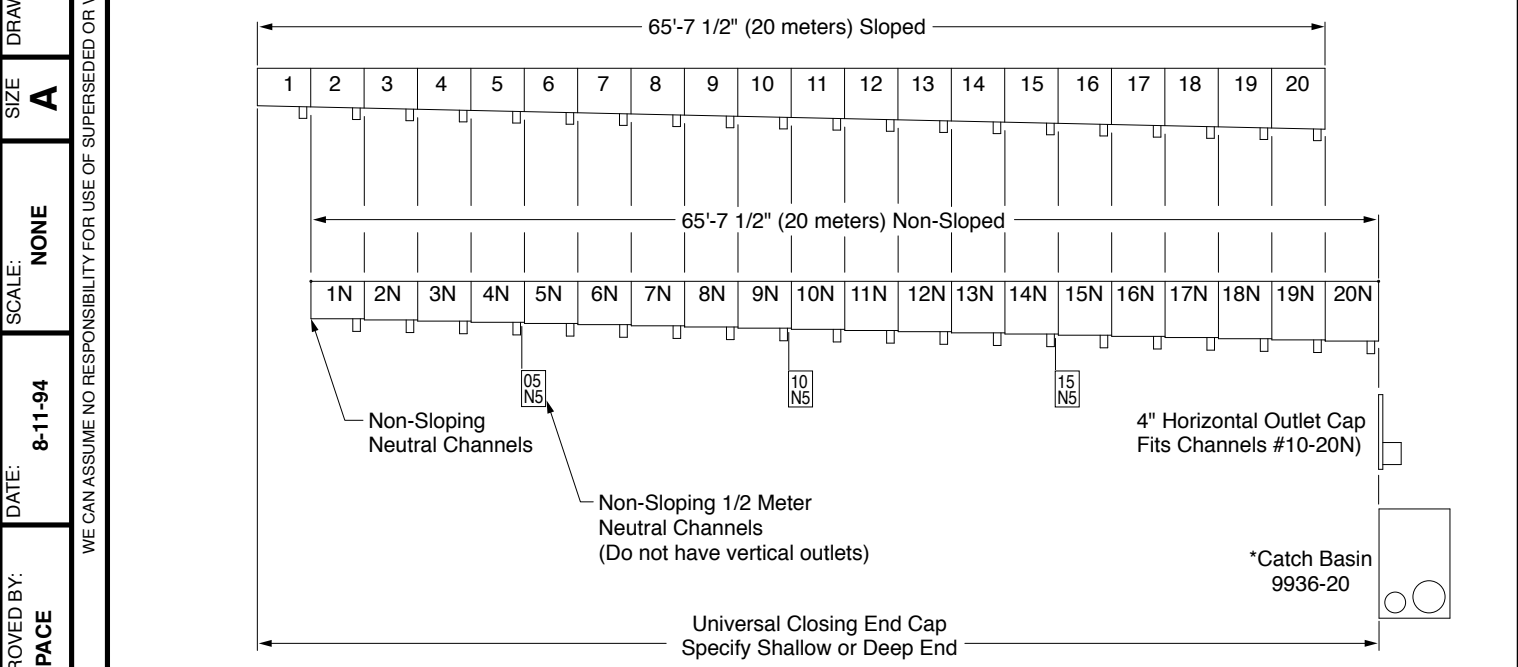


9931-HDF SERIES ENVIRO-FLO® II EXTRA HEAVY DUTY DRAIN SYSTEM

FUNCTION: Used in all surface drainage applications. May be assembled in any length utilizing coated steel frame system that is recommended for all situations requiring an extra heavy duty rating to protect against hard wheel traffic, impact of steel containers struts and metal wheels.



REGULARLY FURNISHED:
 1 Meter (3.28') 100% Polypropylene U.V. Inhibitors. Channel of Interlocking Design with a Built-in Slope of 0.6% with Radiused Bottom along with Black Painted Steel Frame System. Supplied with Secured Grate.

- VARIATIONS:**
- Grate Specifications (See Back)
 - Closing End Cap Shallow -ES
 - Closing End Cap Deep -ED
 - Horizontal Outlet 4" -H4
 - Catch Basin Only 9936-20
 - Catch Basin Plastic Bucket -BP
 - End Frame -EF (Specify 1/2 or 1 meter long)
 - Direction Change Coupling -MC
 - 4" NO-HUB Bottom Outlet Adaptor -BO***
 - Stainless Steel Frame

ENLARGED END VIEW
 Note: Dimensions in parentheses are in mm.

*Note: If Catch Basin is Specified For Any Other Channel Except For the #20 Channel, a Shim Must be Ordered, P/N: 9930-ES

Note: This Trench Drain System is Designed for "On Grade Applications Only" as There are No Provisions for a Flashing Flange or Flashing Clamp

**Note: All 1 Meter Long Sloped and Neutral Channels Have a Molded 4"(111) NO-HUB Bottom Connection.

***Note: See Other side of sheet

PATENT NO. 10,047,512

9931-HDF

DRAWING NUMBER S9931-HDF

SIZE A

SCALE: NONE

DATE: 8-11-94

APPROVED BY: PACE

CHECKED BY: PACE

DRAWN BY: TWK

Z	9-10-18	Added Patent No. Added -HDF	TBW	PJ	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
Y	10-19-17	Added -HDF	TBW	PJ			9931-HDF
X	6-1-17	Revised Variations	TBW	PJ			
W	2-6-17	Revised Variations	TBW	PJ			
REV.	DATE	DESCRIPTION	BY	CKD. BY			

Q	 <p>MEMBER OF MORRIS GROUP INTERNATIONAL POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com</p>	  <p>MEMBER OF:</p> 	LOCATION
----------	---	---	-----------------

9931-HDF SERIES ENVIRO-FLO® II EXTRA HEAVY DUTY DRAIN SYSTEM

HYDRAULIC CAPACITY AND DEEP END DEPTHS 9931 SYSTEM

**Extra Heavy Duty DIN 19580 Load Class E:
135,000 lbs - 2,788 psi. For commercial solid
tire traffic patterns, forklifts and impacts
from steel struts or metal wheels.**

- 9870-461-M** - 3 15/16 x 3/8 ductile iron slotted
grate (34.10 sq. in)
- 9870-478-MADA** - longitudinal slot ductile iron
grate (22.50 sq. in)

*****Note:** When installing the 9930-BO bottom outlet
hub on channel #1, #1N, #2 or #2N, a slight modification
is required to the hub due to the close proximity of the
channel frame at the top of the channel to the accessory
rail. This modification will require that the angled tabs on
the clips at the top of the hub must be trimmed off. The
clips will have to be pried over the accessory rail with
a screwdriver. Refer to page 12 in the installation guide
for more information on this modification.

CHANNEL NUMBER	DEEP END DEPTH		SLOPE	SINGLE CHANNEL		WEIGHT Lbs.
	IN.	MM.		EST CFS	EST GPM	
9931-1	5.50	140	0.6%	.29	130	23.02
9931-1N	5.50	140	0.0%	.29	130	23.02
9931-2	5.75	146	0.6%	.31	139	23.12
9931-2N	5.75	146	0.0%	.31	139	23.12
9931-3	6.00	152	0.6%	.34	153	23.32
9931-3N	6.00	152	0.0%	.34	153	23.32
9931-4	6.25	159	0.6%	.36	162	23.42
9931-4N	6.25	159	0.0%	.36	162	23.42
9931-5	6.50	165	0.6%	.39	175	23.52
9931-5N	6.50	165	0.0%	.39	175	23.52
9931-6	6.75	171	0.6%	.42	189	23.72
9931-6N	6.75	171	0.0%	.42	189	23.72
9931-7	7.00	178	0.6%	.45	202	23.92
9931-7N	7.00	178	0.0%	.45	202	23.92
9931-8	7.25	184	0.6%	.47	211	24.32
9931-8N	7.25	184	0.0%	.47	211	24.32
9931-9	7.50	191	0.6%	.49	220	24.32
9931-9N	7.50	191	0.0%	.49	220	24.32
9931-10	7.75	197	0.6%	.53	238	24.32
9931-10N	7.75	197	0.0%	.53	238	24.32
9931-11	8.00	203	0.6%	.56	251	24.52
9931-11N	8.00	203	0.0%	.56	251	24.52
9931-12	8.25	210	0.6%	.58	261	24.52
9931-12N	8.25	210	0.0%	.58	261	24.52
9931-13	8.50	216	0.6%	.61	274	24.92
9931-13N	8.50	216	0.0%	.61	274	24.92
9931-14	8.75	222	0.6%	.64	287	24.92
9931-14N	8.75	222	0.0%	.64	287	24.92
9931-15	9.00	229	0.6%	.67	301	25.12
9931-15N	9.00	229	0.0%	.67	301	25.12
9931-16	9.25	235	0.6%	.70	314	25.32
9931-16N	9.25	235	0.0%	.70	314	25.32
9931-17	9.50	241	0.6%	.73	328	25.32
9931-17N	9.50	241	0.0%	.73	328	25.32
9931-18	9.75	248	0.6%	.76	341	25.52
9931-18N	9.75	248	0.0%	.76	341	25.52
9931-19	10.00	254	0.6%	.79	355	25.72
9931-19N	10.00	254	0.0%	.79	355	25.72
9931-20	10.25	260	0.6%	.82	368	25.92
9931-20N	10.25	260	0.0%	.82	368	25.92

Note: Channel flow rates based on channels less grates and open ended.

9931-HDF-BS
 DRAWING NUMBER: s9931-HDF-BS
 SIZE: A
 SCALE: NONE
 DATE: 7-15-94
 APPROVED BY: PACE
 CHECKED BY: PACE
 DRAWN BY: TWK
 DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

Q P N M	10-19-17 10-3-16 12-11-13 8-14-13	Added -HDF Revised Grates, Removed Note Revised Grates & Added Note Rev. Grates	TBW TBW TBW TBW	MD MD MD MD	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER <h1 style="margin: 0;">9931-HDF-BS</h1>
REV.	DATE	DESCRIPTION	BY	CKD. BY			