

# PolyDuct™

## Utility Trench System

**LOAD RATING**

LOAD RATING	LOCKING DEVICE
A-R-C-D	RSIC
A-R	N/A
A-B	N/A

**CHAN. NUMBER**

CHAN. NUMBER	HYD. SECT. AREA CM <sup>2</sup> [in <sup>2</sup> ]	FLOW CAPACITY L [GAL]	STORAGE CAPACITY L [GAL]	CHANNEL WEIGHT Kg [LBS]
002.12	513.6 [79.6]	51.1 [13.5]	34.0 [7.5]	34.0 [7.5]
002.16	689.6 [106.9]	68.5 [18.1]	42.6 [9.4]	42.6 [9.4]
002.20	865.6 [134.1]	86.0 [22.6]	49.9 [11.0]	49.9 [11.0]
002.24	1041.6 [161.4]	104 [27.4]	53.5 [11.8]	53.5 [11.8]

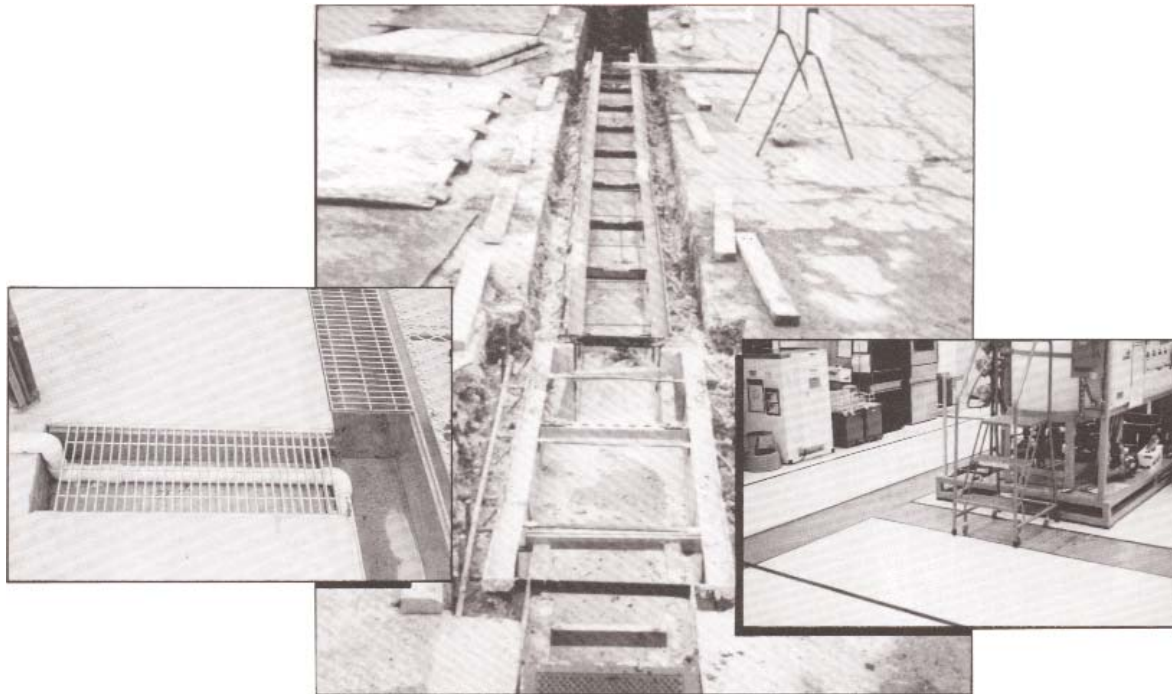
LENGTHS = NOMINAL 1 M (39.19')

**NOTES:**  
 1. DRAWING FOR USE WITH POLYDR DRAIN SYSTEM ARE SUITABLE FOR USE WITH POLYDRAIN (1.08 & 1.10) CHANNELS.  
 2. ALL GRATES, COVERS, AND RETAINERS FOR POLYDUCT (002.12 THRU 002.24) CHANNELS.  
 3. CONTACT FACTORY FOR GRATES, COVERS, AND RETAINERS FOR POLYDUCT.

**ABT, INC.**  
 POLYDR SPECIAL PR

REV	C.E.G.	DATE	BY	CHKD
1	NONE	9/10/04		

# POLYDRAIN PolyDuct. The versatile performer

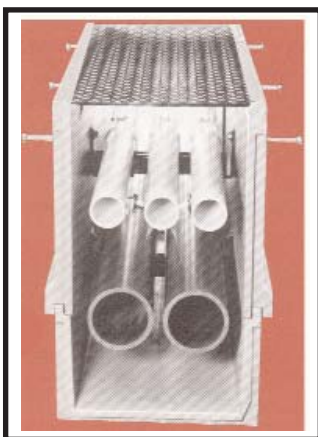


## PolyDuct

**PolyDuct** is the easy, economical solution for virtually any utility trench application. Whether for secondary containment of fluid transmission lines, spill containment or as a cable chase, PolyDuct offers a modular, engineered installation. PolyDuct's non-absorbent polymer concrete composition is well known for its strength, durability and superior chemical resistance.

Channel sections come in 12", 16", 20" or 24" widths. The base channel, which is seven inches deep, accepts stackable PolyWall Sidewall Extensions, allowing variable depth in seven-inch increments.

Several grating and solid cover options are available to meet any traffic requirements from pedestrian to solid-tire forklifts.



## Secondary Containment

PolyDuct provides a dependable and easily accessible comprehensive secondary containment system. It is ideally suited to help you meet the increasingly stringent requirements for secondary containment of piped process chemicals and wastes. System components are manufactured with tongue-and-groove joints at all mating surfaces. Trenches can be sealed with the application of the appropriate PolySeal Adhesive/Sealant along the mating surfaces and joints. Channels and sidewalls can be modified to accept commercially available pipe strut systems and electronic leak detectors. When leaks are discovered, simply remove the cover, collect the spill and complete the repair.

## PolyDyn and PolyChampion

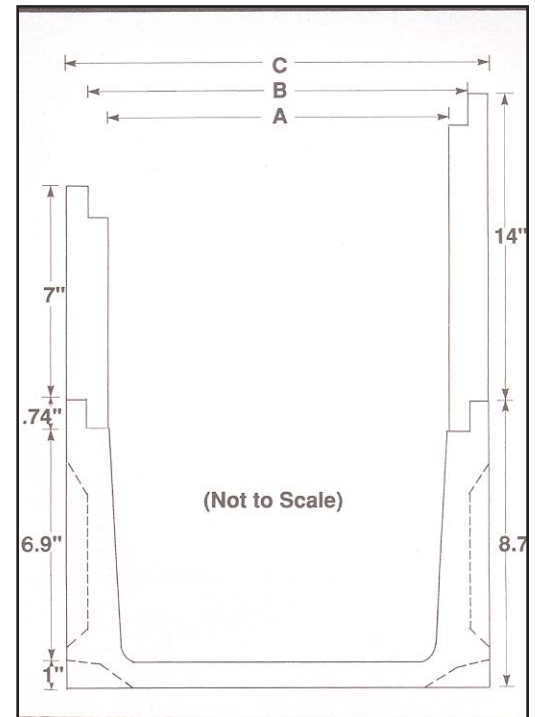
PolyDuct channels are made in either our standard PolyDyn or premium PolyChampion formulations. PolyDyn, a polyester material, provides physical characteristics and chemical resistance throughout its .7" wall thickness vastly superior to uncoated or coated portland cement.

For the more hostile chemical environment, PolyChampion, a vinyl ester formulation, provides an even greater degree of protection. The ABT, Inc. Chemical Resistance Guide will help you decide which selection is best for each application.

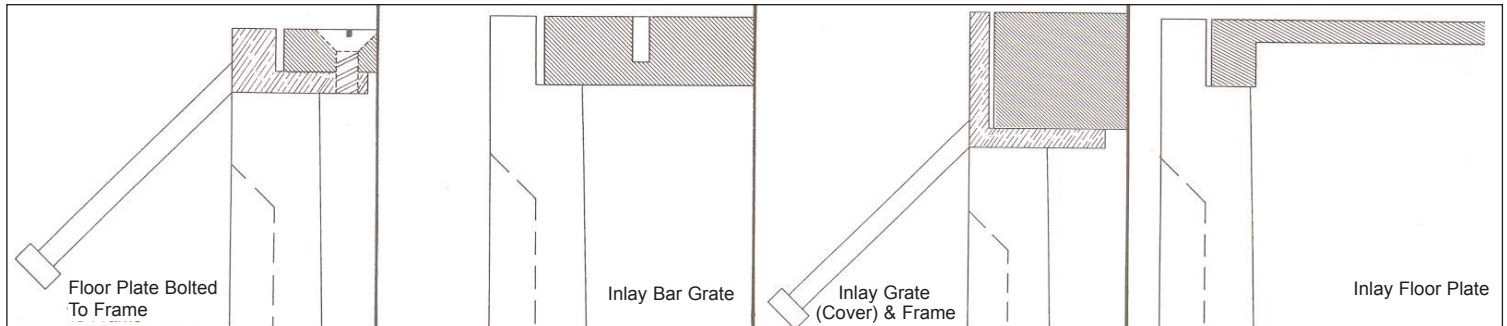
# PolyDuct Accessories

**PolyWall® Sidewall Extensions** provide extra channel depth when required. Sidewalls have tongue-and-groove bases so that they can seat tightly to the top edges of the PolyDuct channels. Sidewalls have anchor bolts to hold the walls firmly in the encasement concrete and optional sleeves for mounting strut brackets.

Channels	Vol. per Gal.	Lin. Ft. Cu. Ft.	Vol. per Liters	Lin. M Cu.M.
12"	4.13	0.553	51.1	1.448
12" + PolyWall I	8.52	1.139	105.3	2.983
12" + PolyWall II	12.89	1.724	159.4	4.515
16"	5.55	0.742	68.7	1.944
16" + PolyWall I	11.41	1.525	141.1	3.995
16" + PolyWall II	17.26	2.307	213.4	6.043
20"	6.97	0.931	86.1	2.439
20" + PolyWall I	14.29	1.911	176.7	5.006
20" + PolyWall II	21.61	2.889	267.2	7.568
24"	8.38	1.121	103.7	2.936
24" + PolyWall I	17.19	2.298	212.5	6.018
24" + PolyWall II	25.98	3.473	321.2	9.096



# PolyDuct Gratings



PART NUMBER	DESCRIPTION	DUTY
IFP 0.25	1/4" Inlay Steel Floor Plate Solid Cover (Black)	Light
BFP 0.25 (0.38)(0.50)(0.75)	1/4" Solid Cover Steel Floor Plate bolted to Unitized Frame (Four bolts) (Black) (Also available in 3/8", 1/2" & 3/4" thicknesses.)	Light
CIG 1.50	1 1/2" Cast Iron Slotted Grate with Unitized Frame (Black) (Unpainted-H 20) (2 ft.)	Heavy
CIS 1.50	1 1/2" Cast Iron Solid Cover with Unitized Frame (Black) (Unpainted-H 20) (2 ft.)	Heavy
GBG 0.75	3/4" Inlay Galvanized Steel Banded Bar Grating. (3/4" x 3/16" Bars @ 13/16" cc, 4" Crossbars)	Light
GBG 1.50	1 1/2" Galvanized Steel Banded Bar Grating with Painted Unitized Frame 1 1/2" x 3/16" Bars @ 13/16" cc, 4" Crossbars)	Heavy
PFG 0.63/VFG 0.63	5/8" Inlay (P)olyester or (V)inyl Ester Fiberglass Mesh Grate (5/8" x 5/16" Bars @ 1" cc, 4" Crossbars)	Light
PFG 1.50/VFG 1.50	1 1/2" (P)olyester or (V)inyl Ester Fiberglass Mesh Grate with Embedded Angle Frame (1 1/2" x 5/16" Bars @ 13/16" cc, 6" Crossbars)	Heavy

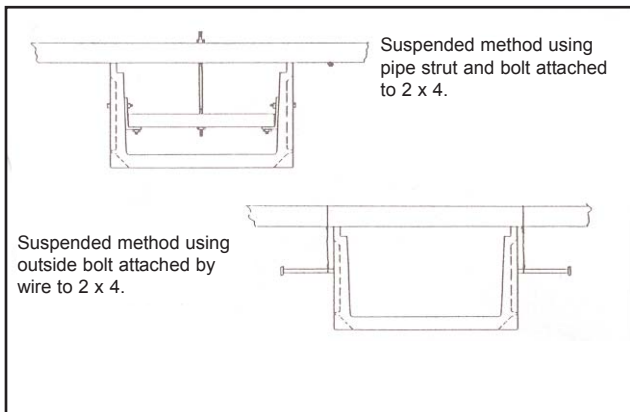
Note: Unitized Frame Available in Various Depths to Accept Gratings by Others.

## Installation Methods

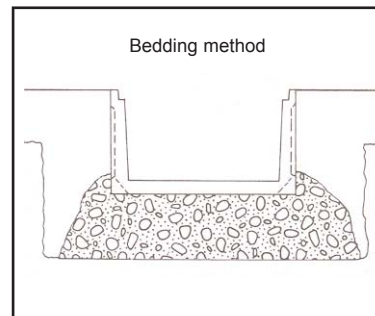
PolyDuct Utility Trench can be installed in new construction or retrofits eliminating many of the steps and materials required with cast-in-place methods. The modular system components can be pre-assembled or installed in stages, depending on site conditions and overall depth.

While conditions and contractor methods may vary, the following suggest two installation methods.

The suspended method can be used to hang components into a saw cut in an existing slab or from form boards set to grade alongside the trench area. If pipe strut is being installed in PolyDuct, pre-assembled units can be hung from 2 x 4's by running a threaded rod down through the strut. If strut is not used, channels can be attached to suspending boards by tie-wiring the boards to bolts installed in the threaded channel inserts along the outside of the channel. The concrete encasement can then be poured in one or two stages.

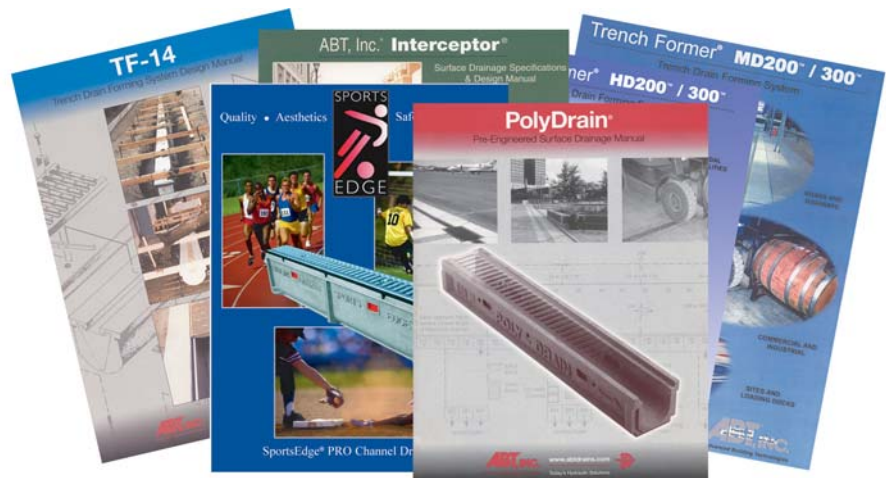


The bedding method is the fastest method for new construction. Pull a string line to the desired grade and place a four-inch bedding of low slump concrete in the bottom of the prepared excavation. Position channel sections into the bedding end-to-end bringing the top outside edge of the channel to the string line. Pull bedding concrete around lower anchoring ribs. After concrete bedding sets, side-wall sections can be installed, if necessary, and the final pour can be made.



Bedding method

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