

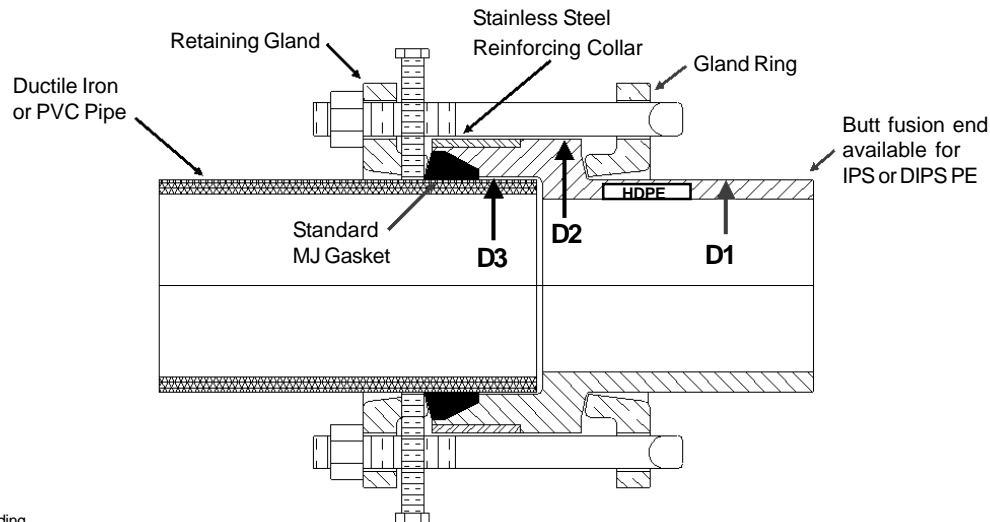


IPS & DIPS Bell MJ Adapter With Kit Connects HDPE to Plain End Ductile Iron or PVC (Dimensions in Inches)

This kit enables HDPE pipe to be fitted with a bell end in order to accept ductile iron pipe or DIPS OD PVC pipe (can also accept sizes 2” through 16” IPS OD PVC pipe by using a transition gasket)*. This fitting eliminates the need for a ductile iron solid sleeve when making this connection. Bell MJ Adapters are fully pressure rated for DR ordered and are AWWA compliant at no extra charge.

- **Kit includes the HDPE Bell MJ fitting with stainless steel reinforcing collar, C-153 (2”-12”) or C-110 (14”-24”) heavy body ductile iron gland ring, gasket and extra length T-bolts**.**
- **Retaining glands are available for ductile iron pipe or PVC pipe and are sold separately. IPS transition gaskets are also available through 16” and sold separately.**

(See following page for Bell Adapter accessories.)



Patent application pending

Nominal Size IPS & DIPS	D1 IPS	D1 DIPS	D2	D3	OAL
2"	2.38	2.50	3.50	2.63	8.00
3"	3.50	3.96	5.56	4.06	8.00
4"	4.50	4.80	6.63	4.93	8.63
6"	6.63	6.90	8.63	7.03	10.25
8"	8.63	9.05	10.75	9.15	12.00
10"	10.75	11.10	12.75	11.23	12.50
12"	12.75	13.20	15.30	13.33	12.75
14"	14.00	15.30	18.00	15.47	13.50
16"	16.00	17.40	20.00	17.57	13.75
18"	18.00	19.50	22.00	19.67	13.75
20"	20.00	21.60	24.00	21.77	15.00
24"	24.00	25.80	28.00	25.97	16.00

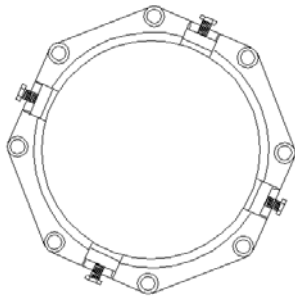
**Connections to 14” & 16” IPS PVC require two piece retaining gland (not shown). 18” and larger IPS PVC not recommended.
 **Sizes larger than 12” require customer supplied All-Thread and nuts. 9” long T-bolts are included with all kits 12” and smaller.
 Other sizes and DR’s not listed are available - Call For Quick Quote



Additional Accessories for Bell MJ Adapter

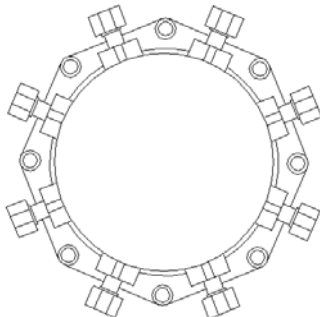
(Dimensions in Inches)

Retaining Glands For Ductile Iron Pipe



Nominal Size	Bolt Hole Circle	# of holes x dia. of hole	Weight (lbs)
3"	6.19	4 x 3/4	7
4"	7.50	4 x 7/8	9
6"	9.50	6 x 7/8	12
8"	11.75	6 x 7/8	16
10"	14.25	8 x 7/8	26
12"	16.25	8 x 7/8	32
14"	18.75	10 x 7/8	52
16"	21.00	12 x 7/8	59
18"	23.25	12 x 7/8	62
20"	25.50	14 x 7/8	71
24"	30.00	16 x 7/8	93

Retaining Glands For IPS and DIPS PVC Pipe



Nominal Size	Bolt Hole Circle	# of holes x dia. of hole	Weight (lbs)
3"	6.19	4 x 3/4	5
4"	7.50	4 x 7/8	7
6"	9.50	6 x 7/8	12
8"	11.75	6 x 7/8	16
10"	14.25	8 x 7/8	22
12"	16.25	8 x 7/8	28
**14"	18.75	10 x 7/8	45
**16"	21.00	12 x 7/8	52
*18"	23.25	12 x 7/8	62
*20"	25.50	14 x 7/8	75
*24"	30.00	16 x 7/8	97

Pricing shown does not include nuts, bolts, gaskets or other accessories. **Retaining glands for 14" and 16" IPS PVC are a dual gland style restraint (pic. not shown), data is available upon request. *Sizes for IPS PVC larger than 16" are not available.

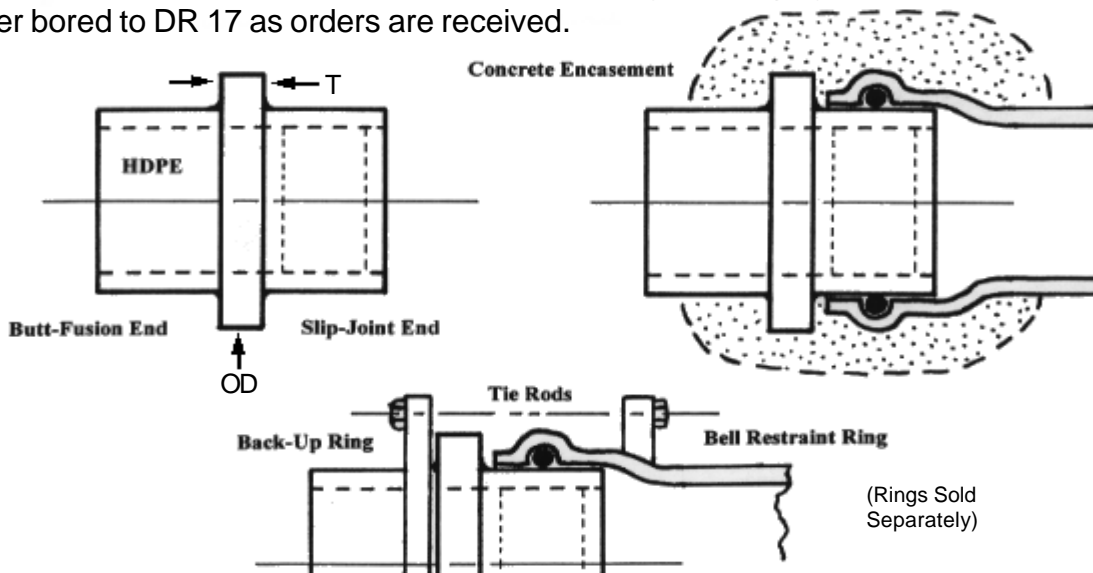


PVC Slip Joint Anchor Fittings IPS, DIPS, IPS To DIPS, DIPS To IPS Connects HDPE to PVC

Pressure Rated for DR Ordered

(Dimension in Inches)

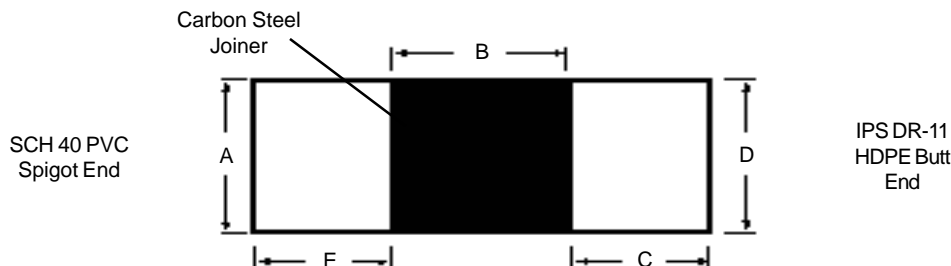
The PVC pipe slip joints must be restrained against thermal contraction and pressure thrust separation with its resultant leakage. By using the wall-pipe and anchor-ring designs (which have been around a while) and by following the PPI recommendation to use a stiffener under gaskets, we now offer the restrained PVC-SJA Fitting. The fitting is inventoried in DR 11 and counter bored to DR 17 as orders are received.



Nominal Size IPS & DIPS	OAL	OD	T	DR	Weight (lbs)
2" IPS	11.50	3.50	1.00	11-17	3
3"	11.50	4.50	1.00	11-17	4
4"	11.50	6.63	1.00	11-17	5
6"	12.50	8.63	1.00	11-17	8
8"	13.78	10.75	1.28	11-17	16
10"	14.29	13.25	1.54	11-17	25
12"	15.91	15.38	1.91	11-17	40
14"	Sizes 14" and larger are designed per the type of PVC to be connected. Information regarding the PVC pipe manufacturer and series of pipe will be needed for production.			11-17	TBD
16"				11-17	TBD
18"				11-17	TBD
20"				11-17	TBD
24"				11-17	TBD



IPS HDPE x SCH 40 PVC Transition Fitting Connects HDPE to PVC (Dimensions in Inches)



IPS Nom. Size	A Coupling Diameter	B Coupling Length	C HDPE Length	D HDPE Diameter	E PVC Length	Weight
1/2"	1.000	2.0	3.0	.840	3.0	.05
3/4"	1.250	2.5	4.7	1.050	4.7	1
1"	1.315	3.0	4.5	1.315	4.5	1
1-1/4"	1.660	3.5	4.2	1.660	4.2	1
1-1/2"	1.900	4.0	4.0	1.900	4.0	1.5
2"	2.375	4.0	6.0	2.375	6.0	1.5
3"	3.500	5.0	5.5	3.500	5.5	3
4"	4.500	6.0	5.0	4.500	5.0	5
6"	6.625	8.0	9.0	6.625	9.0	10
8"	8.625	9.0	10.5	8.625	10.5	18

Pressure rating is designated by PVC used in fitting.

SCH 80 PVC and/or Stainless Steel design available for additional charge.

Other sizes and DR's not listed are available - Call For Quick Quote

Note: End user to provide cathodic and/or corrosion protection of metal collar.



Information on HDPE and Stiffeners

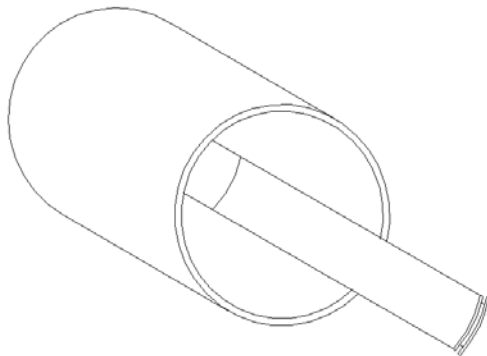
Occasionally, it is convenient to connect HDPE pipe with a mechanical ring or clamp type device. These connections must have stiffeners under both the gasket and the clamp restrainer.

The long-term apparent strength of HDPE is about 35,000 psi versus the short-term strength of over 100,000 psi. Thus, the long-term pipe stiffness to resist radial gasket loading is lower over time. The pipe “creeps” in compression. Creep is defined as the permanent deformation of an object subject to constant stress. As the gasket constantly presses on the pipe, the pipe becomes slightly smaller over time, thus reducing the gasket pressure and its ability to hold a seal. The pipe may even pull out due to contraction. Additionally, the radial gasket pressure causes the polyethylene pipe wall to indent, thus developing tensile stress on the pipe ID. High tensile stress in localized areas has been known to cause Environmental Stress Cracking in some HDPE pipes.

It is the policy recommendation of The Plastic Pipe Institute that all polyethylene pipes, subject to radial gasket loads or external OD clamps, be supported by internal stiffeners. The stiffener pinches the HDPE pipe between itself and the gasket or clamp. The polyethylene pipe wall is now in compression between the two. Polyethylene pipe does not fail in compression - all of the molecules are being squeezed together. The stiffener changes the state of stress in the HDPE pipe from tension to compression. **The stiffener must be under the gasket and clamp!**

Caution: The Stiffener and Clamp Ring should be sufficiently wide to develop a compressive stress in the range of 500 psi to 800 psi. Higher compressive stress will be dissipated by movement or deformation. Radial lug nuts or radial bolts penetrating into the HDPE pipe wall is not good for HDPE pipe and may potentially cause environmental stress cracking. Use one wide, serrated or knobby ID restrainer or a number of clamps, to keep the radial stress within HDPE bearing load capability. The project engineer should design this type joint to handle pressure end-thrust as well as thermal contraction. Call us for details.

See following page for Drive In Stainless Steel Stiffeners for HDPE pipe.



Wedge Expanding Drive In Stainless Steel Stiffener For HDPE Pipe

Constructed of ASTM 240, T304 stainless steel.

Exact DR of HDPE is required when ordering.

Nominal Size IPS & DIPS	OAL	DR	Weight (lbs)
2" IPS	6.00	7-17	1
3" IPS	6.00	7-17	1
4"	6.00	7-21	2
6"	8.00	7-21	3
8"	8.00	7-32.5	4
10"	8.00	7-32.5	5
12"	8.00	7-32.5	6
14"	8.00	7-32.5	7
16"	8.00	7-32.5	8
18"	8.00	7-32.5	9
20"	8.00	7-32.5	10
22" IPS	8.00	7-32.5	14
24"	8.00	7-32.5	18

All stiffeners are rolled per order - stiffeners are noncancelable and nonreturnable.
Other sizes are available - Call for Quick Quote