

HDPE Series

Shurjoint offers a series **HDPE** couplings and adapters for joining HDPE pipe. The use of HDPE (high density polyethylene) pipe continues to grow in popularity as its benefits over traditional materials are realized in a variety of service applications. The benefits of an HDPE pipe system include a longer service life, increased flexibility, reduced weight, increased resistance to corrosion, chemicals, and fatigue, as well as superior flow characteristics. HDPE is now commonly used in service applications including municipal water and waste water, water distribution and transport, mining, slurry and many other general and industrial applications.



Shurjoint HDPE couplings provide a fast and easy way to mechanically join HDPE pipe. A series of sharply machined teeth securely grip the pipe as the bolts are tightened, resulting in a leak-free joint. The **Shurjoint** joining method eliminates the need for costly heat fusion equipment. The highly restrained joint allows long lengths of pipe to be pulled from one area to another. With the removal of a few bolts one can easily access the system for cleaning, maintenance, changes and or system expansion.

Shurjoint HDPE couplings are designed to join IPS HDPE pipe, DR32.5 to 7.3, conforming to ASTM D2513, D3350 and or ANSI/AWWA C901 and ISO HDPE pipe, SDR 9 to 26, conforming to ISO 4427-1/2.

As the ductile iron coupling is much stronger than HDPE pipe itself, pressure ratings of HDPE couplings are determined by the pressure rating of HDPE pipe used. Pressure ratings of HDPE pipe vary depending on DR or SDR (standard dimension ratio) and design stress of the material.

Table 1 Pressure Ratings (psi) - IPS Size

Pipe Dimension Ratio (DR)	PE4710 PE100	PE3608 PE3408
DR 7.3	317	265
DR 9	250	200
DR 11	200	160
DR 13.5	160	130
DR 17	125	100
DR 21	100	80
DR 26	80	65
DR 32.5	63	50

Design stress: PE4710 1000 psi, PE3608 & 3408 800 psi

DR (Pipe Dimension Ratio) $DR = \frac{D}{t}$

Where:

D = pipe outside diameter, in

t = pipe minimum wall thickness, in

Table 1a Pressure Ratings (Bar) - ISO Size

Pipe Dimension Ratio (SDR)	PE100	PE80
SDR 9	20	16
SDR 11	16	10
SDR 17	10	6.3
SDR 26	6.3	4

Design Stress: PE100 8.0 MPa, PE80 5.0 MPa

SDR (Standard Dimension Ratio) $SDR = \frac{D}{t}$

Where:

D = pipe outside diameter, mm

t = pipe minimum wall thickness, mm

How to install



Marking Use a marking pen or other marking tool and measuring tape to mark the pipe ends at the measurement listed in the below table 2 & 2a. This mark will be used for reference in centering the gasket during installation. A minimum of 4 marks equally spaced around the pipe are recommended.



Use a marking pen or other marking tool and measuring tape to mark an additional mark on the pipe ends at the measurement listed in the "Coupling Centering Marks" column of the below table 2 & 2a. This mark will be used for visual inspection to make sure the pipe is inserted properly in the coupling. Make these marks parallel to the marks from the gasket centering reference marks.

Table 2 H305 – IPS Size

Nominal Size in/mm	Gasket Centering Reference Marks in/mm	Coupling Centering Reference Marks in/mm
2 50	7/8 22	2-5/16 58
3 80	7/8 22	2-5/16 58
4 100	7/8 22	3 75
6 150	1 25	3 75
8 200	1-1/16 26	3-1/16 77
10 250	1-1/16 26	3-1/4 83
12 300	1-1/16 26	3-9/16 90
14 350	1-7/16 36	5-1/8 129
16 400	1-7/16 36	5-1/8 129
18 450	1-7/16 36	5-1/8 129
20 500	1-5/8 40	5-1/8 129

Table 2a H305 – Metric Size

Nominal Size mm	Gasket Centering Reference Marks mm	Coupling Centering Reference Marks mm
50	22	53
63	22	53
75	22	53
90	22	53
110	22	56
160	25	59
180	25	59
200	26	64
50	22	53
63	22	53
75	22	53
90	22	53
110	22	56
160	25	59
180	25	59
200	26	64
225	26	64
250	26	67
280	26	67
315	26	67
355	37	129
400	37	129
450	37	129
500	37	131



INSTALL GASKET Place a gasket over the pipe ends and center the gasket in between the first set marks. The pipe ends should always be butted against each other.

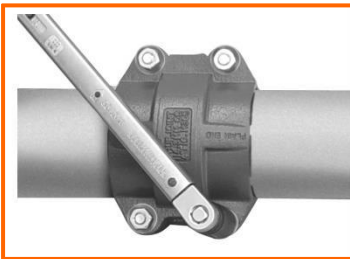


MOUNT HOUSINGS Lubricate the gasket and or housings and place the housings over the gasket, ensure the gasket stays centered between the first set marks made on the pipe ends and the housings are properly centered between the second set marks. Also make sure that housing tongue and groove (T&G) mate correctly.



INSERT BOLTS & NUTS Insert the bolts. Install a washer onto the end of each bolt. Thread a nut onto each bolt and apply nuts hand tight. Make sure that the oval neck of the bolt engages into the bolt hole of the housing.

Note: Washers are available for the sizes up to 12".



TIGHTEN NUTS Tighten nuts alternately and equally until the bolt pads meet and make metal-to-metal contact. Repeated alternate tightening will reduce tightening torque considerably. Tighten nuts by another one quarter to one half turn to make sure the bolts and nuts are snug and secure. The use of a torque wrench is usually not required.



Refer to the **Shurjoint** installation instruction manual for complete instructions. **Shurjoint** HDPE couplings are not intended for use on PVC, PP or other materials. Do not use standard soap based lubricant on HDPE pipe. **Shurjoint** recommends the use of a silicone based lubricant with the HDPE series. In order to avoid injuries from the sharp machined teeth, wear gloves when handling.