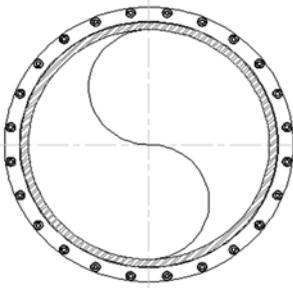


Joining Plain End HDPE Recommendations

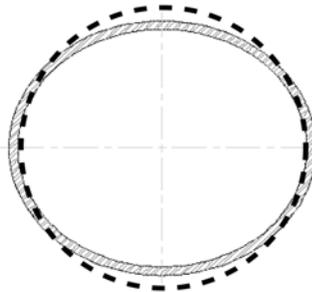
JCM Industries recommends fusion as the primary method to join plain end HDPE. However, logistics of the job site can eliminate this process as a option and mechanical, bolted fittings are selected. To effectively join plain end HDPE pipe with mechanical bolted fittings, JCM recommends two additional elements which are critical to a successful, permanent application.

First, stiffeners should be inserted into the HDPE pipe ends. Stiffeners reinforce the pipe and prevent “necking down” under compression of the bolted fitting. They also bring cut HDPE into “round” to better match the bolted fitting (coupling, flanged adapter, dismantling joint, etc.). Mechanical fittings are manufactured within certain tolerance dimensions. Out of round pipe that goes beyond the tolerance will not insert into the bolted fitting correctly and will set up the application to fail.

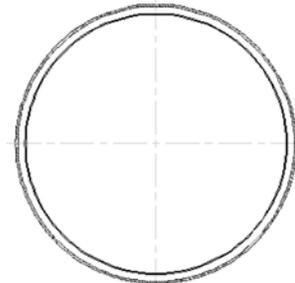
Secondly, standard bolted fittings do not provide for lateral or linear movement of the pipe. Applications in which pipe may move or pull out of the bolted fitting must be restrained. Correct anchorage of the pipe must be provided to prevent the pipe from moving or dislodging (interrupting the gasket compression/watertight seal on the pipe wall). During installation and exposure to temperature fluctuations, the thermal expansion/contraction characteristic of HDPE can disturb the installation application.



Mechanical Bolted Fittings are manufactured to certain “fit” tolerances (i.e. round +/- xx)

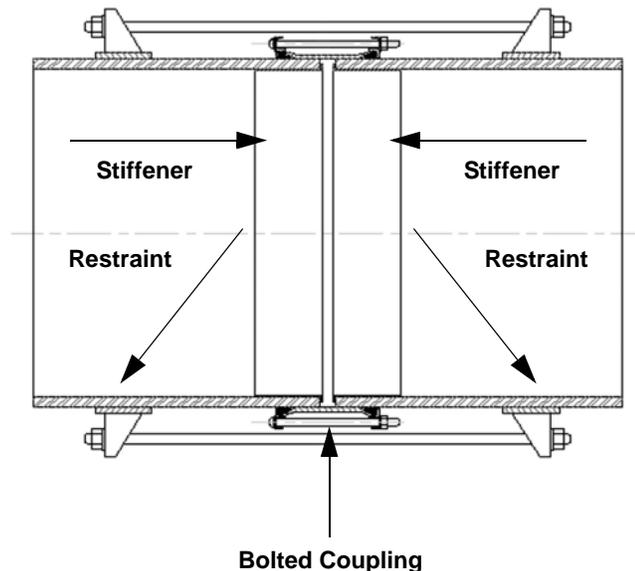


Field cut HDPE can experience an “egging or necking down” and be out of round beyond mechanical fitting tolerances.



Installation of stiffeners brings pipe “into round” and pipe provides good fit for mechanical fitting.

Example of a typical installation of a bolted mechanical coupling joining to pieces of plain end HDPE incorporating the use of pipe stiffeners and mechanical external restraints.



For product selection and installation recommendation assistance, contact JCM Industries Sales Team at 1-800-527-8482 or 903-832-2581, sales@jcmind.com

JCM 230 and 231 HDPE Pipe Stiffeners Advanced Design Provides...

- Corrosion Resistance
- Rigid Reinforcement of Pipe Wall for Pipe Connections
- Accurate Pipe I.D. Sizing maintains proper Outside Diameter
- 1/8" Tapered Insert End provides for Easy Installation
- 90° 1/8" Flared End Secures Stiffener to End of Pipe
- Positive Reinforcement without interference



JCM HDPE Pipe Stiffeners are designed to support the interior wall of HDPE for critical pipe joining applications. Recommended for all pipe end connections utilizing mechanical bolt-on fittings, the JCM Pipe Stiffeners support the pipe's end and controls the "necking down" reaction to the pressure applied during normal installation of fittings used in pipe joining applications.

The JCM HDPE Pipe Stiffeners are formed of stainless steel, 304 or 316 material, to the **actual inside pipe diameter provided by the customer**. This accurate formation provides for ease of installation and maintains the proper outside diameter for a successful, trouble free application that provides long-term service.

JCM Pipe Stiffeners are available for Steel Size and Ductile Iron Size HDPE in SDR11,13.5, 17, 21, 26, 32.5
JCM Pipe Stiffeners Material Specifications: ASTM - 240 - TP 304 Stainless Steel or 316 Stainless Steel

Nominal Pipe Size	230 Stiffener 6" Width xxxx (add pipe I.D.)	231 Stiffener 12" Width xxxx (add pipe I.D.)
4	230-04-xxxx	231-04-xxxx
6	230-06-xxxx	231-06-xxxx
8	230-08-xxxx	231-08-xxxx
10	230-10-xxxx	231-10-xxxx
12	230-12-xxxx	231-12-xxxx
14	230-14-xxxx	231-14-xxxx
16	230-16-xxxx	231-16-xxxx
18	230-18-xxxx	231-18-xxxx
20	230-20-xxxx	231-20-xxxx
22	230-22-xxxx	231-22-xxxx
24	230-24-xxxx	231-24-xxxx
30	230-30-xxxx	231-30-xxxx
36	230-36-xxxx	231-36-xxxx

Smallest I.D./O.D. available 3.65 - Sizes larger than 36" available upon request
Stiffeners provided as 304 Stainless Steel. Optional 316 Stainless Steel available.

Nominal Size Stiffeners 4" - 22" are 17 Gauge Stainless Steel Material

Nominal Size Stiffeners 24" - 36" are 12 Gauge Stainless Steel Material

Note: JCM recommends fusion joints as a primary method of connection. Mechanical fittings are a secondary and limiting choice. JCM 230 Pipe Stiffeners are designed for use with mechanical couplings, clamps and fittings where stiffening of the pipe is necessary for proper gasket seal. Caution needs to be taken to prevent (1) shear loading on the joint, (2) migration of the stiffener out of the end of the pipe from lack of a back load on stiffener rim or load on the stiffener. Applications in which pipe may move out of the fitting, correct anchorage of the pipe must be provided.