



JCM 203 Steel Transition Couplings Installation Instructions

1. Clean pipe surface of all dirt, rust, mud or loose scale from pipe ends. Inspect the pipe ends where gaskets will contact the pipe for any gouges, grooves, irregularities or imperfections that will interfere with the gasket seal. Measure both of the cleaned pipe diameters to confirm proper size/range capability of coupling for application. Inspection of the pipe's integrity for product application is the responsibility of the end user. ***TIP*** *Difficult to reach or cramped areas on the backside or underside of the pipe can be visually checked by using a mirror.*
2. Measure back on each pipe end one-half of the middle ring length plus two inches and place a reference mark. These marks will be a visual reference point for centering the middle ring over the joint. ***TIP*** *Couplings perform at optimal effectiveness when centered over joint area.*
3. Install follower rings, then gasket onto the pipe ends. **NOTE:** Flat side of the gasket face meets the follower ring, the tapered side inserts into the middle ring. ***TIP*** *To ease installation gaskets and pipe should be lubricated with water or soapy-water mixture. Alcohol may be added to water in freezing weather. **DO NOT** use pipe lubricant or grease based products to lubricate.*
4. Install middle ring on one pipe end. Insert other pipe end into middle ring and center the middle ring over the joint, between the reference marks. **Lift the middle ring to insure that the gaskets are evenly centered in the ends.** Center follower rings on the pipe to ensure even gasket compression into the middle ring. ***TIP*** *Use of short shims will assist in keeping the follower centered on the pipe and can be removed as bolts are tightened.*
5. Torque coupling bolts on opposite sides, using a star rotation pattern, drawing up the followers evenly until all bolts have been tightened to a minimum of 75 foot pounds of torque. For stainless steel hardware, see reverse.

NOTES: On joints that do not permit centering of the coupling, the pipe ends must be inserted past the end of the gasket a minimum of one and one-half (1-1/2") inch.

For applications with deflection or offset pipe ends, the pipe end must be inserted a minimum of one and one-half (1-1/2") inch past the end of the gasket after the deflection/offset has occurred. Do not exceed a recommended 4° of pipe deflection with the coupling without inspecting the centering and sealing of the gasket in the middle ring and follower ring. Excessive deflection will cause the gasket to improperly seal.

IMPORTANT: Standard couplings do not provide for axial pipe movement. In applications in which lateral pipe pull out may occur, pipe restraint must be provided. See fitting manufacturer recommendations for applications on High Density Polyethylene Pipe.

INT203-0207



Recommendations For Installation Of Fittings With Stainless Steel Bolts And Nuts

This JCM Quality Fitting is equipped with 18-8 stainless steel bolts and nuts for superior corrosion resistance. It is the nature of stainless steel fasteners to gall and freeze if not properly handled. This undesirable characteristic is due to the inherent properties of the stainless material. The galling and freezing action is often triggered by the presence of metal chips, burrs and grains of sand on the threads of the bolts and nuts.

Extra care has been taken by JCM prior to assembly and packing of this fitting to assure a trouble-free installation.

1. The nuts and bolts are made from material of different hardness so that they have different strengths.
2. The nuts are coated with a special (antiseize) coating.
3. Each nut is assembled by hand to be sure that it went on the bolt freely.
4. The bolts and nuts are handled carefully to avoid damage to the threads.
5. The bolts and nuts are made to exacting specifications to assure that the correct material is used and that the thread form is correct.

However, it must be pointed out that during field installation, the threads **MUST BE KEPT CLEAN AND FREE FROM NICKS.**

When a mild steel or bronze bolt is used, the low ultimate strength of the material allows the nut to tear itself free. Not so with 18-8 Stainless Steel. The ultimate strength of the material is so great, that it increases rapidly with cold work. However, once foreign matter such as a grain of sand wedges the threads, or the thread form is altered by over-torquing, the nuts cannot be removed.

The specially coated nuts supplied by JCM help to eliminate the galling caused by overtightening, but **the bolts must be kept clean and not pitched or thrown into the tool bucket during installation. Should additional lubrication be required, a Molybdenum-Base lubricant is recommended.**

NOTE: Installation of this fitting with a pneumatic wrench may cause seizure of the nut. **A JCM 901 Master Wrench or JCM 905 Torque Wrench with Deep Socket is recommended.**