SOILEAU INDUSTRIES

WARNING

Soileau Industries, Inc., does not recommend the use of thermoplastic piping products for systems to transport or store compressed air or gas, or the testing of thermoplastic piping systems with compressed air or gases in any situation. The use of our product in compressed air or gas systems automatically voids our warranty, and its use is entirely the responsibility and liability of the user. Great bodily injury and possible death can result from the eruption of thermoplastic piping products used in systems for compressed air or gases. Soileau Industries Inc., will not accept responsibility for damage or impairment of its products, or other consequential or incidental damages caused by misapplication, incorrect assembly, and/or exposure to harmful substances or conditions.

INSTALLATION INFORMATION

Thermoplastic piping systems should be engineered, installed, and operated in accordance with established engineering standards and procedures for thermoplastic piping systems.

SOLVENT WELDING – use a quality grade of primer and solvent cement formulated for the type of connection, with an applicator 1/3 the diameter of the pipe. Read and follow all of the solvent cement manufacturer's application instructions.

THREADED CONNECTIONS – only use a quality grade of Teflon tape for use in joining plastic threaded connections.

GASKET CONNECTIONS – Gasket area and pipe or spigot end should be clean and free of dirt and debris. Do not attempt to remove the formed-in gasket (Figure 1). Lubricate the entire sealing surface of the gasket and the pipe or spigot end with a light coating of a suitable lubricant (Figure 2). Push the pipe or spigot end into the gasket bell while maintaining a straight alignment. The proper insertion depth is equal to the total gasket bell length minus one-half inch (1/2") (Figure 3)

Figure 1

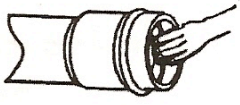


Figure 2

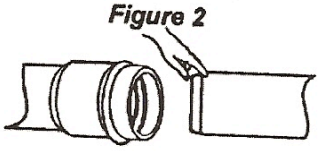
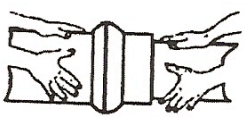
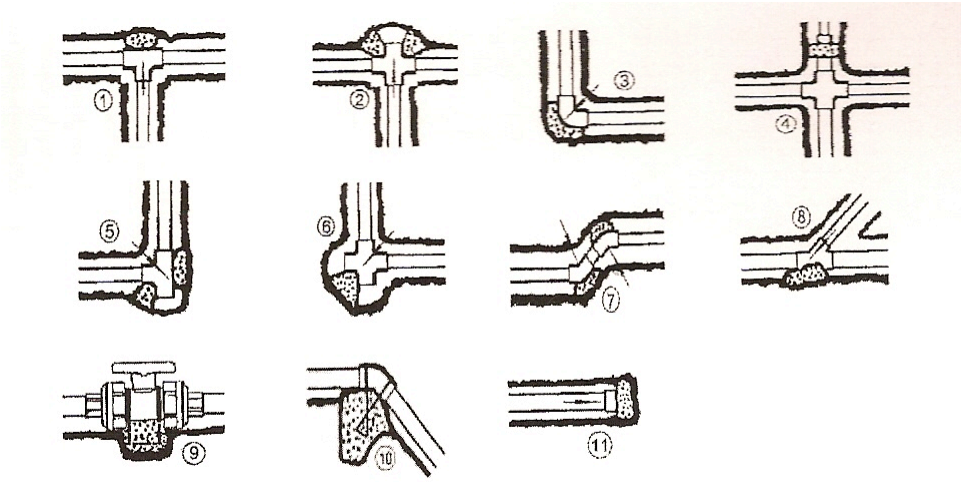


Figure 3



THRUST BLOCKING – Water under pressure exerts thrust forces in piping systems. Thrust blocking should be provided, as necessary, to prevent movement of pipe or appurtenances in response to thrust.

Types of thrust blocking:
1. Through line connection, tee
2. Through line connection, cross used as tee
3. Direction change, elbow
4. Change in line size, reducer
5. Direction change, tee used as elbow
6. Direction change, cross used as elbow
7. Direction change
8. Through line connection wye
9. Valve anchor
10. Direction change vertical, bend anchor
11. End caps (above or below ground)



Thrust blocking is required wherever the pipeline:
- Changes direction (e.g. tees, bends, ells, and crosses)
- Changes size at its reducers
- Stops, as at dead ends
- Valves and hydrants, at which thrust develops when closed

Size and type of thrust blocking depends on:
- Maximum system pressure
- Pipe size
- Type and size of fittings or appurtenances
- Line profile (horizontal or vertical bends)
- Soil type

FLANGE CONNECTIONS – Once a flange is joined to pipe, the method for joining two flanges is as follows:

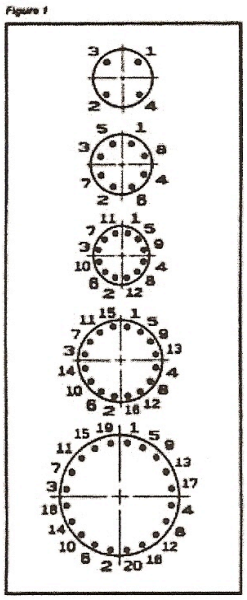
(A) Piping runs joined to the flanges must be installed in a straight-line position to the flange to avoid stress at the flange due to misalignment. Piping must also be secured and supported to prevent lateral movement, which can create stress and damage the flange.

(B) With gasket in place, align the boltholes of the mating flanges by rotating the ring into position. (Consideration should be given to alignment of one-piece flange prior to joining with pipe.)

(C) Insert all bolts, washers (two standard flat washers per bolt) and nuts

(D) Make sure the faces of the mating surfaces are flush against gasket prior to bolting down the flanges.

(E) Tighten the nuts by hand until they are snug. Establish uniform pressure over the flange face by tightening the bolts in 5-ft lbs. increments according to the sequence shown in Figure 1 following a 180° opposing sequence.



Flange Size	Recommended Torque (ft.Lbs)
½ - 1 ½	10 - 15
2 - 4	20 - 30
6 - 8	33 - 50
10	53 – 75
12	80 – 110
14 - 24	110

(F) Care must be taken to avoid “bending” the flange when joining a flange to a “raised face” flange, or a wafer-style valve. Do not use bolts to bring together improperly mated flanges.

CAUTION: Unnecessary over-torquing will damage the flange.

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IMPORTANT

WATER HAMMER – Soileau Industries Inc., recommends that all PVC and CPVC plastic piping systems be designed and constructed to AVOID EXCESSIVE WATER HAMMER. Water hammer can cause damage and failure to pipe, valves, and fittings within the piping system.

NOTE – When temperatures rise above 73°F, the tensile strength of thermoplastics decreases, thereby derating the pipe or fitting Maximum Internal Pressure. When temperatures fall below 73°F, the tensile strength of thermoplastics increases. However, the impact strength decreases. Maximum operating temperatures for PVC piping systems should not exceed 140°F (110°F threaded systems). Maximum operating temperatures for CPVC piping systems should not exceed 200°F (150°F threaded systems).