## Reliable Connections

## Installation Instructions

1. Clean pipe ends and remove any metal burrs, loose scale, rust or dirt that might impair the performance of the seal. Apply soapy water to the gaskets (ethylene glycol may be added in freezing weather).
2. Loosen nut about one-quarter turn to relieve gasket pressure and stab pipe end to full entry.
3. Tighten nut.

Utilizing a wrench of recommended size apply 100 lbs. of force for Lock End fittings and 75 lbs . of force for Insulated or Non-Insulated fittings while holding the valve body to prevent rotation. Force to tighten is dependent on wrench size.
Recommended wrench sizes for use with style 90 Valve ends:

| Nominal Steel Pipe Size (I.D.) | Recommended Wrench Size |
| :---: | :---: |
| $3 / 8^{\prime \prime}$ | $10 \prime$ |
| $1 / 2^{\prime \prime}$ | $14 "$ |
| $3 / 4 "$ | $14 \prime$ |
| $1 "$ | $18 "$ |
| $1-1 / 4 "$ | $18 "$ |
| $1-1 / 2^{\prime \prime}$ | $24 \prime$ |
| $2 "$ | $24 \prime$ |

4. Style 90 ends are recommended for maximum operating temperature of $150^{\circ} \mathrm{F}$. and 175 psi.
5. Style 90 Lock Ends may be used for restraint against internal line pressure up to $150^{\circ}$ psi.

## NOTICE

Insulated, Non-Insulated and Lock End Style 90 Valve Ends, as illustrated,
 are restricted to use on metal pipe only. Style 90 Valve Ends are designed and recommended to provide only a seal in a pipe joint. There is no provision in design or manufacturing of these Valve Ends to resist longitudinal pullout forces or thrust forces. The end user is responsible for providing adequate pipe anchorage where pipe movement out of the valve ends might occur.
For recommendation as to use on pipe other than steel, consult Mueller Co.

## Phone: (800) 798-3131

By deviating from the above listed instructions, you will void any product warranty and release Mueller Co. and its affiliated entities from any and all liability associated with the installation or use of this product. For details on the product's warranty, terms, and conditions, please visit www.muellergas.com.
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