



## V-Cone Installation Guide

### Upstream and Downstream Minimum Straight Pipe Run Requirements

For Gas Metering at a  
Reynolds Number (Re) Value > 200,000

**For  $\beta$  greater than or equal to 0.70 add 1D**

Size Range	Obstruction	Up Stream	Down Stream
All Sizes	1 Elbow	1D	1D
	2 Elbows	1D	1D
	Tees	1D	1D
	Butterfly Valve (control valve)	Not Preferred Position	Valve Downstream 1D
	Butterfly Valve (shutoff valve)	2D	1D
	Full port Ballvalve (shutoff)	1D	1D
	Heat Exchanger (Depends on Type)	1D	0D
	Expander (0.67D to D) over a length of 2.5D	2D	1D
	Reducer (3D to D) over a length of 3.5D	0D	0D

Note: The meter and adjoining pipe should have equal IDs.