

Integral Meter Run Assembly



An Integral orifice assembly or Integral meter run assembly is a specially designed prefabricated meter run used when a high accuracy in flow measurement is required for extremely small flow rates. It is also used when differential pressure transmitter is to be directly mounted on the assembly. This eliminates the cost of installation of differential transmitter with impulse piping to the orifice assembly. It is used for line sizes 2" and below. There is a temperature limit of the transmitter hence it cannot be used for process temperature above 120° C. The assembly generally consists of orifice plates between two integral blocks having corner taps. Generally meter run pipe is recommended with upstream length of 750 mm and downstream length of 250 mm. The pipes are welded to the blocks with end flanges.



Meter Runs



Meter runs are used for the measurement of small flow rates precisely where high accuracy of flow rates is required. They are generally supplied as a unit normally of 1M length to ensure the necessary straight pipe length to achieve highest possible accuracy.

Types of Meter Runs

- Orifice Flange union with Meter Run.
- Orifice Flange union with Carrier ring and Meter Run

Generally meter run pipe is recommended with upstream length of 750mm and downstream length of 250mm. These are available in line sizes mostly below 50mm. However Meter run sizes above 50mm are also available as per customer process requirements.

We comply Meter Tube internal Diameter Roundness Tolerance, in strict accordance as per American Gas Association Report No 3 Part 2

Any internal diameter measured in distance one pipe diameter will be less than 0.25% of the mean diameter for the upstream side

$$\left| \frac{[\text{Any diameter within One D}] - D \text{ Mean} \times 100}{D} \right| \leq 0.25\%$$

Also the percentage difference between the maximum and minimum measured internal diameter through all upstream meter tube will be less than 0.5%

$$\frac{\text{Maximum Diameter} - \text{Minimum Diameter} \times 100}{\text{Mean D}} \leq 0.5\%$$

For the down stream side any internal diameter measured will be less than 0.5% of the mean diameter for the down stream side

$$\left| \frac{[\text{Any down stream diameter D}] - D \text{ Mean} \times 100}{D} \right| \leq 0.25\%$$

