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Flowmeter Installation Guide

The GL Flow range of Turbine Flowmeters has been designed for a range of industrial and scientific applications on both liquid and gas flow.

General Information

It is important that the flow is in the direction of the arrow on the meter. The meter is calibrated in this direction.

The performance of the meter is entirely dependent upon the method of installation and all the information in GL Flow's Data Sheet are based on correct installation. We therefore, recommend that the following information be adhered to.

Meter Protection

GL Flow strongly recommends the use of inline strainers for meter protection. With new pipe work systems, it is good practice to fit temporary strainers, which can be removed after commissioning. The degree of filtration required depends on the size of the flowmeter. The following is a guide to assist in the choice of filtration.

Bore Size Flowmeter inches	Bore Size Flowmeter millimeters	Filter Size Strainer micron
1/2"	13	50
5/8"	16	50
3/4"	19	100
1"	25	100
1 1/2"	38	150
2"	50	200
3"	75	200
4"	100	400
6"	150	600



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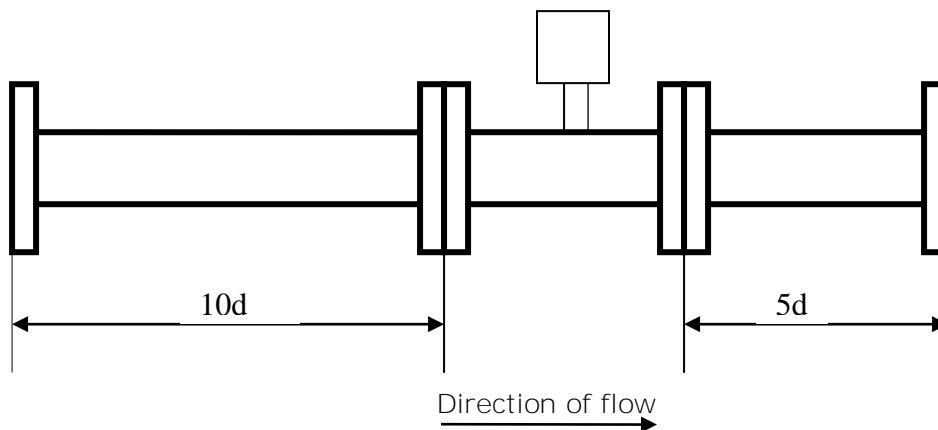
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Installation

The pipe before the meter should be at least equivalent to $10d$, in length (where d = nominal bore of Flowmeter), and a length of similar pipe equal to $5d$ should be installed downstream of the Flowmeter, with no control valves, pipe bends, intersections or intrusions into straight lengths.



Where the diameter of the Flowmeter is less than that of the existing pipe work, it is recommended that the upstream and downstream sections terminate with concentric reducers.

Flow Straighteners

It is always preferable with any metering installation that the upstream sections should include Flow Straighteners.

High Temperature Applications

For temperatures in excess of $230\text{ }^{\circ}\text{C}$ ($450\text{ }^{\circ}\text{F}$) with liquid turbine flowmeters, a high temperature pick-up will be fitted.

For gas turbine flowmeters the temperature is restricted by the bearings and should not exceed more than $180\text{ }^{\circ}\text{C}$ ($356\text{ }^{\circ}\text{F}$)

Maintenance

Under normal operating conditions, the flowmeter bearings are suitable for 20,000 to 30,000 hours.

However, in the interests of reliability it is recommended that the bearings be examined at 12-month intervals.