

WATER METER GUIDELINES:

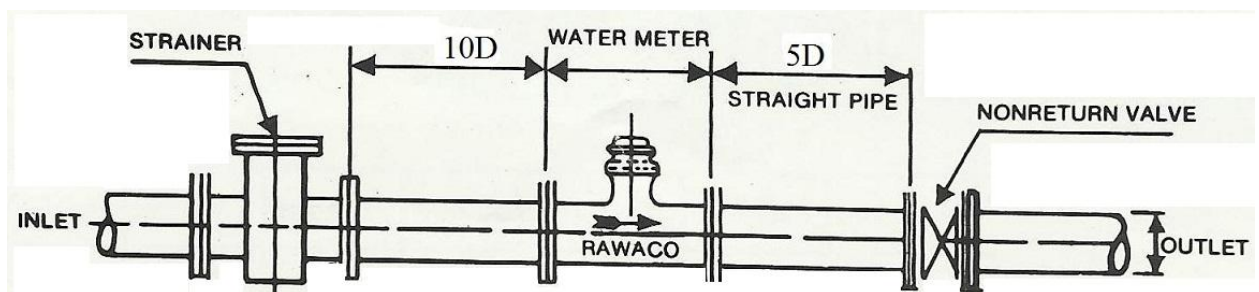
General Terms of Reference and Sizing:

- Maximum Flow is only for use in emergencies, for about 1-2 minutes as it causes the bearings to overheat.
- Minimum Flow only refers to the minimum flow required to operate and record on the meter. At these very low flow rates, the meter will not be accurate.
- All Water Meters should be sized between transitional flow (the point at which the meter is accurate) and nominal flow (everyday flow rate). Never use maximum flow as a basis for sizing the meter.
- The water meter being a delicate instrument shall be handled with great care. Rough handling including jerks or fall is likely to damage it and affects its accuracy.

Filtration:

- The meters are designed only for use with clean water. A filter is always recommended upstream of the meter if there are any concerns. The filter should also have straight pipe of at least 10x diameters of the pipe from the meter to allow the flow to settle again.

Installation:



- The water meter should be installed at a spot where it is readily accessible.
- The water meter should be located where it is not liable to get severe shock of water hammer which might break the system of the meter.
- Before connecting the meter to the water pipe, it should be thoroughly cleaned by installing in place of the water meter a pipe of suitable length and diameter and letting passage of fair amount of water flow through the pipe work to avoid formation of air packets.
- The preferred mounting position is horizontal with the dial facing upwards. Not to be mounted vertically. Never put the meter upside down or canted on its side as it will not function properly.
- Water Meters should always be fitted with a minimum of 10x pipe diameter up stream and 5x pipe diameter downstream. For Example, 4” (DN100) water meter would have 40” (1000mm) upstream of the meter as straight pipe and 20” (500mm) downstream of the meter as straight pipe. This is to ensure accurate reading by reducing water turbulence. At higher pressures (above 8 bar), this should be increased by 10x pipe diameter.
- Note that there is a direction of flow arrow on the meter. The water meter shall be so installed that the flow of water should be in the direction shown by the arrow cast on the body.
- It is recommended as good practice to install a strainer/filter before a water meter to protect the mechanism.
- The water used should not exceed the temperature specification of the meter.
- Remember that the meter must only be used for half of its maximum flow for constant use, maximum flow only being used for short periods of 1-2 minutes.
- The protective lid should generally be kept closed and should be opened only for reading the dial.

Maintenance of Water Meters:

The water meters are mechanical devices, which normally deteriorate in performance over time. The fact that the meter does not show outward signs of any damage and has a register that appears to be turning does not mean that the meter is performing in a satisfactory way. It is necessary to ascertain the following preventive cares for water meter after proper installation.

Preventive Maintenance:

- Proper handling, storage and transportation of water meters.
- To periodically clean the dirt box or strainer wherever installed.
- To replace the gaskets, if any.
- To clean the chamber where meter is installed and keep it free from flooding and seepage.
- To remove the meter from further internal repair/replacement if it does not show correct reading pattern.

Breakdown Maintenance:

- Replacement of broken glass, lid and fallen wiper (if any).

These are only basic breakdowns observed during periodical inspection. If a meter found not working or does not show correct reading pattern, then it shall be removed immediately and sent to the meter service workshop of the manufacturer for repairing.