



# TECNIDRO

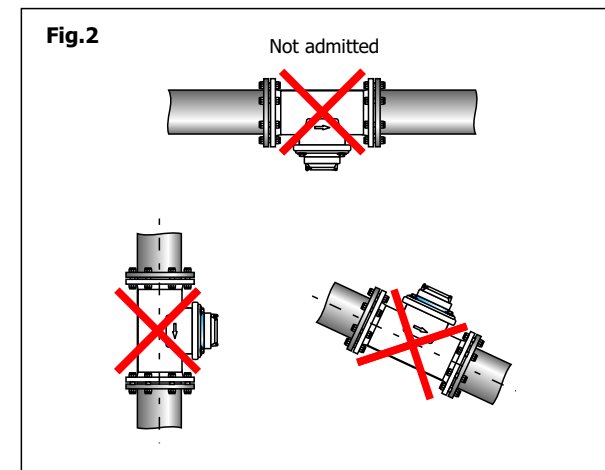
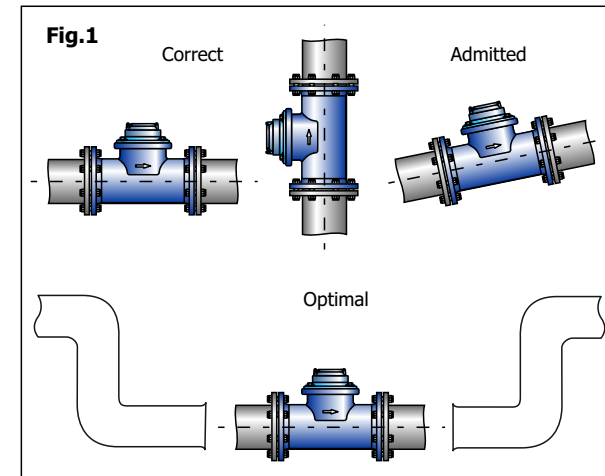


**Watermeters**

# Watermeter Installation

Tecnidro meters can be installed in pressure pipes, placed both horizontally and vertically or also in an oblique position if necessary (Fig.1).

The only installation positions not allowed are with flow direction descending or totalizer directed towards the bottom of the pipe (Fig.2).



The meter totalizer must be legible and accessible for any maintenance operations. For this purpose, the screen can rotate 360° around its axis (before sealing the cover), facilitating the reading of the totalized volumes (Fig.3).



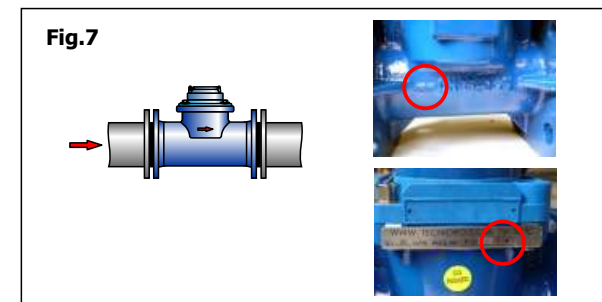
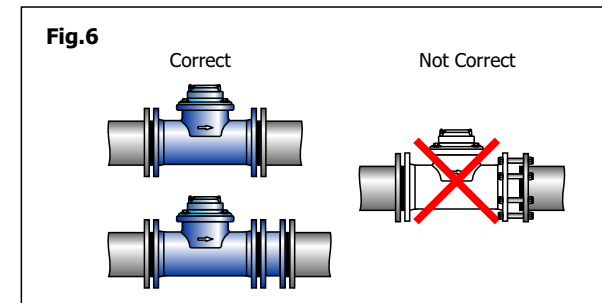
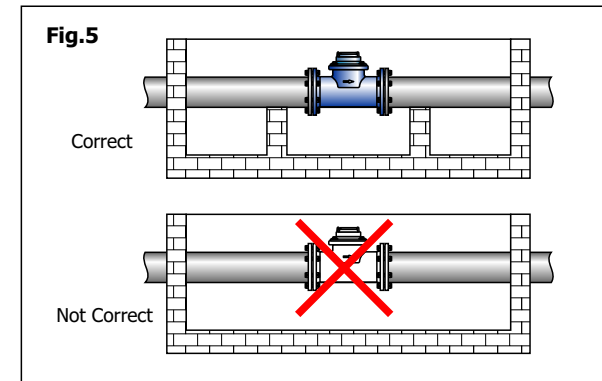
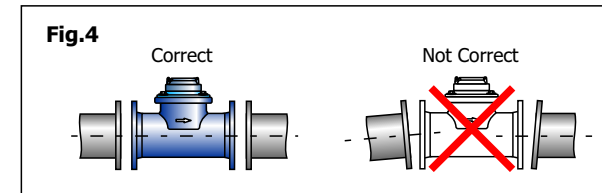
# Watermeter Installation

The inlet and outlet pipes must be perfectly aligned with the meter (Fig.4) so that the body is not subjected to mechanical bending stresses.

The pipes must never lean on the meter; in the case of aerial installation, the pipes must be fastened close to the meter (Fig.5).

The counterflanges must be perfectly parallel to the meter flanges and placed at a correct distance to allow the insertion of the meter and the sealing gaskets (Fig.6). When the meter is positioned between the flanges, if the remaining space is excessive, do not try to further tighten the screws, but compensate the excess space with sleeves or special adaptation pieces.

The flange screws must be tightened progressively and crosswise, using all the screws provided for the diameter and pressure class of the flange. The meter must be installed in the correct direction of flow following the arrow on the body or on the identification plate. (Fig.7).



# Watermeter Installation

The meters are factory calibrated to minimize measurement error during service, taking into account variations in instantaneous flow rate, internal and external temperature and water characteristics.

The connection parts to the pipe or the regulation/sectioning devices installed in the vicinity of the meter can generate excessive turbulence, even in some cases significantly compromising the measurement precision of the device.

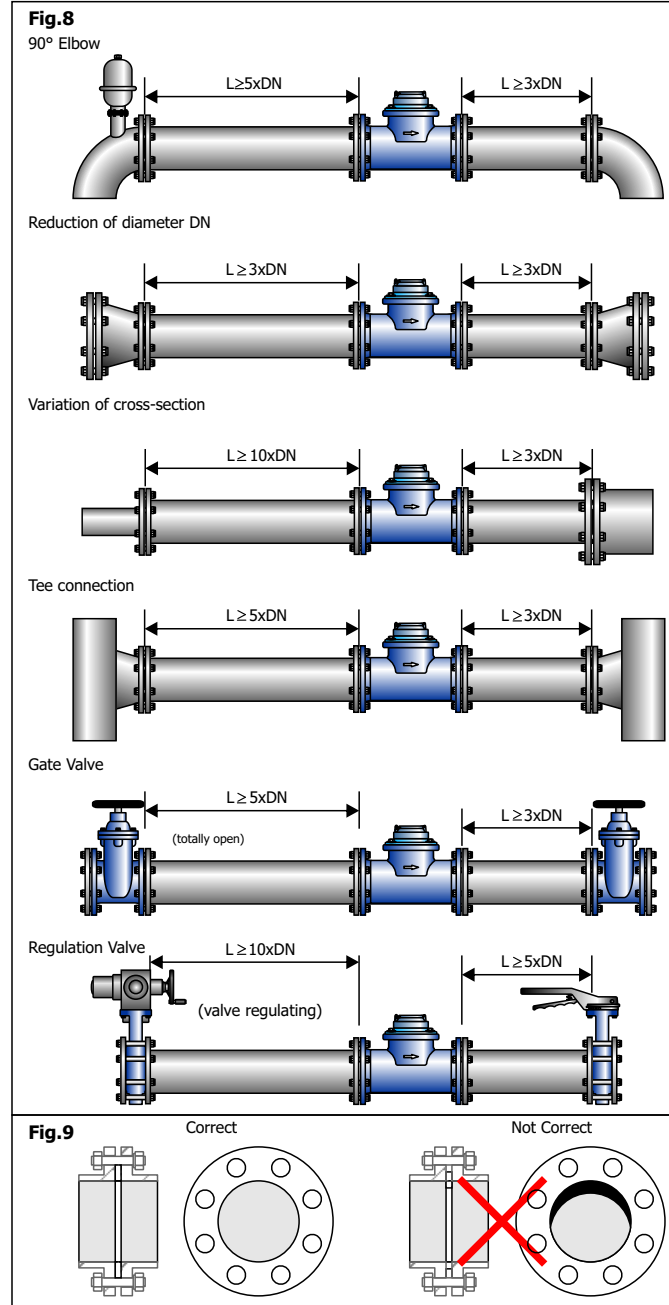
To avoid the negative influences of turbulence on the totalized volumes and in accordance with the prescriptions indicated by most international standards, the meters must be installed between two sections of straight pipe, upstream and downstream, and of the same internal diameter of the pipe (Fig.8).

The internal diameter of the pipe sections must be equal to the diameter of the meter and the sealing gaskets between the flanges must be centered without influencing the flow (Fig.9).

In the case of installation of a meter in the vicinity of valves or special connection pieces that can generate high turbulence, the length of the straight pipe sections must be increased

Unlike axial propeller meters, tangential meters do not require flow stabilizers to be installed before the device.

The performances indicated in the technical catalogs of tangential meters refer to the device installed in clean, cold water at +20°C and in laminar flow conditions.





## Additional notes

Large volumes of air trapped inside the piping during filling or entering the piping during service can damage the meter or influence the measurement. Upstream of the meter, air valves of appropriate capacity must be provided.

It is recommended to protect the network with mesh filters or other systems that prevent the access of foreign bodies.

In the case of installations at temperatures below +0°C, the meter must be protected from anti-frost systems or the pipes must be emptied during the cold season.

TECNIDRO Series watermeters are supplied sealed, with special seal and metal wire applied at the factory, for the best guarantee against fraud. Unauthorized tampering with the seal implies the decay of the warranty rights on the product.





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