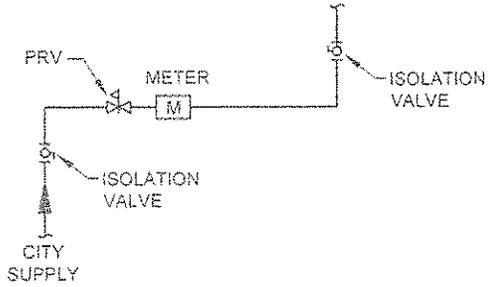
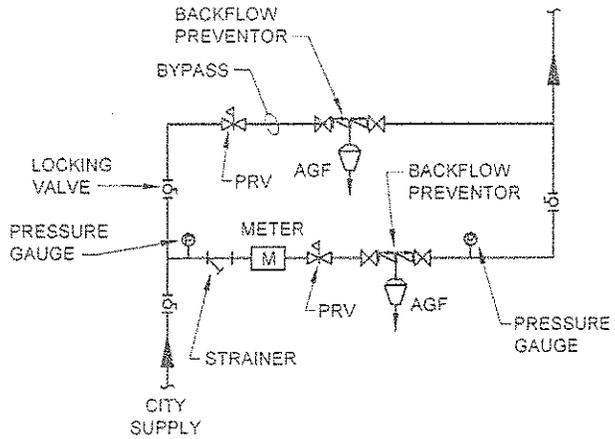


COMMERCIAL 3/4" - 2" DISC METERS



RESIDENTIAL METER



COMMERCIAL 2" - 6"
COMPOUND & TURBINE METERS

CHAPTER 2 INSTALLING THE TRU/FLO-COMPOUND

This chapter is designed to take you through the installation process for the TRU/FLO Compound meter.

INSTALLATION INSTRUCTIONS

All TRU/FLO Compound meters operate more accurately and reliably if installed properly. TRU/FLO Compound meter performance is directly related to the flow conditions of the water stream entering the meter. If the flow conditions are distorted as a result of upstream fittings or piping changes, the TRU/FLO Compound meter performance can be adversely affected.

For example, a properly installed meter with a length of straight pipe equal to 8 to 10 diameters immediately upstream of the inlet would register at 100%. The same meter installed with an elbow fitting immediately upstream of the meter will cause distortions in the flow stream conditions which would make meter performance highly erratic.

Neptune recommends that all TRU/FLO Compound meters be installed with a plate strainer at the meter inlet. The strainer, in addition to protecting the meter from debris in the line, also corrects the velocity profile of the flow to the meter.

When installing Neptune meters with a strainer, a minimum of four (4) pipe diameters of straight run pipe (can include components that are fully open in their normal operating position) is required upstream of the

without a strainer, a minimum of eight (8) pipe diameters of straight run pipe fully open in their normal operating position) is required upstream of the

If a Neptune meter is installed w (can include components that are meter/strainer assembly.

ound meter, the recommended installation instructions should be followed.

When installing a TRU/FLO Com

RECOMMENDED INSTALLATION

The recommended installation of a TRU/FLO Compound meter is shown in Figure 2.1. This installation incorporates a plate-type strainer attached to the inlet of the meter. This illustration also shows an optical bypass which provides uninterrupted service capability during periods of meter service.

As indicated previously, the upstream plate-type strainer provides protection against meter damage from debris in the lines and virtually eliminates the effects of variations in upstream piping. Use of a Neptune strainer of the same line size as the meter is specifically recommended. This strainer design provides optimum velocity profile correction at minimum additional head loss.

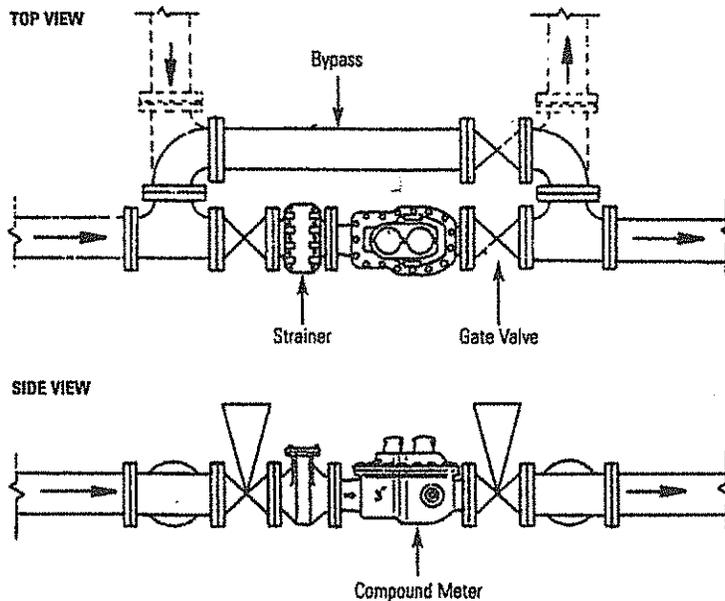


FIGURE 2.1 TRU/FLO COMPOUND TOP AND SIDE VIEW



When installing a TRU/FLO Compound meter, normal good piping practice should always be followed. In particular, all gaskets should be centrally located on their flanges with no overlap or interference with the pipe diameter. This is particularly important at the inlet connection to the meter where a gasket protruding into the flow stream will cause unpredictable velocity conditions.

TRU/FLO Compound meters must operate in a completely filled line at all times. The downstream piping must always provide sufficient back pressure to maintain a full line at the meter.



Caution should be exercised to avoid air in the line, sudden flow surges, or excessive flow rates since these conditions may cause severe damage to the meter.

BEFORE OPERATION

Before putting the TRU/FLO Compound meter in service follow these steps:

- 1 Turn air bleed on meter cover counter-clockwise one to two turns.
- 2 With outlet-side gate valve closed, SLOWLY open inlet-side valve to pressurize meter.
- 3 Close air bleed screw (clockwise) when air is completely vented and no "spitting" occurs.
- 4 SLOWLY open outlet-side gate valve until downstream is pressurized.



After installation, it is important that the upstream (inlet) valve be put in the "full open" condition during service. A partially throttled upstream valve will cause flow profile distortion which will adversely affect meter accuracy. All throttling should be done ONLY on the downstream (outlet) side of the meter.