

Manufacturing Test Stand – Valve & Orifice Testing



CUSTOMER

Water Softener System & Component Manufacturer
Madison, WI

APPLICATION

Customer is a large manufacturer of water softeners, reverse osmosis systems, and related components. They have several test stands in the facility that require high accuracy at very low flows to test assorted valves and orifices. Water is pumped through the orifice and the meter is used to compare results to expected conditions.

CHALLENGE

Low flow water metering can be problematic. PD gear meters that are used for low flow oil applications are not always appropriate because of the risk of slippage. Most turbine meters on the market which are made for water flow, will not measure down to the .1 gpm and up to 3 gpm required for this application. Previous meters tried failed on either durability, range, accuracy, or stability.

SOLUTION

The TRG-11.375-5 along with the FIP-4HS frequency to analog converter provided the customer provided the customer with exactly what he was looking for.

The turbine's ability to perform below its stated 10:1 turndown range allowed for measurement of flow down to .1 gpm and up to 3 gpm with an accuracy of better than .5%. The meter-mounted FIP converter provided a 4-20mA output to the existing controller so the customer did not have to make any changes to the test stand controls.



“The TRG turbine has provided us with the ability to accurately test our own products and improve on our quality control. Your wide range of product offerings gave us exactly what we needed.”

RESULT

The manufacturer is now able to use one test stand to test a broad range of their products. They have also standardized on SABRE TRG turbine meters for all their testing requirements.

