

Membrane Filter Tester Model 410



Model 410 Membrane Filter Tester
(shown with optional case)

The Membrane Filter Test was developed to provide a qualitative and quantitative test for determining various aspects of water quality. Relative filtration rates, quantity and composition of suspended solids can be established. The tester can be used effectively to provide data for the following water problems: (1) Relative plugging tendencies (2) Chemical compatibility (3) Suspended native solids such as sand, clay, etc. (4) Suspended corrosion by-products such as iron sulfide (5) Suspended alkaline earth metal precipitates such as calcium carbonate, calcium sulfate, etc. (6) Biological by-product contamination and (7) Effect of entrained hydrocarbons on filtration.

Much information about injection water can be determined from membrane filtration tests. These tests are most valuable when investigating to determine plugging tendencies of an injection sample and in the identification of the solids on the filter which causes plugging of the formation. Membrane filter tests can be used to pinpoint the exact sources of trouble within a system. Once the problem has been alleviated, a membrane filter can be used for verification purposes.

If the problem cannot be resolved by mechanical means, chemical treatment will be necessary. The membrane filter can be used to determine the effectiveness of the chemical treatment employed.

Routine filtration tests can be performed to avert a problem in an injection system which might go undetected until the problem became so severe that it would become necessary to shut down the injection program.

Membrane filtration tests are of use in determining impurities and un-dissolved salts in Brine solutions.

Membrane Filter Tester

The Membrane Filter Tester Model 410 consists of the following:

- ✓ Filter Reservoir, 3200 ml or 4000 ml
- ✓ Graduated Cylinder Plastic, 1000 ml TC
- ✓ Filter Holder
- ✓ Millipore Filters, .45 MICRON, 47mm, Pack of 100
- ✓ Stopwatch

The reservoir can be pressurized from any air source that can provide 20 psig (139 kPa). Connection can be made by using a quick coupler as supplied in the systems below, or by removing the male quick coupler in the reservoir top and replacing it with a suitable fitting having a 1/4 inch pipe thread on one end.

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O₂ Pressurization System (optional)

A CO₂ pressurizing system is normally used for field tests. It attaches to the top of the reservoir with a Quick Coupler, and consists of the following:

- ✓ CO₂ Pressure Regulator
- ✓ Two CO₂ Cartridge Holders
- ✓ Two Shut-off Valves
- ✓ Bleeder Valve
- ✓ Manifold with Coupler

Nitrogen Pressurization System (optional)

A Nitrogen system may be more suited for pressurizing the Tester when running the tests at a more permanent location. This assembly can be connected to either a small, or a standard Nitrogen cylinder. It consists of the following:

- ✓ Nitrogen Pressure Regulator
- ✓ Pressure Gauges
- ✓ Bleeder Valve
- ✓ Hose
- ✓ Coupler

Ordering Information

PART NO.	DESCRIPTION
209664	Membrane Filter Tester, 3200 ml capacity
209674	Membrane Filter Tester, 4000 ml capacity
209666	CO ₂ Pressurizing System
209667	Nitrogen Pressurizing System
209665	Case for Membrane Filter Tester, Plastic

Contact Fann Instrument Company for more information on our complete line of
Drilling Fluids Testing Equipment

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