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Assesses phase behavior of fluid systems at microscopic level

The Grace Instrument M9720 Micromodel Phase Behavior System is designed to provide fundamental details on the dynamics of flow displacement and phase behavior at reservoir conditions. A high resolution camera provides microscopic view on these details.

The M9720 high pressure viewing cell comprises sapphire glass and porous construction etched on the metal/glass. Light transmits through the sapphire glass and camera captures or records the experiment.

The M9720 evaluates EOR process under different pressure and temperature conditions. Analysis of test results may render variable options for engineers predicting the phase behavior of polymer solutions within oil-field environment, leading to higher oil recovery factor.

The M9720 Micromodel Phase Behavior System can be used for different applications, such as microbial study, miscible displacement, phase behavior study, scaling factor study, etc.



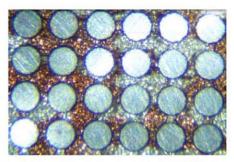
- Camera system has dual functions: recording and visualizing wax and asphaltenes precipitation during testing,
- Two positions for micro model experiments: vertical and horizontal
- · Reaction Cells assembly rotatable up to 90° inside of oven
- · Constant temperature control system provided by oven
- · High pressure scaling factor studies
- Provide valuable details on different EOR methods
- Allows engineers to optimize injection schemes to increase recovery.
- Comprehensive data collection pressure, temperature, etc.



M9720 unit



M9720 microscope



M9720 micromodel porous media etched in glass/metal

Specifications

Wetted Material: HC-276 or Inconel
Pressure Range: Up to 20,000 psi
Temperature Range: Up to 302°F (150°C)
Particle size detection: 5 microns or better
Pressure Accuracy: ± 0.1% of Full Scale

Temperature Accuracy: $\pm 0.2\%$ °C Electrical Requirements: $\pm 0.2\%$ V



3 large M9720 pistons inside case