

The only integrated foam loop / core flow tester in the world

The Grace Instrument M9300 Foam Loop & Core Flow Tester combines the functionality of a foam loop rheometer with a core flow tester. Foam can be created, measured, modified, and passed through a core flow system for complete core flow analysis, including temperature, pressure, and viscosity parameters.

The core flow system is designed to accurately measure the permeability changes of a formation sample as it is exposed to a variety of test fluids. Fluids can be injected through the core in either direction or across either end of the core face. The system is designed to handle all types of clean treating, as well as corrosive treating fluids at temperatures of up to 350 °F. The unique design offers a complete computer-controlled automation package that allows precise monitoring and control of the different flow paths.

Completely customizable

As with all of Grace Instrument's M9000 series instruments, the M9300 Foam Loop & Core Flow Tester is completely customizable and can be ordered to specify the customer's testing needs.



Features & Benefits:

- Unique design allows fluids to be injected in either direction or across either end of a core
- Accurate temperature control to 350 °F
- Accurate pressure control to 5,000 psi (41,344 kPa)
- Core holder pivots for easy visual inspection of the core
- Ability to pump solid-laden fluids
- Fully automated for ease of use

Foam Generation & Foam Loop System Specs:

Operating Temperature:	Ambient to 350 °F
Operating Pressure:	Atm to 5,000 psi
Flow Rate Range:	0 to 375 mL/min
Shear Rate:	0 to 1,500 S ⁻¹
Microscope Magnification:	11 to 144 X
Viewing Window Material:	Quartz
Rheology Characterization:	API standard rheological and shear history
Foam Density:	0.3 to 1.0 g/cm ³ controllable
Half-life of Foam:	0 to 72 hr
Foam Bubble Diameter:	≥1 μm

Formation Damage System Specs:

Operating Temperature:	Ambient to 350 °F
Confining Pressure:	Atm to 15,000 psi
Working Pressure:	Atm to 10,000 psi
Flow Rate:	0 to 60 mL/min
Back Pressure:	Atm to 10,000 psi

Combined Foam Loop & Formation Damage System Specs:

Operating Temperature:	Ambient to 350 °F
Operating Pressure:	Atm to 5,000 psi
Shear Rate:	0 to 1,500 S ⁻¹
Confining Pressure:	Atm to 15,000 psi
Back Pressure:	Atm to 10,000 psi

The M9300 can test a foam fluid with a viscosity of 200 mPa·s with a maximum shear rate of 1,000 S⁻¹

The 9000 series of products are all highly customizable, so all specifications should be regarded as approximate, depending on individual customer requirements.