Model 6100
FORMATION RESPONSE TESTER

A Critical Tool for Reservoir Analysis

The Model 6100 Formation Response Tester (FRT) is designed to accurately measure the permeability changes of a formation sample when exposed to a variety of test fluids. This highly flexible, easy to use system is capable of simulating nearly any well completion and stimulation schedule on a core sample. The unit is also capable of operating as a dynamic fluid loss tester with the optional Slurry Cart.

Designed for Flexibility and Reliability

The unique design of the Model 6100 allows fluids to be injected through a prepared core sample to simulate the flow of treating fluids or formation fluids. Core flow can be directed through several paths: Injection and Production (forward, reverse), Top and Bottom flush (across-face) and Leak Off and Lift Off. Up to nine separate fluids can be controlled in any sequence through any flow path (6 directly connected to the pump and 3 accumulators). The system is designed to handle acids and other corrosive fluids at temperatures up to 350°F / 177°C. Reliability is designed into the Model 6100 to ensure many years of service. A custom valve manifold contains all necessary flow paths. This significantly reduces the number of fittings, the maze of tubing, the fluid dead volume, and most importantly the number of potential leaks. Durable, air-operated valves 316SS or C-276 wetted parts can be quickly and easily replaced if needed.

Operational Simplicity

The Model 6100 is designed to be very user friendly both mechanically and in its software interface. The core holder pivots to ease insertion of a core sample or inspection of the holder. Once the core is loaded into the core holder, a confining pressure is applied to the Hassler Sleeve to seal the core. The technician then programs or selects a flow schedule and a desired temperature before clicking on the “run” button to begin the test. Multiple pressure ports along the core allow monitoring of the change in permeability as fluids invade deeper into the core as well as the determination of skin factors which may influence the testing results.

FEATURES

- Multiple Flow Paths
  - Injection, Production (Forward/Reverse) Flow
  - Top and Bottom Flush (Across-Face) Flow
  - Leak Off and Lift Off
- Fully Automated Control and Data Acquisition
- Unlimited Programmable Test Schedules
- Easy-Loading Core Holder
- Valve Manifolds Minimize Fittings
- Corrosion/Acid Resistant Wetted Materials
Model 6100

The software for the Model 6100 also performs the data acquisition. All channels are recorded with time and can either be outputted directly or exported in spreadsheet format. The recorded data includes the measured and calculated values selected by the user. Upon test completion, an automated cleaning cycle can be run to prepare the system for the next test.

Specifications

Standard Model (Base Unit)

Max Pumping Pressure
5,500 psi / 38 MPa

Max Confining Pressure
6,000 psi / 42 MPa

System Temperature
75°F – 350°F / 24°C – 177°C

Wetted Materials

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valves</td>
<td>316SS or C-276</td>
</tr>
<tr>
<td>Manifolds</td>
<td>316SS or C-276</td>
</tr>
<tr>
<td>Tubing</td>
<td>316SS or C-276</td>
</tr>
<tr>
<td>Cell Ends</td>
<td>316SS or C-276</td>
</tr>
<tr>
<td>Hassler Sleeve</td>
<td>Viton or Aflas</td>
</tr>
</tbody>
</table>

Flow Rate
0-50 mL/min.

Pumped Fluids
4

Displaced Fluids
1

Core Dimensions
Diameter 1.0 – 1.5 in.
Length up to 12 in.

No. of Pressure Taps
Up to 5 (1 Inch Minimum Spacing)

Core Holders
Flush Face, Flow Core and Sand Head

Utilities

Power
220 VAC 50/60 Hz, 30 A

Air
80 psi minimum / Oil-Free

Typical Weights and Dimensions

Dimensions (w x h x d)
67 in. x 64 in. x 34 in. / 170 x 163 x 87 cm

Weight
560 lb / 254 kg

Shipping Weight
760 lb / 345 kg

*Manufacturer's specifications subject to change without notice

Scan the below QR Code with your phone to view product information on our Website.

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