

Benchtop Core Flooding System (BR)

Flowing a fluid (oil/gas) at desired temperature and pressure

Generally, a core flood system is a system that flows a fluid (gas or liquid) through a core sample at controlled pressure and temperature conditions and measures or monitors flow parameters.

Experiment Description

The dry core is saturated with brine. Then saturated core is flooded by oil until the saturation water reaches to the reservoir initial water saturation conditions. Afterwards oil saturated core will be flooded by brine at high pressure/temperature condition. The relative permeability of oil/brine will be estimated. Total oil production versus time will be plotted.



| Specification | BCF-BR02 | BCF –BR05 | BCF –BR12 | BCF-BR15 |
|------------------------------------------------|---------------|---------------|---------------|---------------|
| Pressure Accuracy | 0.5% F.S. | 0.05% F.S. | 0.05% F.S. | 0.05% F.S. |
| Core Length | 2" to 4" | 2" to 4" | 2" to 4" | 2" to 4" |
| Working Temperature | 120°C | 120°C | Ambient | Ambient |
| Max. Pore Pressure | 6,000 Psi | 6,000 Psi | 6,000 Psi | 6,000 Psi |
| Max. Confining Pressure | 6,500 Psi | 6,500 Psi | 6,500 Psi | 6,500 Psi |
| Core Diameter | 1.5" | 1.5" | 1.5" | 1.5" |
| Number of Accumulators | 3 | 3 | 2 | 2 |
| Input Power Supply | 220 VAC, 50Hz | 220 VAC, 50Hz | 220 VAC, 50Hz | 220 VAC, 50Hz |
| Core Holder Position | Horizontal | Horizontal | Horizontal | Horizontal |
| Hassler Type Core Holder | ✓ | ✓ | ✓ | ✓ |
| Force Convection Oven | ✓ | ✓ | ✗ | ✗ |
| Downstream Pressure Controller | ✓ | ✓ | ✓ | ✓ |
| Hydraulic Hand Pump | ✓ | ✓ | ✓ | ✓ |
| Stainless Steel Material | ✓ | ✓ | ✓ | ✓ |
| Pressure Taps: Inlet and Outlet of Core Holder | ✓ | ✓ | ✓ | ✓ |
| High Pressure HPLC Pump | ✗ | ✓ | ✗ | ✓ |
| Digital Back Pressure | ✓ | ✓ | ✓ | ✓ |
| Digital Upstream and Downstream Pressure | ✓ | ✓ | ✓ | ✓ |

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