

## Slim Tube

### Measuring MMP at Reservoir Conditions

The miscibility tests allow for the evaluation of the minimum miscibility pressure (MMP), the minimum miscibility composition (MMC), the optimization of injection parameters and composition of lean and enriched gas, the determination of oil in place recovery and the assessment of sensitivity of experimental conditions on oil recovery.

#### Experiment Description

The slim tube apparatus is used to obtain dynamic miscibility information at reservoir conditions. The gas to be tested is injected at a desired pressure through the slim tube, which is already cleaned and saturated with oil by means of a high pressure pump. A back pressure regulator maintains a constant pressure within the system. The effluents flowing from the slim tube can be observed through a capillary sight glass tube. They are then expanded to atmospheric pressure and temperature conditions through a back pressure regulator. The volume of liquid effluents is then continuously monitored and recorded. The recovery curve is then plotted based on the raw data obtained during the different miscible displacement experiments.



Specification	STA-PR01	STA-PS01
Packed Tube Length	12 m	12m
Packed Tube External Diameter	1/4"	1/4"
Porous Media Material	Glass Bead	Glass Bead
Particle Diameter	100 – 125 $\mu\text{m}$	100 – 125 $\mu\text{m}$
Working Temperature	Ambient to 120 °C	Ambient to 120 °C
Max. Working Pressure	6000 Psi	10,000 Psi
Pressure Accuracy	0.1 % F.S.	0.1 % F.S.
Wetted Material	Stainless Steel	Stainless Steel
Power Supply	220 VAC, 50/60 Hz	220 VAC, 50/60 Hz
Gas Meter	✓	✓
Computer System	✓	✓
Automated Data Acquisition, Reporting and Calculation Software	✓	✓
High Pressure Pump Is Included	✓	✓

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