

Heating Jackets and Trolleys



Picture Courtesy of the Petroleum Engineering Department
at the Colorado School of Mines, Golden, CO USA



Sampling

The Leutert electronically controlled heating jackets provide even heating of liquid and gas samplers and cylinders. The sample cylinders can easily be transported anywhere in the laboratory by means of the heating jacket trolleys.

Description

When a downhole sampler travels back to the surface the temperature inside the tool and consequently the pressure inside the sample chamber drops. The decrease in temperature and the reduction of pressure may bring the fluid to conditions of temperature and pressure corresponding. The sample will separate to a multiphase condition. In general, this process may be reversed by re-heating the sample. Thus, the sample will resume its initial monophasic state.

The Leutert electronically controlled heating jackets provide even heating of liquid and gas samplers and cylinders. The sample chamber is heated to the maximum temperature in less than an hour and the temperature is controlled at ± 1 °C (1.8 °F).

The Leutert heating jacket trolleys can be used in the laboratory if a sample in multiphase condition needs to be heated to its initial single phase state. The trolleys allow easy and safe transportation of the sample cylinders anywhere in the laboratory. Heating also reduces the viscosity of crude oil and the sample can be transferred easily.

The main features are:

- Controlled and even heating of the sample chamber or cylinder
- Easy and safe transportation of the sample cylinders in the laboratory
- Fast heating temperature ramp
- Allows inversion of the chambers to transfer at pressure and temperature
- Homogeneous temperature in the fluid sample
- Explosion proof according to ATEX available on request

Technical Specifications

Heating Jackets

Type	MDT Sampler	PDS / OPS Sampler	Oil Sample Cylinder
Suitable for	Schlumberger MDT Sampler 4.75" & 5"	MK I / MK II / SPS / PDS ^{short} / OPS	Leutert PDC Cylinders / Type 5, 6 (10K)
Dimensions	36" x 8" x 8" (91 cm x 20 cm x 20 cm)	50" x 8" x 4" (134 cm x 21 cm x 10 cm)	10" x 19" x 6" (26 cm x 47 cm x 15 cm)
Weight	41.9 lbs (19 kg)	28.7 lbs (13 kg)	26.5 lbs (12 kg)
Max. OD	5" (127 mm)	1.8" (46 mm)	3.5" (89 mm)
Power	440 W, 230V 50Hz	440 W, 230V 50Hz / 110V 60Hz	440 W, 230V 50Hz / 110V 60Hz
Temp. range	32 °F to 360 °F (0 °C to 180 °C)	32 °F to 360 °F (0 °C to 180 °C)	32 °F to 300 °F (0 °C to 150 °C)

Heating Jacket Trolleys

Type	Oil Sample Cylinder Trolley	Gas Sample Cylinder Trolley	Gas Sample Cylinder Trolley
Suitable for	Leutert PDC Cylinders / Type 5, 6 (10K)	Leutert GSC Cylinders	Double ended GSC Cylinders
Dimensions	50" x 23" x 24" (130cm x 58cm x 61cm)	50" x 23" x 26" (130cm x 58cm x 66cm)	50" x 25" x 28" (130cm x 63cm x 71 cm)
Weight	79.4 lbs (36 kg)	119.0 lbs (54 kg)	123.5 lbs (56 kg)
Max. OD	3.5" (89 mm)	8.27" (210 mm)	9" (229 mm)
Power	440 W, 230V 50Hz	400 W, 230V 50Hz	400 W, 230V 50Hz
Temp. range	32 °F to 300 °F (0 °C to 150 °C)	32 °F to 150 °F (0 °C to 65 °C)	32 °F to 150 °F (0 °C to 65 °C)