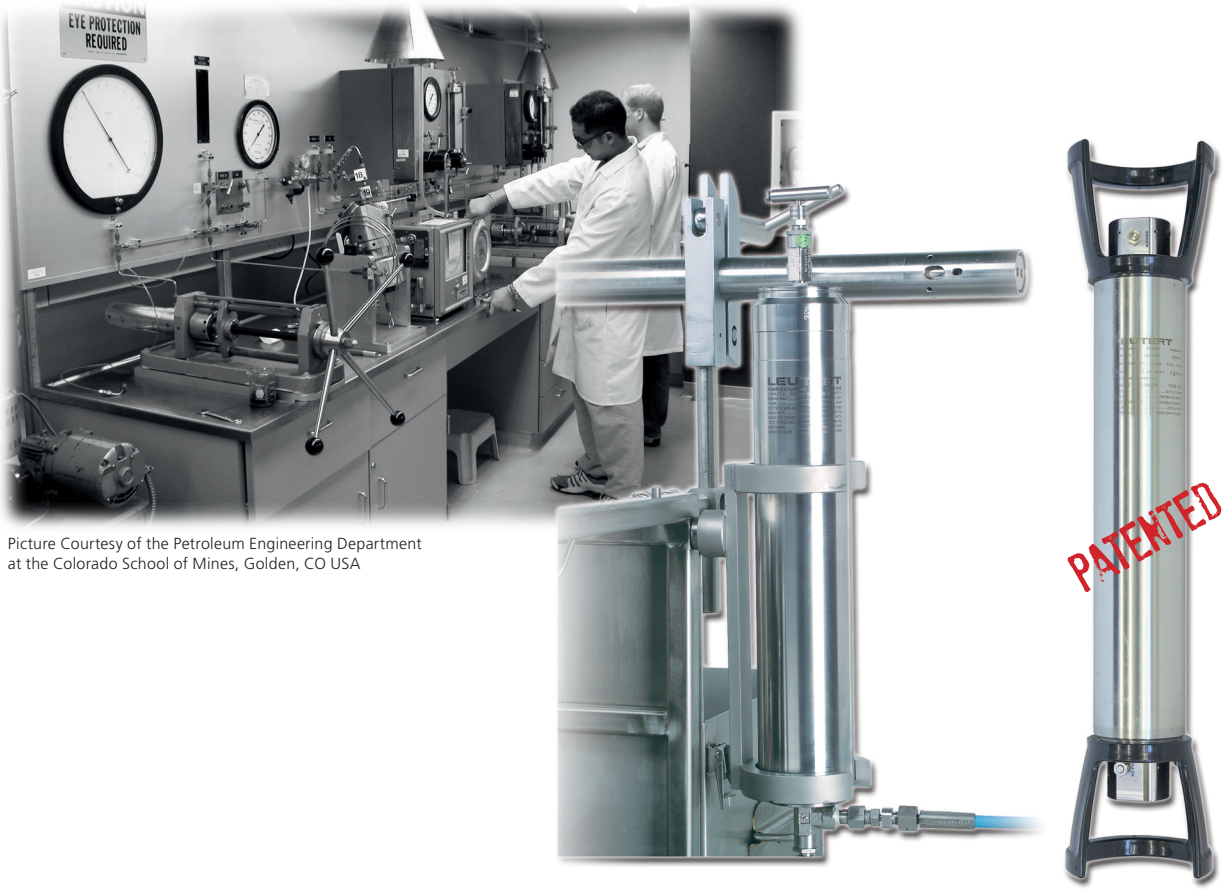
One Phase™ Sampling Cylinder OPC



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

Fluid Sampling

The One Phase™ Piston Type Sampling Cylinder OPC is a shipping bottle designed for transportation and storage of pressurized samples.

The One Phase™ Sampling Cylinder

The patented One Phase™ Piston Type Sampling Cylinder OPC is a shipping bottle designed for transportation and storage of pressurized hydrocarbon samples. Those samples might have been obtained through bottom hole or surface PVT sampling. To separate the sample fluid from a secondary driving fluid, the bottles are equipped with a floating piston. A mixing ball is incorporated within the sample chamber. Both end plugs are sealed with double O-ring seals and back-up rings and are held in place by strong circlips. For shipment the cylinders are stored in an aluminum transportation box.

Damaging external valves during handling is the main safety issue of pressurized cylinders. Leutert engineers have been able to eliminate the use of external valves and made our cylinders safer. All valves of the OPC are machined right into cylinder end plugs. Valve stems are secured by left threaded retainers. These retainers allow to open and close valves but not to unscrew to a point of unsafe operation.

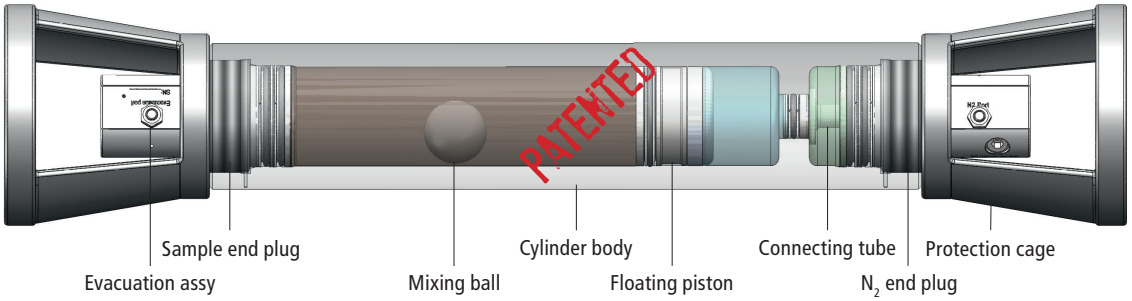
For single phase operation an integrated N_2 chamber may be utilized. N_2 may be charged prior to transfer and activated at any time. The absence of any secondary nitrogen piston allows N_2 to act with its full pressure and without volume restriction onto the separating piston. Due to sophisticated design of the Leutert monophasic sample cylinders the overall weight and outer dimensions are identical to those of the standard Leutert Piston Type Cylinder PDC, without compromising the volume. As fluid sample cylinders are part of a system, standardized dimensions simplify the adaptation to supplementary equipment such as cylinder stands, heaters and transfer benches, without the need for modification.

As pioneers of sample cylinder design and construction, we focus on manufacturing cylinders complying with the highest international safety standards. The usage of NACE approved stainless steel is another example of making safer sample cylinders.

Technical Specifications

Capacity (nominal)	:	600 cm^3 standard (volume 700 cm^3)
Operating pressure	:	15,000 psi (1,035 bar)
Operating temperature	:	-4 °F to 392 °F (-20 °C to 200 °C)
Weight	:	39.5 lbs (17.9 kg)
Port thread connection	:	7/16" female
Material	:	stainless steel, resistant to H_2S and CO_2 ANSI / NACE MR0175 / ISO 15156-1 (second edition 2009-10-15)
Certificates	:	TPED & Hydrostatic
Patent	:	EP 3 198 116 B1

Design



Subject to change without notice. Issued 08/2018

MADE IN GERMANY