## PRODUCTION SAMPLE CYLINDERS



## ProSteel SS-150-100-MB

#### ριοιείλ

Proserv's ProSteel sample receiver is a constant pressure cylinder for oil, gas and condensate sampling. A free-floating piston design ensures constant precharge and sample pressure, which maintains the phase of the sampled fluid. The integrity of the sample can be monitored by two pressure gauges, and a volume indicator provides visual volume inspection. To help prevent segregation of the sampled fluids, the cylinder may be equipped with a mixing ball.

- Light weight single piston sample receiver with internal mixing ball
- Parker needle valves with 1/4" NPT female ports
- Volume indicator
- Pressure gauge with range 0-160 bar on primary and secondary side
- On primary side 2 needle valves make flushing of receiver possible





Technical Specification			
Part number	SS-150-100 MB	Code	EN 13445-3
GA-drawing	3AA-032	Applied directive	PED 2014/68/EU Article 4, Paragraph 3 (SEP)
Net volume	1,000 cc	- Service	<ul> <li>UN 1267 petroleum crude oil</li> <li>UN 1075 petroleum gases, liquefied</li> <li>UN 1954 compressed gasses, flammable, p.o.c.</li> </ul>
Design temperature	-20 °C to 65 °C		<ul> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> <li>Hydrostatic pressure test</li> <li>certificate endorsed by</li> <li>3rd party</li> <li>User's guide</li> <li>Declaration of Conformity</li> </ul>
MAWP	150 bar g @ 65 °F	1	
Material	Cylinder: EN 10216-5 1.4404 End Caps: EN 10272:2007 1.4404 Piston: EN 10272:2007 1.4404 Mixing Ball, EN 10272:2007 1.4404	Standard documentation	
	Retainer Pins: EN 10272:2007 1.4418	Option	Other kinds of connections available
Net weight	7.0 kg		<ul> <li>Mansport box</li> <li>Swagelok needle valves for sour gas</li> <li>Mixing ball</li> </ul>
Dimensions	700 x 150 x 90 mm (L x W x H)		<ul> <li>Material cert. EN 10204 3.1 on pressure retaining parts</li> <li>Also available in 500cc &amp; 300cc</li> </ul>

## ProFisc 220 bar 1,000 cc, PED, DOT

#### ριογειν

The ProFisc sample receiver is a portable single piston sample cylinder. It is used for the collection of hydrocarbon liquids and gas Group 1 samples that require analysis in the laboratory environment and subsequent storage. This product is field proven with a substantial track record.

- Lightweight single piston sample receiver with internal mixing ball
- Valves: Autoclave Engineers
- Inlet and outlet connections: Swagelok OD tube compression fittings
- Flushing valve outlet port: 1/8 inch AE W125
- Volume indicator (piston magnetic tracker)
- Zero to 250 bar pressure gauge on back pressure side



Technical Specification				
Part number	045317	Approved for use within the European Union & Transportation within the		
Net volume	981 cc	<ul> <li>USA under the following European Directives and US Special Permit:</li> <li>- 2014/68/EU (PED)</li> </ul>		
Design temperature	-20 °C to +100 °C (see note 1)	- US DOT SP-15404 Design code: generally in accordance with PD 5500		
Design pressure	220 bar (3,191 psi)			
Material	Cylinder body: titanium grade 5 End caps: titanium grade 2 Piston: titanium grade 2 Mixing ball: AISI 316 St Stl Mini valves: AISI 316 St Stl	Service: • UN 1954 compressed gas, flammable, NOS • UN 1964 hydrocarbon gas mixture, compressed, NOS • UN 1965 hydrocarbon gas mixtures, liquefied, NOS • UN 1053 hydrogen sulphide (H2S) • UN 3161 liquefied gas flammable NOS		
Net weight	8.4 kg	UN 1971 UN 1972 Natural gas with methane content		
Dimensions	Cylinder length including valves and pressure gauge 737mm Cylinder body length 610mm Cylinder OD 72mm	<ul> <li>UN 1066 nitrogen, compressed</li> <li>UN 1267 petroleum crude oil</li> <li>UN 1075 petroleum gases, liquefied or liquefied petroleum gas</li> <li>UN 1006 argon, compressed</li> <li>UN 1953 compressed gas, toxic, flammable, NOS</li> </ul>		
Option	<ul> <li>Hydrostatic test certificate, with third party endorsement, complete with third party inspection release note</li> <li>Copy of PED 2014/68/EU declaration of conformity</li> <li>Material certification to EN 10204: 3.1for pressure retaining components</li> <li>Other type of connections available on request</li> <li>Titanium grade 6246 for cylinder body (NACE MR 0175/ISO 15156 compliant)</li> <li>Alternative valves material</li> <li>Alternative O-ring seal material</li> </ul>	NOTE 1: The design of the cylinder metal work, brackets and pressure gauge are suitable for sample medium temperatures up to 100 °C, the magnet tube has a maximum temperature of 70 °C. If the sample cylinder requires to be externally heated (reconditioning) then it should be noted that the pressure gauge has an external temperature limit of +60 °C.Standard documentation• Certificate of conformity • Hydrostatic test certificate • User instructions • User spare parts list • Authorised Inspectors Certificate of • Conformance to DOT SP-15404 • Certificate 15404		

## ProFisc Ti-250-100-MB, TPED

#### ριολειλ

The ProFisc sample receiver is a portable single piston sample cylinder. It is used for the collection of hydrocarbon liquids and gas Group 1 samples that require analysis in the laboratory environment and subsequent storage.

- Light weight single piston sample receiver with internal mixing . ball
- Autoclave engineers valves Outlet port: 1/8" AE W125 .
- .
- Volume indicator .
- Pressure gauge with range 0-250 bar on back pressure side
- Flushing valve







Technical Specification			
Part number	TI-250-100MB	Code	EN 1964-3
GA-drawing	3CA-034	Applied directive	TPED 2010/35/EU
Net volume	981 cc	Service	UN 1267 petroleum crude oil     UN 1075 petroleum gases liquified
Design temperature	-20 °C to +177 °C		<ul> <li>UN 1954 compressed gasses, flammable, n.o.s.</li> </ul>
Design pressure	250 bar g @ +177 ℃		<ul> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> </ul>
Material	Cylinder: ASTM B348 Gr. 5 End caps: ASTM B348 Gr. 2 Piston: ASTM B348 Gr. 2 Mixing ball: ASTM A479 316		<ul> <li>UN 1964 hydrocarbon gas mixture</li> <li>UN 1965 hydrocarbon gas mixture liquefied, n.o.s</li> <li>UN 1053 hydrogen sulphide</li> <li>UN 3161 natural gas, compressed</li> <li>UN 1953 nitrogen, compressed</li> </ul>
Net weight	7.6 kg		
Dimensions	(TL x W x H) 653 x 150 x 145 T = 610 OD = Ø72		Formation water     Hydrostatic pressure test certificate
Option	<ul> <li>Pressure gauge with range 0-700 bar</li> <li>Other kinds of connections available</li> <li>Also available in sizes 300cc &amp; 640cc</li> <li>NACE Compliant (MR 0175) in titanium grade 6246</li> </ul>	Standard documentation	<ul> <li>Users guide</li> <li>Declaration of Conformity</li> <li>Material cert. EN 10204 3.1 on pressure retaining parts</li> <li>Transport box</li> </ul>

## ProLarge II SS-130-400-MB

#### ριοιείλ

Proserv's ProLarge sample receiver is a large constant pressure cylinder for oil, gas and condensate sampling. A free floating piston design ensures constant pre-charge and sample pressure, which maintains the phase of the sampled fluid. The integrity of the sample can be monitored by a pressure gauge, and a volume indicator provides visual volume inspection. To help prevent segregation of the sampled fluids, the cylinder may be equipped with a mixing ball.

#### Features and benefits

- Large volume piston sample receiver
- Needle valves with 1/4 inch NPT female outlets
- Purge valve
- Volume indicator
- Pressure gauge
- Carrying handle
- Available both in titanium and stainless steel



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Part number	SS-130-400-MB	Standards and codes	<ul> <li>PED 2014/68/EU</li> <li>Design code EN 13445-3</li> <li>ISO 3170 and 3171</li> <li>ADI MDMC 8.1.6.8.2</li> </ul>
GA-drawing	3AA-121		
Net volume	3,750 сс		
Design temperature	-20 °C to +65 °C		A THE 0, I & 0, Z
Design pressure	130 bar g @ 65 °C	Service	
Material	Cyl body: EN 10216-5 1.4404 End caps: ASTM B348 Gr. 2 Piston: ASTM B348 Gr. 2 Mixing ball: ASTM B348 Gr. 5 Retainer pins: EN 10272 1.4418		<ul> <li>UN 1267 petroleum crude oil</li> <li>UN 1075 petroleum gases, liquided</li> <li>UN 1954 compressed gasses, flammable, NOS</li> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> </ul>
Net weight	24 kg		
Dimensions	850 x 250 x 250 mm (L x W x H)		
Option	<ul> <li>Sour service edition</li> <li>Mixing nozzle for ProMix Edition</li> <li>Other materials and volumes upon request</li> <li>Rupture disc</li> <li>EN 10204 3.1 material certification</li> <li>Transportation and storage box</li> </ul>	Standard documentation	<ul> <li>Hydrostatic pressure test certificate</li> <li>User manual</li> <li>Declaration of conformity</li> </ul>

## ProLarge III Ti-200-400-TPED

## ριοιείλ

#### Main features

- Large light weight single piston sample receiver
- Needle valves
- Volume indicator
- Pressure gauge with range 0-250 bar on back pressure side
- Two needle valves on primary side makes flushing of receiver possible
- 1/4" NPT Female connections



Specification		Documentation & Design	
Model	TI-200-400-TPED	Design code	EN 1964-3:2000
GA-drawing	3AA-160	Applied directive	TPED 2010/35/EU
Net volume	4005 cc		UN 1267 petroleum crude oil     UN 1075 petroleum gases liquified
Design temperature	-20 °C to +149 °C	<ul> <li>UN 1075 per oftening asses,</li> <li>UN 1954 compressed gasse</li> <li>UN 1971 natural gas, comp</li> <li>UN 1066 nitrogen, compress</li> </ul>	<ul> <li>UN 1975 periodealing gases, induited</li> <li>UN 1954 compressed gasses, flammable</li> <li>UN 1971 natural gas, compressed</li> </ul>
Design pressure	200 bar g		UN 1066 nitrogen, compressed
Material	Cylinder: ASTM B348 Gr. 5 End caps: ASTM B348 Gr. 2 Piston: ASTM B348 Gr. 2 Retainer pins: EN 10088-3, 1.4418	Service	<ul> <li>UN 1964 hydrocarbon gas mixture, compl.</li> <li>UN 1965 hydrocarbon gas mixture, liquefied</li> <li>UN 1053 hydrogen sulphide</li> <li>UN 3161 liquefied gas, flammable</li> <li>UN 1075 petroleum gases, liquified</li> <li>UN 1953 compressed gas, toxic, flammable</li> <li>Formation water</li> </ul>
Net weight (kg)	13.3 kg	Standard	<ul> <li>Hydrostatic pressure test certificate</li> <li>Users instructions</li> <li>Declaration of Conformity</li> <li>Material cert. 3.1</li> </ul>
Dimensions	(L x W x H) 787 x 160 x 195	Option	<ul> <li>Other kinds of connections available</li> <li>Transportation box</li> <li>Available in volume 2000cc</li> </ul>

## ProLarge III Ti-200-400-MB-TPED

#### proverv

#### Main features

- Large light weight single piston sample receiver Needle valves .
- .
- Volume indicator .
- Pressure gauge with range 0-250 bar on back . pressure side
- Two needle valves on primary side makes flushing . of receiver possible
- 1/4" NPT Female connections .
- . Mixing Ball



Specification		Documentation & D	esign
Part number	TI-200-400-MB-TPED	Design code	EN 1964-3:2000
GA-drawing	3AA-161	Applied directive	TPED 2010/35/EU
Net volume	3750 сс		UN 1267 petroleum crude oil     UN 1075 petroleum gases liquified
Design temperature	-20 °C to +149 °C	<ul> <li>UN 1075 periotedingases, i</li> <li>UN 1954 compressed gasse</li> <li>UN 1971 natural gas, compres</li> <li>UN 1066 nitrogen, compres</li> </ul>	<ul> <li>UN 1975 periodean gases, inquiried</li> <li>UN 1954 compressed gasses, flammable</li> <li>UN 1971 natural gas, compressed</li> </ul>
Design pressure	200 bar g		UN 1066 nitrogen, compressed
Material	Cylinder: ASTM B348 Gr. 5 End caps: ASTM B348 Gr. 2 Piston: ASTM B348 Gr. 2 Retainer pins: EN 10088-3, 1.4418 Mixing ball: PEEK	Service	<ul> <li>UN 1964 Hydrocarbon gas mixture, compl.</li> <li>UN 1965 hydrocarbon gas mixture liquefied</li> <li>UN 1053 hydrogen sulphide</li> <li>UN 3161 liquified gas, flammable</li> <li>UN 1075 petroleum gases, liquefied</li> <li>UN 1953 compressed gas, toxic, flammable</li> <li>Formation water</li> </ul>
Net weight	13.9 kg	Standard	<ul> <li>Hydrostatic pressure test certificate</li> <li>Users instructions</li> <li>Declaration of conformity</li> <li>Material cert. 3.1</li> </ul>
Dimensions	(L x W x H) 787 x 160 x 195	Option	<ul> <li>Other kinds of connections available</li> <li>Transportation box</li> <li>Available in volume 1750cc</li> </ul>

#### ProMix SS-150-100

#### proverv

The ProMix sample receiver is a portable constant pressure cylinder for crude oil sampling. It is designed for mixing/homogenising samples prior to analysis and is used in conjunction with the Proserv ProMix bench.

- Lightweight single piston sample receiver
- Parker needle valves
- Volume indicator
- Pressure gauge with range zero to 160 bar on back pressure side
   On primary side, two needle valves make flushing of receiver
- On primary side, two needle valves make flushing of receiver possible
- Homogenising nozzle on primary side
- Connections: 1/4 inch NPT female fitted with quick connectors



Technical Specification			
Part number	SS-150-100	Code	EN 13445-3
GA-drawing	3AA-034	Applied	PED 2014/68/EU
Net volume	1,000 cc	directive	Article 4 Paragraph 3 (SEP)
Design temperature	-20 °C to +65 °C		
MAWP	150 bar g @ 65°C		<ul> <li>UN 1267 petroleum crude oil</li> </ul>
Material	Cyl body: EN 10216-5 1.4404 End caps: EN 10272 14404 Piston: EN 10272 14404 Nozzle: EN 10272 14404 Retainer pins: EN 10272 1.4418	Service	<ul> <li>UN 1075 petroleum gases, liquided</li> <li>UN 1954 compressed gasses, flammable, NOS</li> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> </ul>
Net weight	7 kg		
Dimensions	705 x 175 x 112 mm (L x W x H)		
Option	<ul> <li>Material cert. EN 10204 3.1 on vessel and valves</li> <li>Transport box</li> <li>Swagelok needle valves for sour gas</li> <li>Various kinds of connections available</li> <li>Also available in 500cc &amp; 300cc</li> </ul>	Standard documentation	<ul> <li>Hydrostatic pressure test certificate endorsed by third party</li> <li>User guide</li> <li>Declaration of conformity</li> </ul>

#### ProMix II SS-130-400

#### ριοιείλ

The ProMix sample receiver is a portable constant pressure cylinder for crude oil sampling. It is designed for mixing/homogenising samples prior to analysis and is used in conjunction with the Proserv ProMix bench.

- Large single piston sampling receiver
- Homogenising nozzle on primary side
- External volume indicator
- Pressure gauge with range zero to 160 bar on secondary side
- Parker needle valves
- On primary side, two needle valves make flushing of receiver possible
- Connections: 1/4 inch NPT female fitted with quick connectors



Technical Specification			
Part number	SS-130-400	Code	EN 13445-3
GA-drawing	3AA-081	Applied	PED 2014/68/EU
Net volume	4005 сс		
Design temperature	-20 °C to +65 °C		• UN 1267 petroleum crude oil
MAWP	130 bar g @ 65 °C		<ul> <li>UN 1267 petroleum crude oll</li> <li>UN 1075 petroleum gases, liquided</li> <li>UN 1954 compressed gasses, flammable, NOS</li> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> </ul>
Material	Cyl body: EN 10216-5 1.4404 End caps: EN 10272 1.4404 Piston: EN 10272 1.4404 Nozzle: EN 10272 1.4404 Retainer pins: EN 10272 1.4418	Service	
Net weight	30.5 kg		
Dimensions	850 x 250 x 250 mm (L x W x H)		
Option	<ul> <li>Material cert. EN 10204 3.1 on vessel and valves</li> <li>Transport box</li> <li>Swagelok needle valves for sour gas</li> <li>Various kinds of connections available</li> </ul>	Standard documentation	<ul> <li>Hydrostatic pressure test certificate endorsed by third party</li> <li>User guide</li> <li>Declaration of conformity</li> </ul>

#### ProMix II TI-130-400

#### ριοιείλ

- Large single piston sampling receiver
- Homogenising nozzle on primary side
- External volume indicator
- Pressure gauge with range 0-160 bar on secondary side
- Parker needle valves
- On primary side 2 needle valves make flushing of receiver possible
- Connections: 1/4" NPT Female fitted with quick connectors



Technical Specification			
Part number	TI-130-400	Code	EN 13445-3
GA-drawing	3AA-125	Applied	PED 2014/68/EU
Net volume	4005 cc		
Design temperature	-20°C +65°C		UN 1267 petroleum crude oil
MAWP	110 bar g @ 65°C		<ul> <li>UN 1075 petroleum gases, liquided</li> <li>UN 1954 compressed gasses, flammable, n.o.s.</li> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> </ul>
Material	Cylinder: ASTM B348 Gr. 2 End caps: ASTM B348 Gr. 2 Piston: ASTM B348 Gr. 2 Nozzle: EN 10272 1.4404 Retainer pins: EN 10272 1.4418	Service	
Net weight	17.5 kg		• Hydrostatic pressure test
Dimensions	850 x 250 x 250 mm (TL x W x H)		
Option	<ul> <li>Other kinds of connections available</li> <li>Transport box</li> <li>Swagelok needle valves for sour gas</li> <li>Material cert. EN 10204 3.1 pressure retaining parts</li> </ul>	Standard documentation	<ul> <li>certificate endorsed by</li> <li>3rd party</li> <li>User's guide</li> <li>Declaration of Conformity</li> </ul>



#### ProAl Al-150-30

#### ριολειλ

The ProAl sample receiver is a constant pressure cylinder for gas and condensate sampling. Made of aluminium, this sample receiver has good properties for handling cold products. A free floating piston design ensures constant pre-charge and sample pressure, which maintains the phase of the sampled fluid. The integrity of the sample can be monitored by a pressure gauge, and a volume indicator provides visual volume inspection.

- Lightweight single piston sample receiver
- Needle valves with 1/4 inch NPT female outlet
- Rupture disc
- Volume indicator
   Purge valve
- Purge valve
- Pressure gauge on both primary and secondary side



Technical Specification			
Part number	Al-150-30	Standards and codes	<ul> <li>PED 2014/68/EU, Article 4 Paragraph 3 (SEP)</li> <li>Design code EN 13445-3</li> <li>ISO 2170 and 2171</li> </ul>
GA-drawing	3AA-014		
Net volume	299 сс		• API MPMS 8.1 & 8.2
Design temperature	-20 °C to +65 °C		
MAWP	150 bar g @ 65 °C	Service	<ul> <li>UN 1267 petroleum crude oil</li> <li>UN 1075 petroleum gases, liquided</li> <li>UN 1954 compressed gasses, flammable, NOS</li> <li>UN 1971 natural gas, compressed</li> <li>UN 1066 nitrogen, compressed</li> <li>Formation water</li> </ul>
Material	Cyl body: EN AW 6082 T6511 End caps: EN AW 6082 T6 Piston: EN AW 6082 T6 Retainer pins: EN 10272:2007 1.4418		
Net weight	2.8 kg		
Dimensions	400 x 182 x 91mm (L x W x H)	-	Hydrostatic pressure test certificate endorsed
Option	<ul> <li>Material cert. EN 10204 3.1 on vessel and valves</li> <li>Transportation and storage box</li> <li>Carrying handle</li> </ul>	Standard documentation	by third party • User guide • Declaration of conformity

#### Flow Through Sample Cylinder Non Coated

#### ριοιείλ

The flow through sample cylinder is used for the collection of liquid and gas samples. Each assembly consists of one Proserv type sample cylinder, two 1/4 inch needle valves with 1/4 inch OD tube male connectors (Swagelok) complete with blanking caps.

- Primarily used for taking gas samples
- Standard valve option is straight pattern needle valves with 1/4 inch OD tube connection (Swagelok)
- Valve ports fitted with Swagelok male connectors and 1/4 inch plugs



Technical Specification			
061605 061620	061605 061620	Code	Transportable pressure equipment directive (TPED) 2010/35/EU
	061627 061632	Reference	BS EN 1964-3 TPED certified cylinder
Net volume	150 сс 300 сс 500 сс 1,000 сс	Service	<ul> <li>UN 1006: argon, compressed</li> <li>UN 1066: nitrogen, compressed</li> <li>UN 1046: Helium, compressed</li> <li>UN 1013: CO<sup>2</sup></li> <li>UN 1049: hydrogen, compressed</li> <li>UN 1971: methane, compressed or natural gas</li> <li>UN 1964: hydrocarbon gas mixtures, compressed</li> <li>UN 1964: hydrocarbon gas mixtures, compressed</li> </ul>
Maximum allowable filling pressure	1,800 psi (124 bar)		
Working temperature	-20 °c to 65 °c		
Cylinder material	316L stainless steel cylinder body 316L stainless steel needle valves		
Net weight	300 ml - 1.09 kg 500 ml - 1.37 kg 1,000 ml - 3.62 kg		
Dimensions cylinder only (OD x L)	300 ml - 50 mm x 240 mm 500 ml - 50 mm x 369 mm 1,000 ml - 101 mm x 247 mm		
Option	<ul> <li>Valve configuration with angle pattern valve</li> <li>Independent witness pressure test product certificate by Lloyds</li> <li>Alternative inlet/outlet connections</li> <li>Transportation box</li> </ul>	Standard documentation	<ul> <li>Proserv certificate of conformity</li> <li>Manufacturing declaration of conformity with: TPED 2010/35/EU</li> </ul>

#### Flow Through Sample Cylinder Sulfinert Coated

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The Proserv flow through type cylinder is used for the collection of liquid and gas samples. Each assembly consists of one coated sample cylinder, two coated 1/4 inch needle valves with 1/4 inch OD tube connector (Swagelok) complete with blanking caps.

#### Features and benefits

- 1/4 inch OD tube connections (Swagelok)
- Straight pattern valve configuration
- 316 St Stl cylinder body
- Transport box available
- Sulfinert coated cylinder and valves for low level H2S studies
- Refer to Silcotek website for further information on Sulfinert coating



reclinical opectrication			
Part number	075333, 075327, 075328, 075329, 075330	Reference	TPED 2010/35/EU
Net volume	150 cc, 300 cc, 500 cc, 1,000 cc, 3,785 cc		
Design pressure	1,450 psi (100 bar)	Service	
Design temperature	-20 °C to 50 °C		<ul> <li>UN 1006: argon, compressed</li> <li>UN 1066: nitrogen, compressed</li> <li>UN 1046: helium, compressed</li> <li>UN 1013: CO<sup>2</sup></li> <li>UN 1049: hydrogen, compressed</li> <li>UN 1971: methane, compressed or natural gas</li> <li>UN 1964: hydrocarbon gas mixtures, compressed</li> <li>UN 1954 compressed gas flammable NOS</li> </ul>
Cylinder material	Cylinder body 316 St. Stl (304 St. Stl for 3785cc option only) Valves 316 St. Stl Sulfinert coated wetted parts		
Net weight	0.6 kg, 0.9 kg, 1.4 kg, 3.1 kg, 9.7 kg (approx. estimated) retrospectively		
Dimensions	500 cc cylinder: 351 mm length (cylinder only)		
	50.3 mm cylinder diameter		
Option	<ul> <li>Independent witness pressure test certificate by Lloyds</li> <li>Cylinder material certification</li> <li>Transportation box available fibre glass construction</li> </ul>	Standard documentation	<ul> <li>Hydrostatic pressure test certificate</li> <li>Proserv letter of conformity</li> <li>Manufacturing declaration of conformity with TPED 2010/35/EU</li> </ul>

## ProLight Flow Through Cylinder

#### ριοιείλ

The ProLight flow through cylinder is used for collecting gas or fluid samples. Each assembly consists of one Proserv ProLight type sample cylinder, two 1/4 inch needle valves, with 1/4 inch NPT to six millimetre A-Lok adaptors fitted.

#### Features and benefits

- Lightweight high pressure flow through cylinder
- Swagelok needle valves
- Inlet/outlet connections six millimetre A-Lok



Part number	045710	2014/68/EU (PED) Design code: generally in accordance with PD 5500	
Net volume	735 сс	Service	<ul> <li>UN 1954 compressed gas, flammable, NOS</li> <li>UN 1964 hydrocarbon gas mixture, compressed, NOS</li> <li>UN 1965 hydrocarbon gas mixtures, liquefied, NOS</li> <li>UN 1053 hydrogen sulphide (H2S)</li> <li>UN 3161 liquefied gas, flammable, n.o.s</li> <li>UN 1971, UN 1972 natural gas with methane content</li> <li>UN 1066 nitrogen, compressed</li> <li>UN 1267 petroleum gases, liquefied or liquefied petroleum gas</li> <li>UN 1006 argon, compressed</li> <li>UN 1006 argon, compressed</li> <li>UN 1953 compressed gas, toxic, flammable, NOS</li> </ul>
Design temperature	-20 °C to +93 °C		
Design pressure	5,160 psi @ 93 ℃ 6,000 psi @ 37 ℃		
Material	Cyl body: ASTM B348 Ti Gr. 5 End caps: ASTM B348 Ti Gr.2 Needle valves: AISI 316 St Stl Adaptors: AISI 316 St Stl		
Net weight	5.4 kg		
Dimensions	Cyl length incl valves 660mm Cyl body length 444mm Cyl OD 72mm		
Option	<ul> <li>Hydrostatic test certificate, with third party endorsement, complete with inspection release note</li> <li>Alternative connections</li> <li>Transportation box</li> </ul>	Standard documentation	<ul> <li>Hydrostatic test certificate</li> <li>Leak test certificate</li> <li>User instructions</li> </ul>



#### Inconel 625 Flow Through Cylinder 6K

#### ριοιείλ

The Inconel 625 sample receiver is a flow through type cylinder, used for the collection of Group 1 hydrocarbon liquids and gas samples requiring analysis in the laboratory and subsequent storage. The cylinder design allows sampling from extreme environments (H2S). Threaded end caps and a double seal arrangement at either end of the cylinder creates a robust and reliable design that is field proven.

#### Features and benefits

- Valves: Inconel 625
- Valve inlet ports: 1/2 inch NPT female
- Cylinder main components: Inconel 625
- Suitable for sour environments (H2S)



Part number	155548	Approved for use within the European Union under the following Directive: PED 2014/68/EU • Generally in accordance with PD 5500		
Net volume	500 сс			
Design temperature	0 °C to 93 °C (32 °F to 199 °F)	• BS EN14359		
Design pressure	6,000 psi (413 bar)		<ul> <li>UN 1053 hydrogen sulphide (H2S)</li> <li>UN 1066 nitrogen, compressed</li> <li>UN 1075 petroleum gases, liquefied or liquefied petroleum gases</li> <li>UN 1267 Petroleum crude oil</li> <li>UN 1953 compressed gas, toxic, flammable, n.o.s.</li> <li>UN 1954 compressed gas, flammable, n.o.s.</li> <li>UN 1964 hydrocarbon gas mixture, compressed, n.o.s.</li> <li>UN 1965 hydrocarbon gas mixtures, liquefied, n.o.s.</li> <li>UN 1965 hydrocarbon gas mixtures, liquefied, n.o.s.</li> <li>UN 1971, UN 1972 natural gas with methane content</li> </ul>	
Material	Cylinder body / end caps / Hex nipple / Valves: Inconel 625			
Net weight	11 kg approx. (empty)			
Dimensions	Overall length including valves 538 mm (21") Cylinder OD 79 mm (3.1")	Service		
	<ul> <li>Hydrostatic test certificate, with third party endorsement, complete with third party inspection release note</li> <li>Copy of PED 2014/68/EU Declaration of Conformity</li> <li>Material Certification to EN 10204: 3.1 for pressure retaining components</li> <li>Transportation box</li> </ul>			
Option		Standard documentation	<ul> <li>Certificate of conformity</li> <li>Hydrostatic test certificate</li> <li>User instructions</li> <li>User spare parts list</li> </ul>	

#### Inconel 625 Flow Through Cylinder 10K

#### ριοιείλ

The Inconel 625 sample receiver is a flow through type cylinder, used for the collection of Group 1 hydrocarbon liquids and gas samples requiring analysis in the laboratory and subsequent storage. The cylinder design allows sampling from extreme environments (H2S). Threaded end caps and a double seal arrangement at either end of the cylinder creates a robust and reliable design that is field proven.

- Valves: Autoclave Engineers Inconel 825
- Valve inlet ports: 1/4 inch NPT female
- Main components manufactured from Inconel 625 and Inconel 825
- Suitable for sour environments (H2S)



Technical Specification			
Part number	060424	Approved for use within the European Union under the following Directive: PED 2014/68/EU Generally in accordance with PD 5500 BS EN14359	
Net volume	500 сс		
Design temperature	0 °C to +149 °C		
Design pressure	10,000 psi (690 bar) @ +93 °C 8,800 psi (606 bar) @ +149 °C		<ul> <li>UN 1053 hydrogen sulphide (H2S)</li> <li>UN 1066 nitrogen, compressed</li> <li>UN 1075 petroleum gases, liquefied or liquefied petroleum gasses</li> <li>UN 1267 petroleum crude oil</li> <li>UN 1953 compressed gas, toxic, flammable, n.o.s.</li> <li>UN 1954 compressed gas, flammable, n.o.s.</li> <li>UN 1964 hydrocarbon gas mixture, compressed, n.o.s.</li> <li>UN 1965 hydrocarbon gas mixtures, liquefied, n.o.s.</li> <li>UN 1971, UN 1972 natural gas with methane content</li> </ul>
Material	Cylinder / end caps: Inconel 625 Valves: Inconel 825		
Net weight	11 kg approx. (empty)	Service	
Dimensions	Overall length including valve 455 mm Cylinder OD 79 mm		
Option	<ul> <li>Hydrostatic test certificate, with third party endorsement, complete with third party inspection release note</li> <li>Copy of PED 2014/68/EU Declaration of Conformity</li> <li>Material Certification to EN 10204: 3.1 for pressure retaining components</li> <li>Transportation box</li> </ul>		
		Standard documentation	<ul> <li>Certificate of conformity</li> <li>Hydrostatic test certificate</li> <li>User instructions</li> <li>User spare parts list</li> </ul>

# SUBSEA SAMPLE CYLINDERS

MV

CLASS 2 ROV RECEPTACLES CLASS 2 ROV RECEPTACLES VALVES OPEN COUNTERCLOCKWISE

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GV4

PC

ASTE

01

#### Subsea Cylinder, Single Phase, 20K, PED, DOT

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Proserv's subsea sampling cylinder has been designed to capture representative production fluid samples from a subsea environment, allowing for transportation directly to a fluid analysis laboratory without the requirement for fluid transfer. This reduces associated risk or sample loss / contamination, maintains sample integrity, limits the dangers associated with high pressure hydrocarbon transfer and reduces onsite equipment and personnel time during subsea sampling operations.

- Large volume capacity
- Designed in accordance with PED 2014/68/EU
- DOT approval under SP-20681
- Valves qualified to API 6A-PR2
- Materials complaint to ANSI/NACE MR0175/ISO 15156
- Inconel construction, suitable for severe service
- Eliminates need for transfer of sampled fluid in field

Technical specification					
Part number	108292 (2000 153422 (1000	) сс), 171112 (1500 сс) ) сс), 153439 (700 сс)	<ul> <li>Approved for use under the following directive/Permit</li> <li>2014/68/EU (PED)</li> <li>DOT Special Permit SP-20681</li> </ul>		
Net volume	See table belo	W			
MAWP	20000 psi (13 19200 psi (13	79 Bar) @ -29°C to +93°C 24 Bar) @ +177°C	Standard	<ul> <li>Hydrostatic Pressure Test Certificate</li> <li>User Instructions &amp; User spare parts list</li> <li>Authorised Inspectors Certificate of Conference DOT CERTIFICATE OF CONFERENCE DOT CERTIFICATE</li> </ul>	
Design temperature	-29 °C to 177	°C	certification		
Material	Cylinder and E (UNS N07725 ISO 15156 AP Sample Pistor	ind Caps: Inconel 725 ) in ANSI/NACE MR0175/ 'I-6A Condition n and Vortex Ring: Inconel		UN 1006 - Argon, Compressed     UN 1066 - Nitrogen, compressed	
	625 (UNS N06 MR0175/ISO	i625) in ANSI/NĂCE 15156 Condition		UN 10/5 - Petroleum gases, liquefied or liquefied petroleum gases     UN 1267 - Detroleum gases	
	Nitrogen Pisto (UNS S31600	on: Stainless Steel 316 )	Service	<ul> <li>UN 1267 - Petroleum crude oll</li> <li>UN 1953 - Compressed gas, toxic, flammable, n.o.s.</li> <li>UN 3161 - Liquefied gas, Flammable, N.O.S</li> <li>UN 1954 - Compressed gas, flammable, n.o.s.</li> </ul>	
	Valve Body: Ni Valve Stem: M	bron P35N (UNS R30035)			
Net weight	See table belo	W			
Dimensions	See table belo	See table below		<ul> <li>ON 1964 - Hydrocarbon gases mixtures, compressed, n.o.s.</li> </ul>	
Water depth (maximum)	3,000 m			UN 1965 - Hydrocarbon gases mixtures,	
Optional certification	<ul> <li>3rd party Inspection Release Note</li> <li>Hydrostatic Pressure Test Certificate, with 3rd party endorsement</li> <li>PED Declaration of Conformity</li> <li>Material certification to EN 10204: Type 3.1 for main pressure retaining components</li> <li>API 17D Hyperbaric test (3000 m) 3rd party witness</li> </ul>			<ul> <li>UN 1971 / UN 1972 - Methane, compressed or natural gas</li> <li>- UN 1053 - Hydrogen sulfide</li> </ul>	
			Standard documentation	<ul> <li>Hydrostatic test certificate</li> <li>API-6A PR2 Proserv certificate</li> <li>User instruction and user spare parts list</li> <li>Hyperbaric test (3000 m) third party witness</li> </ul>	
Cylinder options					
Net volume		Net weight		Dimensions	
2000cc Cylinder Volume & 500cc Nitrogen		46kg (empty) 48kg (pre-charged water/glycol)		Cylinder Length = 1340mm, Cylinder OD = 88.9mm	
1500cc Cylinder Volume & 500cc Nitrogen		42kg (empty) 43.5kg (pre-charged water/glycol)		Cylinder Length = 1167mm, Cylinder OD = 88.9mm	
1000cc Cylinder Volume & 300cc Nitrogen		35kg (empty) 36kg (pre-charged water/glycol)		Cylinder Length = 926mm, Cylinder OD = 88.9mm	
700cc Cylinder Volume & 300cc Nitrogen		32kg (empty) 32.7kg (pre-charged water/glycol)		Cylinder Length = 818mm, Cylinder OD = 88.9mm	





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