



- **DESCRIPTIVE:**

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- Piston floating cylinder with patented double barrier and inter-seals separation chamber: this chamber is to be filled with separation neutral fluid such as Nitrogen through the drilled piston shaft to prevent sulfur species oxidation .

This arrangement prevents any source of VCS'S losses with deterioration of standard sample as well as Nitrogen bubbles off-gassing as Nitrogen is not in contact.

Chilling procedure before filling or during storage is not required as Sample Standard is kept under pressure.

- Parts in contact with standard sample: 316L stainless steel body and PTFE seals.
- Cylinder / Piston assembly is seamless with polishing operation (RA < 0.2 µm)
- Piston between the two PTFE seals features a scraper intermediate seal for walls autocleaning before feeding.

**OPTIONS:**

**Compliance with European Pressure Equipment Directive PED 97/23/CE:**

- Procedure complying with PED Annex III-Module A. Integrated relief valves LLOYD'S REGISTER certified on gas chamber. Maximum allowable pressure depends on vapor pressure of sample at maximum temperature.
- Declaration of conformity and CE mark.

**Stirring devices:**

- Motorised stirrer for standard fluid homogeneity and to reduce the last fuel discard bottom (pneumatic or ex-proof motor ATEX II 2 G EExdIICT4, single phase 115/230 V- 50/60 Hz-200 W)

**Level transmitter:**

- For remote monitoring of sample contained inside of calibration standard contained, the position of the floating piston in the cylinder is monitored by a resistive displacement level transmitter (0 to 10 Kohms) tied to the piston shaft. No calibration is required within the life of this component.
- Associated to the Intrinsically Safe Barrier KFD2-PT2-Ex1 from Pepperl + Fuchs for a 4 - 20 MA or 0-10 V DC output, the transmitter loop is certified ATEX II 2 G EExi IICT6 for hazardous area.

**Low level trip alarm:**

- Pre-alarm and / or low level alarm by electrical contact ATEX IIG EEx ed IIC T6 is available as option.

**Additive injection fitting:**

Special fitting consisting of elastomer septum for syringe can be used for additive injection into the Sample Standard candidate or to add a known amount of component of interest ( Sulfur species).

## Portable cylinder handling assembly for Sample Standard calibration:

Once the storage tank has been filled with the sample standard candidate Diesel a sample must be drawn in a close cylinder for analyse and validation of this product as comparison reference ULS Diesel .

For this critical step of Diesel Sample Standard storage & validation operation the unopened portable cylinder handling assembly featuring hoses and quick connect couplings as well as disposal drain is advised. The whole system engineered for this application and field proved is integrated as option to the calibration cylinder .



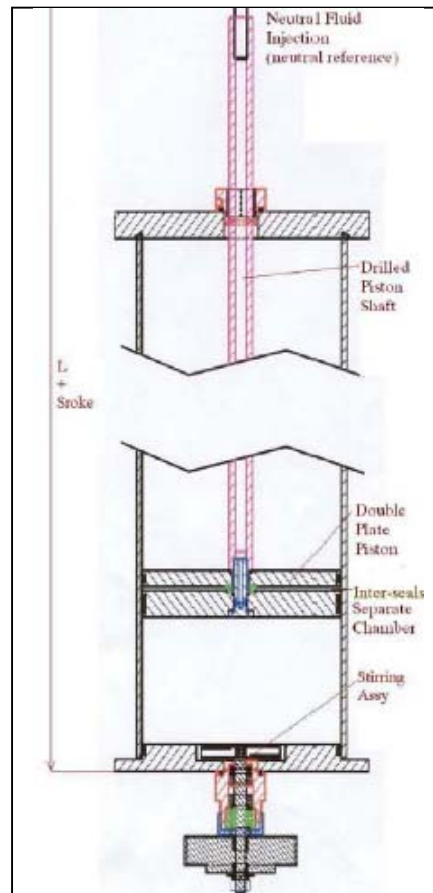
## Water traces detector:

This is a microwaves propagation velocity monitor fitted on tank bottom unaffected by sticky coating to detect trace of water mainly during fuel collection from bulk storage vessel.

## SPECIFICATIONS:

- Diesel Sample Standard chamber capacity: to select in the range of: 10-25-50-300 dm<sup>3</sup>
- Fluid motor pressure depending on capacity and ambient temperature
- Hydrostatic test: 5 bars during 20 mn on standard sample chamber.
- Pneumatic test: 5 bars during 120 mn on air or Nitrogen standard chamber.
- Material: All wetted parts in. 316 L stainless steel and PTFE

Capacitance Dm <sup>3</sup>	10	25	50	300
L + Stroke mm	899	1720	600	1685
Stroke mm	365	765	190	684



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