

Most accurate sample grabber
Heavy Duty Low Maintenance Design
Fully ISO and API compliant
Not effected by pressure or viscosity variations

CS-01 Cell Sampler

Air actuated flow-through
sample extractor

The CS-01 Cell is a heavy duty reliable and accurate flow through sample extraction device. The CS-01 Cell is an integral part of the KPS bypass or “fast-loop” sampling systems.

The CS-01 cell sampler is the ideal solution for a wide range of liquid sampling applications from light gas condensates to refined products and crude oils up to 120°C. With close to 100 auto samplers installed within a 20 minute range of the head office, in the Rotterdam harbour area. KPS got the opportunity to develop this unique proprietary low maintenance design. The innovative KPS CS-01 cell sampler is a unique sampler containing several unique features that allow for a unmatched high mean time between failure rate. As a consequence, operators save out a great amount of operational and logistic costs and prevent possible oil losses plus discussions about the reliability and accuracy of the entire sampling system. The KPS CS-01 heavy duty automatic sampler allows for a long untroubled and stable performance factor. The KPS CS-01 is capable of handling crude oils containing high solid contents, and highly viscose crudes. The CS-01 uses a three-step technique to assure that the performance stays unaffected by possible variations in the process. To prevent possible water separation, and dead volumes, the KPS CS-01 Cell sampler has a bottom exit sample outlet. With KPS supplying and servicing auto sampling solutions for over 15 years, the CS-01 has a proven record of being one of the key components of a reliable and low maintenance automatic sampling system.



Specification

Fluids sampled Crude oil, refined hydrocarbons (including non-lubricating products)
Viscosity range 0.5 to 8000 cSt.

Line temperature range -20 to +90°C / -4 to +194°F (higher available upon request)

Ambient temperature range -20 to +65°C / -4 to +149°F

Max. operating pressure

Class	38C	50C	100C
150#	19,0	18,4	16,2 bar(g)
300#	49,6	48,1	42,2 bar(g)
600#	99,3	96,2	84,4 bar(g)
900#	148,9	144,3	126,6 bar(g)
1500#	148,9	144,3	126,6 bar(g)

Configuration Full bore - flow through cell

Size range 1" to 2" Nominal bore

Mounting arrangements 1" nominal bore
ANSI class 150, 300 or 600 wafer type (standard)
(1", 1-1/2" & 2" flanged versions available on request)

Sample grab size (nominal) 1.04cc or 2.04cc

Grab size repeatability ±1%

Grab size adjustment 1cc version ±20% - 2cc version +0 / -10%

Max. grab rate 100 grabs per min.

Sample outlet connection 1/4" Swagelok®

Standard materials Pressure retaining: 316/304 Stainless steel
Standard seals: Graphite filled P.T.F.E.
Standard O' rings Viton (Kalrez available)
(NACE certification available)

Operating standards and CE compliance ISO 3171, API 8.2, IP 6.2, PED . 97/23/EC,
Machinery directive . 98/37/EC

Approximate weight 12.5kg (27lb)

Actuation data

Actuation method Pneumatic

Air supply range 4 to 10 bar / 60 to 145 psi (lubricated air recommended)

Air consumption 30 grabs/min 0.47 ft³/min [CFM] - (0.8m³/hr) @ 5 bar

Actuator connections 2 x 1/4" NPT female



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OTHER KPS PRODUCTS:

- Automatic Gas Sampling
- Online Analyzer Systems