



# 210EH Cell & 210EH-HP Cell

Hydraulically actuated flow-through sample extractor



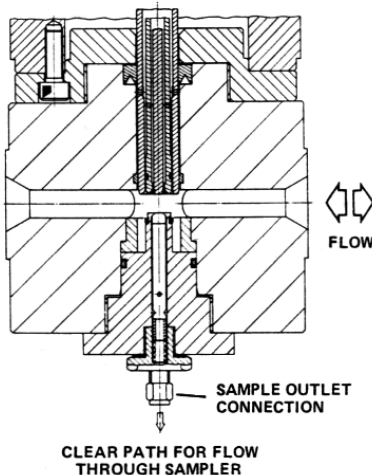
The 210EH Cell is one of the most reliable and accurate flow-through sample extraction devices, suitable for use as part of an externally pumped, bypass "fast-loop" sampling system. Available in standard and high pressure (210 EH-HP) versions the 210EH is hydraulically operated and includes a self-contained hydraulic pack making it the ideal solution for a wide range of liquid sampling applications where an air supply is

unavailable.

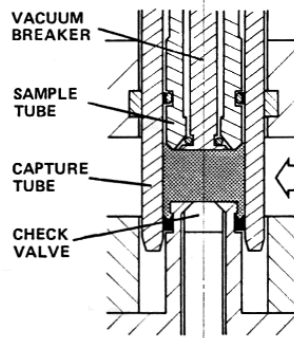
The 210EH Cell has a unique three-stage positive displacement action giving accurate sampling irrespective of variations in process pressure or fluid viscosity. Designed for use with 1-2" diameter lines, the entire stream passes through the body of the device. The flow-through 210EH Cell sampler has a bottom exit sample outlet, which avoids any possible water separation, and reduces any dead volume to an insignificant amount within the sampler.

Maintenance and replacement of seals can, if necessary, be performed without removal of the sampler from the fast-loop. Established as one of the key instruments in the sampling process for fiscal transfer and quality assessment, the 210EH has a vast world-wide installed base and is seen as one of the most reliable platforms on which to build a sampling system.

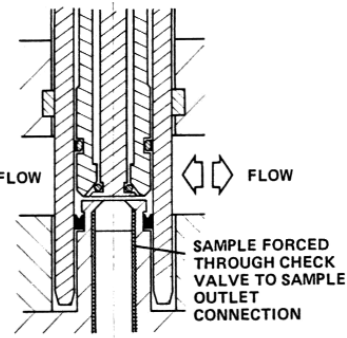
Data Sheet S103-0507-3 • 210P Cell & 210P-HP Cell



FLOW



SAMPLE "GRAB" ISOLATED - FLOW CONTINUES THROUGH SAMPLER



SAMPLE "GRAB" TAKEN - FLOW CONTINUES THROUGH SAMPLER

Three stage positive displacement action



## Specification

	<b>210EH Cell</b> Hydraulically actuated sample extractor	<b>210EH-HP Cell</b> Hydraulically actuated sample extractor
Fluids sampled	Crude oil, refined hydrocarbons (including non-lubricating products) & non-corrosive chemicals	Crude oil, refined hydrocarbons (including non-lubricating products) & non-corrosive chemicals
Viscosity range	0.5 to 8000 cSt.	0.5 to 8000 cSt.
Line temperature range	-20 to +120°C / -4 to +248°F	-20 to +120°C / -4 to +248°F
Ambient temperature range	-20 to +65°C / -4 to +149°F	-20 to +65°C / -4 to +149°F
Max. operating pressure (construction)	100 Barg at 40°C (standard materials of construction)	100 Barg at 40°C (standard materials of construction)
Configuration	Full bore - Flow through cell	Full bore - Flow through cell
Size range	1" to 2" Nominal bore	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)	1", 1-1/2" or 2" nominal bore - ANSI class 600, 900 or 1500 flanged RF or RTJ
Sample grab size (nominal)	1.04cc or 2.04cc (conversion kits available)	1.04cc or 2.04cc (conversion kits available)
Grab size repeatability	Better than ±2%	Better than ±2%
Grab size adjustment	1cc version ±20% - 2cc version +0 / -10%	1cc version ±20% - 2cc version +0 / -10%
Max. Grab rate	30 grabs per min. **	15 grabs per min. **
Sample outlet connection	1/4" Swagelok®	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*)	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	ISO 3171, API 8.2, IP 6.2, PED – 97/23/EC, Machinery directive – 98/37/EC
Approximate weight	12.5kg (27lb)	13.5kg (29lb)

### Actuation data

Actuation method	Hydraulic	Hydraulic
Hydraulic supply	20 l/min @ 7 bar **	20 l/min @ 7 bar **
Consumption	7.62 l/min @ 30 grabs/min **	2.4 l/min @ 15 grabs/min **
Actuator connections	2 x 1/4"NPT female	2 x 1/4"NPT female

\* Charges made for these items

\*\* Maximum grab rate, consumption, seal life and supply requirements are dependant on process conditions, i.e. line pressure and fluid viscosity.

These are standard design specifications. We operate a policy of continuous development and the information on this sheet may be updated without notice.



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