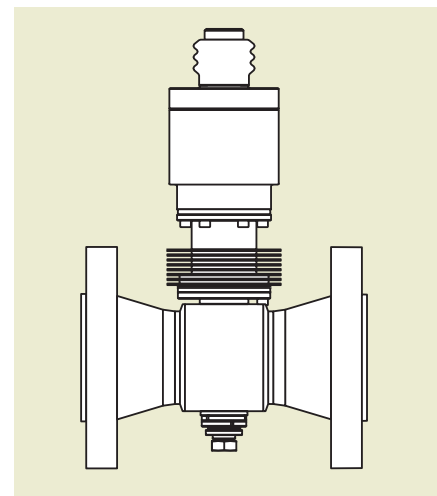


+ JISKOOT 210 Hybrid Cell Sampler

Air actuated flow-through sample extractor

The Hybrid Cell Sampler (HCS) compliments JISKOOT's existing and established range of sampling process key instruments for fiscal transfer and quality assessment, seen as one of the most reliable platforms on which to build a sampling system.



Without Static Mixer

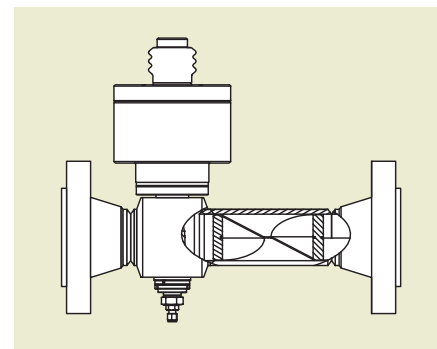
The HCS is based on JISKOOT's existing reliable and accurate flow-through sample extraction device, suitable for use as part of either an "in-line sampling system" or externally pumped, bypass "fastloop" sampling system.

Available with standard actuator, high temperature (HT) or high-pressure (HP) versions, with or without integral static mixer; it is the ideal solution for a wide range of liquid sampling applications from refined products to crude oils at - 20 - 200°C.

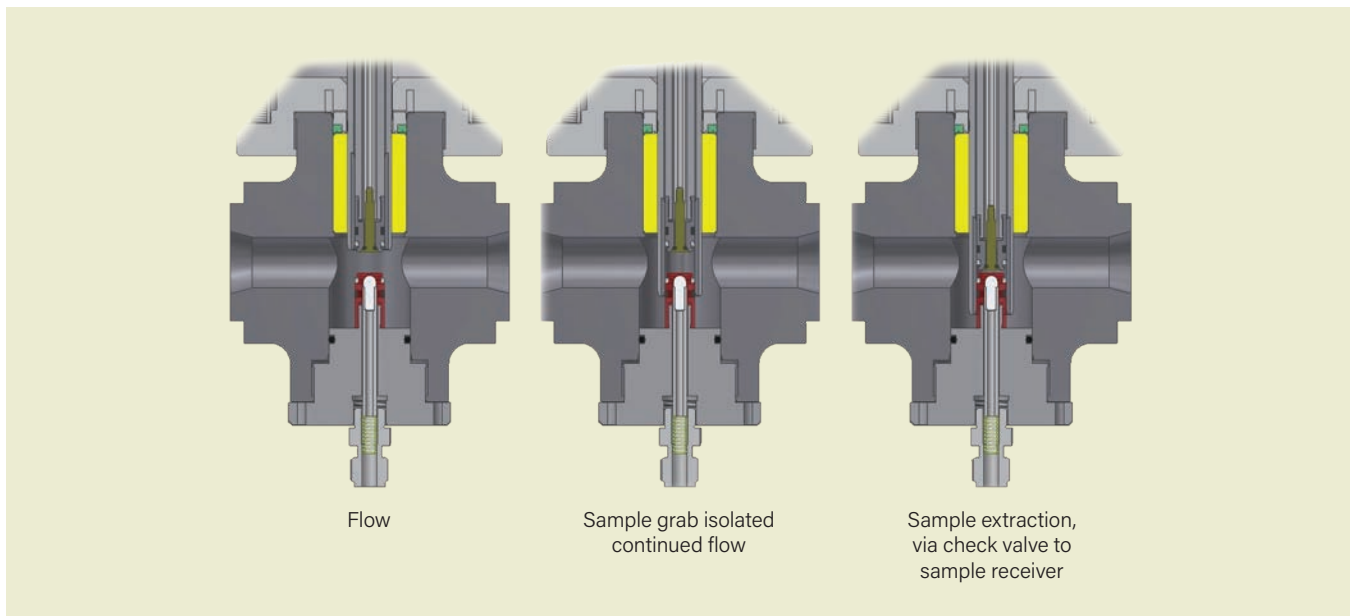
The hybrid cell utilises JISKOOT's 210 Series unique three-stage positive displacement action providing accurate sampling irrespective of variations in process pressure or fluid viscosity.

Designed for use with 2", 3" or 4" diameter lines, the flow-through Hybrid 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 be performed without removing the sampler from the fast-loop.



With Static Mixer



Three-Stage Positive Displacement Action

Specification

Fluids sampled	Crude oil, refined hydrocarbons (including non-lubricating products) & non corrosive chemicals					
Viscosity range	0.5 to 8000 cSt.					
Process temperature range	Flange dependant					
Ambient temperature range	-20°C to +65°C (-4°F to +149°F)					
Max. operating pressure (standard materials of construction)	Class	38°C	50°C	100°C	150°C	200°C
	150	19	18.4	16.2	14.8	13.7
	300	49.6	48.1	42.2	38.5	35.7
	600	99.3	96.2	84.4	77	71.3
Seal Temperature	-20°C to +200°C (-4°F to +392°F) Process wetted parts					
Configuration	Full bore - flow through cell					
Size range	2' to 4' Nominal bore					
Mounting arrangements	ANSI class 150, 300 or 600 - flanged					
Sample grab size (nominal)	1.04cc or 2.04cc					
Grab size repeatability	Better than ±2%					
Grab size adjustment	1cc version ±20% - 2cc version +0 / -10%					
Max. grab rate** (per min)	Hybrid : 100			Hybrid HP: 50		
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 - 2006/42/EC					
Approximate weight	Model dependant					
Actuation method	Pneumatic					
Air supply range**	4-10 bar / 60-145 psi (lubricated air recommended)					
Air consumption**	(30 grabs/min)			Hybrid: 0.47 ft³/min[CFM] - (0.8m³/hr) @ 5 bar		
Hybrid-HP: 1.0 ft³/min[CFM] -	(1.67m³/hr) @ 5 bar			Actuator connections 2 x 1/4' NPT female		