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JISKOOT 210P-SD and JISKOOT 210EH-SD Severe-Duty Sample Extractors

Pneumatic and hydraulic flowthrough sample extractors

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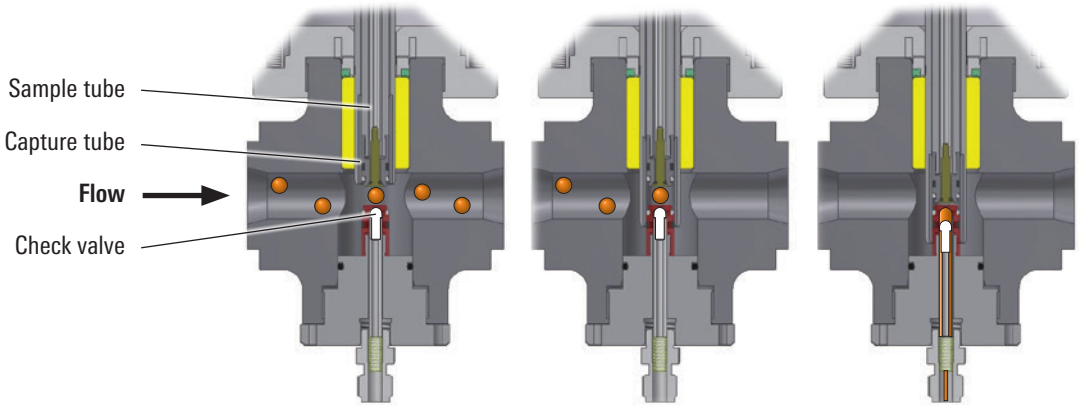
JISKOOT 210P-SD* severe-duty pneumatic sample extractor and JISKOOT 210EH-SD* severe-duty hydraulic sample extractor are designed for sampling applications where the fluid or process conditions are arduous or where longer maintenance intervals are required. These reliable, accurate flowthrough sample extraction technologies are suitable for use in externally pumped, bypass fast-loop sampling systems.

Available in standard and hydraulic versions, they are the ideal solution for a wide range of liquid sampling applications from –4 to 194 degF [–20 to 90 degC] as standard and optional –71 to 392 degF [–57 to 200 degC] extreme versions (details on request).

The JISKOOT 210P-SD extractor features a robust, wear-resistant severe-duty coating, providing extended longevity compared with standard samplers. The main process seals have been upgraded, and all components that were susceptible to erosion have been eliminated. Both extractors incorporate a unique three-stage positive displacement action, giving accurate sampling regardless of variations in process pressure or fluid viscosity. Designed for use with 1- to 2-in-diameter lines, the entire stream passes through the body of the device. The flowthrough extractors have bottom-exit sample outlets, minimizing any possible water separation and reducing any dead volume within the extractor to an insignificant amount.

Depending on location, maintenance and replacement of seals can be performed without removing the extractors from the fast loop. Established as some of the key instruments in the sampling process for fiscal transfer and quality assessment, the JISKOOT 210P-SD and JISKOOT 210EH-SD extractors have been installed in many locations worldwide and are some of the most reliable platforms on which to build a sampling system.

Three-Stage Positive Displacement Action



Product flows through sampler body flow chamber.

Capture tube isolates grab while flow continues through the sampler.

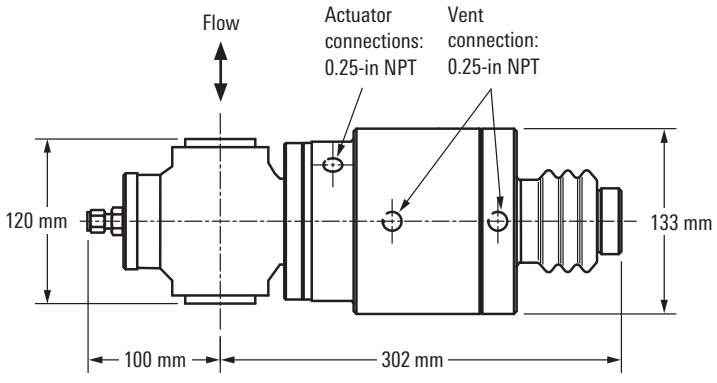
Positive displacement action forces sample past check valve.

Specifications				
Fluids sampled	Crude oil, refined hydrocarbons (including nonlubricating products), and noncorrosive chemicals			
Viscosity range, mm^2/s [in^2/s]	0.5–8,000 [0.001–12.4]			
Process temperature range, degC [degF]	–20 to 90 [–4 to 194] as standard and optional –57 to 200 [–71 to 392] extreme (details on request)†			
Ambient temperature range, degC [degF]	–20 to 65 [–4 to 149 degF]			
Maximum operating pressure (standard materials of construction), bar [psi]	**Class**	**38 degC [100 degF]**	**50 degC [122 degF]**	**100 degC [212 degF]**
	150	19 [275]	18.4 [267]	16.2 [235]
	300	49.6 [719]	48.1 [698]	42.2 [612]
	600	99.3 [1,440]	96.2 [1,395]	84.4 [1,224]
Configuration	Fullbore: flowthrough cell			
Size range, mm [in]	25–51 [1 to 2 nominal]			
Mounting arrangements	1-in nominal bore—ANSI Class 150, 300, or 600—wafer type (standard) (1-and 2-in flanged versions available on request)			
Sample grab size (nominal), cm^3 [in^3]	1.04 or 2.04 [0.06 or 0.12]			
Grab size repeatability, %	Better than ± 2			
Grab size adjustment, %	±10			
Maximum grab rate‡ (per min)	JISKOOT 210P-SD extractor: 120			
	JISKOOT 210EH-SD extractor: 50 (fitted with 0.5-in nominal bore)			
Sample outlet connection	0.25-in Swagelok†			
Standard materials	Pressure retaining:		316 or 304 stainless steel	
	Standard seals		Graphite-filled PTFE	
	Standard O-ring		Viton® (Kalrez® available)†	
	NACE certification†			
Operating standards and CE compliance	ISO 3171, API Spec 8.2, IP 6.2, PED 97/23/EC, 2006/42/EC			
Approximate weight, kg [lbm]	JISKOOT 210P-SD extractor: 12.5 [27]			
	JISKOOT 210EH-SD extractor: 13.5 [29]			
Actuation data				
Actuation method	**Pneumatic**		**Hydraulic**	
Supply range	4–10 bar [60–145 psi] (air)		20 L/min at 7 bar (gauge)	
Consumption§ (30 grabs/min)	0.0133 m^3/min [0.47 ft^3/min]		7.62 L/min [2 galUS/min] at 7 bar [101 psi]	
Actuator connections	2-in × 0.25-in national pipe thread taper female			

† Charges made for these items

‡ Maximum grab rate, consumption, seal life, and supply requirements are dependent on process conditions (i.e., line pressure and fluid viscosity)

§ Actual standard cubic feet per minute reflects the actual swept volume for 30 sample cycles without allowance for interconnection piping



Schematic drawing of JISKOOT 210P-SD or JISKOOT 210EH-SD extractor.

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