

JISKOOT 210P-SD Cell and 210EH-SD Cell Flow-Through Sample Extractor

TECHNOLOGY



JISKOOT 210P-SD Cell and 210EH-SD Cell Flow-through Sample Extractor

Cameron's JISKOOT™ 210-SD cell is the severe duty version of the 210 cell sampler. It is designed for sampling applications where the fluid or process conditions are arduous or where longer maintenance intervals are required. The 210-SD cell is a reliable and accurate flow-through sample extraction device, suitable for use as part of an externally pumped, bypass fast-loop sampling system.

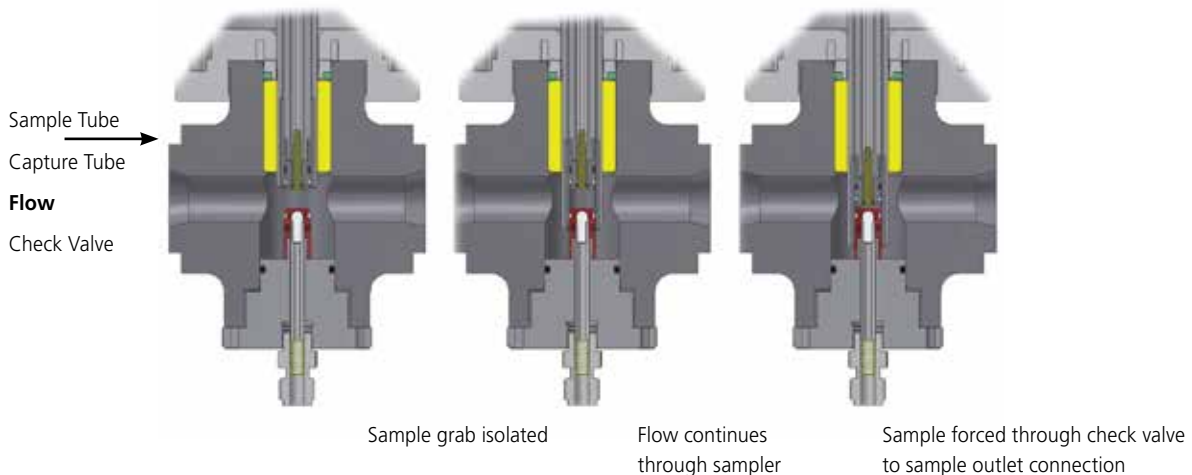
Available in standard and hydraulic (210-EH) versions, it is the ideal solution for a wide range of liquid sampling applications from -4° F to 194° F (-20° C to 90° C) as standard, and optional -71° F to 392° F (-57° C to 200° C) extreme versions (details on request).

The 210P-SD cell is fitted with a robust, wear-resistant 'SD' coating, providing an extended longevity compared to standard samplers. The main process seals have been upgraded and all components susceptible to erosion eliminated. The 210-SD cell incorporates the unique three-stage positive displacement action giving accurate sampling irrespective of variations in process pressure or fluid viscosity. Designed for use with 1" to 2" diameter lines, the entire stream passes through the body of the device. The flow-through 210 cell sampler has a bottom exit sample outlet, minimizing any possible water separation, and reduces any dead volume to an insignificant amount within the sampler.

Depending on location, maintenance and replacement of seals can be performed without removing the sampler from the fast-loop. Established as one of the key instruments in the sampling process for fiscal transfer and quality assessment, the 210 has a vast worldwide installed base and is seen as one of the most reliable platforms on which to build a sampling system.



Three-Stage Positive Displacement Action



Specifications

| | | | | |
|---|---|--|---|-----------------|
| Fluids sampled | Crude oil, refined hydrocarbons (including non-lubricating products) and non-corrosive chemicals | | | |
| Viscosity range | 0.5 to 8000 cSt | | | |
| Process temperature range | -4° F to 194° F (-20° C to 90° C) as standard and optional -71° F to 392° F (-57° C to 200° C) extreme (details on request) ¹ | | | |
| Ambient temperature range | -4° F to 149° F (-20° C to 65° C) | | | |
| Maximum operating pressure (standard materials of construction) | Class | 100° F (38° C) | 122° F (50° C) | 212° F (100° C) |
| | 150# | 19 | 18.4 | 16.2 |
| | 300# | 49.6 | 48.1 | 42.2 |
| | 600# | 99.3 | 96.2 | 84.4 |
| 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" and 2" flanged versions available on request) | | | |
| Sample grab size (nominal) | 1.04cc or 2.04cc | | | |
| Grab size repeatability | Better than ± 2% | | | |
| Grab size adjustment | 1cc version/2cc version ± 10% | | | |
| Maximum grab rate ³ (per min) | 210P-SD: 120 | | 210EH-SD: 50 (Fitted with 1/2" NB) | |
| Sample outlet connection | 1/4" Swagelok® | | | |
| Standard materials | Pressure retaining: | 316/304 Stainless steel | | |
| | Standard seals: | Graphite filled P.T.F.E. | | |
| | Standard O-ring | Viton® (Kalrez available) ¹ | | |
| | (NACE certification available) ¹ | | | |
| Operating standards and CE compliance | ISO 3171, API 8.2, IP 6.2, PED - 97/23/EC, 2006/42/EC | | | |
| Approximate weight | 210P-SD: 12.5 kg (27 lb) | | 210EH-SD: 13.5 kg (29 lb) | |

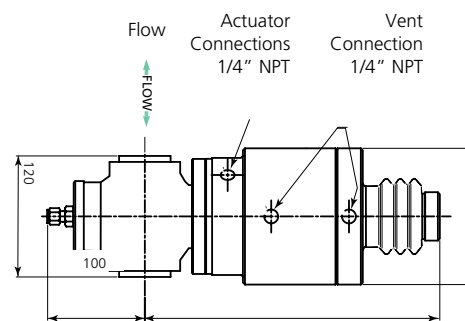
Actuation data

| | | |
|---|---|--------------------|
| Actuation method | Pneumatic | Hydraulic |
| Supply range | 4 to 10 bar/60 to 145 psi (air) | 20 l/min at 7 barg |
| Consumption ² (30 grabs/min) | 210P-SD: 0.47 ft ³ /min[CFM] - (0.8 m ³ /hr) at 5 bar 210EH-SD: 7.62 l/min at 30 gpm | |
| Actuator connections | 2 x 1/4" NPT female | |

¹ Charges made for these items

² [ACFM] reflects the actual swept volume for 30 sample cycles without allowance for interconnection piping

³ Maximum grab rate, consumption, seal life and supply requirements are dependant on process conditions (i.e., line pressure and fluid viscosity)



302 Max - Series 210, 210-EH & 210 EH-HP

NORTH AND SOUTH AMERICA

14450 JFK Blvd.
Houston, TX 77032
USA
Tel 1 281 582 9500
ms-us@c-a-m.com

EUROPE, AFRICA, CASPIAN AND RUSSIA

JISKOOT Technology Centre
Longfield Road
Tunbridge Wells
Kent, TN2 3EY
United Kingdom
Tel 44 1892 518000
ms-jiskootuksales@c-a-m.com

ASIA PACIFIC

Suite 16.02 Menara AmFirst
No. 1 Jalan 19/3
46300 Petaling Jaya
Selangor Darul Ehsan
Malaysia
Tel 603 7954 0145
ms-kl@c-a-m.com

MIDDLE EAST

Level 9, Al Jazira Club Tower A
PO Box 47280, Muroor Road
Abu Dhabi
United Arab Emirates
Tel 971 2 596 8400
ms-uk@c-a-m.com

Learn more about measurement at:
www.c-a-m.com/measurement



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HSE Policy Statement

At Cameron, we are committed ethically, financially and personally to a working environment where no one gets hurt and nothing gets harmed.