

CH-SP PRESSURE SAMPLER

DATASHEET



WHAT IS THE PRESSURE SAMPLER?

CH-SP, a primary pressured pipeline sampler designed to operate in a vertical position, is intended for professional use in mining to extract representative slurry samples from pressurized turbulent streams. It provides continuous or semi-continuous sampling, ensuring accurate analysis and quality control.

The sampler features an internal rubber lining for superior abrasion resistance in demanding environments. With flow rates between 100–300 l/min, it is compatible with additional equipment like composite samplers and on-stream analyzers. The design supports easy installation, maintenance, and periodic flushing to enhance operational efficiency and extend its service life.

Process Connections

Inlet Flange	Outlet Flange	Sampler Flange Compatibility
DN 100/4" – DN 700/28"	DN 100/4" – DN 700/28"	EN 1092-1 PN 10 ASME B16.5 Class 150 SABS 1123-TABLE 10

Other connections available upon request. Sampler is connected straight to the pipeline. The size of the sampler is selected according to the size of the pipeline.

Materials

Sampler body	Mild Steel 5mm (S235 JR)
Inside surfaces	Natural rubber 5 mm, other lining materials available upon request
Outside surfaces	Epoxy paint 210 µm, EP210/2-3-FeSa 2½ - RAL 7026
Sample nozzle	Stainless steel (AISI 304, EN 1.4301)
Abrasion resistant AR cutter	Stainless steel (AISI 304, EN 1.4301), Tungsten Carbide (WC)

Flushing System

Flushing water requirements

Pressure	2–8 bar / 0.2–0.8 MPa / 30–120 PSI
Water consumption	May temporarily rise up to 150 l/min (40 GPM)

Flushing water quality recommendations

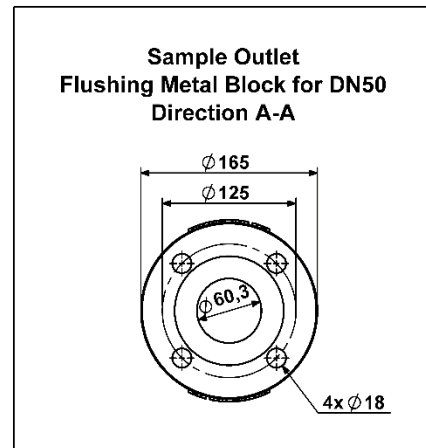
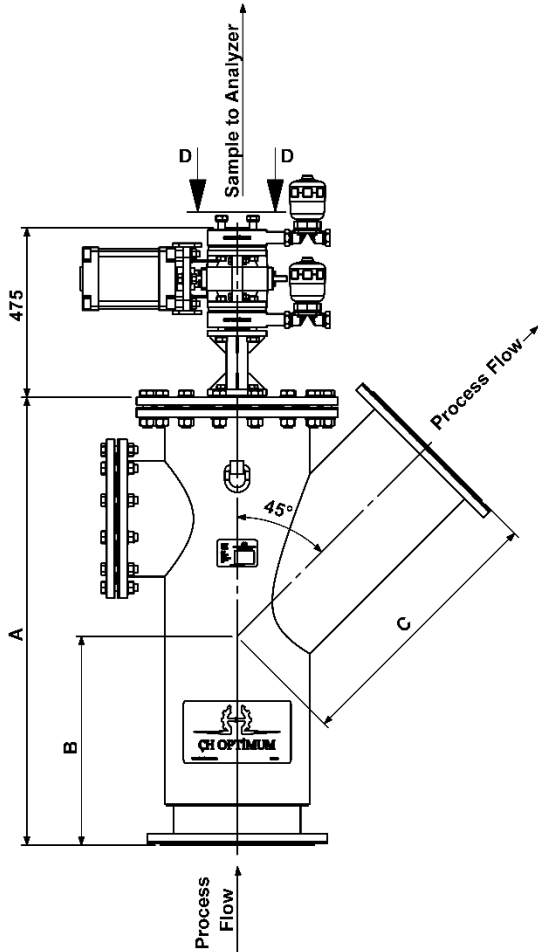
Solid particles	Max. 10 mg/l
Particle size	Max. 50 µm
Permanganate value	Max. 30 (free from humus)
Ferro content	Max. 1 mg/l
Hardness value	Max. 10° dH
Critical particle size	2–5 µm

Flushing water connections

Sample line flanges	DN 50, EN 1092-1, PN10
Water inlet – Main flushing	Hose connector OD 25 mm / 1" or G1" female
Water inlet – Tank flushing	Hose connector OD 25 mm / 1" or G1" female
Pipe threads	According to ISO 228/1

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Sampler Size	Flow Rate (m ³ /h)	Pressure Loss (m)	Weight (kg)	Sampler Dimensions (mm)				
				A	B	C	Inlet	Outlet
DN100 / 4"	40-120	5,5	165	737	400	400	DN100	DN100
DN150 / 6"	70-210	5	222	844	400	465	DN150	DN150
DN200 / 8"	110-350	6,5	250	996	465	525	DN200	DN200
DN250 / 10	170-500	7	305	1156	565	600	DN250	DN250
DN300 / 12	250-700	8,5	360	1206	580	700	DN300	DN300
DN350 / 14	350-1050	10	420	1256	585	755	DN350	DN350
DN400 / 16	450-1400	11,5	507	1388	615	905	DN400	DN400
DN450 / 18	600-1600	12,5	590	1508	670	955	DN450	DN450
DN500 / 20	670-2000	15	773	1578	680	1055	DN500	DN500
DN600 / 24	1000-3000	16	1142	1880	705	1255	DN600	DN600
DN700 / 28	1500-5500	17	1450	2102	735	1355	DN700	DN700

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Air System

Air connections	
Inlet to cylinder	Compatible with 8 mm tube
Inlets to valves	For 6/4 mm tube only
Air requirements	
Instrument air	Oil free, dry instrument air
Quality	Class 2.2.2 according to standard ISO 8573-1
Pressure	6–10 bar / 0.6–1.0 MPa / 88–145 PSI
Air consumption	Momentary 7–120 NI/min (0.25–4.24 cuft/min) depending on cutter frequency

CH-SP Application

Fluid (group)	2 (PED 97/23/EC)
Maximum allowed pressure	1.0 Mpa / 10 bar / 145 PSI (PED 97/23/EC)

Other Specifications

Accessories	
Valve Management Panel (VMP)	For more information, refer to the corresponding datasheet
Optional control devices	
Sampler Management Panel (SMP)	For more information, refer to the corresponding datasheet
Ambient conditions	
Operating temperature	0 – +50°C
Storing temperature	-20 – +50°C