

CH-SG-NC Gravity Sampler

Datasheet



WHAT IS THE GRAVITY SAMPLER?

The CH-SG-NC is a slurry sampling machine designed to collect highly accurate and representative samples from process streams. Equipped with two-stage cutters, it ensures precise sampling by effectively separating and capturing the required portion of the slurry. Its interior surfaces are reinforced with rubber lining for enhanced durability and compatibility with harsh conditions. Additionally, the automatic valve system prevents blockages and improves sample representativeness by flushing the sampling line.

Process Connections

Inlet Flange	Outlet Flange	Sampler Flange Compatibility
DN 500/20" – DN 1200/48"	DN 500/20" – DN 1200/48"	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 6mm (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
Adjustable sample cutter	Stainless steel 5 mm (AISI 316, EN 1.4401), rubber-lined cutter blades 3 mm
Fixed sample cutter	Stainless steel 8 mm (AISI 316, EN 1.4401), rubber-lined cutter tip 3 mm
Abrasion resistant AR cutter (If requested)	Stainless steel 5 mm (AISI 316, EN 1.4401), Tungsten Carbide (WC)
Sample outlet funnel	Stainless steel 3–5mm (AISI 316, EN 1.4401)

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

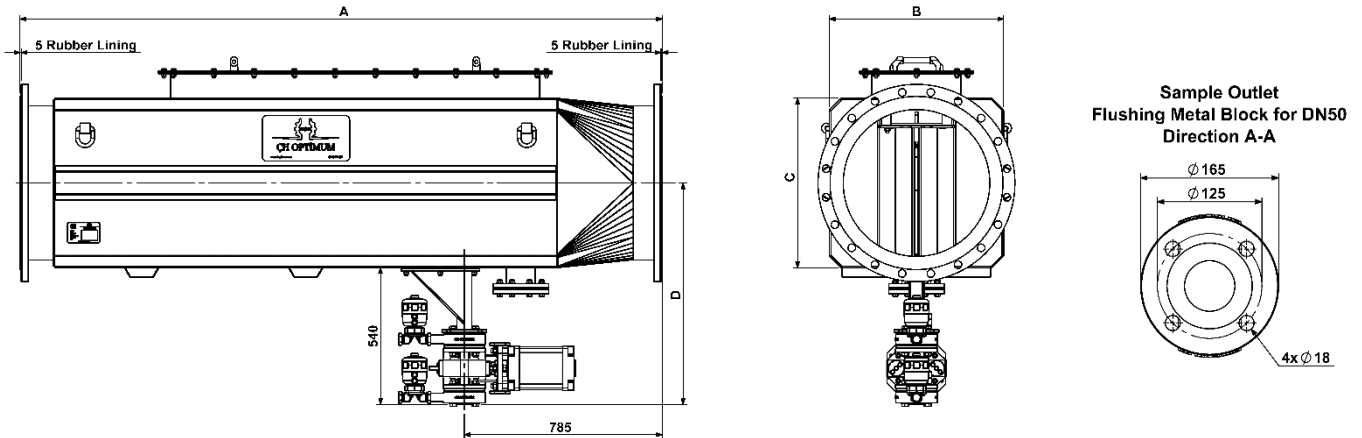
Solid particles	Max. 10 mg/l
Particle size	Max. 50 µm
Permanganate value	Max. 30 (free from humus)
Ferro content	Max. 1 mg/l
Hardness value	Max. 10° dH
Critical particle size	2–5 µm

Flushing water connections

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	Weight (KG)	Sampler Dimensions (mm)					
		A	B	C	D	Inlet	Outlet
DN500 / 20"	620	2545	580	570	826	500	500
DN600 / 24"	700	2545	690	670	876	600	600
DN700 / 28"	820	2700	770	770	926	700	700
DN800 / 32"	935	2800	880	860	971	800	800
DN900 / 36"	1070	3300	980	975	1029	900	900
DN1000 / 40"	1240	3350	1100	1050	1066	1000	1000
DN1050 / 42"	1370	3400	1150	1100	1091	1050	1500
DN1100 / 44"	1500	3500	1200	1200	1141	1100	1100
DN1200 / 48"	1670	3530	1300	1300	1191	1200	1200

Sampler Size	Flow Rate (m ³ /h)
DN500 / 20"	800-1600
DN600 / 24"	940-2280
DN700 / 28"	1080-3100
DN800 / 32"	1225-4310
DN900 / 36"	1370-5450
DN1000 / 40"	1510-7120
DN1050 / 42"	1580-8360
DN1100 / 44"	1660-9600
DN1200 / 48"	1800-11400

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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

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