

## CH-SG – GRAVITY SAMPLER

## DATASHEET



### WHAT IS THE GRAVITY SAMPLER?

CH-SG, a primary gravity sampler, is a device designed to collect representative samples of slurry, ore, or other dense materials using gravity principles. Samples are extracted from material flow lines or free-falling streams and isolated for process control and analysis. Engineered for reliability, it features a wear-resistant design and customizable inlet configurations to accommodate varying material properties and flow rates. Its modular structure facilitates easy integration into existing systems, ensuring precise and repeatable sampling performance.

#### Process Connections

Inlet Flange	Outlet Flange	Sampler Flange Compatibility
DN 150/6" – DN 600/24"	DN 150/6" – DN 600/24"	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

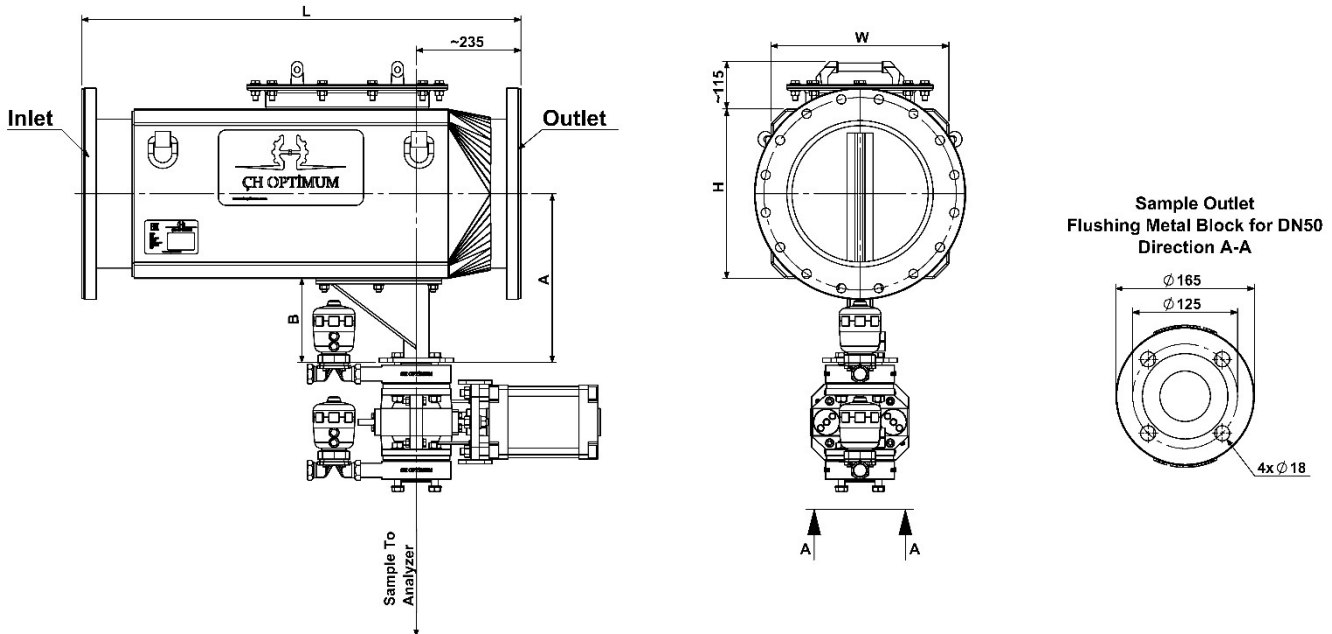
Sampler body	Mild Steel 5mm (S235 JR)
Inside surfaces	Natural rubber 5 mm, other lining materials available upon request
Outside surfaces	Epoxy paint 210 µm, EP210/2-3-FeSa 2½ - RAL 7026
Adjustable sample cutter	Stainless steel 6 mm (AISI 304, EN 1.4301), rubber-lined cutter blades 3 mm
Fixed sample cutter	Stainless steel 6 mm (AISI 304, EN 1.4301), rubber-lined cutter tip 3 mm
Abrasion resistant AR cutter	Stainless steel 6 mm (AISI 304, EN 1.4301), Tungsten Carbide (WC)
Sample outlet funnel	Stainless steel 3–5mm (AISI 304, EN 1.4301)

#### 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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## DATASHEET



Sampler Size	Weight (KG)	Sampler Dimensions (mm)				
		Width (W)	Length (L)	Height (H)	A	B
DN150 / 6"	47	235	665	215	237,5	130
DN200 / 8"	70	285	800	265	332,5	200
DN250 / 10"	95	345	900	325	362,5	200
DN300 / 12"	110	395	970	375	387,5	200
DN350 / 14"	135	425	1050	405	402,5	200
DN400 / 16"	150	475	1130	455	427,5	200
DN450 / 18"	175	535	1160	515	457,5	200
DN500 / 20"	195	575	1180	575	487,5	200
DN600 / 24"	250	685	1200	685	542,5	200

Type	Flow rate			
	Regular		AR	
	Adjustable cutter (m³/h)	Fixed cutter (m³/h)	9 mm cutter (m³/h)	12 mm cutter (m³/h)
DN 100/4"	15-65	-	55-170	40-110
DN 125/5"	20-75	-	95-210	70-150
DN 150/6"	25 – 140	-	140 – 250	100 – 190
DN 200/8"	30 – 240	-	185 – 310	130 – 240
DN 250/10"	35 – 340	-	230 – 400	180 – 340
DN 300/12"	45 – 440	-	250 – 510	200 – 245
DN 350/14"	50 – 540	-	270 – 600	230 – 480
DN 400/16"	-	270 – 600	290 – 660	270 – 500
DN 450/18"	-	305 – 700	360 – 750	300 – 570
DN 500/20"	-	330 – 800	400 – 820	360 – 650
DN 600/24"	-	395 – 1000	540 – 1050	400 – 800

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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