Cross Stream Cutter (CSC)

Contact us directly.

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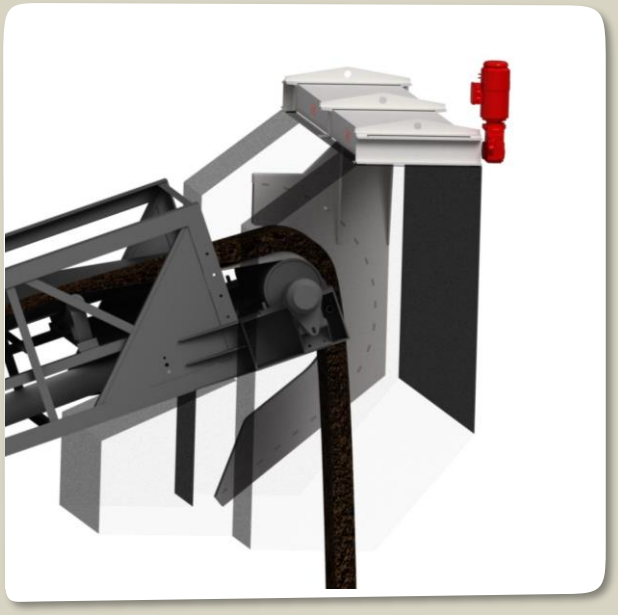
What does it do?



The Cross Stream Cutter (CSC) is designed to extract a representative increment/cut by discharging a complete cross section of the free-falling bulk material in an outlet chute.

What's the benefit?

The Cross Stream Cutter (CSC):

- Theory of Sampling (TOS)-compliant which gives every particle in the stream an equal probability to be included in the extracted increment [which is the key to high quality, reliable sampling results].
- Enclosed in a cover housing to avoid cross-contamination between successive increments.
- Designed to be scalable, which makes it well suited for sampling from high-capacity Bulk Material Handling Systems (BMHS).
- Thanks to a scalable design, the CSC can cope with small as well as high volumes of moving bulk materials.
- Well suited for harsh environments and rough materials, as commonly seen e.g., in the mining industry.

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How does it do it?

The CSC consists of a cutter oriented parallel to the moving stream surface. The cutter is attached to a double rail carriage, located above the material flow. The motor control ensures that the cutter operates at a constant speed of up to 0.6 m/s when cutting through the falling material stream. Each time the cutter moves through the stream, from left to right or right to left, an increment is continuously discharged to the outlet chute.

Specifications:

The particular design features are decided upon with respect to the specific material characteristics and the stream vectors involved. Considering the extreme density and toughness of some materials, the extraction is recommended as Hardox steel.

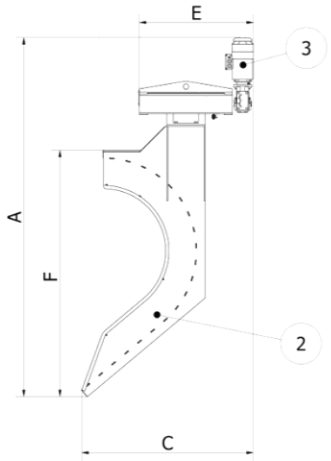
The conveyor belt can have a width between 500-2.500 mm.

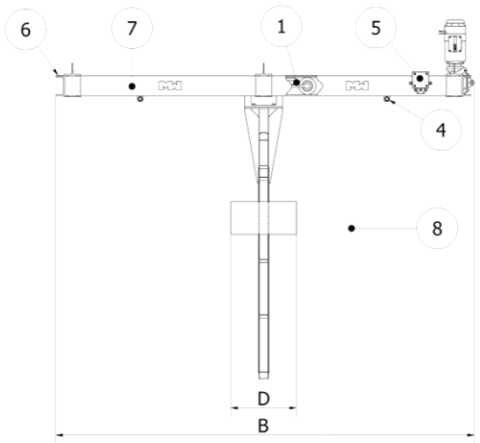
Housing:	Stainless Steel AISI 304/316 or painted carbon steel
Railing system:	Stainless Steel AISI 304/316 or painted carbon steel
Carriage:	Stainless steel AISI 304/316 or painted carbons steel with Hardox impact plate
Instruments:	Inductive Position switches
Gear Motor:	SEW or similar

The CSC is delivered with either a local control unit or/and is controlled by a M&W central control cabinet depending on concept and local conditions. The M&W central control cabinet consist of motor control center, circuit breakers, PLC-system, and man-machine interface.

CSC shown with typical scope

CSC-600





DIMENSIONS

Label	Description	Value [mm]
A	Height	3300
B	Width	3850
C	Length	1600
D	Width of conveyer belt	600
E	Length of CSC unit	1050
F	Height of sampling cutter	2250

PARTS LIST

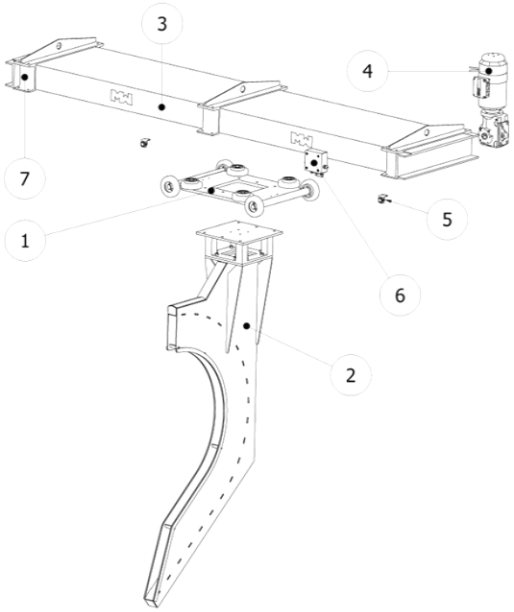
Item	Description
1	Driving unit
2	Sampling cutter
3	Frame
4	Driving motor
5	Inductive sensor
6	Junction box
7	Main support
8	Conveyer belt

Dimensional Drawing

CSC shown with typical scope

CSC-600

exploded view



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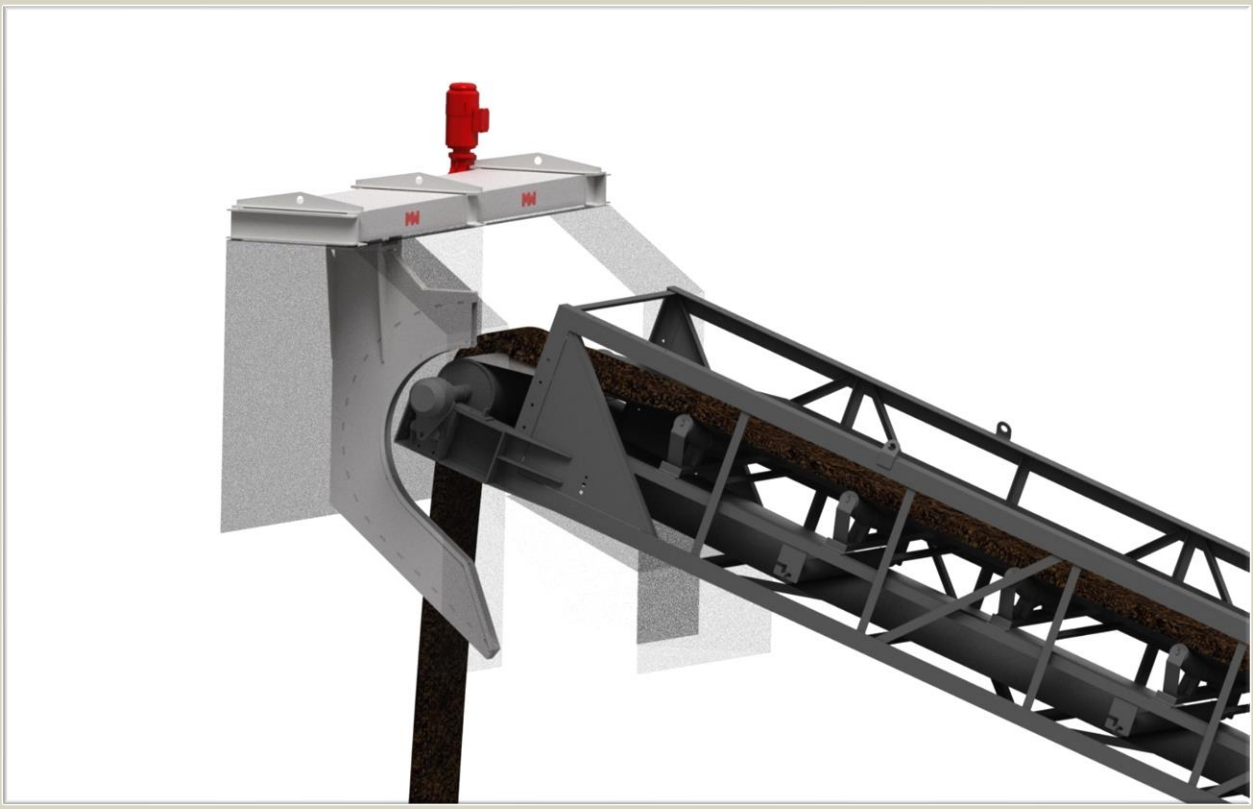
3D Drawing



3D Drawing with Material

Variants/Options.

Option 1
The M&W central control cabinet can exchange signals with the client's control system.

Option 2
The CSC can be delivered with an intermittent sampling option, extracting an increment after each crossing, dependent upon the client's local setup and needs.

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What is the standard?

M&W JAWO Sampling equipment and sampling systems operate in accordance with approved international material standards such as ISO, ASME, GOST, EN as well as DS3077 (2013). All sampling equipment and solutions aim for compliance with the principles laid down in the Theory of Sampling (TOS) and gives our customers reliable knowledge of the material properties such as moisture content, particle size distribution, mineral proportions, and content grade essential for commercial, operational, and technical characterization.

About M&W.

Mark & Wedell A/S (M&W) is a global mechanical/electrical engineering and manufacturing company. M&W serves a solid and growing international customer base within the global mining-, minerals-, metals-, power generation- and big science markets.

We develop, engineer, and produce high quality mechanical and electrical machines, instruments, and solutions. Our brand JAWO and unique know-how is well recognized in our markets and among our customers due to more than 40 years of experience.

M&W JAWO

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