Bucket Sampler (BS)

Product

Contact us directly.

Mark & Wedell . Oldenvej 5 . 3490 Kvistgaard . Denmark .
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What does it do?

The Bucket Sampler (BS) is designed to extract increments/cuts from a free-falling flow of bulk materials in a vertical duct. Representativity is ensured since a complete cross section of the material is collected.

What's the benefit?

Bucket Sampler (BS)

- Fine particles are kept enclosed in the BS by a cover housing. This also avoids cross-contamination.
- The BS collects a full cross section of the material flow
- The BS is easy to install.
- If space is a constraint the BS is beneficial due to its compact design.

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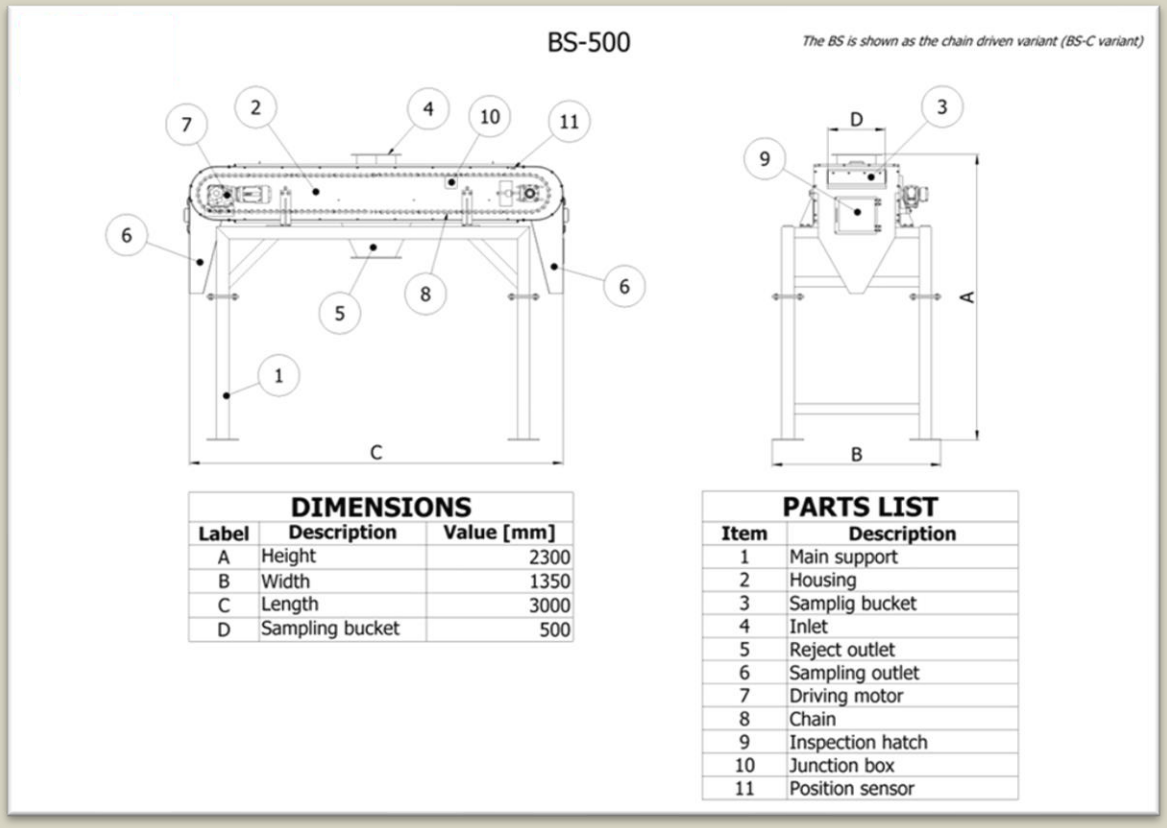
How does it do it?

The BS has a bucket cutter connected to two parallel drivers (chain/wire), moving at a speed of up to 0.6 m/s. The sampler runs the cutter twice through the falling material, after which the sample is emptied through the outlet. Between sampling operations, the bucket is parked above the bottom outlet. An inspection hatch is placed on top of the sampler to facilitate maintenance and replacement of spare parts.

Specifications:

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

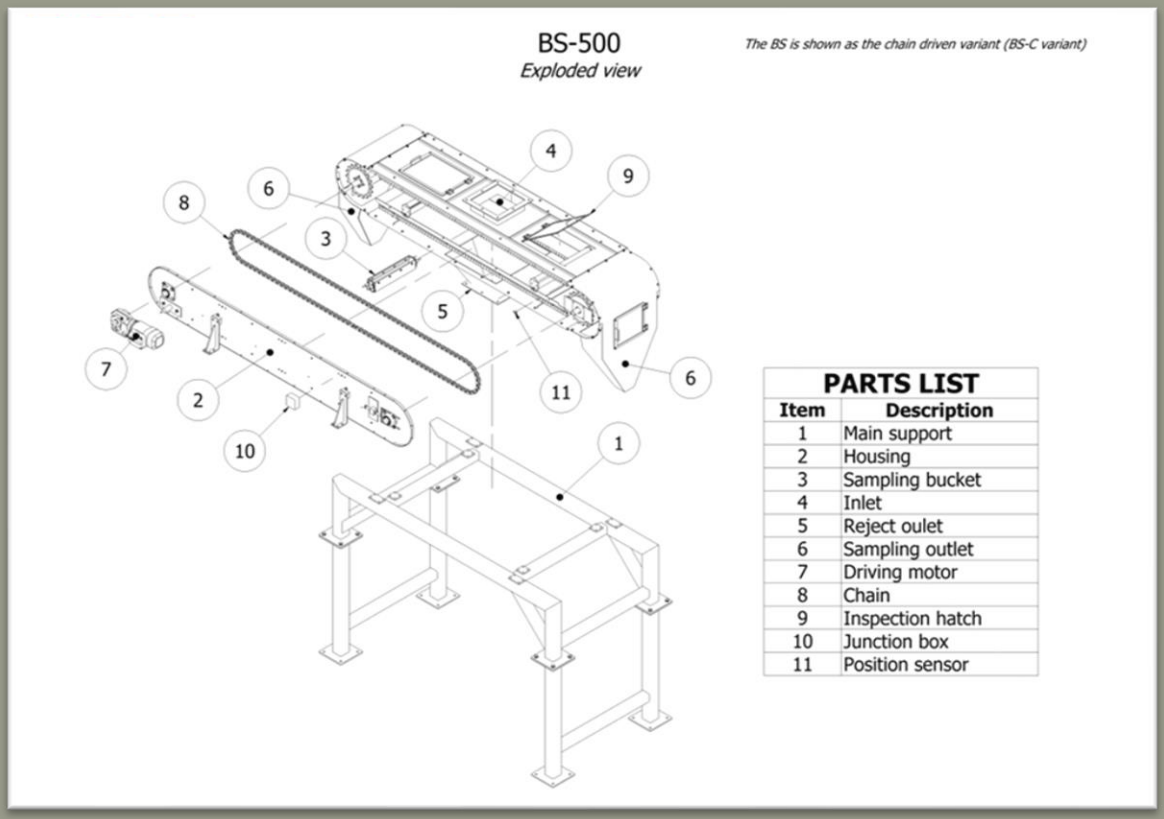
The BS is delivered with either a local control unit or/and is controlled by a M&W central control cabinet depending on concept and preference. The M&W central control cabinet consist of motor control center, circuit breakers, PLC-system and man-machine interface.



DIMENSIONS		
Label	**Description**	**Value [mm]**
A	Height	2300
B	Width	1350
C	Length	3000
D	Sampling bucket	500

PARTS LIST	
Item	**Description**
1	Main support
2	Housing
3	Samplig bucket
4	Inlet
5	Reject outlet
6	Sampling outlet
7	Driving motor
8	Chain
9	Inspection hatch
10	Junction box
11	Position sensor

Dimensional Drawing



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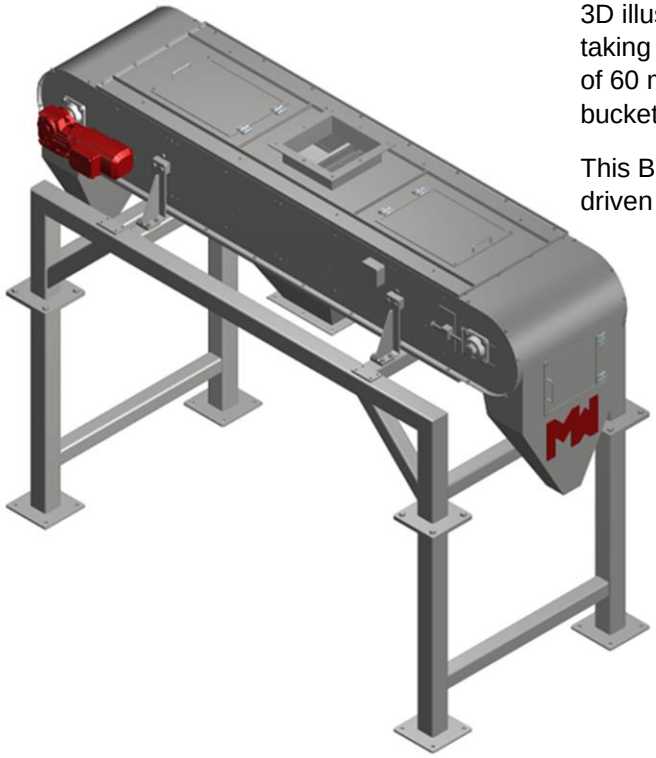
Exploded view



3D illustration of a BS made for taking samples with an opening of 60 mm in the sampling bucket

This BS is shown as chain driven variant

3D Drawing

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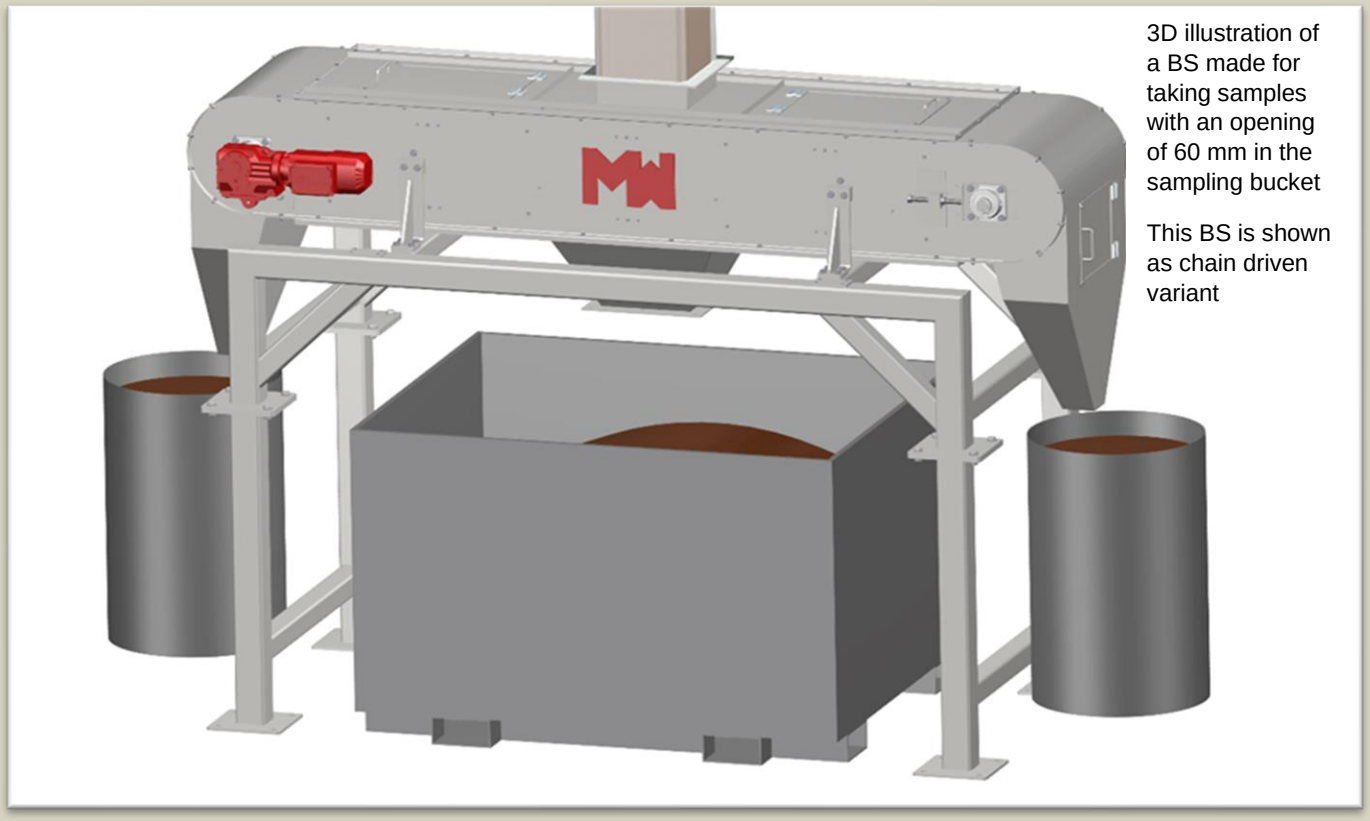
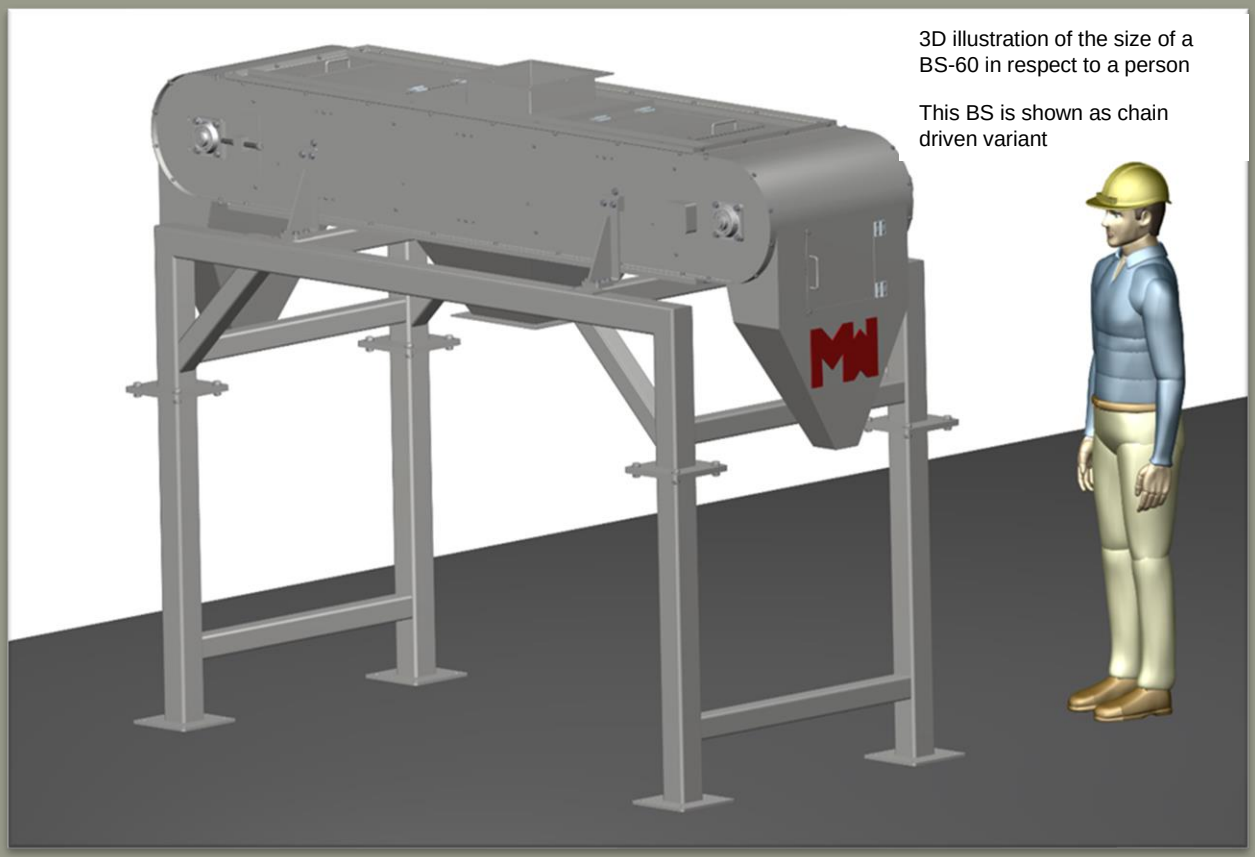


3D illustration of a BS made for taking samples with an opening of 60 mm in the sampling bucket

This BS is shown as chain driven variant

3D Drawing with Material



3D illustration of the size of a BS-60 in respect to a person

This BS is shown as chain driven variant

Illustrative drawing

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Variants/Options.

Variant 1
The Bucket Sampler Chain (BS-C) is delivered with a robust chain system.

Variant 2
The Bucket Sampler Wire (BS-W) is delivered with a robust wire system. The BS-W is preferable for materials containing large amounts of dust or fine particles. The BS-W is well suited for biomass, limestone powders etc.

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

Option 2
It is possible to attach more than one sample bucket. For example, with two buckets the number of increments can be doubled within the same time interval.

Nota Bene 1
The BS can be calibrated with respect to the client's material(s) and local sampling conditions. M&W offers clients a facility for quantitative assessment the performance of the cross-belt sampler on the client's own material(s), following one or several types of analyses such as variographic or replicate analyses.

Variant 1

Variant 2

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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