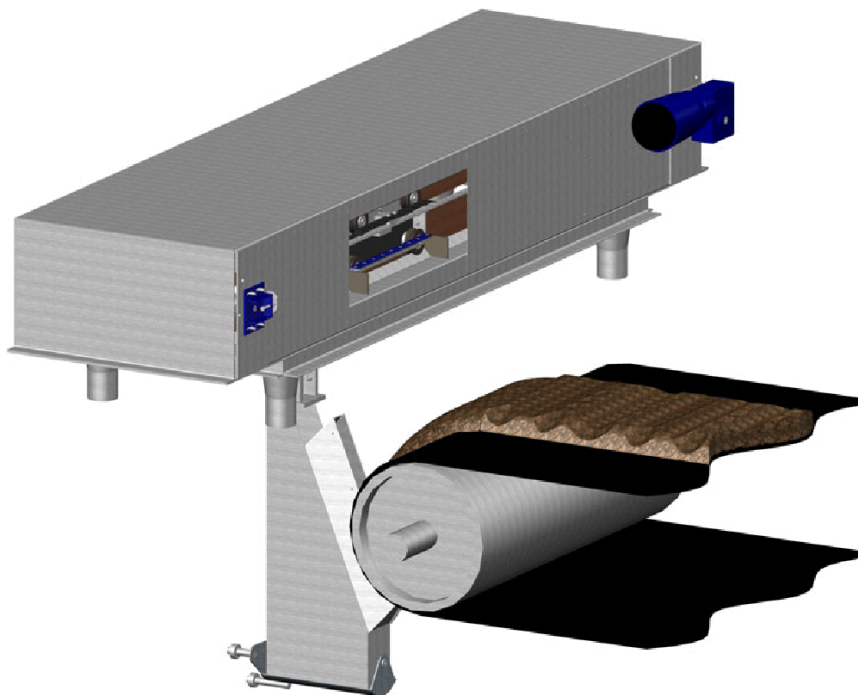


CBBS – CROSS BELT BUCKET SAMPLER

REPRESENTATIVE SAMPLING FROM FREE FALLING MATERIAL STREAMS



- CBBS captures a representative collect of free-falling material from the main conveyor.
- CBBS collects material across the whole width of the main conveyor.
- The cutter (bucket) is replaceable and the speed of it is adjustable.

PRINCIPLES OF OPERATION

The Cross Belt Bucket Sampler (CBBS) is designed to extract a representative sample of granular material being transported on a conveyor belt. Representability of the sample is ensured by collecting a complete cross section of the free falling material at the end of the conveyor belt.

GENERAL DESCRIPTION

The Cross Belt Bucket Sampler essentially consists of a cutter (bucket) attached to a bogie (a base with four wheels), that is running on a double rail system. The bogie is driven by an electrical geared brake motor through roller chains.

The design of the cutter is plant based and therefore custom made to fit the specific system. The parts that vary:

- The **arm** that holds the bucket. Made to reach under the material stream.
- The **bucket** that collects material in a certain quantity.
- The **slot** integrated in the bucket. The size of the slot is one of two factors to determine the quantity of collected material.
- The **velocity** of the material collecting unit. This is the other factor along with the slot size, which determines the quantity of the collected material.
- The **length** of the machine. The only part of the drive unit that does vary. This is the distance between the two drive axles that carry chains and sprockets.

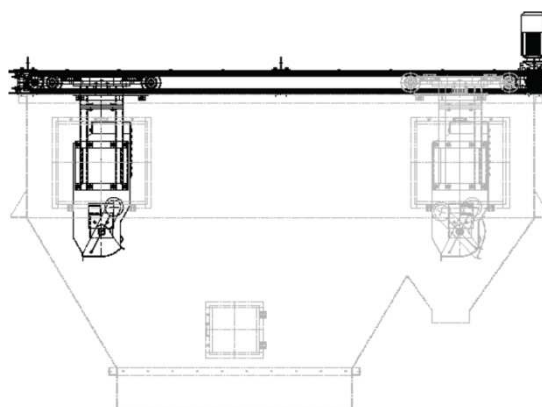
TECHNICAL DATA

Drive unit:	Geared brake motor
Voltage:	400V/230V-50Hz or as required
Main conveyor:	~500 - 2500 mm
Adjusting:	Frequency converter
Housing/bucket:	Stainless steel
Frame for rail system:	Painted mild steel
Inductive sensors	- Decelerating the bogie - Positioning the bogie

CUTTER VOLUME CALCULATIONS:

Slot width (SP):	Speed (V):	Volume (N):
3 x max. particle size	0,6 m/s	$N = \frac{Q \times SP}{3,6 \times V}$
N = cutter volume	[litres]	
Q = material flow	[m ³ /h]	
SP = slot width	[m]	
V = speed of the cutter	[m/s]	

DRAWING



COMPANY PROFILE

M&W JAWO HANDLING IS AN INTERNATIONALLY WORKING ENGINEERING COMPANY SPECIALISED IN DESIGN, MANUFACTURING AND SUPPLY OF INDIVIDUAL MACHINE UNITS AND SYSTEMS FOR REPRESENTATIVE SAMPLING OF POWDER AND BULK MATERIAL. SEVERAL HUNDRED SYSTEMS ARE SUCCESSFULLY SAMPLING IN THE INDUSTRY WORLD-WIDE.