

## METERING BINS

**BCD**

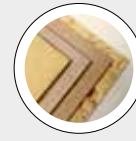
FOR WET PARTICLES

**TECHNICAL FEATURES**

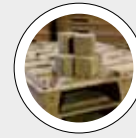
- Metering of wet particles to the Dryers or dry particles to the Glue Blenders
- Belt conveyor fitted with weighing bridge and precision load cell
- Weighing belt automatic tensioning system
- Self-centering system for the weighing belt
- Dosing bin provided with levelling combs
- Drive systems
- Encoder for measuring speed of weighing belt
- Calibration chain
- Microprocessor.

**BENEFITS**

- Very high weighing-metering accuracy higher than +/- 0,5% relating to instant flow
- Accuracy is guaranteed for all throughput values and not related to the full scale value as in conventional systems
- Employment range from 10 to 100% of full scale value
- Full scale value, freely settable
- Easy testing by calibrating chain
- High efficiency and reliability
- Very low maintenance.

**BEST IN CLASS FOR:**

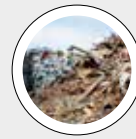
WOOD BASED PANELS:  
MDF/HDF  
PB/SPB  
OSB/LSB/FOSB  
INSULATION BOARDS



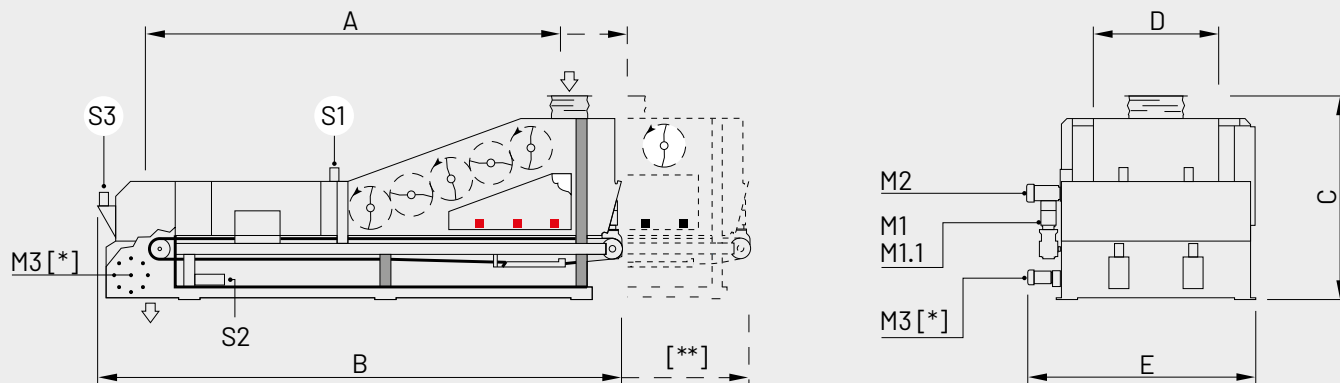
PRESSED WOOD PACKAGING:  
PALLET BLOCKS



PELLETS & ENERGY:  
WOOD PELLETS AND  
BLACK PELLETS  
LIME

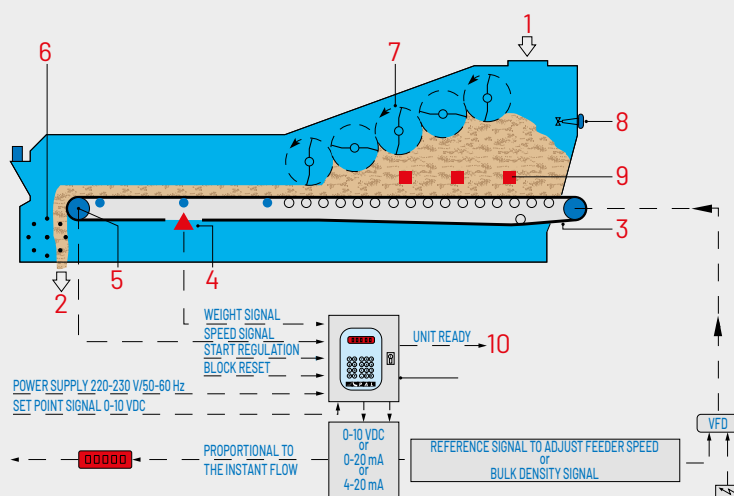


WOOD RECYCLING AND  
WASTE TREATMENT:  
WASTE



[\*] Option  
 [\*\*] BCD 21/30

- 1 = FEEDING
- 2 = DISCHARGE
- 3 = WEIGHING BELT
- 4 = LOAD CELL
- 5 = ENCODER
- 6 = NEODYMIUM (OPTION) UNIT TO REMOVE FERROUS METALS
- 7 = LEVELLING COMBS
- 8 = EMERGENCY LEVEL
- 9 = OPERATING LEVELS
- 10 = MICROPROCESSOR
- M1 = DOSING BELT DRIVE
- M1.1 = FAN FOR COOLING
- M2 = LEVELLING COMBS DRIVE
- M3 = NEODYMIUM STAND DRIVE
- S1-S2-S3 = SUCTION



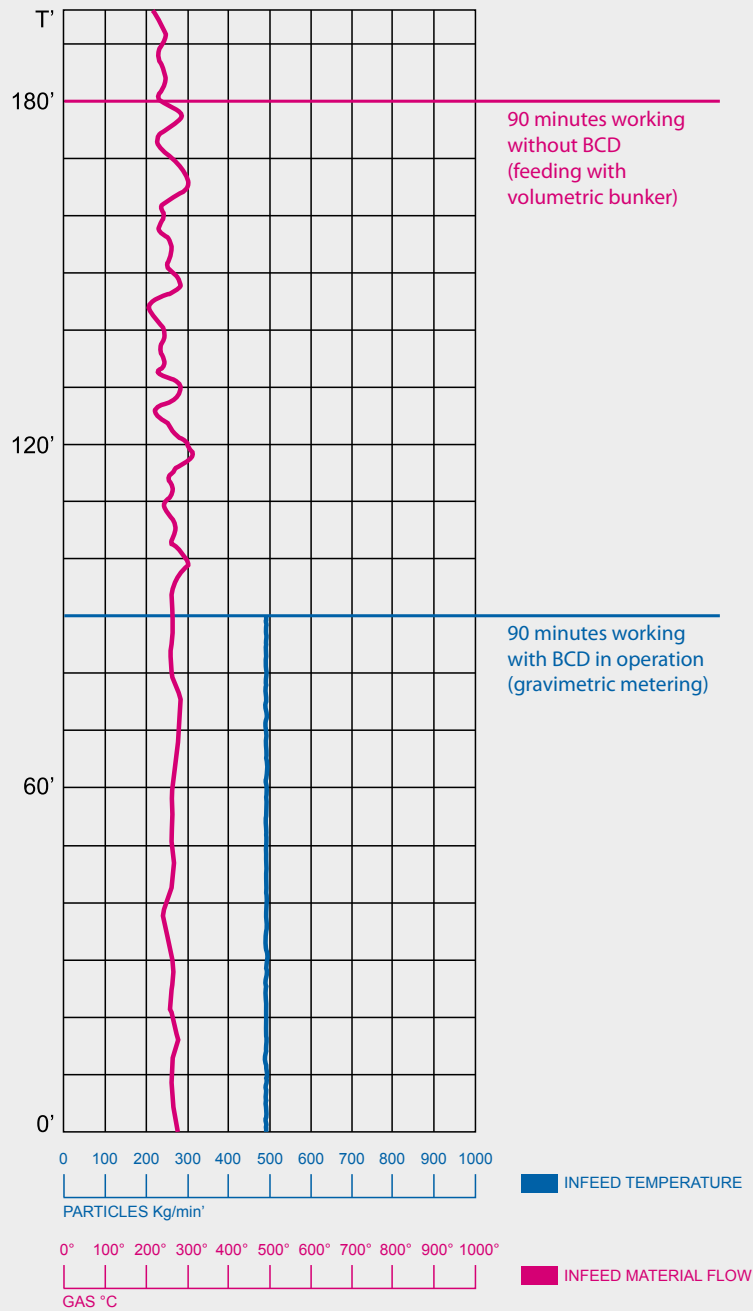
MODEL	OVERALL DIMENSIONS mm					INSTALLED POWER kW			
	A	B	C	D	E	M1	M1.1	M2	M3*
BCD 4	3240	4270	1810	750	1745	0,37 ÷ 1,1	0,078	1,5	2,2
BCD 12	4688	5800	2250	900	2125	0,37 ÷ 1,5	0,078	2,2	2,2
BCD 21	5344	8022	2400	1300	2600	0,37 ÷ 1,5	0,078	4,0	2,2
BCD 30	5785	8886	2600	1500	2800	0,37 ÷ 2,2	0,078	7,5	2,2

\*Option

MODEL	BULK MATERIAL		BIN VOLUME m <sup>3</sup>	SUCTION								WEIGHT APPROX. kg
	TOP m <sup>3</sup> /h	RANGE kg/h in according of bulk-density		WET MATERIAL THROUGHPUT m <sup>3</sup> /h			DRY MATERIAL THROUGHPUT m <sup>3</sup> /h			AIR SPEED m/s	SUCTION PRESSURE Pa	
				S1	S2	S3	S1	S2	S3			
BCD 4	40	500/3500	0,9	2 x 800	1 x 1150	2 x 800	2 x 710	1 x 1020	2 x 710	29	200	1960
BCD 12	120	600/12000	1,7	2 x 800	1 x 1150	2 x 800	2 x 710	1 x 1020	2 x 710	29	200	3260
BCD 21	210	1000/21000	4,2	2 x 800	1 x 1150	2 x 800	2 x 710	1 x 1020	2 x 710	29	200	6000
BCD 30	300	5000/30000	6,0	2 x 800	1 x 1150	2 x 800	2 x 710	2 x 1020	2 x 710	29	200	7000

**BCD TO GET A BETTER DRYING**

The diagram records the working conditions of a particles drier fedded with and without our BCD metering scale. It evidences that the BCD system gives better stability to the drying operations increasing the performances (10-15%) and consequently reducing costs.



08.02.A

**PREMISE**

- Drying process takes long time to accomodate new parameter inputs and heat requirement variation capacity is extremely limited
- Conventional but, mainly continuous pressing processes, require stable mixtures-moisture of particles.

**STATE OF THE ART DRYING**

The most common dryer metering technique consists of infeeding volumetrically controlled wet particle flow/s, for instance, by means of silo extractors. The above system is not precision guaranteed as real flows and heat demand are influenced by several factors, such as silo levels, high compressibility of wet particles, extractor ineffectiveness, moisture contained in particles, etc. causing:

- Unstable particle mixtures ( $\pm 15-20\%$ )
- Too fast variation of heat requirement ( $\pm 15-20\%$ )
- Unstable final moisture (over under thickness and blown boards).

## DRIERCON

DRIERCON is an integrated system for drying optimization which controls-analizes-compares:

- formulation-gravimetric metering of particle mixtures (scales) - particles moisture (moisture detectors or pre-set values) - available heating capacity from drier.

### PLC-linked DRIERCON offers

• Constant-gravimetric metering of wet particle mixtures • Constant-gravimetric metering of particle mixtures based on pre-set dry formulations • Constant-gravimetric metering of particle mixtures based on stable heat requirement.

### BENEFITS

• Constant particle mixing • Stable final moisture • Up to 10-15% increase in drier efficiency • Prompt and reliable process cost analysis • Improved pressing cycle.

### BCD continuous metering scales & MAMMUTH in drying operations

The working conditions in the drying field are particularly affected by external variables such as humidity, temperature, etc. These years have seen a widespread general trend towards the improvement of combustion control (understood as control of the quantity of thermal energy delivered) on the basis of the testing of the final state of humidity of the product. The systems based on testing the humidity and subsequent adjustment of the drier to bring the values into the preset field have not been successful. Such systems may be compared to bolting the stable door immediately after the horse has left. The inertias are such a handicap that they eliminate the advantages or create greater damage. The favourable experiences achieved with the installation of BCD continuous metering scales in the field of adhesive application have been extended almost at once, owing to likeness, to the drying field, in which: - we operate to meter "thermal energy" not "adhesive" in a flow of particles - humidity is the main variable. The first installations of the BCD scale for gravimetric metering of constant flows of damp particles in the driers gave exceptionally good results and showed at once that the old volumetric systems should be pensioned off quickly. The diagram has been recorded owing to the kind permission of the S.I.L.L.A (Mauro Saviola Group) and is an eloquent confirmation of our statements. The BCD continuous metering scale reduces the maximum range of the input temperature from 50°C recorded with good volumetric metering to only 18°C recorded with the BCD scale at work. In proportion to the nominal 280° a good 11% of efficiency is recovered by the use of the BCD scale alone. This represents just a first step in economics wick can be readily achieved by the mere installation of a BCD metering scale. A second step can be taken by use of the integrated control system of the DRIERCON drying process.

