

Product catalog

Product catalog

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IMALPAL Group

The IMALPAL Group is formed from the union of three major corporations, IMAL, PAL and GLOBUS, three well familiar names in engineering, machinery and plants for the wood-based panel and recycling industries for over 50 years, and renowned worldwide for their long experience in the design and construction of complete plants and machinery to convert and transform raw wood-based materials and all kinds of waste in general into new ecological and eco-sustainable finished products. psp, pmi and italsort joined the group respectively in 2015, 2017 and 2020, completing the range of products.





Growing with you



The IMALPAL Group is formed from the union of three major corporations, IMAL, PAL and GLOBUS, three well familiar names in engineering, machinery and plants for the wood-based panel and recycling industries for over 50 years, and renowned worldwide for their long experience in the design and construction of complete plants and machinery to convert and transform raw wood-based materials and all kinds of waste in general into new ecological and eco-sustainable finished products. PSP and ITALSORT joined the group respectively in 2015 and 2020, completing the range of products.

IMAL, PAL and GLOBUS:
three well familiar
names in engineering
machinery and plants for
the wood-based panel
and recycling industries
for over 50 years.

Today the IMALPAL Group has further expanded its specialization and leadership into broader fields, through new acquisitions and the continual research and development of new technologies, many of which have been patented.

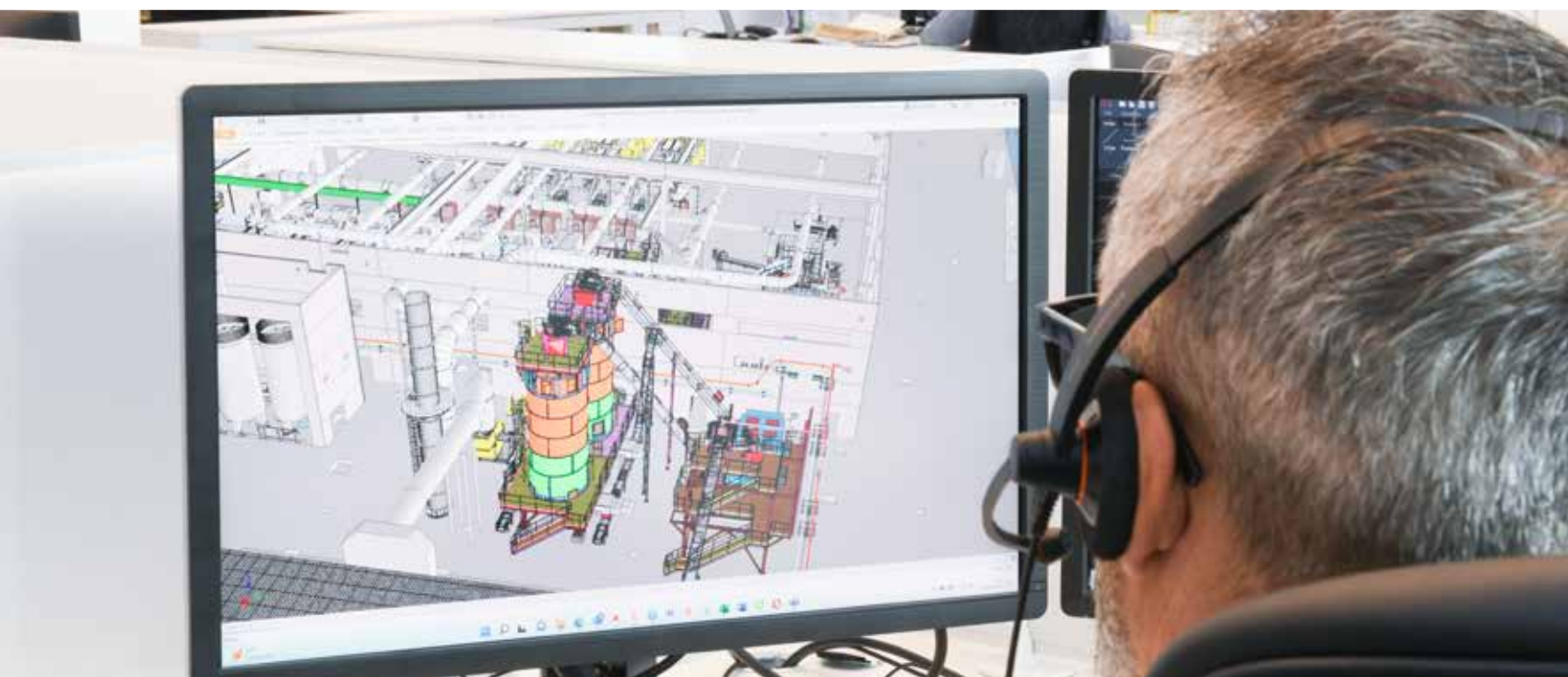
The Group is able to offer tailor-made and turnkey solutions for the manufacture of machinery or complete plants for the

production of PB\SPB, MDF\HDF, OSB\LSB\FOSB panels, insulation boards, pellets, pressed pallets, pallet blocks, biomass energy plants, drying systems and power generation, as well as the treatment of industrial and municipal waste such as plastic, sludge and wood to maximize material recovery for the production of energy and minimize the waste to landfill sites.

The systems and equipment manufactured by the IMALPAL Group are renowned worldwide for their top-quality construction and design, advanced software and process control and continual innovations to improve product quality and cut production costs.

Over the last ten years however, in their constant endeavour to evolve and progress, the Group has adapted and applied their long experience, know-how and innovative solutions to design and develop technical solutions that are the Best Available Technologies acknowledged on a worldwide scale.

The Group is able to
offer tailor-made and
turnkey solutions for
the manufacture of
machinery or complete
plants.



The numbers of the Group

1970

FOUNDATION

9

COMPANIES

3

RESEARCH AND
DEVELOPMENT
LABORATORIES



11

MANUFACTURING
SITES

50.000 m²

OFFICE BUILDINGS AND
PRODUCTION FACILITIES
EXTENDING OVER





120

OVER 120
PATENTS

25.000

OVER 25.000 EQUIPMENT
REFERENCES WORLDWIDE

145

BUSINESS RELATIONS
WITH OVER 145 NATIONS
AROUND THE WORLD.

5

BUSINESS RELATIONS
IN 5 CONTINENTS



Leading the way



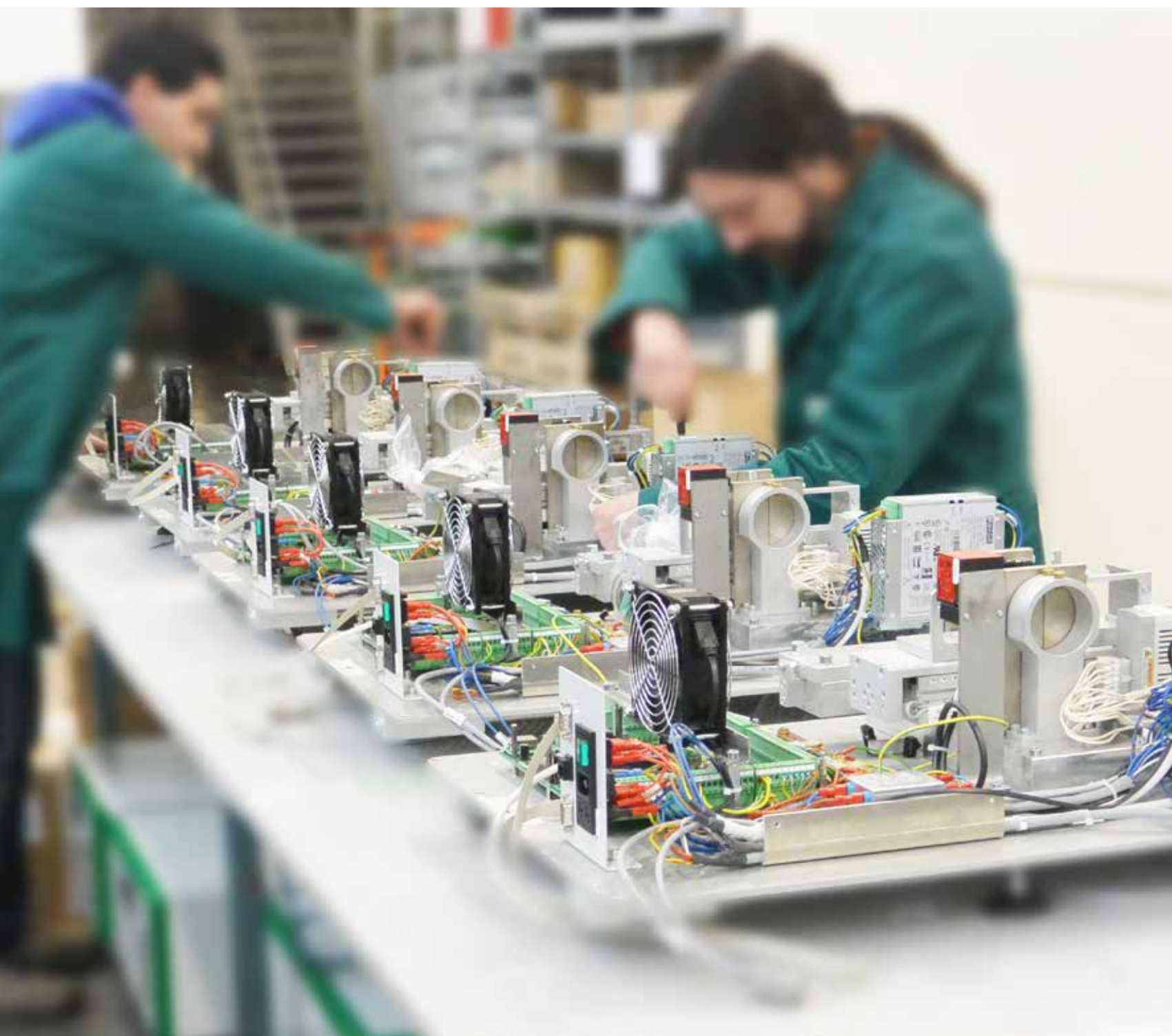
Manufactures and supplies equipment and systems for the production and processing of PB/SPB, MDF/HDF, OSB/LSB/FOSB panels, insulation boards, pellets, pallet blocks and pressed wood-based products in general. In addition to the supply of complete, brand new and fully refurbished production lines, IMAL is a leading manufacturer of glue dosing and blending systems as well as suppliers of the most innovative on-line and laboratory quality control devices.

BEST IN CLASS FOR:

- Gluing and dosing systems;
- Drying;
- Continuous press technology;
- On line e lab quality control;
- Process control



Imal, Modena



Your reliable supplier and partner



Manufactures machinery for the production of wood based panels and with its extensive production programme is able to supply complete turn-key plants for the treatment and processing of fresh and recycled wood in both the wet and dry area for the manufacture of top quality products.

BEST IN CLASS FOR:

- Screening;
- Wet and dry classification;
- Waste treatment and recycling;



Pal, Ponte di Piave - Treviso



Cut the costs



Globus is specialized in log-yard management, starting from the installation of flaking, refining and chipping lines is able to accommodate any production capacity as well as the special mobile chipper.

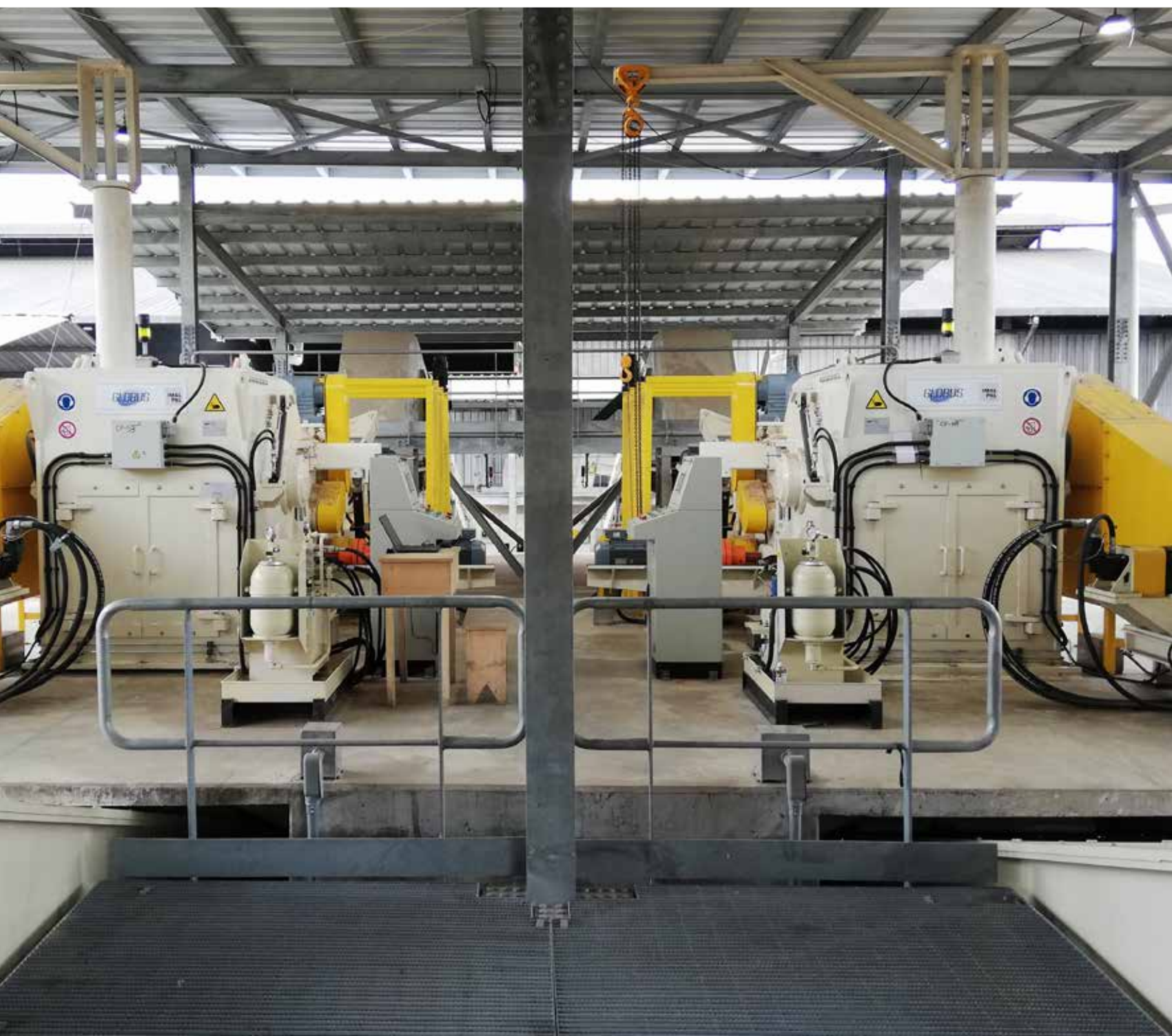
The company continued to expand its product range to include the production of spare parts for different equipment brands and the rebuilding/ refurbishing of drum chippers, knife ring flakers, hammer mills and centrifugal mills manufactured by other leading companies.

BEST IN CLASS FOR:

- Debarking;
- Chipping and flaking;



Globus, Galliate - Novara



Engineering, machinery and complete plants

4 business areas

The Group is well known all around the world for the engineering and the supply of machinery and complete plants for the production of wood based products and various value added products.

IMALPAL Group is specialized in the supply of high technological solutions for four main type of plants and productions:

- **Wood based panels**
- **Pressed wood packaging**
- **Pellets & Energy**
- **Wood Recycling and Waste Treatment**

Through the specialized IMALPAL Group laboratories, technological solutions have been designed to give new life to production waste from various product sectors and so in addition to wood and plastic, value is given to bagasse, vegetable fibres, banana, coconut, straw, palm fronds, rice husk, pruning waste, sludge, and so on.

Recycling means using every kind of waste available to reduce and minimize the utilization of natural raw materials. Product quality depends on the preparation area. This is why the Group has invested heavily in this direction to design integrated high-tech wood\plastic preparation solutions that have become references in processing plants worldwide.

Recycling means using every kind of waste available to reduce and minimize the utilization of natural raw materials.



Wood based panels

PB/SPB
MDF/HDF
OSB/LSB/FOSB
PLYWOOD
INSULATION BOARDS

Pressed wood packaging

PALLET BLOCKS
PRESSED PALLETS
STRINGERS AND BEAMS

Pellets & Energy

WOOD PELLETS AND BLACK PELLETS
THERMAL AND ELECTRIC ENERGY
GREEN FUELS AND BIOMASS
DRYING

Wood Recycling and Waste Treatment

WOOD RECYCLING
PLASTIC RECYCLING
SLUDGE RECYCLING
CUSTOMIZED SOLUTIONS FOR RECYCLING

Products

1. FEEDERS	20
2. CRUSHERS	40
3. DEBARKERS	50
4. CHIPPERS	60
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6. ROLL SCREENS	88
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Feeders

	page number	WOOD BASED PANELS					
		PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
CHAIN-PLATE FEEDERS – TKK.230 / TKK.350	22	•					
VIBRATING SCREENS – EVA	24	•	•	•	•		
CHAIN-PLATE FEEDERS – TKK.180	26	•	•	•	•		
CHAIN CONVEYORS – TCG	28	•	•	•			
LONGITUDINAL CHAIN CONVEYOR – LCG	30	•	•	•			
VIBRATING TABLES – VTG	32	•	•				
VIBRATING CHANNELS – VFG	34	•	•				
BELT CONVEYOR – NTL	36	•	•				
VIBRATING FEEDER – AVG / AVE	38	•	•				

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FEEDERS FOR BULKY MATERIALS

CHAIN-PLATE FEEDERS

TKK.230 / TTK.350

FOR URBAN FOREST MATERIAL



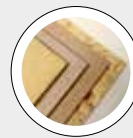
TECHNICAL FEATURES

- Very strong double-roller chain feeder • Moving bed equipped with transverse metal plates, overlapped and sealed by profiled shape • Front shaft fitted with direct transmission • Rear shaft fitted with chain tensioning devices
- Self cleaning system with: closed bottom – rear reclaim screw conveyors – reclaim belt conveyor • Automatic lubrication device for chains • High containment walls.

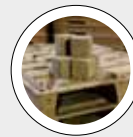
BENEFITS

- Easy loading of urban forest material, such as pallets, crates, cable drums, construction material, demolition furniture, recycled particleboards, etc., bulky or pre-crushed • Very efficient feeding of pre-crushers (Alligator) or Crushers (Tiger) • Except for front loader or crane, operators are required from time to time only • Working speed freely adjustable by using frequency converter • Automatic cleaning and lubrication • High performance • Low maintenance cost.

BEST IN CLASS FOR:



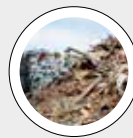
WOOD BASED PANELS:
PB/SPB



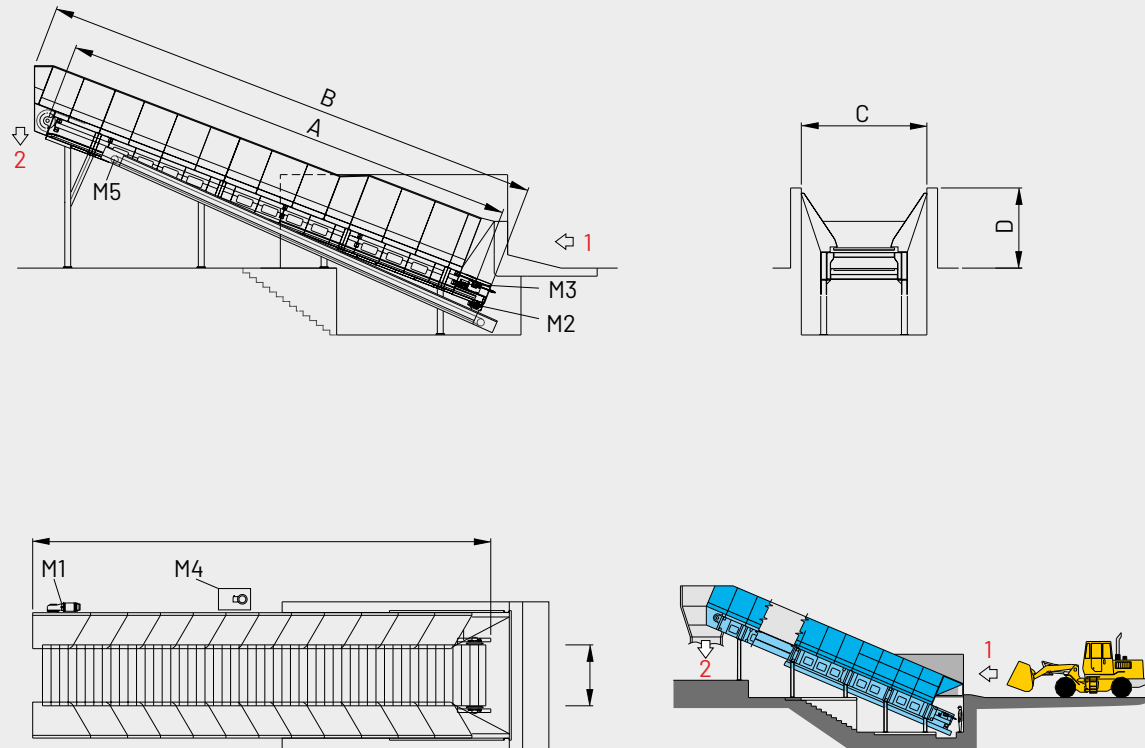
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = FEEDING
2 = DISCHARGE

M1 = DOUBLE CHAIN
PLATE-FEEDER

M2 = CLEANING SCREW
M3 = CLEANING SCREW

M4 = LUBRICATION DEVIDE
M5 = CLEANING BELT

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
TKK.230/1200	12000	14167	4700	3000	14832	2300
TKK.230/1700	17000	18914	4700	3000	17140	2300
TKK.230/2100	21000	23980	4700	3000	20500	2300
TKK.350/1200	12000	13760	5800	3000	13215	3500
TKK.350/1700	17000	18760	5800	3000	17815	3500
TKK.350/2100	21000	23980	5800	3000	20500	3500

MODEL	CAPACITY* BULK m³/h	INSTALLED POWER kW					WEIGHT APPROX. kg
		M1*	M2	M3	M4	M5**	
TKK.230/1200	200-230	5,5	0,55	0,55	0,12	2,2	22000
TKK.230/1700	200-230	5,5	0,55	0,55	0,12	2,2	27000
TKK.230/2100	200-230	7,5	0,55	0,55	0,12	2,2	27000
TKK.350/1200	300	5,5-15	0,55	0,55	0,25	2,2	35000
TKK.350/1700	300-350	5,5-15	0,55	0,55	0,25	3,0	44000
TKK.230/2100	300-350	11-15	0,55	0,55	0,25	3,0	50000

*According to feeding material

**Reclaim belt for self cleaning system as option

VIBRATING FEEDERS

VIBRATING SCREENS – EVA

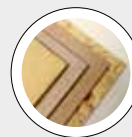
VIBRATING FEEDERS FOR SINGLE MACHINE

**TECHNICAL FEATURES**

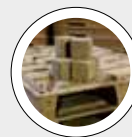
• Box made of quality carbon steel • Wear-resistant plates welded onto the sliding-surface of the feeder • Electric vibrators • Elastic spring-supports or rubber puffers • Possibility of a positive inclination up to 10° for fine and/or very wet materials, i.e. wood-saw-dust, fine chips, etc.

BENEFITS

• High performance • Excellent feeding and fluidizing of any type of raw wood
• Minimized energy consumption • Minimized labour cost • Low maintenance cost.

BEST IN CLASS FOR:

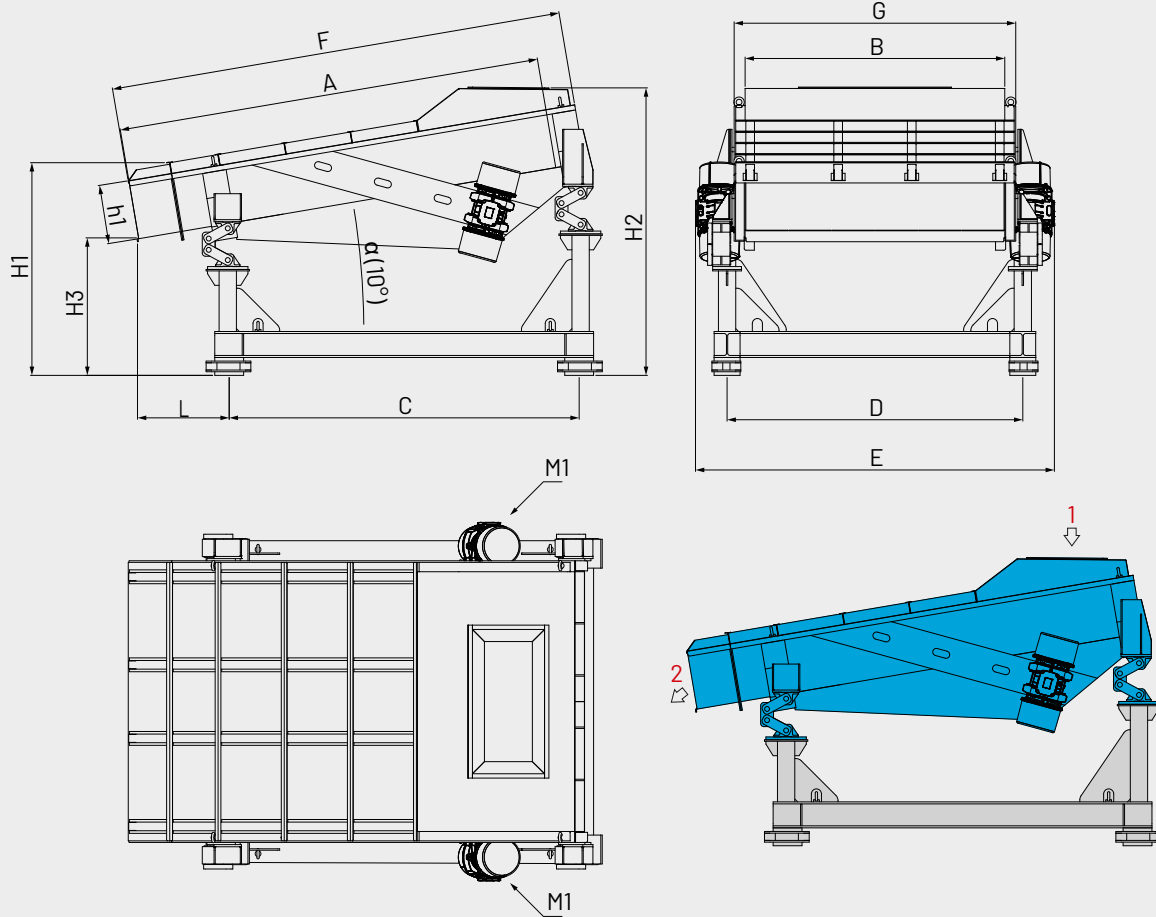
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



1 = FEEDING
2 = DISCHARGE

M1 = MAIN MOTOR

MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	G	h1	H1	H2	H3	L
EVA.60/18	1800	600	1400	876	1150	1960	736	200	960	1300	763	492
EVA.90/20	2055	900	1400	900	1430	2220	1000	200	912	1297	715	744
EVA.90/25	2500	900	2200	1190	1430	2585	1052	256	986	1496	655	270
EVA.120/25	2500	1200	1700	1670	2000	2675	1336	300	936	1400	641	886
EVA.140/25	2500	1400	1700	1680	1992	2660	1540	300	938	1400	643	886
EVA.150/30	3000	1500	2445	1780	2010	3135	1652	306	1140	1400	700	601
EVA.180/30	3000	1800	2420	2090	2325	3135	1952	386	1140	1975	953	620
EVA.200/30	3000	2000	2390	2370	2565	3160	2230	386	1170	1740	787	720
EVA.300/30	3000	3000	2472	3200	3750	3135	3152	400	1475	1975	935	510

MODEL	CAPACITY BULK m³/h	INSTALLED POWER kW	WEIGHT APPROX. kg
EVA.60/18	According to type of material	2 x 0,68	340
EVA.90/20		2 x 0,90	600
EVA.90/25		2 x 1,00	720
EVA.120/25		2 x 1,50	900
EVA.140/25		2 x 1,50	1820
EVA.150/30		2 x 1,96	2000
EVA.180/30		2 x 1,96	2560
EVA.200/30		2 x 3,20	3300
EVA.300/30		2 x 3,20	4900

FEEDERS FOR BULKY MATERIALS

CHAIN-PLATE FEEDERS – TKK.180

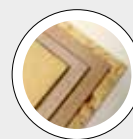
FOR FRACTIONED MATERIAL

**TECHNICAL FEATURES**

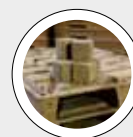
- Very strong double-roller chain feeder
- Horizontal loading section connected with inclined lifting section
- Moving bed equipped with transverse metal plates, overlapped and sealed by profiled shape
- Front shaft fitted with direct transmission
- Rear shaft fitted with chain tensioning devices
- Self cleaning system with: closed bottom – rear reclaim screw conveyors – suction system or reclaim vertical screw conveyor
- Automatic lubrication device for chains
- Containment walls.

BENEFITS

- Easy loading of fractionated material, wet or dry, such as fresh or recycled chips, sawdust, shavings, etc.
- Very efficient feeding of screens, cleaners, refiners, etc.
- Except for front loader, operators are required from time to time only
- Working speed freely adjustable by using frequency converter
- Automatic cleaning and lubrication
- High performance.

BEST IN CLASS FOR:

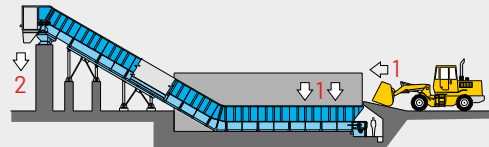
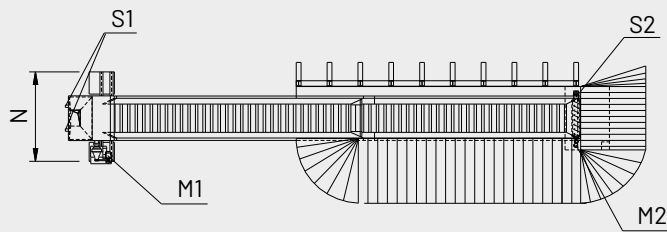
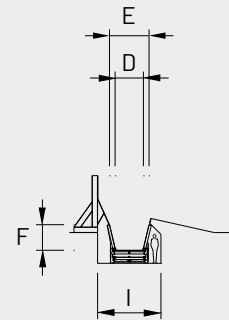
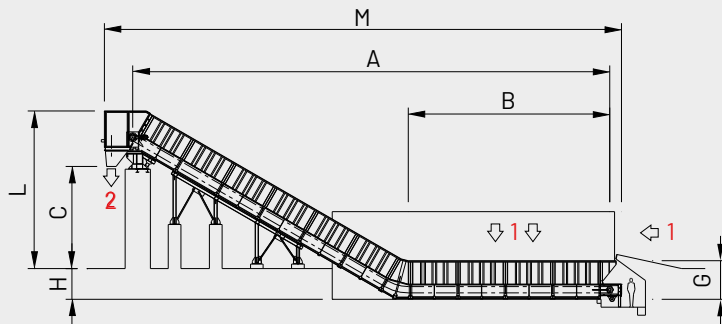
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



1 = FEEDING
2 = DISCHARGE

M1 = MAIN MOTOR
M2 = REAR CLEANING SCREW

MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	G	H	I	L	M	N
TKK.180/3200-LOW	30560	16460	4950	1790	2510	1580	2450	1940	4000	8450	33280	5850
TKK.180/3200-HIGH	30160	13280	6450	1790	2510	1580	2450	1940	4000	9950	32690	5850

MODEL	FEEDING CAPACITY* BULK m ³ /h	STORAGE CAPACITY BULK m ³ /h		INSTALLED POWER kW		WEIGHT APPROX. kg
		CHIPS	SAWDUST	M1*	M2	
TKK.180/3200-LOW	200	80 -100	80 -100	11-15	2,2	50000
TKK.180/3200-HIGH	200	70 - 80	70 - 80	11-15	2,2	50000

*According to feeding material

MODEL	AUXILIARY SUCTION S1			AIR SUCTION for PNEUMATIC CLEANING S2		
	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa
TKK.180/3200-LOW	4000	29	200	2000	29	200
TKK.180/3200-HIGH						

CHAIN CONVEYORS – TCG



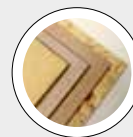
TECHNICAL FEATURES

- Chain conveyor for wood logs or slabs feeding
- Manufacturing program for different length, width, number of chains, speed, capacity
- Modular design in order to extend sizes of the conveyor once needed
- Independent tensioning system for each individual chains.

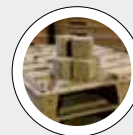
BENEFITS

- Excellent regularity feeding of any type of raw wood
- Great storage volume
- Adjustable speed by frequency converter
- Fast assembling timing without weldings on site
- Rollers chain to decrease energy consumption and wear
- Low maintenance cost.

BEST IN CLASS FOR:



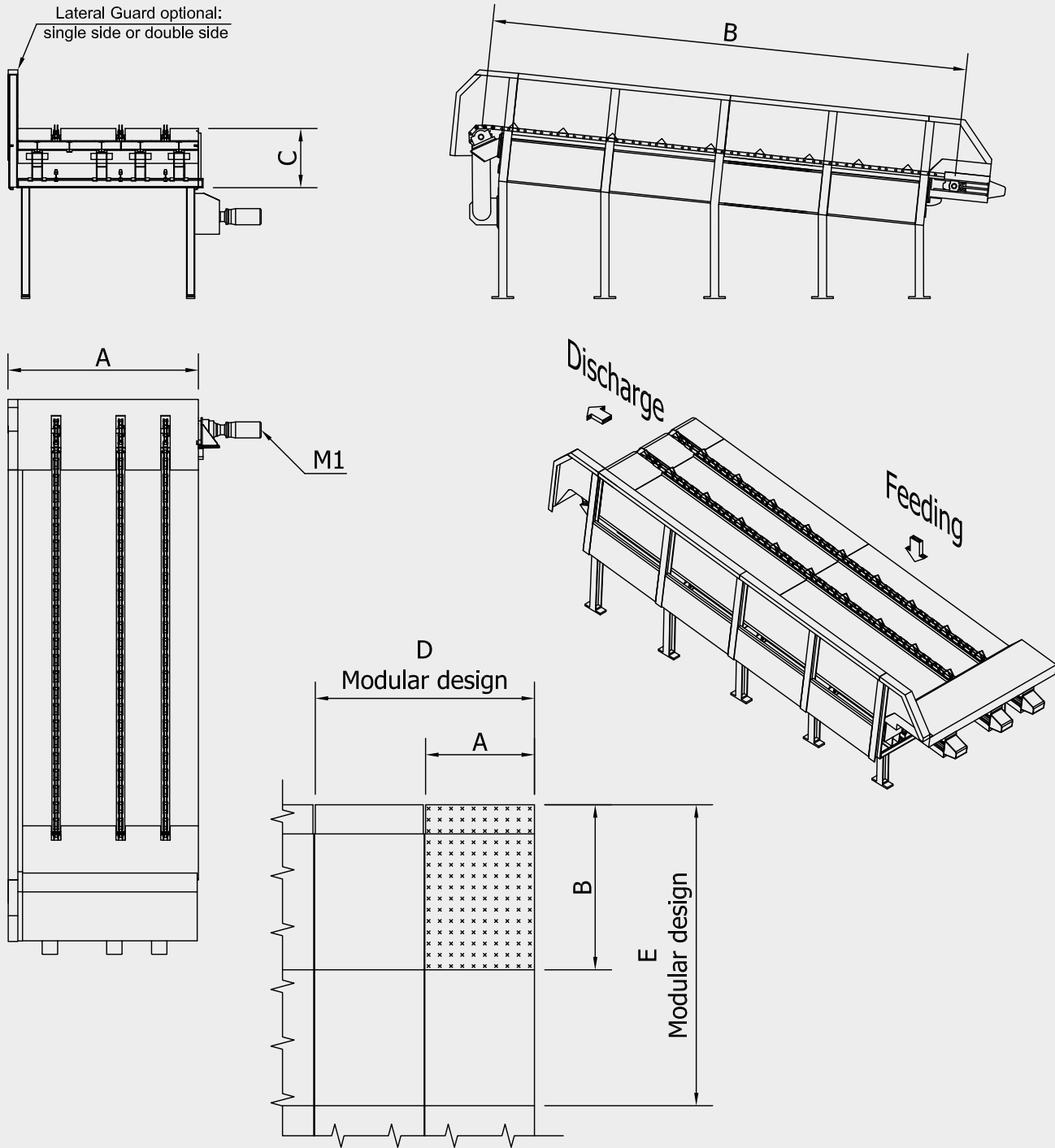
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS



M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm ***					
	A	B	C	D	E	N° chains
TCG**	1000 ÷ 2000	2500 ÷ 4000	1200	A x n°Module	B x n°Module	2 ÷ 12

MODEL	CAPACITY*** m³/h	POWER kW	WEIGHT (kg)
		M1	
TCG**	***	3 ÷ 30	***

***According to customer needs
**According to dimensions

LONGITUDINAL CHAIN CONVEYOR – LCG



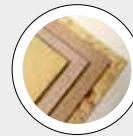
TECHNICAL FEATURES

- Chain conveyor for wood logs feeding • Manufacturing program for different length, width, number of chains, speed, capacity • Heavy construction in order to absorb shocks deriving from logs fall into the conveyor • Chains designed with scraper on the bottom side for rails cleaning.

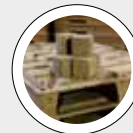
BENEFITS

- Excellent regularity feeding of raw wood • Great storage volume • Adjustable speed by frequency converter • Fast assembling timing without weldings on site • Rollers chain to decrease energy consumption and wear • Low maintenance cost.

BEST IN CLASS FOR:



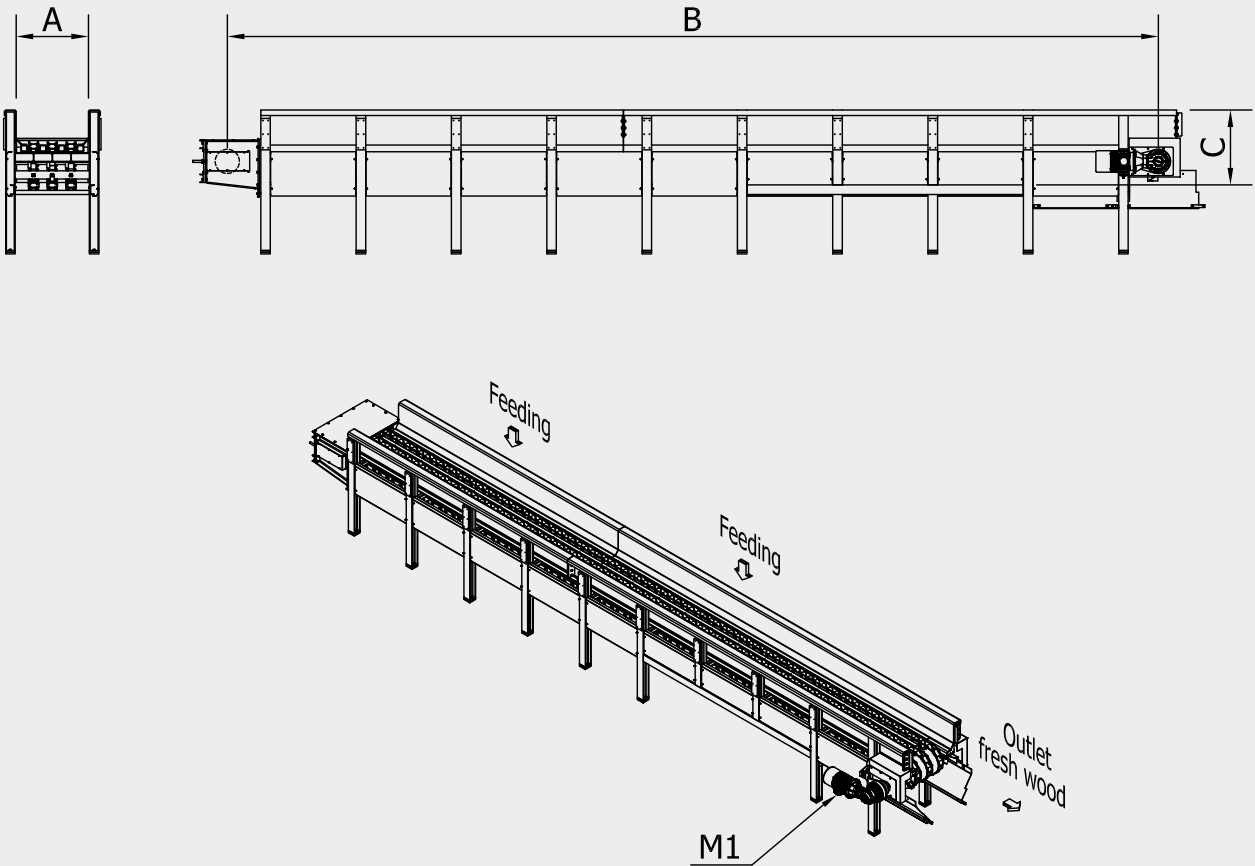
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS



MODEL	OVERALL DIMENSIONS mm ***			
	A	B	C	N° chains
LCG**	800 ÷ 1600	6000 ÷ 24000	1150 ÷ 1650	2 ÷ 6

MODEL	CAPACITY*** m³/h	POWER kW	WEIGHT (kg)
		M1	
LCG**	***	5 ÷ 40	***

***According to customer needs
**According to dimensions

VIBRATING TABLES – VTG



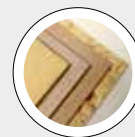
TECHNICAL FEATURES

- Vibrating table is the perfect integration with the following vibrating feeder machines, for a proper wood materials feeding
- Modular manufacturing system to feed every single specific requirement
- Each module could be equipped with a frontal screen for discharging fine materials such as bark, stone, dust etc
- The unidirectional movement is obtained through a couple of motovibrators.

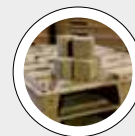
BENEFITS

- Excellent feeding and fluidification of any type of raw wood
- Minimized energy consumption
- Low maintenance cost.

BEST IN CLASS FOR:



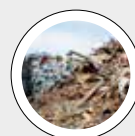
WOOD BASED PANELS:
MDF/HDF
PB/SPB



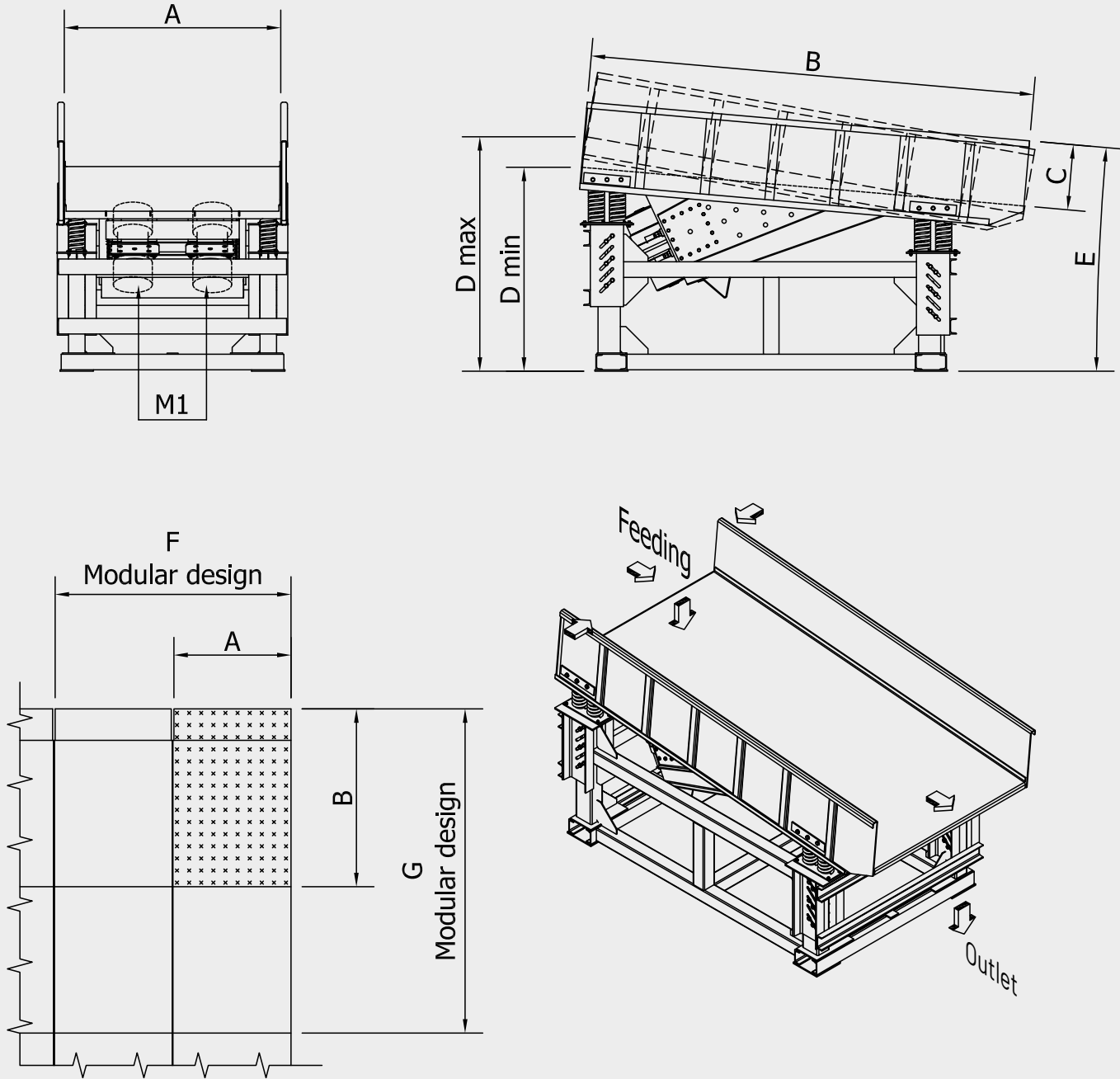
PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm***						
	A	B	C	D	E	F	G
VTG**	2000 ÷ 4000	4000 ÷ 4500	500 ÷ 600	1750 ÷ 2000	0° ÷ 10°	A x n° Module	B x n° Module

MODEL	CAPACITY m³/h	POWER kW	WEIGHT kg
		M1	
VTG**	***	7,5 ÷ 15	***

***According to customer needs

**According to dimensions

VIBRATING CHANNELS – VFG



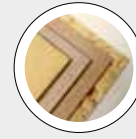
TECHNICAL FEATURES

- An adequate wood material feeding system is the main goal for reaching the optimal production capacity of all wood cutting machines • Globus vibrating feeder, are able to feed wood material at high speed, thanks to a special acceleration system called “leaf spring” • Extra high acceleration leave a perfect material alignment and the extra shake allow a perfect separation of stone and dust, collected by a special screen at the feeder end • The sturdiness of the driving mechanic group, together with the “leaf-spring” system made in compound material, reduces maintenance costs at the minimum.

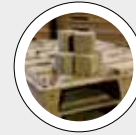
BENEFITS

- Excellent feeding and fluidification of any type of raw wood • Minimized energy consumption • Low maintenance cost.

BEST IN CLASS FOR:



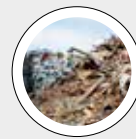
WOOD BASED PANELS:
MDF/HDF
PB/SPB



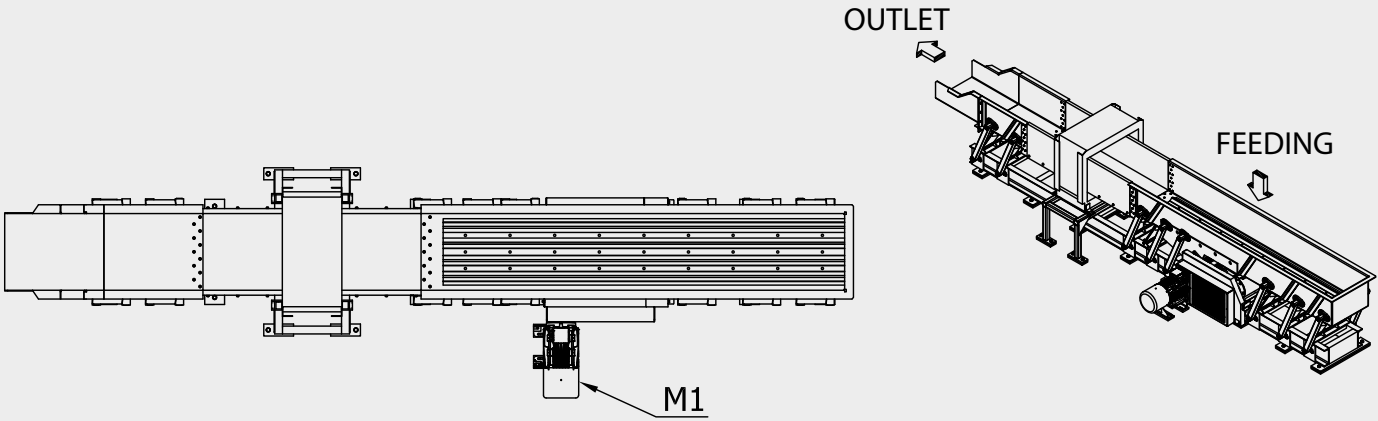
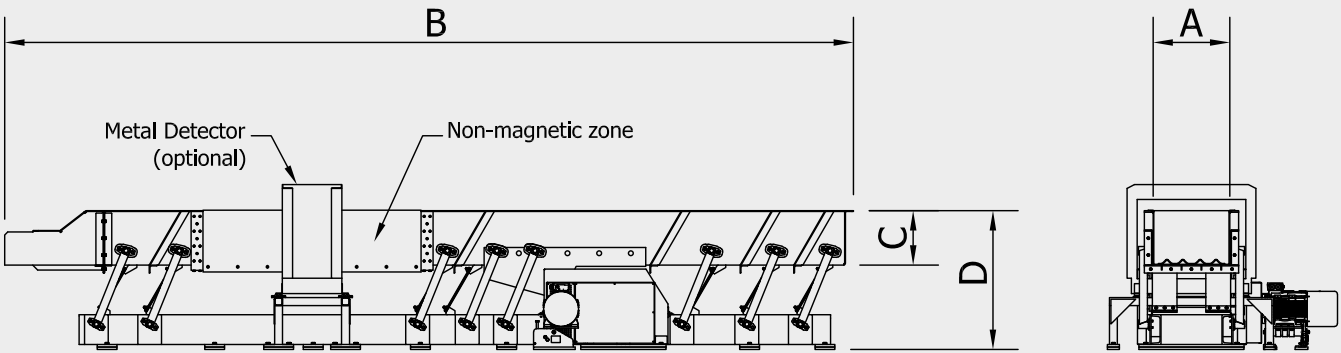
PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm***				
	A	B	C	D	Metal Detector
VFG**	600 ÷ 1400	8000 ÷ 14000	300 ÷ 850	1000 ÷ 1700	optional

MODEL	CAPACITY m³/h	POWER kW	WEIGHT kg
		M1	
VFG**	***	11 ÷ 18,5	2500 ÷ 10000

***According to customer needs

**According to dimensions

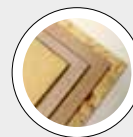
BELT CONVEYOR – NTL



TECHNICAL FEATURES

- Able to feed wood material at constant speed
- Design according to wood type with reinforced impact zone, special sliding of the belt
- Available in conjunction with metal detector
- Ideal for wood logs, shavings, veneer waste
- Special design for veneer.

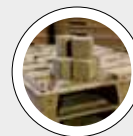
BEST IN CLASS FOR:



WOOD BASED PANELS:

MDF/HDF

PB/SPB



PRESSED WOOD PACKAGING:

PALLET BLOCKS

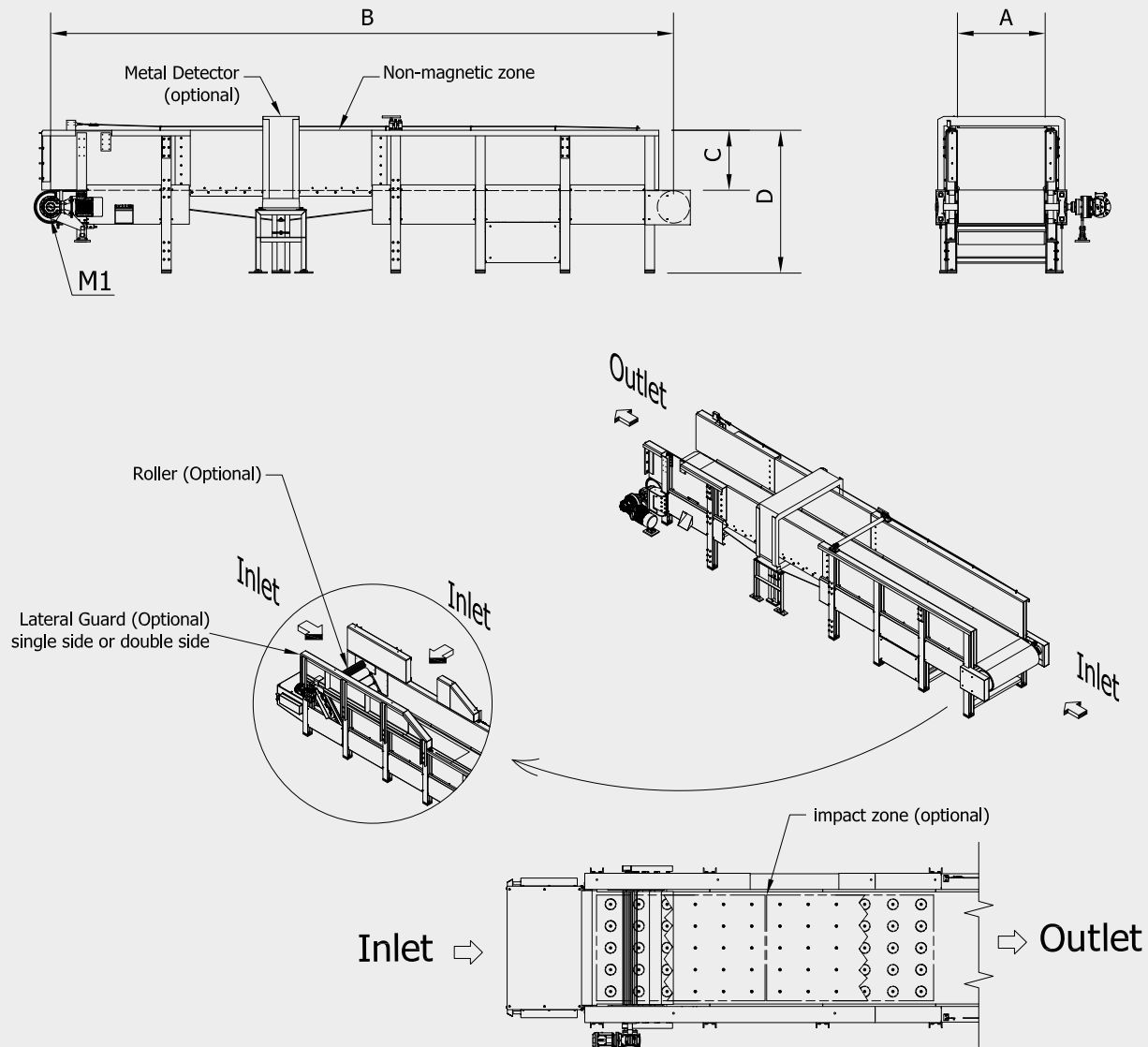
PRESSED PALLETS



PELLETS & ENERGY:

WOOD PELLETS AND
BLACK PELLETS

GREEN FUELS AND BIOMASS



M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm***				
	A	B	C	D	Metal Detector
NTL **	600 ÷ 1650	500 ÷ 1500	300 ÷ 1000	1700 ÷ 2600	optional

MODEL	CAPACITY m³/h	POWER kW	WEIGHT kg
		M1	
NTL**	***	2.5 ÷ 22	4000 ÷ 12500

***According to customer needs

**According to dimensions

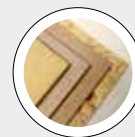
VIBRATING FEEDER – AVG / AVE



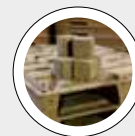
TECHNICAL FEATURES

- Ideal to install it after a chipper or to feed rechipper or flakers • Easy transport of chips or flakes to enlarge the wood material • Optimal speed and distribution of the chips • Possibility to setup different angle according to chips-moisture and size • High reliability and low maintenance • Suspension springs with regulation • Possible installation of a magnetic drum at the outlet.

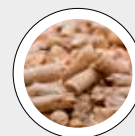
BEST IN CLASS FOR:



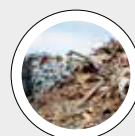
WOOD BASED PANELS:
MDF/HDF
PB/SPB



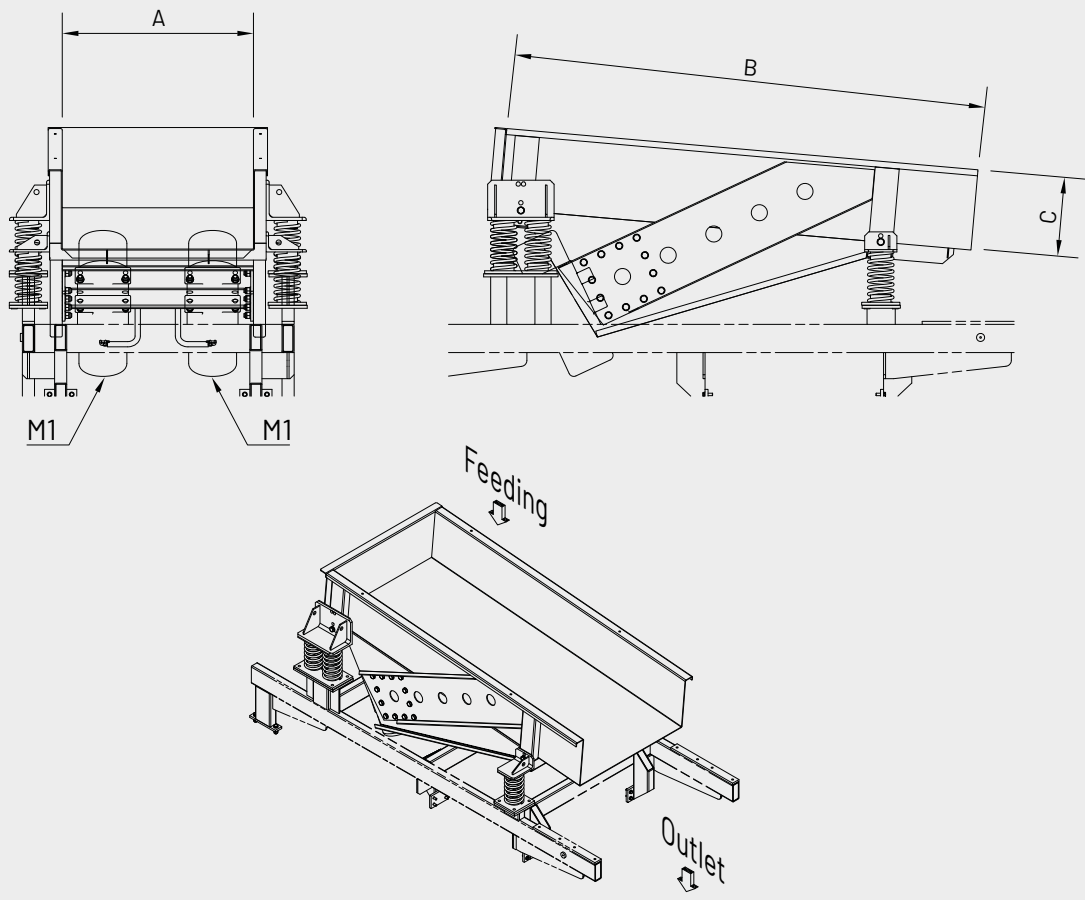
PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE




M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm***		
	A	B	C
AVG** / AVE**	500 ÷ 2000	1500 ÷ 7000	200 ÷ 600

MODEL	CAPACITY m³/h	POWER kW	WEIGHT kg
		M1	
AVG** / AVE**	***	1 ÷ 22	100 ÷ 3600

***According to customer needs
**According to dimensions

Crushers

	page number	<div>WOOD BASED PANELS</div>						
		PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD		
		ALLIGATOR	42	•				
		ALLIGATOR-D	44	•				
		TIGER	46	•				
TIGER-K	48	•	•					

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SINGLE-ROTOR PRE-CRUSHERS

ALLIGATOR

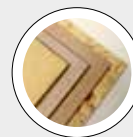
FROM URBAN FOREST TO PRE-CRUSHED MATERIAL

**TECHNICAL FEATURES**

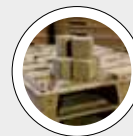
- Very large feeding hopper for bulky material
- Low-speed crushing rotor equipped with strong teeth
- Hydraulic drive protected from overloads
- Hydraulic drive protected from overloads
- Discharge sizing screen for pre-crushed material.

BENEFITS

- Drastic volume reduction of bulky recycling, i.e. from 60-80 to 130-150 kg/m³ bd
- Easier & cheaper transportation of pre-crushed material
- Full protection from overloads, e.g. from foreign bodies
- Compact, simple, versatile, highly reliable and efficient system
- Minimum noise
- Very low maintenance
- Low energy consumption.

BEST IN CLASS FOR:

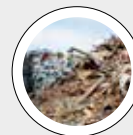
WOOD BASED PANELS:
PB/SPB



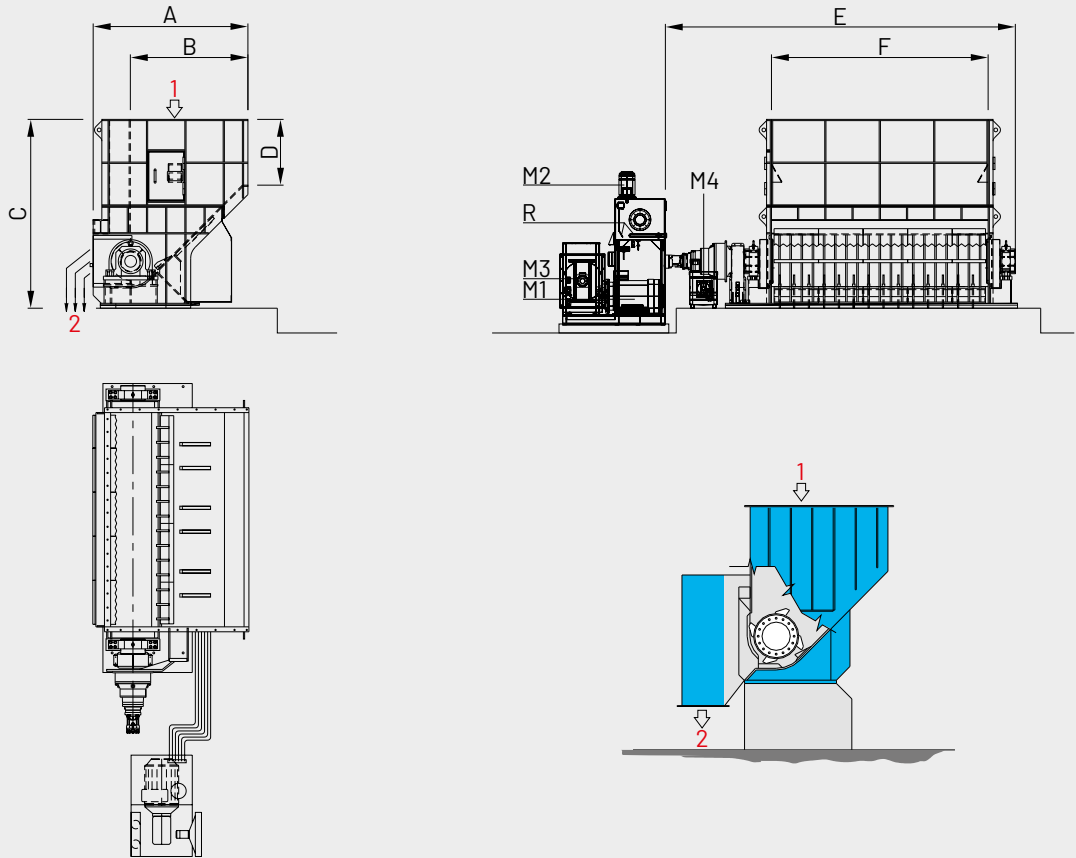
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1=INFEED M1= MAIN MOTOR M3= HEAT EXCHANGER FOR OIL R= RESISTORS FOR
2=OUTFEED M2= FEEDING HYDRAULIC UNIT M4= HEAT EXCHANGER FOR GEAR BOX HEATING OIL

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
ALLIGATOR 80-350/240	2500	1900	3050	1060	5720	3500

MODEL	CAPACITY** t/h	INSTALLED POWER kW					WEIGHT APPROX. kg
		M1	M2	M3	M4	R***	
ALLIGATOR 80-350/240	15-25	75-90	7,50	1,10	0,75	3 x 2	22000

**According to type-volume of material and infeed efficiency
**Resistors for heating oil - option

DOUBLE-ROTOR PRE-CRUSHERS

ALLIGATOR-D

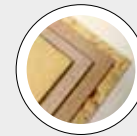
FROM URBAN FOREST TO READY CHIPS

**TECHNICAL FEATURES**

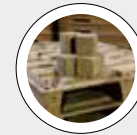
• Integrated system including conveying belt and deferrizator • Very large feeding hopper for bulky material • Low-speed crushing rotors equipped with strong teeth • Hydraulic drive protected from overloads • Discharge sizing screen for pre-crushed material.

BENEFITS

• High capacity • Drastic volume reduction of bulky recycling, i.e. from 60-80 to 130-150 kg/m³ bd • Easier & cheaper transportation of pre-crushed material • Full protection from overloads, e.g. from foreign bodies • Compact, simple, versatile, highly reliable and efficient system • Minimum noise • Very low maintenance.

BEST IN CLASS FOR:

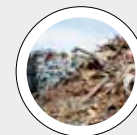
WOOD BASED PANELS:
PB/SPB



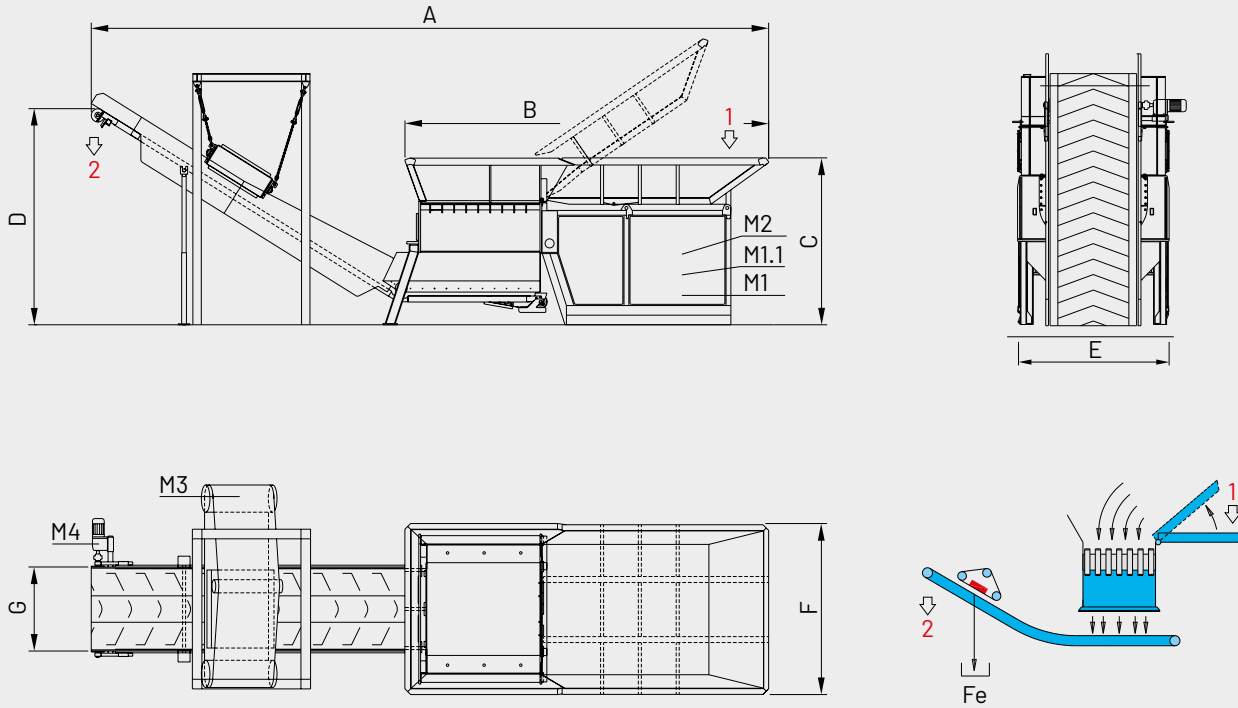
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = INFEED
2 = OUTFEED

Fe = FERROUS POLLUTANTS
M1 = MAIN MOTOR
M1.1 = MAIN MOTOR

M2 = HEAT EXCHANGER FOR OIL
M3 = OVERBELT MAGNET GEAR MOTOR
M4 = BELT CONVEYOR GEAR MOTOR

MODEL	OVERALL DIMENSIONS mm						
	A	B	C	D	E	F	G
ALLIGATOR 85D-600/285	14680	6060	4209	4060	5520	2260	1400
ALLIGATOR 85D-220/200-W	15257	2200	4410	4500	5520	2450	1400

MODEL	CAPACITY* t/h	INSTALLED POWER kW						WEIGHT APPROX. kg
		M1	M1.1	M2	M3	M4	R**	
ALLIGATOR 85D-600/285	40-90	160	160	4 x 5,5	2,2	22	3 x 2	26000
ALLIGATOR 85D-220/200-W	19-30	160	160	4 x 5,5	-	22	-	26000

*According to type-volume of material and infeed efficiency

**Resistors for heating oil - option

TIGER

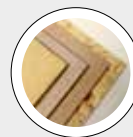
FROM URBAN FOREST TO READY CHIPS

**TECHNICAL FEATURES**

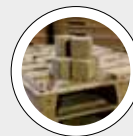
- U-feeder based on vibrating channel or long chain-plate conveyor and terminal toothed rollers
- Swivelling introduction head with toothed rollers
- High speed rotor equipped with very strong hammers
- Digesting chamber equipped with openable inspection gates and inner wearproof protections
- Front flaps to reject indigestible materials such as large metallic contaminants, etc.
- Very big strong hammers
- Outfeed screen to control the size of crushed chips.

BENEFITS

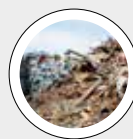
- Easy digestion of all urban forest material, bulky or pre-crushed
- Easy digestion of pollutants such as minerals, stones, plastics, glass, etc.
- Elimination of bigger and tougher heavy pollutants
- Very low specific energy consumption and maintenance.

BEST IN CLASS FOR:

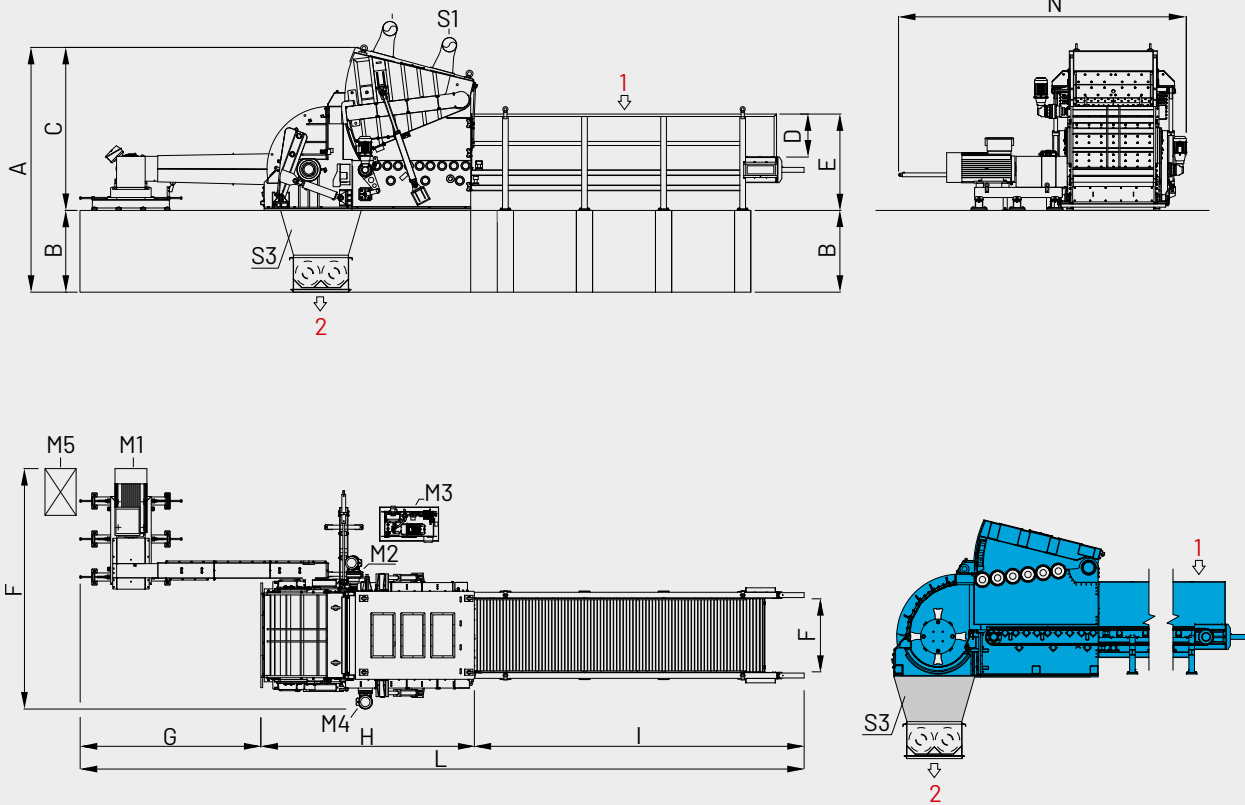
WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	*G	H	I	L	M	N
TIGER 150-70C	4830	1800	3030	1080	2260	3600	3620	5390	6653	15663	1500	6570
TIGER 180-90L	4128	765	3363	1080	2257	7881	3565	4487	6653	14705	1830	5546
TIGER 210-90	4780	765	4015	1080	2257	7881	3565	5145	10170	19835	2000	7072

*Variable according to motor size

MODEL	INLET SECTION mm			ROTOR DIAMETER mm	CAPACITY** t/h		INSTALLED POWER kW				
	WIDTH	HEIGHT	HEIGHT OF MATERIAL		BULKY MATERIALS***	PRE-CRUSHED MATERIALS****	M1**	M2	M3	M4	M5
TIGER 150-70C	1550	700	400	1200	15-20	30-40	400-500	15	5,5	9,2	55
TIGER 180-90L	1800	1350	900	1400	25-35	45-65	400-500	15	5,5	11	75
TIGER 210-90	2000	1350	900	1400	30-40	50-70	710-1000	15	7,5	11	75

*Based on pre-crushed material, bulk density 150 kg/m³ bd, moisture content < 25% bd

**According to type, bulk density and moisture content of material to crush

MODEL	EXHAUST SUCTION S1			EXHAUST SUCTION S2		
	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa
TIGER 150-70C	2x2570	29	1000	4000	29	1000
TIGER 180-90L	2x10000	29	1000	10000	29	1000
TIGER 210-90	2x10000	29	1000	10000	29	1000

TIGER-K

FROM URBAN FOREST TO READY CHIPS



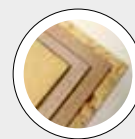
TECHNICAL FEATURES

- U-feeder based on vibrating channel or long chain-plate conveyor
- Swivelling introduction head with toothed rollers
- High speed rotor equipped with very strong hammers-knives
- Possibility to change the direction of operation rotor as needed
- Digesting chamber equipped with openable inspection gates and inner wearproof protections
- Front flaps to reject indigestible materials such as large metallic contaminants, etc.
- Very big strong hammers
- Outfeed screen to control the size of crushed chips.

BENEFITS

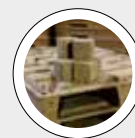
- Easy digestion of all urban forest material, bulky or pre-crushed
- Easy digestion of pollutants such as minerals, stones, plastics, glass, etc.
- Elimination of bigger and tougher heavy pollutants
- Very low specific energy consumption and maintenance.

BEST IN CLASS FOR:



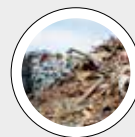
WOOD BASED PANELS:

PB/SPB
MDF/HDF



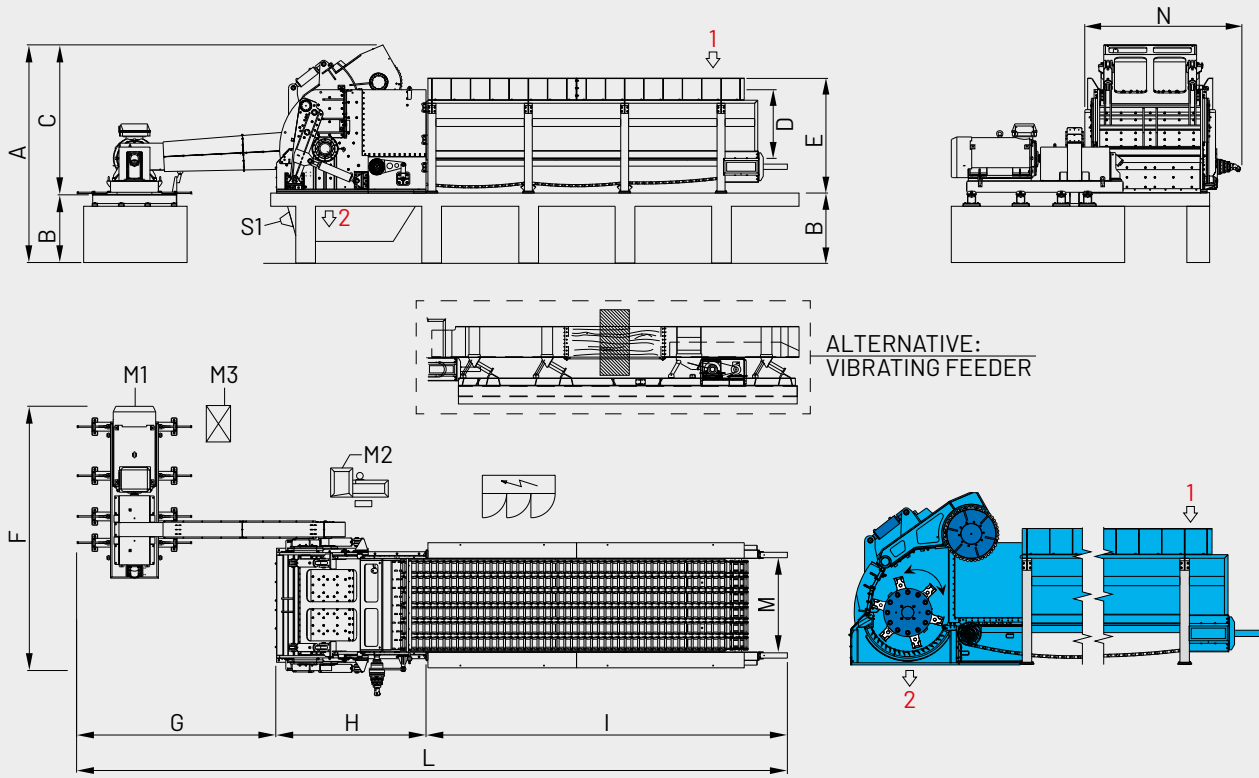
PRESSED WOOD PACKAGING:

PALLET BLOCKS
PRESSED PALLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:

WASTE



MODEL	OVERALL DIMENSIONS mm										
	A	B	C	D	E	F	*G	H	I	L	M
TIGER-K 210-110	5367	2000	3367	1592	2610	6500	4528	3440	8167	16135	2100


*Variable according to motor size


MODEL	INLET SECTION mm		ROTOR DIAMETER mm	CAPACITY** t/h	INSTALLED POWER kW			WEIGHT APPROX. kg TOTAL
	WIDTH mm	HEIGHT mm			M1**	M2	M3	
TIGER-K 210-110	2100	1100	1400	40-65	1000	55	75	70000

**According to type, bulk density and moisture content of material to crush

MODEL	EXHAUST SUCTION S1		
	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa
TIGER-K 210-110	30000-50000	29	1000

Debarkers

	page number	<div>WOOD BASED PANELS</div>						
		PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD		
		LOGS DEBARKER SCREW	52	•	•	•		
		DEBARKERS DRUMS – DDG	54	•	•	•		
		ROLLER DISCHARGE – RDG	56	•	•	•		
CAM CLEANERS – CSC	58	•	•	•				

	PALLET BLOCKS		PRESSED WOOD PACKAGING
	PRESSED PALLETS		
	STRINGERS & BEAMS		
	WOOD PELLETS AND BLACK PELLETS	•	
	GREEN FUELS AND BIOMASS		
	THERMAL AND ELECTRIC ENERGY		
	DRYING		
	WOOD RECYCLING		WOOD RECYCLING AND WASTE TREATMENT
	SLUDGE RECYCLING		
	PLASTIC RECYCLING		
	CUSTOMIZED SOLUTIONS FOR RECYCLING	•	

BARK REMOVERS FOR LOGS

LOGS DEBARKER SCREW



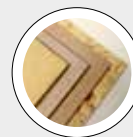
TECHNICAL FEATURES

- Debarking equipment for log debarking especially in cold conditions, no need for a separate de-icing conveyor before debarking
- Debarking technology is based on the rotating shafts located at the lower part of equipment, above which logs are debarked while being in contact with debarking segments mounted on the shafts.

BENEFITS

- Totally live bottom gives even retention time and debarking result
- Debarking efficiency can be easily adjusted by changing filling degree and/or rotating speed
- Geometry has been designed to maximize debarking effect, minimize wood losses and to make debarking results as even as possible
- Log-to-log contact.

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

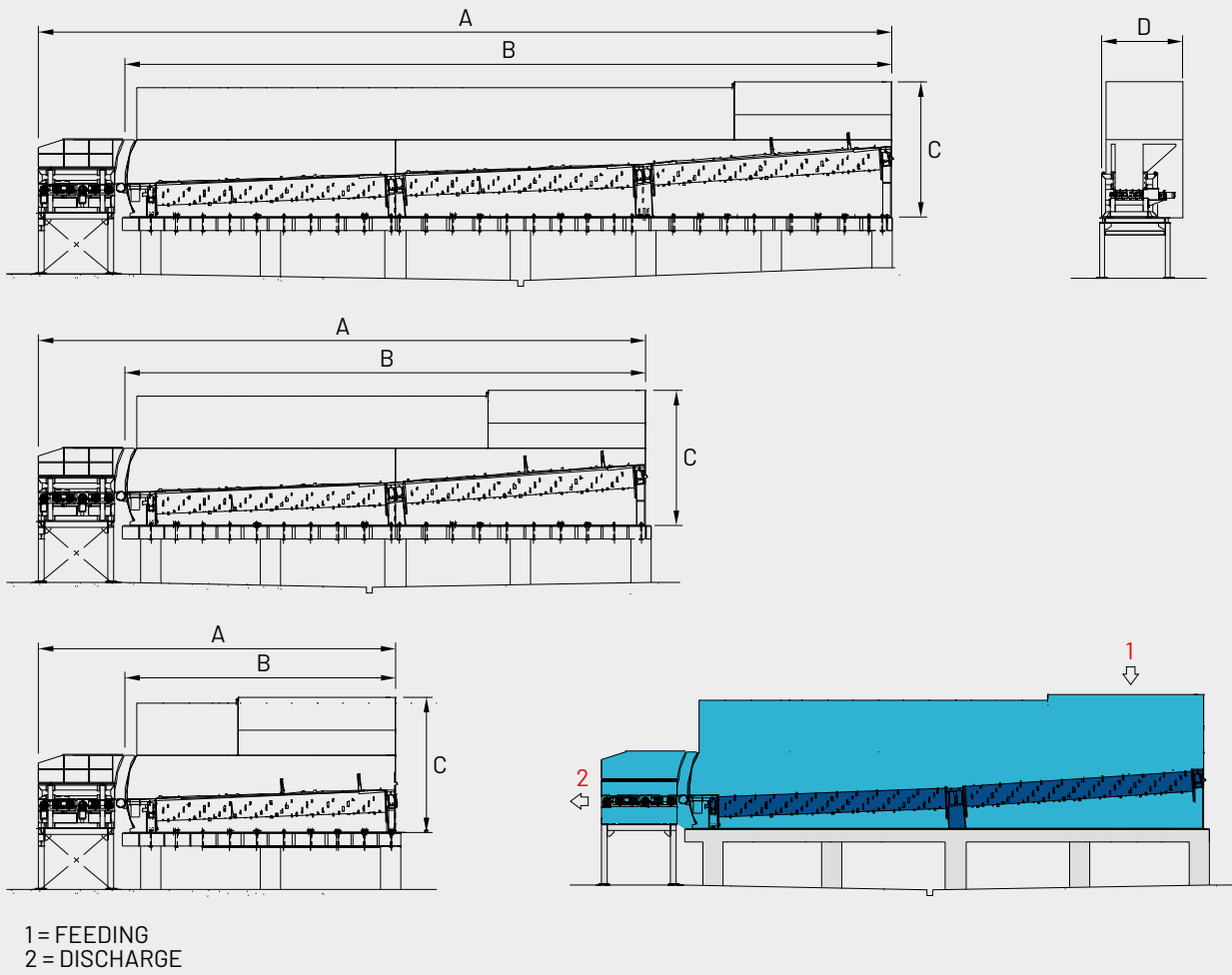
OSB/LSB/FOSB

MDF/HDF



PELLETS & ENERGY:

WOOD PELLETS AND
BLACK PELLETS



MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D
RDK.2.800/10	13920	10920	4510	3260
RDK.4.800/20	23620	20620	5250	3260
RDK.6.800/30	33820	30820	5990	3260
RDK.6.1200/30	33820	30820	5990	4160
RDK.8.1200/40	41512	37737	6600	4160

MODEL	CAPACITY LOGS t/h	INSTALLED POWER kW HYDRAULIC POWER PACK	WEIGHT APPROX. kg
RDK.2.800/10	20	111	49600
RDK.4.800/20	40	185	108518
RDK.6.800/30	60	260	167500
RDK.6.1200/30	80	370	182500
RDK.8.1200/40	100	480	245500

DEBARKERS DRUMS – DDG



The Drum Debarker is an extremely heavy and robust and low maintenance construction machine. Conceived to debark the largest volume of wood in a short time period. The Debarking Drums are built under the premises of longest duty time with the smaller energy and maintenance costs. From 30 m³/h (sob) till 400 m³/h (sob) and from 1 m to 6 m logs long, our Debarkers allow the continuous feeding to the chipping line, of logs bark free till 98% rate.

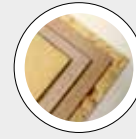
TECHNICAL FEATURES

The main technical characteristics of Drum Debarkers • Very strong conception, apt to the heaviest duty in the woodyard • Device system with standard transport tires • Debarking treatment adjustable of the different kind of wood • Automatic control system of tires air or nitrogen pressure.

BENEFITS

• Very long service time • High debarking performance • Low energy consumption • Very low maintenance costs • Design and dimension according to the special requirement of the costumer.

BEST IN CLASS FOR:

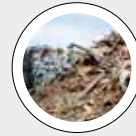


WOOD BASED PANELS:

PB/SPB

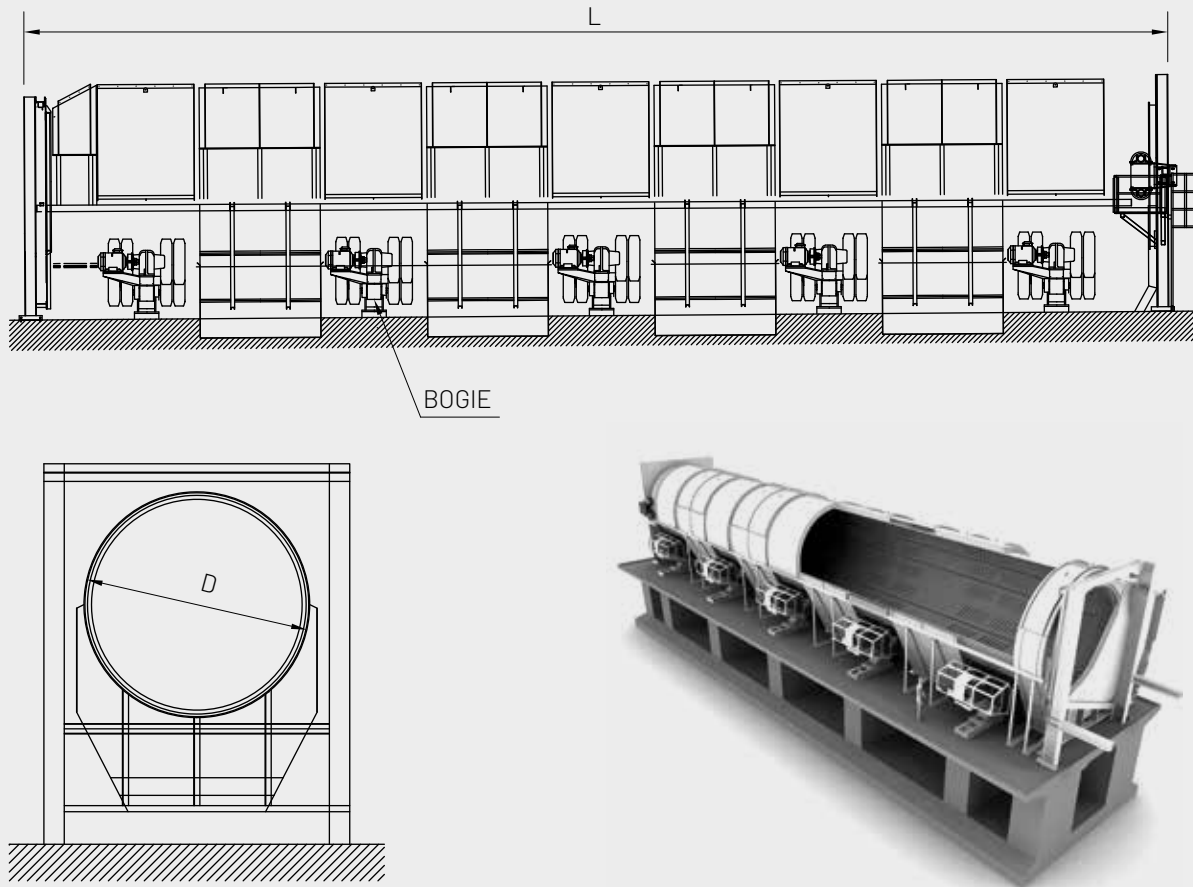
OSB/LSB/FOSB

MDF/HDF



WOOD RECYCLING AND
WASTE TREATMENT:

PAPER MILL



MODEL	OVERALL DIMENSIONS mm ***		
	D	L	N° bogies
DDG.32.08-2	Ø3200	8000	2
DDG.32.10-2	Ø3200	10000	2
DDG.32.12-2	Ø3200	12000	2
DDG.32.15-2	Ø3200	15000	2
DDG.42.20-6	Ø4200	20000	6
DDG.42.25-8	Ø4200	25000	8
DDG.46.30-10	Ø4600	30000	10
DDG.45.35-12	Ø4500	35000	12
DDG.50.30-12	Ø5000	30000	12
DDG.50.35-14	Ø5000	35000	14

MODEL	CAPACITY m³/h Sob		POWER kW
	WET	b.d.	
DDG.32.08-2	30	20	60
DDG.32.10-2	40	25	74
DDG.32.12-2	60	30	90
DDG.32.15-2	70	45	110
DDG.42.20-6	150	100	270
DDG.42.25-8	200	120	360
DDG.46.30-10	280	160	450
DDG.45.35-12	350	200	540
DDG.50.30-12	350	210	540
DDG.50.35-14	400	240	630

***According to customer needs

ROLLER DISCHARGE – RDG



Together with a Debarking System or alone embedded in Logs feeding line, the Roller Discharge give you the highest capacity of bark and residues evacuation out of the process line. With different designs and several association of extremely heavy duty rollers, the Roller Discharge supply high capacity and performance in cleaning. The advance design of the mechanical elements, allow an easy maintenance procedure and low energy demand ratio.

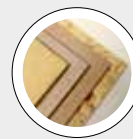
TECHNICAL FEATURES

- Several roller surface designs suitable for the different kind of wood
- Strong design to low maintenance range
- High capacity of bark and residues evacuation.

BENEFITS

- High logs transport capacity
- Low energy demand profile
- Low maintenance activity
- Designed for the different requirement of the customer.

BEST IN CLASS FOR:

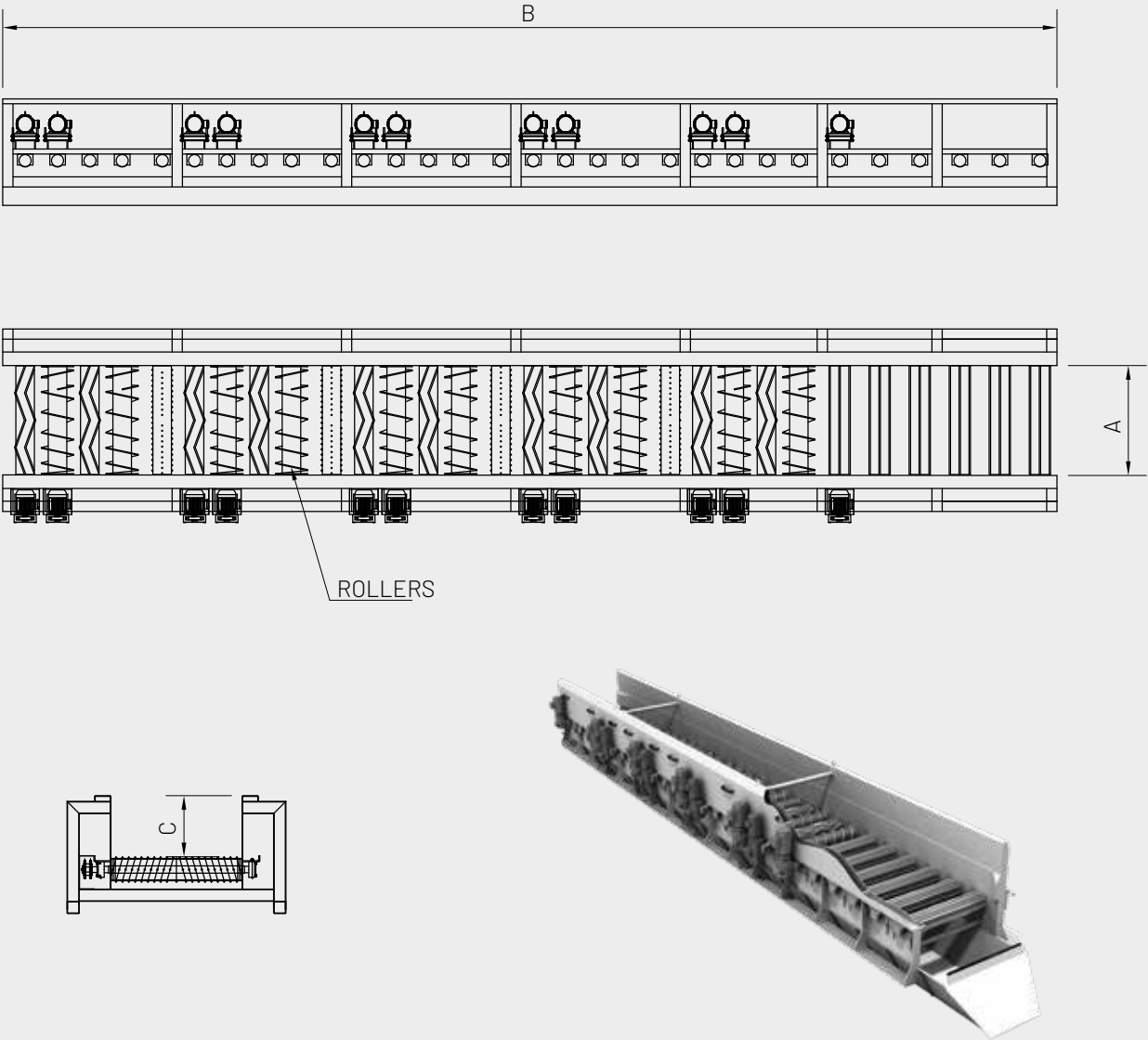


WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



MODEL	OVERALL DIMENSIONS mm ***			
	A	B	C	N° rollers
RDG**	800 ÷ 1650	5000 ÷ 21000	800 ÷ 1600	10 ÷ 38

MODEL	CAPACITY m³/h Sob	POWER kW	WEIGHT Kg
RDG**	30 ÷ 400	***	5000 ÷ 20000

***According to customer needs

**According to dimensions

DEBARKERS CAM CLEANERS – CSC



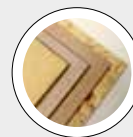
TECHNICAL FEATURES

- Screening bed of steel star shaft, with cams design section for barks and other pollutant exhaust
- Bearing maintenance-free and transmission system
- Working speed according to chipping train
- Reversible flow direction when needed.

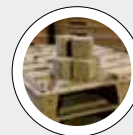
BENEFITS

- Excellent removal of barks and other pollutant material, also snow in winter time
- Low maintenance cost
- Adjustable working speed.

BEST IN CLASS FOR:



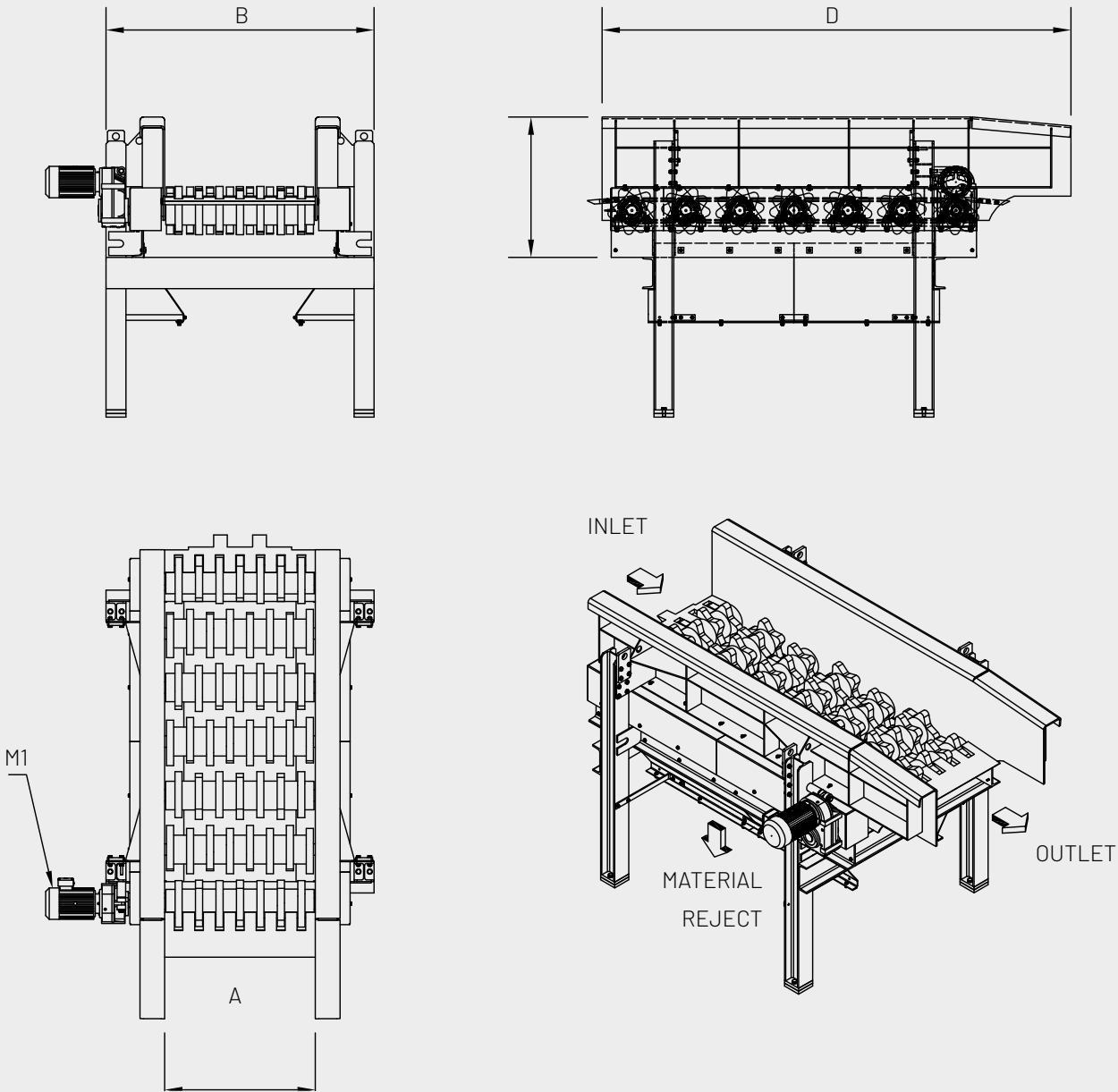
WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB
MDF/HDF



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
GREEN FUELS AND BIOMASS
WOOD PELLETS AND
BLACK PELLETS



M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm ***				
	A	B	C	D	N° rollers
CSC **	**	**	900 ÷ 1400	2600 ÷ 6000	**

MODEL	CAPACITY m³/h	POWER kW	WEIGHT kg
		M1	
CSC **	**	3 ÷ 18,5	**

***According to customer needs
** According to dimensions

Chippers

	page number	WOOD BASED PANELS					
		PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
MOBILE CHIPPERS - MCU	62	•	•				
RE-HAMMER CHIPPER - RCM	64	•	•	•	•		
DRUM CHIPPERS - MTG	66	•	•				
RE-CHIPPERS - RMG	68	•	•	•			
SDG	70	•		•			
INLINE BOARD BREAKER - MPG	72	•	•	•			

MOBILE CHIPPERS – MCU



TECHNICAL FEATURES

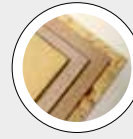
- Mobile system for wood chips production in different location, using a lorry for chipping machine transport
- Machine equipped with diesel engine from hp 510 up to hp 900 and relevant capacity up to 350 m³/h of chips
- Rotor equipped with three different solutions according to final production: - WPB / single knife – energy biomass / multiknives–pollutant wood / hammer.

Globus large experience in drum chipper manufacturing in wood-based panel field, has large impact in designing the mobile unit.

BENEFITS

- Low specific diesel consumption by electronic power control
- Foldable chips evacuation belt revolving and movable type
- Possibility to produce wood chips on same site, by storage 300 m³ volume, without relocating the machine.

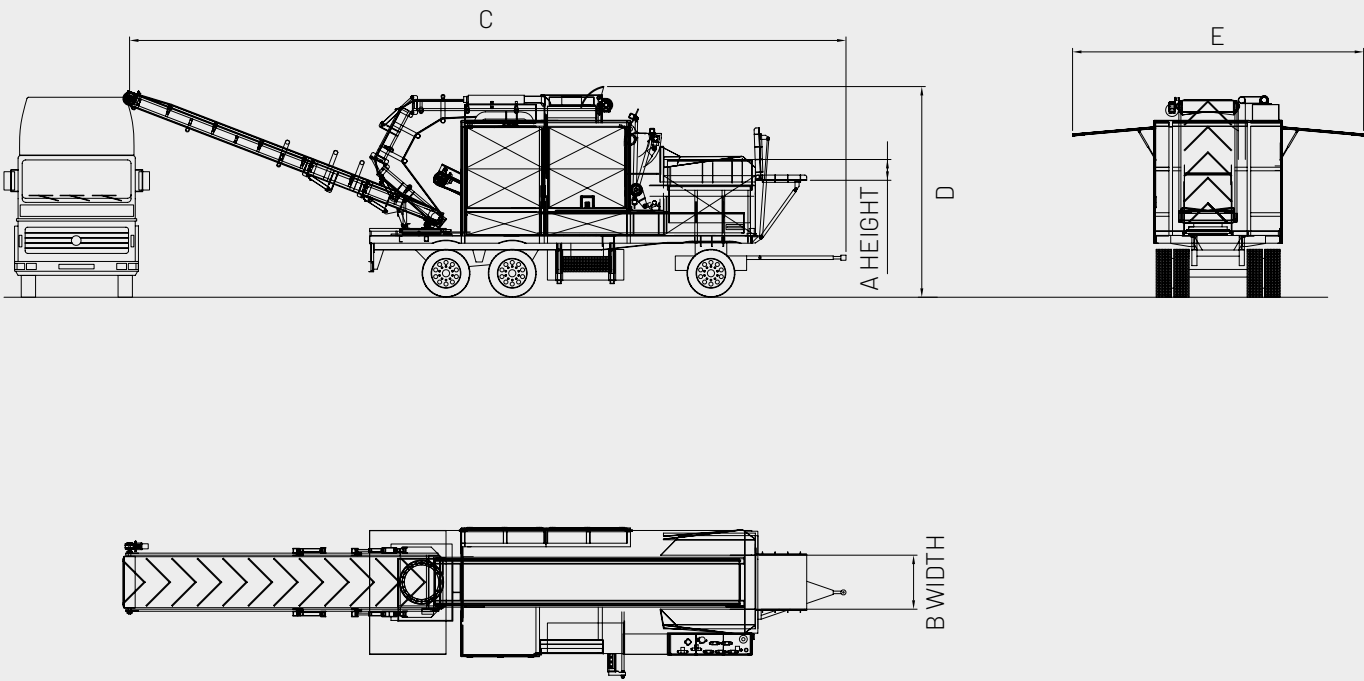
BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB
MDF/HDF



PELLETS & ENERGY:
GREEN FUELS AND BIOMASS



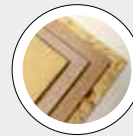
MODEL	OVERALL DIMENSIONS mm***						
	A	B	C	D	E		
MCU	400 - 500 mm	1050 mm	14000 mm	4130 mm	5700 mm		

MODEL	CHIPPING WIDTH mm	CHIPPING HEIGHT mm	DRUM DIAMETER mm	KNIVES pcs	FEED TOOTHED ROLLERS pcs	CAPACITY m³/h chips	ENGINE Turbo Diesel HP
MCU 40.105-M	1050	400	1000	3	1+1	200	510
MCU 50.105-M	1050	500	1300	3	1+1	350	900

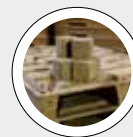
RE-HAMMER CHIPPER – RCM



BEST IN CLASS FOR:



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



PRESSED WOOD PACKAGING:
PALLET BLOCKS



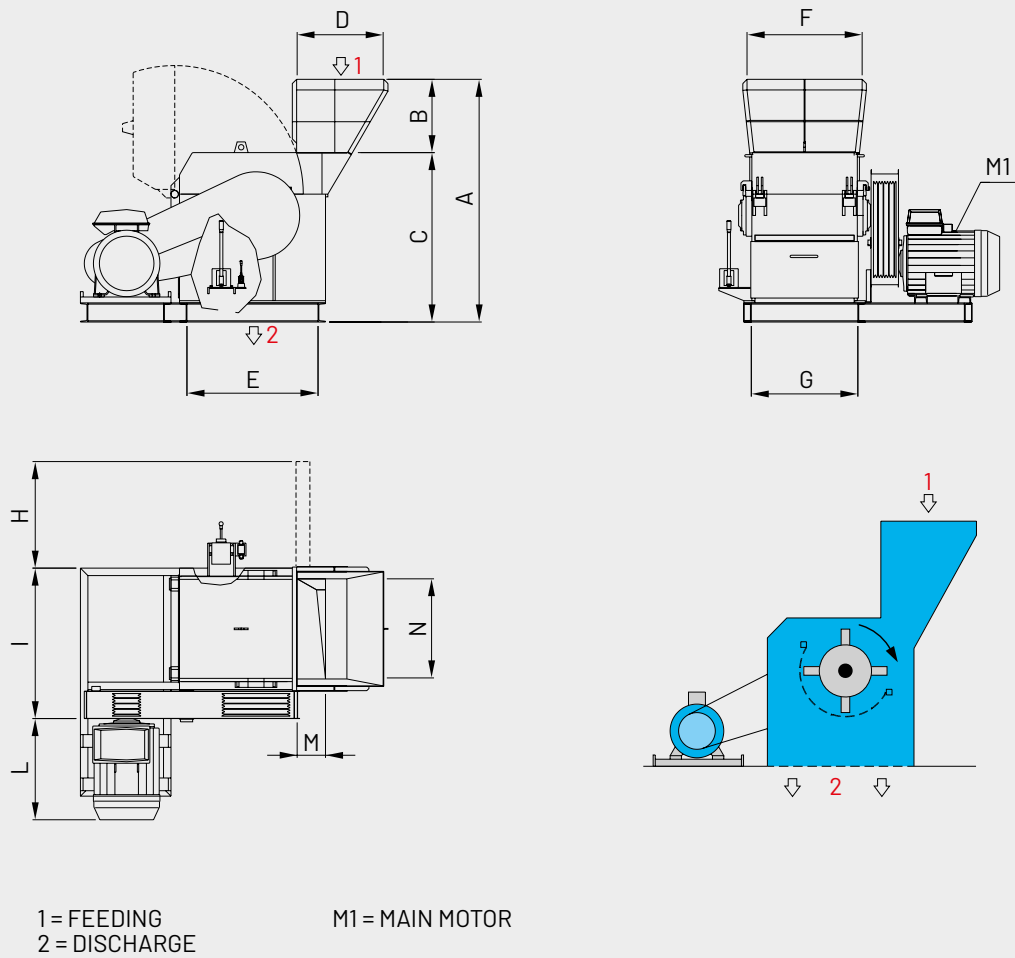
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS

TECHNICAL FEATURES

- Very strong hammer rotor: statically and dynamically balanced – splined to the main shaft fitted with supports and bearings
- Transmission system and guards
- Very strong body fitted with: counter-hammer beam removable from outside – easily removable perforated screen – feeding hopper – top inspection hatch with safety limit switch – side inspection door
- Machine basement, electric motor and slide.

BENEFITS

- Easy replacement of hammer, counter-hammer beam and perforated screen
- High efficiency • High reliability • Very low maintenance cost.



MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	G	H	I	L*	M	N
RE-HAMMER CHIPPER RCM.850/75	2278	688	1590	810	1230	1100	1000	1000	1405	895	250	930
RE-HAMMER CHIPPER RCM.850/90	2278	688	1590	810	1230	1100	1000	1000	1405	900	250	930

*Variable according to motor size

MODEL	DRUM			CAPACITY		INSTALLED POWER kW	WEIGHT APPROX. kg
	DIAMETER mm	LENGTH mm	HAMMERS pes	BULK m³/h	t/h	M1**	
RE-HAMMER CHIPPER RCM.850/75	850	900	32	20-25	According to bulk density	75	5000
RE-HAMMER CHIPPER RCM.850/90	850	900	32	25-30		90	5050

**According to type of material

DRUM CHIPPERS – MTG

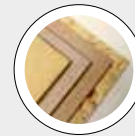


TECHNICAL FEATURES

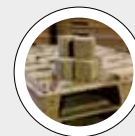
Over the years, Globus realized a wide range of drum chippers, with capacity from 5 up to 165 t/h bd. Machines are designed for a non stop 24 hours work (except knives changing time) granting a chipping quality according to specific customer's requirements. Main technical characteristic of Globus drum chipper:

- two different clamping system of the knives according to the various applications: mechanical system with bolts or centrifugal wedge-shaped system
- Different rotor diameter from 600 to 2400 mm and knives number from 3 to 6
- Interchangeable screens
- Screen manufactured in two halves for a quick and easy replacement (only for big machines)
- Feeding roller made hardened steel with cutting edge obtained through tooling machine
- Feeding rollers drive group equipped with double pinion/key block system plus ring feeder for powerful drive transmission and easy replacement
- Automatic rotor positioning for a safer knives changing (only for big machines)
- Driving group with hydraulic or soft-start acceleration unit
- Hydraulic ejection system of the counter-knives
- Special side door for easy screen inspection.

BEST IN CLASS FOR:



WOOD BASED PANELS:
MDF/HDF
PB/SPB



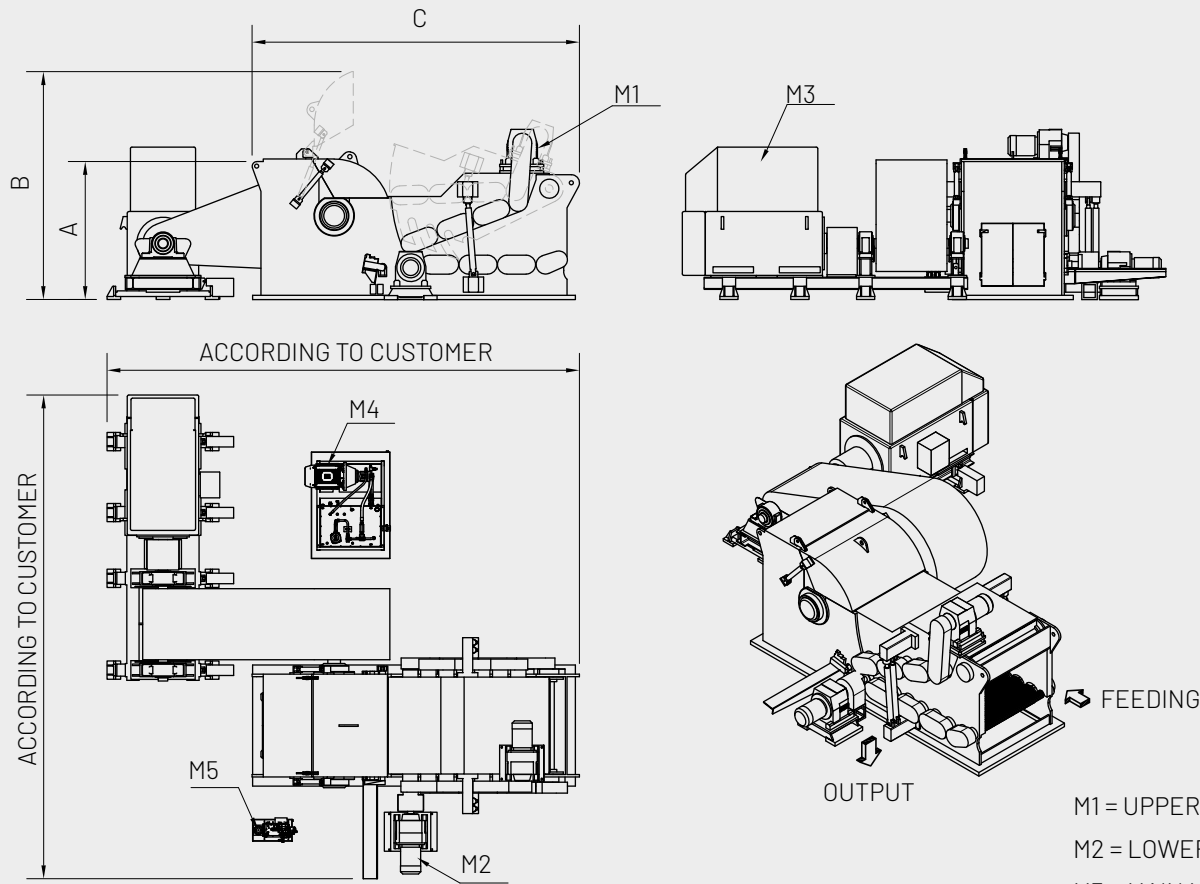
PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
GREEN FUELS AND BIOMASS
WOOD PELLETS AND
BLACK PELLETS

BENEFITS

- Easy digestion of all types and sizes of wood logs and materials
- Perfect perpendicular introduction of logs grants high quality cutting and low over-size quantity
- Easy change of knives and counter-knife in order to minimize idle time
- Minimized energy consumption
- Low maintenance timing



M1 = UPPER ROLLS DRIVE
M2 = LOWER ROLLS DRIVE
M3 = MAIN MOTOR
M4 = STARTER HYDR. UNIT
M5 = SERVICE HYDR. UNIT

MODEL	OVERALL DIMENSIONS mm			MATERIAL INFEED SECTION mm	ROTOR mm	KNIVES No.	MAIN MOTOR POWER kW	WEIGHT WITHOUT MOTOR kg	CAPACITY		
	A	B	C						t/h bd	m ³ /h solid	rm chips/h
Hand L SERIE											
MTG 35.065H-6R	1550	2050	2650	350x650	1000	2/3	160/200	9000	20	44	116
MTG 35.065L-6R	1350	1750	2150	350x650	800	2/3	160/200	8000	13	30	78
MTG 35.085H-6R	1750	2050	2850	350x850	1000	2/3	200/250	10000	26	58	150
MTG 35.105H-6R	1750	2050	2850	350x1050	1000	2/3	250/315	11000	31	69	179
MTG 40.065H-8R	1800	2700	3900	400x650	1300	3/4	200/250	12000	24	51	138
MTG 40.065L-6R	1800	2700	3250	400x650	1000	2/3	160/200	9000	20	44	116
MTG 40.085H-8R	2050	3300	3900	400x850	1300	3/4	250/315	14000	30	67	173
MTG 40.085L-6R	1800	2700	3250	400x850	1000	2/3	200/250	10000	26	58	150
MTG 40.105H-8R	2050	3300	3900	400x1050	1300	3/4	315/450	18000	37	82	214
MTG 40.105L-6R	1800	2700	3250	400x1050	1000	2/3	250/315	11000	31	69	179
MTG 40.125H-8R	2050	3300	3900	400x1250	1300	3/4	400/500	21000	44	98	254
MTG 50.085H-10R	2500	3800	5000	500x850	1600	3/4/5	315/450	24000	40	89	231
MTG 50.085L-8R	2300	3600	4800	500x850	1300	3/4	250/355	14000	30	67	173
MTG 50.105H-10R	2500	3800	5000	500x1050	1600	3/4/5	400/500	26000	50	111	289
MTG 50.105L-8R	2300	3600	4800	500x1050	1300	3/4	315/450	18000	37	82	214
MTG 50.125H-10R	2500	3800	5000	500x1250	1600	3/4/5	500/630	28000	60	133	347
MTG 50.125L-8R	2300	3600	4800	500x1250	1300	3/4	400/500	21000	44	98	254
MTG 50.145H-10R	2500	3800	5000	500x1450	1600	3/4/5	500/750	34000	65	145	377
MTG 60.105L-10R	2500	3800	5000	600x1050	1600	3/4/5	400/500	26000	50	111	289
MTG 60.125L-10R	2500	3800	5000	600x1250	1600	3/4/5	500/750	32000	60	133	347
MTG 60.145L-10R	2500	3800	5000	600x1450	1600	3/4/5	500/750	37000	65	145	377
MTG 85.105H-13R	3000	4500	6000	850x1050	2000	4/5/6	750/1000	45000	80	178	462
MTG 85.125H-13R	3000	4500	6000	850x1250	2000	4/5/6	1000/1200	50000	95	211	549
MTG 85.145H-13R	3000	4500	6000	850x1450	2000	4/5/6	1000/1200	60000	110	244	636
MTG 105.145L-15R	3400	4900	6500	1050X1450	2200	4/5/6	1000/1400	70000	130	289	751
MTG 105.145H-15R	3400	4900	6500	1050X1450	2400	4/5/6	1200/1400	75000	140	311	809
MTG 105.165L-15R	3400	4900	6500	1050x1650	2200	4/5/6	1200/1600	82000	150	333	867
MTG 105.165H-15R	3400	4900	6500	1050x1650	2400	4/5/6	1200/1600	88000	160	356	924

RE-CHIPPERS – RMG



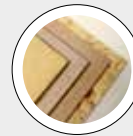
TECHNICAL FEATURES

- This specific machine, is able to process small rejected wood materials such as barks or forestry waste and also the wood over-size coming from others size of reduction machineries
- Basic concept of this machine is the same of all other Globus drum chipper machines, except for the top gravity feeding system of the inlet material
- Bigger machines are equipped with hydraulic upper hood lifting and counter knife ejection.

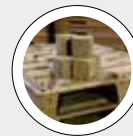
BENEFITS

- Easy digestion of all types of wood materials
- Easy change of knives
- Lateral counter-knife ejection on sliding guide
- Minimized energy consumption
- Low maintenance cost.

BEST IN CLASS FOR:



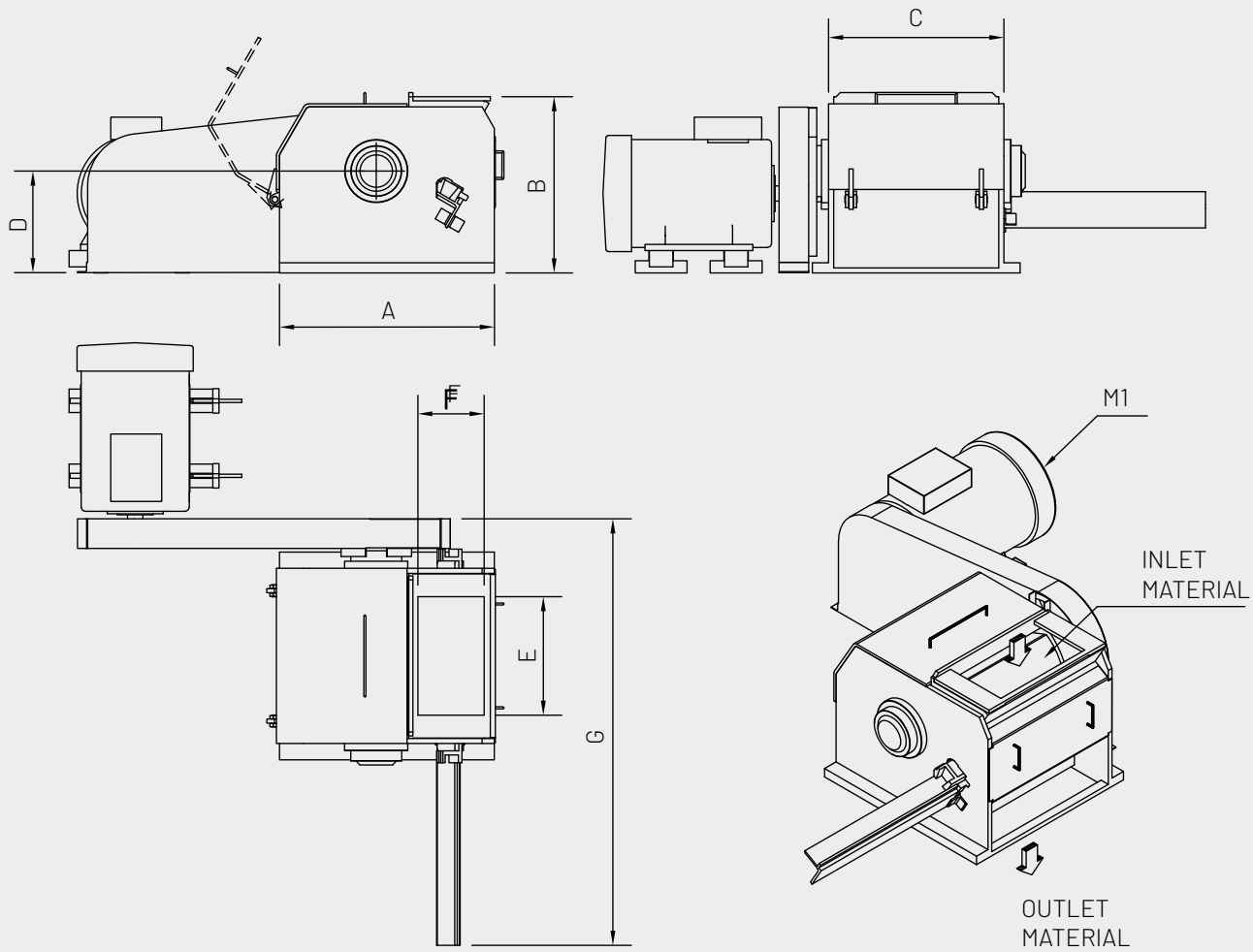
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
GREEN FUELS AND BIOMASS
WOOD PELLETS AND
BLACK PELLETS

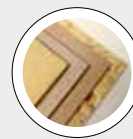


MODEL	OVERALL DIMENSIONS mm ***							
	A	B	C	D	E	F	G	N° knives
RMG 600.75	1050	870	850	500	750	350	1200	2 ÷ 3
RMG 600.100	1050	870	1100	500	1000	500	2500	2 ÷ 3
RMG 800.75	1250	1120	850	600	750	350	1200	2 ÷ 4
RMG 800.100	1250	1120	1100	600	1000	500	2500	2 ÷ 4
RMG 1200.75	1650	1470	850	800	750	500	1200	2 ÷ 5

MODEL	CAPACITY**** m³/h chips	POWER kW	WEIGHT kg
		M1	
RMG 600.75	10 ÷ 20	30 ÷ 200	1500 ÷ 2700
RMG 600.100	13 ÷ 26		
RMG 800.75	30 ÷ 60		
RMG 800.100	40 ÷ 80		
RMG 1200.75	50 ÷ 125		

***According to customer needs
****According to raw material size and density

DISK STRANDER

SDG**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

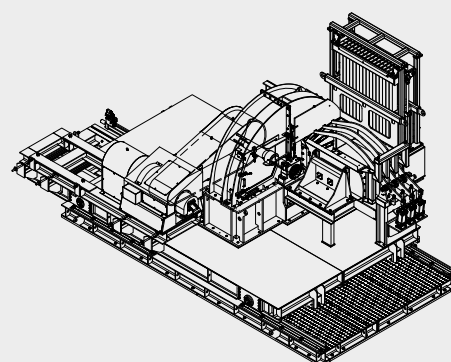
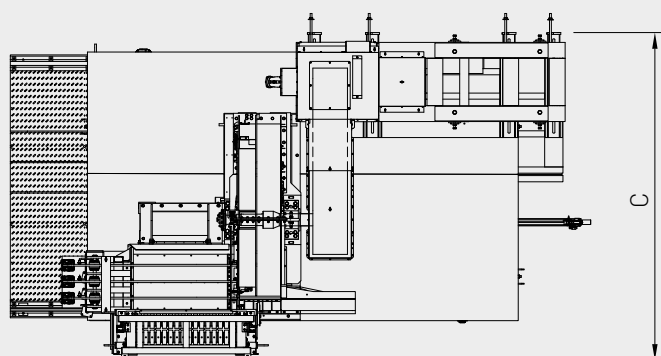
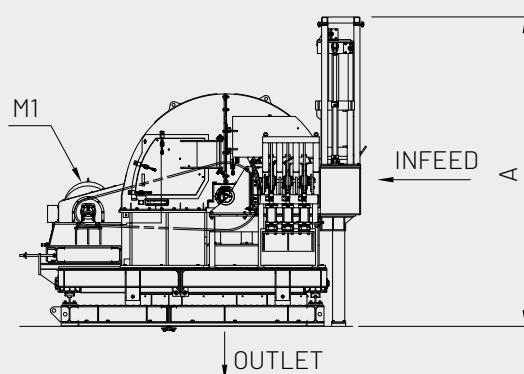
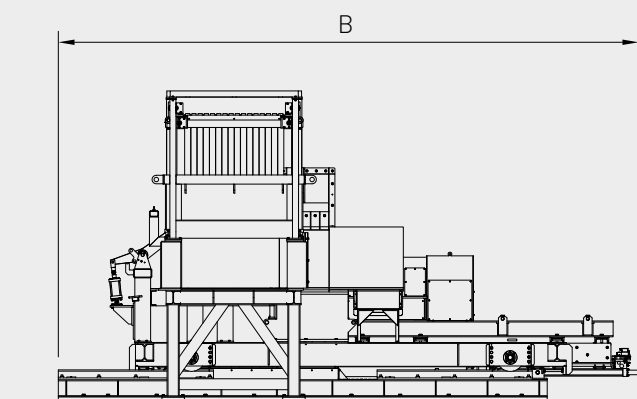
OSB/LSB/FOSB

TECHNICAL FEATURES

• The DISK STRANDER is a machine for STRAND and high quality flakes production • Knives and Counter knives with various angles • Inserts modularity that allow to obtain widely configurable lengths and widths product • Automated and assisted hydraulic cutting process • Adaptability for the OSB panels production and / or low density PB.

BENEFITS

• Automatic advance control • Cutting disc long operating life • Hydraulic start • High dimensional strand control accuracy • Constant cutting with different logs sizes • Disposable knife or grinding knife version.



M1 = VIBRATING MOTOR

MODEL	TECHNICAL DATA				
	ROTOR DIAMETER mm	KNIFE LENGHT mm	KNIVES N°	TOTAL WEIGHT kg	CAPACITY t/h
SDG 30.300	3000	940	30 ÷ 30	63500	up to 30

MODEL	OVERALL DIMENSIONS mm		
	A	B	C
SDG 30.300	5140	9360	5380

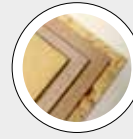
MODEL	POWER kW	WEIGHT kg
	M1	
SDG 30.300	630 ÷ 900	5000 ÷ 8500

CHIPPERS

INLINE BOARD BREAKER – MPG



BEST IN CLASS FOR:



WOOD BASED PANELS:

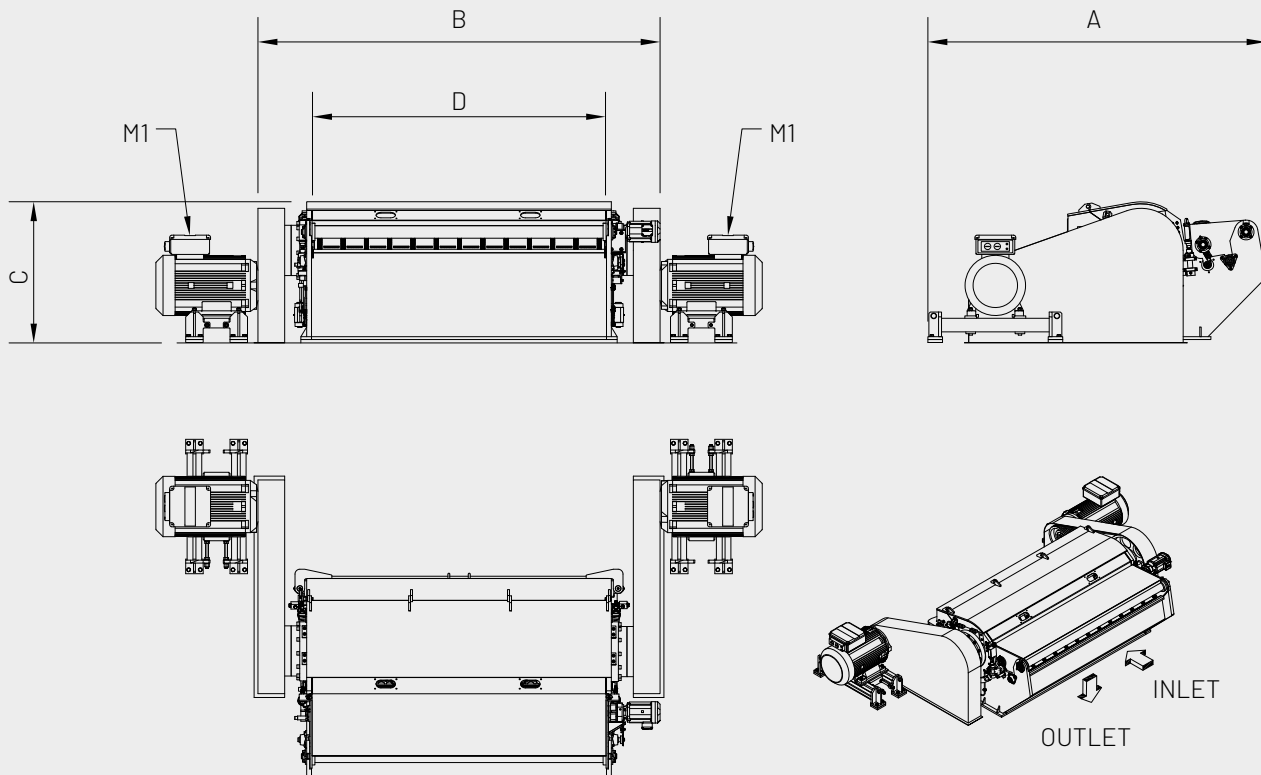
MDF/HDF

PB/SPB

OSB/LSB/FOSB

TECHNICAL FEATURES

MPG Board Breaker Globus is an effective solution in line to reduce rejected boards as well as cutouts of initial and final board. It is ideal for MDF, OSB and PB boards. • Reliable breaking of rejected boards with different size and thickness • Blockages are avoided thanks to the high torque power and ability in breaking at high feed speed • Reduced installed power thanks to the dual motor design • Very strong and reliable in the long term, low operating costs thanks to the simplified maintenance • Replaceable wear components to protect the essential parts of the machine • Boards infeed controlled by integrated roller way • Interchangeable cutting tools • Perforated and divided screen for an easy replacement.




M1 = VIBRATING MOTOR

MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D (infeed width)
MPG 2000	3500	3100	1500	2000
MPG 3000	3500	4100	1500	3000

MODEL	TECHNICAL DATA				
	INFEED SPEED mm/s	POWER M1 kW	ROTOR Ø mm	ROTOR LENGHT mm	WEIGHT kg
MPG 2000	100 ÷ 2000	1x250	746	2090	12000
MPG 3000	100 ÷ 2000	2x200	746	3090	15000

Extractors

		<div>WOOD BASED PANELS</div>					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
TRANSLATING SCREWS	76	•	•		•		
EXTRACON	78	•	•	•	•		
EXTRAPLUS	80	•	•	•	•		
LEAF SPRING	82	•	•	•	•		
HYDROMAT	84	•	•	•	•		
MOVING FLOOR	86	•	•		•		

 <div>PRESSED WOOD PACKAGING</div>	PALLET BLOCKS					
	PRESSED PALLETS					
	STRINGERS & BEAMS					
	WOOD PELLETS AND BLACK PELLETS					
	GREEN FUELS AND BIOMASS					
	THERMAL AND ELECTRIC ENERGY					
 <div>PELLETS & ENERGY</div>	DRYING					
	WOOD RECYCLING					
	SLUDGE RECYCLING					
	PLASTIC RECYCLING					
	CUSTOMIZED SOLUTIONS FOR RECYCLING					
 <div>WOOD RECYCLING AND WASTE TREATMENT</div>						

RECTANGULAR EXTRACTORS TRANSLATING SCREWS



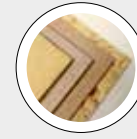
TECHNICAL FEATURES

- Easy installation at lower part of the storage bin
- Strong extraction screws supported by two trolleys located at the ends
- Travelling of screw on very strong and durable toothed guides
- Extremely precision system with travelling tracks.

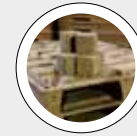
BENEFITS

- Wide range of extraction capacity achieved by controlling the dosing screws with frequency converters
- High dosing accuracy from progressively variable pitch screws
- Very easy maintenance
- Very simple and cheap system
- High reliability
- Very low maintenance cost.

BEST IN CLASS FOR:



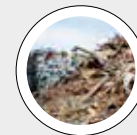
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



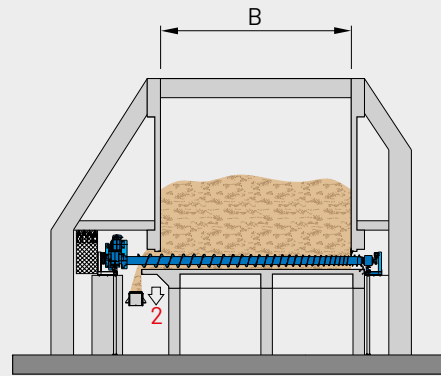
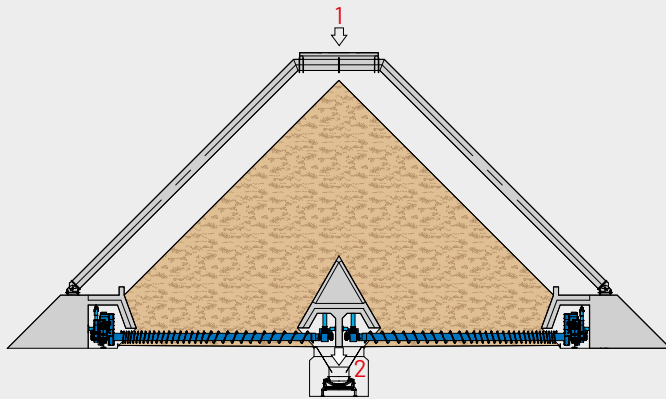
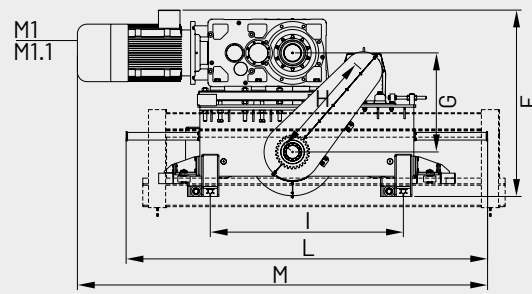
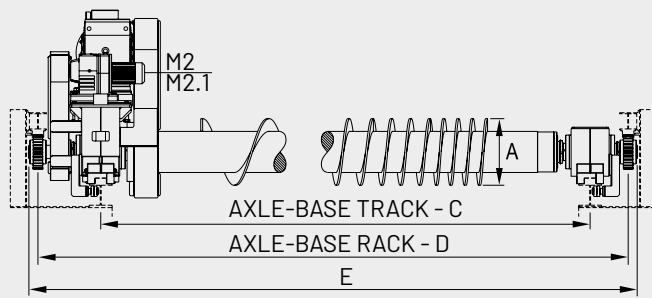
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = FEEDING
2 = DISCHARGE

M1 = SCREW ROTATION
M1.1 = FAN FOR COOLING

M2 = TRANSLATION SCREW
M2.1 = FAN FOR COOLING

MODEL	OVERALL DIMENSIONS mm											INSTALLED POWER kW	EXTRACTION CAPACITY m³/h	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	L	M			
TSC 600/6000	600	6000	9500	10560	10750	1960	1050	1130	2030	3800	4300	*	**	9800
TSC 600/7500	600	7500	11000	12060	12250	1960	1050	1130	2030	3800	4300			12300
TSC 600/10000	600	10000	13300	14360	14550	1960	1050	1130	2030	3800	4300			16300
TSC 700/6000	700	6000	9500	10560	10750	1960	1050	1130	2030	3800	4300			10000
TSC 700/7500	700	7500	11000	12060	12250	1960	1050	1130	2030	3800	4300			12500
TSC 700/10000	700	10000	13300	14360	14550	1960	1050	1130	2030	3800	4300			16600
TSC 800/6000	800	6000	9500	10560	10750	1960	1050	1130	2030	3800	4300			10200
TSC 800/7500	800	7500	11000	12060	12250	1960	1050	1130	2030	3800	4300			12700
TSC 800/10000	800	10000	13300	14360	14550	1960	1050	1130	2030	3800	4300			16900
TSC 900/6000	900	6000	9500	10560	10750	1960	1050	1130	2030	3800	4300			10400
TSC 900/7500	900	7500	11000	12060	12250	1960	1050	1130	2030	3800	4300			12900
TSC 900/10000	900	10000	13300	14360	14550	1960	1050	1130	2030	3800	4300			17200

*Wide range available, according to project Customer needs

**According to ensiled material and extraction capacity

CIRCULAR EXTRACTORS

EXTRACON



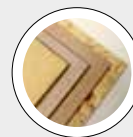
TECHNICAL FEATURES

- One or two spiral shafts are mounted according to the extraction requirements
- For high production capacity, the machines normally have robust beams able to support the screw shafts on their extremities
- In the case of applications with particularly abrasive materials, we provide technologically advanced wear-resistant coverings applied to the transport surface of the spirals, on the areas concerning tubing and on the crumbling teeth fitted on the periphery of the screws.

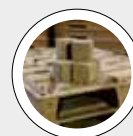
BENEFITS

- High extraction capacities with minimum power requirement
- Constant and uniform extraction even in the presence of fibrous and compacted material and without separating them
- Absence of any spontaneous flows inside the discharge hopper
- Routine maintenance can be carried out even on the full silo
- Suitable for silos up to 12 m diameter.

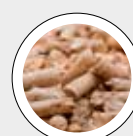
BEST IN CLASS FOR:



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

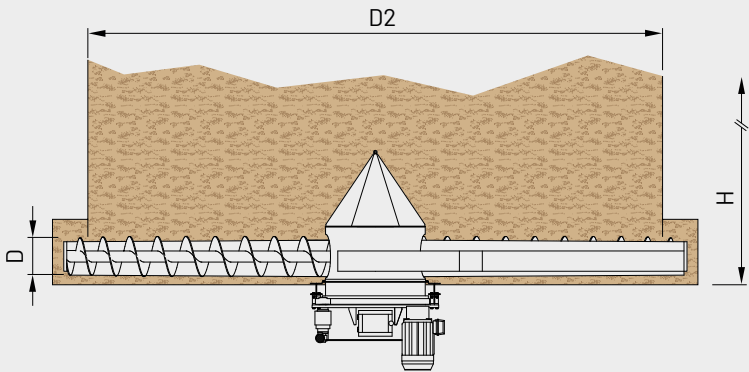


PRESSED WOOD PACKAGING:
PALLET BLOCKS

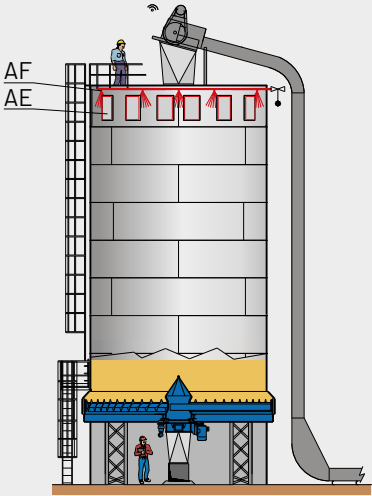
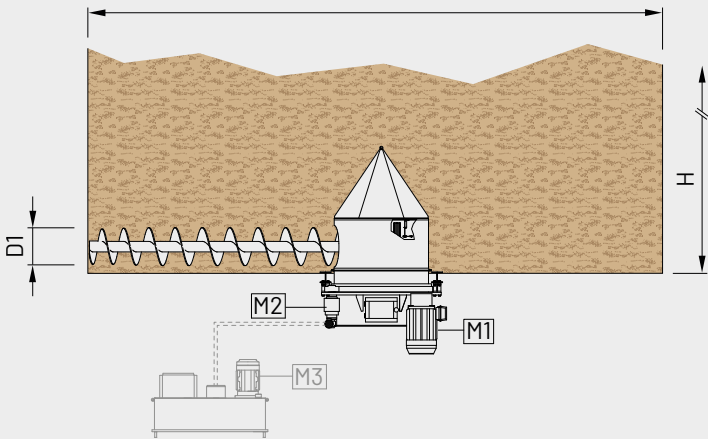


PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS

VERSIONS WITH SUPPORT BEAMS FOR THE SCREWS:



VERSIONS WITH CANTILEVERED SCREWS AND WITHOUT SUPPORTING BEAMS:



FOR DRY MATERIAL ONLY:
AF = FIRE-EXTINGUISHING SYSTEM
AE = EXPLOSION VENTS

EXTRACTING SCREW
M1 = ELECTRIC MOTOR
ROTATING TURRET
M2 = MOTOR: HYDRAULIC OR ELECTRIC
M3 = HYDRAULIC POWER PACK MOTOR

VERSIONS WITH SUPPORT BEAMS FOR THE SCREWS

THROUGHPUT UP TO m³/h	SCREWS		OVERALL DIMENSIONS mm		WEIGHT APPROX. kg
	D mm	D2 mm	H mm		
Up to 650 m3/h	300 - 800	4000 - 10000	UP TO 25000		According to machine dimensions

VERSIONS WITH CANTILEVERED SCREWS AND WITHOUT SUPPORTING BEAMS

THROUGHPUT UP TO m³/h	SCREWS		OVERALL DIMENSIONS mm		WEIGHT APPROX. kg
		D mm	D2 mm	H mm	
Up to 200 m3/h	1 - 2	220 - 600	4000 - 10000	UP TO 25000	According to machine dimensions

CIRCULAR EXTRACTORS **EXTRAPLUS**



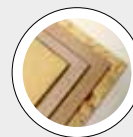
TECHNICAL FEATURES

- Rotating turret mounted in the middle of the silo bottom and connected to a fixed structure through a slewing bearings
- Turret rotations by means of two hydraulic motors
- Extraction screw embossed and connected to the turret structure by means of a slewing bearings
- Extraction screw based on progressive pitch and fitted with peripheral milling-teeth
- Extraction screw rotations by means of hydraulic motor
- Hydraulic power unit located close to of the extractor screw
- Cooling circuit of the extraction screw hydraulic motor lubrication
- Automatic grease lubrication circuit of slewing bearings.

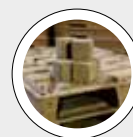
BENEFITS

- Suitable for: Large silos, up to 25 m diameter - Materials difficult to extract, e.g. wet-fibrous-compact
- Easy inspection and maintenance
- Excellent mixing of the extracted material
- High efficiency and reliability
- Low maintenance.

BEST IN CLASS FOR:



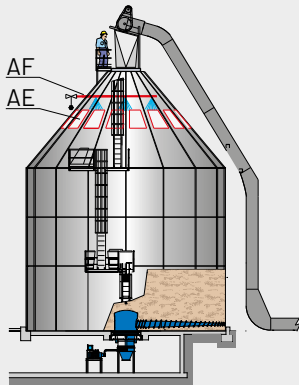
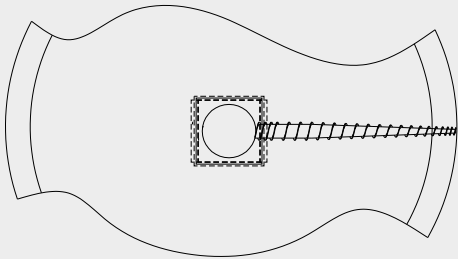
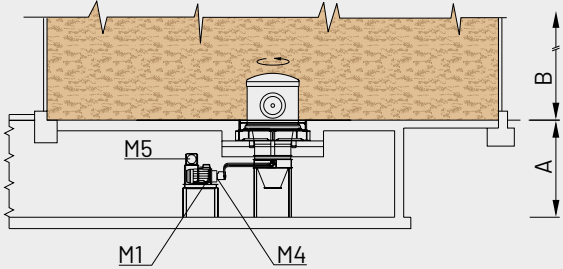
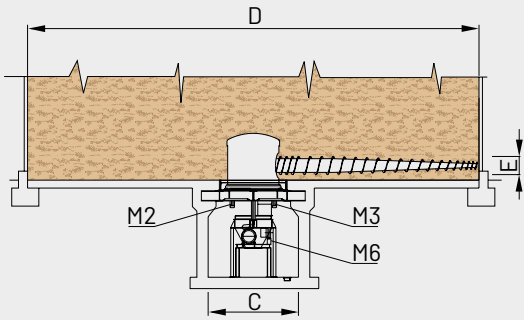
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



FOR DRY MATERIAL ONLY:
AF = FIRE-EXTINGUISHING SYSTEM
AE = EXPLOSION VENTS

M1 = MAIN SCREW ROTATION
M2 = TURRET ROTATION
M3 = TURRET ROTATION

M4 = HEAT EXCHANGER
M5 = HEAT EXCHANGER FOR GEAR OIL
M6 = PUMP FOR GEAR OIL

MODEL	OVERALL DIMENSIONS mm					VOLUME OF SILO m³
	A	B - top	C	D	E	
EXTRAPLUS	min. 4500	up tp 30000	min. 4000	12000-27000	650-1200	2000-13000

MODEL	THROUGHPUT m³/h - top	INSTALLED POWER kW						WEIGHT APPROX. kg
		M1	M2	M3	M4	M5	M6	
EXTRAPLUS	max. 700	According to type of material and height of silo.						max. 22000

CIRCULAR EXTRACTORS

LEAF SPRING

07.03.C



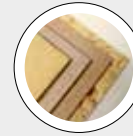
TECHNICAL FEATURES

- Drum rotor made of welded steel plates • Strong arms made of steel for springs • Strong execution planetary gear box • 2 devices to limit the movement of the arms • Progressively variable pitch screw/s for better accuracy
- Electronic level indicator for screw empty condition • Up to 6 different dosing screws for discharge.

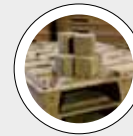
BENEFITS

- Versatile destorage-dosing system for wet or dry fractioned materials i.e. chips, sawdust, shavings, particles, dust, fiber, etc. • Wide range of extraction capacity achieved by controlling the dosing screws with frequency converters
- High dosing accuracy from progressively variable pitch screws • Reliable control of the silo levels • Simple and cheap system • High reliability • Very low maintenance cost.

BEST IN CLASS FOR:



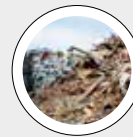
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



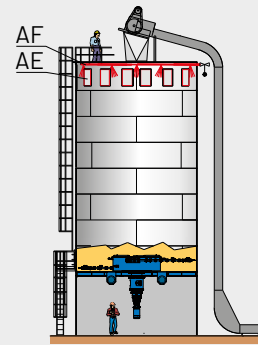
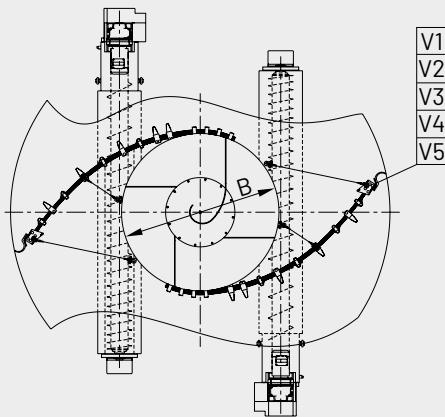
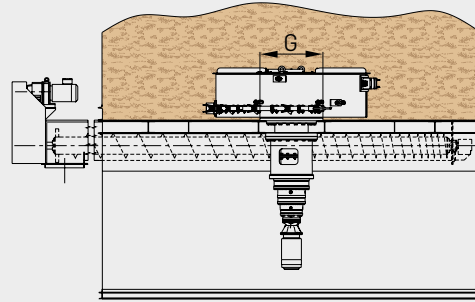
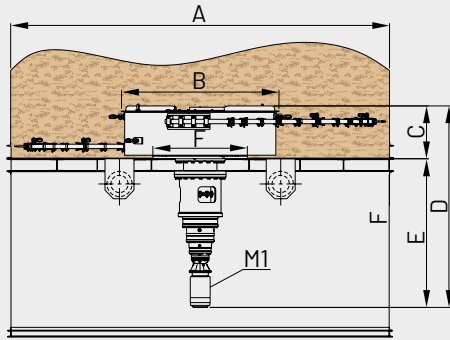
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



M1 = MAIN MOTOR
FOR DRY MATERIAL ONLY:
AF = FIRE-EXTINGUISHING SYSTEM
AE = EXPLOSION VENTS

MATERIAL TO PROCESS:
V1 = TRIMMING, 60-150 KG/M3
V2 = FIBER, 25-50 KG/M3

V3 = DUST, 1550-220 KG/M3
V4 = SAWDUST, 100-130 KG/M3
V5 = FLAKES, 100-150 KG/M3

MODEL	OVERALL DIMENSIONS mm							INSTALLED POWER kW	EXTRACTION CAPACITY m ³ /h	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	M1		
LSE.4,5-2,0-V...	4500	2000	840	3000	2160	1500	1000	Wide range available, according to project Customer needs	According to ensiled material and extraction capacity	2300
LSE.5,0-2,0-V...	5000	2000	840	3000	2160	1500	1000			2400
LSE.5,5-2,5-V...	5500	2500	840	3200	2360	1500	1000			3300
LSE.6,0-2,5-V...	6000	2500	840	3200	2360	1500	1000			3500
LSE.6,5-2,5-V...	6500	2500	840	3400	2360	1500	1000			5300
LSE.7,0-3,0-V...	7000	3000	840	3600	2760	1500	1000			5600

CIRCULAR EXTRACTORS **HYDROMAT**



TECHNICAL FEATURES

- Strong sliding scraper-extractor alternatively driven by hydraulic piston/s
- Piston/s housing box with seals to prevent material leakage
- Integrated power-pack to drive the hydraulic piston/s
- Progressively variable pitch screw/s for better accuracy
- Electronic level indicator for screw empty condition
- Supply of silo drawing only for local manufacturing
- Supply of complete silo and protections, including: bridge-breakers for cylindrical silos, when needed
- continuous level indicator, i.e. ultrasound system
- electromechanical levels for emergency (Top-minimum)
- AF - Fire extinguishing system
- AE - Explosion vents.

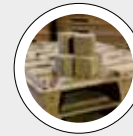
BENEFITS

- Versatile destorage-dosing system for wet or dry fractioned materials i.e. chips, sawdust, shavings, particles, dust, etc.
- Wide range of extraction capacity achieved by controlling the dosing screws with frequency converters
- High dosing accuracy from progressively variable pitch screws
- Reliable control of silo levels
- Simple and cheap system
- High reliability
- Very low maintenance cost.

BEST IN CLASS FOR:



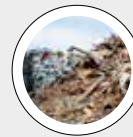
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



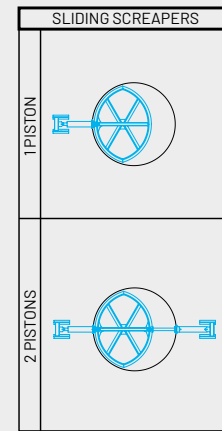
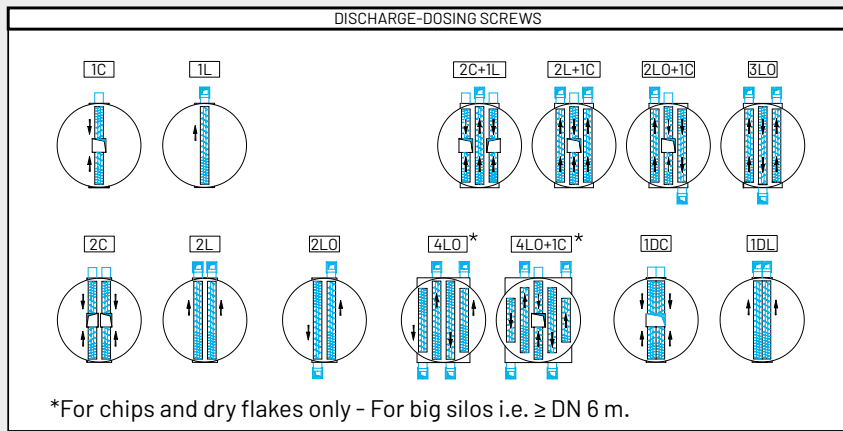
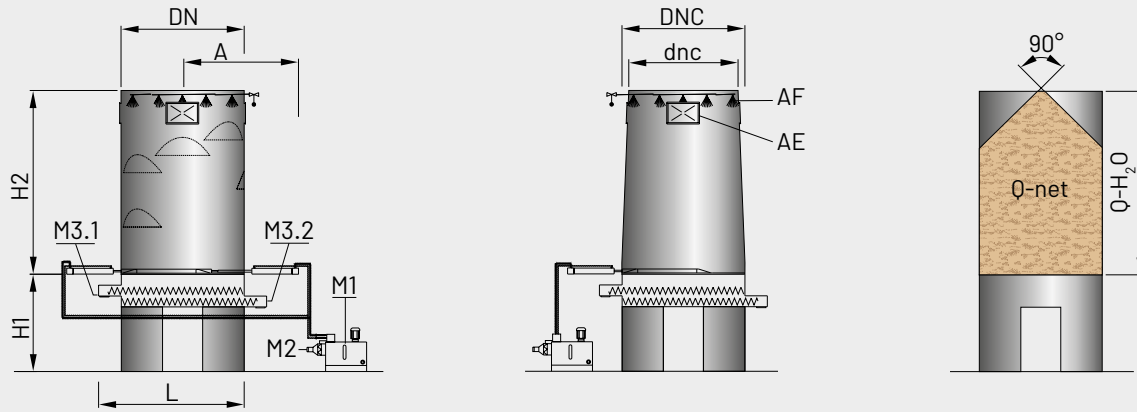
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



FOR DRY MATERIAL ONLY:
AF = FIRE-EXTINGUISHING SYSTEM
AE = EXPLOSION VENTS

M1 = HYDRAULIC POWER-PACK
M2 = HEAT EXCHANGER

M3.1 = EXTRACTING SCREW
M3.2 = EXTRACTING SCREW

MODEL	THROUGHPUT m³/h	OVERALL DIMENSIONS mm							SILO CONTENT m³ UP TO		INSTALLED POWER kW				WEIGHT APPROX. kg
		DN	DNC	dnc	A	L	H1	H2 UP TO	Q-H ₂ O	Q-net	M1	M2	M3.1	M3.2	
HYD.4,0-1P	Wide range available, according to customer needs	4000	-	-	4200	5500	According to layout requirement	9000	110	95	According to Material throughput & Characteristics				2300
HYD.4,5-1P		4500	-	-	4450	6000		10000	160	135					2400
HYD.5,1-1P		-	5100	4300	5350	6500		10000	175	155					3300
HYD.5,1-2P		-	5100	4300	5350	6500		10000	175	155					3500
HYD.5,5-1P		5500	-	-	5550	7000		12000	285	245					5300
HYD.5,5-2P		5500	-	-	5550	7000		12000	285	245					5500
HYD.6,0-1P		6000	-	-	5800	7500		15000	425	370					6000
HYD.6,0-2P		6000	-	-	5800	7500		15000	425	370					6300
HYD.6,5-1P		6500	-	-	6250	8000		16000	530	460					6400
HYD.6,5-2P		6500	-	-	6250	8000		16000	530	460					6700
HYD.7,0-2P		7000	-	-	6500	8500		18000	690	600					7000

RECTANGULAR EXTRACTORS MOVING FLOOR



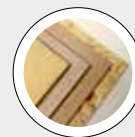
TECHNICAL FEATURES

- The extractor is carried out by means some strong bars moving on slides placed on the silo floor
- The bars are connected with some strong V-section beams able to transport the material to the discharging point
- Each bar is driven by an hydraulic cylinder
- The continue translation of the V-section beams installed on the bars permit to carry out the discharging of the material
- An hydraulic unit guarantees the coordination of the longitudinal excursion of the bars.

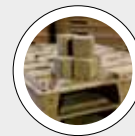
BENEFITS

- Wide range of extraction
- Easy modularity of the machine
- Possibility of metal structure or reinforced concrete
- Installation also overground
- Very low maintenance cost.

BEST IN CLASS FOR:



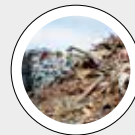
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



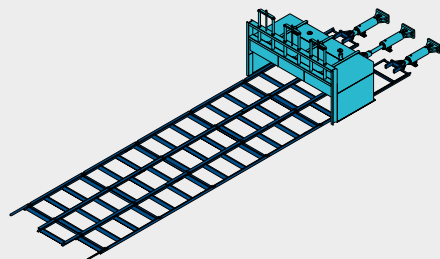
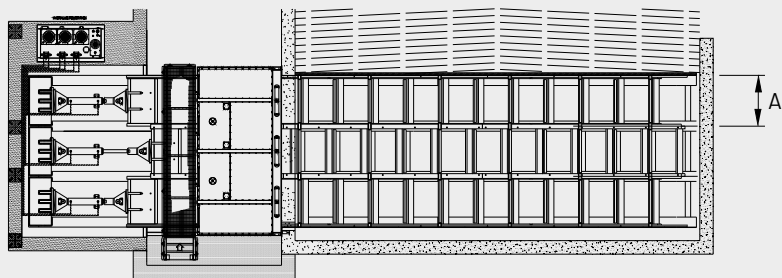
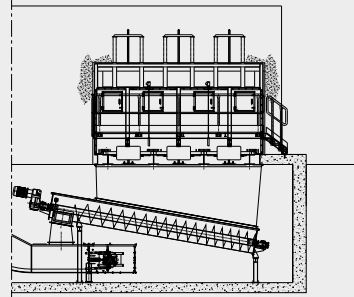
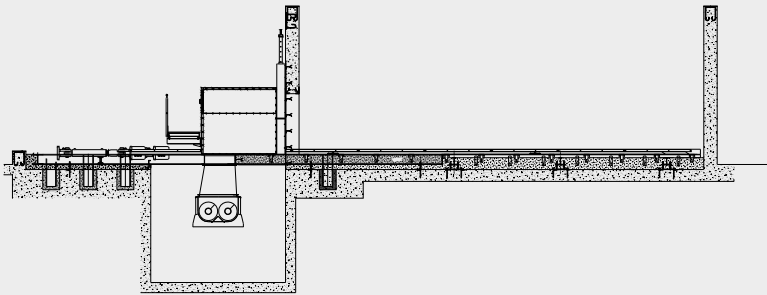
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = FEEDING
2 = DISCHARGE

MODEL	OVERALL DIMENSIONS mm	EXTRACTION CAPACITY m ³ /h	DIMENSION	DRIVING POWER kW
	A			
MF../1500	1500	According to type of material and extraction capacity	According to storage capacity requested	Wide range available according to project customer needs

Roll Screens

			WOOD BASED PANELS					
			PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
DYNASCREEN	90		•	•		•		
DYN-AIR	92		•					
QUADRADYN	94				•			
STEPPER SCREEN	96		•	•	•	•		
DYNASCALPER	98		•	•				

[illegible]

DYNASCREEN

FOR WET & DRY CHIPS, SAWDUST, SHAVINGS AND PARTICLES - PATENTED



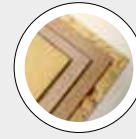
TECHNICAL FEATURES

- Feeding conveyor for distribution across
- W-Rolls to remove very fine and dusty material
- V-Rolls to remove flakes and micro chips
- D-Rolls to remove oversize pieces
- Chrome plating or nitriding of W & V profiles
- Two side bearings and transmissions
- Devices for setting gaps easily and freely
- Single or double screening deck/s
- Discharge flap for each fraction, to be freely positioned
- Separation from 2 to 5-6 fractions
- Integrated suction unit to remove dust, fiber, paper and plastic foils, etc.
- VS system for intermediate suction
- WS system for final suction
- Devices for free setting of suction speed
- Integrated system for removal of a minor fraction highly contaminated from heavy pollutants
- Specialized shape of roll profile
- Extracting screw conveyor for the polluted fraction
- Patented.

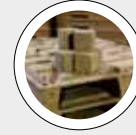
BENEFITS

- Zigzag channeling effect from interlocking W & V rolls: aligns the flow along the W & V gaps – improves particle vibration and screening efficiency
- W & V roll profiles: ensures better calibration of particle thickness – ensures better calibration of particle length
- VS & WS Dynasifter: easy application any time – excellent dedusting and removal of light pollutants such as fiber, paper and plastic foils, etc.
- All gaps and discharge flaps freely adjustable: enables easy changing of fraction size – enables easy variation of number of fractions
- Absolutely free from plugging and/or blockages
- Very easy setting of screening parameters
- High efficiency and reliability
- Low maintenance.

BEST IN CLASS FOR:



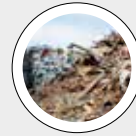
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



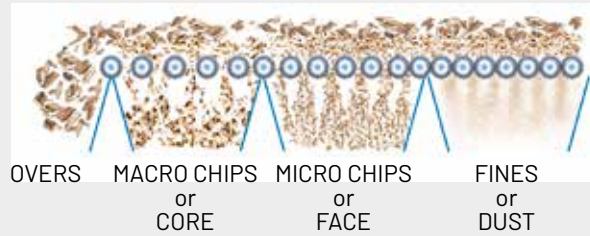
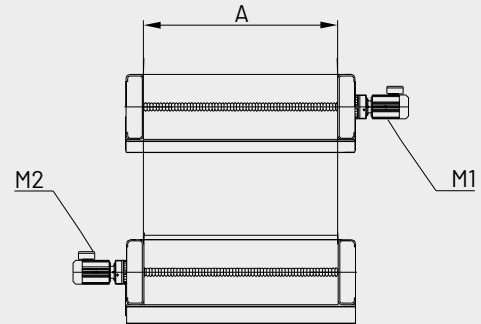
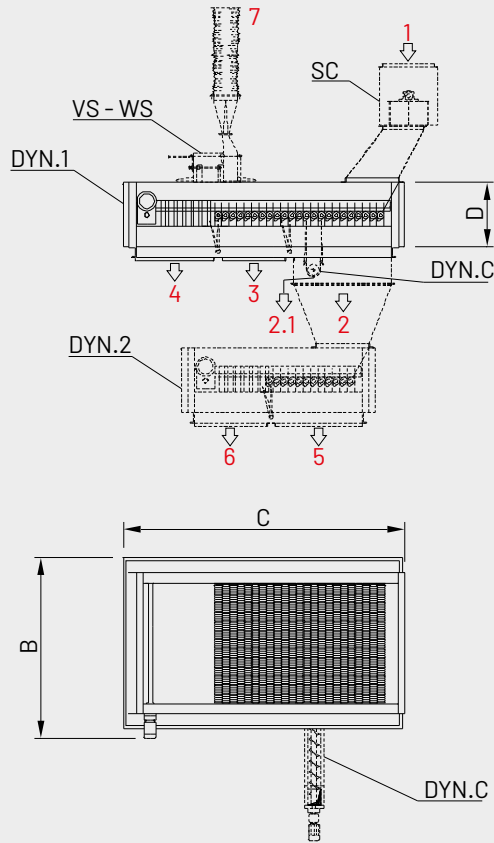
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



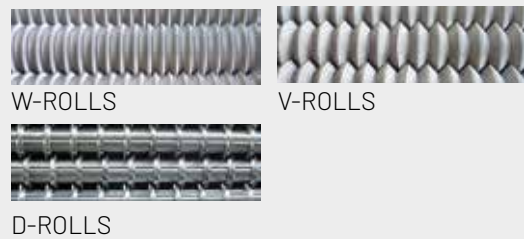
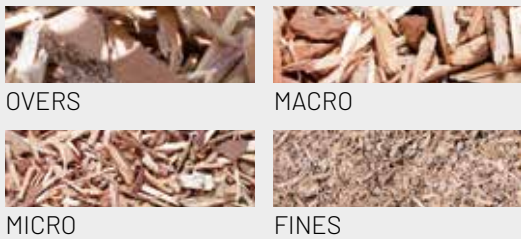
WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



SC = DOSING SCREW CONVEYOR
DYN.1 = 1-DECK DYNASCREEN
DYN.2 = 2-DECKS DYNASCREEN

VS/WS = DYNASIFTER (OPTION)
DYN.C = DYNACLEANER (OPTION)
M1-M2 = ROLLS ROTATION

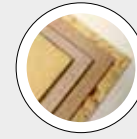
1 = FEEDING
2...6 = ACCEPTER FRACTIONS
2.1 = FRACTION WITH HEAVY POLLUTANTS
7 = PAPER & PLASTIC FOILS



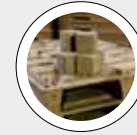
MODEL	OVERALL DIMENSIONS mm				CAPACITY m ³ /h	INSTALLED POWER kW		WEIGHT kg
	A	B	C	D		M1		
DYN.-1800/7000-1000	1000	2000	1800-7000	1050	According to type of material and number of rolls	3-7,5		According to number of rolls
DYN.-1800/7000-1500	1500	2500	1800-700	1050		3-7,5		
DYN.-1800/10000-2200	2200	3200	1800-10000	1050		3-7,5		

DYN-AIR

PATENTED

**BEST IN CLASS FOR:**

WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



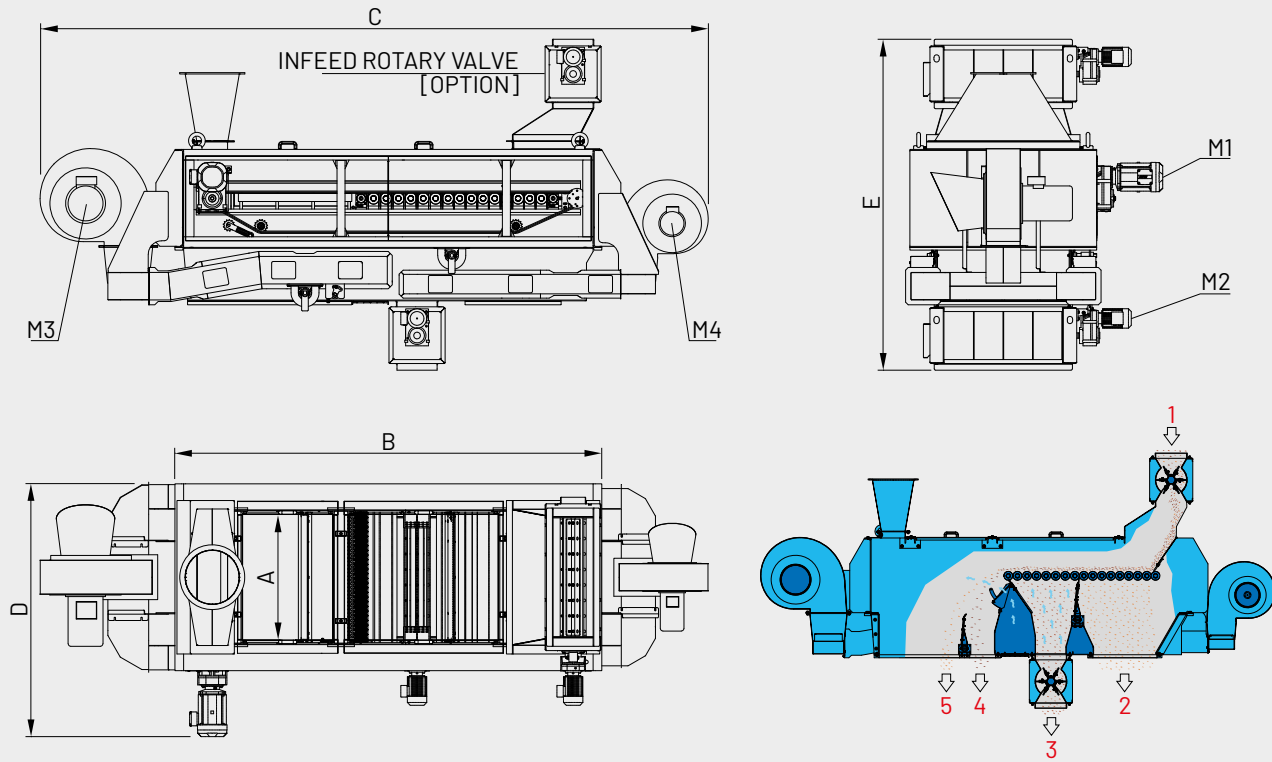
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME

TECHNICAL FEATURES

- Compact design • V-Rolls to remove heavy fines • Chrome plating or nitriding of V profiles • Blower to remove heavy material from accepted wood • Two side bearings and transmissions • Devices for setting gaps easily and freely
- Specialized shape of roll profile • Fan and belt motor regulated by frequency converter • Patented.

BENEFITS

- Heavy material removal (stones, glass, heavy plastic, etc...) from chips flow by rolls and air blowing • Zigzag channeling effect from interlocking W & V rolls: aligns the flow along the W & V gaps • All gaps and discharge flaps freely adjustable: enables easy changing of fraction size • Absolutely free from plugging and/or blockages



1 = FEEDING
2 = FINES
3 = HEAVY MATERIAL

4 = HEAVY OVERSIZE
5 = CLEANED MATERIAL

M1 = MOTOR FOR ROLL
M2 = DISCHARGE ROTARY
VALVE MOTOR

M3 = MOTOR FOR BLOWER FAN
M4 = MOTOR FOR ROLL FAN

MODEL	OVERALL DIMENSIONS APPROX. mm				
	A	B	C	D	E
DYN.AIR-3200/5000-1000	1000	3200-5000	5000-6800	1930	2500
DYN. AIR-3200/7000-1500	1500	3200-7000	5000-8800	2430	2500
DYN. AIR-3200/7000-2200	2200	3200-7000	5000-8800	3130	2500

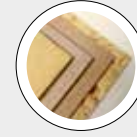
MODEL	INSTALLED POWER kW				CAPACITY BULK CHIPS m ³ /h	NET WEIGHT APPROX. kg	EXHAUST AIR m ³ /h
	M1	M2	M3	M4			
DYN.AIR-3200/5000-1000	4-7,5	1,5	2,2	5,5	According to type of material and number of rolls	According to numbers of rolls	6000-8000
DYN. AIR-4000/7000-1500	5,5-7,5	2,2	2,2	5,5			9000-12000
DYN. AIR-4000/7000-2200	5,5-7,5	3	2,2x2	11			13000-18000

QUADRADYN

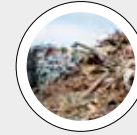
FOR WET & DRY STRANDS - PATENTED



BEST IN CLASS FOR:



WOOD BASED PANELS:
OSB/LSB/FOSB



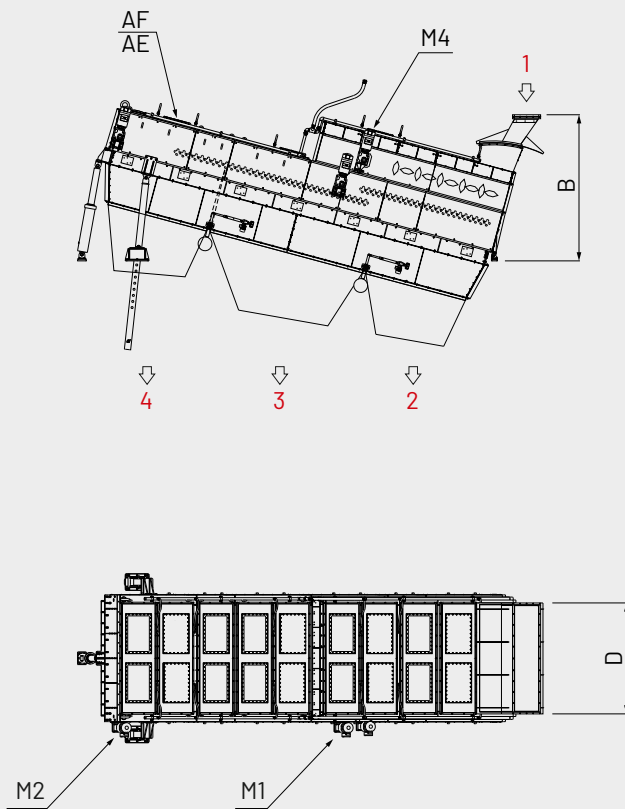
WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

TECHNICAL FEATURES

- Fluidizing rolls for better crosswise spreading of flakes at the screen infeed
- Roll screen with specialized roll profiles for requested cuts
- Separation till 4 fractions
- Suitable for green and dry strand screening
- AF - Fire extinguishing system
- AE - Explosion vents
- Two side bearings and transmissions
- Highly flexible machine with quick and easy adjustments to match changes in the raw material: adjustable diverting gates - adjustable shaft speed - adjustable working angle - adjustable gap setting - pre-settable disk spacing
- No strand breakage or generation of fines in the screening process.

BENEFITS

- No strand breakage or generation of fines in the screening process
- Very efficient screening out of fines resulting in: increase in dryer capacity (green screening) - more uniform moisture content to the dryer (green screening)
- reduction in dryer emissions (green screening) - reduction in drying costs (green screening) - lower fire risk in dryer (green screening) - reduced blender cleaning requirements - lower resin usage and higher board properties
- Very efficient classification of strand size
- Dedicated dryers for core and surface material (green screening)
- Smaller footprint than drum screen for easy replacement in existing plants
- Low maintenance, no plugging.



1 = INFEED

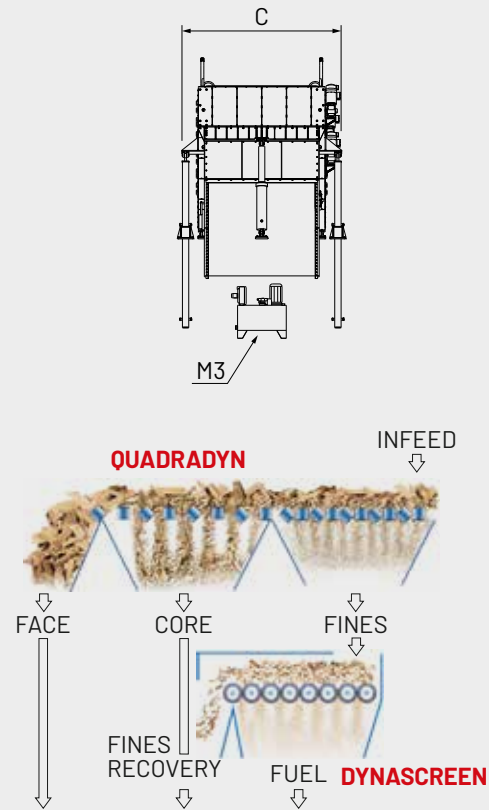
2...4 = FRACTIONS

M1 - M2 = MAIN MOTOR

M3 = HYDRAULIC POWER UNIT

M4 = FLUIDIZER DRIVE

FOR DRY MATERIAL ONLY:
 AF = FIRE-EXTINGUISHING SYSTEM
 AE = EXPLOSION VENTS



FACE



CORE



FRS



FUEL

MODEL	OVERALL DIMENSIONS mm				CAPACITY m³/h	INSTALLED POWER kW				WEIGHT kg
	A	B	C	D		M1	M2	M3	M4*	
Q-DYN.1-5000-2200	5000	2530	3520	2200	To size according to type of material and number of fractions to classify	According to number of shafts	According to number of shafts	5,5	-	According to number of shafts
Q-DYN.1-6000-2200	6000	2530	3520	2200				5,5	-	
Q-DYN.1-7000-2200	7000	2530	3520	2200				5,5	-	
Q-DYN.1-8000-2200	8000	2530	3520	2200				5,5	-	
Q-DYN.1-9000-2200	9000	2530	3520	2200				5,5	-	
Q-DYN.1-7000-2700	7000	4780	4020	2700				5,5	7,5	
Q-DYN.1-8000-2700	8000	4780	4020	2700				5,5	7,5	
Q-DYN.1-9000-2700	9000	4780	4020	2700				5,5	7,5	
Q-DYN.1-10000-2700	10000	4780	4020	2700				5,5	7,5	
Q-DYN.1-11000-2700	11000	4780	4020	2700				5,5	7,5	
Q-DYN.1-12000-2700	12000	4780	4020	2700				5,5	7,5	

*Option

STEPPER SCREEN

PATENTED



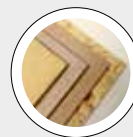
TECHNICAL FEATURES

- New patented screening principle from PAL
- Self-cleaning screening system
- High production throughput, adjustable by inverter
- One machine only combining a ballistic and aerodynamic starscreening
- Hydraulically adjustable machine inclination.

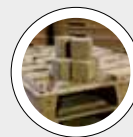
BENEFITS

- (Easily) settable selection size
- Small footprint machinery
- Wide range of operation according to the material type
- Low maintenance costs.

BEST IN CLASS FOR:



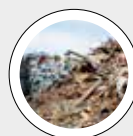
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



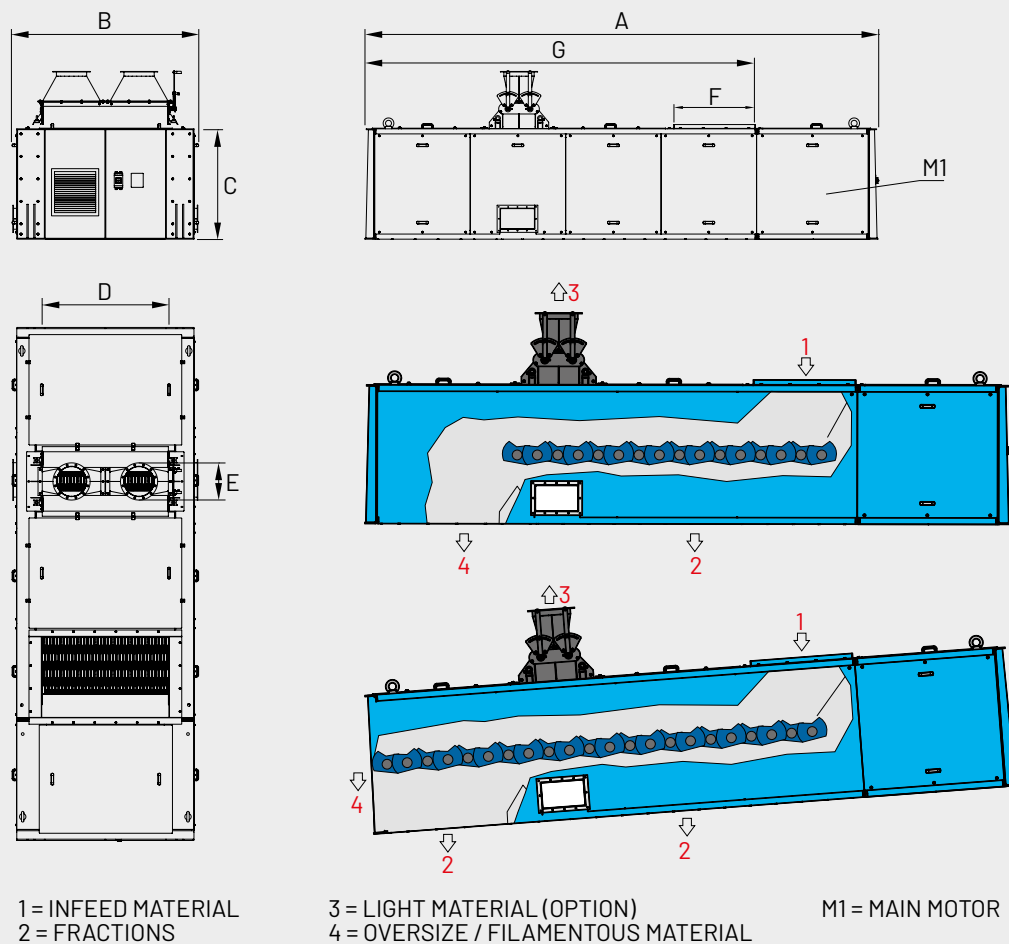
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



2

4

MODEL	OVERALL DIMENSIONS mm							CAPACITY	TOTAL INSTALLED POWER kW
	A	B	C	D	E	F	G		
STS.1-4500-1500	6045	2200	1300	1500	1x280	950	4500	According to type of material, gap and number of rolls	7,5-15 According to number of rolls
STS.1-4000-1500	5545	2200	1300	1500	1x280	950	4000		
STS.1-3200-1500	3200	2200	735	1500	-	600	3200		

DYNASCALPER

PATENTED



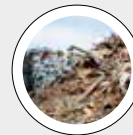
BEST IN CLASS FOR:



WOOD BASED PANELS:

MDF/HDF

PB/SPB



WOOD RECYCLING AND
WASTE TREATMENT:

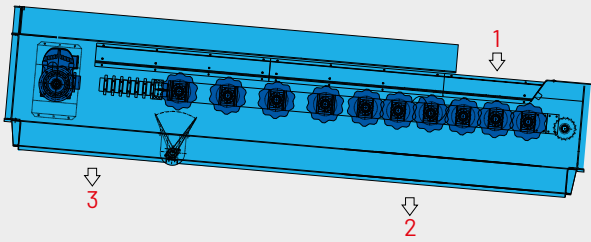
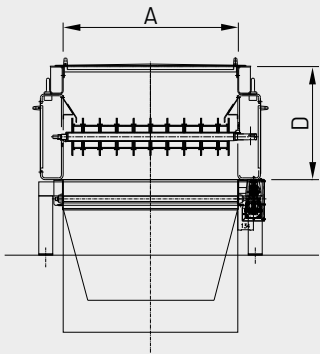
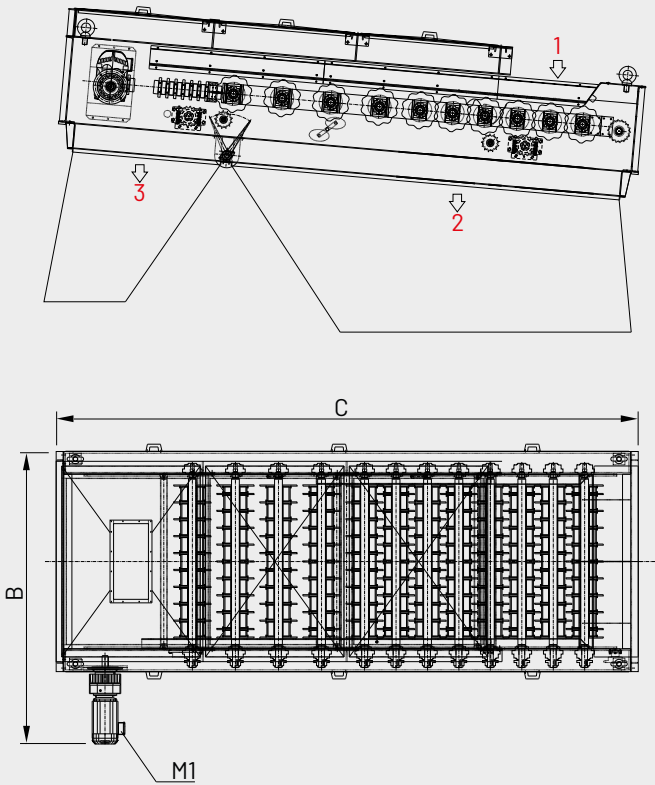
WASTE

TECHNICAL FEATURES

- Dedicated roller profiles (star, disc, pentagon shape) to suit the type of material to screen
- Discs provided of specific wear-resistant surface treatment (chroming, nitriding, powder-coating)
- Two side bearings and transmissions
- Devices for setting gaps easily and freely
- Single or double screening deck/s
- Discharge flap for each fraction, to be freely positioned
- Separation from 2 to 3 fractions
- Integrated suction unit to remove dust, fiber, paper and plastic foils, etc.
- WS system for final suction.

BENEFITS


- WS Dynasifter: easy application any time – excellent dedusting and removal of light pollutants such as fiber, paper and plastic foils, etc.
- All gaps and discharge flaps freely adjustable: enables easy changing of fraction size – enables easy number variation of fractions
- Absolutely free from plugging and/or blockages
- Very easy setting of screening parameters
- High efficiency and reliability
- Low maintenance.



M1 = MAIN MOTOR
1 = FEEDING
2...3 = FRACTIONS

MODEL	OVERALL DIMENSIONS mm				CAPACITY* m³/h	INSTALLED POWER kW	WEIGHT kg
	A	B	C	D		M1	
DYN.-3200-1000	1000	2000	3200	1050	According to type of material and number of rolls	4,0	According to number of rolls
DYN.-4000-1000	1000	2000	4000	1050		5,5	
DYN.-5000-1000	1000	2000	5000	1050		7,5	
DYN.-4000-2200	2200	3200	4000	1050		5,5	
DYN.-5000-2200	2200	3200	5000	1050		7,5	
DYN.-6000-2200	2200	3200	6000	1050		7,5	
DYN.-7000-2200	2200	3200	7000	1050		7,5	
DYN.-8000-2200	2200	3200	8000	1050		7,5	
DYN.-9000-2200	2200	3200	9000	1050		7,5	

Chips Cleaners

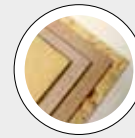
		<div><div></div><div>WOOD BASED PANELS</div></div>					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
CLEANING TOWER	102	•	•	•			
DCC - DRY CLEANER FOR CHIPS	104	•	•		•		
EOLO	106	•					
WATER PIT	108	•	•				
CYCLOPS - ALL IN ONE	110	•	•				
CYCLOPS X-RAY	112	•	•				

COMPLETE CHIPS CLEANING SYSTEM **CLEANING TOWER**

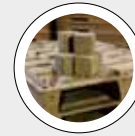
PATENTED



BEST IN CLASS FOR:



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



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



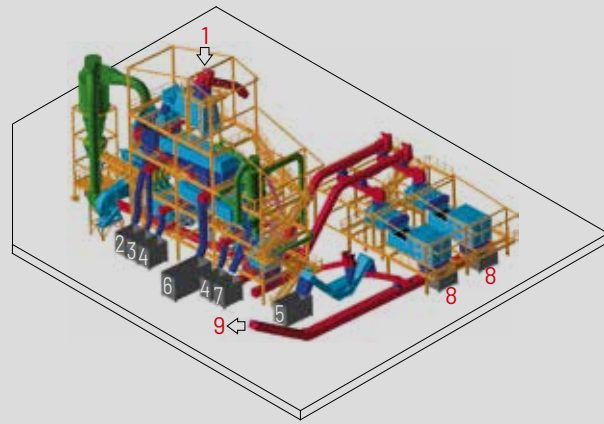
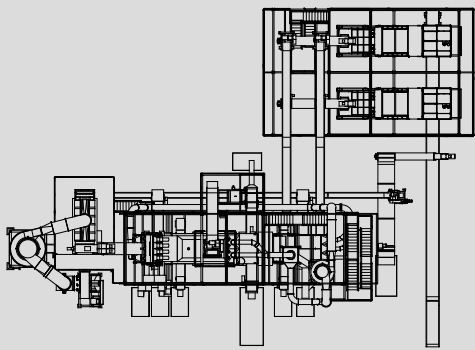
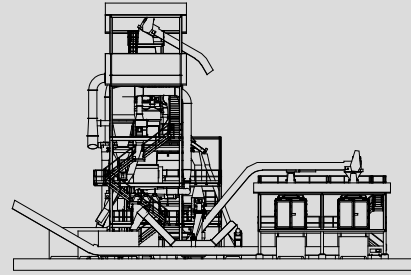
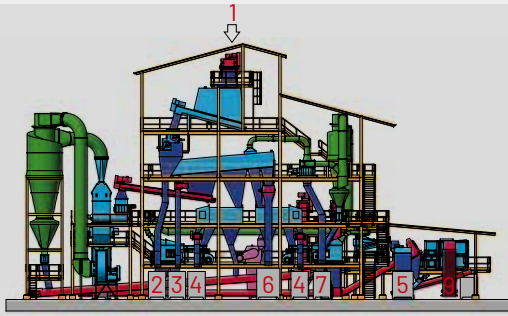
PELLETS & ENERGY:
LIME

TECHNICAL FEATURES

- Complete chips cleaning system including: – ferrous metal removed – non ferrous metal removed – heavy pollutants removed – sand removed – light pollutants removed – plastics, foils and papers removed – clean fines separation – chips separation – MDF Board Separation from the Recycled Wood Stream.

BENEFITS

- Efficiency of the cleaning system up to 90-95% • Low content of wood particles in the rejected fractions • Saving of wood by cleaning also the very fine fraction • Reduced the footprint of the installation • Reduced absorbed power to 5-6 kW/ton/hour • Reduced maintenance costs • Low investment with better and durable performance • Removal of all pollutants species including plastic and rubber.



1 = FEEDING
2 = FERROUS METALS
3 = FINES

4 = NON FERROUS METALS
5 = HEAVY POLLUTANTS
6 = OVERSIZE

7 = FIBER AND LIGHT POLLUTANTS
8 = PLASTICS
9 = CLEAN MATERIAL TO PROCESS

MODEL	CAPACITY BULK CHIPS m ³ /h	CAPACITY BULK CHIPS t/h
CT.15	115	15
CT.20	150	20
CT.30	230	30
CT.40	300	40
CT.60	460	60
CT.80	600	80

DCC – DRY CLEANER FOR CHIPS



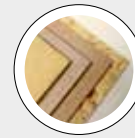
TECHNICAL FEATURES

- High-tech chip cleaning system suitable to remove every kind of heavy pollutants from the chips, i.e. sand, stones, minerals, etc.
- Special design for recycling-high polluted chips
- Cleaning chamber provided of perforated screens and front step to stop heavy pollutants
- Very strong oscillators for cleaning chamber
- High pressure pneumatic circuit provided of adjustable speed pulsator
- Special re-classifiers to separate the heavy pollutants from chip flow
- Suction hopper and cyclone in order to prevent pollution.

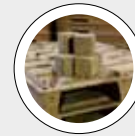
BENEFITS

- Removal of any type of heavy pollutants, i.e. sand, stones, minerals, etc.
- Unbeatable cleaning efficiency
- Dramatic reduction (up to 40-70%) of raw material cost using recycled chips
- Cost reduction till 50% for knives and wearing parts of knife ring flakers
- High reliability
- Very low maintenance cost
- Low energy consumption, i.e. 0,5-0,6 kW/m³/h of bulk chips
- Installation free from pollution.

BEST IN CLASS FOR:



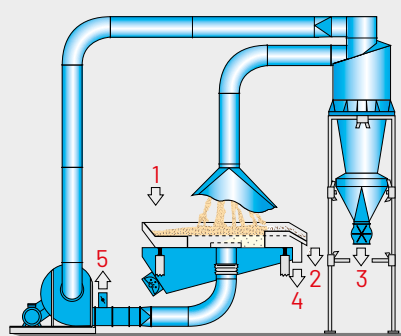
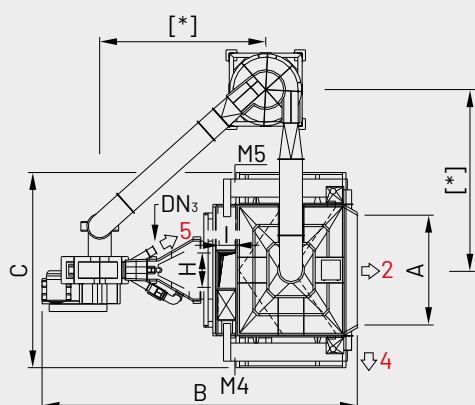
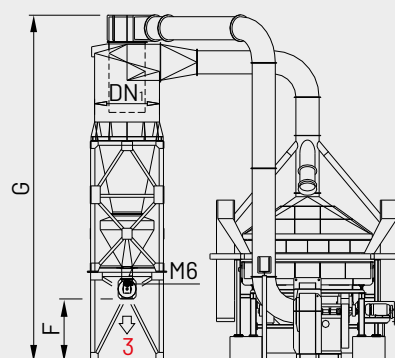
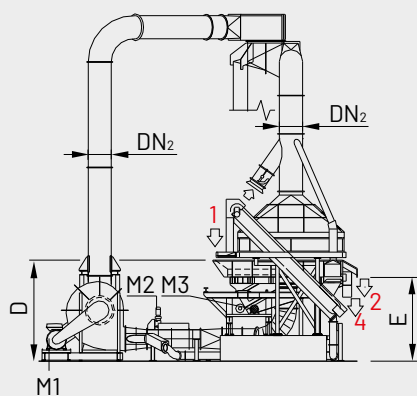
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



FOR DRY MATERIAL ONLY:
1 = POLLUTED CHIPS
2 = CLEAN CHIPS

3 = VOLATILE WOOD PARTICLES
4 = HEAVY POLLUTANTS
5 = EXHAUST AIR

M1 = FAN DRIVE
M2 = PULSATOR
M3 = EXCITER

M4 = RECYCLE BELT
M5 = RECYCLE BELT
M6 = ROTARY VALVE OUT



2

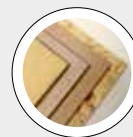


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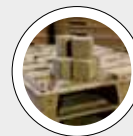
MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F*	G*	H	I	DN ₁	DN ₂	DN ₃
DCC 50 MC	942	5965	3390	1932	1518	2287	7211	500	500	1120	450	150
DCC 70 MC	1524	7481	3550	2480	1981	1762	7909	700	500	1400	450	150
DCC 100 MC	2304	7590	4550	2697	2230	1750	8748	900	500	1600	500	1150
DCC 150 MC	3038	8725	5400	2800	2361	1750	9605	1000	500	1800	640	200
DCC 250 MC	3738	10588	6140	3300	2887	2186	11680	1200	500	2000	750	200

*Dimensions according to needed layout

MODEL	CAPACITY BULK CHIPS m ³ /h	INSTALLED POWER kW							EXHAUST AIR m ³ /h	WEIGHT APPROX. kg
		M1	M2	M3	M4	M5	M6	TOTAL		
DCC 50 MC	40	37	0,75	4,0	0,75	-	1,5	44,00	2000	8090
DCC 70 MC	60	45	0,75	7,5	0,75	0,75	1,5	56,25	2200	11500
DCC 100 MC	90	55	0,75	15,0	0,75	0,75	1,5	73,75	2500	13710
DCC 150 MC	130	75	0,75	15,0	0,75	0,75	1,5	93,75	4500	17000
DCC 250 MC	180	132	1,10	22,0	0,75	0,75	1,5	158,10	4500	21000

EOLO**BEST IN CLASS FOR:**

WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS



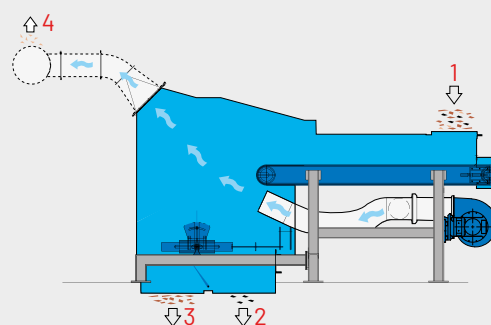
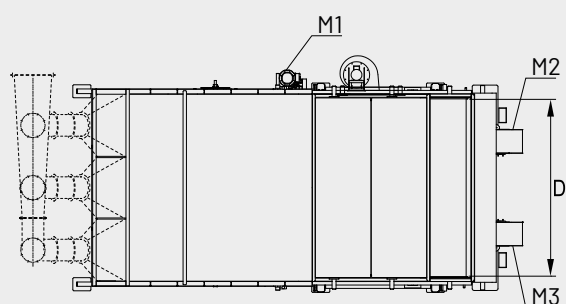
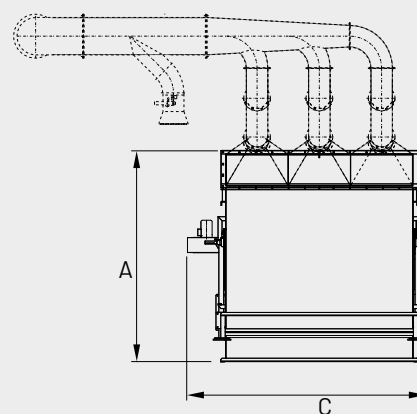
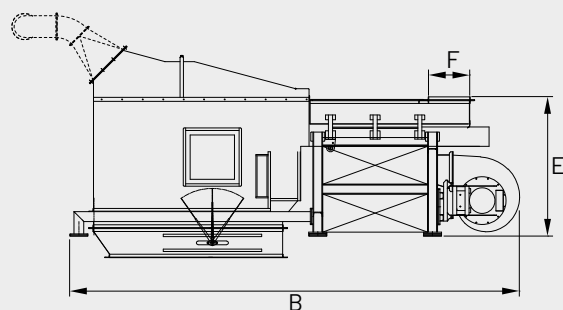
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME

TECHNICAL FEATURES

- Interconnecting ducts with flaps to adjust the fluidizing speed
- Uniform air distribution on the whole belt width
- Fan and belt motor regulated by frequency converter.

BENEFITS

- Heavy material removal (stones, glass, heavy plastic, etc...) from chips flow by air blowing
- Simple construction
- Easily adjustable separation into two fractions
- High separation efficiency
- Great reliability
- Very low maintenance costs
- Very low energy consumption.



1 = FEEDING
2 = HEAVY POLLUTANTS

3 = CLEAN CHIPS
4 = LIGHT POLLUTANTS

M1 = BELT MOTOR
M2 = MOTOR FAN

M3 = MOTOR FAN
M4 = MOTOR FAN FOR BELT

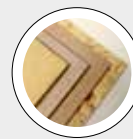
MODEL	OVERALL DIMENSIONS APPROX. mm						TOTAL INSTALLED POWER kW	CAPACITY BULK CHIPS m ³ /h	NET WEIGHT APPROX. kg	EXHAUST AIR m ³ /h
	A	B	C	D	E	F				
EOLO 10	2580	5500	1680	1000	1690	500	13,5	70	2800	10000
EOLO 15	2580	5700	2180	1500	1690	500	21,5	100	3300	15000
EOLO 22	2723	5700	2880	2200	1690	500	25	150	4650	20000
EOLO 30	2760	6870	3755	3000	1910	500	41	200	5850	30000

WET CHIPS CLEANERS

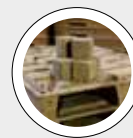
WATER PIT



BEST IN CLASS FOR:



WOOD BASED PANELS:
MDF/HDF
PB/SPB



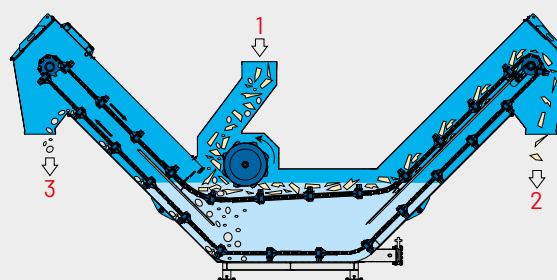
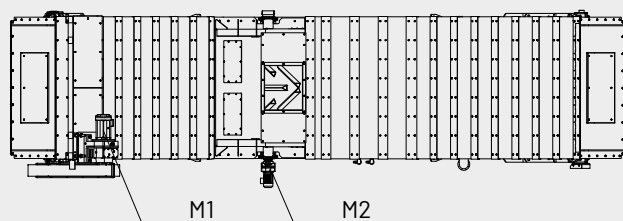
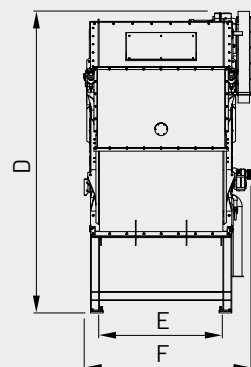
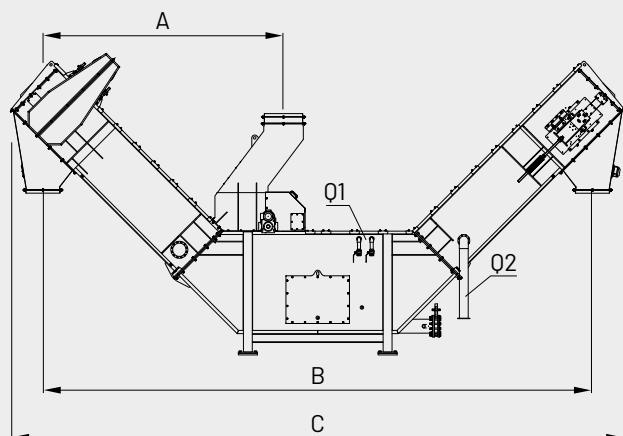
PRESSED WOOD PACKAGING:
PALLET BLOCKS

TECHNICAL FEATURES

- Wet cleaning system suitable to remove heavy pollutants out of the oversize chips
- Working principle based on difference in bulk density of infeed materials
- Chips flow is fed into a water pit where lighter materials float while the heavier pollutants such as stones, metals, etc. fall down and are removed by a chain conveyor
- On the opposite side the same conveyor removes the floating material, wood, etc. after draining.

BENEFITS

- Recovery of clean oversize chips to production
- High reliability
- Very low maintenance cost
- Low energy consumption.



1 = POLLUTED CHIPS
2 = CLEAN CHIPS

3 = HEAVY POLLUTANTS
Q1 = FILLING WATER

Q2 = SAFETY DRAIN
TUBE

M1 = CHAIN MOTOR
M2 = ROTOR MOTOR

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
WP.1000	3788	8653	9665	4632	1000	1635
WP.2000	3788	8653	9665	4632	2000	2635

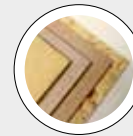
MODEL	CAPACITY BULK CHIPS		TANK CAPACITY APPROX. m ³	WATER CONSUMPTION l/min - top	INSTALLED POWER kW		WEIGHT WITHOUT WATER APPROX. kg
	m ³ /h	t/h*			M1	M2	
WP.1000	29	4,4	5,5	30	4	2,2	10000
WP.2000	58	8,7	11	60	5,5	3	12600

*With bulk density 150 kg/m³ b.d.

OPTICAL SORTER

CYCLOPS – All in one

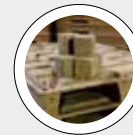
PATENTED

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

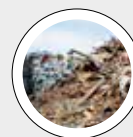
MDF/HDF

PB/SPB



PRESSED WOOD PACKAGING:

PALLET BLOCKS

WOOD RECYCLING AND
WASTE TREATMENT:

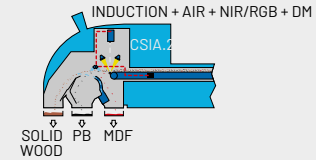
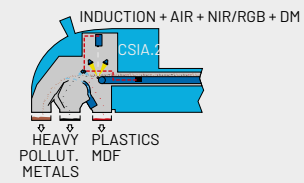
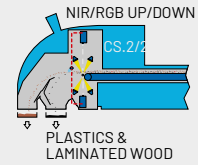
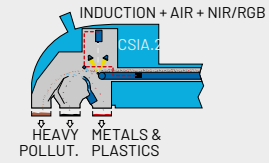
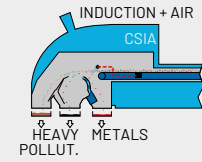
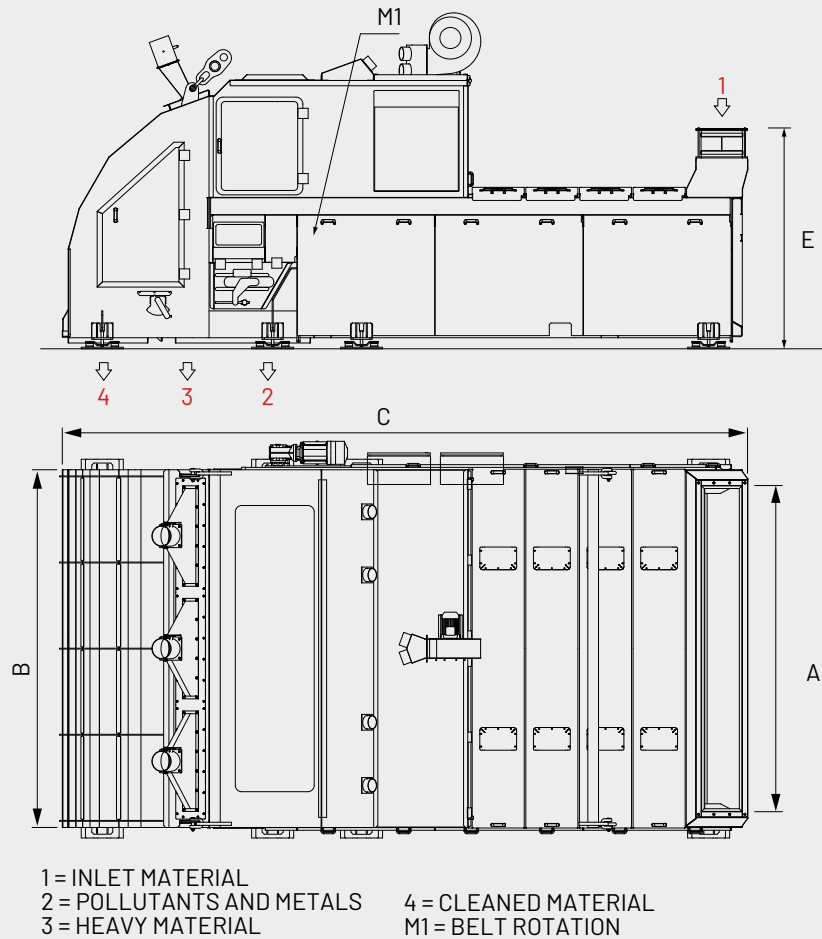
WASTE

TECHNICAL FEATURES

• High speed belt for monolayer particles transfer • High efficiency and constant performance of digital camera • Integrated sw control system • Selecting unit with compressed air • Selecting unit with blower • Discharge hopper with selecting flap • Heavy construction for continuous operation.

BENEFITS

• Possibility of feeding any type of raw wood • Removal of many kind of pollutants, plastic, metals, inerts and heavy material • Very high efficiency • Compact layout • Low maintenance • Easy control and adjustment.



MODEL	OVERALL DIMENSIONS mm				
	A	B	C	D	E
CS.1.1000	1000	1740	6460	3000	1910
CSIA.1000	1000	1740	6460	3000	1910
CS.2.2000	2000	2730	6460	3000	1910
CSIA.2000	2000	2730	6460	3000	1910
CS.3.3000	3000	3730	6460	3000	1910
CSIA.3000	3000	3730	6460	3000	1910

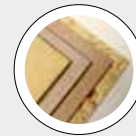
MODEL	CAPACITY		INSTALLED POWER kW		EXHAUST AIR FLOW (m³/h)	
	MICRO CHIPS 10-30 mm	MACRO CHIPS >30 mm	M1	M2	MICRO CHIPS	MACRO CHIPS
CS.1.1000	35 m³/h	60 m³/h	3	1,1	3000	
CSIA.1000	65 m³/h	65 m³/h	3	-	10000	
CS.2.2000	70 m³/h	120 m³/h	4	1,50	4000	
CSIA.2000	130 m³/h	130 m³/h	4	-	20000	
CS.3.3000	95 m³/h	180 m³/h	5	4	5500	
CSIA.3000	195 m³/h	195 m³/h	5	-	30000	

MODEL	AIR BLADE m³/h	LIGHTS POWER KW	AIR FOR NIR CAMERA m³/h
CS.1.1000	-	1,7	1500
CSIA.1000	1x11	-	-
CS.2.2000	-	3,4	3000
CSIA.2000	2x11	-	-
CS.3.3000	-	5,1	4800
CSIA.3000	3x11	-	-

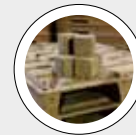
OPTICAL SORTER
CYCLOPS X-RAY
 PATENTED



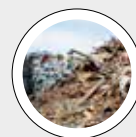
BEST IN CLASS FOR:



WOOD BASED PANELS:
 MDF/HDF
 PB/SPB



PRESSED WOOD PACKAGING:
 PALLET BLOCKS



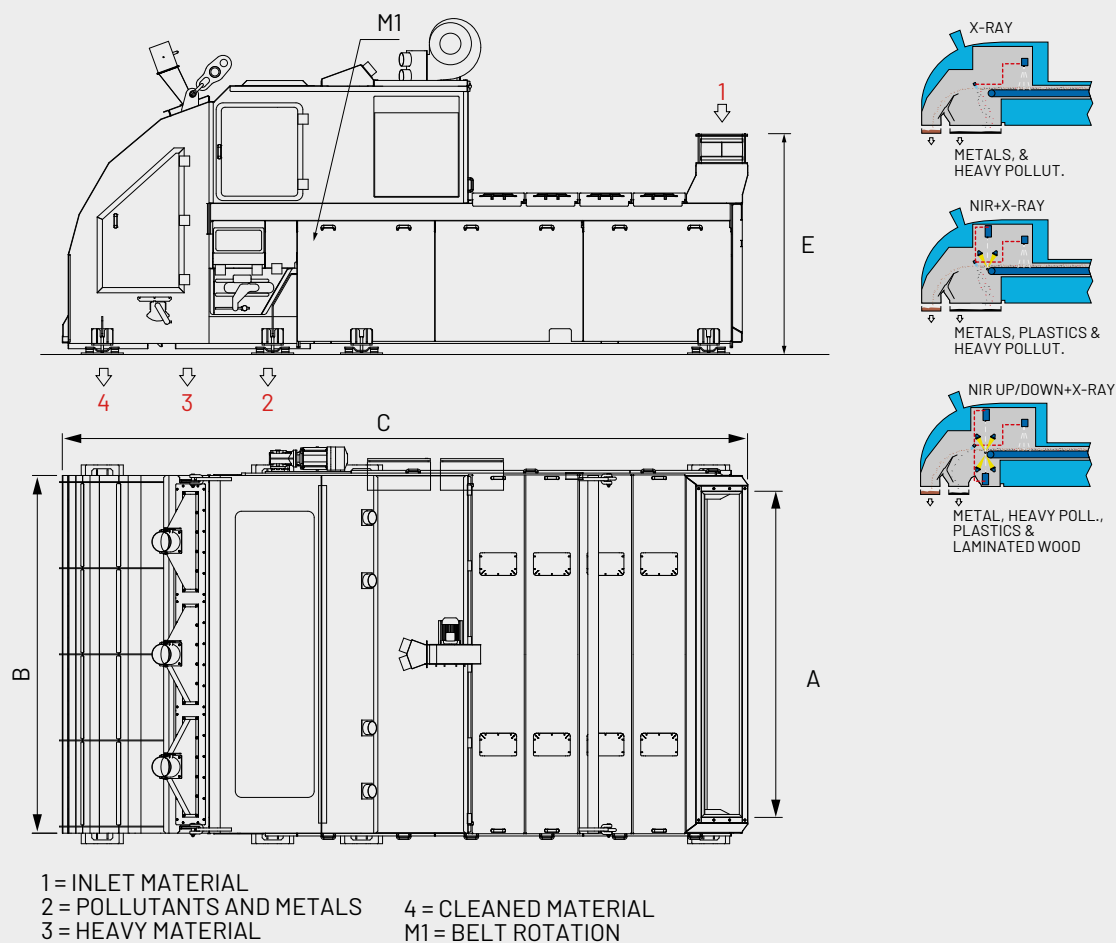
WOOD RECYCLING AND
 WASTE TREATMENT:
 WASTE

TECHNICAL FEATURES

- High speed belt for monolayer and multilayer particles transfer
- High efficiency and constant performance of x-ray camera
- Integrated sw control system
- Selecting unit with compressed air
- Discharge hopper with selecting flap
- Heavy construction for continuous operation.

BENEFITS

- Possibility of feeding any type of raw wood
- Removal of many kind of pollutants, plastic, metals, inerts and heavy material
- Very high efficiency
- Compact layout
- Low maintenance
- Easy control and adjustment.



MODEL	OVERALL DIMENSIONS mm				
	A	B	C	D	E
XCS.1200	1200	1940	6460	3000	1910
XCS.1.1200	1200	1940	6460	3000	1910
XCS.2000	2000	2730	6460	3000	1910
XCS.2.2000	2000	2730	6460	3000	1910

MODEL	CAPACITY		INSTALLED POWER kW		EXHAUST AIR FLOW (m³/h)
	MICRO CHIPS 10-30 mm	MACRO CHIPS >30 mm	M1	M2	
XCS.1200	130 m³/h	130 m³/h	3	-	3000
XCS.1.1200	35 m³/h	60 m³/h	3	1,10	3000
XCS.2000	200 m³/h	200 m³/h	4	-	4000
XCS.2.2000	70 m³/h	120 m³/h	4	1,50	4000

Metal Removers



WOOD BASED
PANELS

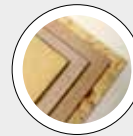
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
MAGNETIC PLATE - MPG	116	•	•		•	
MAGNETIC DRUMS - MD	118	•	•		•	
ELECTROMAGNETIC DRUMS - MD.EL	120	•	•		•	
NEODYMIUM CAGES - NEODY	122	•				
DEFERRIZING GROUPS - DEF	124	•	•		•	
MAGNETIC TRAPS - MT	126	•	•		•	
OVERBELT MAGNETS - OBM	128	•	•	•	•	
EDDY CURRENT SEPARATORS	130	•	•		•	

MAGNETIC PLATE – MPG

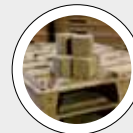
PATENTED



BEST IN CLASS FOR:



WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



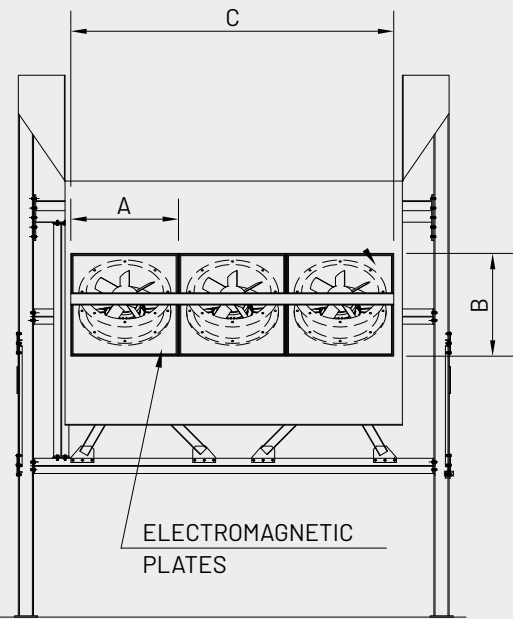
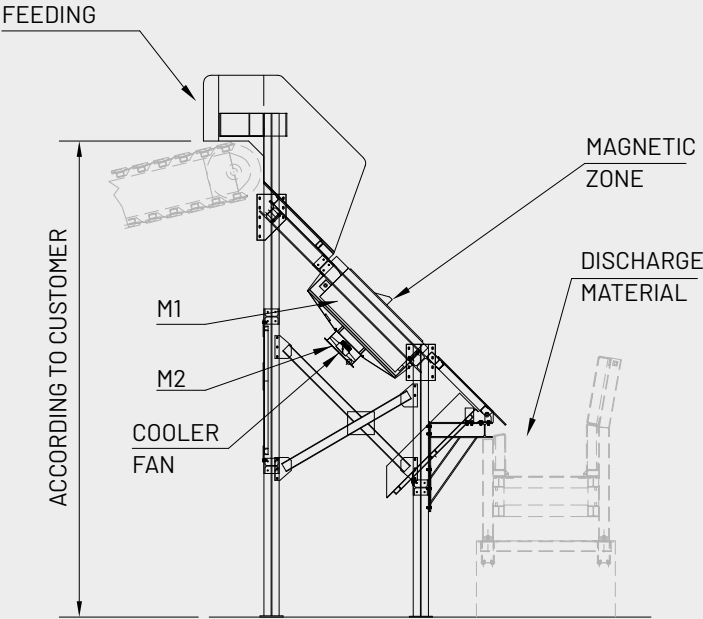
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
GREEN FUELS AND BIOMASS

TECHNICAL FEATURES

- Magnetic field made of magnetic ferrite C8 • Magnetic curve G • Closing shell made of stainless steel AISI304 • Cooling Fan • Hydraulic system for plate opening.

BENEFITS

- Perfect decontamination from all magnetic parts • No kinematic mechanism
- No maintenance cost.



MODEL	OVERALL DIMENSIONS mm ***		
	A	B	C
PE**	1400	1400	A x N° Elect.Plate

MODEL	POWER kW		WEIGHT kg
	M1	M2	Single Elect.Plate
PE**	10	0,63	3850

***According to customer needs
**According to dimensions

FERROUS METALS REMOVERS **MAGNETIC DRUMS – MD**

FOR CHIPS, SAWDUST AND PARTICLES



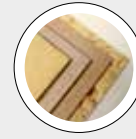
TECHNICAL FEATURES

- Strong family of magnetic drums fitted with bearings and supports • Drive system • Assembled unit complete of containment box.

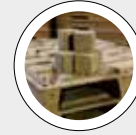
BENEFITS

- High efficiency and reliability • Removal of ferrous pollutants from chips, sawdust, particles, etc. • Simple installation • Very low maintenance.

BEST IN CLASS FOR:



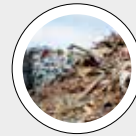
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



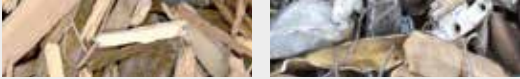
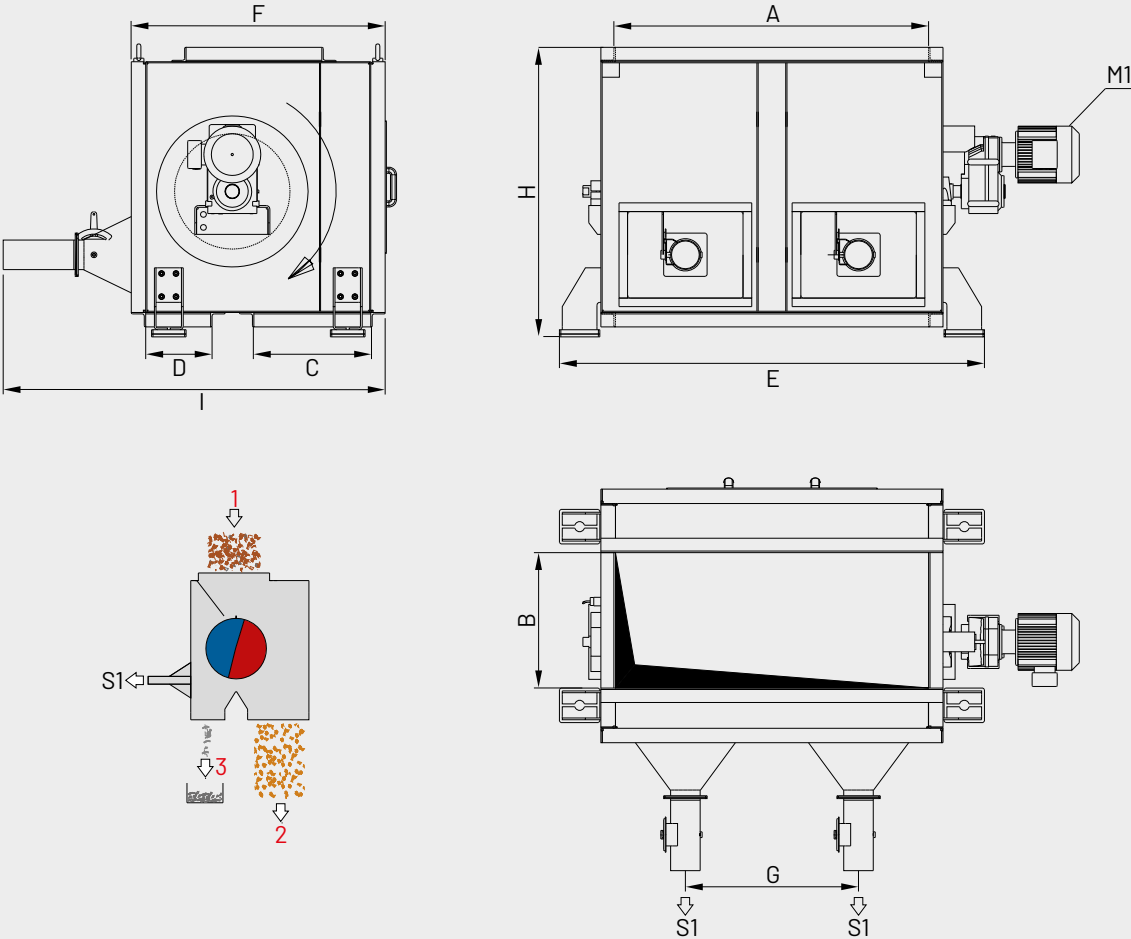
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



MODEL	OVERALL DIMENSIONS mm								
	A	B	C	D	E	F	G	H	I
MD.300x700 MRD	690	380	305	170	1068	725	-	750	1160
MD.400x700 MRD	690	470	405	225	1068	880	-	1005	1319
MD.400x1000 MRD	1085	470	405	225	1473	880	600	1005	1319
MD.500x1000 MRD	1185	600	505	280	1593	1035	700	1260	1479
MD.600x1000 MRD	1285	700	555	330	1713	1190	800	1360	1638
MD.400x1500 MRD	1585	470	405	225	1973	880	1000	1005	1319
MD.500x1500 MRD	1785	600	505	280	2193	1035	1050	1260	1479
MD.600x1500 MRD	1785	700	555	330	2193	1190	1050	1360	1638
MD.400x2200 MRD	2012	470	405	225	2392	880	655	1005	1319
MD.500x2200 MRD	2385	600	505	280	2793	1035	700	1260	1479
MD.600x2200 MRD	2385	700	555	330	2793	1190	630	1360	1638

MODEL	CAPACITY BULK CHIPS m³/h	INSTALLED POWER kW		SUCTION S1		WEIGHT APPROX. kg
		M1		PCS	SUCTION m³/h	
MD.300x700 MRD	60	1,1		1	1 x 800	600
MD.400x700 MRD	75	1,1		1	1 x 800	700
MD.400x1000 MRD	100	1,1		2	2 x 800	750
MD.500x1000 MRD	125	1,1		2	2 x 800	950
MD.600x1000 MRD	140	1,5		2	2 x 800	1150
MD.400x1500 MRD	155	1,5		2	2 x 800	835
MD.500x1500 MRD	185	1,5		2	2 x 800	935
MD.600x1500 MRD	200	1,5		2	2 x 800	1035
MD.400x2200 MRD	230	1,5		3	3 x 800	1300
MD.500x2200 MRD	270	1,5		3	3 x 800	1750
MD.600x2200 MRD	330	1,5		3	3 x 800	2450

FERROUS METALS REMOVERS

ELECTROMAGNETIC DRUMS – MD.EL

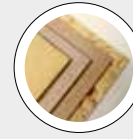
FOR BULKY OR PRE-CRUSHED RECYCLED WOOD

**TECHNICAL FEATURES**

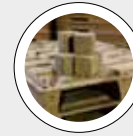
- Front shaft fitted with direct transmission • System for special applications
- Big and extra-strong electromagnetic drum fitted with bearings and supports
- Drive system.

BENEFITS

- Very high efficiency and reliability • Strong removal of ferrous pollutants (also huge pcs) from bulky or pre-crushed recycling wood, e.g. before pre-crusher, crusher or drum chipper • Simple installation • Low maintenance.

BEST IN CLASS FOR:

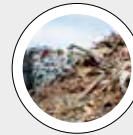
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



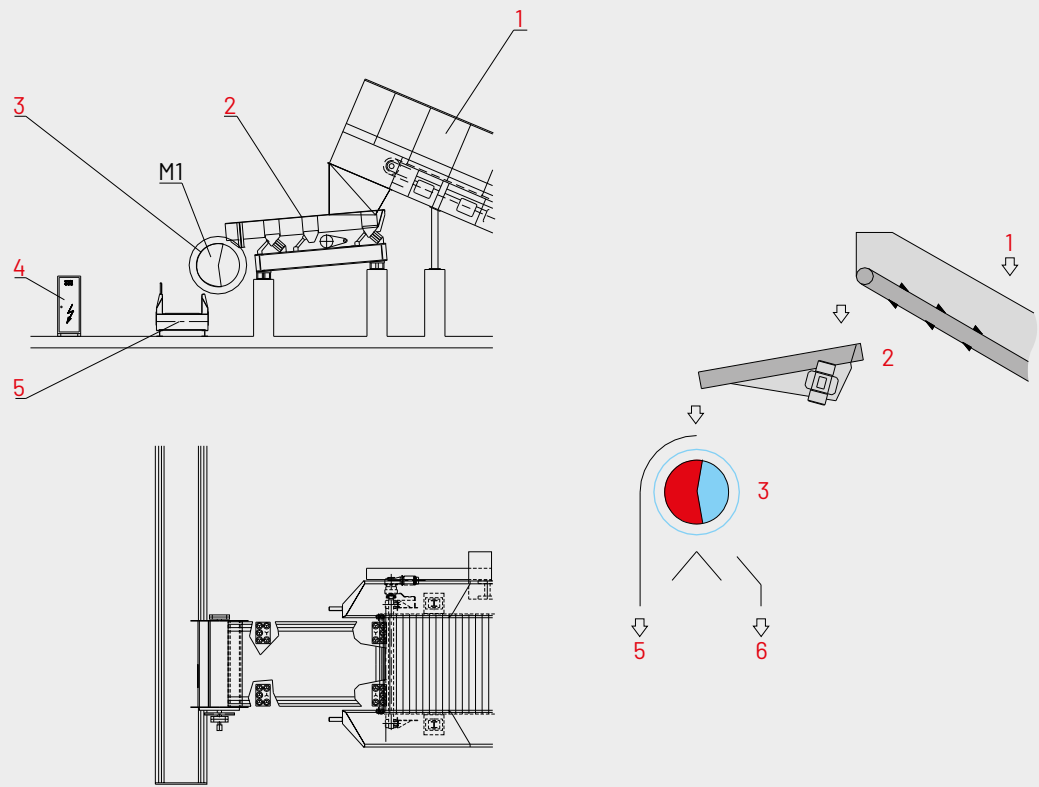
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



- 1 = FEEDING
- 2 = VIBRATING CHANNEL
- 3 = ELECTROMAGNETIC DRUM
- 4 = ELECTRIC CUBICLE
- 5 = CLEAN CHIPS TO U-FEEDER OF CRUSHER
- M1 = MAGNETIC DRUM ROTATION
- 6 = FERROUS METAL REMOVED



5



6

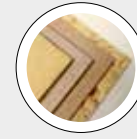
MODEL	CAPACITY BULKY STUFF m³/h	ELECTROMAGNETIC DRUM mm		INSTALLED POWER kW	ELECTRIC CUBICLE kW	WEIGHT APPROX. kg
		DIAM.	WIDTH	M1		
MD.1500x2500.MRD-EL	440	1500	2500	9,2	20	17000
MD.1500x3000.MRD-EL	530	1500	3000	9,2	20	19800

FERROUS METALS REMOVERS **NEODYMIUM CAGES – NEODY**

FOR CHIPS, SAWDUST, DUST AND PARTICLES



BEST IN CLASS FOR:



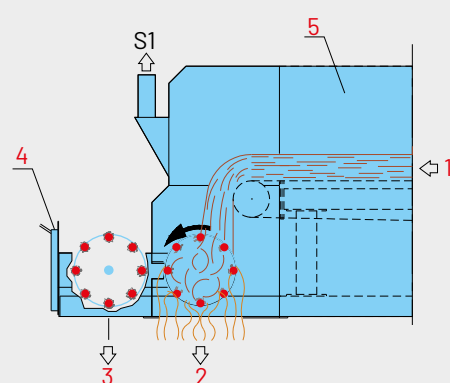
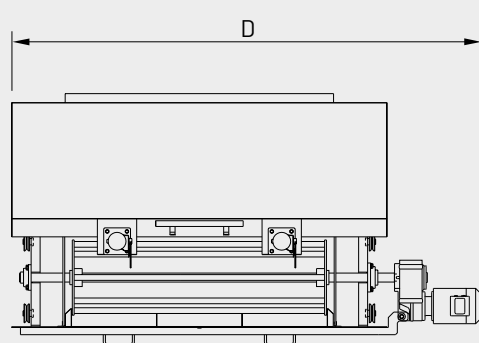
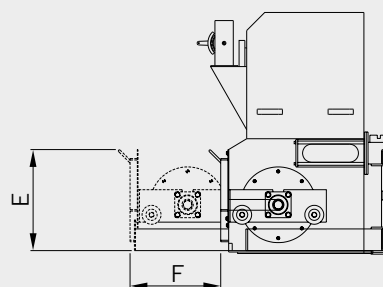
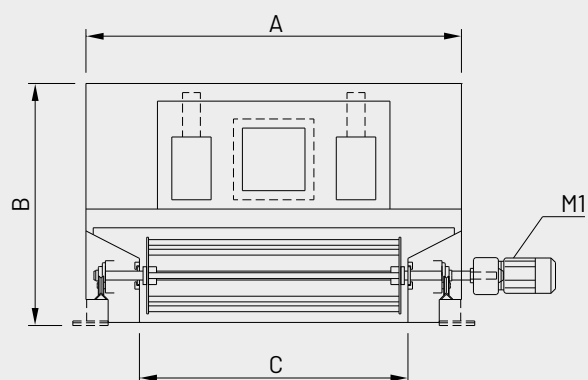
WOOD BASED PANELS:
PB/SPB

TECHNICAL FEATURES

- Rotating cage with neodymium bars • Drive system • Unit can be fitted in the discharge mouths of metering bins or belt scales, e.g. in wet or sticky areas.

BENEFITS

- Very efficient removal of residual ferrous pollutants and ferrous dust from wet or dry particles, dust, etc. • High protection of steel belts of the continuous presses • Very high efficiency & reliability • Low maintenance.



1 = FLOW DIRECTION OF POLLUTED MATERIAL
2 = CLEANED MATERIAL
3 = FERROUS METAL REMOVED

4 = UNIT MOUNTED IN AN OPENING DRAWER
5 = BELT SCALE OR DOSING BIN
M1 = NEODYMIUM STAND DRIVE



2



3

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
NEODY.1200	1698	1350	1100	2225	560	500
NEODY.1600	2098	1350	1400	2625	560	500

MODEL	CAPACITY* m ³ /h	INSTALLED POWER kW	SUCTION S1			WEIGHT APPROX. kg
		M1	SUCTION m ³ /h	AIR SPEED m/s	SUCTION PRESSURE Pa	
NEODY.1200	120	2,2	2 x 800	29	200	500
NEODY.1600	380	2,2	2 x 800	29	200	620

*SL & CL particles

FERROUS METALS REMOVERS DEFERRIZING GROUPS – DEF

FFOR CHIPS, SAWDUST AND PARTICLES



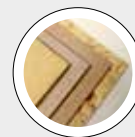
TECHNICAL FEATURES

- Feeding-spreading unit (Option) • Belt conveyor provided of front magnetic pulley • Overbelt magnet • Self-cleaning system for bottom • Drive systems
- Assembled unit complete of containment box.

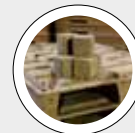
BENEFITS

- Unbeatable efficiency and reliability • Excellent combined removal of ferrous pollutants (and chips containing them) from the bottom and top of the thinly-spread layer of material • Simple installation • Low maintenance.

BEST IN CLASS FOR:



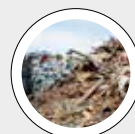
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



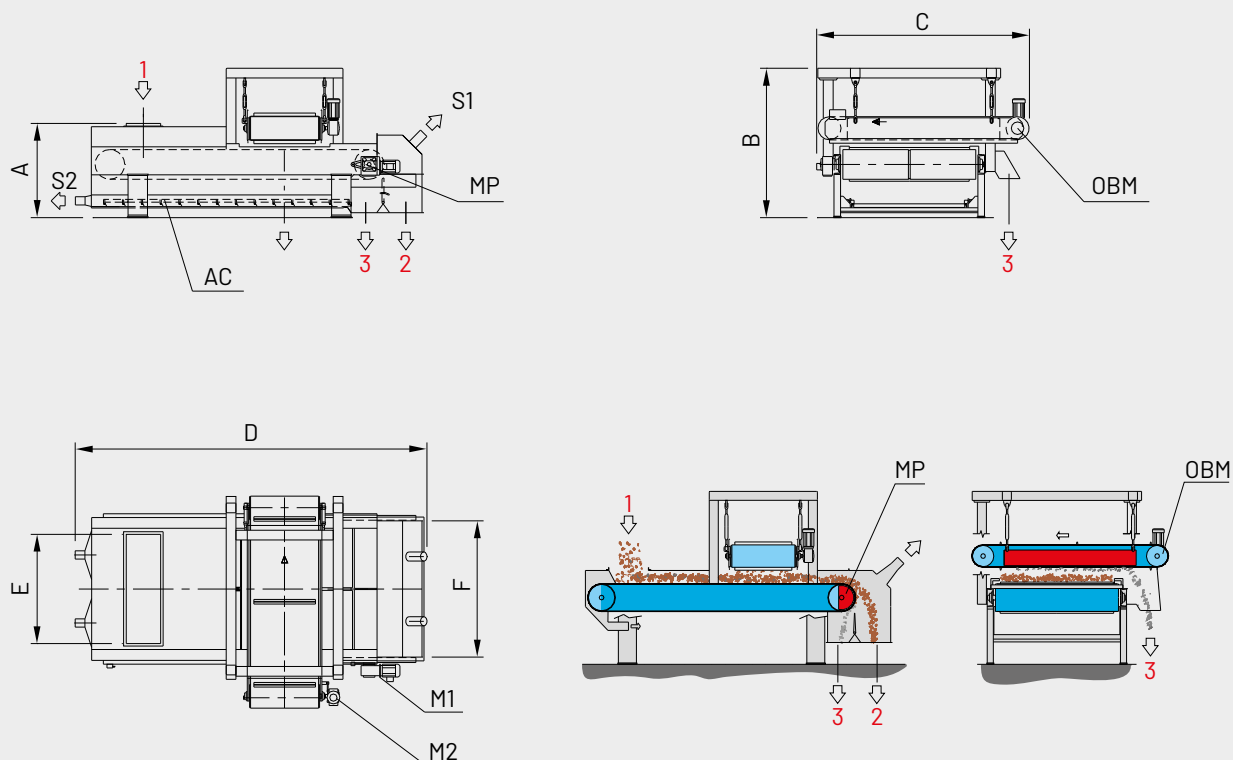
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



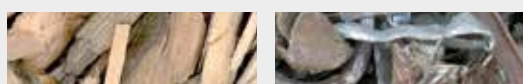
WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED MATERIAL
2 = CLEANED MATERIAL
3 = FERROUS METAL REMOVED

MP = MAGNETIC PULLEY
OBM = OVERBELT MAGNET
AC = AUTO CLEANING SYSTEM
FOR BOTTOM (OPTION)

M1 = HORIZONTAL BELT WITH
MAGNETIC PULLEY
M2 = OVERBELT MAGNET



2

3

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
DEF.1000/100	1450	2590	2420	5450	900	1230
DEF.1500/150	1450	2302	2840	5450	1400	1750
DEF.1900/200	1450	2302	3290	5450	1800	2100

MODEL	CAPACITY BULK CHIPS m³/h	INSTALLED POWER kW		SUCTION S1 + S2			WEIGHT APPROX. kg
		M1	M2	SUCTION m³/h	AIR SPEED m/s	SUCTION PRESSURE Pa	
DEF.1000/100	80 - 100	2,2	2,2	3 x 1550	29	200	4750
DEF.1500/150	150 - 180	3,0	2,2	3 x 1550	29	200	6750
DEF.1900/200	200 - 230	3,0	2,2	4 x 1550	29	200	8000

FERROUS METALS REMOVERS **MAGNETIC TRAPS – MT**

FOR CHIPS, SAWDUST AND PARTICLES



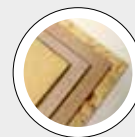
TECHNICAL FEATURES

- Cascade of three magnetic drums • Drive systems • Assembled unit complete of containment box.

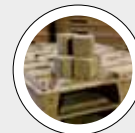
BENEFITS

- Very high efficiency and reliability • Excellent removal of ferrous pollutants from chips, sawdust, particles, etc. • Simple installation • Very low maintenance.

BEST IN CLASS FOR:



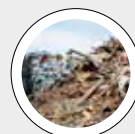
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



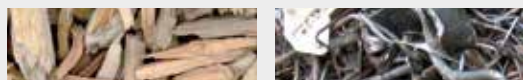
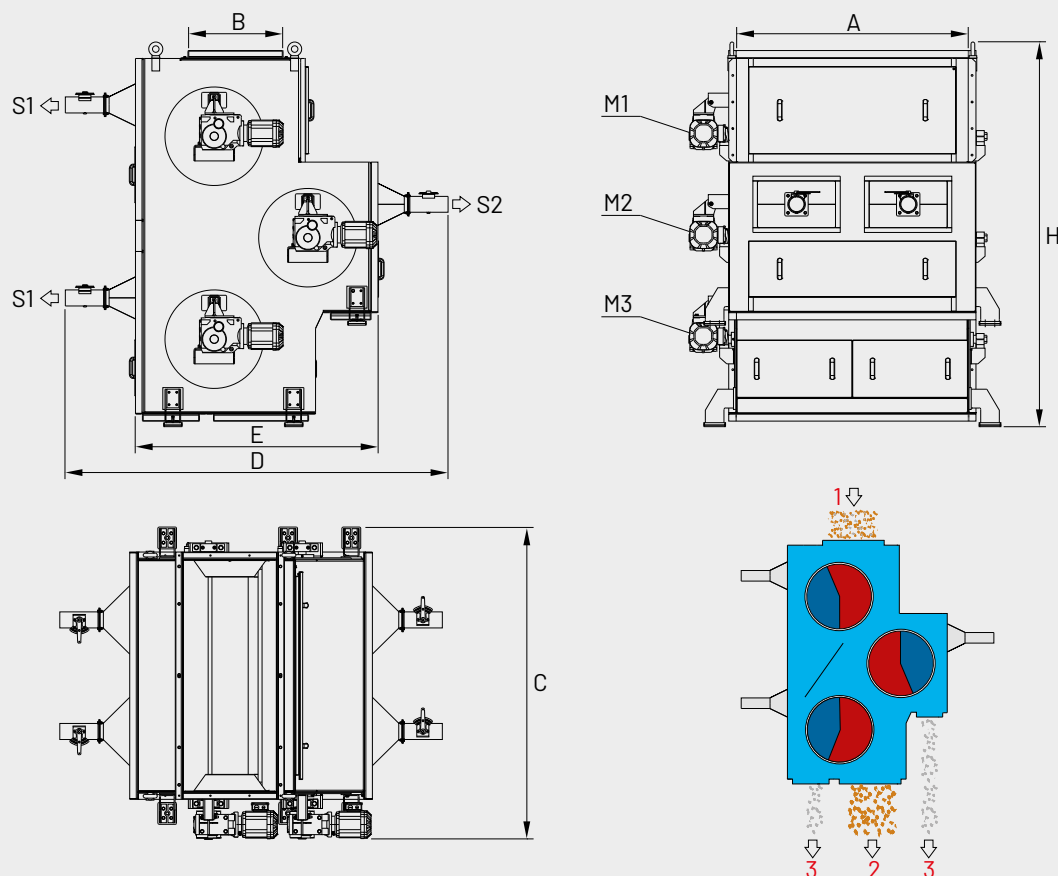
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



2

3

1 = POLLUTED MATERIAL
2 = CLEANED MATERIAL

3 = FERROUS METAL REMOVED
M1-M2-M3 = MAGNETIC DRUM ROTATION

MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	H
MT.2.500/100-HG(VHG)	1185	600	1700	2338	1450	1965
MT.2.500/150-HG(VHG)	1685	600	2200	2338	1450	1965
MT.2.500/220-HG(VHG)	2385	600	2900	2338	1450	1965
MT.2.600/100-HG(VHG)	1185	700	1700	2538	1650	2165
MT.2.600/150-HG(VHG)	1685	700	2200	2538	1650	2165
MT.2.600/220-HG(VHG)	2385	700	2900	2538	1650	2165
MT.3.500/100-HG(VHG)	1185	600	1700	2453	1555	2465
MT.3.500/150-HG(VHG)	1685	600	2200	2453	1555	2465
MT.3.500/220-HG(VHG)	2385	600	2900	2453	1555	2465
MT.3.600/100-HG(VHG)	1185	700	1700	2653	1755	2765
MT.3.600/150-HG(VHG)	1685	700	2200	2653	1755	2765
MT.3.600/220-HG(VHG)	2385	700	2900	2653	1755	2765

() Options

MODEL	CAPACITY BULK CHIPS m ³ /h	INSTALLED POWER kW			SUCTIONS m ³ /h		WEIGHT APPROX. kg
		M1	M2	M3	S1	S2	
MT.2.500/100-HG(VHG)	245	1,5	1,5	-	2x710	2x710	1980
MT.2.500/150-HG(VHG)	370	1,5	1,5	-	2x710	2x710	2880
MT.2.500/220-HG(VHG)	540	1,5	1,5	-	3x710	3x710	3700
MT.2.600/100-HG(VHG)	245	1,5	1,5	-	2x710	2x710	2600
MT.2.600/150-HG(VHG)	370	1,5	1,5	-	2x710	2x710	3700
MT.2.600/220-HG(VHG)	540	1,5	1,5	-	3x710	3x710	5100
MT.3.500/100-HG(VHG)	295	1,5	1,5	1,5	2x710	2x710	3280
MT.3.500/150-HG(VHG)	440	1,5	1,5	1,5	2x710	2x710	4620
MT.3.500/220-HG(VHG)	650	1,5	1,5	1,5	3x710	3x710	5850
MT.3.600/100-HG(VHG)	295	1,5	1,5	1,5	2x710	2x710	4200
MT.3.600/150-HG(VHG)	440	1,5	1,5	1,5	2x710	2x710	5850
MT.3.600/220-HG(VHG)	650	1,5	1,5	1,5	3x710	3x710	7950

FERROUS METALS REMOVERS OVERBELT MAGNETS – OBM

FOR CHIPS, SAWDUST AND PARTICLES



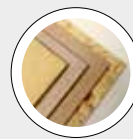
TECHNICAL FEATURES

• Strong magnetic plate (HG) • Deferrizing overbelt • Drive system • Assembled unit complete of containment box.

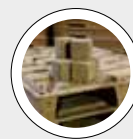
BENEFITS

• High efficiency and reliability • Removal of ferrous pollutants from chips, sawdust and particles, e.g. during transport with belt conveyors • Simple installation • Low maintenance.

BEST IN CLASS FOR:



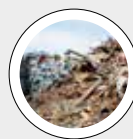
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



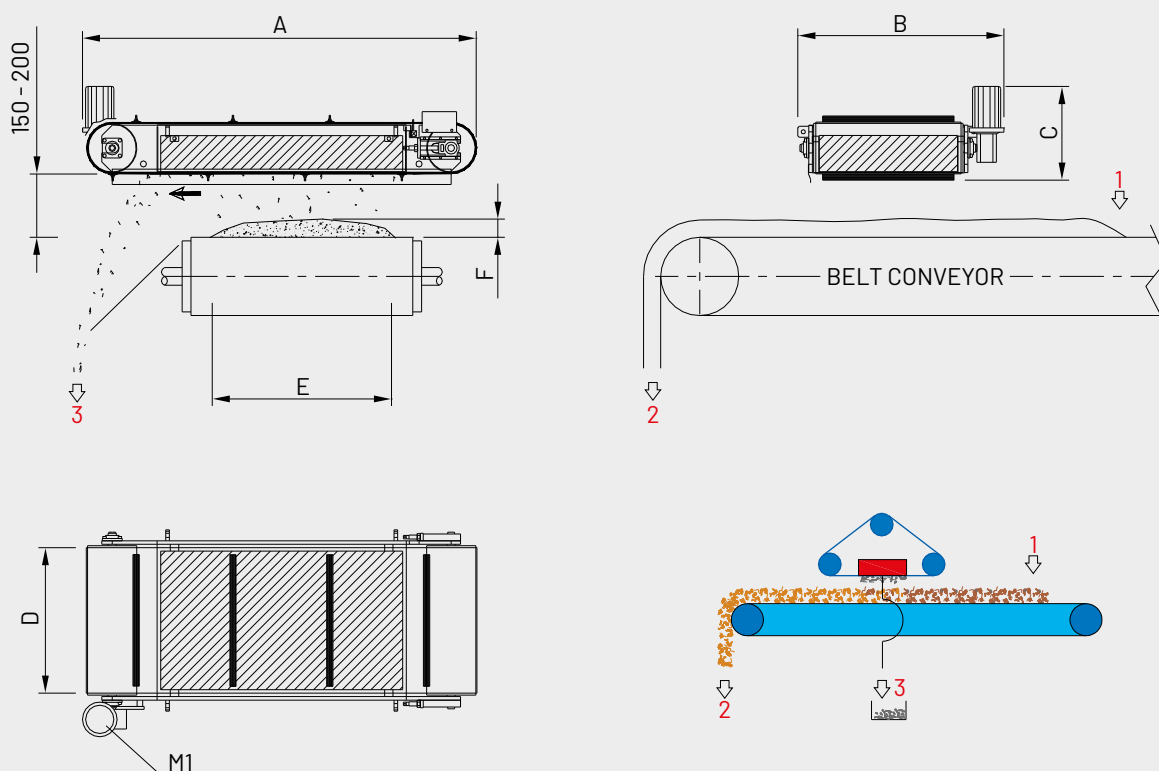
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED MATERIAL 3 = FERROUS METAL REMOVED
2 = CLEANED MATERIAL M1 = MAIN MOTOR



2



3

MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D
OBM.100/135-HG-VHG	2425	1490	684	1050
OBM.100/175-HG-VHG	2820	1490	682	1050
OBM.100/220-HG-VHG	3270	1490	682	1050
OBE.90/100	2374	1462	810	950
OBE.90/120	2574	1462	810	950
OBE.90/140	2774	1462	810	950
OBE.90/175	3124	1462	780	950

MODEL	CAPACITY BULK CHIPS			INSTALLED POWER kW		WEIGHT APPROX. kg
	m ³ /h	E mm	F mm	M1 MAIN MOTOR	M2 ELECTROMAGNET	
OBM.100/135-HG-VHG	Assessable according to (E), (F) and conveying speed	< 1000	50 - 80	2,2	-	2350
OBM.100/175-HG-VHG		< 1400	50 - 80	2,2	-	3000
OBM.100/220-HG-VHG		< 1900	50 - 80	2,2	-	3800
OBE.90/100		< 800	80 - 120	2,2	4,2	2870
OBE.90/120		< 1000	80 - 120	2,2	4,5	3350
OBE.90/140		< 1200	80 - 120	2,2	5	3840
OBE.90/175		< 1600	80 - 120	2,2	7,5	4810

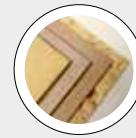
NON FERROUS METALS REMOVERS

EDDY CURRENT SEPARATORS**TECHNICAL FEATURES**

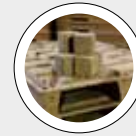
• Feeding & spreading unit (Option) • Large belt conveyor fitted with ultra-strong induction drum • Magnetic plates & dust drawer to keep the belt clean • Drive systems for belt and induction drum • Assembled unit • Electrical cabinet including frequency converters and PLC.

BENEFITS

• Removal of coarse non-ferrous metals from chips • Great production capacity • Unbeatable efficiency and reliability • Low maintenance.

BEST IN CLASS FOR:

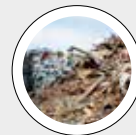
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



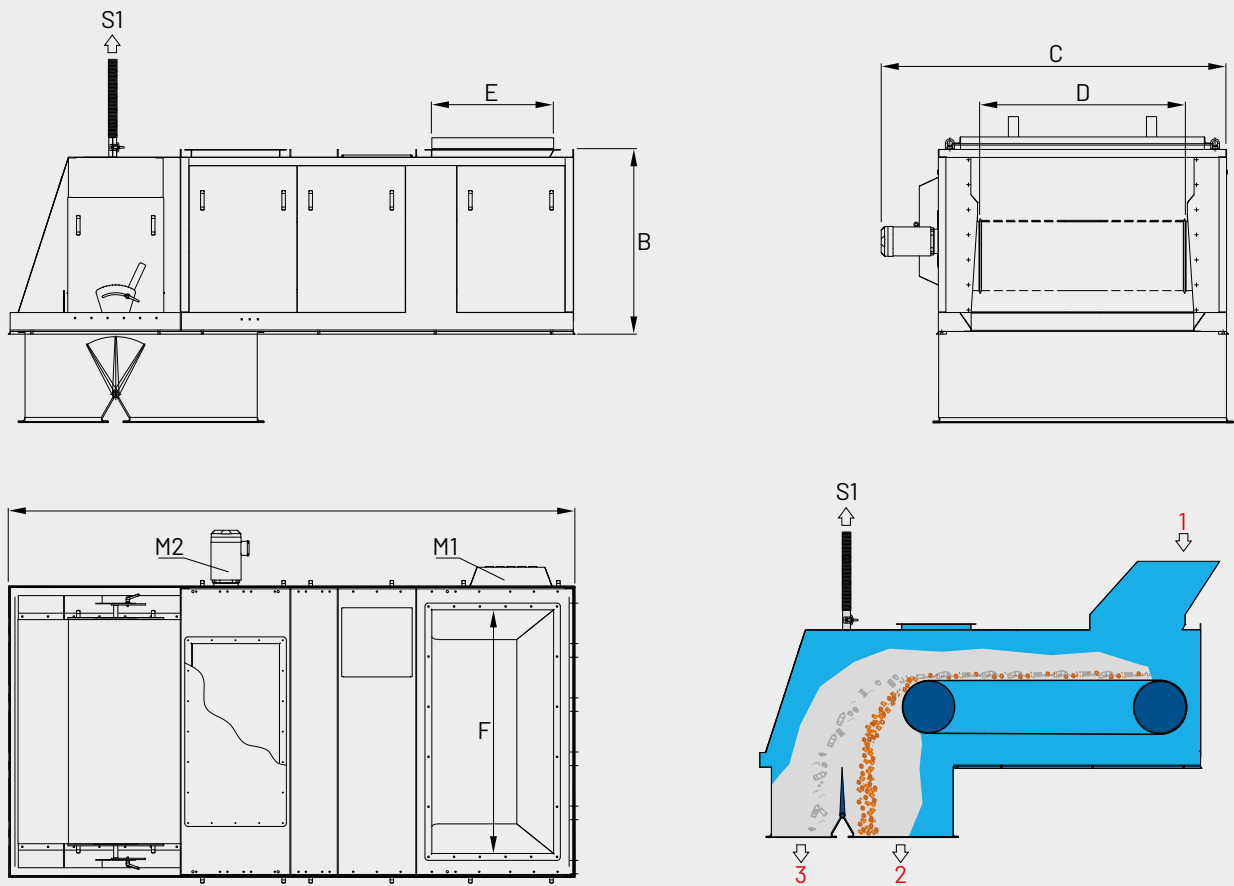
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1= POLLUTED MATERIAL
2 = CLEANED MATERIAL
3 = NON FERROUS METAL REMOVED
M1-M2 = MAIN MOTOR



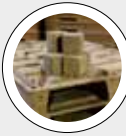


MODEL	OVERALL DIMENSIONS mm					
	A	B	C	D	E	F
ECS 100/220	4160	1340	2000	1000	900	1300
ECS 150/220	4160	1340	2550	1500	900	1800
ECS 200/220	4160	1340	3050	2000	900	2300
ECS 250/300	5180	1340	3510	2500	900	2800

*If required extraction can be performed from the opposite side

MODEL	CAPACITY m³/h	INSTALLED POWER kW		ELECTRIC CUBICLE				SUCTION S1		WEIGHT APPROX. kg
		M1	M2					SUCTION m³/h	SUCTION PRESSURE Pa	
ECS 100/220	80	2,2	4	HEIGHT 2100 mm	WIDTH 800 mm	DEPTH 400 mm	WEIGHT 150 kg	2x800	2x100	2200
ECS 150/220	130	3	5,5					2x800	2x100	2500
ECS 200/220	180	3	5,5					2x800	2x100	3300
ECS 250/300	220	3	7,5					2x800	2x100	6500

Drying

BELT DRYER	
134	<div>page number</div>
	<div><div><div><div></div></div></div><div>WOOD BASED PANELS</div></div>
	<div><div><div></div></div><div>PB/SPB</div></div>
	<div><div><div></div></div><div>MDF/HDF</div></div>
	<div><div><div></div></div><div>OSB/LSB/FOSB</div></div>
	<div><div><div></div></div><div>INSULATION BOARDS</div></div>
	<div><div><div></div></div><div>PLYWOOD</div></div>

<ul style="list-style-type: none">● PALLET BLOCKS● PRESSED PALLETS		PRESSED WOOD PACKAGING
STRINGERS & BEAMS		
<ul style="list-style-type: none">● WOOD PELLETS AND BLACK PELLETS		PELLETS & ENERGY
GREEN FUELS AND BIOMASS		
THERMAL AND ELECTRIC ENERGY		
DRYING		
WOOD RECYCLING		WOOD RECYCLING AND WASTE TREATMENT
SLUDGE RECYCLING		
PLASTIC RECYCLING		
CUSTOMIZED SOLUTIONS FOR RECYCLING		

DRYING BELT DRYER



Belt dryers are able to dry particles up to a moisture content of less than 1%. They may be used in PB and OSB panel production, PELLET production, PALLET BLOCK production.

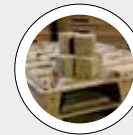
In the case of existing dryers, where the intention is to increase the amount of particles dried, belt dryers may be used both as a pre-dryer, when mounted prior to the existing dryer, as well as a dryer when installed parallel to the existing one.

Belt dryers may be single stage or two-stage (one above the other). In the case of a single stage dryer, the feed assembly is located opposite the discharge unit. With two-stage dryers, the two units (feed and discharge) are located on the same side.

BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLET



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS

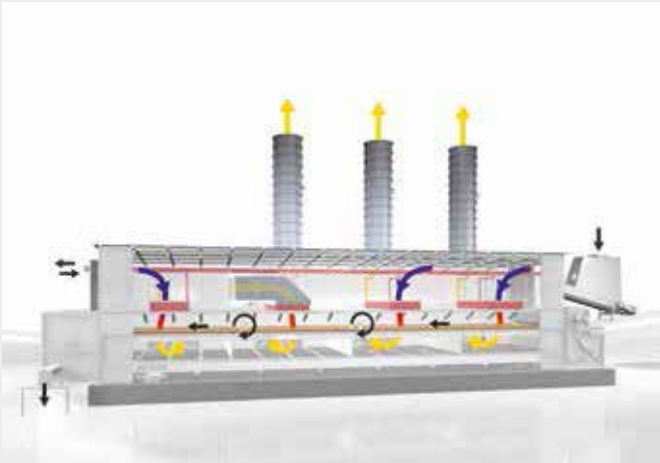
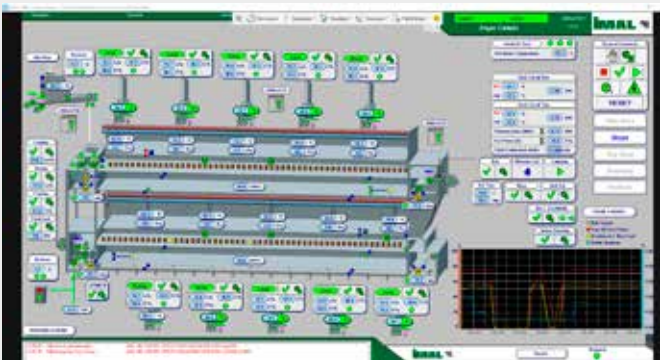
TECHNICAL ADVANTAGES
LOW TEMPERATURE PROCESS
VERY LOW FIRE RISK (TEMPERATURE <100°C)
NO CHANGE IN STRAND COLOUR
LOW DUST EMISSION < 10 mg/Nm ³
VERY LOW VOCS EMISSION
HOMOGENEOUS DRYING PROCESS
FULLY AUTOMATIC PROCESS
DUCTING AND CYCLONES DO NOT REQUIRE CLEANING
NO MAINTENANCE FOR RINGS AND WHEELS
NO AIRLOCKS
EASY FUTURE EXPANSION
WESP AND RTO SYSTEM NOT REQUIRED
AUTOMATIC BELT CLEANING (WATER & AIR)
BELT DRYER LESS EXPENSIVE TO INSTALL IN COMPARISON TO A DRUM DRYER

INTERNAL NET WIDTH
1,5 mt
3,0 mt
4,5 mt
6,0 mt
7,5 mt

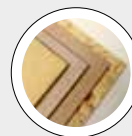
SINGLE DECK - WATER EvAPORATION*
UP TO 22,5 ton/h

DOUBLE DECK - WATER EvAPORATION*
UP TO 45 ton/h

* In relation to the operative conditions: inlet moisture, ambient conditions, type of energy available



Flakers & Refiners



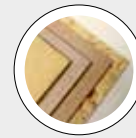
WOOD BASED
PANELS

	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
HAMMERMILLS - FALCON	138		•		•	
RCG	140	•		•		
SRC	142	•		•		
RSG	144			•		
ASR	146	•		•		
WMG	148	•				
SMG	150	•		•		
CENTRIFUGAL MILLS - MSG	152	•		•		
CENTRIFUGAL MILLS - MCG	154	•		•		

HAMMERMILLS – FALCON



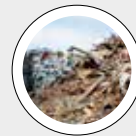
BEST IN CLASS FOR:



WOOD BASED PANELS:
MDF/HDF
INSULATION BOARDS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



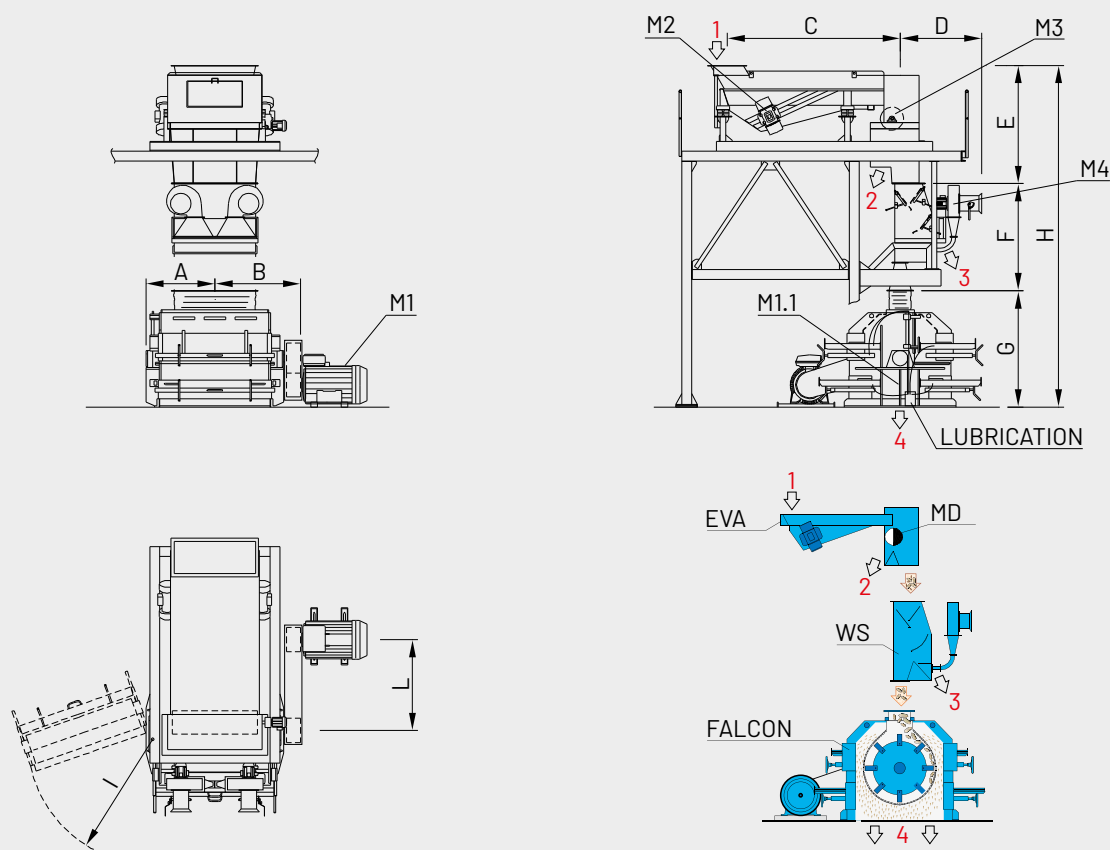
WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

TECHNICAL FEATURES

- Secure optimum size reduction of different type of biomass and products
- High efficiency Hammermills family thanks to the right combination of hammers, speed, nets, correct negative pressure values and a proper feeding system
- Special design to refine both fresh and recycling chips
- Rotor with theories of easily replaceable hammers
- Special hammers and impact segments protected against wear
- Fast replacement of perforated screens
- Large screen area
- Feeding provided with protection devices to reject heavy pollutants.

BENEFITS

- Quality particles from fresh or recycled chips
- High efficiency
- High reliability
- Minimized maintenance costs
- Low specific energy consumption.



1 = INFEED MATERIAL
 2 = FERROUS POLLUTANTS
 3 = HEAVY POLLUTANTS
 4 = HAMMERMILLED PARTICLES
 M1 = MAIN MOTOR
 M1.1 = HYDRAULIC UNIT
 M2 = VIBRATING FEEDER
 M3 = MAGNETIC DRUM
 M4 = WIND SELECTOR



1

4

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
FALCON 50/50	472	677	-	-	-	-	950	-	900	-
FALCON 105/85.EVA.MD.WS	677	860	2470	1505	2173	2072	1660	5905	1667	1839
FALCON 105/120.EVA.MD.WS	830	990	2470	1505	2173	2072	1660	5905	1667	2043
FALCON 125/195.EVA.MD.WS	1270	1584	3200	1505	2173	2017	2230	6420	2500	1672
FALCON 180/200.EVA.MD.WS	1407	1690	2682	1573	2661	2318	2740	7719	1120	2482

MODEL	CAPACITY* CHIPS & MICRO-CHIPS t/h	INSTALLED POWER kW					WEIGHT APPROX. kg	
		M1*	M1.1	M2	M3	M4	STANDARD	OPTIONS
FALCON 50/50	1 - 2	22 - 37	-	-	-	-	1025	-
FALCON 105/85.EVA.MD.WS	4 - 7	132 - 160	-	2 x 0,9	1,5	2,2	4500	2000
FALCON 105/120.EVA.MD.WS	7 - 8	200 - 250	-	2 x 0,9	1,5	2,2	5500	2300
FALCON 125/195.EVA.MD.WS	11 - 12	250 - 315	-	2 x 1,3	1,5	2 x 2,2	8800	3370
FALCON 180/200.EVA.MD.WS	14 - 16	400 - 630	0,75	2 x 3,0	1,5	2 x 4,0	16500	5000

*According to type of material, moisture content and mesh size of perforated screens.

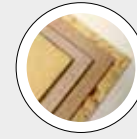
KNIFE FLAKERS

RCG**TECHNICAL FEATURES**

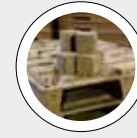
- Knife Ring Flakers must generate enough centrifugal strength to maintain the chips constantly pressed against the knives and fight the shearing stress. Conventional Flakers are designed to refine chips of regular size and mass. But, they do not generate enough strength to refine material of small size-mass, i.e. micro-chips, oversize particles, sawdust cubes, etc. In this case the reduced centrifugal strength is not sufficient to fight the shearing stress and small material go on jumping into the knife ring, which transforms them in toothpicks and sub-cubes with a fast loss of cutting capacity of knives. Starting from these physics concepts, we re-invented the Knife Ring Flakers
- Very high precision knife ring • High number of knives • Very high precision impeller provided with presetting system for counter-knives • Minimized gap among knives and counter-knives • High flaking speed and special setting to refine small-size material, i.e. micro-chips, oversize particles and sawdust cubes • Feeding door provided with air cleaner to reject heavy pollutants
- Machine parts getting in touch with chips are highly protected against wear
- Easy and quick replacement of knife-ring.

BENEFITS

- Excellent flakes from regular chips, fresh and recycled • Superior result from micro-chips, oversize particles and sawdust cubes • High efficiency • High reliability • Minimized maintenance costs • Low specific energy consumption.

BEST IN CLASS FOR:

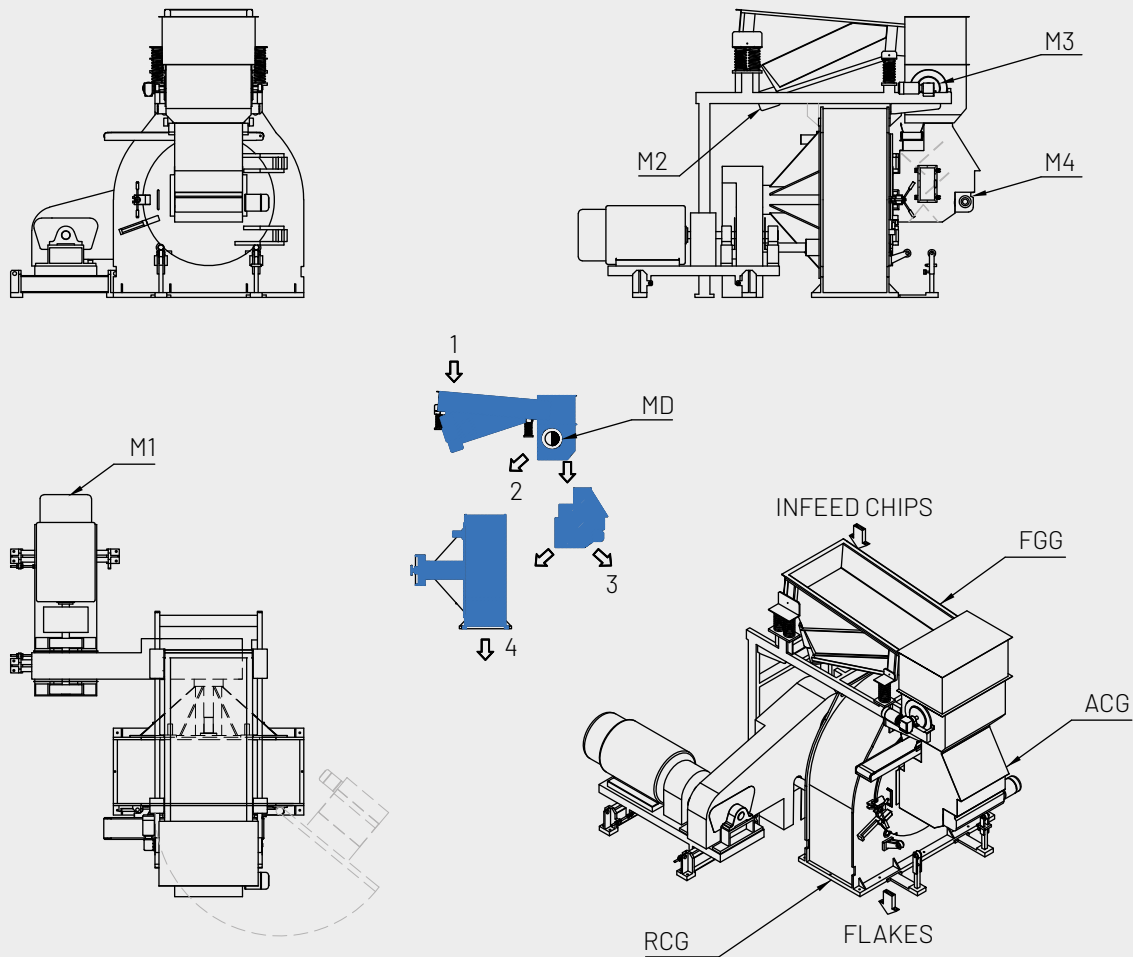
WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS

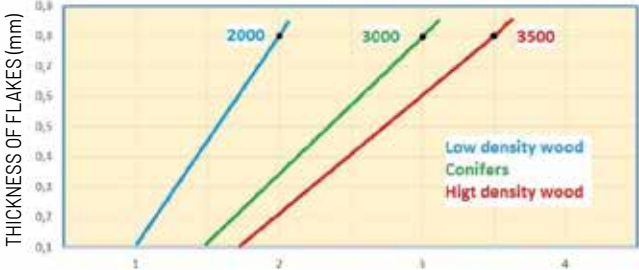


- 1 = INFEED CHIPS
- 2 = FERROUS POLLUTANTS
- 3 = HEAVY POLLUTANTS
- 4 = FLAKES
- M1 = MAIN MOTOR
- M2 = VIBRATING FEEDER
- M3 = MAGNETIC DRUM (MD)
- M4 = WIND SELECTOR

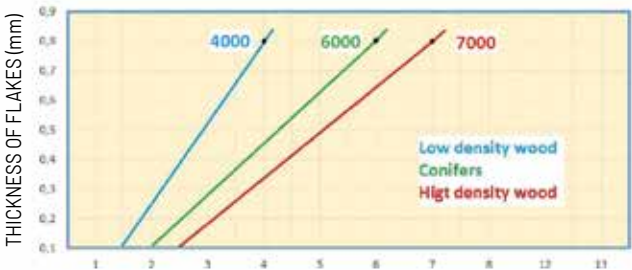


MODEL	OVERALL DIMENSIONS mm	KNIFE RING DIAMETER mm	KNIVES No.	DIMENSIONS OF KNIVES mm	MAIN MOTOR kW	WEIGHT WITHOUT MAIN MOTOR kg
RCG 10.360	2050 x 1810 x 1300	1000	36	350 x 90 x 4	132 / 200	3800
RCG 12.450	2200 x 1980 x 1730	1200	46	450 x 80 x 4	132 / 200	5900

RCG 10.360



RCG 12.450



PRODUCTION (kg at 1000/h)

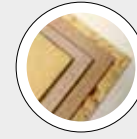
KNIFE FLAKERS

SRC**TECHNICAL FEATURES**

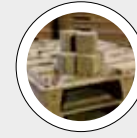
- Knife ring flakers is the basic machine for producing high quality particle-board
- Globus patented wobble spreader disc, is a unique system for a perfect distribution of the chips inside the machine
- The eccentric disc has independent drive speed
- Perfect distribution of the chips, allows a complete and total use of the knife cutting edge and therefore great energy saving and reduction of wear parts consumption
- A long and careful research time was spent in different plants, in order to determinate the best cutting edge and number of knives for these application i.e. 54 knives
- Oil lubrication system for main bearings
- Very high precision impeller provided with presetting system for counter-knives
- Feeding door provided with air cleaner to reject heavy pollutants.

BENEFITS

- Homogeneous granularity of the flakes and perfect cutting of the wood, in order to increase the physical/mechanical properties of particleboard
- A perfect cutting of the edges, allows a limited consumption of glue
- Very low specific energy consumption
- Regular consumption of wearing parts.

BEST IN CLASS FOR:

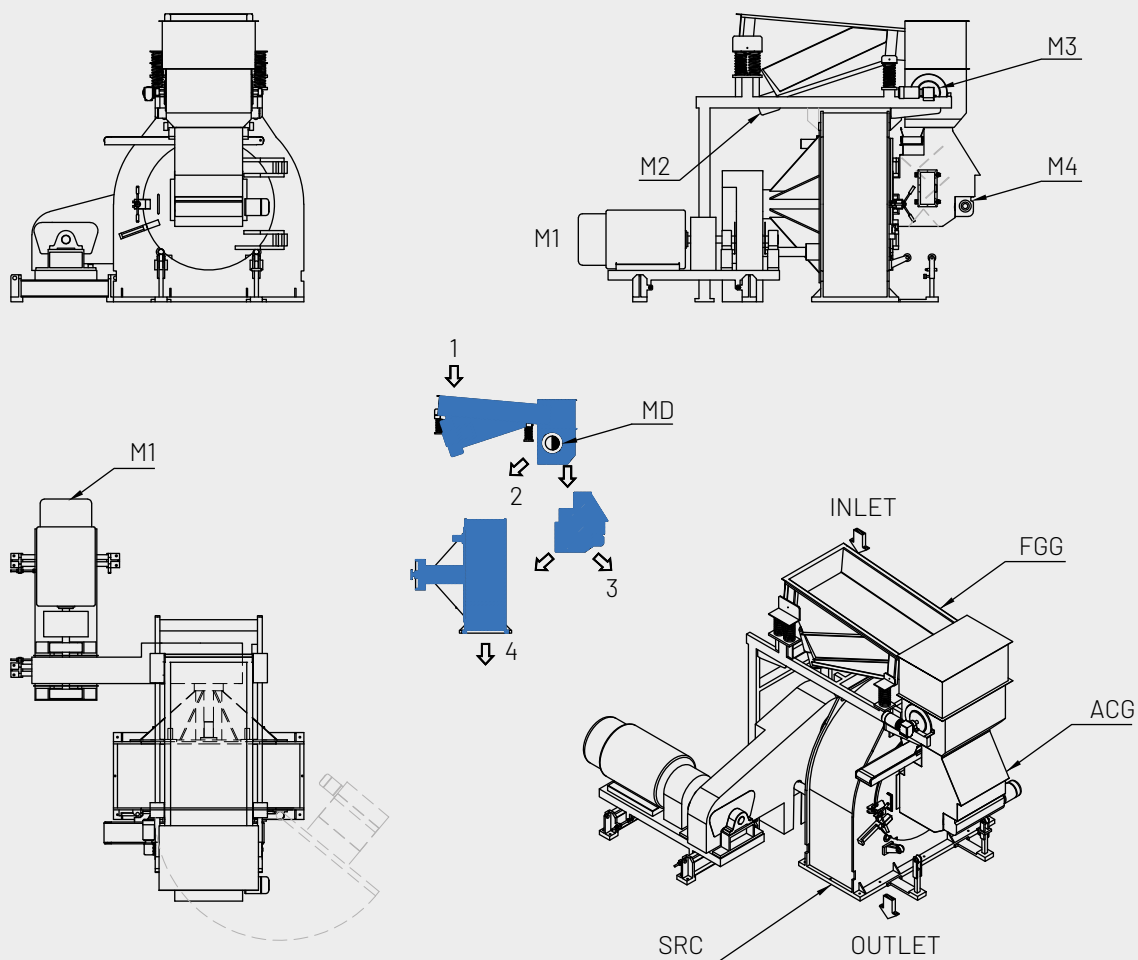
WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



- 1 = INFEED CHIPS
 2 = FERROUS POLLUTANTS
 3 = HEAVY POLLUTANTS
 4 = FLAKES
 M1 = MAIN MOTOR
 M2 = VIBRATING FEEDER
 M3 = MAGNETIC DRUM (MD)
 M4 = WIND SELECTOR



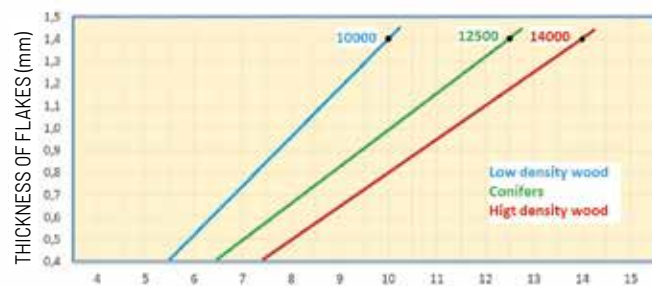
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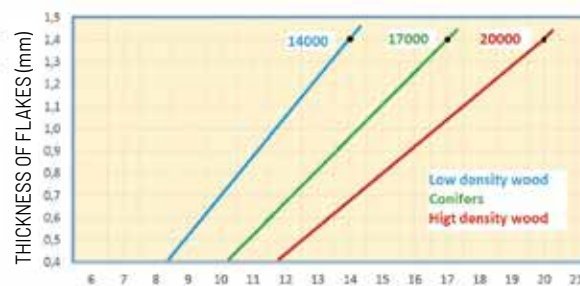
4

MODEL	OVERALL DIMENSIONS mm	KNIFE RING DIAMETER mm	KNIVES No.	DIMENSION OF KNIVES mm	MAIN MOTOR kW	WEIGHT WITHOUT MAIN MOTOR kg
SRC 14.490 EVO IV	2500 x 2850 x 2350	1400	54	490 x 90 x 4	250	8500
SRC 14.690 EVO IV	2500 x 3200 x 2350	1400	54	690 x 90 x 4	315	10000

SRC 14.490 EVO

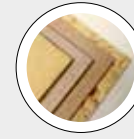


SRC 14.690 EVO IV



PRODUCTION (kg at 1000/h)

RING STRANDER

RSG**BEST IN CLASS FOR:**

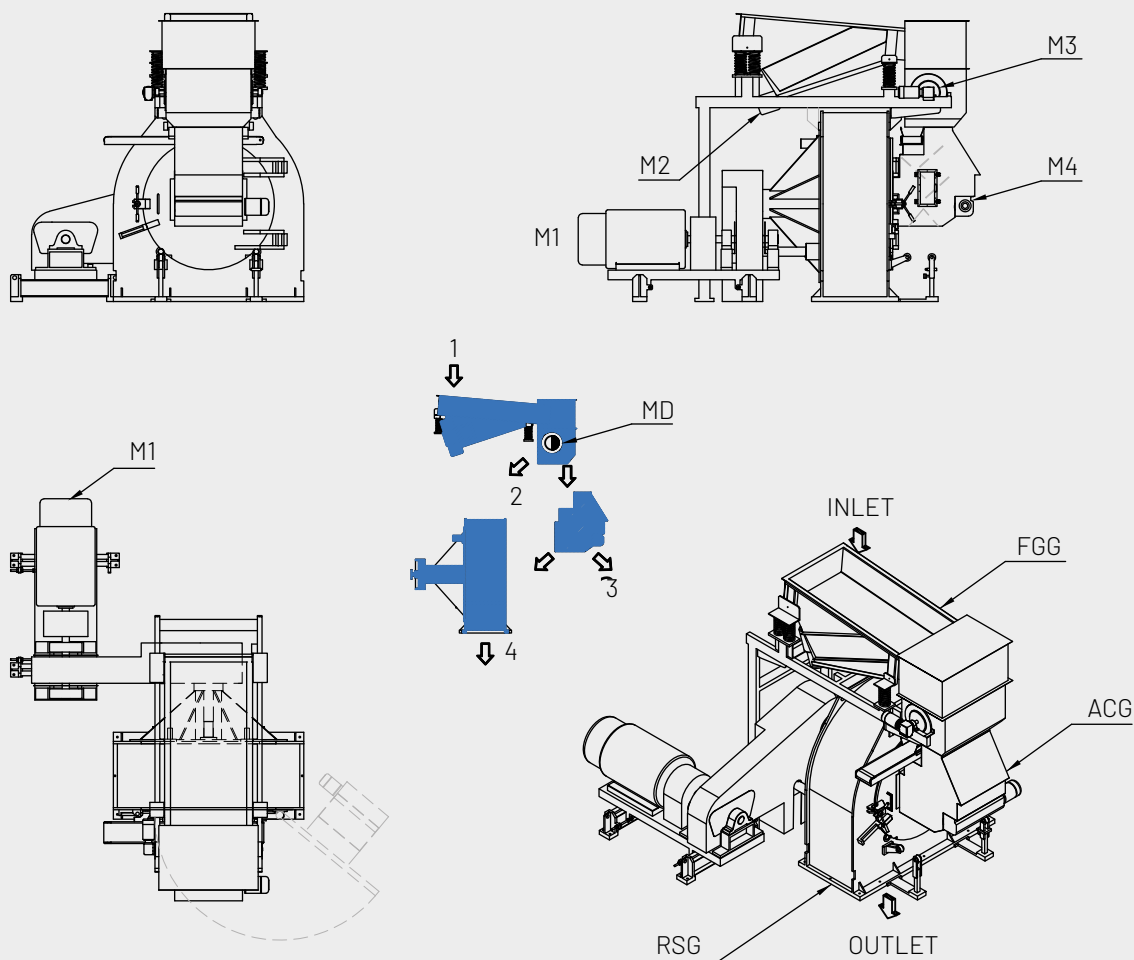
WOOD BASED PANELS:
OSB/LSB/FOSB

TECHNICAL FEATURES

- Ring Strander is the new machine for producing high quality micro strands
- Globus patented wobble spreader disc, is a unique system for a perfect distribution of the macro chips inside the machine
- Perfect distribution of the macro chips, allows to obtain long and large flakes. Thanks to the particular knife cutting edge, flakes are also thin and have constant size
- Oil lubrication system for main bearings allows to have high cutting speed and avoid the production of dust
- The particular geometric shape of knife ring and knife allows to work with wood having a moisture up to 160% bd.

BENEFITS

- Homogeneous granularity of the strands and perfect cutting of the wood, in order to leave unchanged the physical/mechanical properties of OSB
- Very low specific energy consumption
- Regular consumption of wearing parts
- No clogging even with high moisture material.



- 1 = INFEED CHIPS
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 M1 = MAIN MOTOR
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 M3 = MAGNETIC DRUM (MD)
 M4 = WIND SELECTOR



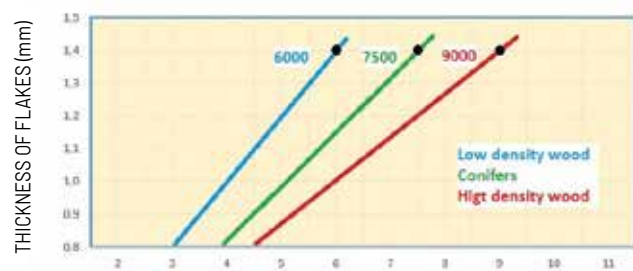
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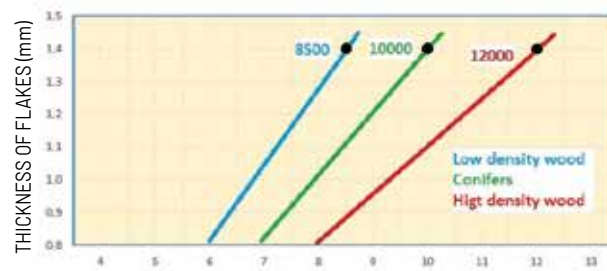
4

MODEL	OVERALL DIMENSIONS mm	KNIFE RING DIAMETER mm	KNIVES No.	DIMENSION OF KNIVES mm	MAIN MOTOR kW	WEIGHT WITHOUT MAIN MOTOR kg
RSG 14.490-GT	2500 x 2850 x 2350	1400	48	490 x 90 x 4	250	8500
RSG 14.690-GT	2500 x 3200 x 2350	1400	48	690 x 90 x 4	315	10000

RSG 14.490-GT

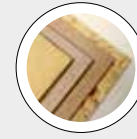


RSG 14.690-GT



PRODUCTION (kg at 1000/h)

SHARPENING ROOM

ASR**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB



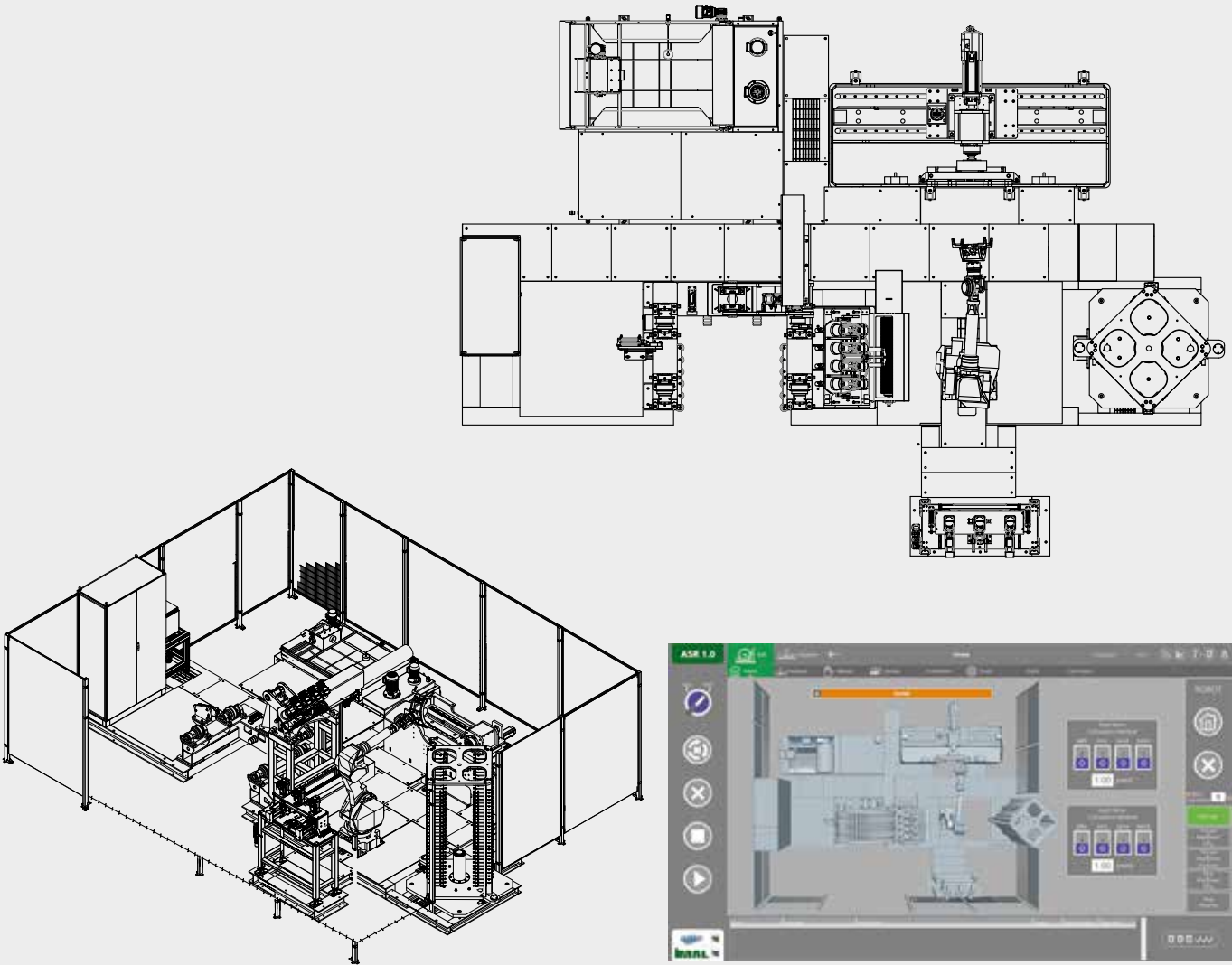
This innovative system, which has revolutionised the concept of knife sharpening, transforming knife sharpening into a fully automatic process that is closely monitored throughout all its various stages.

The system consists of a 6-axis robot, designed to carry out all the operations in a highly flexible manner and to handle an infinite number of sharpening programmes and work process variants. The process commences with a unit which sprays the knife ring automatically with moving jets of water, after which it is brushed and dried with compressed air.

The knife ring is then placed in a dedicated, fully enclosed area where all the operations are carried out in safety without the need of any operator.

Each knife is removed automatically and then checked by an optical scanning system to determine the relative profile and how much material needs to be sharpened away.

All the operations are handled automatically and details on knives and wear plates condition are used to optimize the flaker performances.

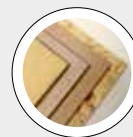


MODEL	OVERALL DIMENSIONS mm			
	Width	Length	Height	Area
ASR 490	8000	7000	2400	approx 60 m ²
ASR 690	8000	7000	2400	
ASR - Customized	***	***	***	

TECHNICAL DATA	
TIME	From 30 to 70 min
NUMBER OF WORK CYCLE	4
TYPE OF CYCLE	FULL CYCLE FROM STORE TO RING FROM SHARP TO STORE FROM STORE TO KNIVES SETTING
KNIFE SETTING	0.1 mm ±0.1
KNIFE SHARPENING RESOLUTION	0.01 mm ±0.02
TOTAL INSTALLED POWER	38 kW

***According to customer needs

KNIFE RING WASHER

WMG**BEST IN CLASS FOR:**

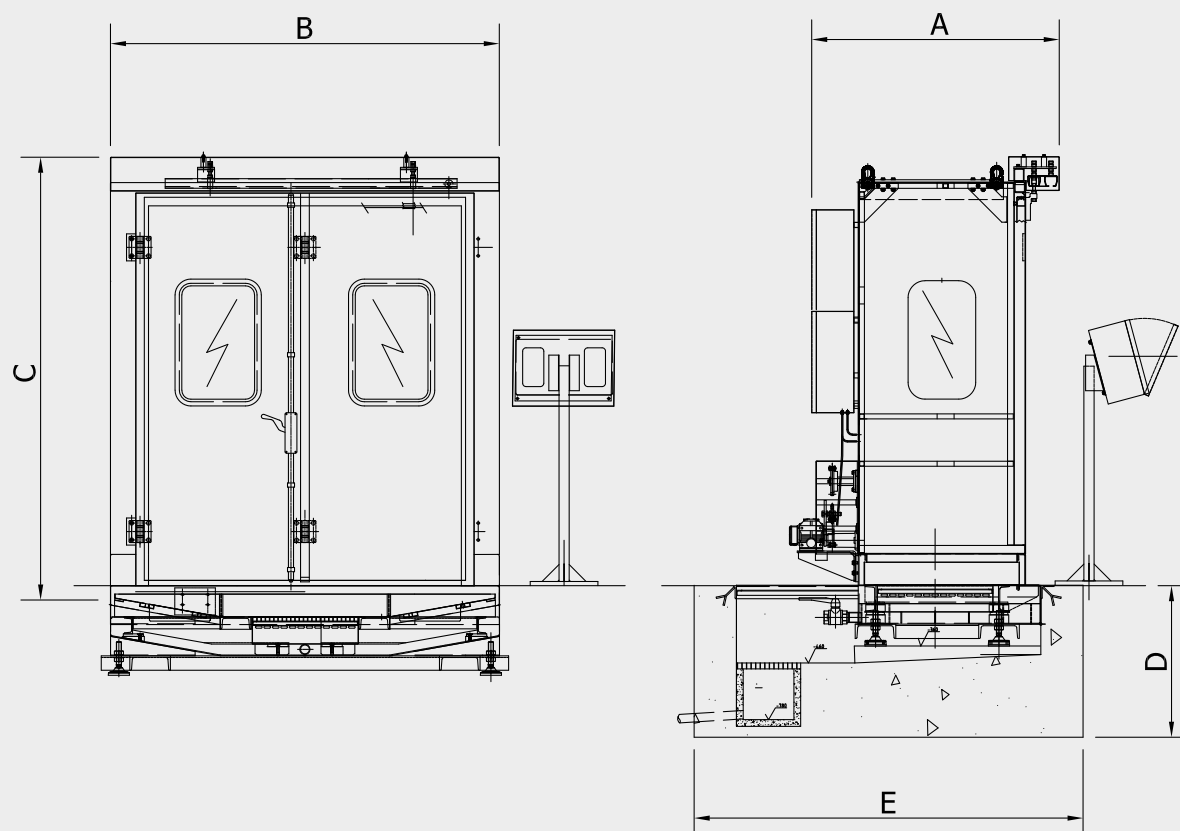
WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

TECHNICAL FEATURES AND BENEFITS

- Optimized nozzle set positioned in different area to clean with high efficiency the nuts, screw and holder
- Possibility to setup different cycle settings according to needs, from 5 min up to 120 min
- Different side spraying angle
- Complete machine prewired and pre-connected
- Control panel complete with a PLC system allowing the choice of different washing cycle.



MODEL	OVERALL DIMENSIONS mm				
	A	B	C	D	E
WMG 490	1250	2300	2700	900	2300
WMG 690	1450	2300	2700	900	2300
WMG - Customized	***	***	***	***	***

TECHNICAL DATA

CYCLE TIME	30 Min / 1 Ring
WATER REQUIREMENTS	2400 l/h
HIGH PRESSURE	160 bar
TOTAL INSTALLED POWER	18 kW

***According to customer needs

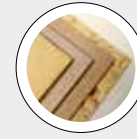
GRINDING MACHINES

SMG**TECHNICAL FEATURES**

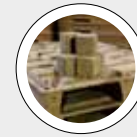
- Rigid electrowelded steel structure • Grinding wheel holding carriage running on friction-free slides • Adjustable carriage speed by electronic inverter
- Magnetic and/or mechanical clamping knife • Hydropneumatic brake
- Automatic system for grinding wheel replacement • Electronic thickness probing device • Plc, touch screen control, graphic colour display; 7" • Upon request the machine can be customized (i.e. presetting station for grinding and assembling).

BENEFITS

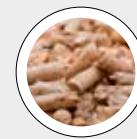
- Precision grinding machines for straight knives and flat surfaces • Comfortable access space to the grinding stone for a quick change • Quick stone-change system • High flexible-automation on the work cycle • It is possible to grind knives with different width • By using the presetting station there is no idle time during knives replacement.

BEST IN CLASS FOR:

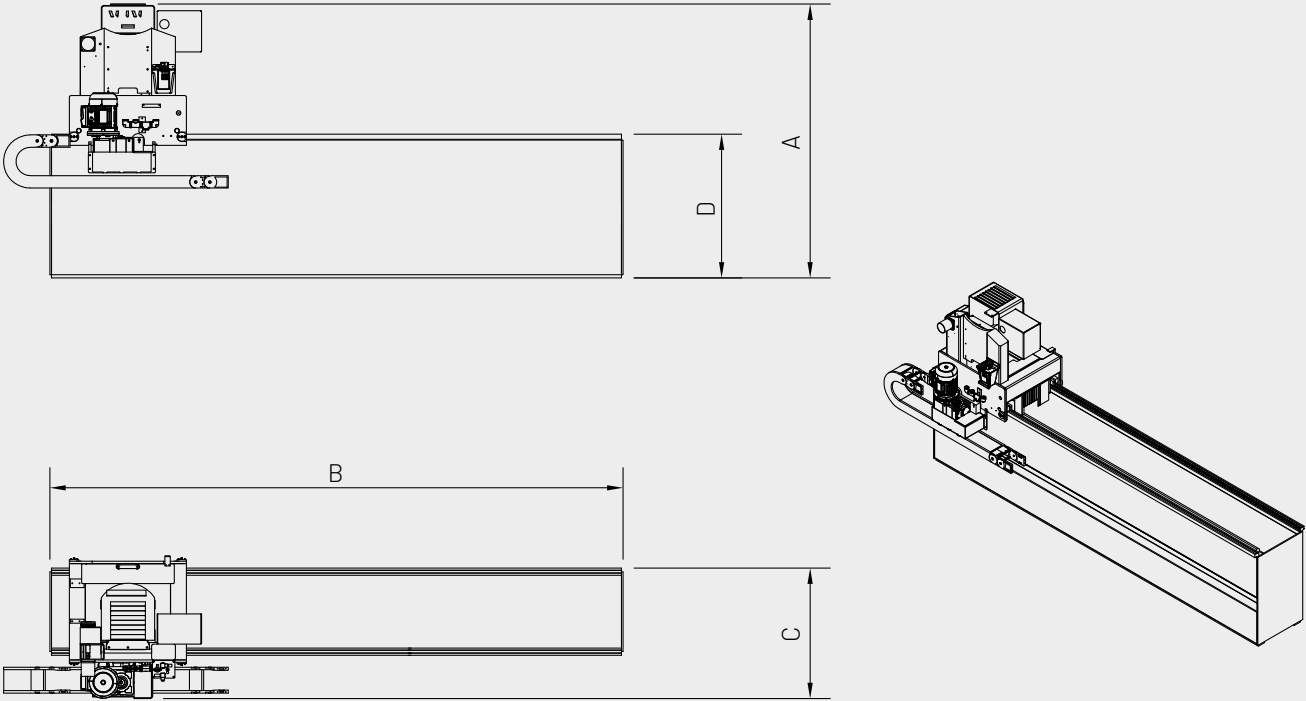
WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB



PRESSED WOOD PACKAGING:
PALLET BLOCKS
PRESSED PALLETS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D
SMG. 1200	1900	3600	550	1000
SMG. 1500	1900	3600	550	1000
SMG. 2100	1900	4800	550	1000
SMG. 2400	1900	4800	550	1000
SMG. 3100	1900	6000	550	1000
SMG. 3600	1900	6000	550	1000
SMG. 4100	1900	6000	550	1000
SMG. 4800	1900	7200	550	1000
SMG. 5200	1900	7600	550	1000
SMG. 6200	1900	8600	550	1000
SMG. 7200	1900	9600	550	1000

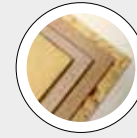
MODEL	GRINDING MOTOR POWER kW	FEED MOTOR POWER kW	COOLANT PUMP CAPACITY lt/min	WEIGHT Kg
SMG. 1200	10 ÷ 30	1	100	1500 ÷ 4800
SMG. 1500				
SMG. 2100				
SMG. 2400				
SMG. 3100				
SMG. 3600				
SMG. 4100				
SMG. 4800				
SMG. 5200				
SMG. 6200				
SMG. 7200				

DRY MILLS

CENTRIFUGAL MILLS – MSG



BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

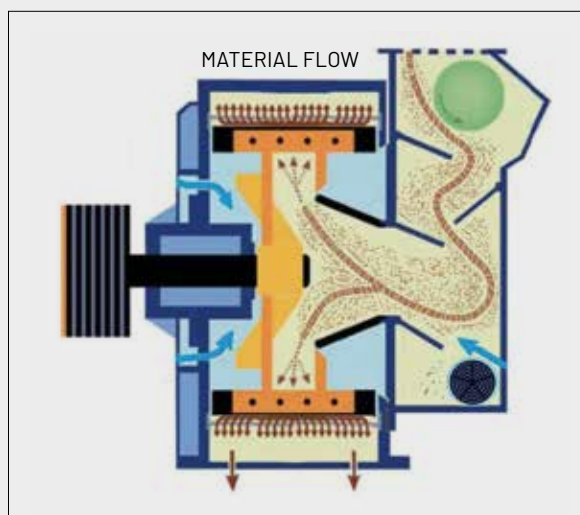
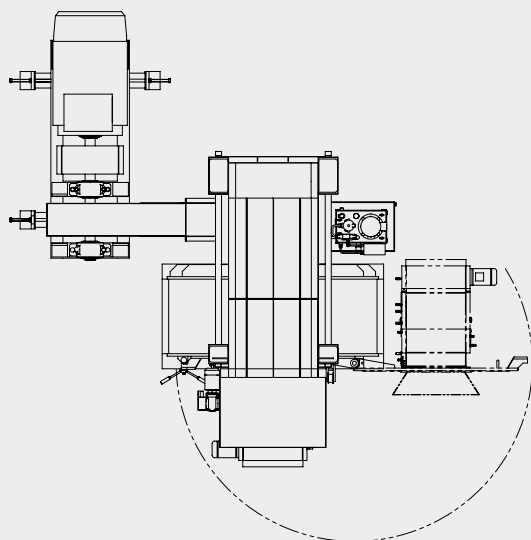
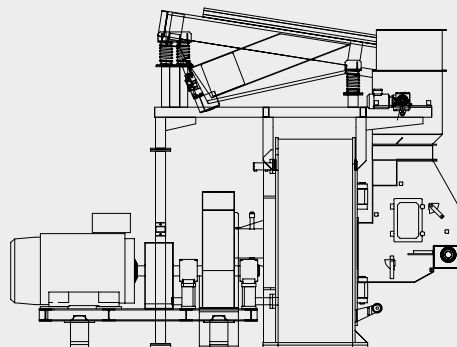
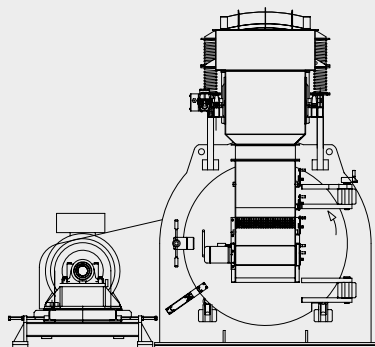
OSB/LSB/FOSB

TECHNICAL FEATURES

- Refining mills for dry flakes suitable to surfaces and core layers in particle-board production or multilayer LSB/OSB product
- Peculiarity of these Globus Mills for this specific application is the great advantage of being equipped with standard screen support ring for Conidur screen and with support ring for special "slotted hole" screen, which have four cutting edges
- The special design of the Mill, allows ring replacement in only 8 minutes time with a special hydraulic changing system
- Oil lubrication system for main bearings
- Feeding door provided with air cleaner to reject heavy pollutants.

BENEFITS

- Fast replacement of the ring screen grants the proper production of fine particles for the external layer according to the various boards thicknesses.



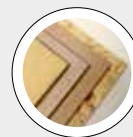
MODEL	ROTOR DIAMETER mm	GRINDING SECTORS WIDTH mm	SCREENS WIDTH mm	WEIGHT WITHOUT MAIN MOTOR kg	MAIN MOTOR kW
MSG 710	1400	265	2 x 210	4700	200/250
MSG 760	1500	288	2 X 223	5700	315/400

DRY MILLS

CENTRIFUGAL MILLS – MCG



BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

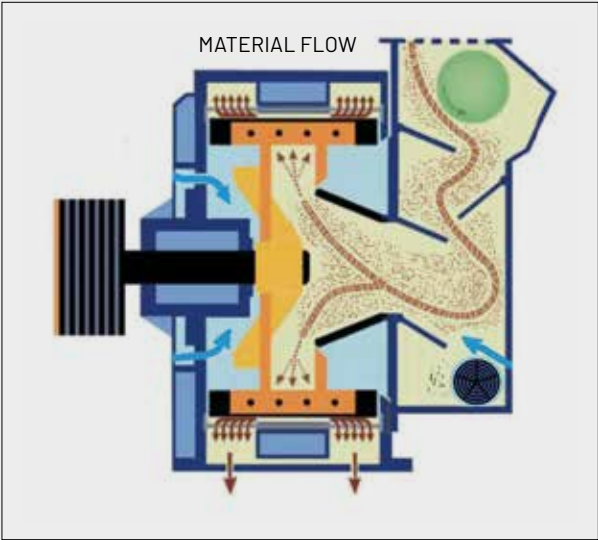
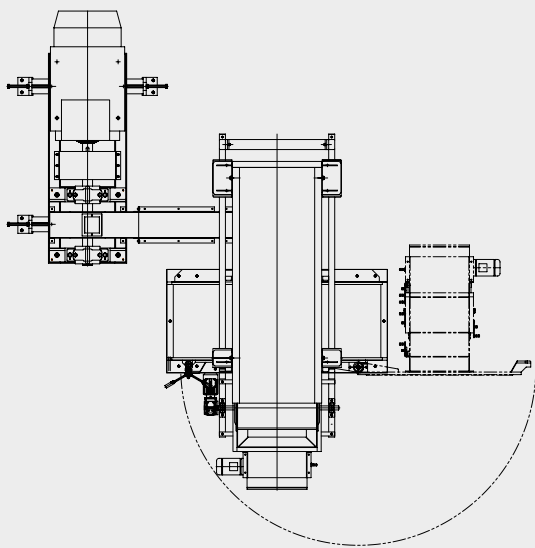
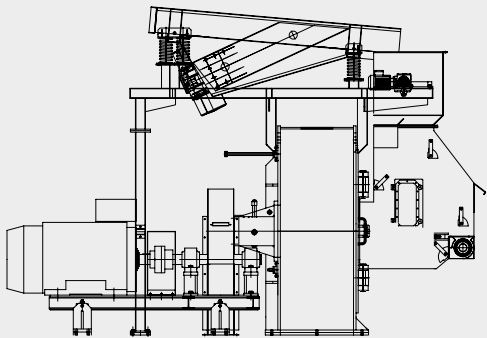
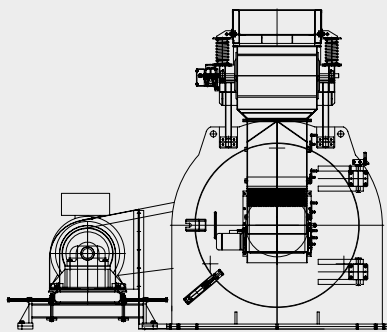
OSB/LSB/FOSB

TECHNICAL FEATURES

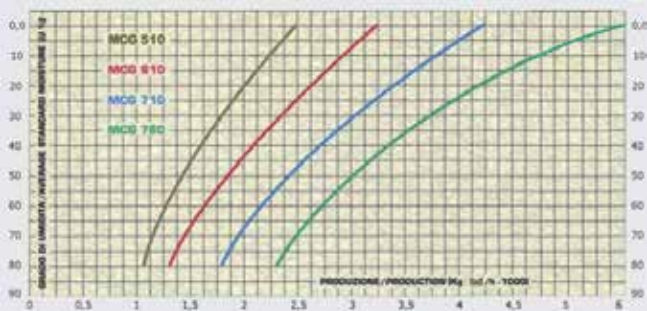
- Refining mills for dry flakes suitable for surfaces and core layers in particleboard production or multilayer LSB/OSB product
- Equipped with standard screen support ring for Conidur screen of various different hole according to the required particles
- Oil lubrication system for main bearings
- Feeding door provided with air cleaner to reject heavy pollutants.

BENEFITS


- Fast replacement of the ring screen
- Heavy-duty ring construction to avoid distortion and oval shaped
- Grinding track according to raw material.






MODEL	ROTOR DIAMETER mm	GRINDING SECTORS WIDTH mm	SCREENS WIDTH mm	WEIGHT WITHOUT MAIN MOTOR kg	RECOMMENDED MOTOR kW
MCG 510	1000	225	2 x 160	3000	132/160
MCG 610	1200	225	2 x 193	4000	160/200
MCG 710	1400	265	2 x 210	4700	200/250
MCG 760	1500	288	2 x 223	5700	250/315



Screens

		<div>WOOD BASED PANELS</div>					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
SCREENS VME-8	160	•	•	•			
SCREENS VME-16	161	•	•	•			
SUPERSCREEN 13-16	162	•	•	•			
SUPERSCREEN 21-26-32	163	•	•	•			
SUPERSCREEN 42-52-64	164	•	•	•			
MULTICROSS 41-52	165	•	•	•			
HYDROSTATIC SCREENS	166	•	•	•			

<div><div></div><div>PRESSED WOOD PACKAGING</div></div> <div><div>PALLET BLOCKS</div><div>PRESSED PALLETS</div><div>STRINGERS & BEAMS</div></div>				<div><div></div><div>PELLETS & ENERGY</div></div> <div><div>WOOD PELLETS AND BLACK PELLETS</div><div>GREEN FUELS AND BIOMASS</div><div>THERMAL AND ELECTRIC ENERGY</div><div>DRYING</div></div>				<div><div></div><div>WOOD RECYCLING AND WASTE TREATMENT</div></div> <div><div>WOOD RECYCLING</div><div>SLUDGE RECYCLING</div><div>PLASTIC RECYCLING</div><div>CUSTOMIZED SOLUTIONS FOR RECYCLING</div></div>			

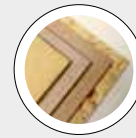
OSCILLATING SCREENS

SCREENS**TECHNICAL FEATURES**

- Robust and rigid supporting pyramids • High precision kinematics • Excellent elastic suspensions • High tech screening boxes assembled with high-quality materials and made with special tried and tested procedures • 1-2-4 Stage screens • 1-4 Screening decks per stage • 2-5 Fractions available • Stainless steel sieves and frames • Auto-cleaning system based on bouncing balls • Fire-extinguishing system • Explosion vents • Extensive eccentric oscillation • Perfect balancing!

BENEFITS

- Perfect-absolute classification of any fraction • Quick and easy replacement of the screening frames • Unbeatable performance, efficiency and reliability • 36 months mechanical warranty!

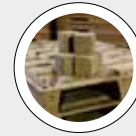
BEST IN CLASS FOR:

WOOD BASED PANELS:

MDF/HDF

PB/SPB

OSB/LSB/FOSB



PRESSED WOOD PACKAGING:

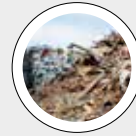
PALLET BLOCKS



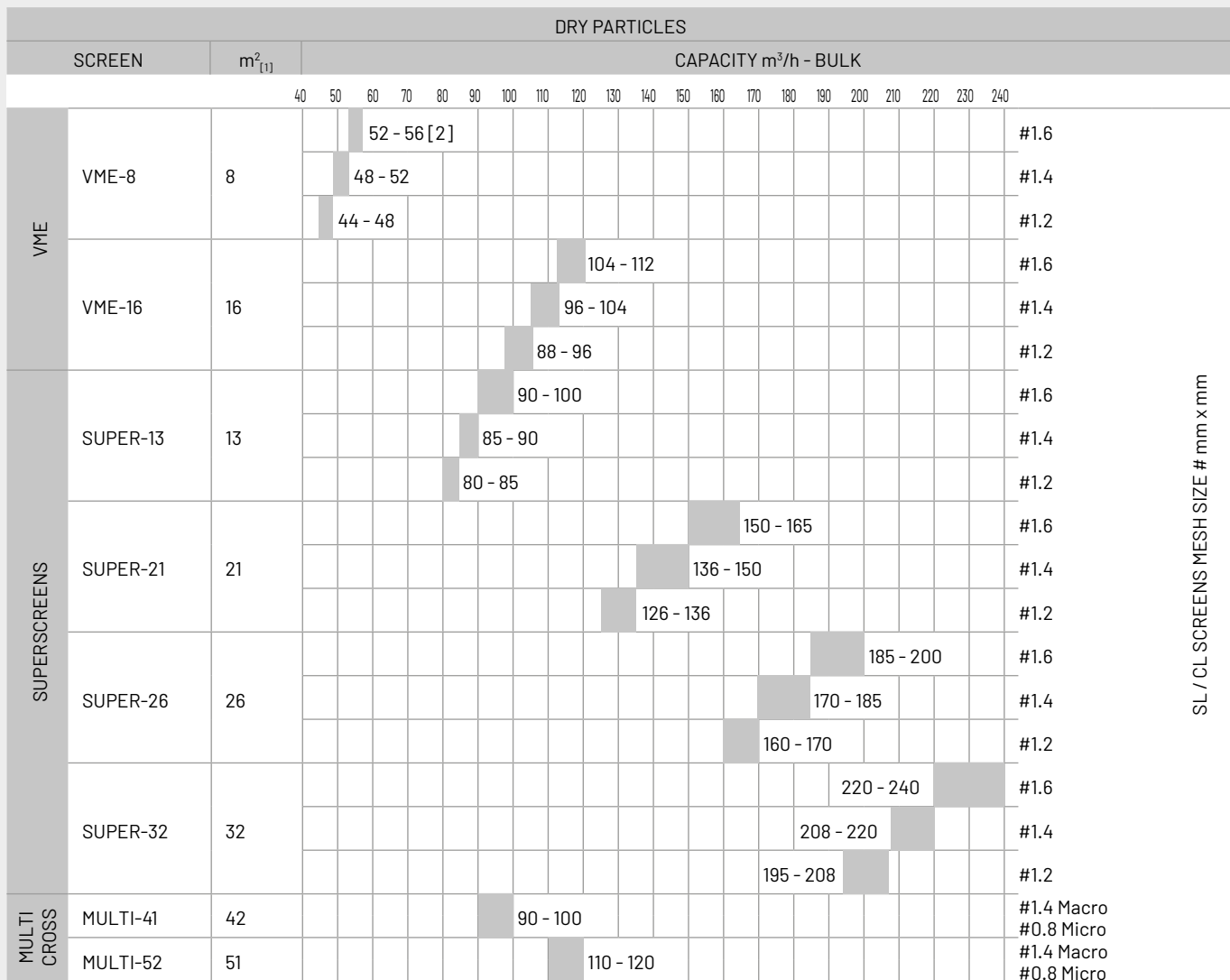
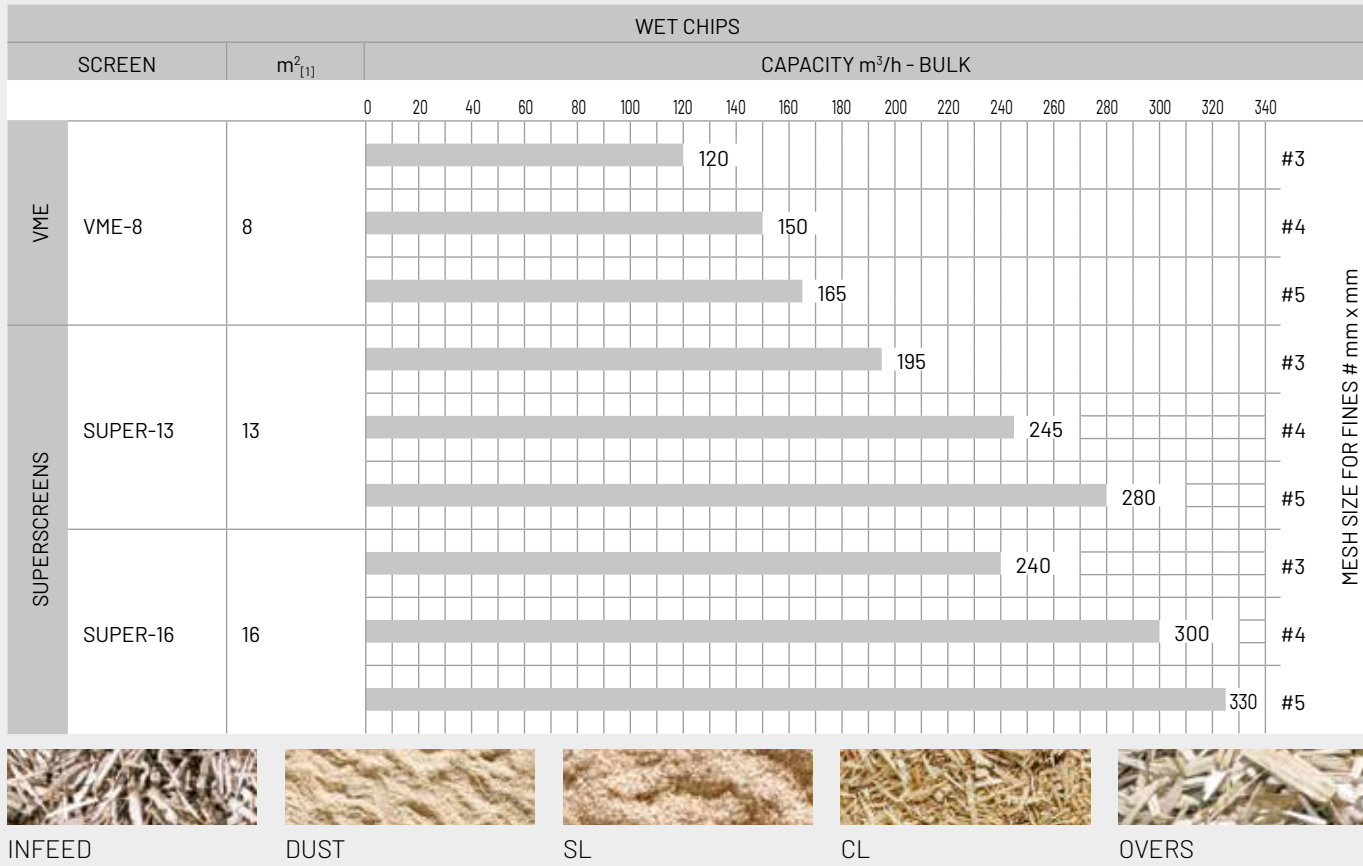
PELLETS & ENERGY:

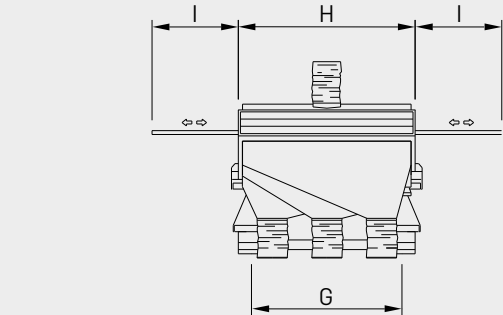
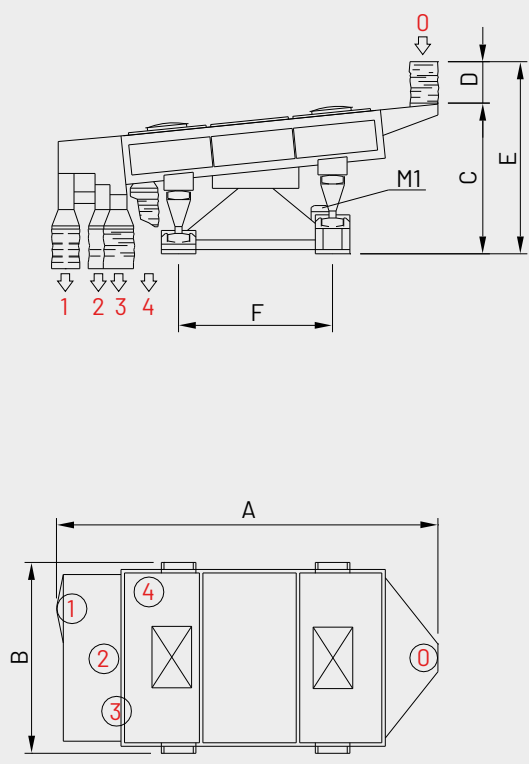
WOOD PELLETS AND
BLACK PELLETS

LIME

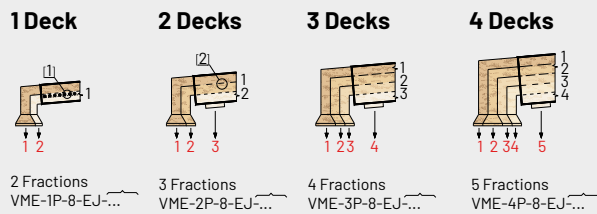
WOOD RECYCLING AND
WASTE TREATMENT:

WASTE

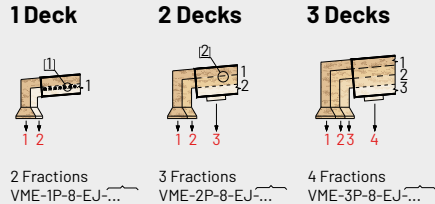




FOR DRY PARTICLES



FOR CHIPS

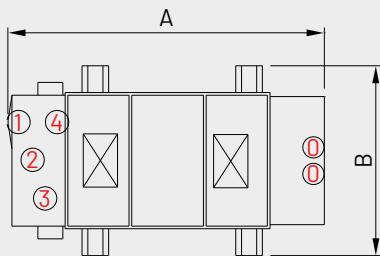
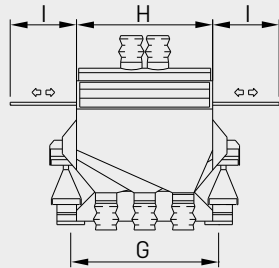
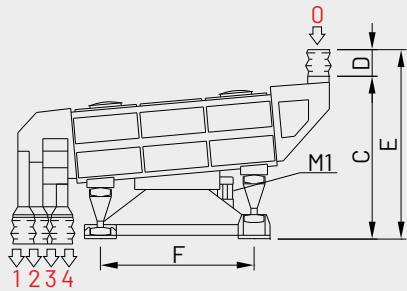


0 = FEEDING
1...4 = FRACTIONS
M1 = SCREENING
BOX MOVEMENT

[1] AC: Auto-cleaning ball-bouncing system for screens available for all decks
[2] A wide range of mesh sizes are available for any screening needs

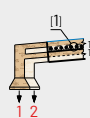
VME-8
1-STAGE SCREENS - 8 m² EACH DECK

MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	M1		
VME-1P-8-EJ	5105	2760	1990	600	2590	2230	2180	2560	1250	5,5		5000
VME-2P-8-EJ	5110	2760	2180	600	2780	2230	2180	2560	1250	5,5		5350
VME-2P-8-CHIPS-EJ	5240	2760	2120	600	2720	2230	2180	2560	1250	5,5		5350
VME-3P-8-EJ	5615	2760	2480	600	2080	2230	2180	2560	1250	5,5		6100
VME-4P-8-EJ	5565	2760	2496	600	3096	2230	2180	2560	1250	5,5		6150



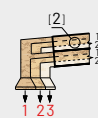
FOR DRY PARTICLES

1 Double Deck



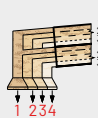
2 Fractions
VME-DP-1P-16-EJ-...

2 Double Decks



3 Fractions
VME-DP-2P-16-EJ-...

3 Double Decks



4 Fractions
VME-DP-3P-16-EJ-...

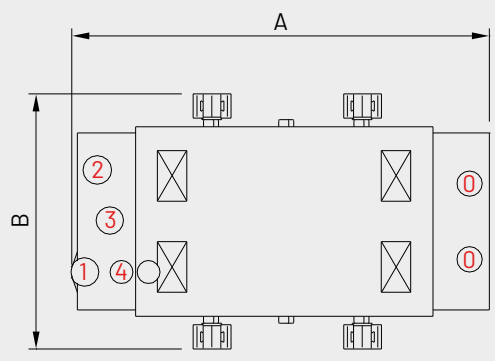
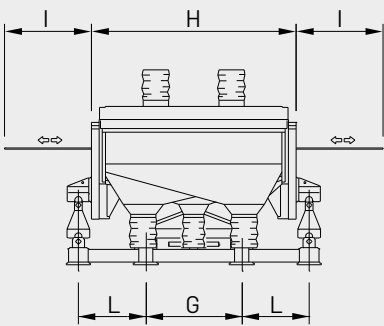
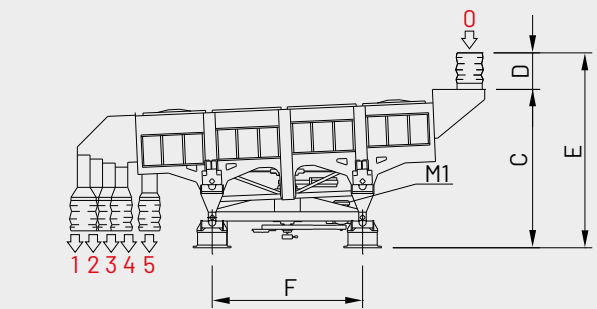
[1] AC: Auto-cleaning ball-bouncing system for screens available for all decks
[2] A wide range of mesh sizes are available for any screening needs

0 = FEEDING
1...4 = FRACTIONS
M1 = SCREENING
BOX MOVEMENT

VME-16

2-STAGE SCREENS - 16 m² EACH DOUBLE DECK

MODEL	OVERALL DIMENSIONS mm									INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	M1	
VME-DP-1P-16-EJ	5415	2760	2450	500	2950	2230	2180	2560	1250	5,5	6500
VME-DP-2P-16-EJ	5975	3570	2800	500	3300	2890	2780	2560	1250	7,5	10250
VME-DP-3P-16-EJ	5950	3570	3080	500	3580	2890	2780	2560	1250	7,5	11000

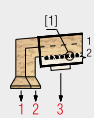


0 = FEEDING
1...5 = FRACTIONS

M1 = SCREENING
BOX MOVEMENT

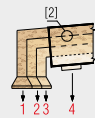
FOR DRY PARTICLES

2 Decks



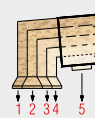
3 Fractions
SUPERSCREEN-2P-13-EJ-...

3 Decks



4 Fractions
SUPERSCREEN-3P-13-EJ-...

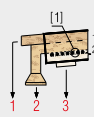
4 Decks



5 Fractions
SUPERSCREEN-4P-13-EJ-...

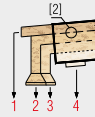
FOR CHIPS

2 Decks



3 Fractions
SUPERSCREEN-2P-13-EJ-...
SUPERSCREEN-2P-16-EJ-...

3 Decks



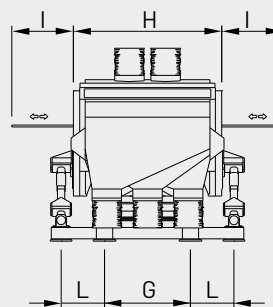
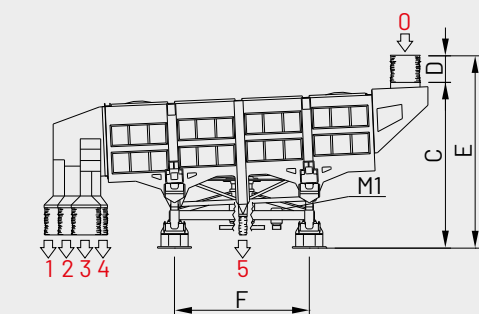
4 Fractions
SUPERSCREEN-3P-13-EJ-...
SUPERSCREEN-3P-16-EJ-...

[1] AC: Auto-cleaning ball-bouncing system for screens available for all decks
[2] A wide range of mesh sizes are available for any screening needs

SUPERSCREEN 13-16

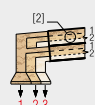
1-STAGE SCREENS - 13-16 m² EACH DECK

MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	L	M1	
SUPERSCREEN 2P-13-EJ	7645	4300	3255	600	3855	2980	1900	3000	1500	960	11	13500
SUPERSCREEN 2P-13-CHIPS-EJ	7977	4300	3255	600	3855	2980	1900	3000	1500	960	11	13500
SUPERSCREEN 3P-13-EJ	8270	4300	3255	600	3855	2980	1900	3000	1500	960	11	14000
SUPERSCREEN 4P-13-EJ	8730	4300	3255	600	3855	2980	1900	3000	1500	960	11	14500
SUPERSCREEN 2P-16-EJ	7760	5050	3255	600	3855	2980	1900	3750	1875	1335	15	16000
SUPERSCREEN 2P-16- CHIPS-EJ	8200	5050	3255	600	3855	2980	1900	3750	1875	1335	15	16000
SUPERSCREEN 3P-16-EJ	7870	5050	3255	600	3855	2980	1900	3750	1875	1335	15	17200
SUPERSCREEN 4P-16-EJ	8195	5050	3255	600	3855	2980	1900	3750	1875	1335	15	17800



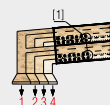
FOR DRY PARTICLES

2 Double Decks



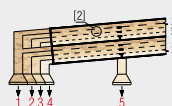
3 Fractions
 SUPERSCREEN-DP-2P-21-EJ-...
 SUPERSCREEN-DP-2P-26-EJ-...
 SUPERSCREEN-DP-2P-32-EJ-...

3 Double Decks



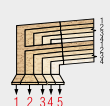
4 Fractions
 SUPERSCREEN-DP-3P-21-EJ-...
 SUPERSCREEN-DP-3P-26-EJ-...
 SUPERSCREEN-DP-3P-32-EJ-...

3 Double Decks



5 Fractions [option]
 SUPERSCREEN-DP-3P/5-21-EJ-...
 SUPERSCREEN-DP-3P/5-26-EJ-...
 SUPERSCREEN-DP-3P/5-32-EJ-...

4 Double Decks



5 Fractions
 SUPERSCREEN-DP-4P-26-EJ-...

0 = FEEDING
 1...5 = FRACTIONS

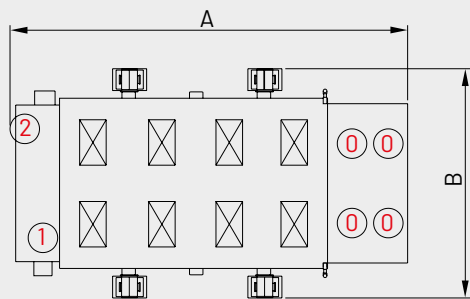
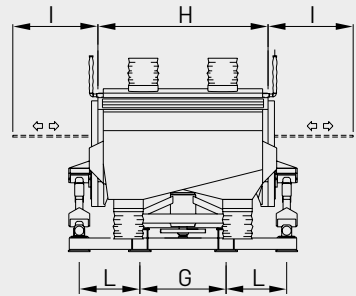
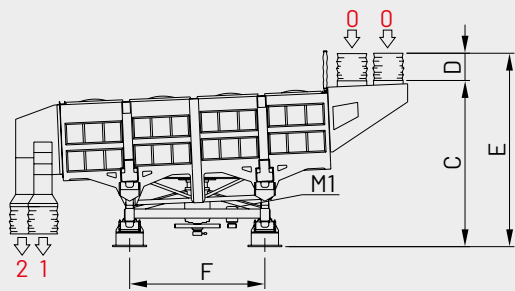
M1 = SCREENING
 BOX MOVEMENT

[1] AC: Auto-cleaning ball-bouncing system for screens available for all decks
 [2] A wide range of mesh sizes are available for any screening needs

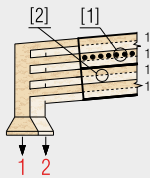
SUPERSCREEN 21-26-32

2-STAGE SCREENS - 21-26-32 m² EACH DOUBLE DECK

MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	L	M1	
SUPERSCREEN DP-2P-21-EJ	8440	3860	3660	600	4260	2980	1900	2560	1250	740	11,0	15000
SUPERSCREEN DP-3P-21-EJ	8485	3860	3660	600	4260	2980	1900	2560	1250	740	11,0	15300
SUPERSCREEN DP-3P/5-21-EJ	8485	3860	3660	600	4260	2980	1900	2560	1250	740	11,0	15300
SUPERSCREEN DP-2P-26-EJ	8440	4300	3660	600	4260	2980	1900	3000	1500	960	15,0	16600
SUPERSCREEN DP-3P-26-EJ	8520	4300	3660	600	4260	2980	1900	3000	1500	960	15,0	17100
SUPERSCREEN DP-3P/5-26-EJ	8520	4300	3660	600	4260	2980	1900	3000	1500	960	15,0	17600
SUPERSCREEN DP-4P-26-EJ	8620	4300	3780	600	4380	2980	1900	3000	1500	960	15,0	17600
SUPERSCREEN DP-2P-32-EJ	8450	5050	3660	600	4260	2980	1900	3750	1875	1335	18,5	17400
SUPERSCREEN DP-3P-32-EJ	8640	5050	3660	600	4260	2980	1900	3750	1875	1335	18,5	18000
SUPERSCREEN DP-3P/5-32-EJ	8640	5050	3660	600	4260	2980	1900	3750	1875	1335	18,5	18000



FOR DRY PARTICLES
1 Quadruple Deck



2 Fractions
SUPERSCREEN-DP/2-1P-64-EJ-...

0 = FEEDING
1...2 = FRACTIONS

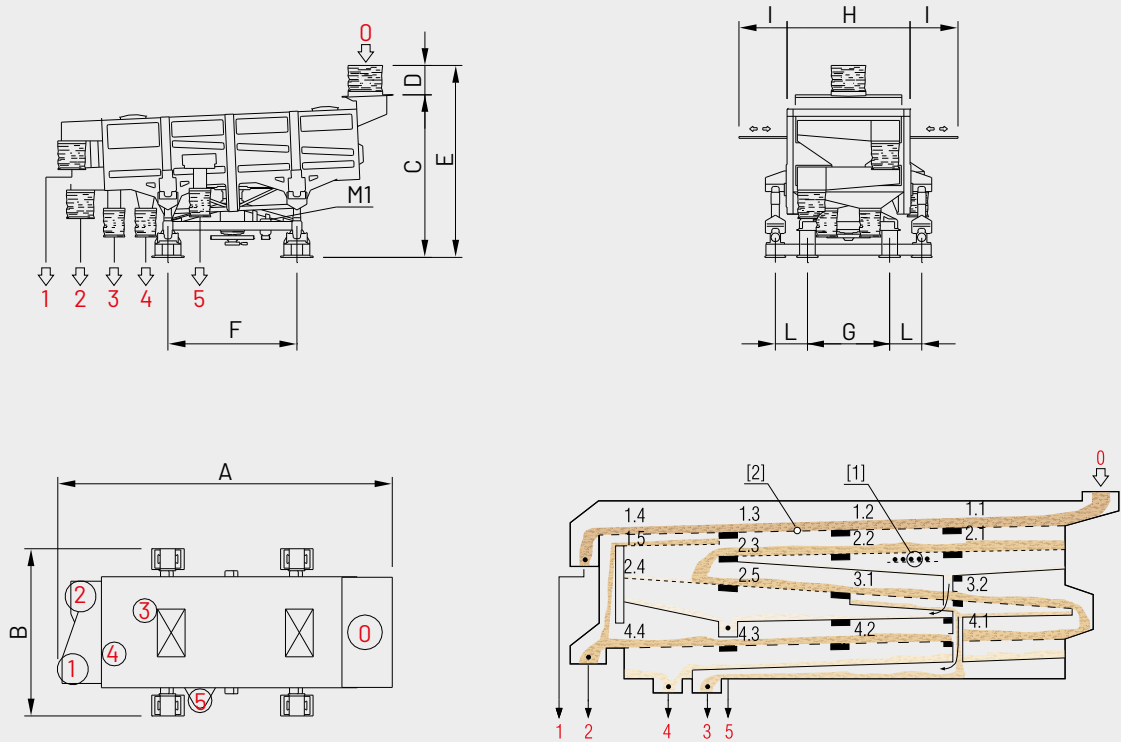
M1 = SCREENING
BOX MOVEMENT

[1] AC: Auto-cleaning ball-bouncing system for screens available for all decks
[2] A wide range of mesh sizes are available for any screening needs

SUPERSCREEN 42-52-64

4-STAGE SCREENS - 42-52-64 m² EACH QUADRUPL DECK

MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	L	M1	
SUPERSCREEN DP/2-1P-42-EJ	8610	3860	3660	600	4360	2980	1900	2560	1250	740	11,0	15700
SUPERSCREEN DP/2-1P-52-EJ	8610	4300	3660	600	4360	2980	1900	3000	1500	960	15,0	17600
SUPERSCREEN DP/2-1P-64-EJ	8760	5050	3660	600	4360	2980	1900	3750	1875	1335	18,5	17800



0 = FEEDING
1...5 = FRACTIONS

M1 = SCREENING
BOX MOVEMENT

[1] AC : Auto-cleaning ball-bouncing system for screens available for all decks
[2] A wide range of mesh sizes are available for any screening needs

MULTICROSS 41-52

ZIG-ZAG SCREENS - 41-52 m² SCREENING SURFACE

MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	WEIGHT APPROX. kg
	A	B	C	D	E	F	G	H	I	L	M1	
MULTICROSS 41-EJ	7730	3860	3830	600	4430	2980	1900	2560	1250	740	11	16600
MULTICROSS 52-EJ	7850	4300	3830	600	4430	3980	1900	3000	1500	960	15	17700

OSCILLATING SCREENS

HYDROSTATIC SCREENS

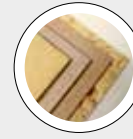
PATENTED

**TECHNICAL FEATURES**

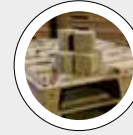
- Completely innovative, light and modular construction
- System of hydraulic suspension and low friction coefficient for the screen housing support
- Upper and lower balancers with rotating counterweight that provides the structure only with a rotating motion and eliminates any "pitching" problems
- Controlled and adjustable rotary movement of the screen housing
- The machine can have one or two screening stages, each containing up to 4 sieve lines
- From 2 to 5 fractions of sieved material are obtainable
- The sieves are made from stainless steel
- Flexible charging and discharging hoses on the storage hoppers for connection to the related conveyors outside the sieve
- In the sieve holder there are no fire and explosion ignition sources.

BENEFITS

- Unusual or special conveyors are not required
- The hydrostatic suspensions are more durable, efficient and cheaper than traditional systems with elastic parts
- Very low maintenance costs
- Minimum installed power loading
- Light foundations required
- Very high screening performance thanks to the high rotation speed
- Simple and rapid replacement of sieves.

BEST IN CLASS FOR:

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



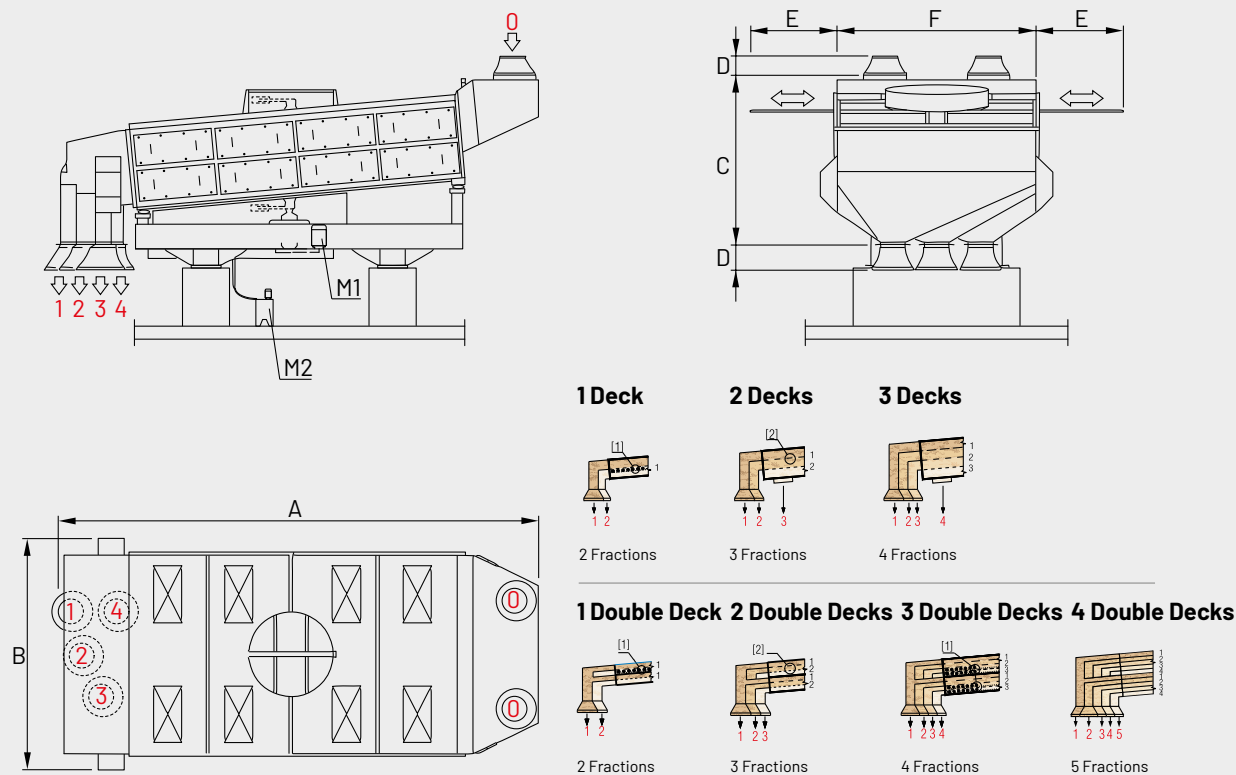
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



0 = FEEDING

M1 = SCREEN ELECTRIC MOTOR


1...4 = FRACTIONS

M2 = HYDROSTATIC SUSPENSIONS POWER PACK

MODEL standard types	NET SCREENING SURFACE FOR EACH FRACTION m ²	CAPACITY for screens mesh size		
		1,2x1,2 mm (m ³ /h)	1,4x1,4 mm (m ³ /h)	1,6x1,6 mm (m ³ /h)
HD 5	5	27,5 - 30	30 - 32,5	32,5 - 35
HD 8	8	44 - 48	48 - 52	52 - 56
HD 16	16	88 - 96	96 - 104	104 - 112
HD 21	21	126 - 136	136 - 150	150 - 165
HD 26	26	160 - 170	170 - 185	185 - 200
HD 32	32	195 - 208	208 - 220	220 - 240

MODEL	STAGE OF SIEVING Nr.	FRACTIONS AVAILABLE Nr.	OVERALL DIMENSIONS mm						INSTALLED POWER kW		WEIGHT APPROX kg
			A	B	C	D	E	F	M1	M2	
HD 5	1	2 - 3	4800	2100	1480	300	1350	2000	1,5	-	2800
HD 8		2 - 4	6000	2800	2060	300	1300	2700	2,2	0,18	4000
HD 13		2 - 4	7770	3700	2100	300	1550	3165	4	0,18	5500
HD 16		2 - 3	7770	4450	2100	300	1900	3915	4	0,18	8500
HD 16	2	2 - 4	6550	3260	2550	300	1300	2725	4	0,18	8500
HD 21		2 - 4 5=SPECIAL	7770	3260	2700	300	1300	2725	5,5	0,18	9500
HD 26		2 - 4 5=SPECIAL	7770	3700	2700	300	1550	3165	7,5	0,18	10900
HD 32		3 - 4	7770	4450	2700	300	1900	3915	7,5	0,18	12000

Air Sifters

		<div><div></div><div>WOOD BASED PANELS</div></div>					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
AIRGRADER – SINGLE MACHINES	170	•	•				
AIRGRADER – DOUBLE MACHINES	172	•	•				
WIND SIFTER – SINGLE MACHINES	174	•	•				
WIND SIFTER – DOUBLE MACHINE	176	•	•				

AIRGRADER SINGLE MACHINES



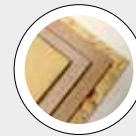
TECHNICAL FEATURES

• Classifying chamber complete with: infeed system (from model 3.1M) – inclined fluidizing screen – zigzag channels – suction hopper connected to the cyclone – outfeed device for rejected particles – discharge system for heavy pollutants • Fan • Cyclone for accepted particles • AF – Fire extinguishing system • AE – Explosion protection system.

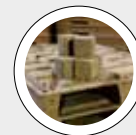
BENEFITS

• High efficiency in classification • The turbulence generated by the zigzag channels ensures the thick-large (jumbo) particles to drop (that are improperly sucked and classified as accepts by other selectors) • Selection limit freely adjustable • Excellent removal of heavy pollutants • Highly reliable • Low maintenance.

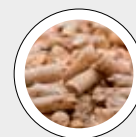
BEST IN CLASS FOR:



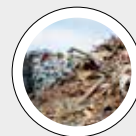
WOOD BASED PANELS:
MDF/HDF
PB/SPB



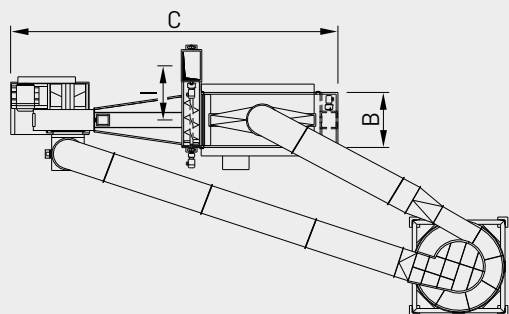
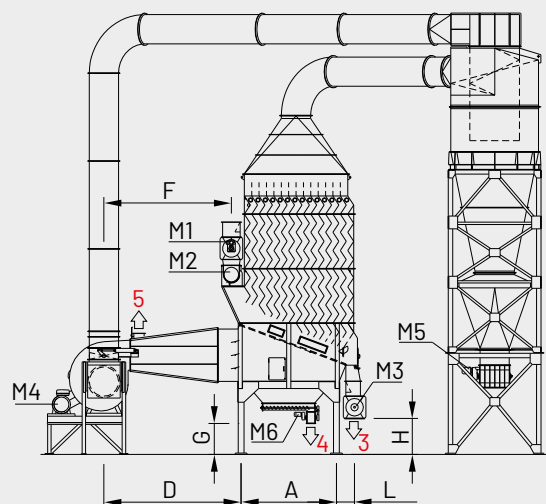
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME

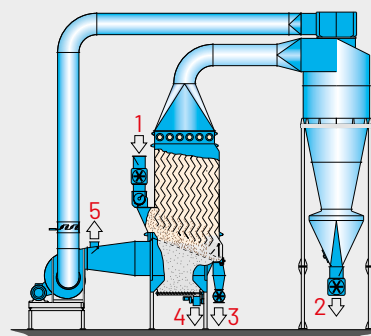
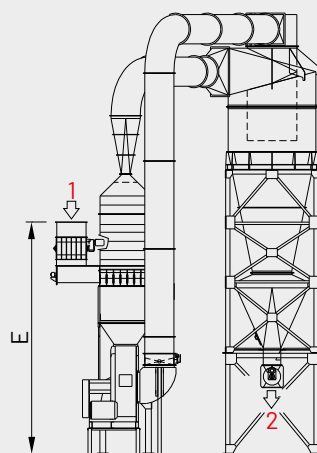


WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED PARTICLES
2 = ACCEPTS, CLEANED THIN PARTICLES
3 = REJECTS, THICK PARTICLES
4 = SAND / HEAVY POLLUTANTS
5 = EXHAUST AIR

M1 = FEEDING SCREW
M2 = ROTARY VALVE IN
M3 = ROTARY VALVE
REJECT EXTRACTION



M4 = FAN DRIVE
M5 = ROTARY VALVE OUT
M6 = ROTARY VALVE SAND EXTRACTION



2



3



4

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
1,6 M	1730	806	7398	3200	5850	2949	1000	1382	-	550
2,0 M	2260	806	8098	3350	6934	3010	1200	1315	-	570
2,5 M	2290	1006	8046	3351	6934	3011	1200	1220	-	540
3,1 M	2200	1256	8455	3552	7739	3007	1200	1365	1622	600
3,5 M	2200	1406	8785	3650	7714	3180	1200	1380	1368	600
4,0 M	2450	1556	9087	3700	7644	3237	1200	1361	1372	602
4,5 M	2450	1626	9267	3800	7672	3305	1200	1361	1487	602
5,3 M	3258	1506	10043	3743	8217	3258	1200	1426	1457	570
6,2 M	3258	1756	10043	3800	8172	3265	1200	1326	1922	570
7,5 M	3258	2106	10084	3791	8172	3265	1134	1200	1774	575
8,3 M	3717	2166	10548	3889	8507	3304	1200	1643	1775	616
9,0 M	3717	2260	10548	3800	8507	3265	1200	1622	1775	616
10,0 M	3763	2620	12155	4765	8694	4185	1007	1326	2477	570
12,5 M	3763	3220	12155	12155	9453	4190	1020	1330	2777	664
15,0 M	3763	3720	12155	12155	9453	4190	1020	1330	3277	664

Cyclone and pipe have to be sized and located according to the process data for processed material and outfeed position

MODEL	CAPACITY t/h		INSTALLED POWER kW						EXHAUST AIR m ³ /h	WEIGHT* APPROX. kg
	SAWDUST/SHAVINGS	OVERSIZE DRY PARTICLES	M1	M2	M3	M4	M5	M6		
1,6 M	5,8	5,8	-	1,5	1,5	Information available according to processed material and cyclone distance.	1,5	0,75	Information available according to processed material.	7500
2,0 M	7,2	7,2	-	1,5	1,5		1,5	0,75		8000
2,5 M	9,0	9,0	-	3,0	1,5		3,0	0,75		9000
3,1 M	11,2	11,2	3,0	4,0	1,5		4,0	0,75		10000
3,5 M	12,6	12,6	4,0	4,0	1,5		4,0	0,75		10500
4,0 M	14,4	14,4	4,0	4,0	1,5		4,0	0,75		11500
4,5 M	16,2	16,2	4,0	4,0	1,5		4,0	0,75		13000
5,3 M	19,1	19,1	7,5	5,5	1,5		5,5	0,75		14000
6,2 M	22,3	22,3	7,5	5,5	3,0		5,5	0,75		15000
7,5 M	27,0	27,0	7,5	5,5	3,0		5,5	0,75		16000
8,3 M	29,9	29,9	9,2	5,5	3,0		5,5	0,75		16700
9,0 M	32,4	32,4	9,2	5,5	3,0		5,5	0,75		18100
10,0 M	36,0	36,0	9,2	5,5	3,0		5,5	0,75		19200
12,5 M	45	45	9,2	5,5	3,0		5,5	0,75		21700
15,0 M	45	45	9,2	5,5	3,0		5,5	0,75		24700

*Weight without piping and cyclone

AIRGRADER DOUBLE MACHINES



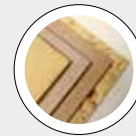
TECHNICAL FEATURES

- Classifying chamber complete with: infeed system – inclined fluidizing screen – zigzag channels – suction hopper connected to the cyclone – outfeed device for rejected particles – discharge system for heavy pollutants • Fan
- Cyclone for accepted particles • AF – Fire extinguishing system • AE – Explosion protection system.

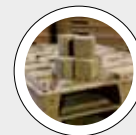
BENEFITS

- High efficiency in classification • The turbulence generated by the zigzag channels ensures the thick-large (jumbo) particles to drop (that are improperly sucked and classified as accepts by other selectors) • Selection limit freely adjustable • Excellent removal of heavy pollutants • Highly reliable • Low maintenance.

BEST IN CLASS FOR:



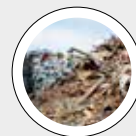
WOOD BASED PANELS:
MDF/HDF
PB/SPB



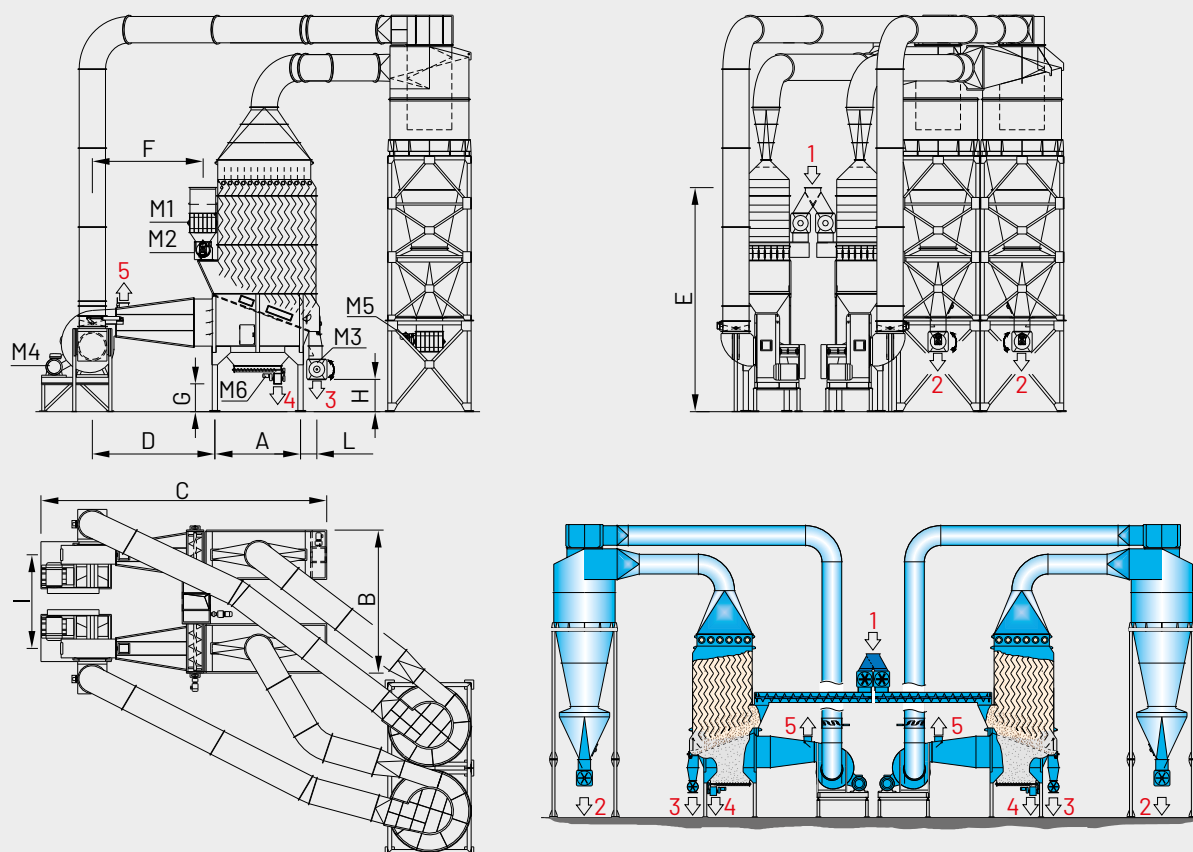
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED PARTICLES
 2 = ACCEPTS, CLEANED THIN PARTICLES
 3 = REJECTS, THICK PARTICLES
 4 = SAND / HEAVY POLLUTANTS
 5 = EXHAUST AIR

M1 = FEEDING SCREW
 M2 = ROTARY VALVE IN
 M3 = ROTARY VALVE
 REJECT EXTRACTION

M4 = FAN DRIVE
 M5 = ROTARY VALVE OUT
 M6 = ROTARY VALVE SAND EXTRACTION



2



3



4

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
10,6 M	3258	4900	10043	3800	8697	3315	1200	1426	3394	570
12,4 M	3258	5400	10043	3800	3265	3265	1200	1326	3644	570
15,0 M	3258	6100	9986	3800	8796	3265	1200	1226	3994	570
16,6 M	3763	6210	10455	3847	9032	3304	1200	1643	4104	570
18,0 M	3717	6760	10548	3800	9185	3265	1200	1622	4500	616
20,0 M	3763	8100	12155	4765	8694	4185	1007	1326	5400	570

Cyclone and pipe have to be sized and located according to the process data for processed material and outfeed position

MODEL	CAPACITY t/h		INSTALLED POWER kW						EXHAUST AIR m³/h	WEIGHT* APPROX. kg
	SAWDUST/SHAVINGS	OVERSIZE DRY PARTICLES	M1	M2	M3	M4	M5	M6		
10,6 M	38,2	38,2	2 x 5,5	2 x 7,5	2 x 1,5	Information available according to processed material and cyclone distance.	2 x 5,5	2 x 0,75	Information available according to processed material.	28000
12,4 M	44,6	44,6	2 x 5,5	2 x 7,5	2 x 3,0		2 x 5,5	2 x 0,75		30000
15,0 M	54,0	54,0	2 x 5,5	2 x 7,5	2 x 3,0		2 x 5,5	2 x 0,75		32000
16,6 M	59,8	59,8	2 x 5,5	2 x 9,2	2 x 3,0		2 x 5,5	2 x 0,75		33400
18,0 M	64,8	64,8	2 x 5,5	2 x 9,2	2 x 3,0		2 x 5,5	2 x 0,75		36200
20,0 M	72,0	72,0	2 x 5,5	2 x 9,2	2 x 3,0		2 x 5,5	2 x 0,75		38400

*Weight without piping and cyclone

WIND SIFTER SINGLE MACHINES



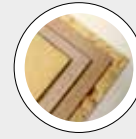
TECHNICAL FEATURES

• Classifying chamber complete with: infeed system (from model 3.1) – horizontal fluidizing screen – comb system for moving thick particles and improving separation of heavy pollutants – zigzag channels – suction hopper connected to the cyclone – outfeed device for rejected particles – discharge system for heavy pollutants • Fan • Cyclone for accepted particles • AF – Fire extinguishing system • AE – Explosion protection system.

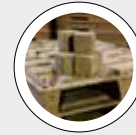
BENEFITS

• High efficiency in classification • The turbulence generated by the zigzag channels ensures the thick-large (jumbo) particles to drop (that are improperly sucked and classified as accepts by other selectors) • Selection limit freely adjustable • Unbeatable removal of heavy pollutants • Highly reliable • Low maintenance.

BEST IN CLASS FOR:



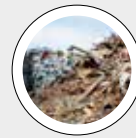
WOOD BASED PANELS:
MDF/HDF
PB/SPB



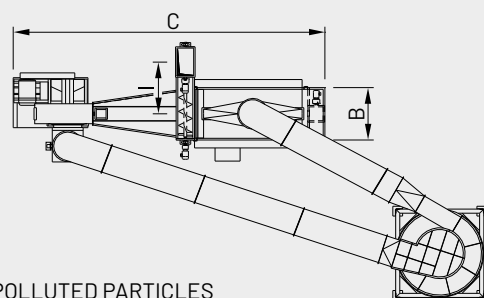
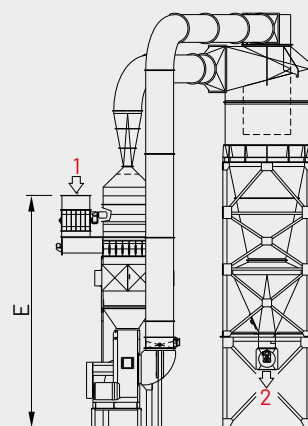
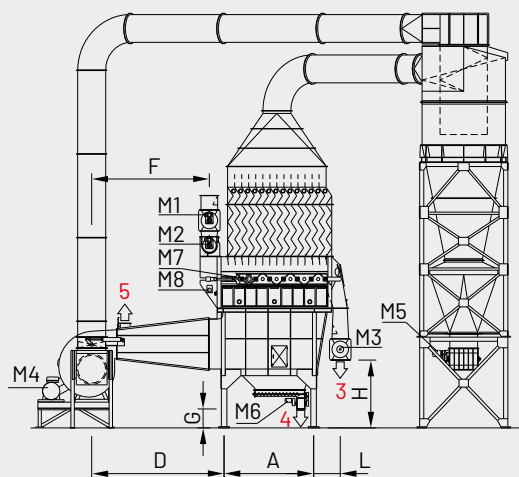
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME

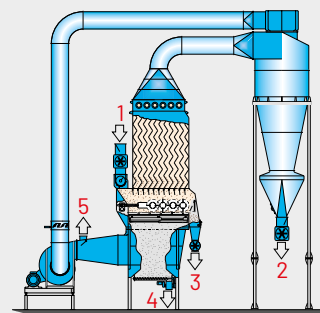


WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED PARTICLES
2 = ACCEPTS, CLEANED THIN PARTICLES
3 = REJECTS, THICK PARTICLES
4 = SAND / HEAVY POLLUTANTS
5 = EXHAUST AIR
M1 = FEEDING SCREW

M2 = ROTARY VALVE IN
M3 = ROTARY VALVE
REJECT EXTRACTION
M4 = FAN DRIVE



M5 = ROTARY VALVE OUT
M6 = ROTARY VALVE SAND EXTRACTION
M7 = COMBS ROTATION
M8 = COMBS OSCILLATOR



2

3

4

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
WS.1,6	1940	806	8085	3161	7328	2911	1200	2650	-	877
WS.2,0	2290	806	8439	3161	7569	2811	1200	2650	-	877
WS.2,5	2290	1006	8439	3161	7564	2811	1200	2650	-	877
WS.3,1	2250	1256	8796	3350	8234	2910	1200	2660	1622	897
WS.3,5	2250	1406	8839	3450	8234	2980	1200	2500	1368	897
WS.4,0	2450	1456	9098	3450	8355	3007	1200	2600	1372	956
WS.4,5	2450	1626	9288	3550	8383	3082	1200	2600	1487	956
WS.5,3	3212	1506	10049	3550	9023	3023	1200	2800	1547	955
WS.6,2	3212	1756	10049	6550	8978	2973	1200	2600	1922	955
WS.7,5	3212	2106	10554	3550	9070	2965	1200	2800	1775	955
WS.8,3	3717	2260	11150	4070	9215	3485	1200	2600	2150	955
WS.9,0	3717	2260	11150	4070	9215	3485	1200	2600	2150	955
WS.10,0	3717	2500	12249	4515	9450	3931	1047	2500	2477	960
WS.12,5	3717	3100	12249	4515	9450	3960	1047	2500	2477	960

Cyclone and pipe have to be sized and located according to the process data for processed material and outfeed position

MODEL	CAPACITY t/h				INSTALLED POWER kW								EXHAUST AIR m³/h	WEIGHT* APPROX. kg
	S.L. DRY	C.L. DRY	OVERSIZE DRY	RECY MIX	M1	M2	M3	M4	M5	M6	M7	M8		
WS.1,6	2,9	4,8	5,8	5,6	-	3,0	1,5	Information available according to processed material and cyclone distance.	3,0	-	1,5	-	Information available according to processed material.	6000
WS.2,0	3,6	6,0	7,2	7,0	-	3,0	1,5		3,0	0,75	1,5	-		7550
WS.2,5	4,5	7,5	9,0	8,8	-	3,0	1,5		3,0	0,75	1,5	-		9000
WS.3,1	5,6	9,3	11,2	10,9	4,0	3,0	3,0		3,0	0,75	1,5	-		10500
WS.3,5	6,3	10,5	12,6	12,3	4,0	4,0	3,0		4,0	0,75	1,5	-		11000
WS.4,0	7,2	12,0	14,4	14,0	4,0	4,0	3,0		4,0	0,75	2,2	0,55		12000
WS.4,5	8,1	13,5	16,2	15,8	4,0	4,0	3,0		4,0	0,75	2,2	0,55		12500
WS.5,3	9,5	15,9	19,1	18,6	4,0	4,0	3,0		4,0	0,75	2,2	0,55		13000
WS.6,2	11,2	18,6	22,3	21,7	7,5	5,5	3,0		5,5	0,75	2,2	0,55		14000
WS.7,5	13,5	22,5	27,0	26,3	7,5	5,5	4,0		5,5	0,75	2,2	0,55		14500
WS.8,3	14,9	24,9	29,9	29,1	7,5	5,5	4,0		5,5	0,75	2,2	0,55		15000
WS.9,0	16,2	27,0	32,4	31,5	7,5	5,5	4,0		5,5	0,75	2,2	0,55		15800
WS.10,0	18,0	30,0	36,0	35,0	9,2	5,5	4,0		5,5	0,75	4,0	0,75		20000
WS.12,5	22,5	37,5	45	43,7	9,2	5,5	4		5,5	0,75	4	0,75		25500

*Weight without piping and cyclone

WIND SIFTER DOUBLE MACHINES



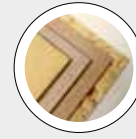
TECHNICAL FEATURES

- Classifying chamber complete with: infeed system – horizontal fluidizing screen – comb system for moving thick particles and improving separation of heavy pollutants – zigzag channels – suction hopper connected to the cyclone – outfeed device for rejected particles – discharge system for heavy pollutants
- Fan
- Cyclone for accepted particles
- AF – Fire extinguishing system
- AE – Explosion protection system.

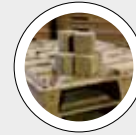
BENEFITS

- High efficiency in classification
- The turbulence generated by the zigzag channels ensures the thick-large (jumbo) particles to drop (that are improperly sucked and classified as accepts by other selectors)
- Selection limit freely adjustable
- Unbeatable removal of heavy pollutants
- Highly reliable
- Low maintenance.

BEST IN CLASS FOR:



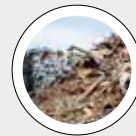
WOOD BASED PANELS:
MDF/HDF
PB/SPB



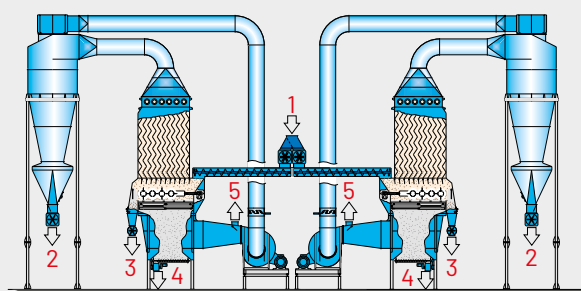
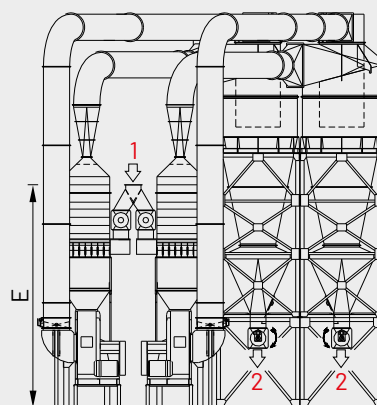
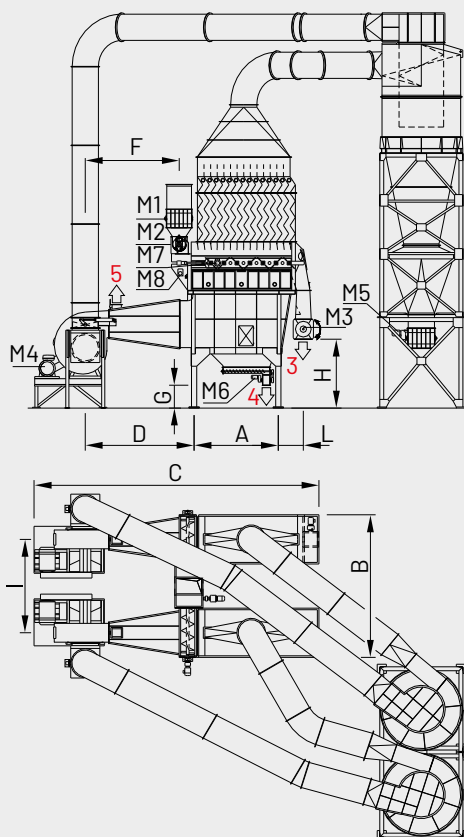
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = POLLUTED PARTICLES
2 = ACCEPTS, CLEANED THIN PARTICLES
3 = REJECTS, THICK PARTICLES
4 = SAND / HEAVY POLLUTANTS
5 = EXHAUST AIR
M1 = FEEDING SCREW

M2 = ROTARY VALVE IN
M3 = ROTARY VALVE
REJECT EXTRACTION
M4 = FAN DRIVE

M5 = ROTARY VALVE OUT
M6 = ROTARY VALVE SAND EXTRACTION
M7 = COMBS ROTATION
M8 = COMBS OSCILLATOR



2



3



4

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
WS.10,6	3212	4900	10049	3550	9503	3023	1200	2800	3394	955
WS.12,4	3212	5400	10049	3550	9609	2973	1200	2600	3644	955
WS.15,0	3212	6100	10074	3550	9070	2973	1200	2800	3994	955
WS.16,6	3717	6210	10554	3598	9595	3013	1200	2800	4104	955
WS.18,0	3717	6520	11150	4070	9748	3485	1200	2600	4260	955
WS.20,0	3717	8100	12249	4515	9450	2931	1047	2500	5400	960

Cyclone and pipe have to be sized and located according to the process data for processed material and outfeed position

MODEL	CAPACITY t/h				INSTALLED POWER kW								EXHAUST AIR m³/h	WEIGHT* APPROX. kg
	S.L. DRY	C.L. DRY	OVERSIZE DRY	RECY MIX	M1	M2	M3	M4	M5	M6	M7	M8		
WS.10,6	19,1	31,8	38,2	37,1	2 x 4,0	2 x 4,0	2 x 3,0	Information available according to processed material and cyclone distance.	2 x 4,0	2 x 0,75	2 x 2,2	2 x 0,55	Information available according to processed material.	26000
WS.12,4	22,3	37,2	44,6	43,4	2 x 5,5	2 x 7,5	2 x 3,0		2 x 5,5	2 x 0,75	2 x 2,2	2 x 0,55		28000
WS.15,0	27,0	45,0	54,0	52,5	2 x 5,5	2 x 7,5	2 x 4,0		2 x 5,5	2 x 0,75	2 x 2,2	2 x 0,55		29000
WS.16,6	29,9	49,8	59,8	58,1	2 x 5,5	2 x 7,5	2 x 4,0		2 x 5,5	2 x 0,75	2 x 2,2	2 x 0,55		30000
WS.18,0	32,4	54,0	64,8	63,0	2 x 5,5	2 x 7,5	2 x 4,0		2 x 5,5	2 x 0,75	2 x 2,2	2 x 0,55		31600
WS.20,0	36,0	60,0	72,0	70,0	2 x 5,5	2 x 9,2	2 x 4,0		2 x 5,5	2 x 0,75	2 x 4,0	2 x 0,75		44000

*Weight without piping and cyclone

Densimetric Separators

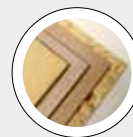
		WOOD BASED PANELS				
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
DENSIMAT	180	•				
WIND CLEANER	182	•				
DESANDER	184	•				
CENTRIFUGAL CLEANER	186	•				
CENTRIFUGAL CLEANER WITH CLEANING UNIT	188	•				

DENSIMAT

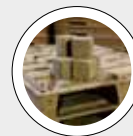
CLEANER FOR FINES, EXTRA FINES, DUST AND REJECT FROM DCC & WS



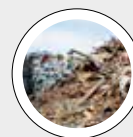
BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS



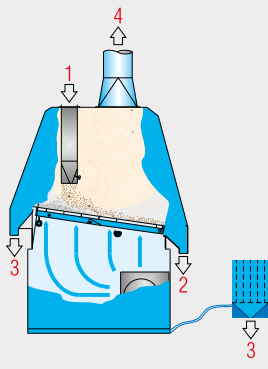
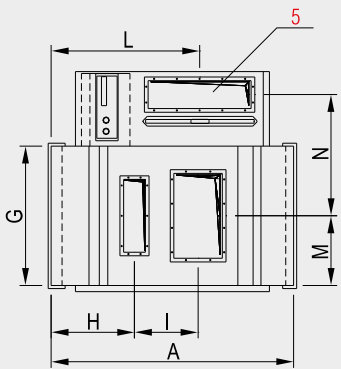
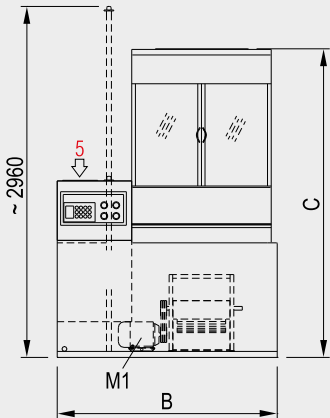
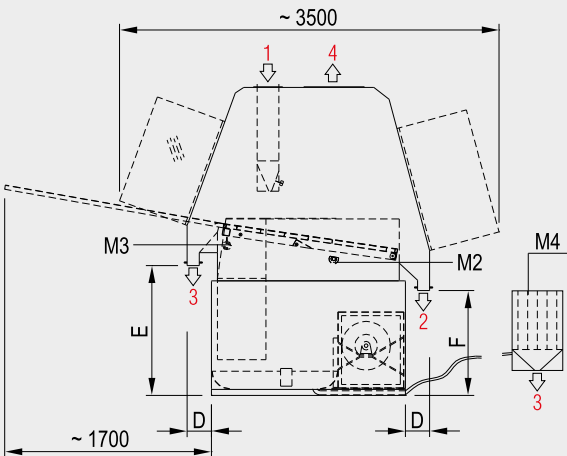
WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

TECHNICAL FEATURES

- Inlet spreader for material flow
- Densimetric table fitted with vibrating screen
- Fan for fluidizing air generation
- In-line air filter
- Cleaning parameters fully adjustable via keyboard, i.e.: screen inclination – vibration frequency – fluidizing air speed
- Self-cleaning device for chamber bottom
- Suction hopper with inspection doors
- Compact unit including electric-electronic devices for controls and adjustments.

BENEFITS

- Removal of sand from screening and sanding dust
- Removal of heavy pollutants from: thick-dry particles, i.e. rejects from SL & CL wind sifters – rejects from dry cleaners for chips type DCC
- Highly reliable and flexible adjustment for the removal of typical and atypical pollutants, e.g.: sand, stones, metals – plastics, rubber, glass, laminates, etc.
- Very high cleaning efficiency
- Cleaner combustion dust (and combustion chambers)
- Improved panel machinability
- Low cost, low energy consumption, easy maintenance.



- 1 = INLET

2 = CLEANED MATERIAL

3 = HEAVY POLLUTANTS
- 4 = VOLATILE-CLEANED MATERIAL

5 = FRESH-CLEANED AIR

M1 = FAN
- M2 = SCREEN

M3 = INCLINATION ADJUSTER

M4 = SUCTION FOR CHAMBER CLEANING

MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	G	H	I	L	M	N
DSM.15.D	2000	1815	2543	200	1070	865	1150	687	525	1224	575	1000
DSM.15.D-CHIPS	2000	1815	2543	200	1070	865	1150	687	525	1224	575	1000

MODEL	CAPACITY t/h				SUCTION S1		INSTALLED POWER kW				WEIGHT APPROX. kg
	DUST	COARSE S.L.	COARSE C.L.	RECY-WET PARTICLES	THROUGHPUT m³/h	AIR SPEED m/s	M1	M2	M3	M4	
DSM.15.D	0,8-12	1,4-1,6	1,4-1,6	1,2-1,6	*	29	4,0	0,75	0,17	1,0	1360
	POLLUTED CHIPS FROM DCC										
DSM.15.D-CHIPS	2,0 - 2,5				16000	29	11,0	0,75	0,17	1,0	1360

*4000 m³/h for dust or 6000 m³/h for other materials

WIND CLEANER

CLEANER FOR RECYCLED FINES



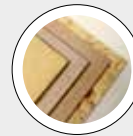
TECHNICAL FEATURES

- Cleaning chamber fitted with: adjustable feeding flaps – cleaning sections – exhaust air recovery – rotary valve for the discharge of heavy pollutants
- Sifting system based on sequentially differentiated fluidization speeds • Fan
- Discharge cyclone with rotary valve for clean particles • Piping with flaps to adjust the fluidizing speed.

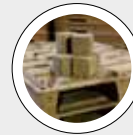
BENEFITS

- Removal of heavy pollutants out of recycled fines, wet and dry, e.g.: minerals such as sand, stones, metals, etc. – atypical pollutants such as ABS, plastics, rubber, glass, laminates, etc. • Highly reliable and flexible adjustment • Very high cleaning efficiency • Improved panel machinability • Low cost, low energy consumption, easy maintenance.

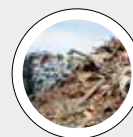
BEST IN CLASS FOR:



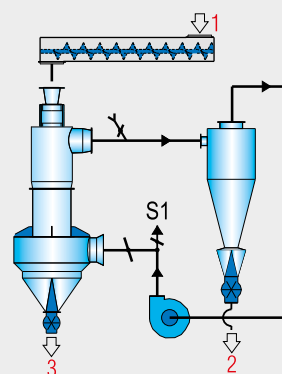
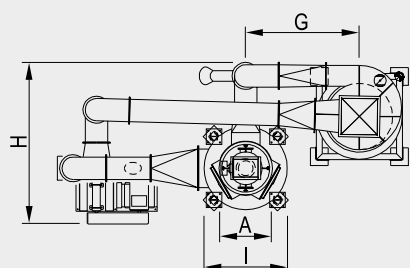
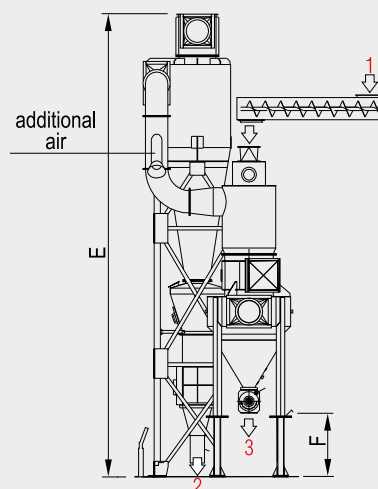
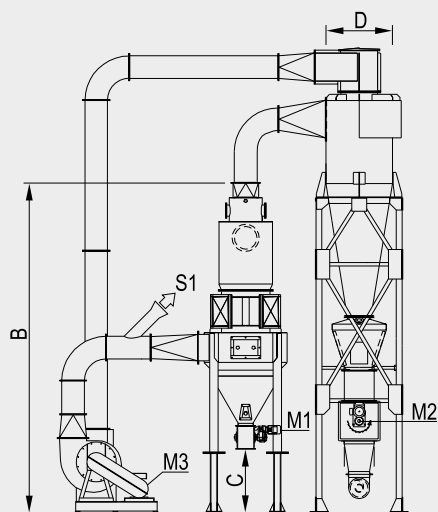
WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1= INLET OF CONTAMINATED MATERIAL
2= ACCEPTS/CLEAN
3= REJECTS

M1= ROTARY VALVE OUT
M2= ROTARY VALVE IN
M3= FAN DRIVE

S1= EXHAUST AIR

MODEL	OVERALL DIMENSIONS mm								
	A	B	C	D	E	F	G*	H	I
WCL.15/10	600	5261	1407	800	5290	772	10000	1300	1100
WCL.15/25	600	5261	1407	800	5290	772	25000	1300	1100
WCL.30/10	900	6912	2270	1120	7148	1200	10000	2269	1400
WCL.30/25	900	6912	2270	1120	7148	1200	25000	2269	1400

*Maximum distance between centers

MODEL	CAPACITY TOP		INSTALLED POWER kW			EXHAUST AIR m³/h	WEIGHT APPROX. kg
	BULK m³/h	WET t/h	M1	M2	M3	S1	
WCL.15/10	7,5	1,5	1,5	1,5	11	1800	2800
WCL.15/25	7,5	1,5	1,5	1,5	15	1800	3800
WCL.30/10	15,0	3,0	1,5	1,5	15	3200	4600
WCL.30/25	15,0	3,0	1,5	1,5	30	3200	5550

DESANDER

CLEANER FOR EXTRA FINES AND DUST - PATENTED



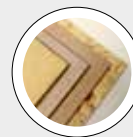
TECHNICAL FEATURES

- Dust cleaning system suitable to remove heavy pollutants within a mesh range from 0.1 to 0.6 mm
- Specially designed chamber for separating heavy pollutants from dust
- Two adjustable air flows crossing the chamber from the fans equipped with inverter
- Dosing system for setting the feeding flow
- Internal rotor for balancing the dust flow inside the chamber.

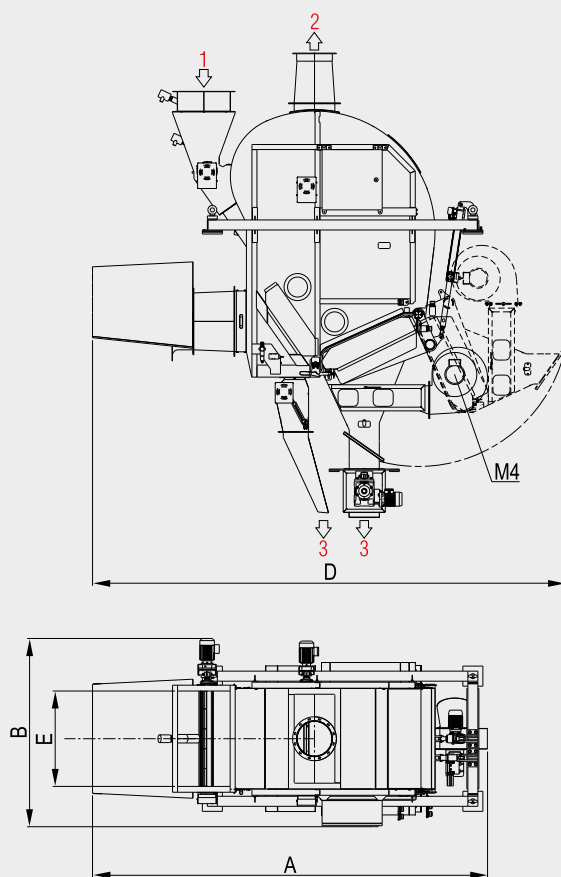
BENEFITS

- Removal of sand from the dust flow
- Very high cleaning efficiency
- Compact layout
- Very low maintenance costs
- Low energy consumption.

BEST IN CLASS FOR:



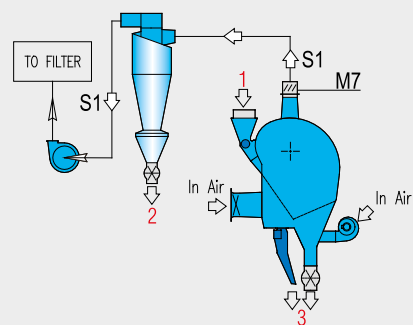
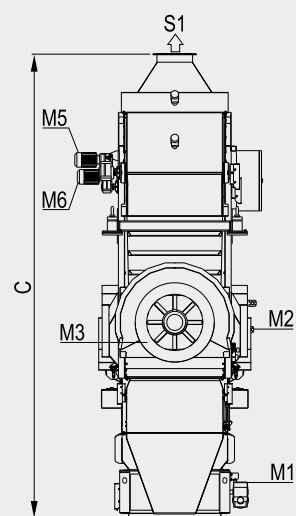
WOOD BASED PANELS:
PB/SPB



1= POLLUTED DUST
2= ACCEPTS, CLEANED DUST
3= POLLUTED DUST

S1= SUCTION
M1= ROTARY VALVE
M2= MOTOVIBRATOR

M3= FAN
M4= FAN
M5= INTERNAL MIXER



M6= DOSING DEVICE
M7= MOTORIZED DAPO' VALVE

MODEL	OVERALL DIMENSIONS mm				
	A	B	C	D	E
DS.100	3940	1874	4624	4722	950

MODEL	CAPACITY* m³/h	TOTAL INSTALLED POWER kW	SUCTION S1			WEIGHT APPROX. kg
		ALL MOTORS	SUCTION m³/h	AIR SPEED m/s	PIPE DIMENSION Ø mm	
DS.100	4-6	4,83	1 x 8000	25	350	2760

*According to type of infeed material

CENTRIFUGAL CLEANER

CLEANER FOR FRESH OR RECYCLED FINES - PATENTED



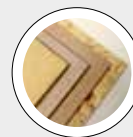
TECHNICAL FEATURES

- Wear proof injection screw • Wear proof centrifugal unit • Wear proof cleaning chamber • Fire-extinguishing nozzles and explosion vents if necessary
- Dust proof and compact unit.

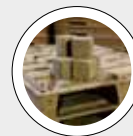
BENEFITS

- Efficient cleaning of the very fine fraction highly polluted by small mineral grits, from fresh or recycled wood fines • Saving of useable wood • Lower wearing of downstream machines: MDF refiners – knife ring flakers • Low cost
- Low energy consumption • Easy maintenance.

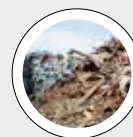
BEST IN CLASS FOR:



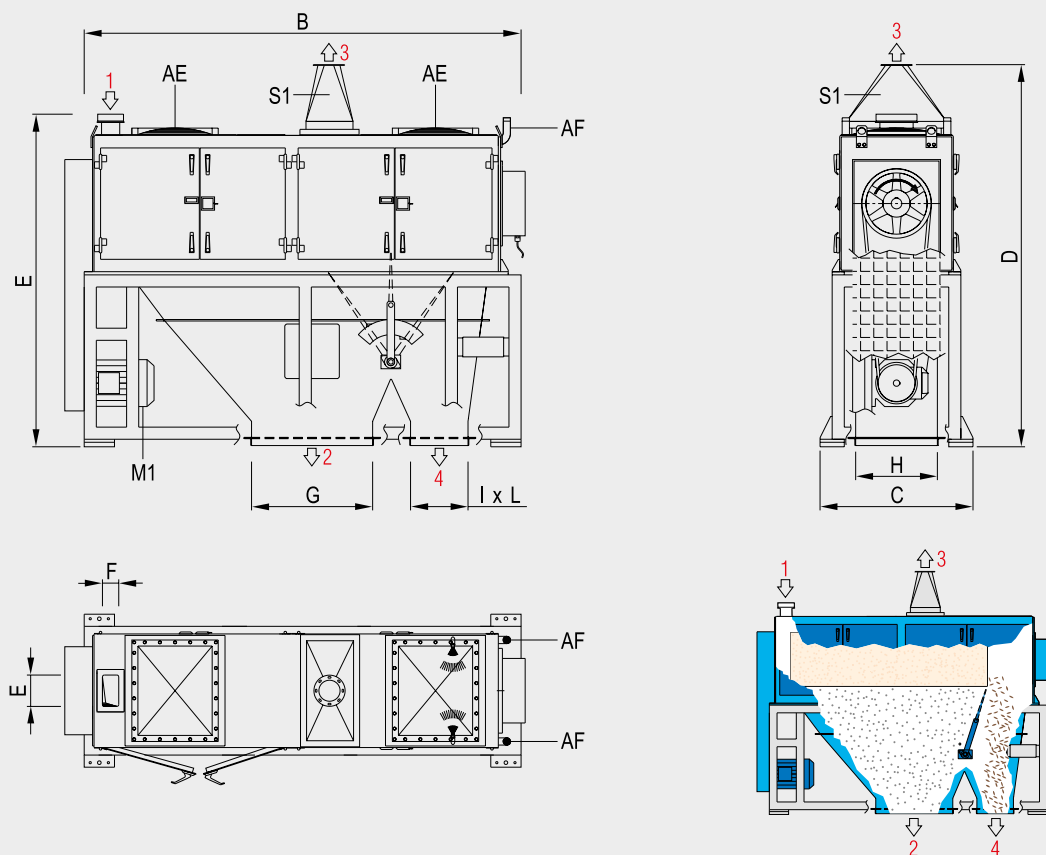
WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



AF = FIRE-EXTINGUISHING NOZZLES
(NECESSARY FOR DRY MATERIAL)
AE = EXPLOSION VENTS
(NECESSARY FOR DRY MATERIAL)

1 = FEEDING MATERIAL
2 = FINES POLLUTED BY
SMALL MINERAL GRITS

3 = EXHAUSTED DUST
4 = ACCEPTS/CLEAN
M1 = MAIN MOTOR

MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
CC.50/220	2196	2885	1010	2523	207	110	800	540	380	540
CC.75/220	2196	2885	1260	2523	457	110	800	790	380	790
CC.100/220	2613	4440	1710	2613	590	380	1430	900	440	900
CC.2.100/220	2613	4440	3280	2613	2 x 590	380	1430	2 x 900	440	2 x 900

*According to infeed material

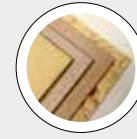
MODEL	CAPACITY BULK* m ³ /h	INSTALLED POWER kW		SUCTION m ³ /h	WEIGHT APPROX. kg
		M1		S1	
CC.50/220	12	22		1 x 1550	2050
CC.75/220	18	30		1 x 2050	2500
CC.100/220	24	37		1 x 2500	7000
CC.2.100/220	48	2 x 37		2 x 2500	14000

CENTRIFUGAL CLEANER WITH CLEANING UNIT INTEGRATED CLEANING UNIT

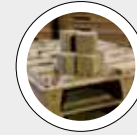
CLEANER FOR FRESH OR RECYCLED FINES, INTEGRATED WSH



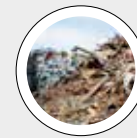
BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB



PRESSED WOOD PACKAGING:
PALLET BLOCKS



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

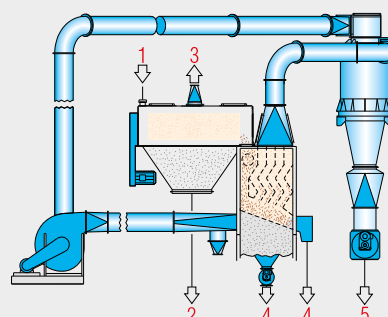
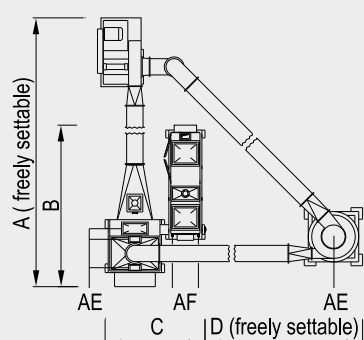
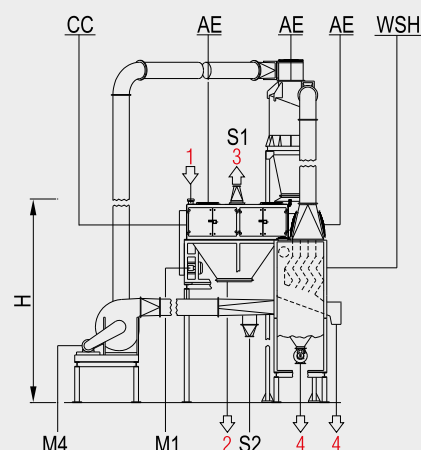
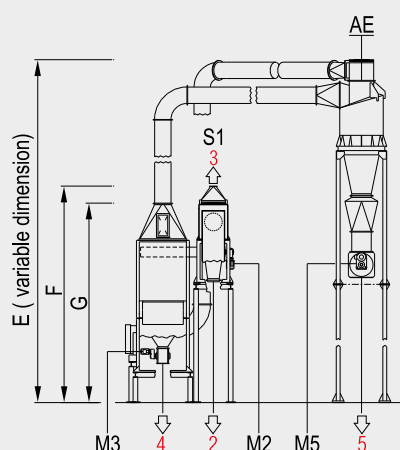
TECHNICAL FEATURES

- Integrated Cleaning • Unit Centrifugal Cleaner as described at previous page
- Additional Wind sifter for the coarse fraction • Fire-extinguishing nozzles and explosion vents if necessary • Compact, dust and wear proof unit.

BENEFITS

- Superior integrated cleaning of: fines from wet chips for MDF-PB – wet recycled particles • By the Centrifugal Cleaner: removal of the very fine fraction highly polluted by small mineral grits • By the Wind Sifter WSH.120: perfect cleaning of the coarse fraction • Coarse-clean fraction: easy to refine by MDF refiners – easy to flake by knife ring flakers • Saving of useable wood
- Lower wearing of downstream machines: MDF refiners Knife – ring flakers
- Low cost, low energy consumption, easy maintenance.

06.08.C



CC= CENTRIFUGAL CLEANER
 WSH= WIND SIFTER
 1= FEEDING MATERIAL
 2= FINES POLLUTED BY
 SMALL MINERAL GRITS
 3=EXHAUSTED DUST

4= COARSE POLLUTANTS
 5= COARSE, CLEAN FRACTION
 M1= CENTRIFUGAL CLEANER
 M2= SCREW CONVEYOR FOR COARSE
 M3= ROTARY VALVE OF WSH
 M4= FAN

M5= ROTARY VALVE OF CYCLONE
 AF= FIRE-EXTINGUISHING NOZZLES
 (NECESSARY FOR DRY MATERIAL)
 AE= EXPLOSION VENTS
 (NECESSARY FOR DRY MATERIAL)

MODEL	OVERALL DIMENSIONS mm							
	A*	B	C	D*	E*	F	G	H
CC.50/220 + WSH.120	7000	3156	2570	4100	8800	5570	5125	5230
CC.75/220 + WSH.120	7000	3156	2690	3975	8800	5570	5125	5230

*Dimensions according to needed lay-out

MODEL	CAPACITY BULK m ³ /h**	INSTALLED POWER kW					SUCTION m ³ /h		WEIGHT APPROX. kg
		M1	M2	M3	M4	M5	S1	S2	
CC.50/220 + WSH.120	12	22	1,1	0,75	30 - 45 ***	1,5	1550	2000	5450
CC.75/220 + WSH.120	18	30	1,1	0,75	30 - 45 ***	1,5	2050	2000	6300

**According to infeed material

***According to infeed material and ducting configuration

Metering Bins & Scales

		WOOD BASED PANELS					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
LIVE BOTTOM PITS	192	•	•		•		
BS(WET)	196	•	•	•	•		
BCD(WET)	198	•	•	•	•		
BBT(WET)	202	•	•	•	•		
BBS(WET)	204			•			
SILOBIN	206	•	•	•			
BBSO	208			•			
BCD(DRY)	210	•					
BCDS	212			•			
BCD.OSB	214			•			
BBPL	216	•		•			
BT & BN	218	•		•			
BS(DRY)	220			•			
BSF	222		•				
BPM	224	•	•	•			
BPP	226	•	•	•			
MULTICOMP BCD	228	•	•	•			

DOSING BINS

LIVE BOTTOM PITS

FOR CHIPS, SAWDUST, SHAVINGS, WET & DRY PARTICLES



TECHNICAL FEATURES

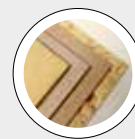
- Versatile storage-dosing live bottom pits: DB.6-9-12 with open-top for feeding with front loader – DBC.4 closed execution for metering of chips – DBD.4 special application for metering of Driers – DB1.1 & 2.2 for simultaneous metering of two downstream
- Destorage system based on live bed made up of modules of two or three dosing screws (parallel or opposed construction)
- Separate drive for each series of dosing screws
- Level controls.

BENEFITS

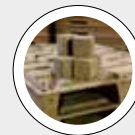
Storage-dosing of fractioned materials, wet or dry, such as chips, sawdust, shavings, particles, etc.

- Accurate dosing of several downstream machines, e.g.: roll screens – cleaners or sifters for chips, sawdust and shavings – knife ring flakers – hammermills – driers – dry screens – dry mills
- No bridge formation
- No material demixing
- Wide range of extraction capacity: running the dosing screw modules separately, alternatively or all together – driving each motor with a frequency converter
- High dosing accuracy from progressive pitch screws
- High efficiency and reliability
- Low maintenance.

BEST IN CLASS FOR:



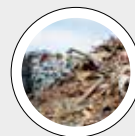
WOOD BASED PANELS:
MDF/HDF
PB/SPB
INSULATION BOARDS



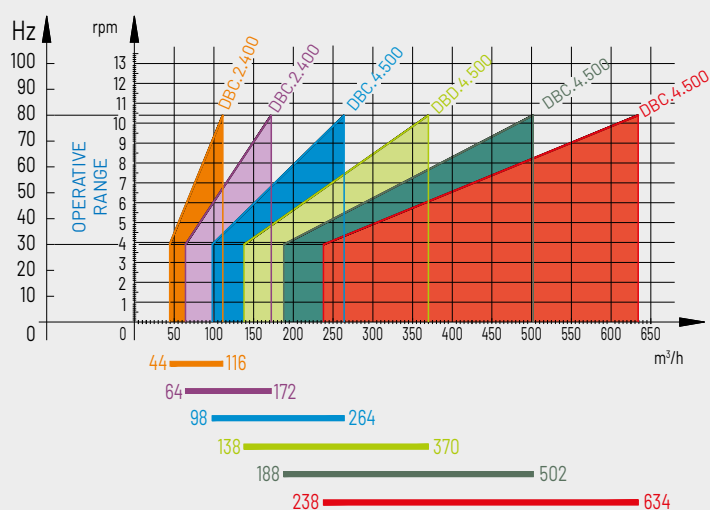
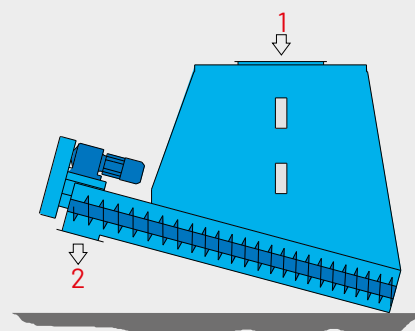
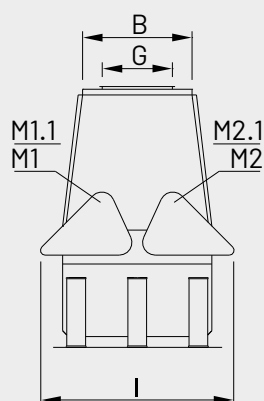
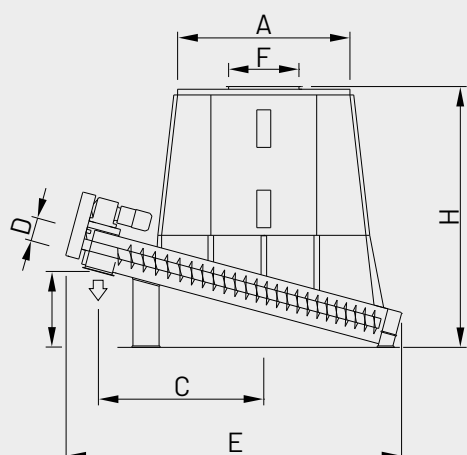
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



1 = FEEDING
2 = DISCHARGE
M1-M2 = SCREW ROTATION
M1.1-M2.1 = FAN FOR COOLING

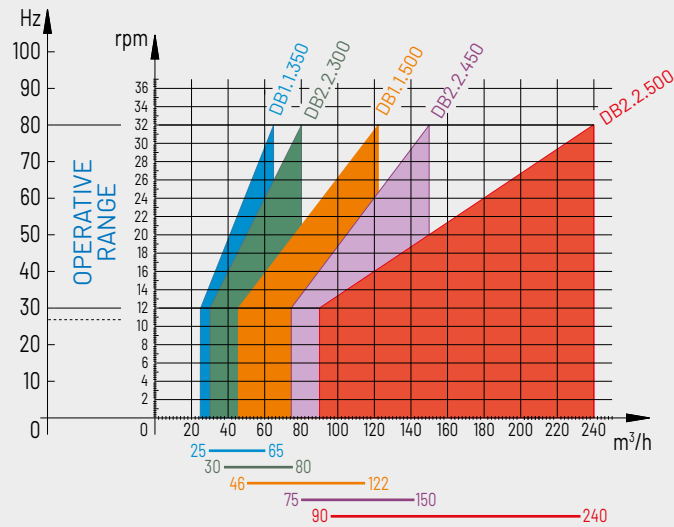
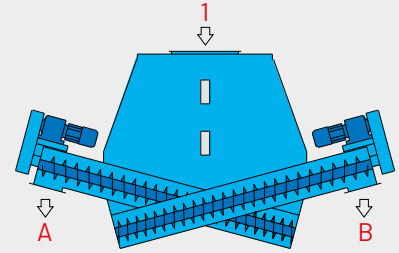
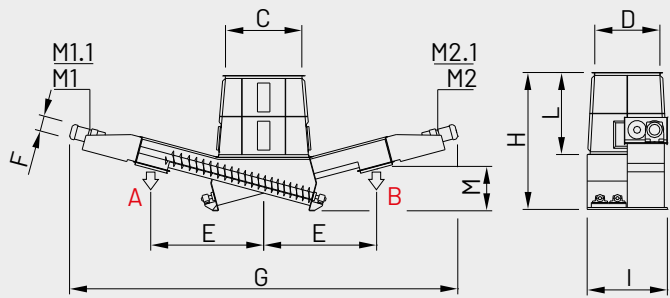
LIVE BOTTOM PITS - CLOSED TOP

FOR CHIPS ONLY & SPECIAL APPLICATION TO METER THE DRYER FEEDING BY CONVEYORS

MODEL	BIN CONTENT m³	THROUGHPUT m³/h	OVERALL DIMENSIONS mm										INSTALLED POWER kW**				WEIGHT APPROX. kg
			A	B	C	D	E	F	G	H	I	L	M1	M1.1	M2	M2.1	
DBC.2.400	5	SEE DIAGRAM	2310	975	2420	400	4470	2230	800	3300	995	1005	9,2	0,18	-	-	4300
DBC.4.500	30	SEE DIAGRAM	3845	2506	3340	500	7180	1500	1500	5570	4140	1615	11	0,18	11	0,18	19000
DBD.4.500*	30	SEE DIAGRAM	3600	1600	3685	500	8260	1200	1400	5390	2400	1405	45	0,27	45	0,27	13000
DBC.4.500	50	SEE DIAGRAM	3845	2506	3340	500	7180	1500	1500	5570	4140	1615	18,5	0,18	18,5	0,18	19000
DBC.4.500	60	SEE DIAGRAM	3845	2506	3340	500	7180	1500	1500	6570	4140	1615	22	0,18	22	0,18	20000

*For dryer application

**According to type of material



1 = FEEDING
A-B = DISCHARGE
M1-M2 = SCREW ROTATION
M1.1-M2.1 = FAN FOR COOLING

CAPACITY FOR EACH
FLOW A AND B

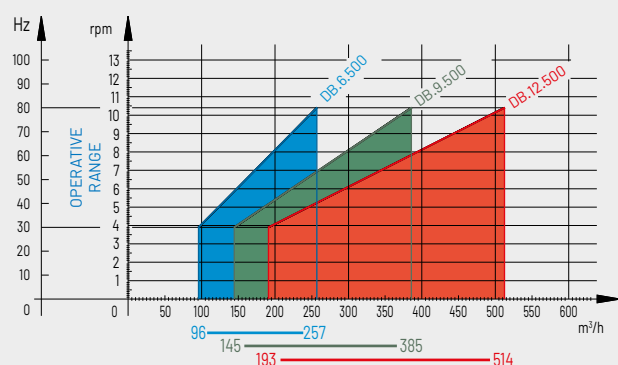
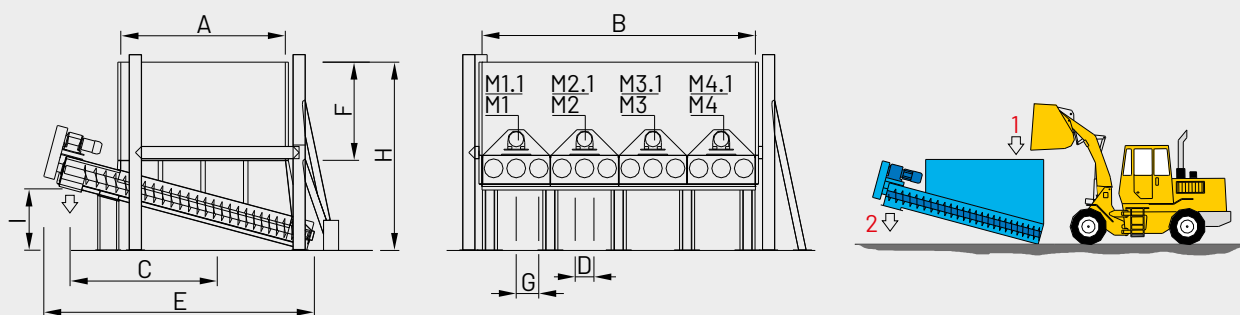
LIVE BOTTOM PITS - CLOSED TOP WITH TWO EXTRACTATIONS

FOR CHIPS, SAWDUST, WET & DRY PARTICLES FEEDING BY CONVEYORS

MODEL	BIN CONTENT m³	THROUGHPUT m³/h		OVERALL DIMENSIONS mm								
		A	B	C	D	E	F	G	H	I	L	M
DB1.1.350	2	25 - 65	25 - 65	1400	700	2075	350	5296	2411	930	1500	632
DB1.1.500	3	46 - 122	46 - 122	2000	900	3000	500	7392	2500	1370	1000	1150
DB2.2.300	3	30 - 80	30 - 80	1400	1200	2075	315	7335	2480	1472	1500	820
DB2.2.450	8	75 - 150	75 - 150	1600	1600	2606	450	6480	3280	2080	2000	1005
DB2.2.500	8	90 - 240	90 - 240	2000	1500	3296	500	7965	3430	2326	2000	1225

MODEL	INSTALLED POWER kW				WEIGHT APPROX. kg
	M1	M1.1	M2	M2.1	
DB1.1.350	4,0	0,08	4,0	0,08	2500
DB1.1.500	11,0	0,18	11,0	0,18	4000
	9,2	0,18	9,2	0,18	
DB2.2.300	5,5	0,08	5,5	0,08	4000
DB2.2.450	11	0,18	11	0,18	6500
DB2.2.500	9,2	0,18	9,2	0,18	8000
	11,0	0,18	11,0	0,18	

Solutions for different throughputs, layout arrangements and type of material are available upon request.



1 = FEEDING
 2 = DISCHARGE
 M1-M2-M3-M4 = SCREW ROTATION
 M1.1-M2.1-M3.1-M4.1 = FAN FOR COOLING

LIVE BOTTOM PITS - OPEN TOP

FOR CHIPS, SAWDUST, SHAVINGS WET & DRY PARTICLES FEEDING BY FRONT LOADER

MODEL	BIN CON- TENT m³	THROUGH- PUT [30 – 80 Hz] m³/h	OVERALL DIMENSIONS mm									INSTALLED POWER kW								WEIGHT APPROX. kg
			A	B	C	D	E	F	G	H	I	M1	M1.1	M2	M2.1	M3	M3.1	M4	M4.1	
DB. 6.500	Chips 50	96-257	4372	4508	3719	500	7195	2608	750	5000	1540	11	0,18	11	0,18	-	-	-	-	19500
												15	0,07	15	0,07	-	-	-	-	
	Sawdust 40	96-257	4372	3632	3719	500	7195	2608	600	5000	1540	11	0,18	11	0,18	-	-	-	-	19500
												15	0,07	15	0,07	-	-	-	-	
DB. 9.500	Chips 75	145– 385	4372	6762	3719	500	7195	2608	750	5000	1540	11	0,18	11	0,18	11	0,18	-	-	28500
												15	0,07	15	0,07	15	0,07	-	-	
	Sawdust 60	145– 385	4372	5448	3719	500	7195	2608	600	5000	1540	11	0,18	11	0,18	11	0,18	-	-	28500
												15	0,07	15	0,07	15	0,07	-	-	
DB. 12.500	Chips 100	193 – 514	4372	9016	3719	500	7195	2608	750	5000	1540	11	0,18	11	0,18	11	0,18	11	0,18	37500
												15	0,07	15	0,07	15	0,07	15	0,07	
	Sawdust 80	193 – 514	4372	7264	3719	500	7195	2608	600	5000	1540	11	0,18	11	0,18	11	0,18	11	0,18	37500
												15	0,07	15	0,07	15	0,07	15	0,07	

BELT SCALES

BS

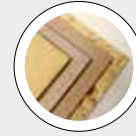
FOR CHIPS, SAWDUST, SHAVINGS, FIBER, WET PARTICLE

**TECHNICAL FEATURES**

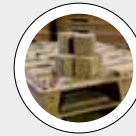
• Weighing-dosing of chips, sawdust, shavings, wet & dry particles • Belt conveyor provided of weighing bridge and precision load cell • Weighing belt automatic tensioning system • Self-centering system for the weighing belt • Drive system • Encoder to detect the actual speed of the weighing belt • Calibration chain • Microprocessor including all functions for electronic calibration.

BENEFITS

• Very high weighing accuracy, higher than $\pm 0,5\%$ related to full scale value • Employment range from 20 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:

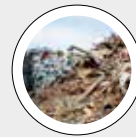
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS

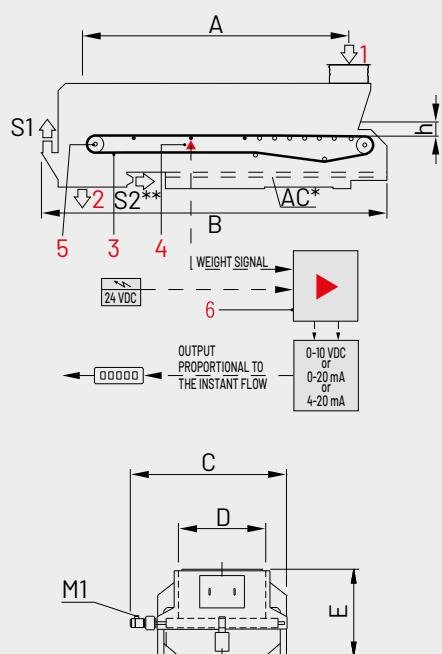


PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

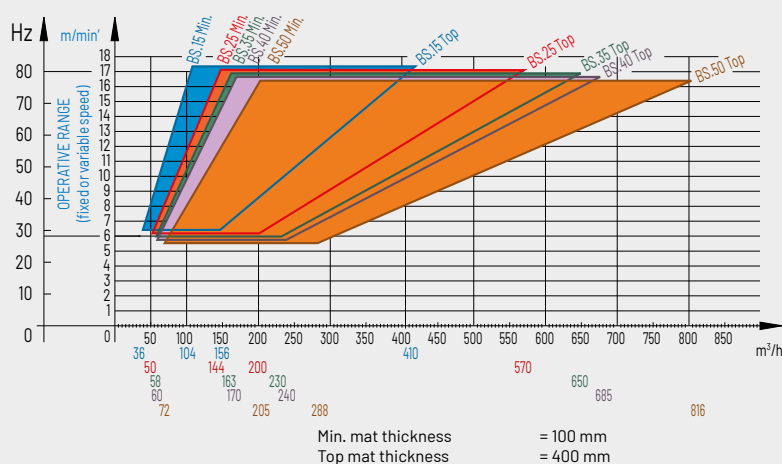
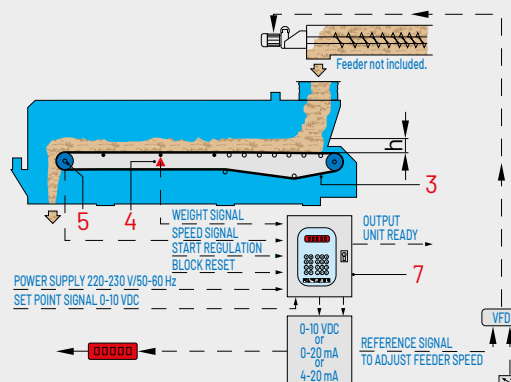
FLOW DETECTOR SYSTEM



- 1 = FEEDING
2 = DISCHARGE
3 = WEIGHING BELT
4 = LOAD CELL
5 = ENCODER
6 = LOAD CELL AMPLIFIER
7 = MICROPROCESSOR
M1 = DOSING BELT DRIVE
S1 = SUCTION

S2** = not needed with option AC (Autocleaning System)
AC* = Autocleaning system based on pneumatic moving floor (OPTION)

FLOW REGULATOR SYSTEM



MODEL	OVERALL DIMENSIONS mm					INSTALLED POWER kW	
	A	B	C	D	E	MAT THICKNESS h	M1*
BS.15/2500-10000	2500-10000	3750-11170	2140	1000	1410	Min. = 100 Top = 400	0,55
BS.25/2500-10000	2500-10000	3750-11170	2540	1400	1410		0,75
BS.35/2500-10000	2500-10000	3750-11170	2740	1600	1410		0,75
BS.40/2500-10000	2500-10000	3750-11170	2820	1680	1410		1,10
BS.50/2500-10000	2500-10000	3750-11170	3140	2000	1410		1,10

*Standard supply: fixed speed
Option: variable speed with inverter

MODEL	CAPACITY BULK MATERIAL		AC COMPRESSED AIR Nm³/h	SUCTION					
				THROUGHPUT WET MATERIAL m³/h		THROUGHPUT DRY MATERIAL m³/h		AIR SPEED m/s	SUCTION PRESSURE Pa
	m³/h TOP	t/h		S1	S2**	S1	S2**		
BS.15/2500-10000	410	According to bulk density	0,02	800	1780	710	1600	29	200
BS.25/2500-10000	570			800	1780	710	1600	29	200
BS.35/2500-10000	650			2x800	2x1780	2x710	2x1600	29	200
BS.40/2500-10000	685			2x800	2x1780	2x710	2x1600	29	200
BS.50/2500-10000	815			2x800	2x1780	2x710	2x1600	29	200

**Not needed with option AC (Autocleaning System)

METERING BINS

BCD

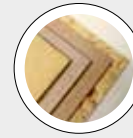
FOR WET PARTICLES

**TECHNICAL FEATURES**

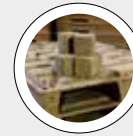
- Metering of wet particles to the Dryers or dry particles to the Glue Blenders
- Belt conveyor fitted with weighing bridge and precision load cell • Weighing belt automatic tensioning system • Self-centering system for the weighing belt • Dosing bin provided with levelling combs • Drive systems • Encoder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

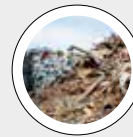
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



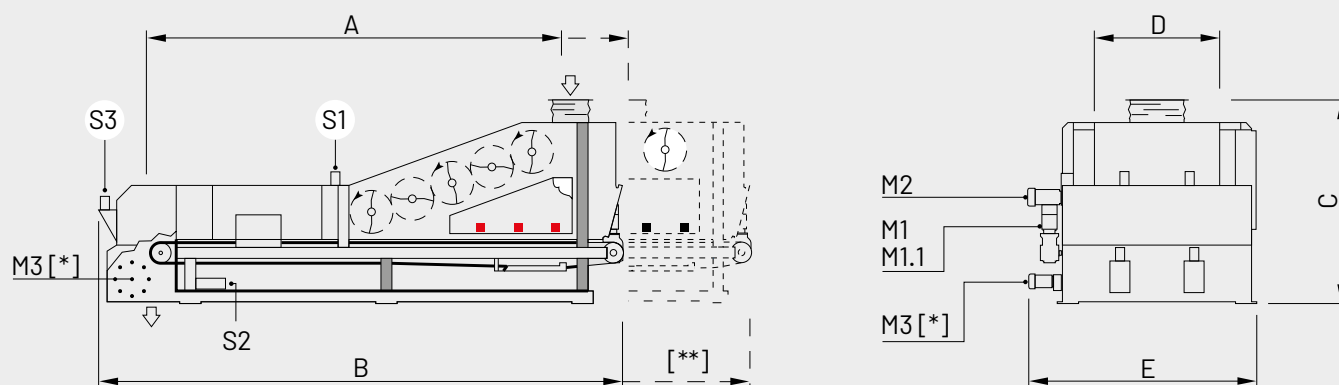
PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME

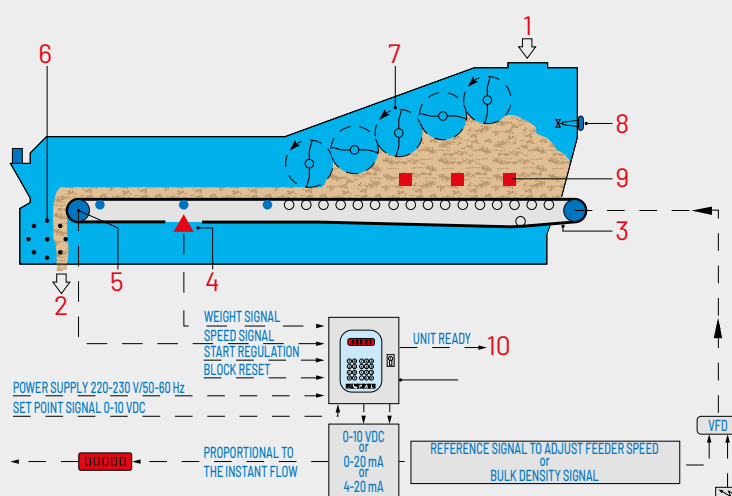


WOOD RECYCLING AND
WASTE TREATMENT:
WASTE



[*] 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



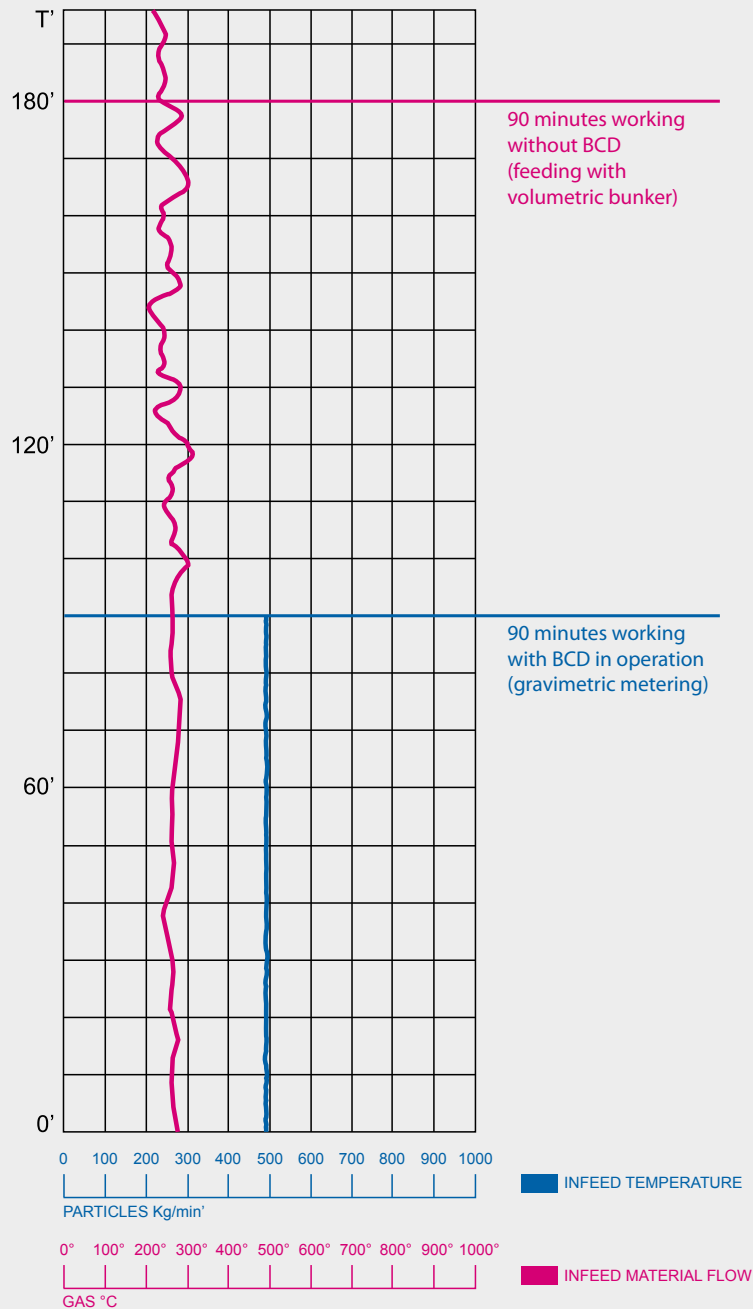
MODEL	OVERALL DIMENSIONS mm					INSTALLED POWER kW			
	A	B	C	D	E	M1	M1.1	M2	M3*
BCD 4	3240	4270	1810	750	1745	0,37 ÷ 1,1	0,078	1,5	2,2
BCD 12	4688	5800	2250	900	2125	0,37 ÷ 1,5	0,078	2,2	2,2
BCD 21	5344	8022	2400	1300	2600	0,37 ÷ 1,5	0,078	4,0	2,2
BCD 30	5785	8886	2600	1500	2800	0,37 ÷ 2,2	0,078	7,5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

*Option

MODEL	BULK MATERIAL		BIN VOLUME m³	SUCTION								WEIGHT APPROX. kg
	TOP m³/h	RANGE kg/h in according of bulk-density		WET MATERIAL THROUGHPUT m³/h			DRY MATERIAL THROUGHPUT m³/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 fed 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.



PREMISE

- Drying process takes long time to accommodate 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.



METERING BINS

BBT

FOR WET PARTICLES

**TECHNICAL FEATURES**

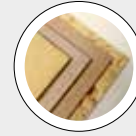
- Volumetric dosing of wet and dry particles for dosing bin only • Gravimetric metering of wet and dry particles for dosing bin & belt scale • Excellent dosing-metering solution for dryers, process mills and blenders.

DOSING BIN

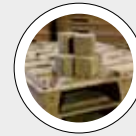
- Strong-modular bin provided with: inspection windows – electronic levels for filling control – fire-extinguishing system for dry materials – explosion protection system for dry materials • Front scalping-fluidizing rolls • Drive systems • Pre-wiring of all electrical fittings up to a junction box • Weighing belt with load cell • Tensioning-centering system for the belt • Drive system • Calibration chain • Microprocessor including all functions for electronic calibration • Accuracy for wet particles better than $\pm 2,5\%$ relating to instant flow • Accuracy for dry flakes better than $\pm 2,0\%$ relating to instant flow • Continuous-constant feeding of material with constant running of dosing bin • Employment range from 10 to 100% of nominal throughput.

BELT SCALE

- Weighing belt with load cell • Tensioning-centering system for the belt • Drive system • Calibration chain • Microprocessor including all functions for electronic calibration.

BEST IN CLASS FOR:

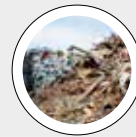
WOOD BASED PANELS:
MDF/HDF
PB/SPB
OSB/LSB/FOSB
INSULATION BOARDS



PRESSED WOOD PACKAGING:
PALLET BLOCKS



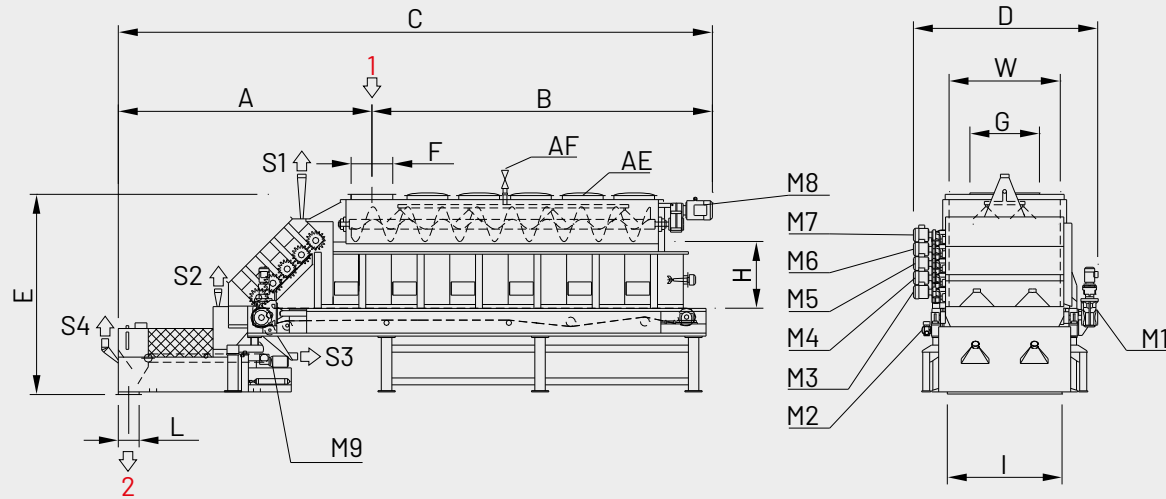
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS
LIME



WOOD RECYCLING AND
WASTE TREATMENT:
WASTE

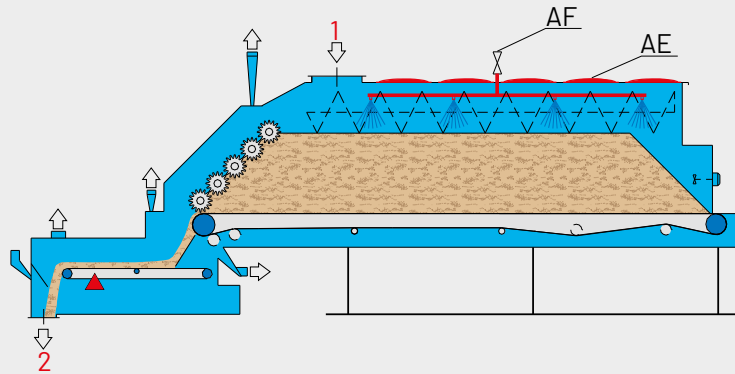
BENEFITS

- Perfect mixing of particle flow from scalping rolls milling the front section
- High-stable volumetric accuracy • Very high weighing-metering accuracy • Accuracy is related to instant flow and not to the full scale value as in conventional systems • High efficiency and reliability • Low maintenance • Accuracy from dosing bin + belt scale higher than $\pm 0,5\%$ relating to instant flow! • Employment range from 10 to 100% of full scale value • Full scale value is freely settable • Easy testing by calibrating chain.



1 = FEEDING
 2 = DISCHARGE
 S1-S2-S3-S4 = SUCTION
 M1 = FEEDING BELT ROTATION
 M2 = CLEANING DEVICE COMMAND
 M3-M4-M5-M6-M7 = FRONT MILL ROTATION
 M8 = LEVELLING SCREW ROTATION
 M9 = DOSING BELT DRIVE

FOR DRY MATERIAL ONLY:
 AF = FIRE-EXTINGUISHING SYSTEM
 AE = EXPLOSION VENTS



MODEL	OVERALL DIMENSIONS mm										USEFUL SECTION mm	
	A	B	C	D	E	F	G	I	L	H	W	
BBT 24	3700	4810	8660	2300	2840	600	750	1250	300	1000	1200	
BBT 36	3700	4810	8660	2700	2840	600	1150	1650	300	950	1600	
BBT 56	8050	8650	17300	3475	5268	600	1550	1980	800	3000	2000	
BBT 60-20	4600	6005	10755	3190	3735	600	1550	1650	300	1500	2000	

MODEL	CAPACITY BULK MATERIAL			BIN VOLUME m³	INSTALLED POWER kW					
	m³/h	t/h	RATIO		M1*	M1.1	M2	M3...M7	M8	M9
BBT 24	240	According to bulk density	1:6	6	0,55	0,07	0,37	1,10	2 x 2,20	0,55
BBT 36	360			8	0,75	0,07	0,37	1,10	4 x 2,20	0,55
BBT 56	600			70	0,37	0,37	0,37	1,50	4 x 3,00	0,75
BBT 60-20	600			20	1,50	0,07	0,37	1,50	4 x 3,00	0,75

*For SL - CL

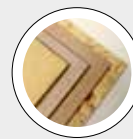
MODEL	COM- PRESSED AIR Nm³/h	AF** H ₂ O – 6 bar		SUCTION										WEIGHT APPROX. kg	
				THROUGHPUT WET MATERIAL m³/h				THROUGHPUT DRY MATERIAL m³/h				AIR SPEED m/s	SUCTION PRESSURE Pa		
		DN	l/min	S1	S2	S3	S4	S1	S2	S3	S4			BIN	SCALE
BBT 24	0,05	50 G 2"	560	1×1780	2×800	1×800	2×800	1×1600	2×710	1×710	2×710	29	200	6500	900
BBT 36		50 G 2"	560	1×1780	2×800	1×800	2×800	1×1600	2×710	1×710	2×710	29	200	8000	1200
BBT 56		65 G 2"1/2	840	2×1780	2×800	1×1780	2×800	2×1600	2×710	1×1600	2×710	29	200	28000	2000
BBT 60-20		65 G 2"1/2	700	2×1780	2×800	1×1780	2×800	2×1600	2×710	1×1600	2×710	29	200	14000	1200

**AF = Fire-extinguishing system (Option for dry materials)

METERING BINS

BBS

STORAGE AND METERING STRANDS

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

OSB/LSB/FOSB

TECHNICAL FEATURES

- Volumetric dosing of wet and dry particles • Excellent dosing-metering solution for driers, process mills and blenders.

DOSING BIN

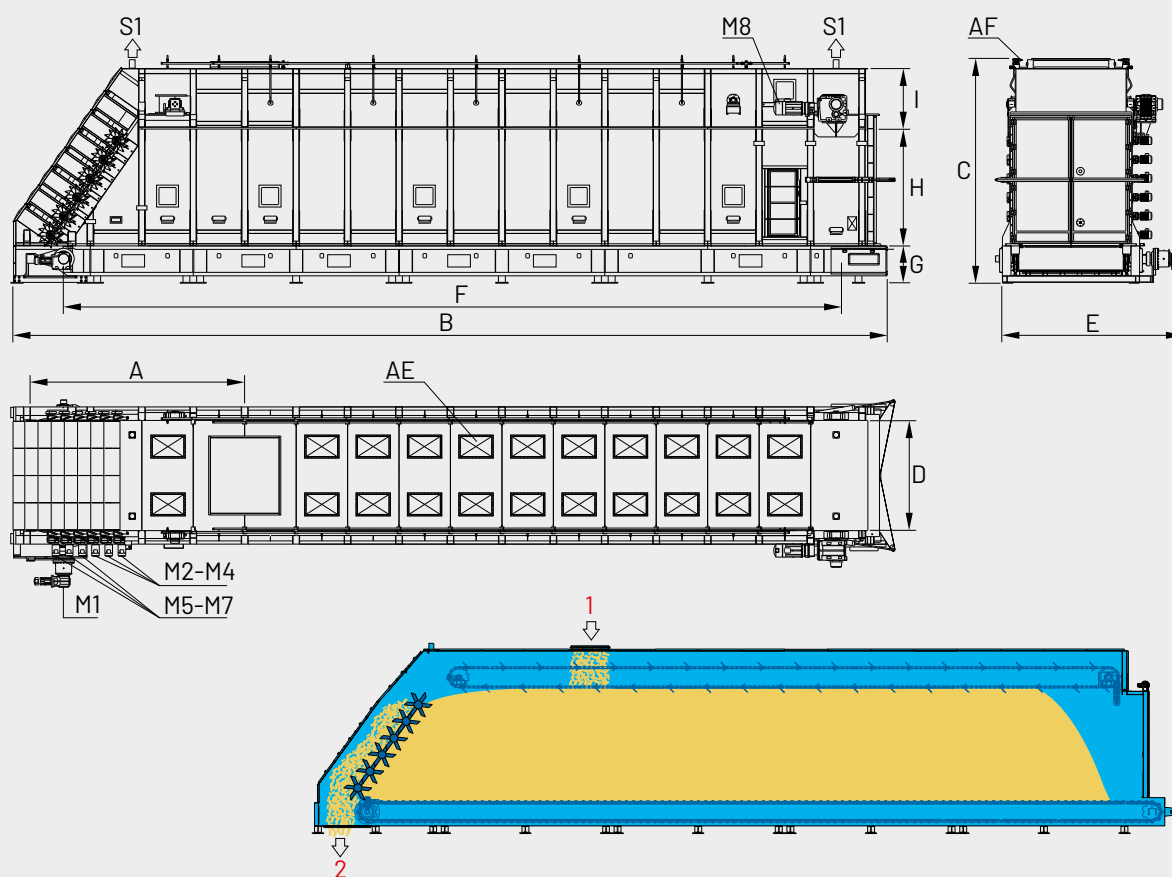
- Strong modular bin provided with: inspection windows – electronic levels for filling control – fire-extinguishing system for dry materials – explosion protection system for dry materials • Levelling chain • Dosing belt provided with: automatic tensioning system – self-centering system – cleaning brush
- Front scalping-fluidizing rolls • Drive systems • Pre-wiring of all electrical fittings up to a junction box.

VOLUMETRIC ACCURACY FROM DOSING BIN

- For wet/dry flakes: $\pm 2,5$ % relating to instant flow • Pre-condition: continuous-constant feeding of material and constant running of dosing bin
- Employment range: 10-100% of nominal throughput.

BENEFITS

- Perfect mixing of particle flow from scalping rolls milling the all front section
- High-stable volumetric accuracy • Very high weighing-metering accuracy
- Accuracy is related to instant flow and not to the full scale value as in conventional systems • High efficiency and reliability • Very low maintenance.



1 = FEEDING
2 = DISCHARGE
S1 = SUCTION

M1 = BELT DRIVE MOTOR
M2 = BELT DRIVE MOTOR
M3 = FRONT MILLS MOTOR

M4 = COMBS CHAIN MOTOR
M5 = OPEN/CLOSE ROLL-UP
SHUTTER MOTOR

FOR DRY MATERIAL:
AF = FIRE-EXTINGUISHING SYSTEM
AE = EXPLOSION VENTS

MODEL	OVERALL DIMENSIONS mm								
	A	B	C	D	E Up to	F	G	H	I
BBS.3000.90-330	Min 5450	13500-37500	6460	3000	5500	11500-35500	1145	3500	1730
BBS.3500.190-610	Min 5665	19500-49500	7050	3500	6050	17500-47500	1145	4000	1730

MODEL	CAPACITY BULK MATERIAL		BIN VOLUME m ³	INSTALLED POWER kW			
	m ³ /h	t/h		M1	M2-M4	M5-M7	M8
BBS.3000.90-330	100÷940	According to bulk density	90-330	According to capacity	3 x 4	3 x 5,5	According to chain lenght
BBS.3500.190-610	200÷940		190-610		4 x 4	3 x 5,5	

MODEL	SUCTION		NET WEIGHT APPROX. kg
	THROUGHPUT WET MATERIAL m ³ /h	THROUGHPUT DRY MATERIAL m ³ /h	
	S1	S1	
BBS.3000.90-330	4x1025	4x900	62000-126000
BBS.3500.190-610	4x1025	4x900	87000-177000

STORAGE BIN **SILOBIN**

STORAGE AND METERING OF DRY OR GREEN MATERIAL



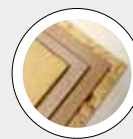
The particles are stored in a bin in which there is a conveyor belt controlled by a frequency converter and a set of comb rollers, which fluidise the particles in order to obtain a constant material flow.

The storage bin is composed of standard modules: • Front module, complete with independent comb rollers • Central module (made up of various units depending on dosing capacity) • End module, complete with inspection door • Screw or rakeback conveyor system to spread the material evenly inside the bin.

MAIN FEATURES

- Very sturdy construction • Automatic belt tracking system • Plexiglas window for internal inspection • Rear door for inspection • Explosion relief panel (optional) • Electronic level control • Side seals to prevent material spillage • Large diameter drive rollers to reduce belt tensioning

BEST IN CLASS FOR:

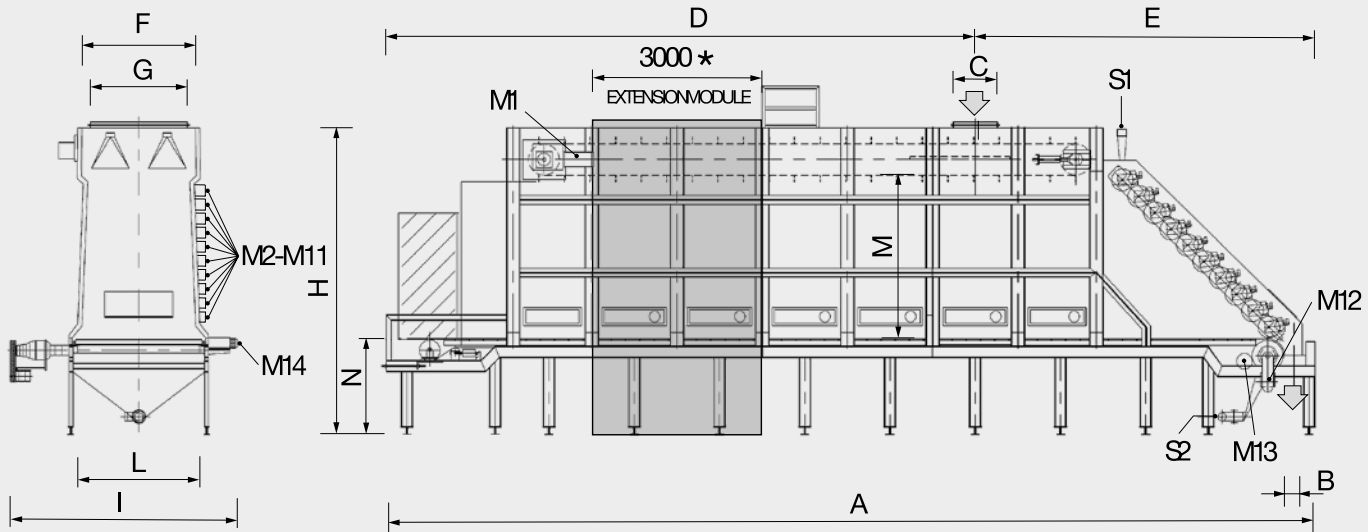


WOOD BASED PANELS:

MDF/HDF

PB/SPB

OSB/LSB/FOSB



*EXTENSION MODULE

NOTE: Silobin capacity may be extended with the addition of 3000 mm modules, increasing the volume of the 2000 version by 18 m³ and the volume of the 2500 version by 23 m³.

MODEL	OVERALL DIMENSIONS mm											
	A	B	C	D	E	F	G	H	I	L	M	N
SILOBIN 56/2000	16345	350	1000	10605	5610	2000	1700	5400	3990	2090	3100	1180
SILOBIN 72/2000	19345	350	1000	13605	5610	2000	1700	5400	3990	2090	3100	1180
SILOBIN 108/2000	25345	350	1000	19605	5610	2000	1700	5400	3990	2090	3100	1180
SILOBIN 134/2000	29845	350	1000	24105	5610	2000	1700	5400	3990	2090	3100	1180
SILOBIN 56/2500	10645	350	1000	4905	5610	2500	2200	5400	4490	2590	3100	1180
SILOBIN 72/2500	13645	350	1000	7905	5610	2500	2200	5400	4490	2590	3100	1180
SILOBIN 108/2500	19645	350	1000	13905	5610	2500	2200	5400	4490	2590	3100	1180
SILOBIN 134/2500	24145	350	1000	18405	5610	2500	2200	5400	4490	2590	3100	1180

MODEL	MAX THROUGHPUT kg/h	MAX BIN VOLUME m ³	INSTALLED POWER kW					TOTAL SUCTION S1 - S2 m ³ /h	TOTAL WEIGHT kg
			M1	M2-M11	M12	M13	M14		
SILOBIN 56/2000	60000	70	7.50	0.75	2.20	0.37	0.37	4500	25000
SILOBIN 72/2000	60000	86	7.50	0.75	2.20	0.37	0.37	4500	28000
SILOBIN 108/2000	60000	118	7.50	0.75	2.20	0.37	0.55	4500	34000
SILOBIN 134/2000	60000	141	7.50	0.75	2.20	0.37	0.55	4500	40000
SILOBIN 56/2500	60000	70	7.50	0.75	2.20	0.37	0.37	4500	26000
SILOBIN 72/2500	60000	86	7.50	0.75	2.20	0.37	0.37	4500	29000
SILOBIN 108/2500	60000	118	7.50	0.75	2.20	0.37	0.55	4500	35000
SILOBIN 134/2500	60000	141	7.50	0.75	2.20	0.37	0.55	4500	41000

STORAGE BIN FOR SBS

BBSO

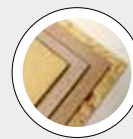
STORAGE AND METERING OF DRY OR GREEN STRANDS



The picker rolls located at the front of the strand bin ruin and break the strands leading to consequent issues with OSB panel quality and excessive resin consumption. IMAL has designed a solution which resolves this problem by eliminating the picker rolls from the bin. The strands are continually metered to the continuous scale and blender by a system of inclined belt conveyors, and controls and levels mounted on the bin.

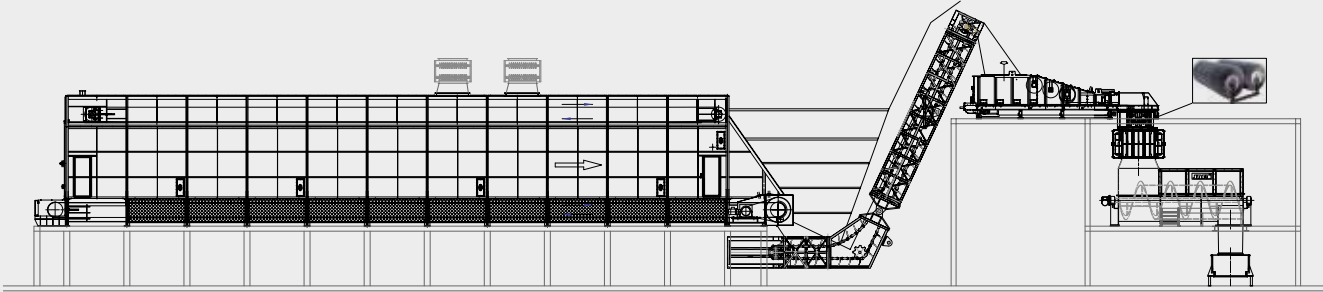
MAIN FEATURES

- Very sturdy construction
- Automatic belt tracking system
- Plexiglas window for internal inspection
- Rear door for inspection
- Explosion relief panel (optional)
- Electronic level control
- Side seals to prevent material spillage
- Large diameter drive rollers to reduce belt tensioning.

BEST IN CLASS FOR:

WOOD BASED PANELS:

OSB/LSB/FOSB



WEIGHING AND METERING BIN

BCD

HIGH PRECISION METERING AND WEIGHING SYSTEMS



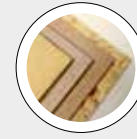
The BCD metering bins have been specifically designed to meter low to medium flows of light and dusty material, enabling a perfect flow adjustment even in cases of irregular material feed.

MAIN FEATURES

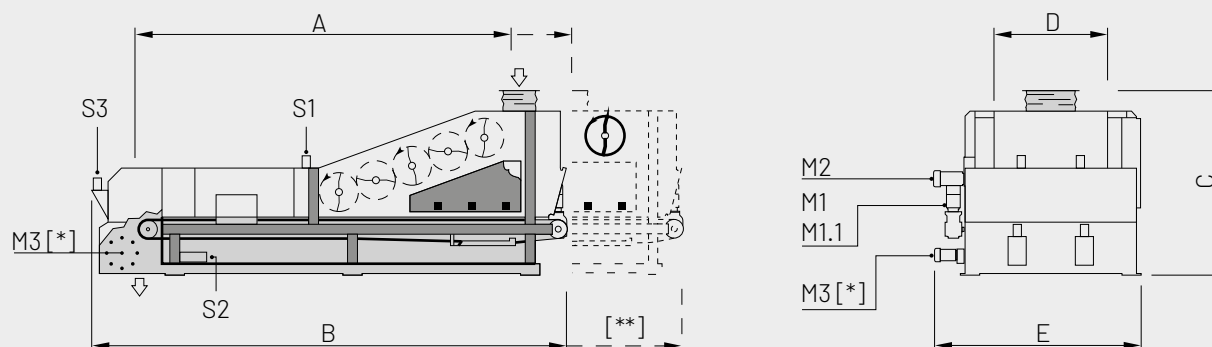
- Sturdy, vibration free construction
- Comb roll bin feeding system to form an even mat
- Weighing bridge (unbeatable high precision system) to optimise the ratio between the actual weight (material) and the tare (belt)
- Encoder to measure weigh belt speed
- Anti-static, high performance, zig-zag jointed weigh belt
- Large diameter drive drum to minimize belt tension
- Incorporated self-tensioning/self-centering weigh belt system
- High tech microprocessor for flow rate control
- Filling level signal
- Sprinkler nozzles for fire-extinguishing system.

ADVANTAGES

- Extremely versatile and suitable for various materials
- Including wet or dry chips, particles, dust, etc.
- Weighing system not affected by tare
- Extremely simple to calibrate
- Ferrous metal removal system on request
- High precision and repeatability
- Simple and easy to maintain.

BEST IN CLASS FOR:

WOOD BASED PANELS:
PB/SPB

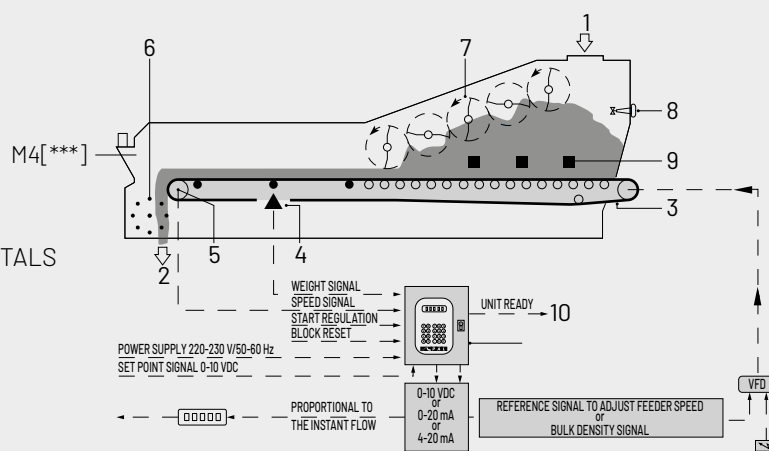


[*] Option

[**] BCD 21/30

[***] For HP gluing system

- 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
 M4 = FLUIDIZER MILL DRIVE
 S1-S2-S3 = SUCTION



MODEL	OVERALL DIMENSIONS mm					INSTALLED POWER kW				
	A	B	C	D	E	M1	M1.1	M2	M3*	M4 - FLM***
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	2,2
BCD 21	5344	8022	2400	1300	2600	0,37 ÷ 1,5	0,078	4,0	2,2	3,0
BCD 30	5785	8886	2600	1500	2800	0,37 ÷ 2,2	0,078	7,5	2,2	3,0

MODEL	BULK MATERIAL		BIN VOLUME m³	SUCTION								APPROX. WEIGHT kg
	TOP m³/h	RANGE kg/h in according bulk- density		WET MATERIAL THROUGHPUT m³/h			DRY MATERIAL THROUGHPUT m³/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	2x 800	2 x 1150	2 x 800	2 x 710	2 x 1020	2 x 710	29	200	7000

OPTIONS

- NEODYMIUM UNIT: Motorized roll to remove ferrous metals • U: Sprinkler nozzles for fire extinguishing system
- C: Calibrated chain for calibration and verification • P: electrical pre-wiring in a box on board the machine • ATEX: equipment meets EC directive 94/9/CE/ATEX 95 and is suitable for installation in Zone 22 (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.

WEIGHING AND METERING BIN

BCDS

HIGH PRECISION METERING AND WEIGHING SYSTEMS



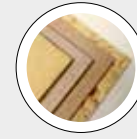
The BCDS metering bins have been specifically designed to meter low to medium flows of light and dusty material, enabling a perfect flow adjustment even in cases of irregular material feed.

MAIN FEATURES

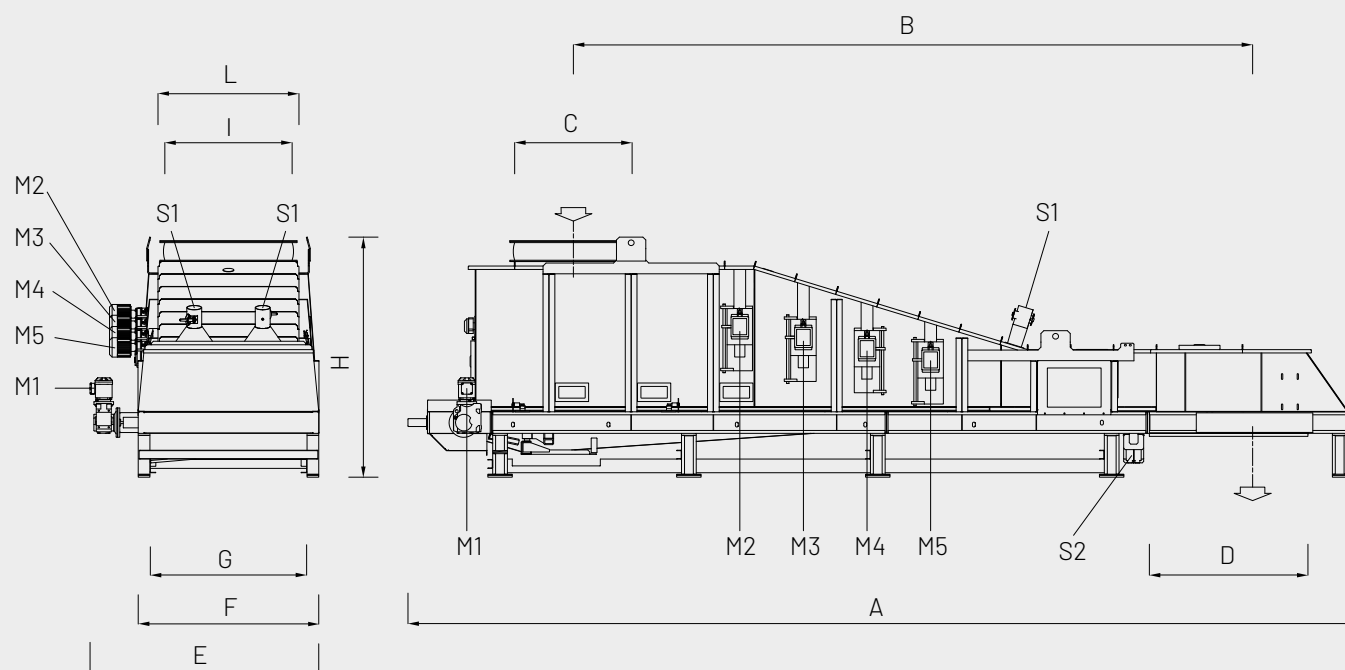
- Sturdy, vibration free construction
- Comb roll bin feeding system to form an even mat
- Weighing bridge (unbeatable high precision system) to optimise the ratio between the actual weight (material) and the tare (belt)
- Encoder to measure weigh belt speed
- Anti-static, high performance, zig-zag jointed weigh belt
- Large diameter drive drum to minimize belt tension
- Incorporated self-tensioning/self-centering weigh belt system
- High tech microprocessor for flow rate control
- Filling level signal.

ADVANTAGES

- Extremely versatile and suitable for various materials including wet or dry chips, particles, dust, etc.
- Weighing system not affected by tare
- Extremely simple to calibrate
- Ferrous metal removal system on request
- High precision and repeatability
- Simple and easy to maintain.

BEST IN CLASS FOR:

WOOD BASED PANELS:
OSB/LSB/FOSB



Precision: better than $\pm 0,5\%$.
Range: 20-100% of the full scale.

OPTIONS

• Neodymium unit: Motorized roll to remove ferrous metals • U: Sprinkler nozzles for fire extinguishing system • C: Calibrated chain for calibration and verification • P: electrical pre-wiring in a box on board the machine • ATEX: equipment meets EC directive 94/9/CE/ATEX 95 and is suitable for installation in Zone 22 (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.

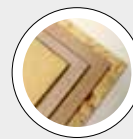
MODEL	OVERALL DIMENSIONS mm										INSTALLED POWER kW	
	A	B	C	D	E	F	G	H	I	L	M1	M2-M5
BCDS 25-5.5	9700	6940	1200	1800	2400	1845	1600	2450	1300	1300	1.1÷1.5	4x2.2÷3.0
BCDS 40-6.0	8900	6610	850	1800	3100	2545	2300	2450	1600	2000	1.5÷2.2	4x3.0÷4.0
BCDS 40-7.5	10000	6760	2200	1800	3100	2545	2300	2450	1600	2000	1.5÷2.2	4x3.0÷4.0

MODEL	MAX THROUGHPUT kg/h	MAX BIN VOLUME m ³	TOTAL SUCTION S1-S2 m ³ /h	WEIGHT kg
BCDS 25-5.5	25000	5.5	3060	6000
BCDS 40-6.0	40000	6.0	4080	6250
BCDS 40-7.5	40000	7.5	4080	6500

WEIGHING AND METERING BIN

BCD.OSB

HIGH PRECISION METERING AND WEIGHING SYSTEMS

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

OSB/LSB/FOSB

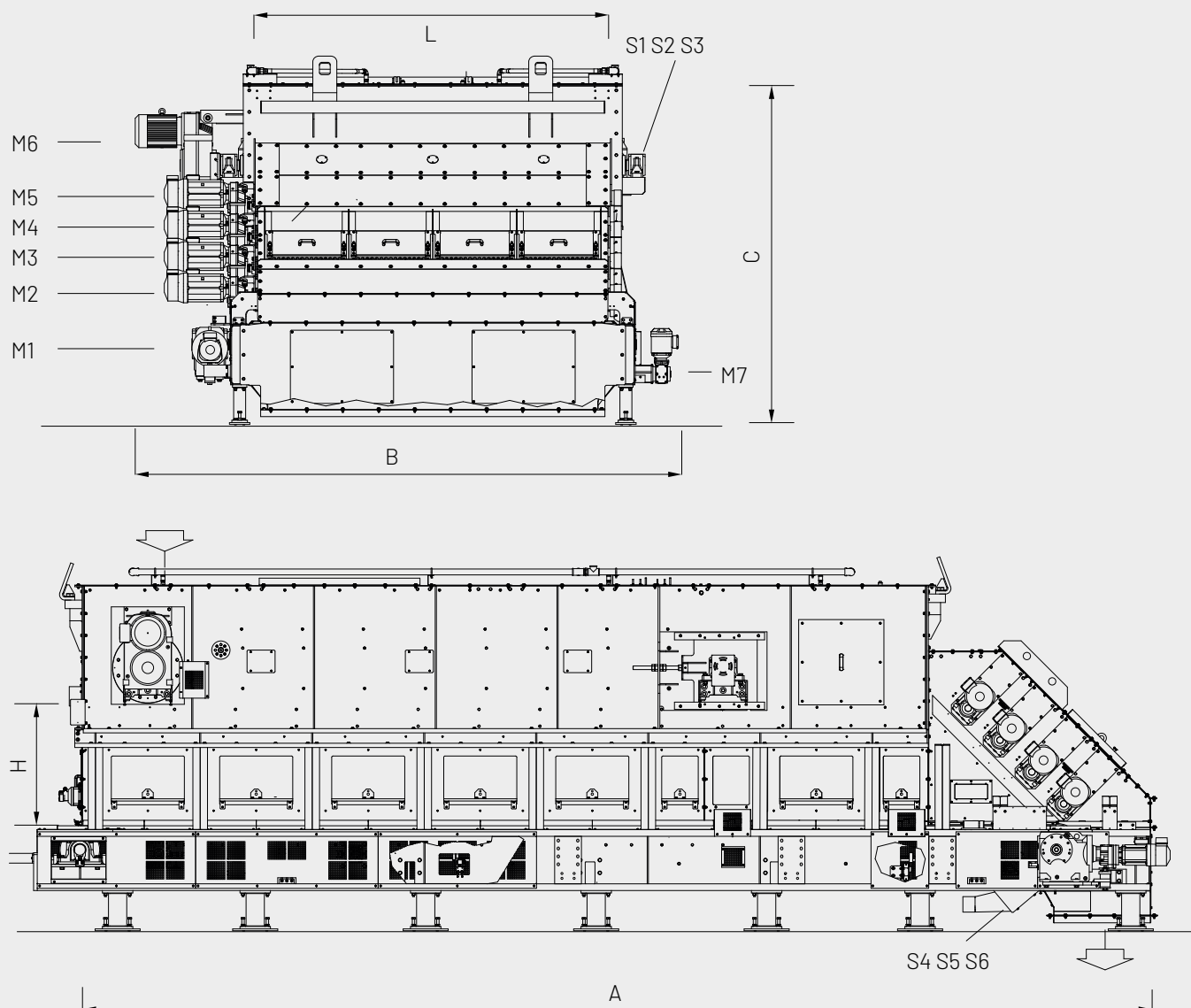
The BCD.OSB have been specifically designed to meter flow of strands. It consists of a belt with a storage/levelling area located at the top of the machine and a weighing area at the front end. Another important function of this scale is to create a mat of strands with a controlled konstant height at discharge.

MAIN FEATURES

- Sturdy, vibration free construction • Levelling raceback device for bin feeding system to form an even mat • Weighing bridge (high precision system) to optimise the ratio between the actual weight (material) and the tare (belt)
- Encoder to measure weigh belt speed • Anti-static weigh belt • Large diameter drive drum to minimize belt tension • High tech microprocessor for weighing rate control • Electronic levels systems • Continuous discharge flow.

ADVANTAGES

- Extremely versatile and suitable for OSB • Extremely simple to calibrate
- High precision and repeatability • Simple and easy to maintain.



PRECISION: BETTER THAN $\pm 0,5\%$.
 RANGE: 20-100% OF THE FULL SCALE.

MODEL	OVERALL DIMENSIONS mm					INSTALLED POWER kW			
	A	B	C	H max. mat height	L max. mat width	M1	M2-M5	M6	M7
BCD.OSB 1500	9500	3150	3000	800	1500	0,75	3	4	0,75
BCD.OSB 2000	9500	3750	3000	800	2000	0,75	3	4	0,75
BCD.OSB 2750	9500	4500	3000	800	2750	1,1	4	5,5	0,75
BCD.OSB 3500	9500	5250	3000	800	3500	1,1	5,5	7,5	1,1

MODEL	MAX THROUGHPUT kg/h	MAX BIN VOLUME m ³	TOTAL SUCTION S1-S6 m ³ /h	WEIGHT kg
BCD.OSB 1500	22500	8.5	1350	13700
BCD.OSB 2000	30000	11	1350	14500
BCD.OSB 2750	40000	15	1800	17400
BCD.OSB 3500	50000	19	1800	19500

• U: Sprinkler nozzles for fire extinguishing system C: Calibrated chain for calibration and verification • P: electrical pre-wiring in a box on board the machine • ATEX: equipment meets EC directive 94/9/CE/ATEX 95 and is suitable for installation in Zone 22 (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.

Rev. 001

METERING BIN

BBPL

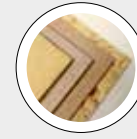
HIGHLY ACCURATE MATERIAL METERING AND WEIGHING



This bin has been designed to solve metering problems for facilities with small or average capacities. Its storage system and ample volume are two features which contribute to keeping the volumetric weight of the material to be extracted constant, irrespective of the bin's filling level, resulting in a perfectly even extraction. The material is distributed and leveled inside the bin by means of a set of screws or rakeback conveyor system, while a set of doffing roll disks at the outlet ensures that the material is evenly distributed over the whole weighing belt. The method adopted for particle metering is that of conveyor belt speed variation. A weighing belt is located at the end of the conveyor belt, which, thanks to a special mechanical-electronic system, is able to determine the instantaneous throughput of the material.

MAIN FEATURES

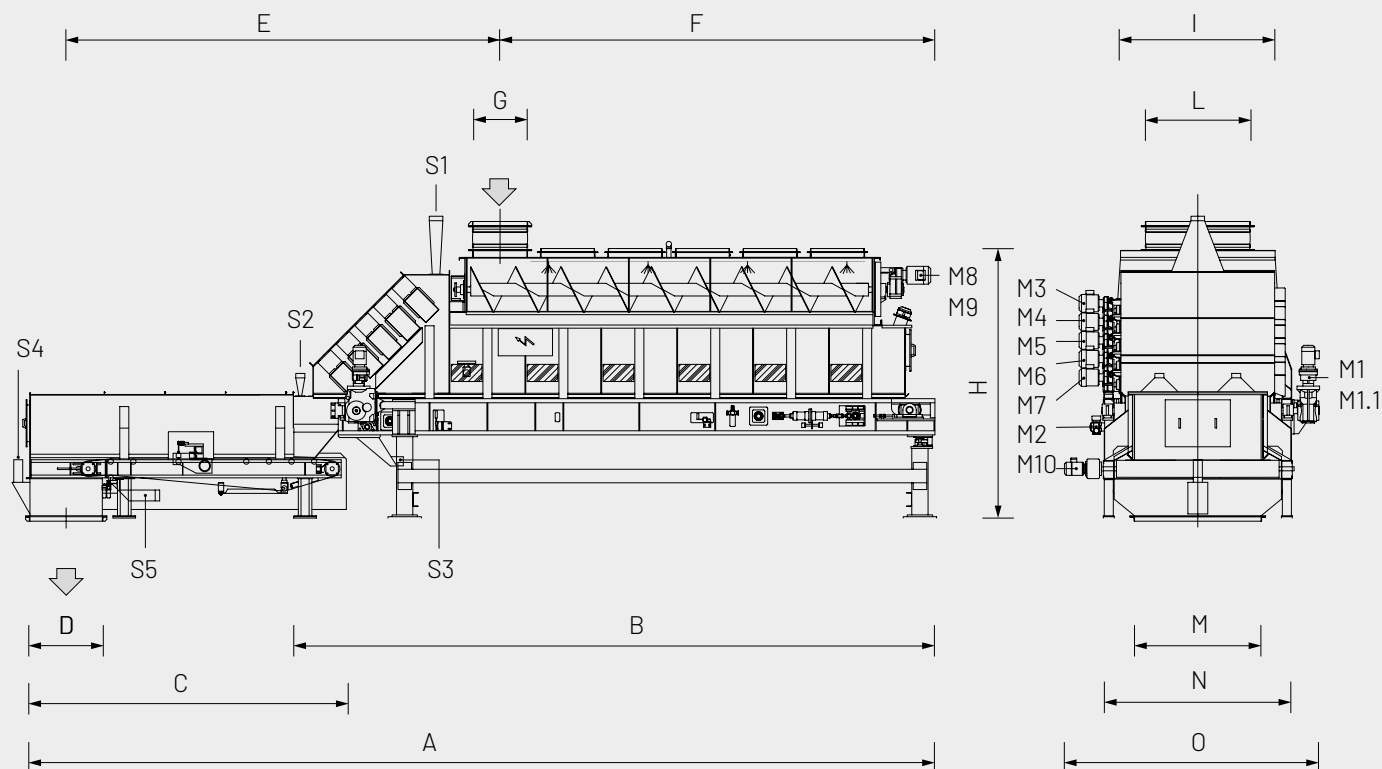
- Very sturdy construction • Screw or rakeback conveyor leveling system
- Particles discharged by rotating doffing roll shafts to optimise and fluidise particle flow • Brush for cleaning conveyor belt • Belt sliding surface made from galvanized iron sections • Level of the material in the bunker controlled by a set of capacitive levels • Option - level controlled by prior weighing of the whole bunker.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB



MODEL	OVERALL DIMENSIONS mm												
	A	B	C	D	E	F	G	H	I	L	M	N	O
BBPL 15/2580	10500	7100	4500	300÷800	4800	4800	600	3300	1410	750	1000	1670	2300
BBPL 25/2580	10500	7090	4500	300÷800	4800	4800	600	3300	1710	1150	1400÷1640	2070	2700
BBPL 60-20.25/2580	12500	9400	4500	300÷800	5700	6200	600	4100	2110	1550	1400÷1700	2500	3200
BBPL 60-20.40/2580	12500	9400	4500	300÷800	5700	6200	600	4100	2110	1550	1640÷1700	2500	3200

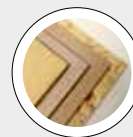
MODEL	MAX THROUGHPUT		MAX BIN VOLUME m ³	TOTAL SUCTION S1-S2-S3-S4-S5 m ³ /h	WEIGHT kg
	kg/h	m ³ /h			
BBPL 15/2580	According to bulk density	240	6	6130	9500
BBPL 25/2580		360	8	7560	11500
BBPL 60-20.25/2580		600	20	9640	13500
BBPL 60-20.40/2580		600	20	11240	15000

MODEL	INSTALLED POWER kW								
	M1	M1.1	M2	M3-M7	M8-M11	M12	M12.1	M13	M13.1
BBPL 15/2580	0.37÷1.1	0.078	0.37	1.1x5	2.2x2	0.75	0.078	1.5÷2.2	0.087
BBPL 25/2580	0.37÷1.5	0.078	0.37	1.1x5	2.2x2	0.75	0.078	2.2÷3.0	0.091
BBPL 60-20.25/2580	1.5	-	0.37	1.5x5	3.0x4	0.55÷1.1	0.087	2.2÷3.0	0.091
BBPL 60-20.40/2580	1.5	-	0.37	1.5x5	3.0x4	0.75÷1.5	0.087	2.2÷3.0	0.091

CONTINUOUS WEIGHING SCALE

BT & BN

ACCURATE MEASURING OF MATERIAL FLOW, ESPECIALLY AFTER
DOSING EQUIPMENT LIKE DOSING SCREWS AND BINS

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

- The small size of the BT or BN model means that they can be installed in any plant
- BT or BN model are particularly suitable for all plants where continuous material weighing is required to assist in on going adjustments and controls. The material is conveyed on a belt connected to an electronic weight transducer. The signal is converted by an electronic amplifier that instantly displays the weight in Kg/min or lb/min.

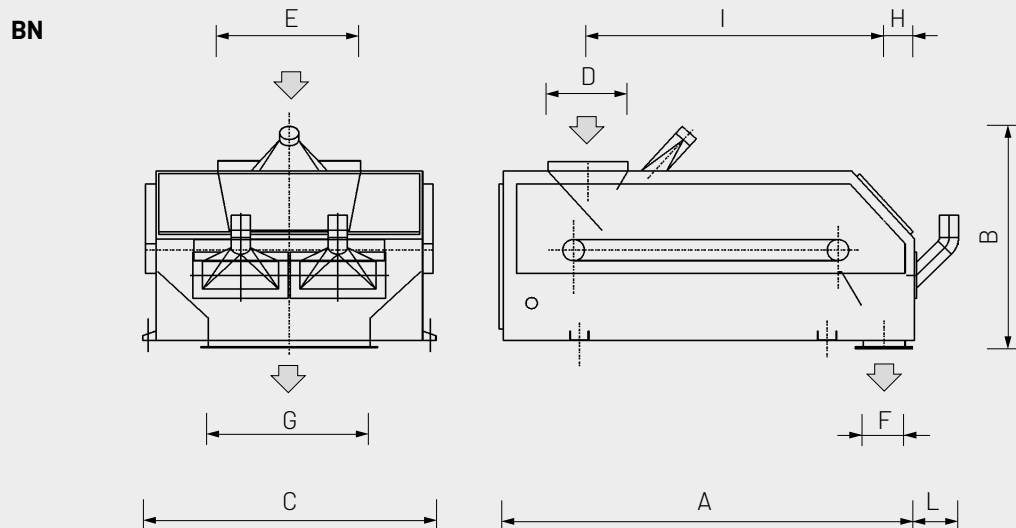
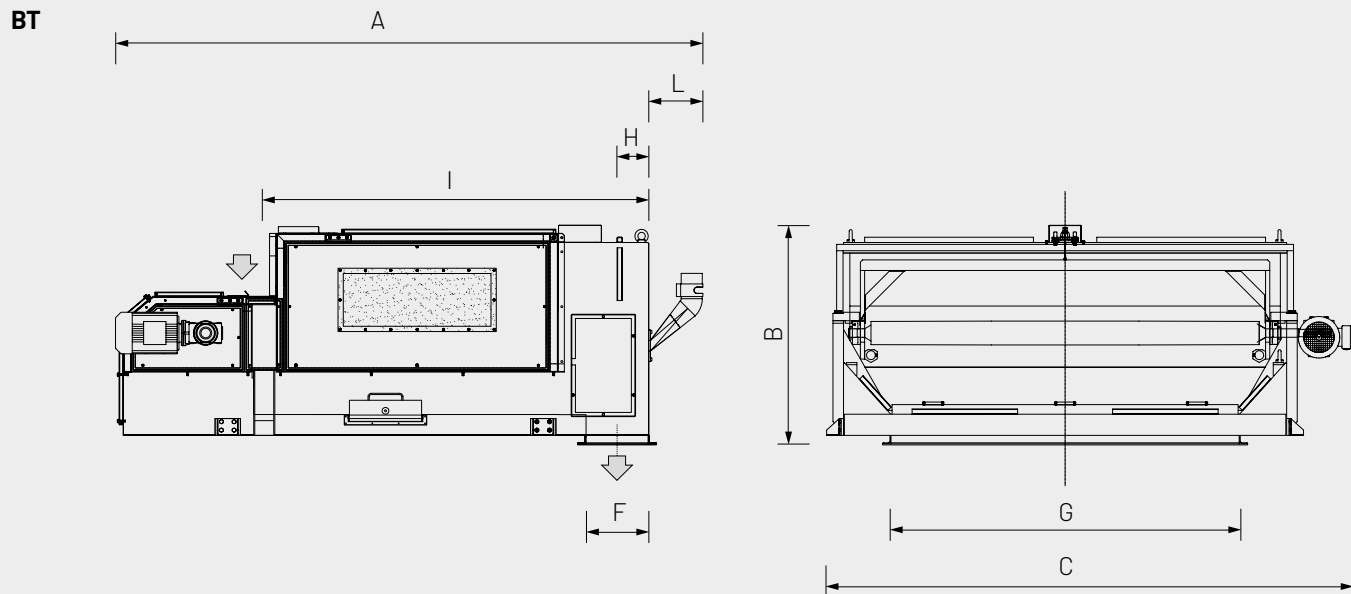
The continuous belt scale consists of:

- A strong metal frame partially closed with two dust extraction ports
- A weighing belt made of anti-static material and managed by a mechanical autocentering system
- A pneumatically activated mechanical cleaning system which ensures that the bottom of the scales is always clean, virtually eliminating any maintenance
- An electronic auto-tare system
- A load cell amplifier designed especially for industrial weighing systems which are located in very adverse working conditions.

Working in such adverse environments is made possible because all the electronic components of the amplifier are contained in a very strong, sealed, metal case. The amplifier is suitable for use with load cells which work in a proportional way; an increase in weight increases the output signal.

The amplifier, positioned on the side of the scales, displays the following:

- % flow of the previously selected full scale
- Throughput in kg or lb/min (real, present). The amplifier is an ideal interface between load cells installed on the plant and registering instruments, process calculation and control device.



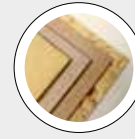
MODEL	MAX. THROUGHPUT kg/h	MAX. POWER kW	WEIGHT kg	OVERALL DIMENSIONS mm							
				A	B	C	F	G	H	I	L
BT 8	8000	0.45	600	1890	990	1260	300	655	150	1300	250
BT 16	16000	0.45	700	2490	990	1360	300	755	150	1800	250
BT 24	24000	0.45	900	2490	990	1860	300	1255	150	1800	250
BT 36	36000	0.75	1200	2490	990	2260	300	1655	150	1800	250

MODEL	MAX. THROUGHPUT kg/h	MAX. POWER kW	WEIGHT kg	OVERALL DIMENSIONS mm									
				A	B	C	D	E	F	G	H	I	L
BN 4	4000	0.45	280	1580	1190	1140	420	350	220	450	160	955	250
BN 8	8000	0.45	480	1880	1190	1340	420	550	220	650	160	1255	250
BN 16	16000	0.45	650	2180	1190	1540	420	750	220	850	160	1555	250
BN 24	24000	0.45	900	2480	1190	1740	420	950	220	1050	160	1855	250
BN 36	36000	0.75	1100	2780	1190	1940	420	1050	220	1250	160	2155	250

BELT SCALE

BS

HIGH PRECISION SCALES

BEST IN CLASS FOR:

WOOD BASED PANELS:
OSB/LSB/FOSB



BS belt scales are specifically designed to weigh and meter light and dusty materials. These belt scales: • imply no tare influence • offer high precision.

MAIN FEATURES

- Sturdy construction that prevents vibrations • Weighing bridge (unbeatable high precision system) that optimizes the ratio between effective weight (material) and tare (belt) • High performance weighing belt featuring special zig-zag joint • Large diameter drive drums that minimize belt tension • Roller-base to minimize belt friction • Integrated self-tensioning/self-centering weighing belt system • High-tech load cell amplifier or microprocessor.

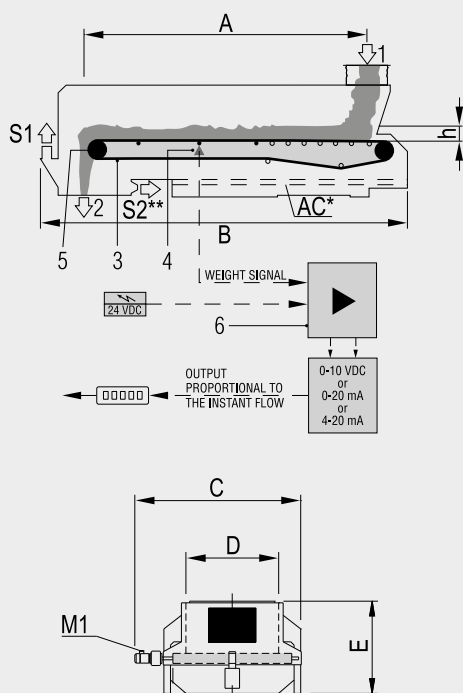
EXCELLENT RESULTS

- Extremely versatile and suitable for different materials including wet or dry chips, particles, dust, etc. • No tare influence • Self-cleaning system for dusty materials, on request • High precision.

TECNICAL DATA

- Precision: better than $\pm 0,5\%$ related to full scale value • Employment range: 20-100% of full scale value • Full scale value: freely settable • Testing: by calibrated chain.

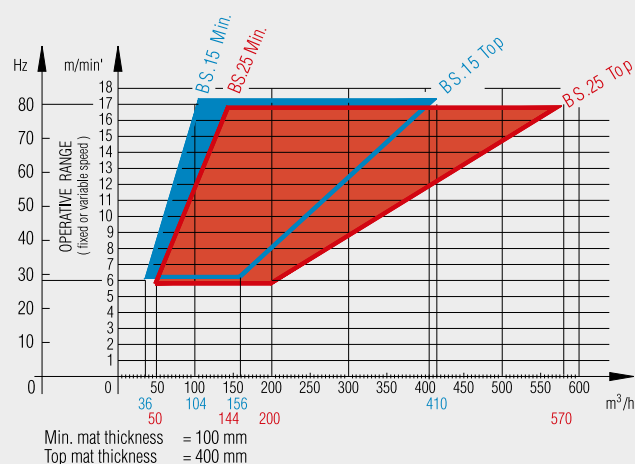
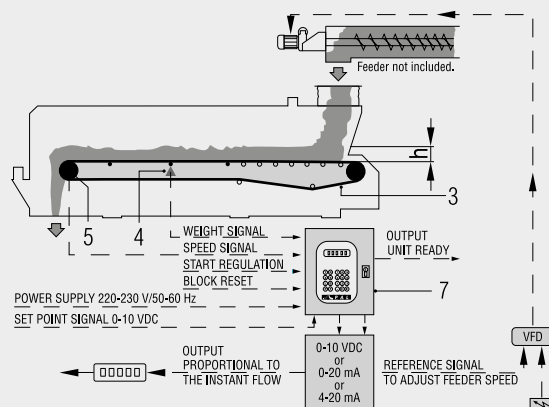
FLOW DETECTOR SYSTEM



- 1 = FEEDING
2 = DISCHARGE
3 = WEIGHING BELT
4 = LOAD CELL
5 = ENCODER
6 = LOAD CELL AMPLIFIER
7 = MICROPROCESSOR
M1 = DOSING BELT DRIVE
S1 = SUCTION

S2** = not needed with option AC (Autocleaning System)
AC* = autocleaning system based on pneumatic moving floor (OPTION)

FLOW REGULATOR SYSTEM



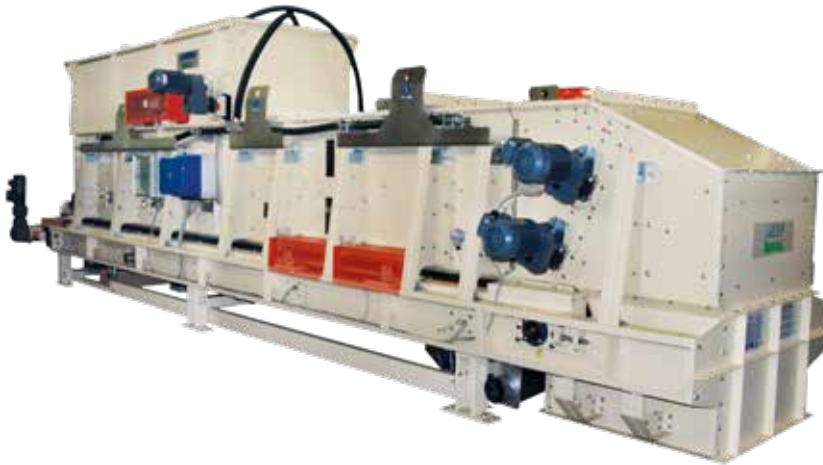
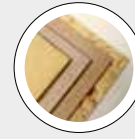
MODEL	OVERALL DIMENSIONS mm						INSTALLED POWER kW
	A	B	C	D	E	MAT THICKNESS h	M1*
BS.15/2580	2580	3750	2140	1000	1410	Min. = 100 Top = 400	0,55
BS.15/3500	3500	4950	2140	1000	1410		0,55
BS.15/6000	6000	7170	2140	1000	1410		0,55
BS.25/2580	2580	3750	2540	1400	1410		0,75
BS.25/3500	3500	4950	2540	1400	1410		0,75
BS.25/6000	6000	7170	2540	1400	1410		0,75

*Standard supply: fixed speed
Option: variable speed with inverter

MODEL	BULK MATERIAL		AC COMPRESSED AIR Nm³/h	SUCTION						APPROX. WEIGHT kg
				WET MATERIAL THROUGHPUT m³/h		DRY MATERIAL THROUGHPUT m³/h		AIR SPEED m/s	SUCTION PRESSURE Pa	
	m³/h TOP	t/h		S1	S2**	S1	S2**			
BS.15/2580	410	According to bulk density	0,02	800	1150	710	1020	29	200	1360
BS.15/3500	410			800	1150	710	1020	29	200	1560
BS.15/6000	410			800	1150	710	1020	29	200	2220
BS.25/2580	570			800	1150	710	1020	29	200	1840
BS.25/3500	570			800	1150	710	1020	29	200	1850
BS.25/6000	570			800	1150	710	1020	29	200	2580

**Not needed with option AC (Autocleaning System)

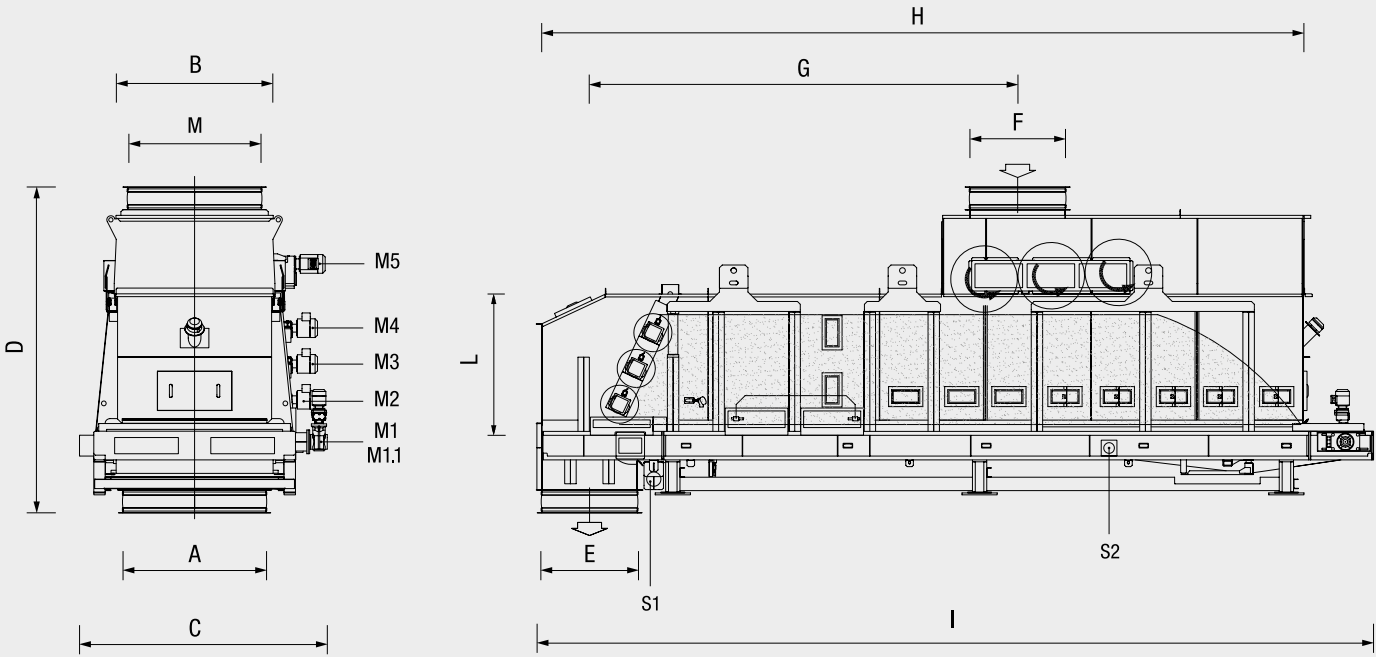
CONTINUOUS WEIGHING SCALE

BSFACCURATE FLOW METERING OF WOOD FIBRE,
ESPECIALLY BEFORE THE GLUE BLENDER**BEST IN CLASS FOR:**WOOD BASED PANELS:
MDF/HDF

The weighing system is achieved by means of a weighing table inserted in the main frame of the machine, and supported by 4 high precision electronic weight transducers; a digital amplifier/power supplier supplies power to the cells, appropriately filtered and adjusted, and amplifies the signal in proportion to the weight of the fibre. The software parameters, in particular the tare and full scale values, can be set using the display and keyboard. The anti-static belt which has a constant weight per surface unit, is installed on a steel frame, the walls of which are electrically heated and insulated to prevent condensation from forming. An important feature of the scale is that it is not affected by moderate pressure or negative pressure inside the weighing system, over a range of ± 0.6 mbar. This is because the weighing table is not mechanically dependent on the scale structure. Material outlet is regulated by doffing rolls, each with its own motorized shaft, which have the task of metering, opening and distributing the fibre, along the entire width of the outlet.

MAIN FEATURES

- High precision even with variations in pressure inside the measuring system ($-1 + 0.5$ mbar)
- Inverter driven belt gear motor used to vary conveyor belt speed to maintain a constant fibre mat height
- Automatic belt tracking system
- Balanced drive and driven rollers
- Balanced doffing rolls to fluidise fibre discharge
- Side seals to prevent fibre spillage
- Easy calibration.



MODEL	OVERALL DIMENSIONS mm										
	A	B	C	D	E	F	G	H	I	L	M
BSF 1050	1050	1100	1900	2550	1000	1000	4500	7800	8800	800	900
BSF 1550	1500	1660	2600	3235	1000	1000	4500	8000	8800	1155	1400
BSF 2000	2000	2662	3170	3235	1000	1000	4500	8000	8800	1560	1900

MODEL	MAX THROUGHPUT kg/h	VOLUME m³	TOTAL SUCTION S1 - S2 m³/h	INSTALLED POWER kW						WEIGHT kg
				M1	M1.1	M2	M3	M4	M5	
BSF 1050	12000	6	3020	0.25	0.078	1.1	1.1	-	2.2	5620
BSF 1550	20000	14	3020	0.25	0.078	1.1	1.1	1.1	2.2	6780
BSF 2000	40000	18,5	3020	0.25	0.078	1.1	1.1	1.1	2.2	8000

MAT SCALE

BPM

CONTINUOUS MAT SCALE



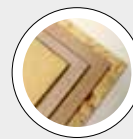
The system assesses mat weight at forming line outlet, so that the forming machines or the levelling scalper can be adjusted in order to obtain a constant weight per square meter value to coincide with that previously set.

The weighing scale is formed from two hinged aluminium plates which are held by two electronic weight transducers. These in turn are connected to an electronic digital amplifier which transmit the converted proportional signal to the computer.

MAIN FEATURES

- Excellent weighing precision • Digital signal processing with filter functions
- Easy to calibrate and simple to use • Suitable for assembly on any kind of roller or belt conveyor
- No maintenance required.

BEST IN CLASS FOR:

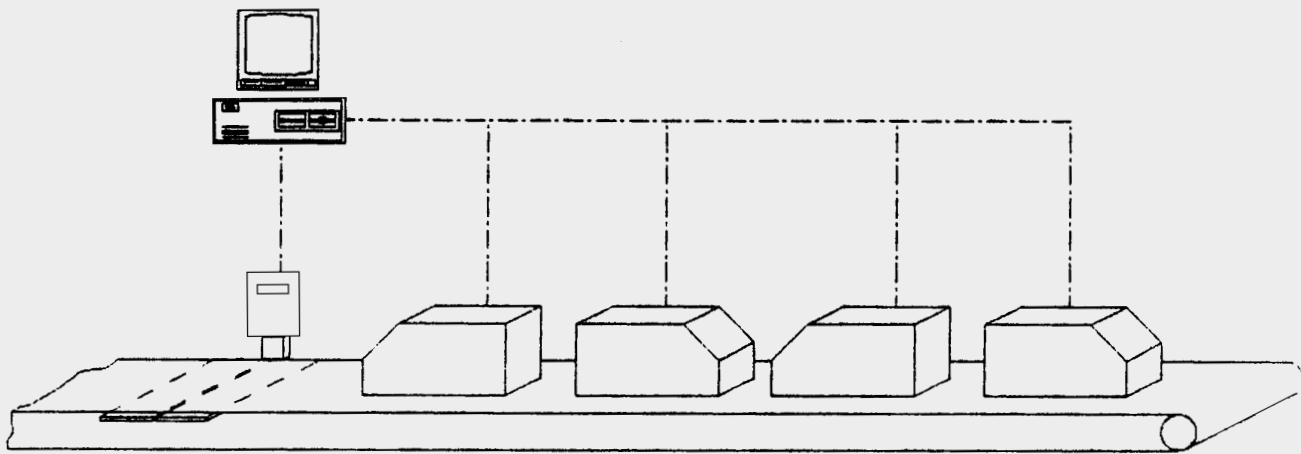


WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



RAW BOARD SCALE

BPP

CONTINUOUS RAW BOARD SCALE

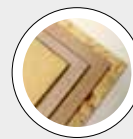


This weighing system is composed of load cells, of a suitable load, to support the conveyor unit. An IMAL electronic digital amplifier supplies the voltage, appropriately filtered and adjusted, to the cells, and amplifies the proportional weight signal. This value can then be transmitted to other quality control systems, like the thickness gauge, so that density may be calculated.

The integrated display and keyboard are used to programme the software processing parameters, especially with regard to the tare and full scale values.

MAIN FEATURES

- Digital signal processing • Highly accurate • Non-stop board weighing
- Possibility of linking up with other systems • Simple to install.

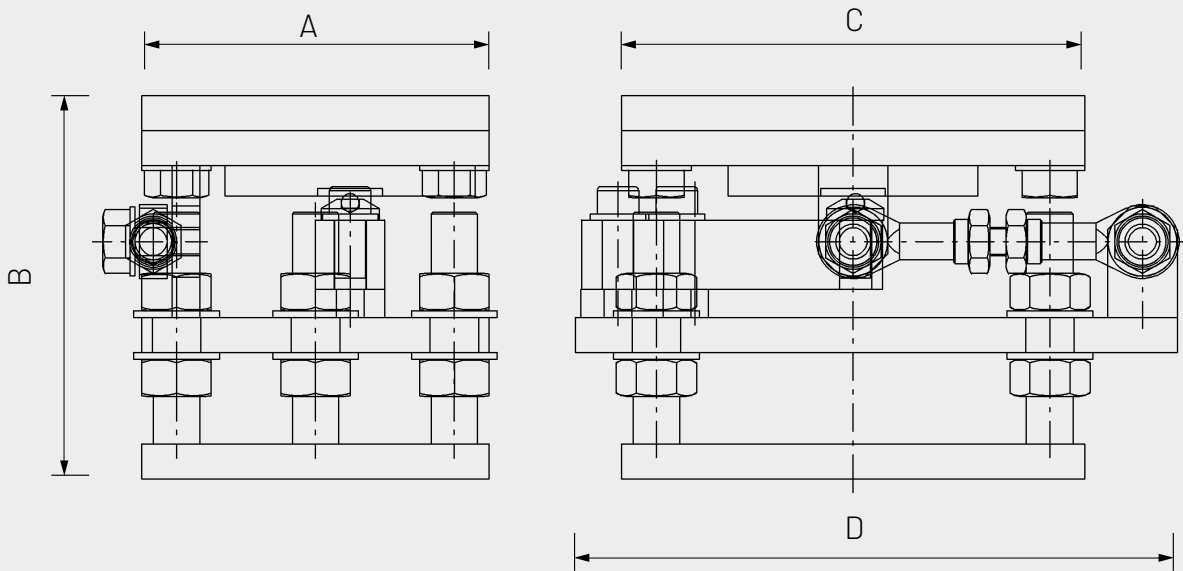
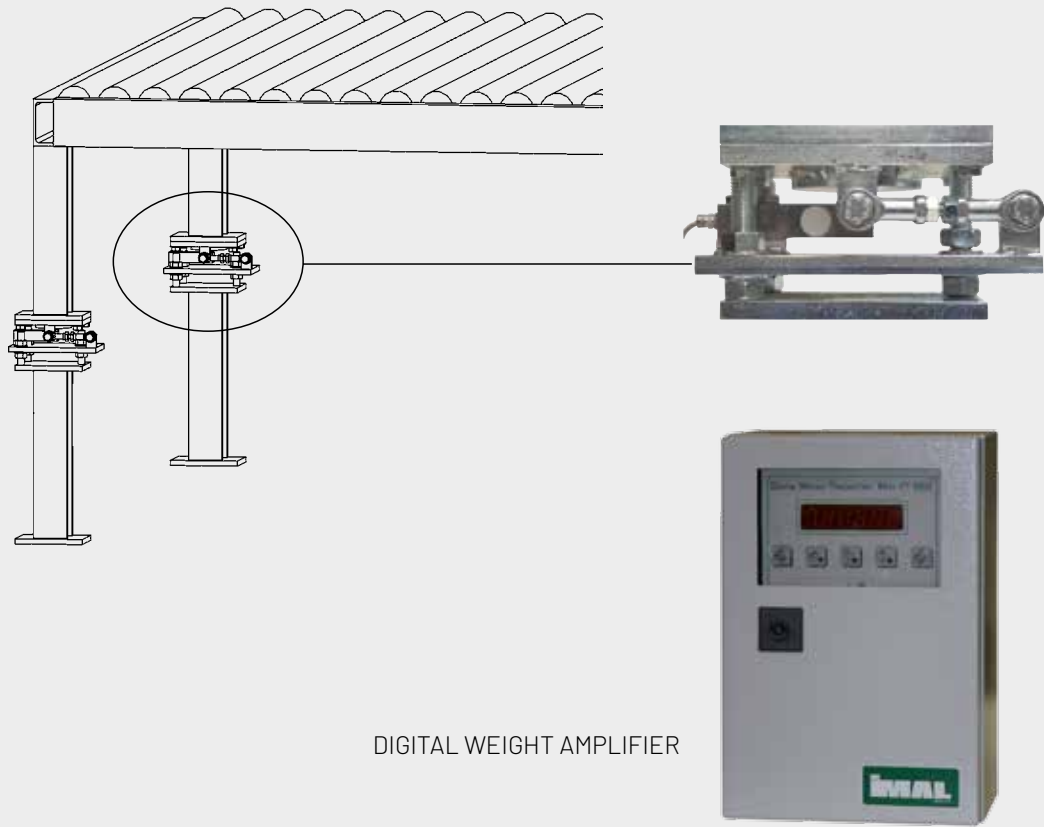
BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D
BPP	150	165	200	260

AMPLIFIER UNIT FOR LOAD CELLS AND FLOW RATE MEASUREMENT

MULTICOMP BCD

BUNKER & BALANCE



To amplify the load cell signal and calculate the flow rate of the BCD scale, making this data available on the display and via a 4-20mA analogue signal.

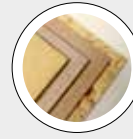
The unit acquires the signal from the load cell located below the weighing bridge and amplifies it by calculating the instantaneous static weight of the scale. Furthermore, an encoder is applied to accurately measure the speed of the weighing scale belt and, by multiplying the speed by the static weight, the unit calculates the scale flow rate in Kg/min.

MAIN FEATURES:

- Full scale value of the weighing scale • Value in mV delivered by the load cell in proportion to the supply voltage and static weight applied • Number of pulses/encoder revolutions to calculate the speed at which the belt travels
- Touch screen parameter programming • Display belt speed, static weight, flow rate in Kg/min, filling percentage of the bin(option)

ADVANTAGES:

- Possibility of having all the control variables for the scale readily available and to be able to check these real time (belt speed and flow rate)

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

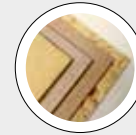
MDF/HDF

OPTIONS

- A second load cell input is available as an additional option (not supplied in the standard version) to show how full the bin upstream of the weighing scale is.
- ATEX: Equipment compliant with 94/9/CE/ATEX 95 Directive and suitable for zone 22 installation (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.

TECHNICAL DATA	
MAX. ABSORPTION	50 VA
VOLTAGE	110/240 V - 50/60 Hz
DIMENSIONS	380 x 380 x 260 mm
PROTECTION GRADE	IP54
ENVIRONMENTAL TEMPERATURE	-20 ÷ +70 °C

Resination Systems



WOOD BASED
PANELS

	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
IPL	232	•		•		
IPV	234	•				
IPL9000	236	•				
MULTICOMP CGD	238	•		•		
PB HI-JET (RH)	240	•				
OSB HI-JET (SB)	242			•		
MDF HI-JET BLOW-LINE	244		•			
FB	246		•			

GLUE BLENDER

IPL

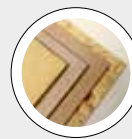
LOW SPEED, LONG MIXING, HIGH-TECH GLUING PROCESS



IPL blenders have long chambers for low speed and long blending of particles and resin. This reduces the breakage of the large particles, minimizes the centrifugation of the fines and distributes the glue over all the fractions in a much more uniform and even manner. The optional MULTICOMP CGD, blender mixing time control unit, enables a good quality and constant blend to be achieved by adjusting the discharge gate.

MAIN FEATURES

• Soft mixing prevents breakage of the larger particles • Low speed reduces blender chamber wear • Accurately balanced to eliminate vibration • Resin distributed evenly over all the particle fractions • Blending time constantly controlled by the MULTICOMP CGD (optional) • All the mixing chambers are made of special wear resistant steel (Avesta 2205) • The new sprayer nozzles remain clean for a very long time • The mixing chamber and discharge hatch are water cooled • Motorized lid to open and close the blender.

BEST IN CLASS FOR:

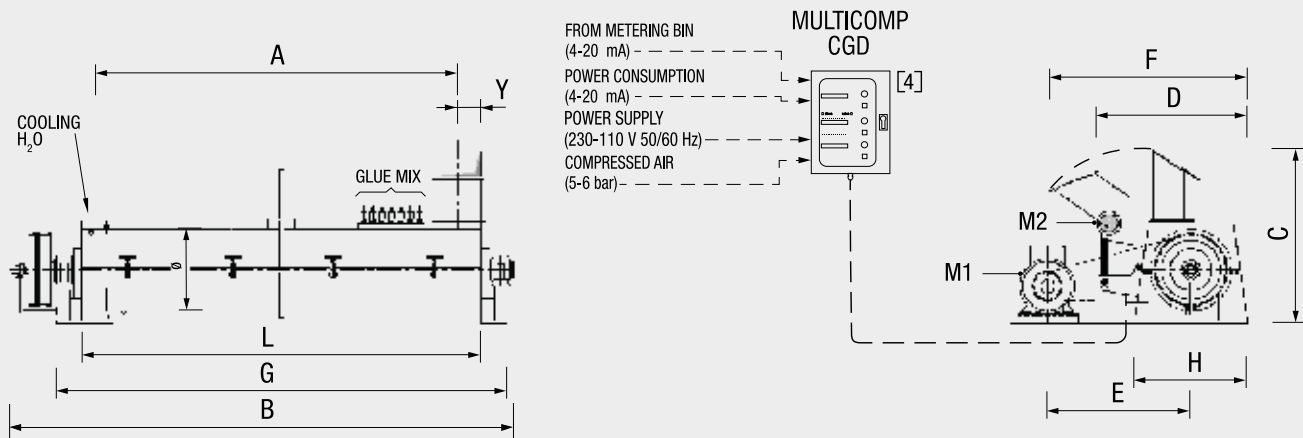
WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

OPTIONS

• **MULTICOMP CGD:** Microprocessor blender mixing time control unit • **PANZER:** Tungsten carbide coated wear resistant chamber for gluing even the most abrasive particles • **S:** Maintenance switch for the main motor, as per EC standards • **P:** Pre wiring in an on-board panel • **INJ:** Dust injection system • **ATEX:** Equipment compliant with 94/9/CE/ATEX 95 Directive and suitable for zone 22 installation (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.



MODEL		OVERALL DIMENSIONS mm										INSTALLED POWER kW/poles		APPROX. WEIGHT kg	
		A	B	C	D	E	F	G	H	Y	L	M1	M2	[5]	[6]
IPL 4 CTS	IPL 4 ASS	2175	3705	1315	1162	1042	1505	3065	870	200	2500	45/4	-	2250	2400
IPL 6 CTS	IPL 6 ASS	2625	4278	1645	1443	1310	1633	3620	1000	225	3000	75/4	0.37/6	2850	3000
IPL 8 CTS	IPL 8 ASS	2625	4278	1645	1443	1340	1633	3620	1000	225	3000	75/4	0.37/6	3200	3400
IPL 10 CTS	IPL 10 ASS	2625	4305	1720	1543	1495	1900	3625	1100	225	3000	75/4	0.37/6	3550	3800
IPL 12 CTS	IPL 12 ASS	3125	4810	1720	1543	1495	1900	4145	1100	225	3500	90/4	0.37/6	3750	4000
IPL 15 CTS	IPL 15 ASS	3625	5305	1870	1593	1575	2086	4620	1200	225	4000	90/4	0.75/6	4400	4700
IPL 22 CTS	IPL 22 ASS	4100	5865	1966	1721	1575	2220	5120	1280	250	4500	110/6	0.75/6	5600	5900
IPL 30 CTS	IPL 30 ASS	4575	6440	2195	1812	1655	2440	5620	1350	275	5000	132/6	1.1/6	6350	6650
IPL 40 CTS	IPL 40 ASS	5575	7440	2260	1812	1700	2550	6620	1350	275	6000	160/6	1.1/6	7500	7800
IPL 50 CTS	IPL 50 ASS	5450	7580	2610	2122	1730	2950	6700	1600	350	6000	200/6	2.2/6	10450	10800
IPL 60 CTS	IPL 60 ASS	5950	8100	2630	2122	1780	3120	7200	1600	350	6500	250/6	2.2/6	-	-

MODEL		MAX. THROUGHPUT kg/h	CHAMBER		COOLING Δt 5°C [1]		COOLING Δt 7°C [2]		[3]
			$\emptyset \times L$ mm	Volume l	l/h	kcal/h	l/h	kcal/h	
IPL 4 CTS	IPL 4 ASS	4000	480 x 2500	452	4230	21150	4230	29610	2.5
IPL 6 CTS	IPL 6 ASS	6000	530 x 3000	662	6770	33860	6770	47400	
IPL 8 CTS	IPL 8 ASS	8000	600 x 3000	847	6950	34750	6950	48650	
IPL 10 CTS	IPL 10 ASS	10000	700 x 3000	1154	8100	40500	8100	56700	
IPL 12 CTS	IPL 12 ASS	12000	700 x 3500	1350	9580	47900	9580	67060	
IPL 15 CTS	IPL 15 ASS	15000	800 x 4000	2010	12260	61300	12260	85820	
IPL 22 CTS	IPL 22 ASS	22000	850 x 4500	2552	16100	80500	16100	112700	
IPL 30 CTS	IPL 30 ASS	30000	900 x 5000	3179	20420	102100	20420	142940	
IPL 40 CTS	IPL 40 ASS	40000	900 x 6000	3815	24500	122500	24500	171500	
IPL 50 CTS	IPL 50 ASS	50000	1200 x 6000	6782	32600	163000	32600	228200	
IPL 60 CTS	IPL 60 ASS	60000	1200 x 6500	7347	35100	175500	35100	245700	

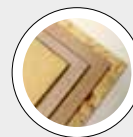
[1] Particle temperature - 45 °C [2] Particle temperature - 65 °C [3] Water pressure drop

[4] MULTICOMP CGD as option [5] CTS blenders [6] ASS blenders

GLUE BLENDER

IPV

MEDIUM SPEED AND MIXING TIME BLENDERS

**BEST IN CLASS FOR:**WOOD BASED PANELS:
PB/SPB

It is possible to choose two distinct particle feeding systems: • CTS: traditional system suitable for fine particles, i.e. surface layer • ASS: anti-shock system, recommended for larger particles, i.e. core layer.

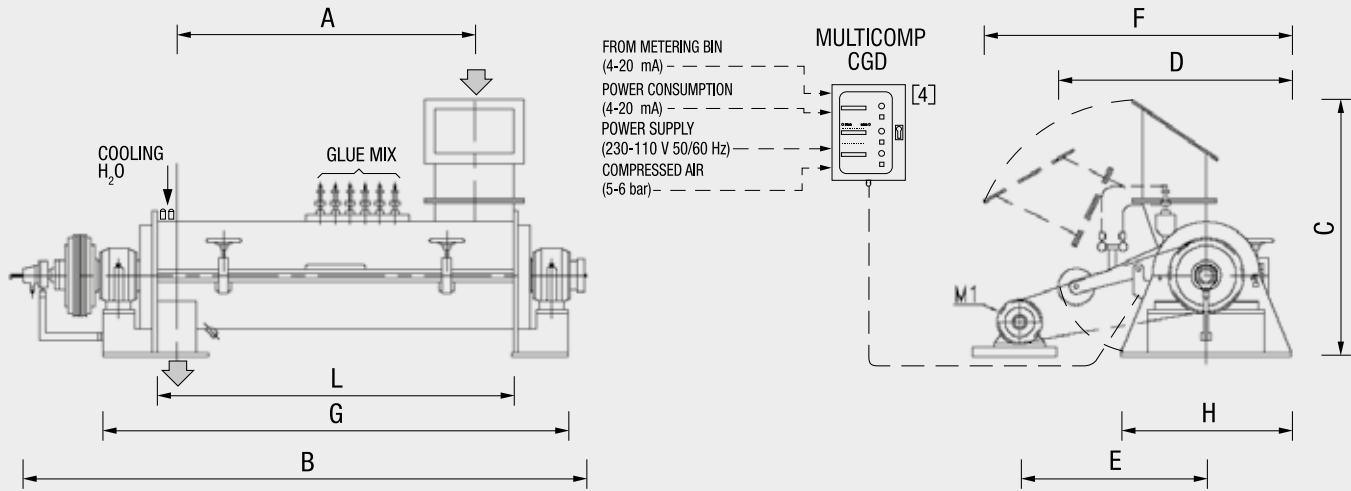
The size of the chamber ensures a quick and efficient blending of the glued particles. The optional MULTICOMP CGD, blender mixing time control unit, enables a good quality and constant blend to be achieved by adjusting the discharge gate.

MAIN FEATURES

- The glue is distributed evenly over the particle fractions
- Blending time constantly controlled by the MULTICOMP CGD (optional)
- All the mixing chambers are made of special Avesta 2205 steel, which is highly resistant to wear and chemical substances
- The mixing chamber and discharge hatch are water cooled
- The new sprayer nozzles remain clean for a long time.

OPTIONS

- **MULTICOMP CGD:** Microprocessor blender mixing time control unit
- **PANZER:** Tungsten carbide coated wear resistant chamber for gluing even the most abrasive particles
- **S:** Maintenance switch for the main motor, as per EC standards
- **P:** Pre wiring in an on-board panel
- **ATEX:** Equipment compliant with 94/9/CE/ATEX 95 Directive and suitable for zone 22 installation (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust.



MODEL		OVERALL DIMENSIONS mm									INSTALLED POWER kW/poles M1	APPROX. WEIGHT kg	
		A	B	C	D	E	F	G	H	L		[5]	[6]
IPV 1.5 CTS	-	1030	2250	970	870	867	1074	1800	620	1250	18.5/4	950	-
IPV 3.5 CTS	IPV 3.5 ASS	1200	2648	1115	1080	838	1306	2030	800	1470	22.0/4	1350	1400
IPV 6 CTS	IPV 6 ASS	1393	2865	1237	1098	1025	1395	2190	800	1680	30.0/4	1550	1850
IPV 8 CTS	IPV 8 ASS	1635	3185	1311	1190	1117	1502	2525	870	1960	45.0/4	1850	2300
IPV 12 CTS	IPV 12 ASS	1835	3437	1644	1206	1905	1662	2830	900	2210	55.0/4	2800	2990
IPV 16 CTS	IPV 16 ASS	1825	3470	1645	1431	1273	1853	2760	1000	2200	75.0/4	2950	3330
IPV 20 CTS	IPV 20 ASS	1825	3505	1715	1475	1457	1899	2825	1100	2200	90.0/4	3350	3600
IPV 30 CTS	IPV 30 ASS	2305	3980	2034	1647	1593	2261	3300	1200	2680	132.0/4	4250	4600
IPV 40 CTS	IPV 40 ASS	3625	5305	2080	1706	1593	2320	4620	1200	4000	160.0/4	5050	5250

MODEL		MAX. THROUGHPUT kg/h	CHAMBER		COOLING Δt 5°C [1]		COOLING Δt 7°C [2]		[3]
			$\emptyset \times L$ mm	Volume l	l/h	kcal/h	l/h	kcal/h	
IPV 1.5 CTS	-	1500	296 x 1250	86	1500	7500	1500	10500	2.5
IPV 3.5 CTS	IPV 3.5 ASS	3500	380 x 1470	167	2400	12000	2400	16800	
IPV 6 CTS	IPV 6 ASS	6000	440 x 1680	255	3000	15000	3000	21000	
IPV 8 CTS	IPV 8 ASS	8000	480 x 1960	355	4000	20000	4000	28000	
IPV 12 CTS	IPV 12 ASS	12000	530 x 2210	487	5000	25000	5000	35000	
IPV 16 CTS	IPV 16 ASS	16000	600 x 2200	622	6000	30000	6000	42000	
IPV 20 CTS	IPV 20 ASS	20000	700 x 2200	876	7400	37000	7400	51800	
IPV 30 CTS	IPV 30 ASS	30000	800 x 2680	1347	11800	55500	11800	77700	
IPV 40 CTS	IPV 40 ASS	40000	800 x 4000	2010	12260	61300	12260	85820	

[1] Particle temperature - 45 °C [2] Particle temperature - 65 °C [3] Water pressure drop

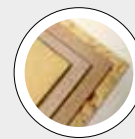
[4] MULTICOMP CGD as option [5] CTS blenders [6] ASS blenders

GLUE BLENDER IPL9000

DUAL BLENDER L-SHAPE INSTALLATION



BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB

Extended mixing time and the double blending of particles and glue have provided good results in many particleboard plants. Improved board properties, greater consistency and considerable reduction in glue consumption are just a few examples of the benefits had with this method.

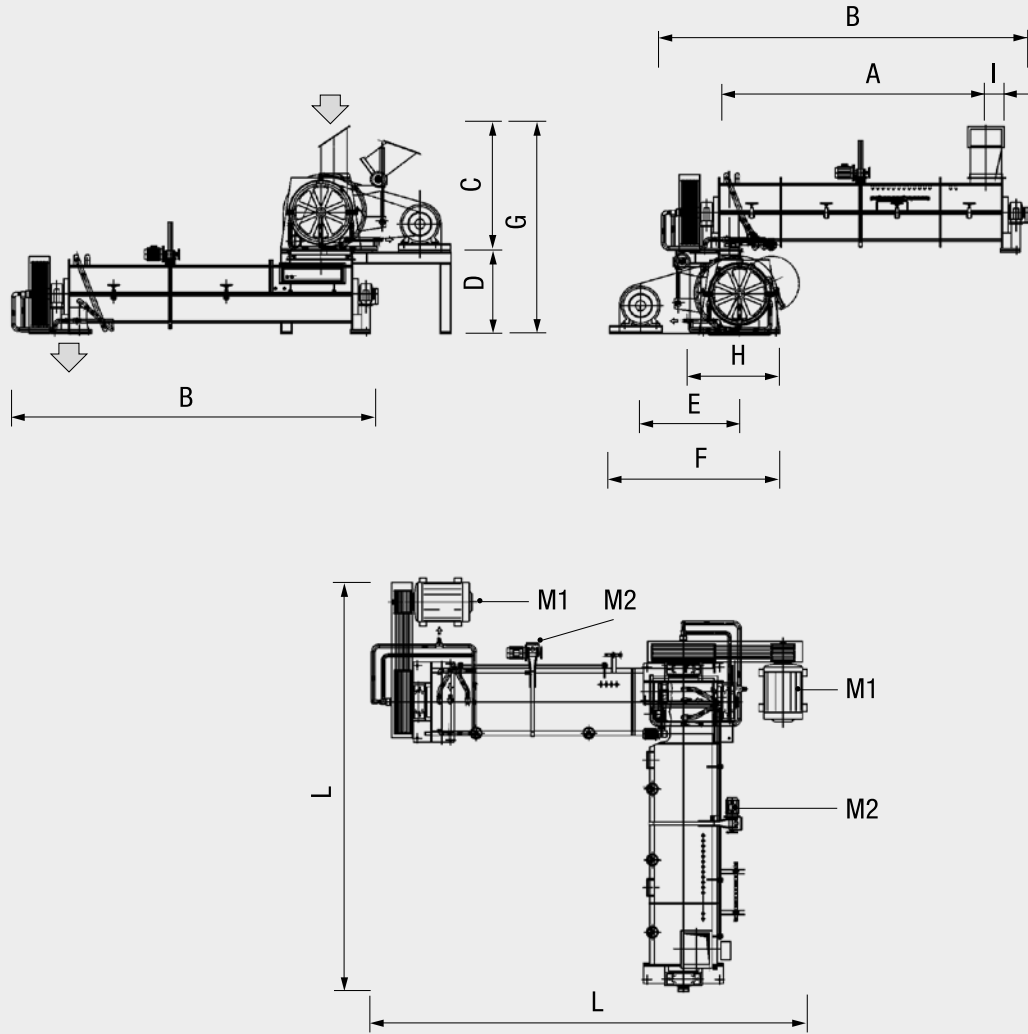
In this particular dual setup, the first blender is used to apply glue to the wood particles just after the infeed and to then mix the material in the remaining area. The second blender has just the task of mixing and can therefore use the entire length of the machine for this purpose.

In conventional blenders mixing is limited to the area located between the last glue nozzle applicator and the blender outfeed, which, in the majority of cases, is less than two-thirds of the overall length of the machine itself.

A dust injection system may be inserted between the two machines.

MAIN FEATURES

- The low mixing force applied prevents particle breakage
- Little wear on the blender chambers due to the low speed
- Glue evenly spread over all particle fractions
- Retention time is constantly controlled by the MULTICOMP CGD microprocessor
- All mixing chambers are made from special, highly wear resistant and chemical resistant stainless steel
- The new sprayer nozzles stay clean for long periods and eliminate the need for static mixers
- All parts in contact with the glue are water cooled and the low mixing speed keeps them clean
- Guaranteed glue savings of 5-20% and over, compared to conventional high speed blenders.



MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
IPL9008	2175	3705	1315	740	1042	1505	2055	870	200	4747
IPL9012	2625	4278	1645	790	1310	1663	2435	1000	225	5580
IPL9020	2625	4305	1720	960	1495	1900	2680	1100	225	5800
IPL9024	3125	4810	1720	960	1495	1900	2680	1100	225	6305
IPL9030	3625	5305	1870	1060	1575	2086	2930	1200	225	6880
IPL9044	4100	5865	1966	1110	1575	2220	3090	1280	250	7440
IPL9060	4575	6440	2195	1160	1655	2440	3355	1350	275	8095

*[1] Particle temperature -45 °C *[2] Particle temperature -65 °C

MODEL	MAX. THROUGHPUT kg/h	CHAMBER		INSTALLED POWER kW/poles		COOLING Δt 5°C [1]		COOLING Δt 7°C [2]		BLENDER PRESSURE LOSS bar (H ₂ O) pres. drop	APPROX. WEIGHT kg	
		Ø x L mm	Volume l	M1	M2	l/h	kcal/h	l/h	kcal/h		CTS	ASS
IPL9008	8000	480 x 2500	904	45/4	-	8460	42300	8460	59220	2.5	4500	4800
IPL9012	12000	530 x 3000	1324	75/4	0.37/6	13540	67720	13540	94800	2.5	5700	6000
IPL9020	20000	700 x 3000	2308	75/4	0.37/6	16200	81000	16200	113400	2.5	7100	7600
IPL9024	24000	700 x 3500	1700	90/4	0.37/6	19160	95800	19160	134120	2.5	7500	8000
IPL9030	30000	800 x 4000	4020	90/4	0.75/6	24520	122600	24520	171640	2.5	8800	9400
IPL9044	44000	850 x 4500	5104	110/6	0.75/6	32200	161000	32200	225400	2.5	11200	11800
IPL9060	60000	900 x 5000	6358	132/6	1.1/6	40840	204200	40840	285880	2.5	12700	13300

BLENDER MIXING TIME CONTROL UNIT

MULTICOMP CGD

TO INCREASE PARTICLE BLENDING TIME AND TO
ACHIEVE A BETTER DISTRIBUTION OF THE GLUE MIXTURE



The CGD is a device which has been designed to control wood particle mixing time in blenders.

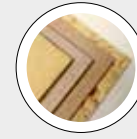
The CGD reads and processes signals (analogue and digital) to regulate the power absorbed by the blender shaft motor in relation to the amount of wood being resined.

MAIN FEATURES

- Automatic control of the blender discharge gate • Optimal blender operation
- Maximized machine load • Constant retention time • Touch screen parameter programming • Digital PID adjustment • Alarms to signal malfunctions.

ADVANTAGES

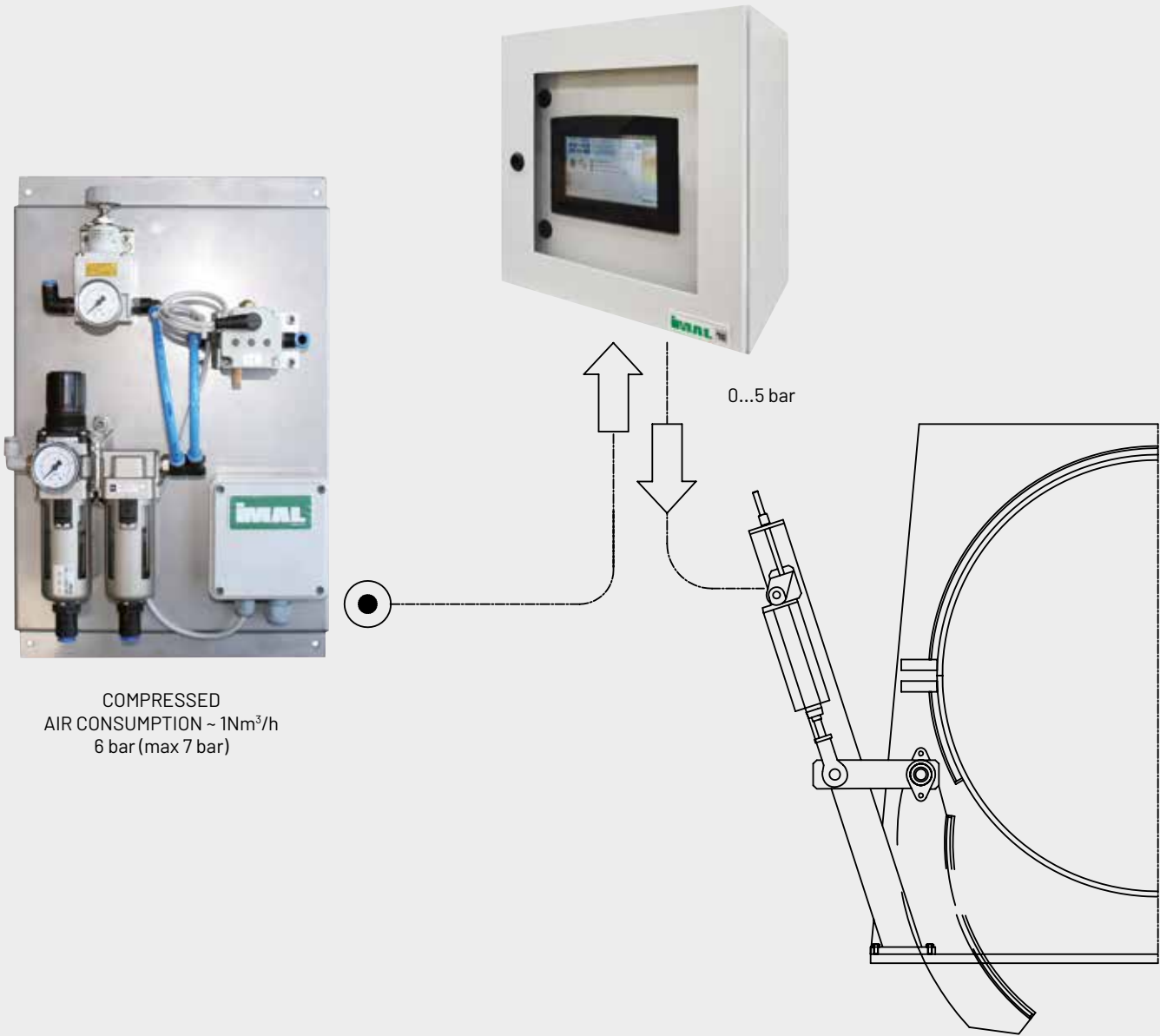
- Optimised blending process • Reduced resin consumption • Greater particle friction • Better board quality properties • Continual control of the current absorbed by the blender • Remote connection via Ethernet for troubleshooting and editing parameters.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB



OPTIONS

- **ATEX:** Equipment compliant with 94/9/CE/ATEX 95 Directive and suitable for zone 22 installation (on the basis of Directive 99/92/CE ATEX 137), and that is, intended for use in potentially explosive atmospheres due to the presence of dust
- The MULTICOMP CGD SPB version is available to control gate height rather than the opening of the discharge gate.

TECHNICAL DATA	
MAX. ABSORPTION	50 VA
VOLTAGE	110/240 V - 50/60 Hz
DIMENSIONS	380 x 380 x 260 mm
PROTECTION GRADE	IP54
ENVIRONMENTAL TEMPERATURE	-20 ÷ +70 °C

HIGH PRESSURE PARTICLEBOARD RESINATION TECHNOLOGY

PB HI-JET (RH)

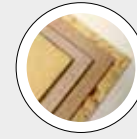
TO SIGNIFICANTLY REDUCE RESIN CONSUMPTION IN THE MANUFACTURE
OF PB PANELS AND ACHIEVE OPTIMAL RESIN DISTRIBUTION



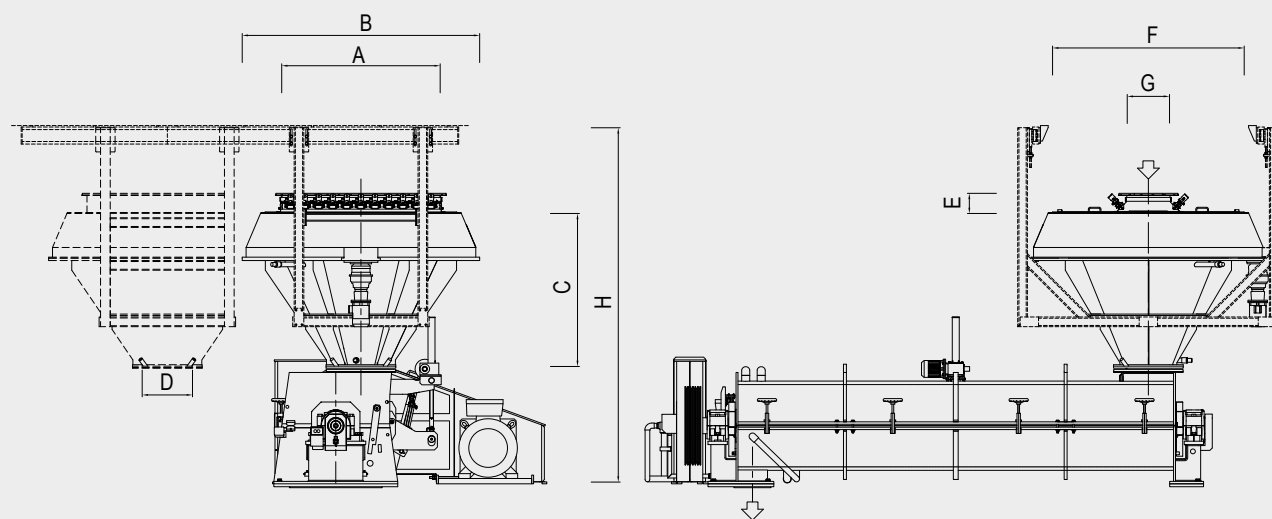
The system micronizes/nebulizes the resin and the micro glue particles produced form a saturated environment, so that, as the wood particles pass through, the surface of the particles is covered by an ideal quantity of resin before they are fed into the blender. The distribution achieved in this way is directly proportional to the surface of each particle, to ensure that each particle only receives the amount of glue it needs, with a consequent reduction in the resin consumed. This new technology has at last solved the issue of the correct distribution of the glue over the wood particles; with traditional technology in fact, the fines were always over-glued because they tended to absorb as much as 5 or 7 times more than the amount absorbed by the larger particles. When inspected in the laboratory, it was sometimes noted that the larger sized particles were significantly under-glued, because the fines had virtually absorbed all the glue. The special chute is equipped with a motorized self-cleaning system, and is used to convey the resined material to blender infeed.

ADVANTAGES

- In traditional systems the nozzles are mounted at 2/3 from blender outfeed. With this new high pressure injection system located inside the infeed chute, the whole length of the blender is exploited for the blending process, greatly increasing retention time
- Resin consumption reduced by approximately 15% due to the improved resin distribution at high pressure and the longer retention time.

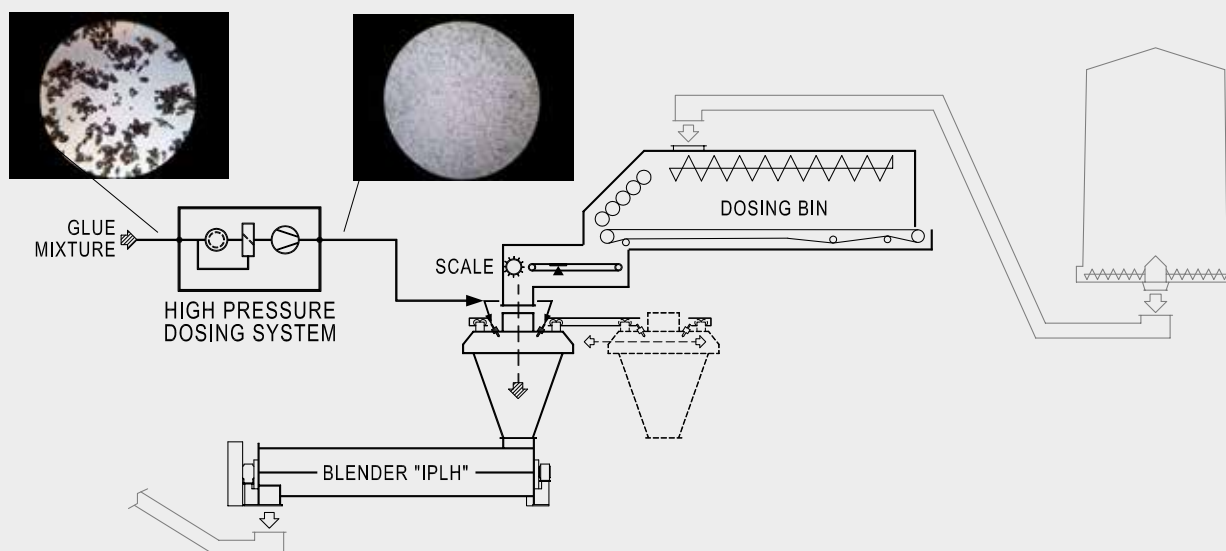
BEST IN CLASS FOR:

WOOD BASED PANELS:
PB/SPB



**RESIN BEFORE
PULVERIZATION AND FILTERING**

**RESIN AFTER
PULVERIZATION AND FILTERING**



MODEL	OVERALL DIMENSIONS mm								
	A	B	C	D	E	F	G	minimum height H required for IPV	minimum height H required for IPL
RH 1-1400.450-1250	1120	1980	1250	450	190	1400	570	3800	3500
RH 1-1930.520-1580	1640	2450	1580	520	190	1930	440	3800	3500
RH 1-1930.620-1490	1640	2450	1490	620	190	1930	440	-	3800
RH 1-1930.730-1370	1640	2450	1370	730	190	1930	440	-	4000

MODEL	FOR APPLICATION WITH THE FOLLOWING BLENDERS
RH 1-1400.450-1250	IPV 8 - 20 / IPL 4 - 12
RH 1-1930.520-1580	IPV 30 - 40 / IPL 15 - 22
RH 1-1930.620-1490	IPL 30 - 40
RH 1-1930.730-1370	IPL 50 - 60

Please consult the relative IPV and IPL blender technical sheets for details.

HIGH PRESSURE OSB RESINATION TECHNOLOGY

OSB HI-JET (SB)

TO SIGNIFICANTLY REDUCE RESIN CONSUMPTION IN THE MANUFACTURE
OF OSB PANELS AND ACHIEVE OPTIMAL RESIN DISTRIBUTION

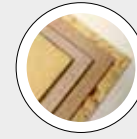


IMAL has designed a solution where acceleration rolls, installed at the out-feed to the scale and prior to the blender, create a very fine curtain of strands and the resin (ie. MDI, MUF, PF or MUPF) is then "painted" at high pressure over the strands as they fall inside the chute. During the next phase the strands are mixed and blended by a special mixer with a shaft that rotates at low speed, specially designed to achieve a perfect blend.

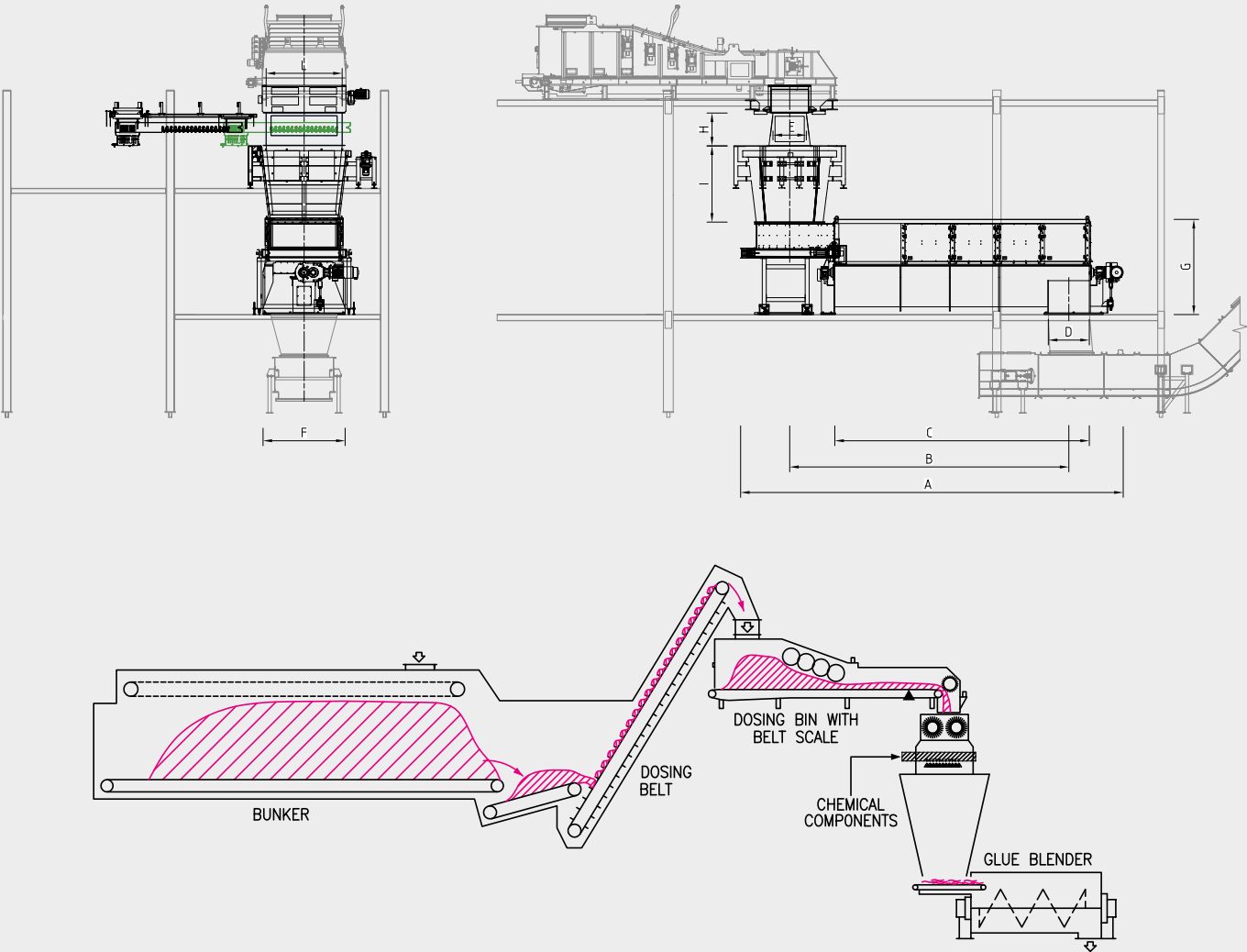
Additional chemical components can be injected in the blender too.

ADVANTAGES ACHIEVED WITH THE SYSTEM

- Perfect resin distribution and consequent reduction in resin consumption by as much as 20%
- Strands do not break and thus generation of fines is eliminated during the blending phase
- Blender and resin injection system are simple and rapid to clean
- The typical problems of the spinning head atomizers mounted inside the blender are eliminated (the spinning heads overheat and generate an active ignition source, the spinning heads get dirty very quickly and have to be washed frequently, the resin is not distributed evenly).

BEST IN CLASS FOR:

WOOD BASED PANELS:
OSB/LSB/FOSB



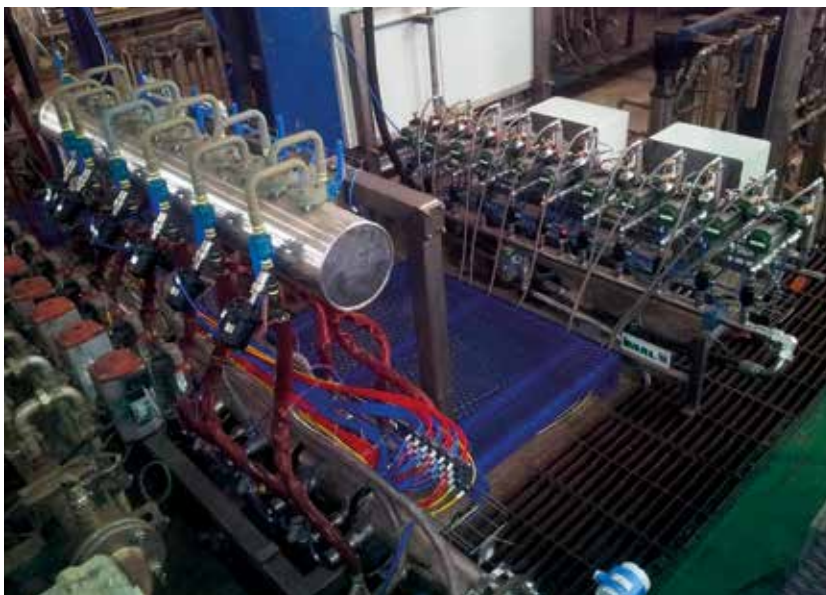
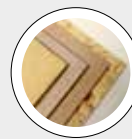
MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
SB155	9665	6620	6000	1000	1015	2000	2750	1045	2400	2545
SB200	9790	6620	6250	1250	1015	2500	3000	1045	2400	2545

MODEL	MAX. THROUGHPUT kg/h	CHAMBER Max Volume l	INSTALLED POWER kW				WEIGHT kg
			M1	M1.1	M2	2 x M3	
SB155	10000	20000	15	0.043	7.5	5.5	9800
SB200	20000	30000	15	0.043	7.5	5.5	11200

RESINATION SYSTEM

MDF HI-JET BLOW-LINE

TO ACHIEVE OPTIMAL RESIN DISTRIBUTION IN THE MANUFACTURE OF MDF PANELS

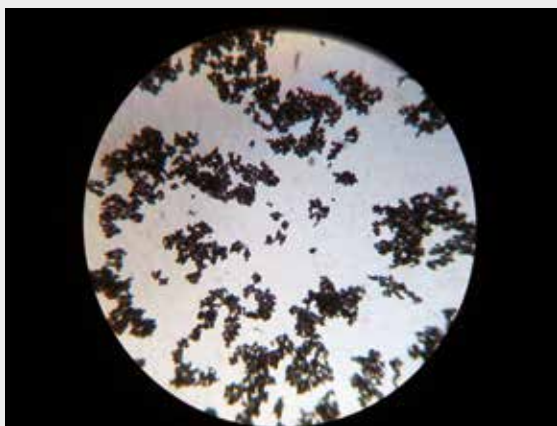
**BEST IN CLASS FOR:**WOOD BASED PANELS:
MDF/HDF

The system's technology is based on 2 principal aspects: • to reduce and pulverize the resin crystals • to amply distribute the resin over the fibre at high pressure.

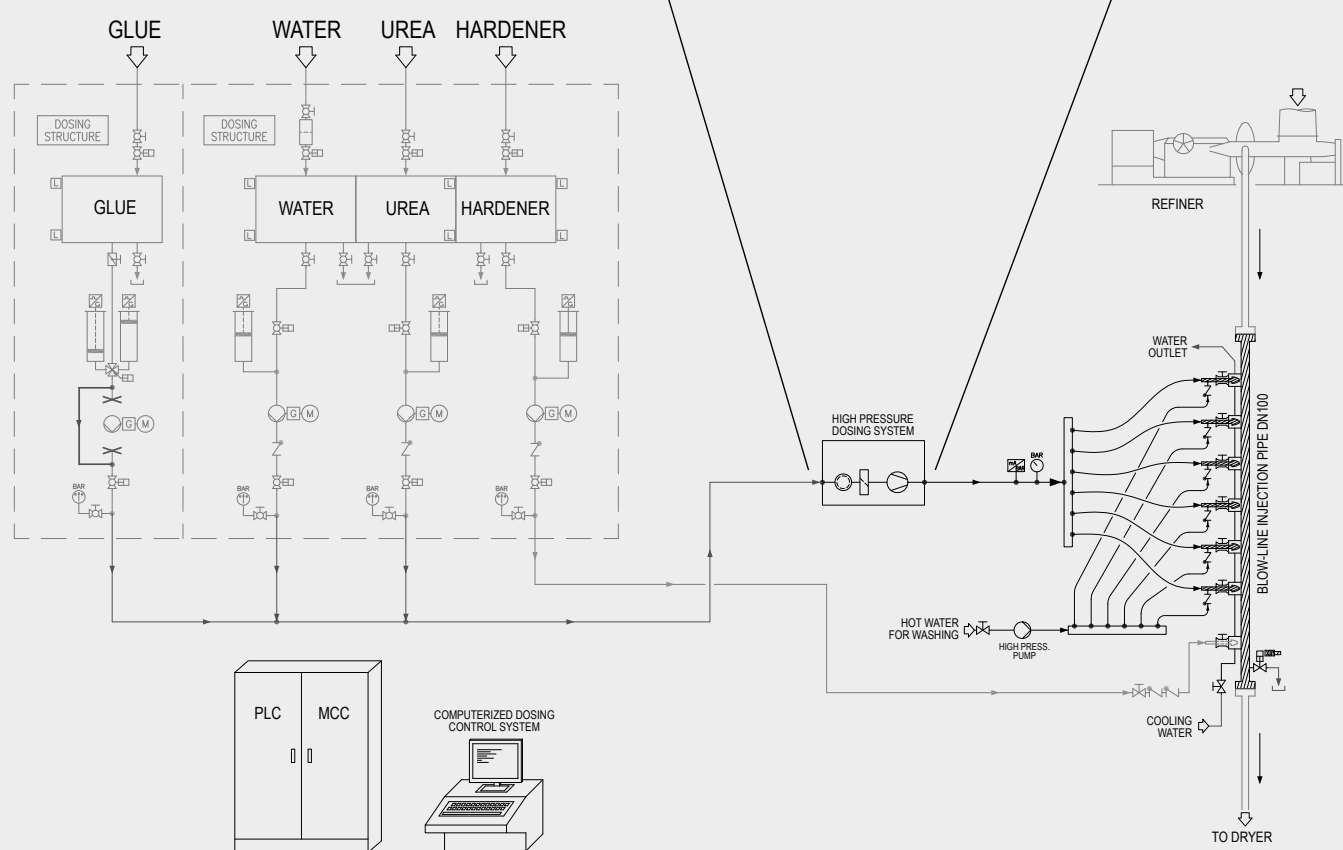
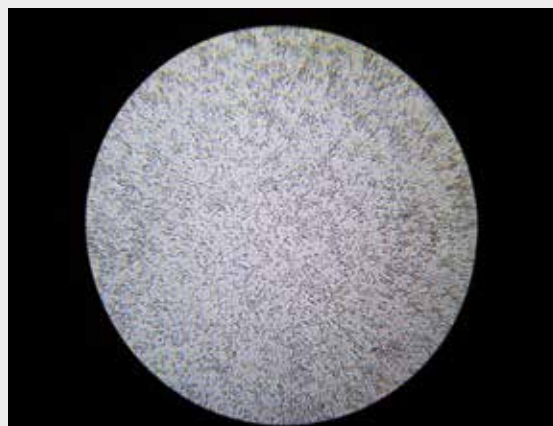
Thanks to a new system designed by IMAL, the resin crystals are reduced by a special refiner which can multiply the gluing surface by approximately 1000 times. This is why it is possible to reduce resin consumption requirements. The resin is then applied at high pressure to cover the entire surface of the fibre.

It is possible to achieve reductions in resin consumption ranging from a minimum of 10% up to and, in certain cases, over 20%.

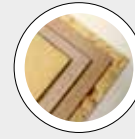
RESIN BEFORE
PULVERIZATION AND FILTERING



RESIN AFTER
PULVERIZATION AND FILTERING



HIGH PRESSURE FIBRE RESINATION TECHNOLOGY

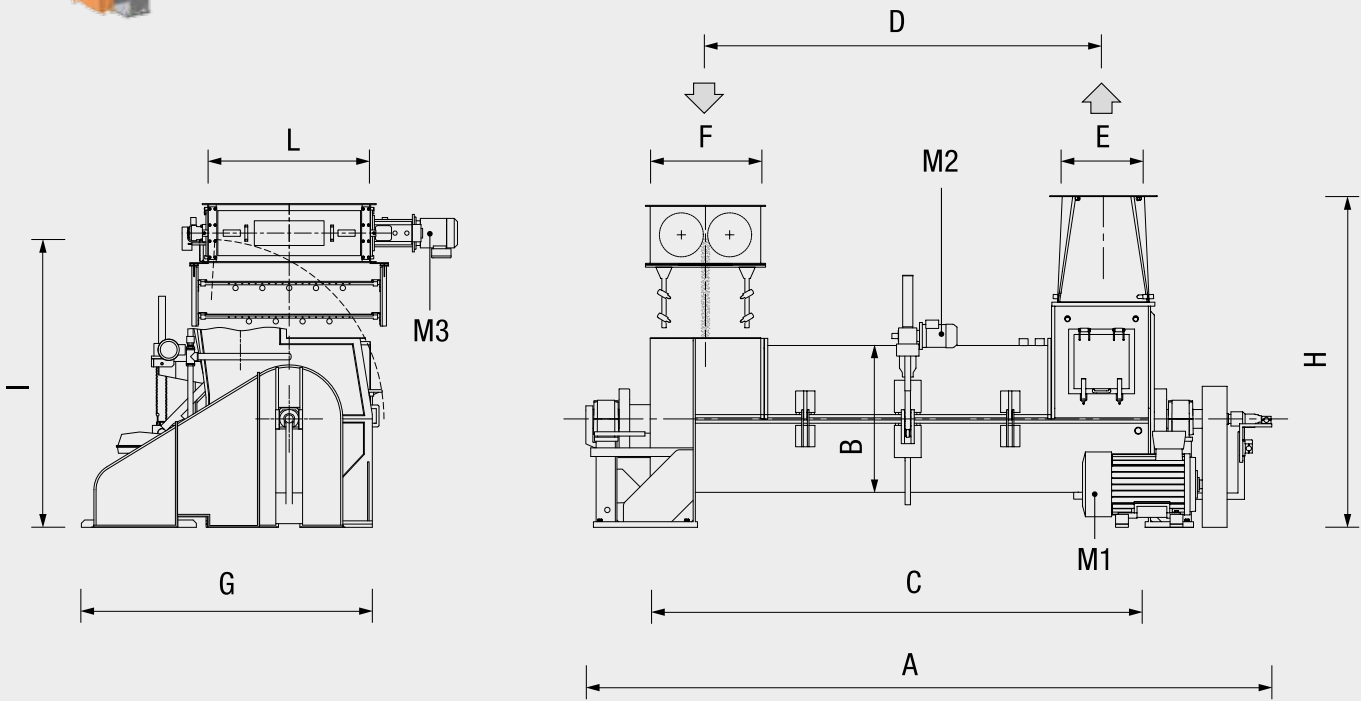
FBTO SIGNIFICANTLY REDUCE RESIN CONSUMPTION IN THE
MANUFACTURE OF MDF PANELS**BEST IN CLASS FOR:**WOOD BASED PANELS:
MDF/HDF

This is achieved by mixing resin and fibre after the drying process rather than before it (blow line resination) since the elevated dryer temperatures increase the amount of resin required. After being accurately weighed and metered at dryer outfeed by a continuous fibre belt scale, the fibre travels through 2 special rolls which rotate at high speed to create a very fine curtain of fibre. The glue sprayers mounted on either side of the curtain, spray the resin onto the fibre at over 100 bar to achieve a perfect atomization of the resin.

The reduction in the amount of resin consumed can vary from 20 to 40% depending on the production and thicknesses produced, consequently permitting a very rapid payback on the investment. A further advantage of this system is an increase in dryer capacity since the glue mix containing water is introduced into the process after the dryer, rather than before it, as is the case with blow line resination, which means that the dryer has to evaporate less water and as a result, can dry more fibre.

MAIN FEATURES

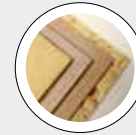
- Resin consumption reduced by 20 to 40% • Maximum glue mixture spraying efficiency • Fibre weighed constantly and glue sprayed directly at high pressure • Fibre mixed by the turbulence produced by the turbo blender and conveying air • Special atomiser nozzles to spray the glue at high pressure (over 100 bar).



MODEL	OVERALL DIMENSIONS mm									
	A	B	C	D	E	F	G	H	I	L
FB105	6405	1050	4525	3618	683	880	2500	2900	2300	1000
FB130	6395	1300	4645	3523	873	880	2905	3068	2700	1500
FB155	7420	1550	5670	3500	1160	880	3250	3068	2700	1500

MODEL	MAX THROUGH-PUT kg/h	CHAMBER VOLUME l	INSTALLED POWER kW/poles			WEIGHT kg
			M1	M2	2 x M3	
FB105	9000	3915	90/4	4/4	7.5/4	5200
FB130	13000	6160	132/4	4/4	7.5/4	9000
FB155	24000	1015	160/4	4/4	7.5/4	11200

Dosing Systems



WOOD BASED
PANELS

	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
PREPARATION/TRANSFER/STORAGE	250	•	•	•		
MULTIPUMP	252	•	•	•		
PGK	254	•	•	•		
WINDOSER-PLCDOSER	256	•	•	•		
WINGRAV9	260	•	•	•	•	•
ISOCYANATE DOSING SYSTEMS	262	•	•	•		
FIRE RETARDANT/POWDER UREA DOSING SYSTEMS	263	•	•	•		

PREPARATION/TRANSFER/ STORAGE



The preparation and storage systems for chemical additives such as hardener, hexa, emulsion and melted wax etc. are constructed ad hoc to meet the specific requirements of the production process, in a flexible and reliable manner with automatic computerized controls.

Fully or semi-automatic systems, specially sized to meet process requirements, render the systems supplied reliable and durable.

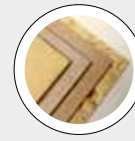
MAIN ADVANTAGES

- Elevated precision and stability • Rapid recipe changeover.

MAIN FEATURES

- Sized to suit the requirements of the production process • Reliable and durable systems • Stainless steel used in applications with aggressive chemical components • Various settings possible in relation to the quantity of components handled • Supervision of all the component preparation stages right through to the transfer to the storage boxes to be used in production.

BEST IN CLASS FOR:



WOOD BASED PANELS:

MDF/HDF

PB/SPB

OSB/LSB/FOSB



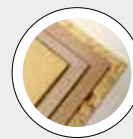
COMPONENT DOSING SYSTEM

MULTIPUMP

FULLY AUTOMATED CHEMICAL DOSING OPERATIONS



With the Multipump® dosing system, each chemical component of the glue mixture has its own dosing line, consisting of a motorized dosing pump, flow meter and intermediate storage tank. The most evident advantage of this dosing configuration is that of being able to change the chemical composition of the glue mixture on line during production and to see the immediate effect on production, enabling quality issues (e.g. board with low IB) or production issues (blistered boards) to be solved almost instantly. With the traditional batch system on the other hand, you have to wait until all the glue mixture has been consumed before the results of the changes made to the chemical formula of the mixture become evident. With today's market requirements, more and more mills are producing "just in time" board lots and consequently need to be able to change production parameters easily and smoothly. At each production changeover, the Multipump® dosing system promptly adapts the chemical formulas of the glue mixture to the various productions, sending just the right amount of chemical components to the blender for that particular production. The batch system does not have such a prompt reaction at a production changeover because the mixture for the previous production has to be used up completely before the new chemical composition can go into the process, or before you are able to see the effects of the change, often wasting glue or creating problems with quality/production. The Multipump® system may be equipped with IMAL volumetric flow meters or with mass or magnetic flow meters. The chief advantage of the Imal volumetric flow meters is that once calibrated during start-up, they do not require recalibration for the rest of their mechanical life. Flow and flow rate may also be inspected visually through the graduated transparent vessel as it fills and empties in alternating cycles.

BEST IN CLASS FOR:

WOOD BASED PANELS:

MDF/HDF

PB/SPB

OSB/LSB/FOSB

The Imal volumetric flow meter consists of a vessel connected to pump suction and storage tank.

We have designed an efficient system for checking the flow meter calibration of mass or magnetic flow meters, if these are chosen, at least once a month without having to stop production. The system consists of a transparent graduated vessel paralleled to the hydraulic circuit. Whenever the need arises to verify the flow rate read by the mass or magnetic flow meter, it is possible to use a valve to divert the dosing pump suction from the storage tank to the graduated vessel, from where it is possible to use a stop watch to measure the actual flow rate and to then compare it with the electronic flow meter read out, without having to stop production. Each Multipump® dosing unit is fully assembled and the electrics and hydraulics are workshop tested prior to shipment. It is very quick and easy to install.

MAIN FEATURES

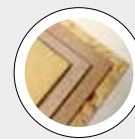
- To change the chemical composition of the glue mixture on line during production
- The system may be equipped with IMAL volumetric flow meters or mass or magnetic flow meters
- Each dosing unit is fully assembled and the electrics and hydraulics are workshop tested prior to shipment
- It is very quick and easy to install.



PREASSEMBLED GLUE KITCHEN

PGK

FULLY AUTOMATED CHEMICAL DOSING OPERATIONS

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

MDF/HDF

PB/SPB

OSB/LSB/FOSB

The preassembled glue kitchen has been designed to be installed and put into operation within just a few hours.

The assembly is ideal for rapidly replacing glue kitchens on existing lines, avoiding costly and lengthy shut downs of the production line.

The glue kitchen is fully preassembled mechanically, hydraulically and electrically and is shop tested prior to shipment to enable rapid start up. It can be designed for use with any number of components.

The electric control is realized with a choice of Siemens or Allen Bradley PLC and Wonderware or RS-View or Wincada supervision programme may be supplied for the PC.

MAIN FEATURES

- Rapid installation and start up
- Compact size
- All hydraulic and electrical testing carried out prior to shipment.

WITHOUT LOCAL TANKS**WITH LOCAL TANKS**

COMPUTERIZED COMPONENT DOSING SYSTEM
WINDOSER-PLCDOSER
 FULLY AUTOMATED CHEMICAL DOSING OPERATIONS

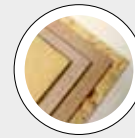


IMAL'S WINDOSER-PLCDOSER flexible, computer controlled dosing system, is able to dose each component separately or perform batch operations and dose glue mixtures. The components are dosed by means of a PLC driven motor pump and may be controlled by a flow meter or a load cell (hopper scale). All the components are mixed together in a static mixer just before being added to the wood. The system also manages the consumption data report for each component, fully exploiting the filling and storage capacities which the system has to offer. It is also possible to print a wide range of data.

MAIN FEATURES

- User-friendly software • Clear and modern graphics with simple and intuitive controls • Powerful calculation sheets to aid the technologist with the recipes • May be used with most of the SCADA programmes available today (IMAL-WINSCADA, INTOUCH, RSVIEW) • Modularity and open to future expansion • Available with SIEMENS PLC or Allen-Bradley PLC • Incorporated database to store all the alarms and consumptions report, available in several formats, by day, month, and year • System may be linked up with other equipment for data exchange, and is fully compatible with the industrial networks used for automation today, such as ETHERNET, PROFIBUS, DEVICE NET, CONTROL NET, etc. • The dosing system can run with signals from the screw feeders (MDF only), from the main scale, from the forming line scale • Suitable for all kinds of blending processes and boards (particleboard, MDF, OSB) • Various settings possible for component quantities • Supervision of all the phases from component preparation through to dosing.

BEST IN CLASS FOR:



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

ADVANTAGES

- Monitoring of the alarm status • Absolute simplicity in the monitoring of the plant status • Less time wasted for production programming and eliminating errors • Better production control • Dosing managed over several levels and layers • Automatic control cuts down the time required for cleaning operations.

GLUE MIXTURE RECIPE TABS:

This page allows you to monitor and change the values of the archive recipe.



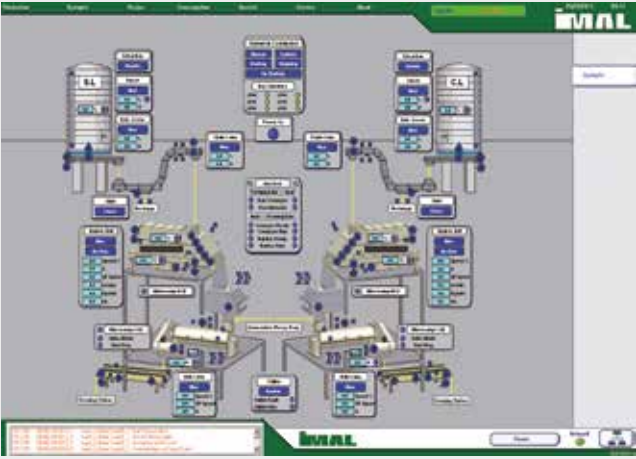
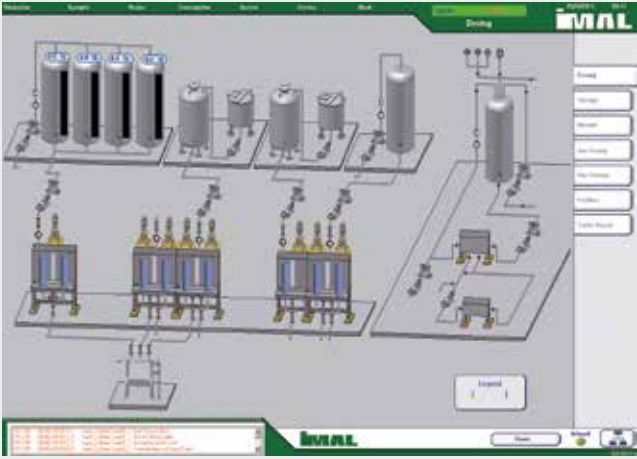
PRODUCTION CONTROL:

This page gives you the possibility of monitoring the real time production values.



SHOW SYNOPTIC:

Different synoptics are possible in Windoser. All the synoptics are completely configurable and use information available through the PLC program.



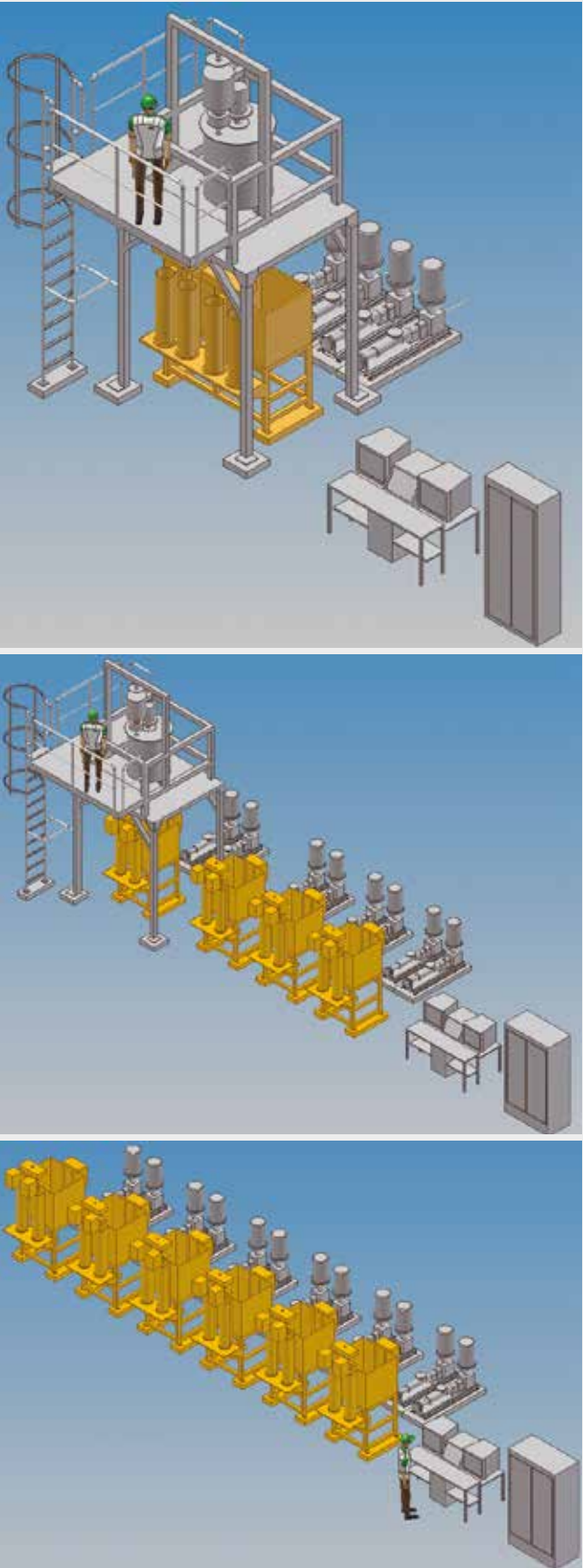
DOSING SYSTEM - TECHNICAL DATA

MANAGES	Up to 10 components per line
THROUGHPUTS	From 0.05 to 8000 kg/h
DIGITAL THROUGHPUT READING PRECISION	± 0.1 %
FORMULAS	Unlimited formulas
STORES CONSUMPTION FOR ANY PERIOD	Up to 1 year (standard)
CONTROL	Fully automatic
THE SYSTEM CONFIGURATION CAN BE APPLIED TO ANY KIND OF PLANT	

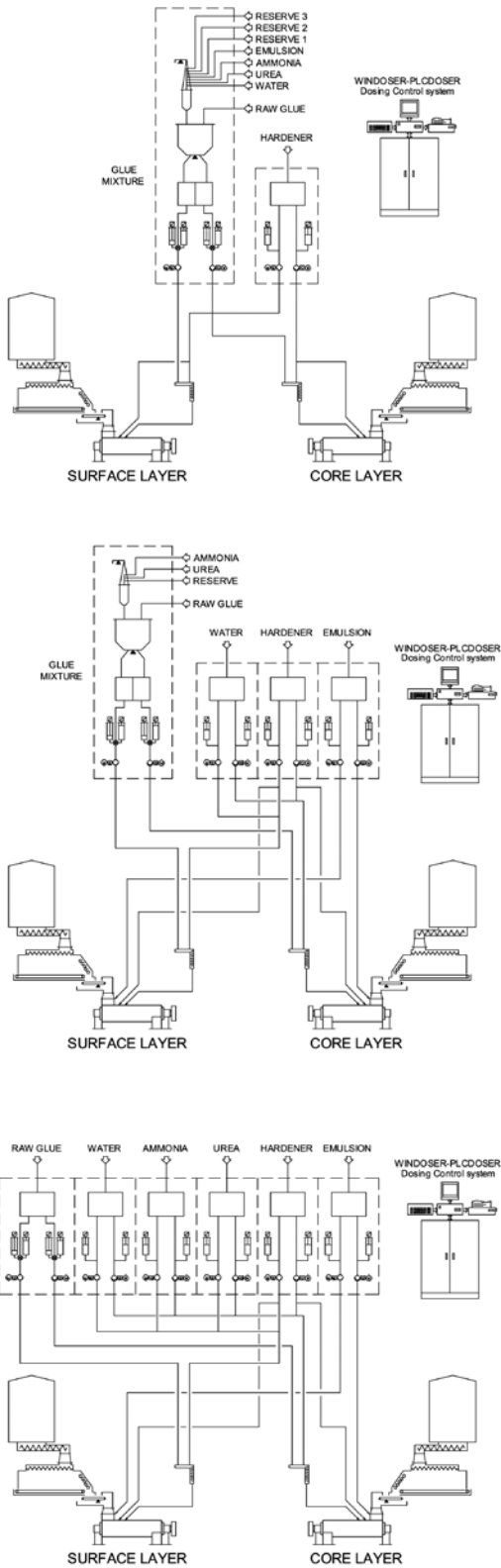
GRAVIMETRIC PREPARATION SYSTEM - TECHNICAL DATA

MANAGES	Up to 15 components per vessel (max 10 vessels)
CARRIES OUT PREPARATIONS	Of up to 2500 kg
MAX. CAPACITY	15000 kg/h
PREPARATION PRECISION	± 0.1 %
SERVES	Up to 9 lines
COMPLETELY CONTROLS	Unlimited formulas

SYSTEM CONFIGURATION

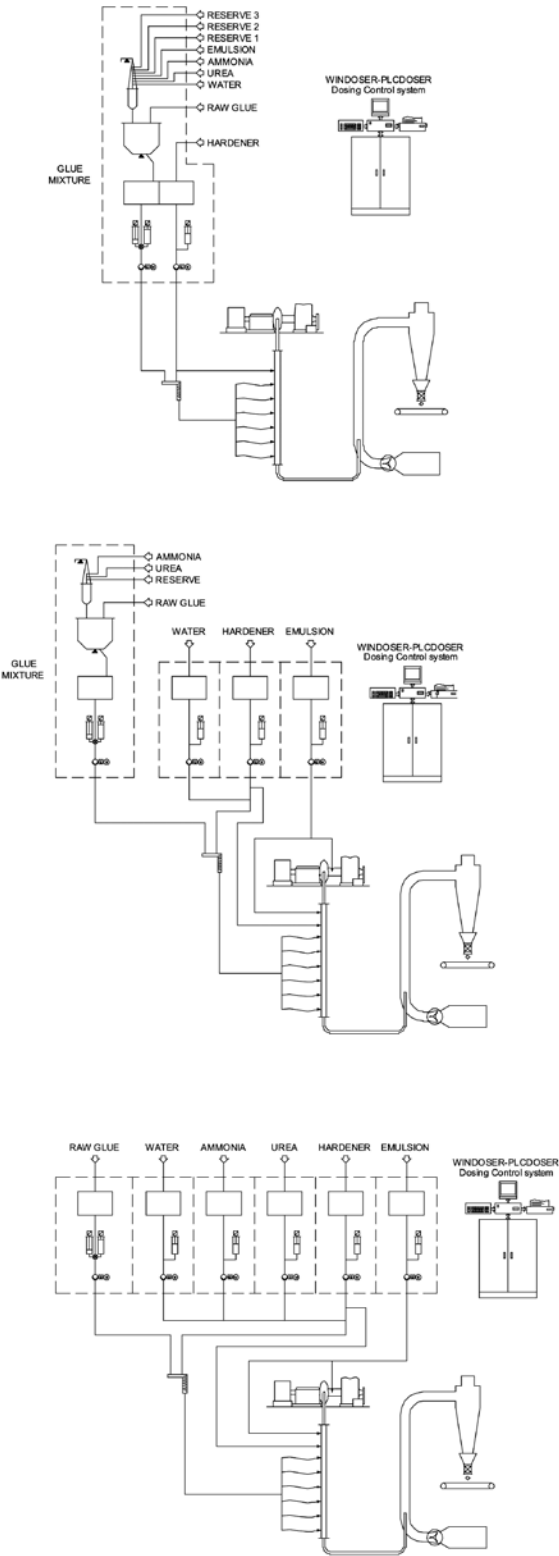


FOR PARTICLEBOARD LINES:

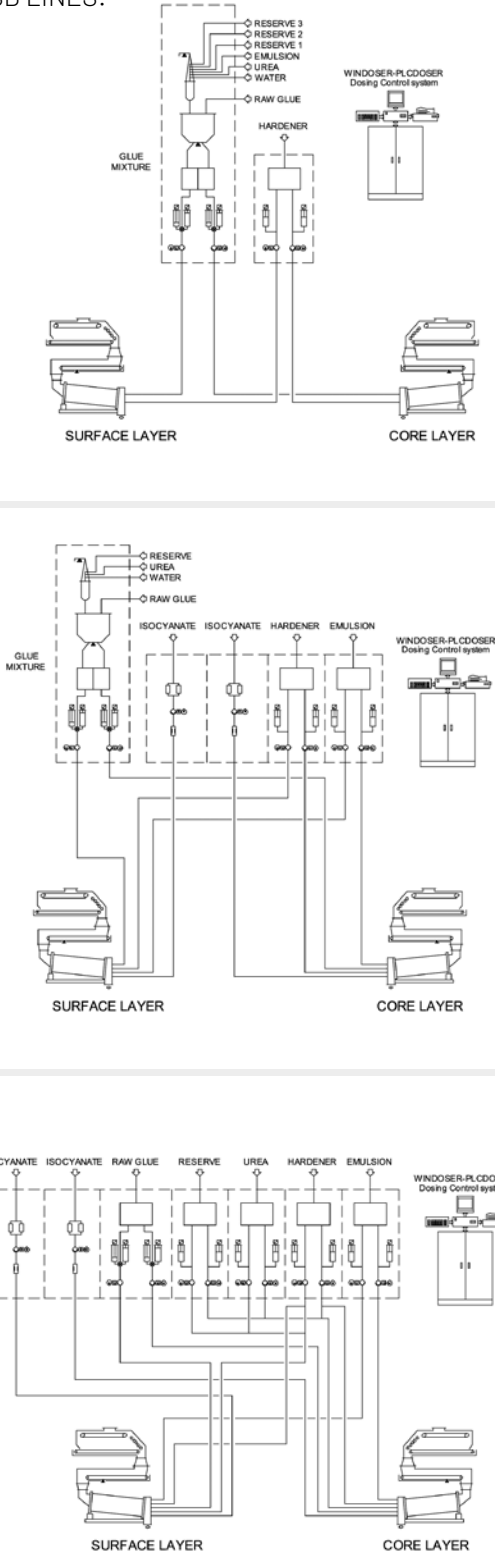


SYSTEM CONFIGURATION

FOR MDF LINES:



FOR OSB LINES:



COMPUTERIZED SYSTEM FOR GRAVIMETRIC RESIN PREPARATION

WINGRAV9

PREPARATION OF RESIN MIXTURES FOR IMPREGNATION LINES



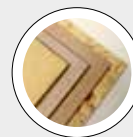
The WINGRAV9 gravimetric system designed for the preparation of resin mixtures for impregnation lines may be configured to suit a wide range of applications and requirements. The pre-programmed software may in fact be adapted to accommodate a large number of components, additives and utilities.

MAIN FEATURES

- Each tank has its own load/discharge valves and is fastened to a load cell • System consists of several preliminary mixing vessels to avoid any direct contact between incompatible components before the final preparation • The system has been designed to feed one or more impregnation lines • Software easily modified to suit any future expansion of the system • PC programmable recipes
- Incorporated database to store the recipes • Consumption report • Alarm database • User-friendly interface • Suitable for paper impregnation lines.

ADVANTAGES

- Excellent precision achieved with different vessels of varying capacity, in relation to the component dosed • Less time needed to prepare the resin mixture because several components may be dosed simultaneously • Easily dismantled for cleaning and maintenance purposes • The exact amount of each component is ensured by the regular calculation of the tare • Discharge times optimized because there are no set waiting times.

BEST IN CLASS FOR:

WOOD BASED PANELS:

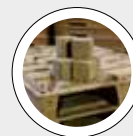
MDF/HDF

PB/SPB

OSB/LSB/FOSB

INSULATION BOARDS

PLYWOOD

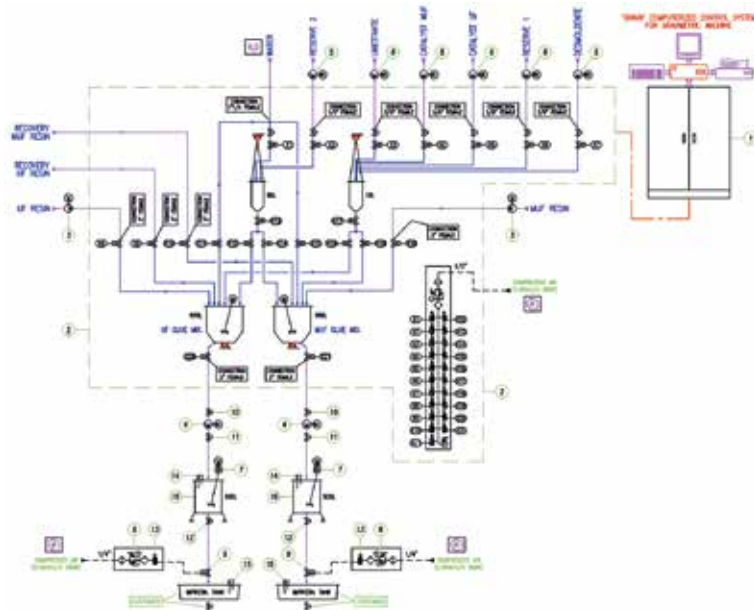
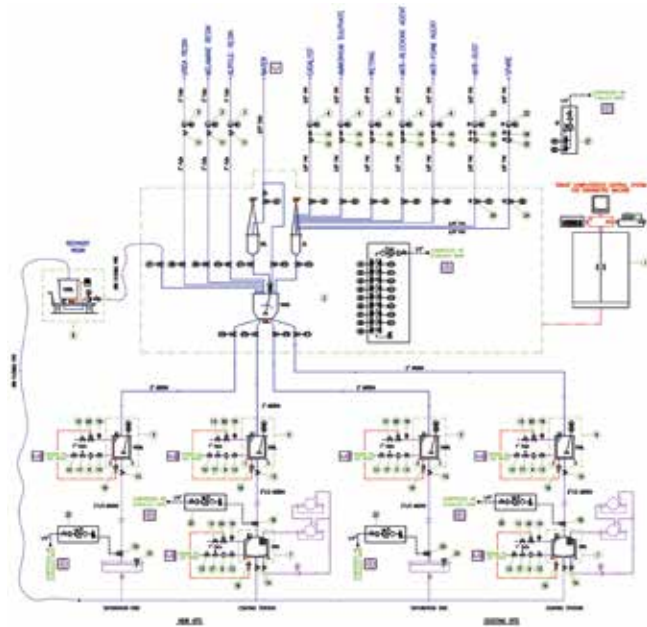
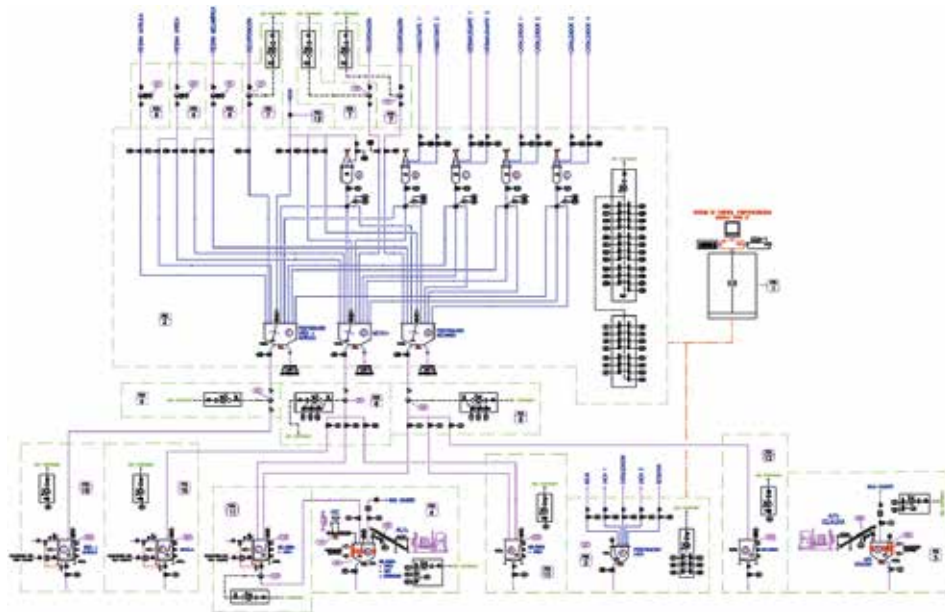


PRESSED WOOD PACKAGING:

PALLET BLOCKS

PRESSED PALLETS

STRINGERS & BEAMS



ISOCYANATE DOSING SYSTEM

PRE-ASSEMBLED DOSING UNIT FOR ISOCYANATE



Since isocyanate needs to be kept within a well-defined temperature range, it is stored in a tank equipped with special pumps, filters, valves, etc. to circulate the product safely, passing it through a special heat exchanger to keep the temperature within the desired range.

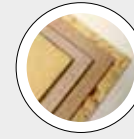
A second pump withdraws the quantity which is to be sent to the process and pumps the isocyanate to a flow rate measuring system downstream of which, there is an injection system.

A flow meter meters the product so that the exact amount of liquid required by the production process is sent to the injection system.

MAIN ADVANTAGES

- Accurate dosing of the component
- Elevated environmental safety against product leakage or escape
- Fully proofed system
- Magnetic drag pumps or pumps with dual mechanical seals
- Low energy requirements
- Easy to install and inexpensive to maintain
- Material protected from external agents.

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN ADVANTAGES

- No dust leakage • Mechanical closed loop conveying systems • Low energy requirements • Minimal overall dimensions • Easy to install and inexpensive to maintain
- Material protected from external agents and humidity • No filters and/or pneumatic conveyors required • Unlimited number of load and discharge stations • Suitable for all types of wood-based panel blending processes (particleboard, MDF, OSB)
- Supervision of all the component preparation stages right through to the actual dosing.

FIRE RETARDANT / POWDER UREA DOSING SYSTEM

PRE-ASSEMBLED UNIT FOR DOSING POWDER PRODUCTS



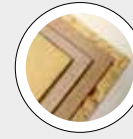
Fire retardant boards are produced with the addition of powder additives. Furthermore, boards with low formaldehyde emission are also produced using pearl urea which is dosed and pulverized before it is added to the work process. IMAL has designed powder conveying and dosing systems for these applications which are easily suited to all kinds of plants.

The disk conveyors used for this kind of application have been designed to facilitate the conveying of the products that need to be dosed, to any point in the work process where the product is to be added.

The dosing unit, which consists of a weighed dosing screw, accurately doses the component to optimize consumption in relation to specific production requirements. The automated control, via a computerized system which runs with Windoser-PLCdoser, renders the handling of fire retardant products or solid urea extremely simple and practical.

The control system stores the formulas so that production of these special boards may be run and/or changed rapidly and efficiently. All the consumptions and productions obtained are stored on the supervision computer.

Forming and Press



WOOD BASED
PANELS

	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
PB DYNAFORMER	266	•				
MDF DYNAFORMER	268		•			
OSB / LSB / DYNAFORMER	270			•		
MWR	272		•			
DYNACLEANER	274	•	•	•		
TS100	276	•	•	•		
DYNASTEAM	278	•	•	•		
DYNASTEAM-C	280	•	•	•		
DYNASTEAMPRESS	282	•	•	•		
DYNAPRESS	286	•	•	•		
PE2	288	•	•	•		
SG700	290	•	•	•		
INLINE BOARD BREAKER - MPG	292	•	•	•		
DYNAPELLETPRESS	294					
PELLET COOLING SYSTEM	296					
PALLET PRESS	298					
DYNABLOCKPRESS	300					
SINGLE-OPENING PALLET BLOCK PRESS	302					

PB DYNAFORMER



The PB Dynaformer is used to form a uniform “mat” of wood particles impregnated with resin at a prior stage in the work process, which is then conveyed to a press suitable for the application.

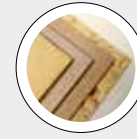
PB WIND DYNAFORMER FOR SURFACE LAYER

The material, which is loaded into the forming bin through the load chute, falls by gravity into a wind chamber and passes through a set of air nozzles whose task is to carry out a gravimetric and granulometric screening of the wood particles. The lighter and finer particles are carried farther and settle on the surface of the mat while the heavier, larger particles, which are not carried quite so far, settle in the core of the formed mat. The particles are blown through a set of meshes fitted inside the wind chamber that ensure an accurate granulometric separation. A vibrating system is installed to keep the meshes clean. Particles which are too large to pass through the oversize reject mesh are collected and removed by a conveyor belt. The wind Dynaformer guarantees efficient particle separation, optimal mat formation and an easy regulation of the screening process. The former is equipped with a system that is able to vary the width of the formed mat.

An accurate weighing bridge is mounted inside the forming bin to weigh and measure the density of the material metered inside the forming head real time guaranteeing that the weight of the formed mat is extremely accurate.

A set of levels ensures a constant fill to the forming bin.

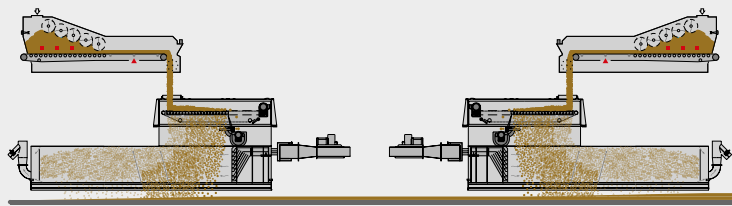
BEST IN CLASS FOR:



WOOD BASED PANELS:
PB/SPB

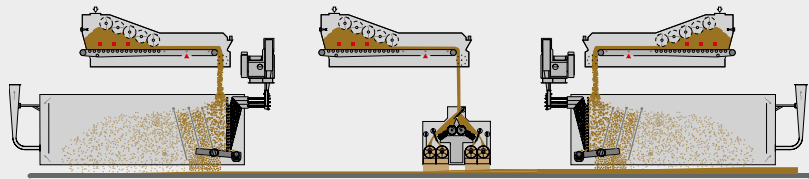
MECHANICAL PB DYNAFORMER FOR CORE LAYER

The material, which is loaded into the forming bin through the load chute, falls by gravity into the mechanical forming head where it is evenly and accurately distributed longitudinally and horizontally onto the forming belt below by the flaps and rotating combs mounted inside. The former is equipped with a system that is able to vary the width of the formed mat. An accurate weighing bridge is mounted inside the forming bin to weigh and measure the density of the material metered inside the forming head real time to ensure that the weight of the formed mat is accurate. A set of levels ensures a constant fill to the forming bin.



MAF.PB
SURFACE+CORE

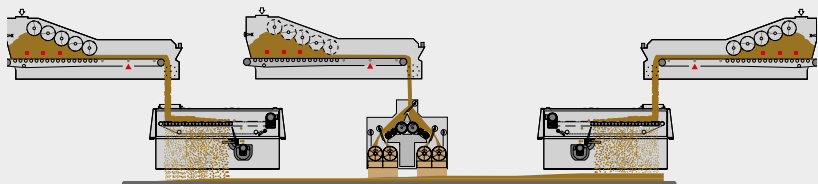
MAF.PB
CORE+SURFACE



AF.PB
SURFACE

MF.PB
CORE

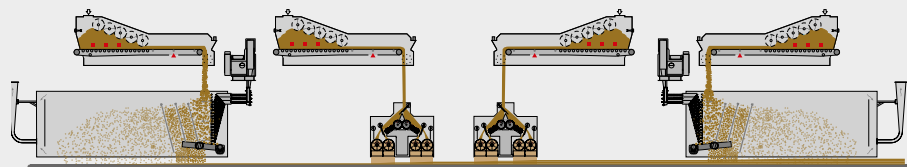
AF.PB
SURFACE



MF.PBS
SURFACE

MF.PB
CORE

MF.PBS
SURFACE

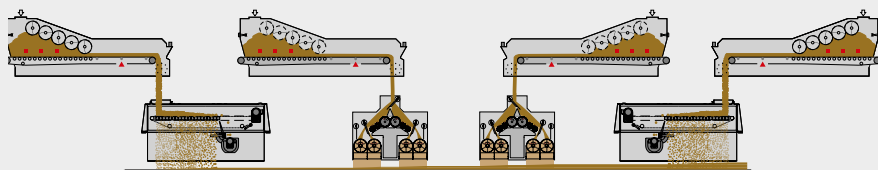


AF.PB
SURFACE

MF.PB
CORE

MF.PB
CORE

AF.PB
SURFACE



MF.PBS
SURFACE

MF.PB
CORE

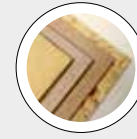
MF.PB
CORE

MF.PBS
SURFACE

MDF DYNAFORMER



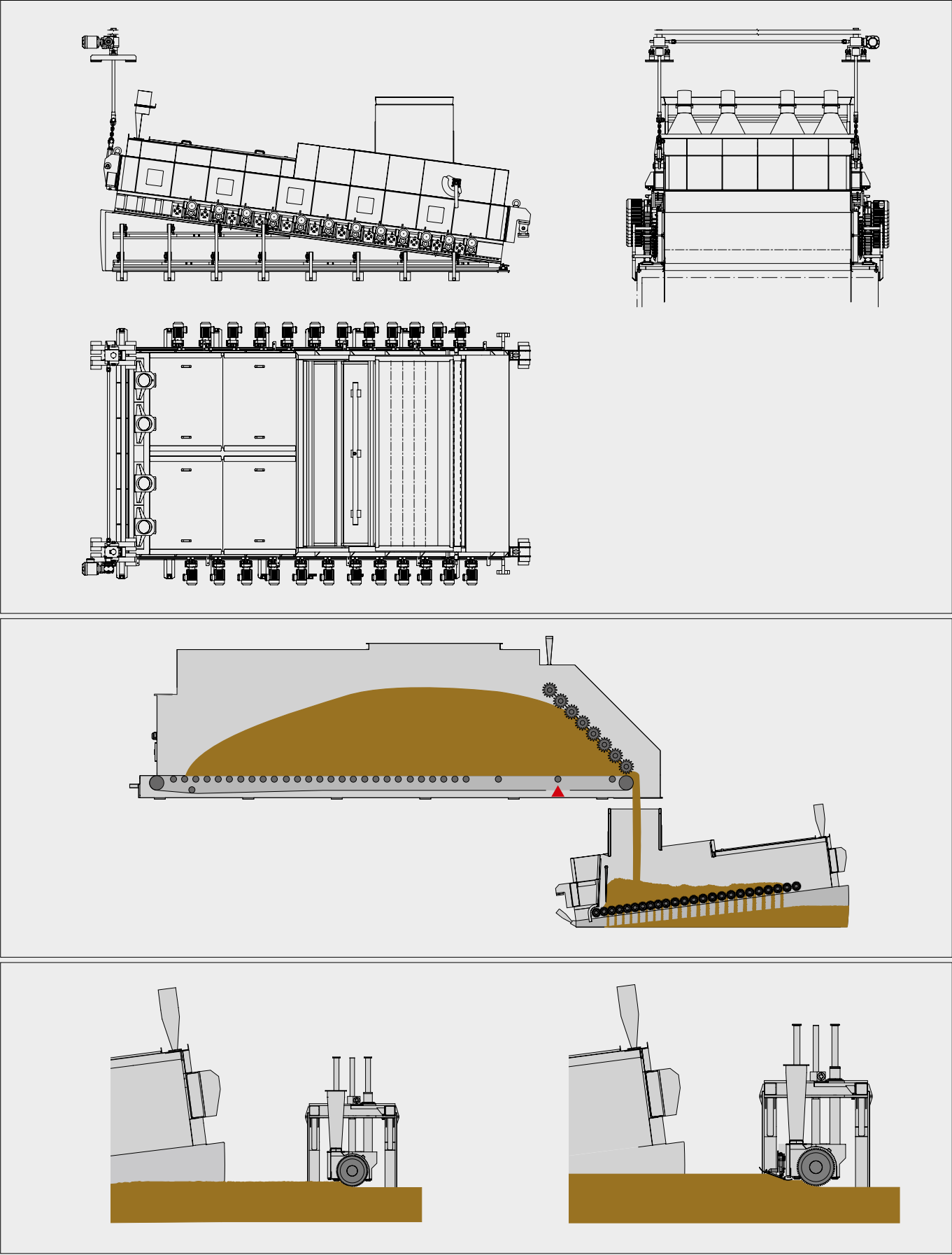
BEST IN CLASS FOR:



WOOD BASED PANELS:
MDF/HDF

The MDF Dynaformer is used to form a uniform "mat" of wood fibre, resinated at a prior stage in the work process, which is then conveyed to the press.

The wood fibre which is loaded through the load chute into the forming bin, is fluidized as it travels through the rotating combs mounted at bin outfeed. The wood fibre then falls into the distributor roller head due to the effect of gravity. The purpose of the roller head is to form an accurate and uniform wood fibre mat on the belt which runs below the forming station. The speed, gap, height and angle of the distributor rolls are easily and automatically varied to improve the transversal and longitudinal distribution of the fibre on the forming belt. A scalper system is installed just after the distributor roller head, the height of which varies automatically to keep the mat weight required by production constant. The "piano" system for automatic regulation, by the ISO40X or PSD, or manual regulation of the transversal weight profile, may be fitted as an option below the scalper or above the mat prior to the scalper itself. This system maintains the typical transversal weight profile required for each production constant over time. The former is equipped with a system that is able to vary the width of the formed mat. An accurate weighing bridge is mounted inside the forming bin to weigh and measure the density of the material metered inside the forming head real time to ensure that the weight of the formed mat is accurate. A set of levels ensures a constant fill to the forming bin.



OSB/LSB DYNAFORMER

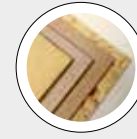


The OSB Dynaformer is used to form a uniform “mat” of oriented wood-based strands, resinated at a prior stage in the work process, which is then conveyed to the press.

OSB DYNAFORMER FOR FACE LAYER

The material, which is loaded into the forming bin through the load chute, falls by gravity through the central element where a set of rotating combs are mounted. The shape and rotation of the combs have been designed to distribute and screen out the smaller particles which pass through the combs and continue to fall towards the base element, from the coarser particles that flow through towards the front of the former. The sifted material then passes through the base element where a set of rotating shafts equipped with serrated metal disks lay and orient the strands longitudinally on the belt which travels below the forming station into uniform layers. The height and angle of the forming head are adjusted automatically to regulate the inclination of the longitudinal orientation of the strands lying on the forming belt below. Particles which are too large to pass through the metal disks are conveyed, collected and removed from the process by a conveyor belt. The former is equipped with a system that is able to vary the width of the formed mat. An accurate weighing bridge is mounted inside the forming bin to weigh and measure the density of the material metered inside the forming head real time, guaranteeing that the weight of the formed mat is extremely accurate. A set of levels ensures a constant fill to the forming bin.

BEST IN CLASS FOR:

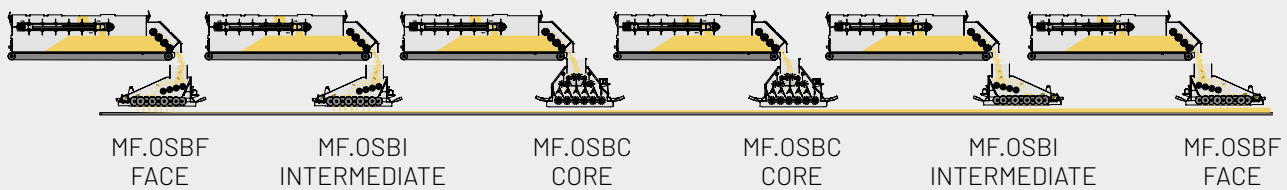
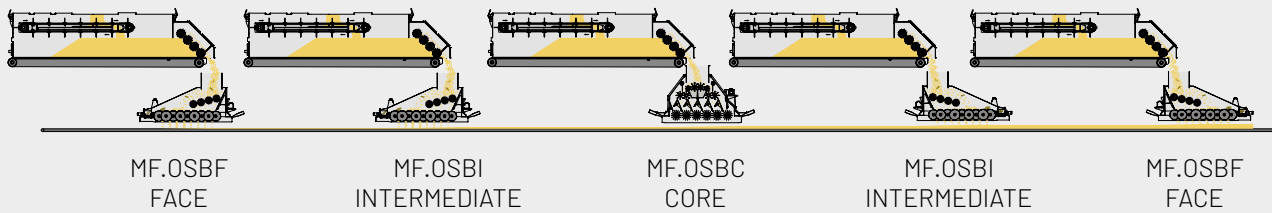
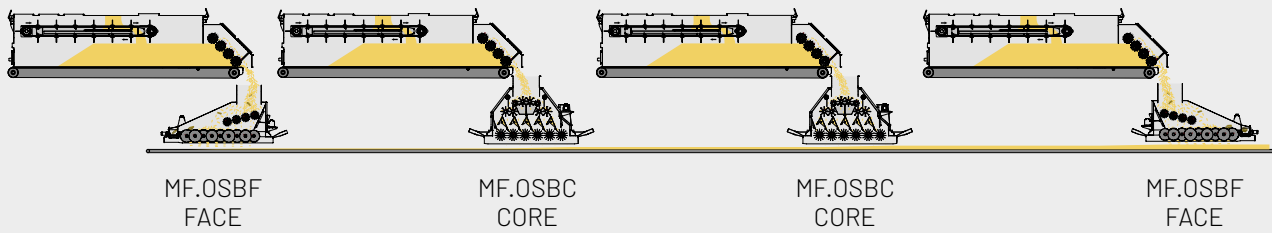
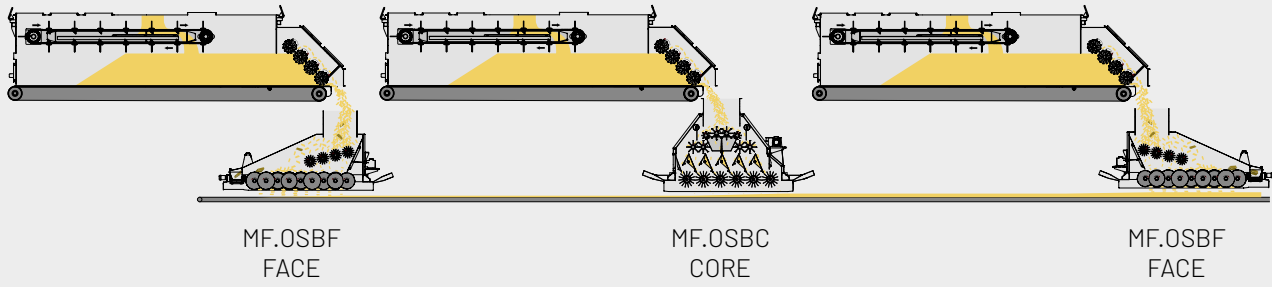


WOOD BASED PANELS:
OSB/LSB/FOSB

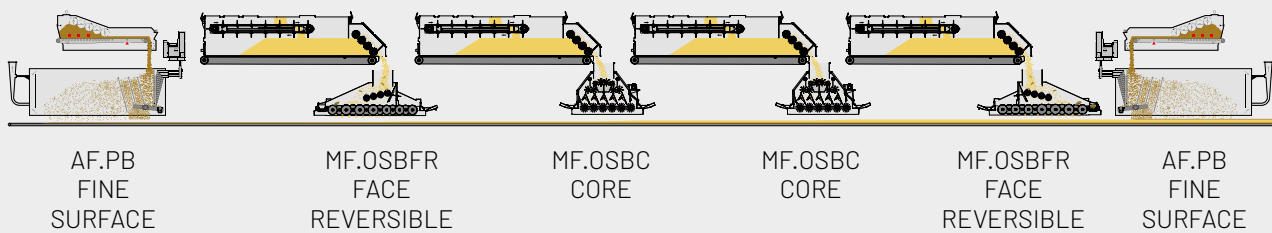
OSB DYNAFORMER FOR CORE LAYER

The material, which is loaded into the forming bin through the load chute, falls by gravity into the forming head where the flaps and rotating combs mounted inside carry out an initial granulometric separation of the material. The sifted material then passes through the base element where a set of flaps and shafts equipped with fins align, collect and lay the strands horizontally on the conveyor belt travelling below the forming station. The height and angle of the forming head are adjusted automatically to regulate the angle of the transversal orientation of the strands lying on the forming belt below. The former is equipped with a system that is able to vary the width of the formed mat.

An accurate weighing bridge is mounted inside the forming bin to weigh and measure the density of the material metered inside the forming head real time guaranteeing that the weight of the formed mat is extremely accurate. A set of levels ensures a constant fill to the forming bin.



LSB = LIGHT STRAND BOARD



AUTOMATIC MAT TRANSVERSAL WEIGHT REGULATION SYSTEM

MWR

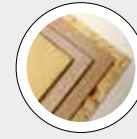
INSTALLED ABOVE FORMING LINE BELT



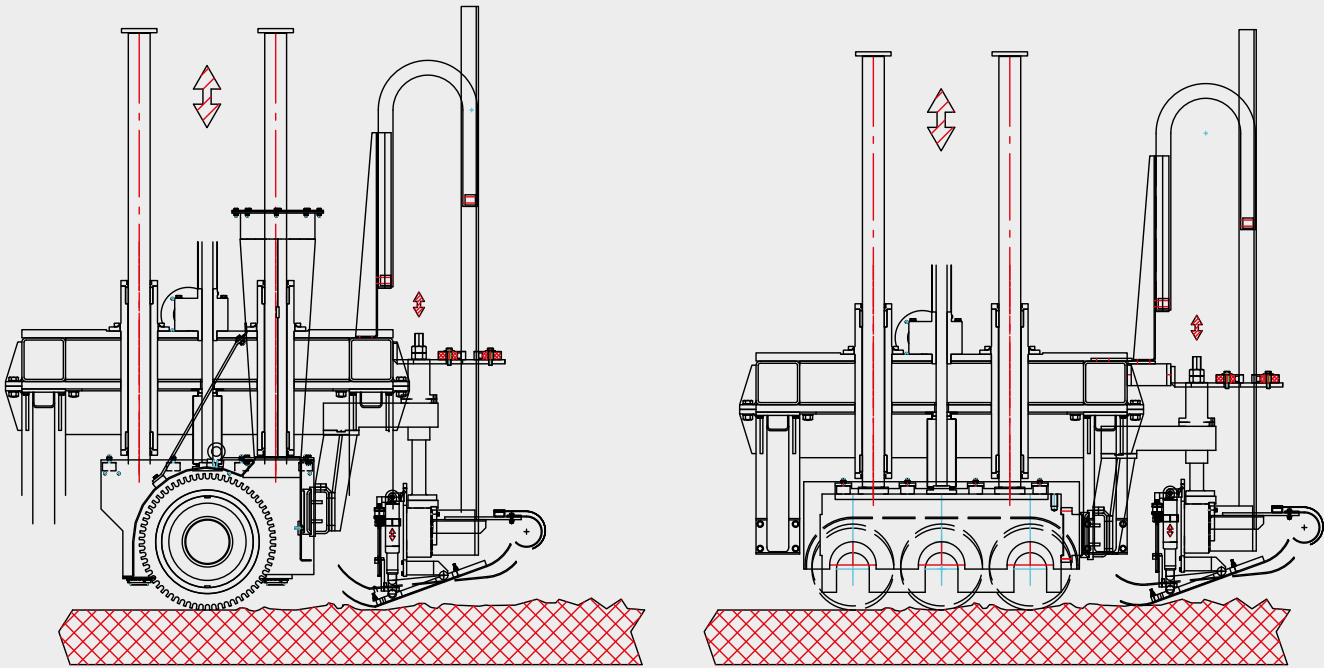
The system regulates the distribution of the forming station every 100 mm along the width of the mat. By utilizing a feedback from the PSD, the MWR system lowers the motorised bars which press down on the material upstream of the scalper in areas where weight distribution is lower, so that the scalper removes less material or none at all (the pre-pressed material passes below the level of the scalper or Wobbler without being levelled off). Then, in areas where too much material has been distributed, the bars rise so that the material is not pressed down and the scalper can remove the excess material.

ADVANTAGES

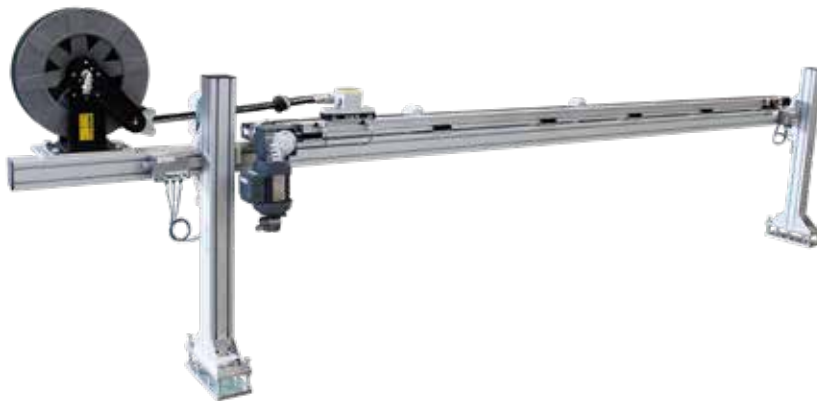
- It may be installed on all kinds of forming station, even the Pendistor as there is no problem with position like that had in cases where the system is fitted underneath the belt
- Since the system operates from the top, the action is restricted to the width of the bar only, whereas in systems that are located underneath the belt, the motorised cylinder tends to lift part of the two adjacent areas as well when it rises due to the effect of the belt tension
- All the problems related to forming belt displacement due to poor weight distribution or the pressure applied by the cylinders located below, are eliminated
- Production is optimised with a significant reduction in costs related to an excess of resined material
- The system can run with a Siemens S7 PLC or an Allen-Bradley ControlLogix PLC. The visualization is straightforward and user friendly.

BEST IN CLASS FOR:

WOOD BASED PANELS:
MDF/HDF



CLEANING SYSTEM FOR PRE PRESS VENTING BELT

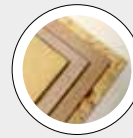
DYNACLEANER

Motorized DynaCleaner system for cleaning venting belt with a Hi-impact single nozzle jet of compressed air.

The system, which may be programmed for a continuous or step by step cleaning cycle, cleans the belt thoroughly without the need to stop the production line.

The system consists of a motorized rail for the sprayer nozzle to run on, the position of which is monitored by encoder so that cleaning may be programmed. The brass cleaning head is in contact with the belt as it slides along to ensure that the jet of air travels smoothly and that cleaning operations are performed efficiently.

The compact system is easily installed on all types of pre-presses or systems equipped with venting belts.

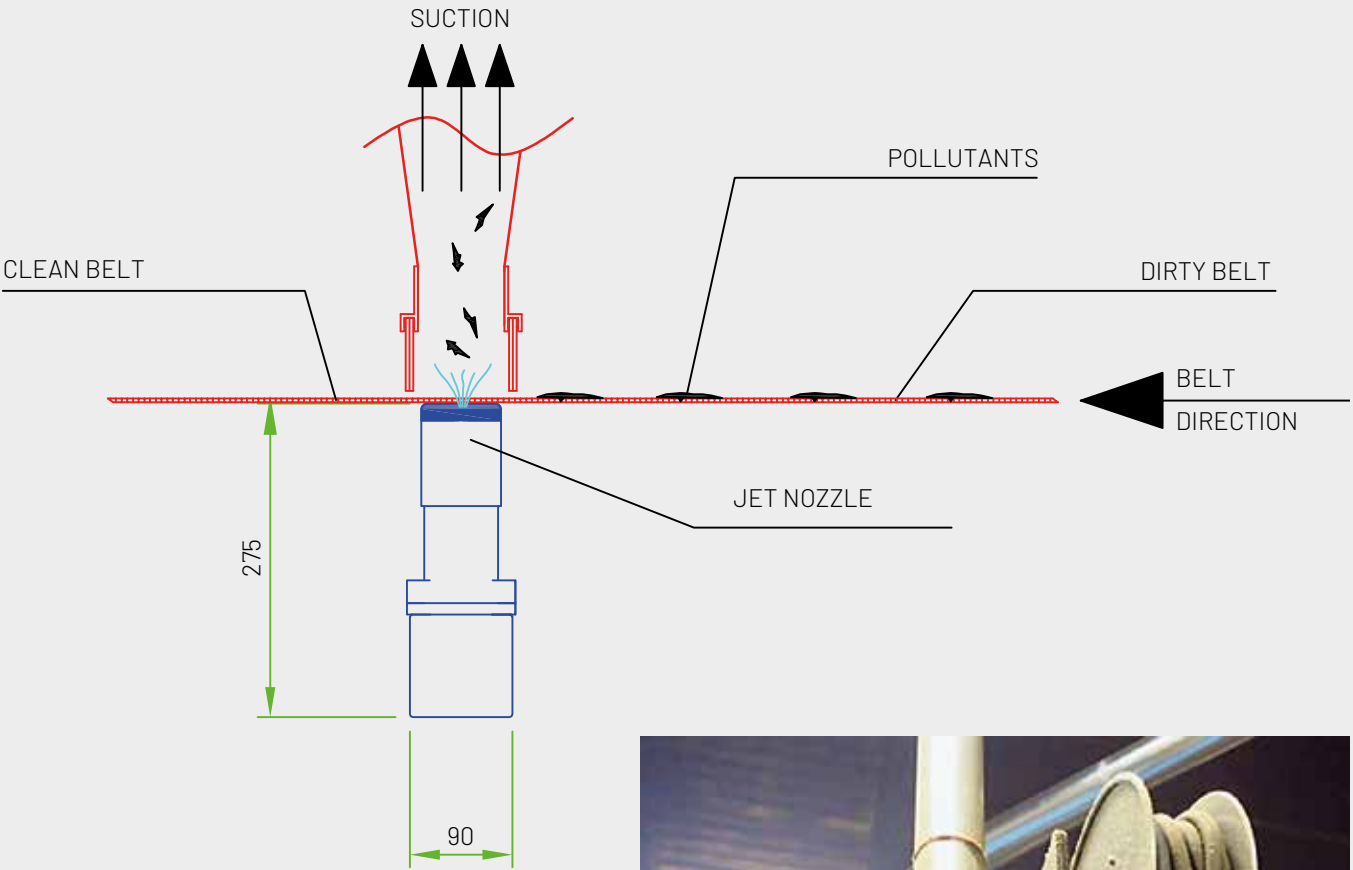
BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



TECHNICAL DATA

DIMENSIONS	in relation to the line
INSTALLED POWER	0.12 kW + encoder
BELT SPEED	0.1 - 2500 mm/sec
CLEANING CYCLE	Programmable: time mode, continuous mode, step mode, zone mode

MAT SURFACE DAMPING UNIT

TS100

WATER AND ADDITIVE AIRLESS SPRAYING SYSTEM



The TS100 system has been designed for damping the top and bottom surfaces of the mat as it travels along the forming line.

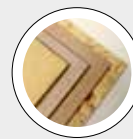
A damper surface helps the heat to penetrate through the board more rapidly during the pressing process, resulting in faster cure times and shorter press cycles. The system consists of a beam on which the centrifugal spraying rotors are mounted and a liquid dosing and recycling unit.

MAIN FEATURES

- Assembly made from steel and corrosive resistant materials
- Accurate mixing of water and additive
- Electronic control of the exact amount of solution to be sprayed and recycled
- Sophisticated water purification system included
- Solution sprayed by means of centrifugal force
- Electronic control may be implemented with Siemens PLC (Profibus and Ethernet) or Allen-Bradley PLC (Control net and Ethernet) upon request
- May be used for all kinds of boards
- Equipment conforming to Directive 94/9/CE ATEX 95 requirements and suitable for Zone 22 installation (based on Directive 99/92/CE ATEX 137), i.e. intended for use in potentially explosive environments due to the presence of dust.

ADVANTAGES

- Improved quality and increase in production rates
- Decrease in surface porosity, making the board easier to sand
- Improved mechanical properties of the board with a smoother and harder surface
- Better glass-like sheen to the surface to facilitate the coating process.

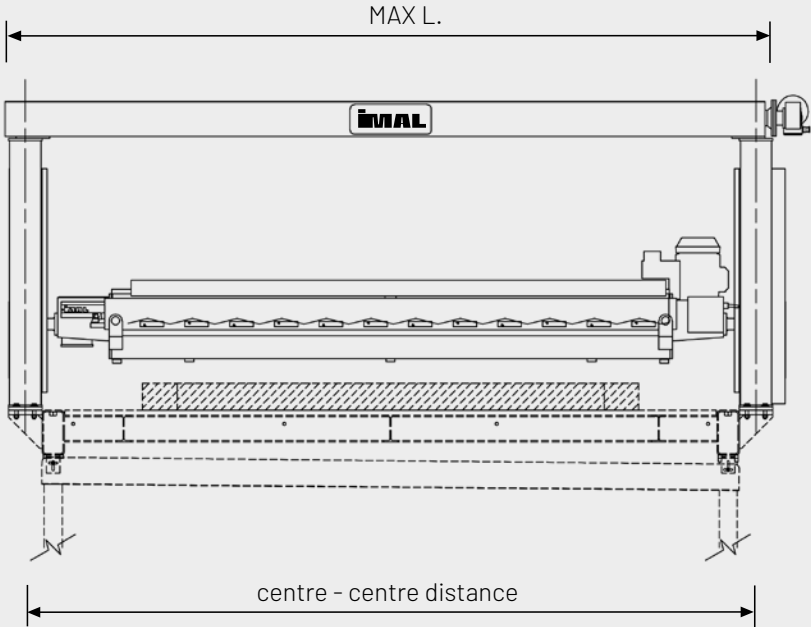
BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



Dimensions will vary on the basis of customer requirements.



CE II 3D IP54 T 135 °C

TECHNICAL DATA			
NUMBER OF ROTORS	Max 20		
TOTAL SPRAYING SPAN	Max 3800 mm		
MAX. FLOW FOR EACH ROTOR	800 g/min		
RELEASE AGENT CONCENTRATION	Min 0.2%		
MIN. DIFFERENCE IN HEIGHT BETWEEN SPRAYING UNIT AND PUMPING UNIT	1500 mm		
RATED POWER	7.5 kW		
THREE-PHASE ELECTRICAL SUPPLY	400/440 V - 50/60 Hz		
CONTROL CIRCUIT VOLTAGE	230/120 V - 50/60 Hz		

NO. ROTORS	C-C DISTANCE mm	MAX L. mm	BOARD WIDTH mm
10	2800	3000	Min 1220 - Max 1830
12	3200	3400	2135
14	3600	3800	2440
16	4000	4200	2750
18	4400	4600	3050
20	4800	5000	3660

STEAM INJECTION SYSTEM
DYNASTEAM®

FOR CONTINUOUS PRESSES - PATENTED



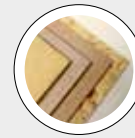
The DYNASTEAM® system has been designed to inject a continuous pre-set quantity of steam onto the top and bottom surface of the mat, or bottom surface only, depending on the application, as it is fed into the press.

The steam has the effect of raising the temperature of the mat, leading to faster cure times, and an increase, as a result, in the capacity of the production line. The pressure and quantity of steam injected into the mat is regulated by PLC in proportion to the production speed of the line and the type of board produced. The device is suitable for application on MDF, particleboard and OSB lines.

MAIN FEATURES

- 15-30% increase in production capacity
- Improved board density profile, with an increase in particular in surface density
- Less pressure required at continuous press infeed, resulting in less wear on the chains and steel belt
- No condensation spots on the mat thanks to the special IMAL patent
- Glassy surface suitable for lacquering.

BEST IN CLASS FOR:



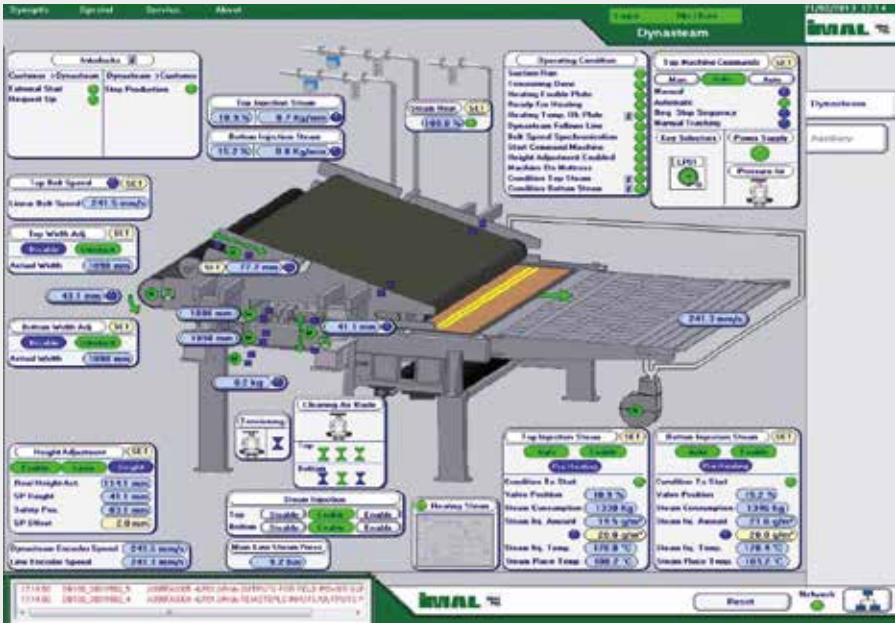
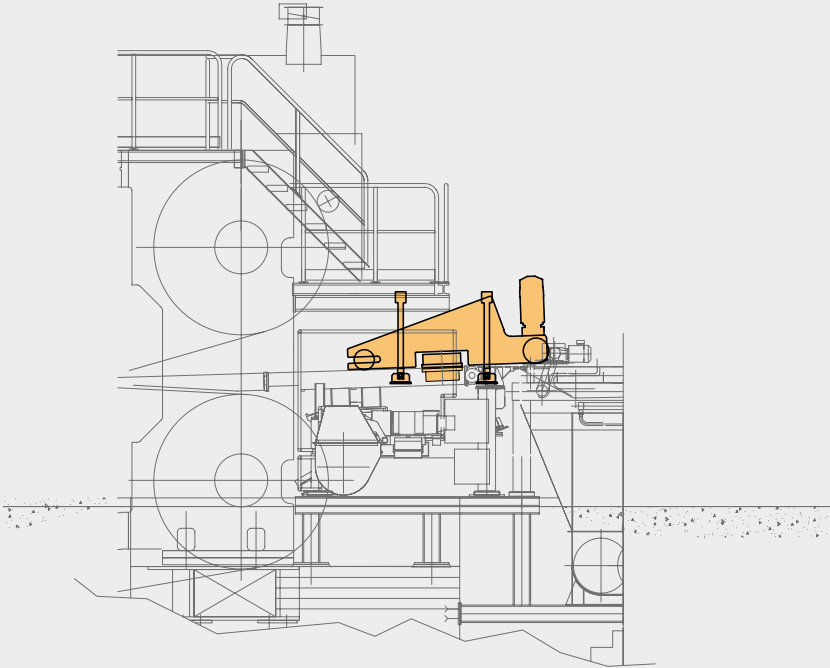
WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

IDEAL INSTALLATION POSITION
FOR THE DYNASTEAM



STEAM INJECTION SYSTEM
DYNASTEAM®-C
 FOR CALENDAR PRESSES



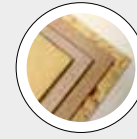
DYNASTEAM®-C has been designed to inject a continuous pre-set quantity of steam into the bottom of the wooden mat just before it enters the press (the steam has the effect of raising the temperature of the mat, leading to faster cure times, and an increase, as a result, in the capacity of the production line). This system is to work in conjunction with the TS100 mat sprayer unit which damps the top of the mat, forming a film of water on the surface which turns into steam as soon as it comes into contact with the hot press plates, to balance out the steam injected into the bottom layer.

The quantity of steam injected into the fibre is regulated by PLC in proportion to the speed at which the mat travels along the production line.

MAIN FEATURES

- 15-30% increase in production capacity • Improved board density profile, with an increase in particular in surface density • Less pressure required at continuous press infeed, resulting in less wear on the chains and steel belt
- No condensation spots on the mat thanks to the special IMAL patent • Glassy surface suitable for lacquering.

BEST IN CLASS FOR:

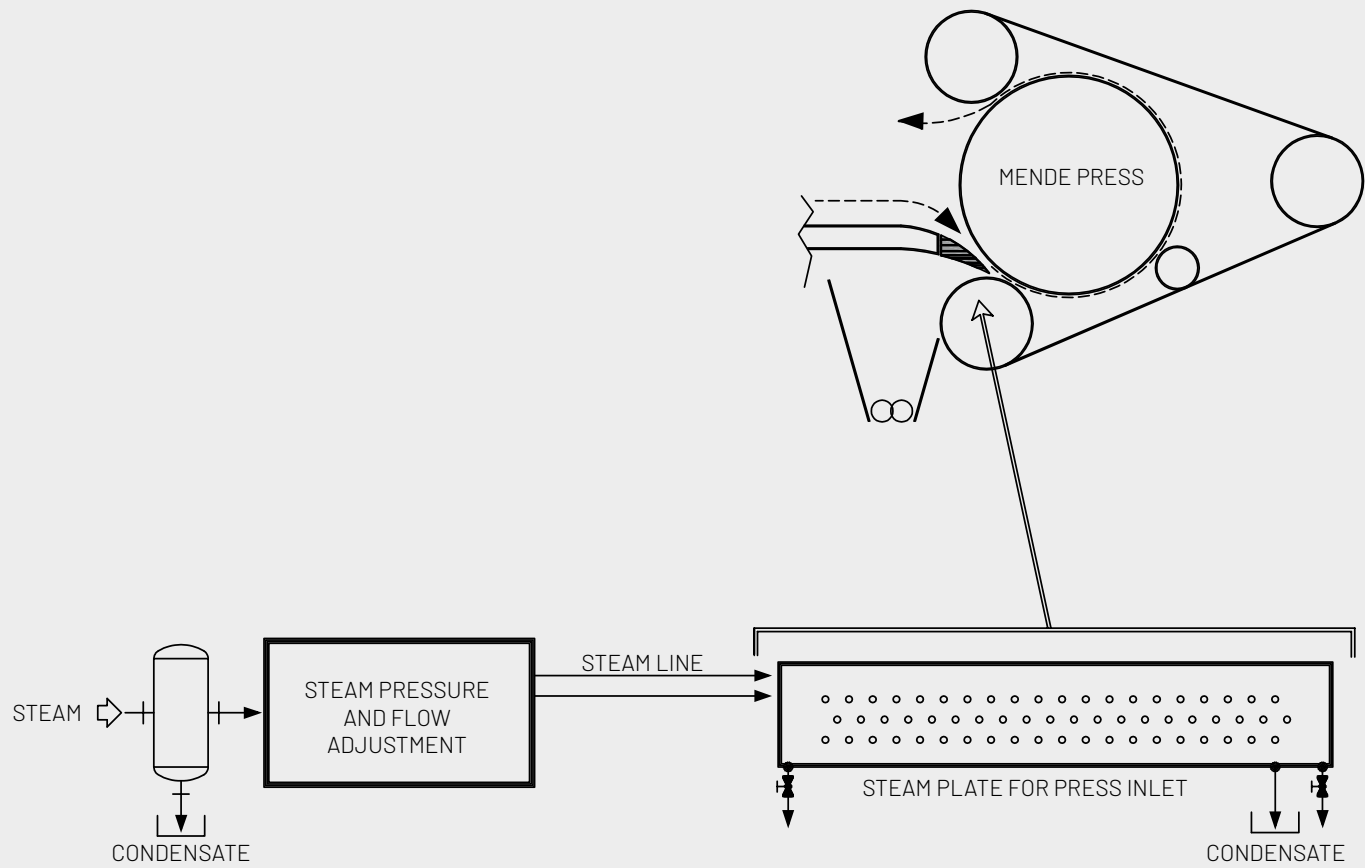


WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

**STEAM PLATE**

CONTINUOUS PRESS WITH STEAM INJECTION SYSTEM

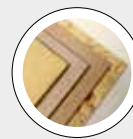
DYNASTEAMPRESS

Continuous press provided with integrated steam injection unit (Imal Dynasteam). The mat enters the continuous hydraulic hot press (DynaSteamPress) where it is pressed between two rotating steel belts which transfer pressure and heat to the mat.

The hydraulic units control and adjust the pressure in the various areas of the press. The heat is transferred by hot thermal oil; different pumping units circulate the oil inside the hot platens installed under the two rotating steel belts. The regulation of pressure and temperature at the various stages of the process, on the basis of the size and thickness of the mat, guarantee high performance and a good quality final board.

THE INSTALLATION OF THE DYNASTEAMPRESS HAS THE FOLLOWING ADVANTAGES

- Increase in line capacity or shorter press
- Better surface density of the board produce
- More compact and less porous board surfaces
- Higher modulus of elasticity values
- Higher modulus of rupture values
- Higher IB values
- Less wear on the main press.

BEST IN CLASS FOR:**WOOD BASED PANELS:**

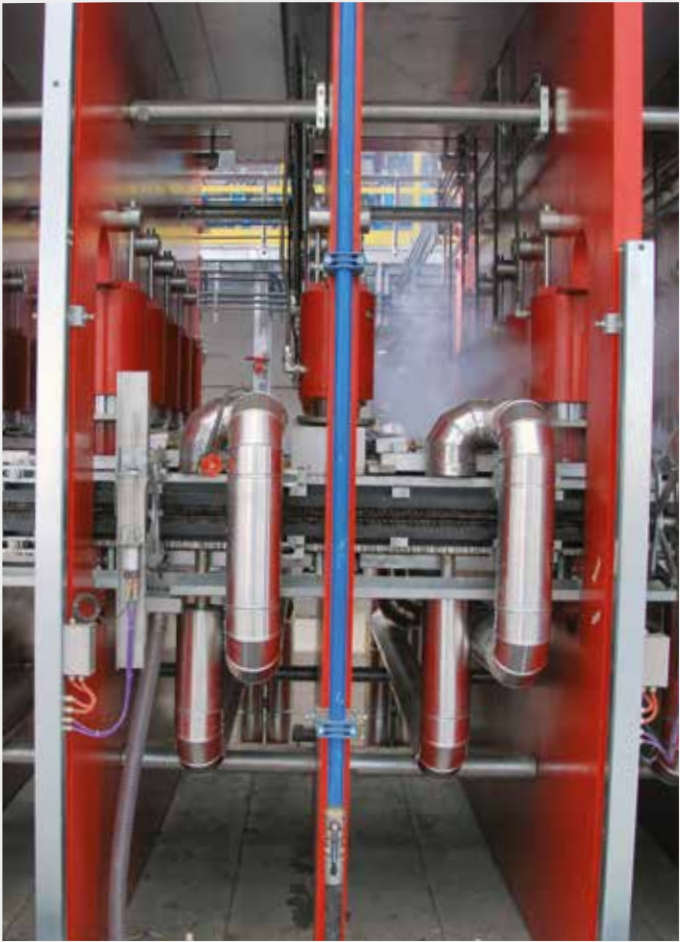
PB/SPB

OSB/LSB/FOSB

MDF/HDF







AUTOMATIC CONTINUOUS PRESS CONTROL

DYNAPRESS

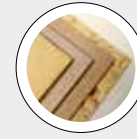
TO CONTROL THE PRESS CYCLE ON A WOOD-BASED PANEL PRODUCTION LINE
WITH CONTINUOUS PRESS (I.E. WITH DOUBLE ROTATING STEEL BELTS)



The programmes for the various press cycles, which have been optimised for each production (pressure and thickness) are stored in the Server PC, along with all the configurations for the hydraulic control, temperature, speed control, belt displacement and so on relating to a continuous press.

It is possible to retrieve data whenever the thickness and production cycle need to be changed. It is of course possible to correct the working data at any time, and enter the parameters while the work process is in progress to maximize the work cycle.

The Scada PC has, for each production stored, all the parameters it needs for press control, (e.g. levels, pressures, speed, temperature...), furthermore some pressure and level graphs are also stored which provide a visual comprehension of the production in progress and enable comparison with the current setpoints in order to highlight any differences which could emerge. Press opening is controlled by high precision position transducers which keep the system updated on the position of the press opening in relation to each regulator equipped frame. The electronic system conducts a direct control on board thickness, by regulating the pressure of each cylinder, making it possible to gradually press the board through the cycle and through all the various intermediate thicknesses/pressures, frame by frame, until it reaches all the desired mechanical and physical properties. Through the indication of the levels it is possible to control cylinder pressure as well as to have an immediate indication of any thickness anomaly.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

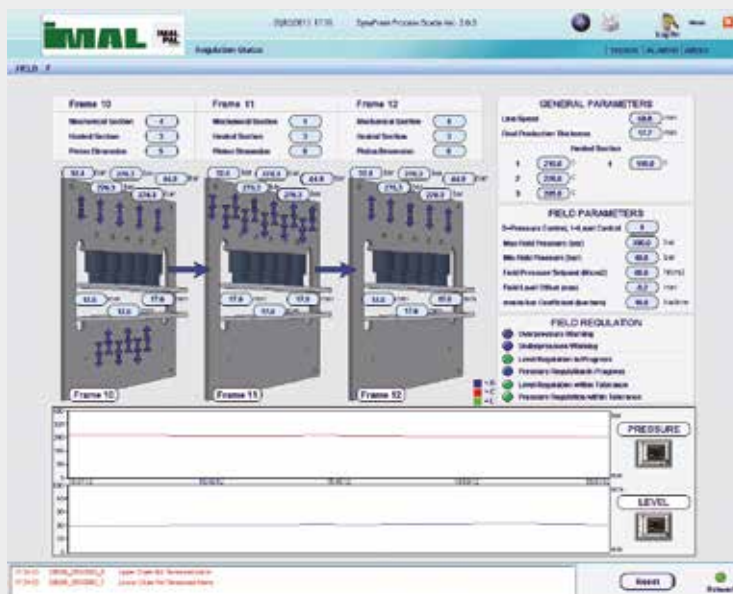
The association between cylinder and level sensor may be re-programmed via the Scada PC to achieve efficient performance in any working condition, even in the event of a sensor failure.

For this purpose, the system has its own error identification programme which is able to provide immediate notification of any anomalies in the data acquired and to signal an alarm if a sensor supplies a signal which is not valid.

The alarms generated by the system may be programmed into priority categories which ranks them in order of importance. A major alarm will therefore stop the press immediately and an operator will be required to reinstate operation, thus ensuring full operating safety. Some alarms will of course stop the cycle even though they have not been programmed as blocks, ensuring further safety and protection for both the equipment itself and for the operators using it.

All standard operations like printing data and graphs for pressure, level, temperature, speed are of course possible as well as other details related to the production which is running, work process times, and any other statistical or numerical information which may be available.

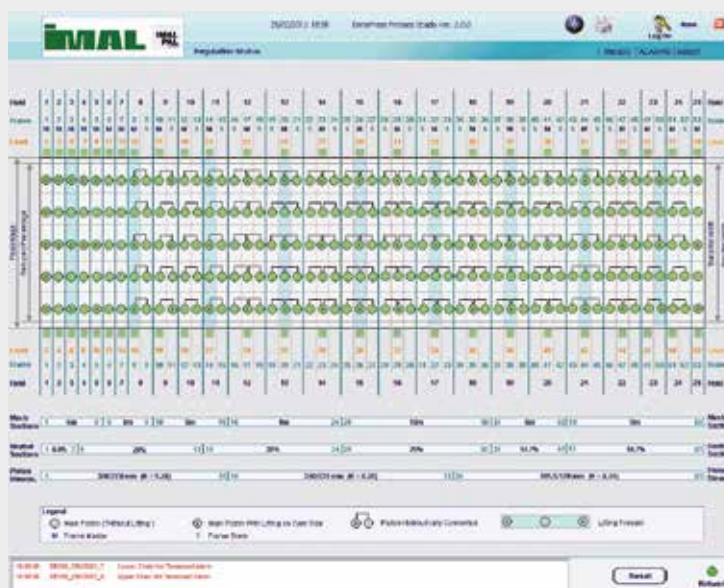
The system may be networked with other supervision and data collection systems such as the thickness gauging system located at press outlet (TM200), by means of which it is possible to make further parameter corrections automatically, in order to produce a flat board of ideal thickness.



WORKING PRINCIPLE

The system consists of electric cabinets, housing PLCs equipped with remotely controlled digital and analogue inputs and outputs and special cards for reading the magnetostrictive level sensors. These sensors will be supplied in a suitable quantity and of a suitable length for the press in relation to the range of thicknesses that will be produced. Furthermore, the pressure of each cylinder is obtained through the use of pressure sensors with analogue output. The Scada PCs act as an interface between the operator and the PLC system and are used to enter data and display the process which is being monitored, cylinder pressure, levels read by the sensors, the graphs for these physical quantities, the state of the system and the position of the limit switches, valves and any other useful signal. The PLC system controls the press independently of the Scada PCs, which are normally used to display data and the alarms. The programming of the production cycle consists in specifying a sequence of checks for each frame equipped with regulators, within each of which an operation is performed. It is therefore possible to check the specific pressure, the level, to perform combined controls, etc in order to obtain a sequence in terms of space (frame by frame) of slow pressure, rapid high pressure, time a pressure is maintained, switching to single piston regulation, cure, thickness control, decompression, etc..

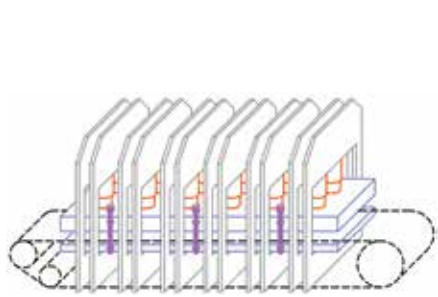
The parameters associated with a production are amply sufficient to control any kind of press cycle required. The software has been programmed in high-level language in Windows, while the PLC system rapidly and efficiently executes a specially designed programme for the sophisticated control which needs to be carried out, to ensure extremely rapid response times. The appropriate algorithms applied minimize the need for calibration and maintenance on the electronic system.



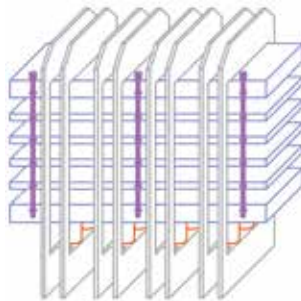
AUTOMATIC PRESS CONTROL SYSTEM

PE2

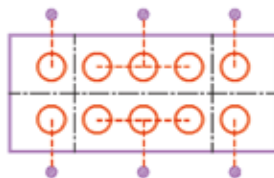
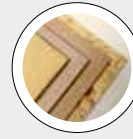
TO CONTROL AND MONITOR SINGLE OR MULTI-OPENING PRESSES



PRESS CYCLE CONTROL FOR SINGLE OPENING PRESSES



PRESS CYCLE CONTROL FOR MULTI-OPENING PRESSES

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

The IMAL PE2 press control system has been designed to control press cycles on a wood-based panel production line and is able to control both single opening and multi-opening presses.

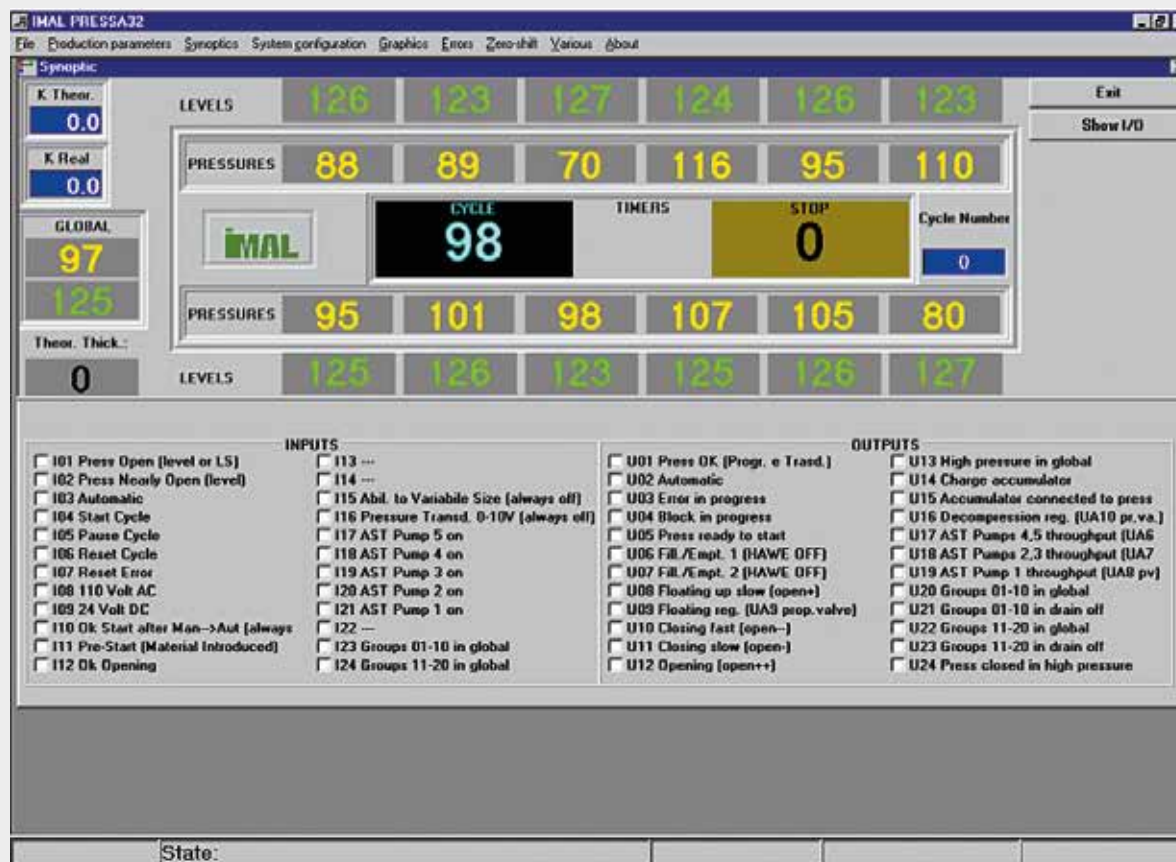
MAIN FEATURES

- Levels calibrated electronically, no mechanical shims required
- As many as 64 parameters may be programmed (pressure, levels, times, etc..) to identify each press-cycle
- Individual hydraulic piston control (or in groups) to maximise the press cycle
- Graphs supplied real time for parameter optimisation
- Current and previous graphs may be compared to analyse any variations in the mat
- Real time graphs showing single pressures for hydraulic and/or forming line analysis
- Hardware error identification and/or cycle errors
- Internal databases to store press cycle settings and graphs
- May be used with single opening presses, multi-opening presses, particleboard, MDF, OSB.

ADVANTAGES

- Increase in production because less time is required for the press cycle
- Board length may be varied
- No stops when production thickness changes (you may change over from one production to another without wasting precious time)
- Optimising of the automatic control of production thickness
- No need to stop production should any of the transducers fail.

CHART SHOWING PRESSURE AND LEVEL VALUES FOR EACH PRESS CYLINDER



GRAPH SHOWING PRESS CYCLE DATA



DOUBLE CONTINUOUS CROSS CUT SAW

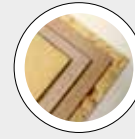
SG700

SUITABLE FOR FREQUENT VARIATIONS IN BOARD CUTTING FORMAT



The machine is composed of two beams which are used to hold the cutting blades, the height of which can be lowered as required. These beams are positioned at such a precise angle above the board that by using a check algorithm, the resulting cut is perpendicular to the side of the board. The blade carriages run on compact slides with a special integral ball bearing system driven by a highly resistant toothed belt, by means of pulleys, reducers, and electronically driven brushless motors.

The cutting blades are equipped with protection guards for the operator's safety as well as for protecting the surrounding area. The work area is kept clean by four suction points, two of which are mobile and the other two are located underneath the cutting surface of the board. Two pincer rollers, which have a central core with high density polyurethane covered rings, are normally placed just prior to and after the cutting area to ensure a constant board speed. These pincer rollers are driven using an electric axle to make sure that the speed at which the board advances is perfectly synchronized. The electric control of the machine provides countless format management possibilities, all of which are fully programmable.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

- Rapid switch over to a different cutting size
- One saw on stand-by during normal operation
- Accurate high speed cutting.

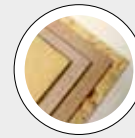


CHIPPERS

INLINE BOARD BREAKER – MPG



BEST IN CLASS FOR:



WOOD BASED PANELS:

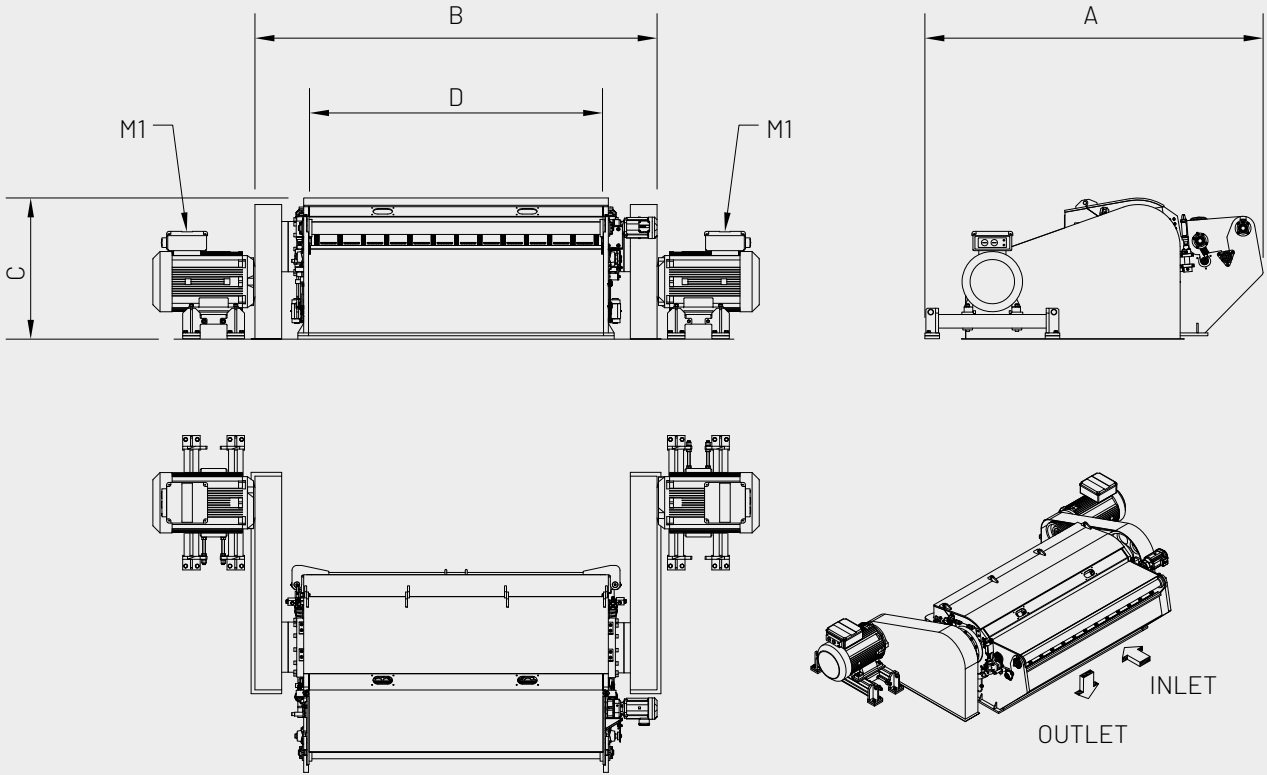
PB/SPB

OSB/LSB/FOSB

MDF/HDF

TECHNICAL FEATURES

MPG Board Breaker Globus is an effective solution in line to reduce rejected boards as well as cutouts of initial and final board. It is ideal for MDF, OSB and PB boards. • Reliable breaking of rejected boards with different size and thickness • Blockages are avoided thanks to the high torque power and ability in breaking at high feed speed • Reduced installed power thanks to the dual motor design • Very strong and reliable in the long term, low operating costs thanks to the simplified maintenance • Replaceable wear components to protect the essential parts of the machine • Boards infeed controlled by integrated roller way • Interchangeable cutting tools • Perforated and divided screen for an easy replacement.



MODEL	OVERALL DIMENSIONS mm			
	A	B	C	D (infeed width)
MPG 2000	3500	3100	1500	2000
MPG 3000	3500	4100	1500	3000

MODEL	TECHNICAL DATA				
	INFEEED SPEED mm/s	POWER M1 kW	ROTOR Ø mm	ROTOR LENGHT mm	WEIGHT kg
MPG 2000	100 ÷ 2000	1x250	746	2090	12000
MPG 3000	100 ÷ 2000	2x200	746	3090	15000

DYNAPELLETPRESS



BEST IN CLASS FOR:



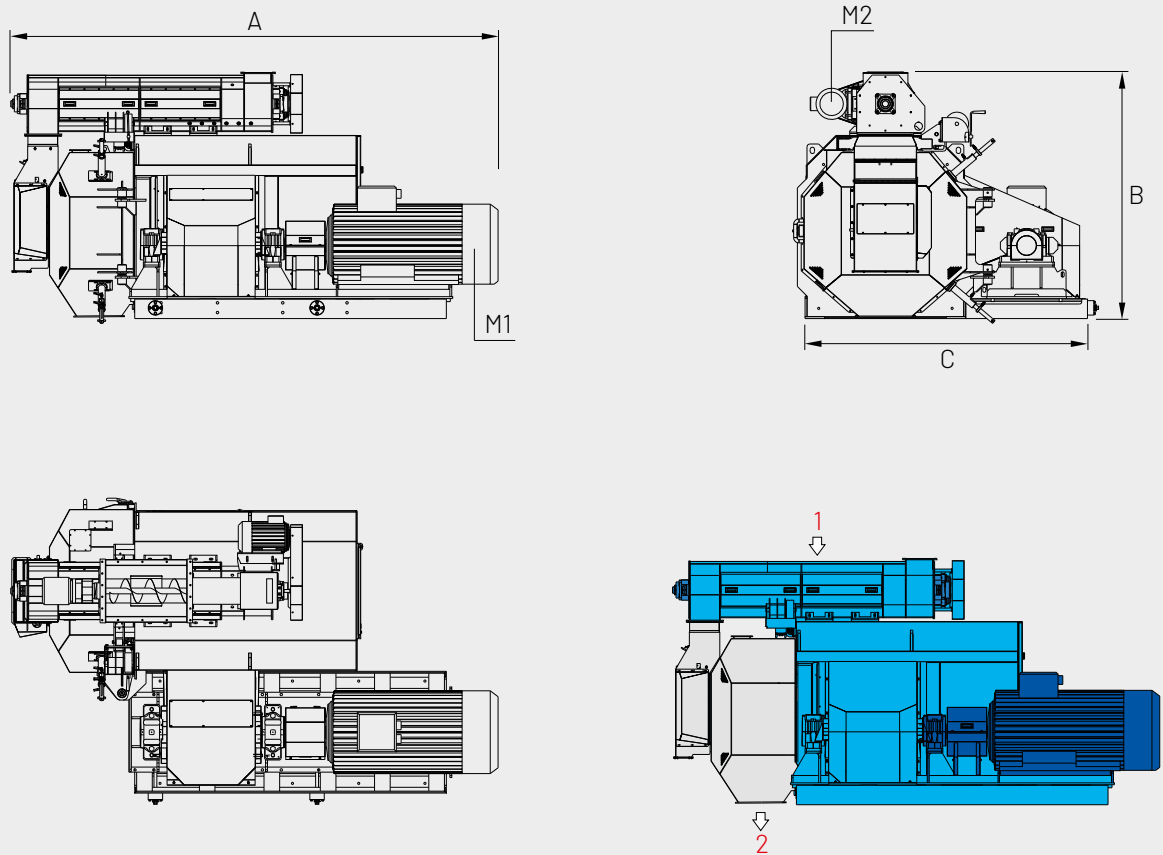
PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS

TECHNICAL FEATURES

- Die diameter up to 1200 mm • Die width up to 180 mm • Main structure made in considerable steel thickness • Driving pulley installed on a countershaft between two separate support, coupled to the main motor by anelastic-block coupling • Machine door entirely made in stainless steel inox AISI 304, with two knives • Feed chute made in stainless steel inox AISI 304 with choke with quick dump controlled by a pneumatic cylinder • A permanent magnet is fitted in the chute to avoid ferrous metal entering in the die • Rotor group composed of a die holder mounted on the main shaft by means of two bearings able to withstand high work loads and high temperature • Segmented die clamp makes bolt alignment easy, facilities fast die change • Main shaft mounted on the basement by means of bronze bushes • Bearings lubrication is guarantee from an internal circuit that work also when machine is working • Pellet mill is driven by an electric motor via a V-belt transmission.

BENEFITS

- Constant production quality • Less generation of Dust and broken pellets • Longer life time of dies and pressure rolls, because there is no friction/cutting effect • Higher capacity can be possible by increasing dies rolls diameter and holes track width • Less specific energy consumption 88 kWh/t in a medium pellet press capacity.



1 = FEEDING
2 = DISCHARGE

M1 = MAIN MOTOR
M2 = SCREW MOTOR

MODEL	DIAMETER mm	DIE TRACKS mm	OVERALL DIMENSIONS mm			CAPACITY MATERIAL* t/h		INSTALLED POWER kW		WEIGHT APPROX. without motor kg
			A	B	C	SOFT	HARD	M1	M2	
DPP.500	500	60	4400	2045	2300	1.3 - 1.5	1 - 1.2	110 - 132	5.5	6000
DPP.630	630	80	4400	2045	2450	2.1 - 2.6	1.6 - 2	200 - 250	5.5	9000
DPP.750	750	95	4500	2245	2550	2.8 - 3.5	2.2 - 2.7	250 - 315	5.5	13000
DPP.835	835	125	4500	2245	2750	4.8 - 5.4	3.9 - 4.4	315 - 355	11	16000
DPP.950	950	153	4972	2525	2900	7.1 - 8	6 - 6.8	400 - 450	11	22000
DPP.1200	1200	180	5400	2900	3500	10 - 12.5	8 - 10	500 - 630	11	32000

*Based on ø 6 mm Pellet

PELLET COOLING SYSTEM



Our Cooler refresh the Pellets by using a forced air counter flow. Pellet will be dosed inside the machine by a R-Valve who ensure the no dust propagation in the rounding area.

After the R-Valve the pellet are invested by a perfect countercurrent air flow, dosed by a special flap, well distribute across the machine thanks to the perfect shape of the cooling chamber.

Pellets flow is controlled inside to the cooling chamber by a triple step grid, one fix, one vibrating and one adjustable.

This already proved configuration ensure a perfect cooling of the pellets.

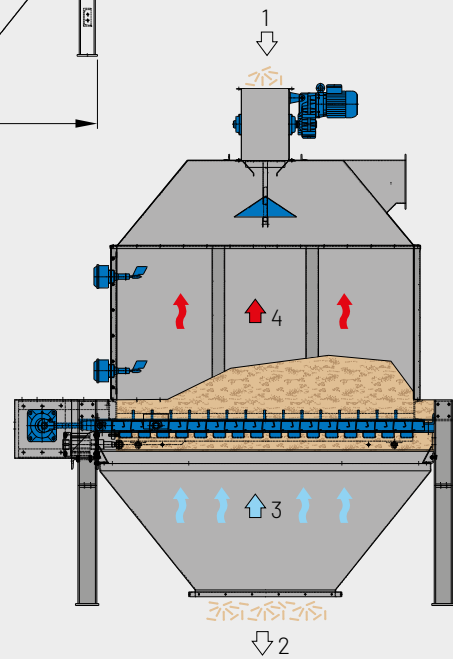
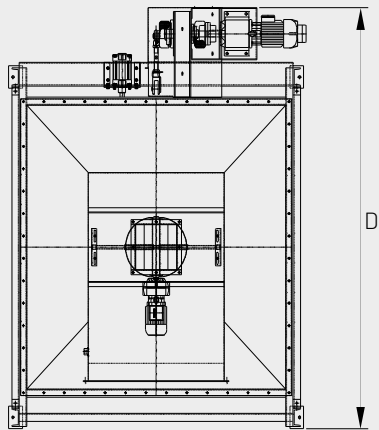
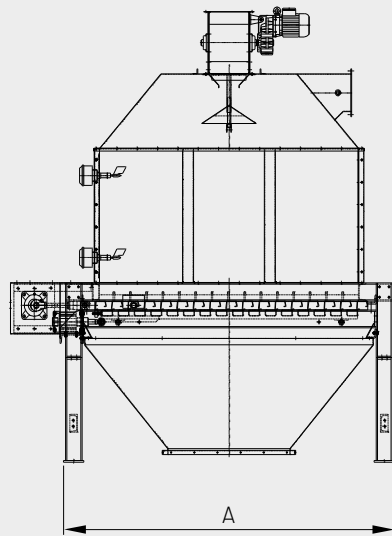
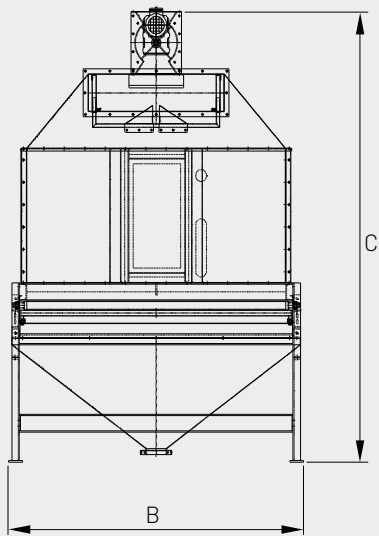
Machine is mechanical well done by using 1st quality and international components, made by stainless steel in all the contact point with material and in all the critical point where humidity or wood acidity can rust or wearing.

Containment body of the machine and support steel structure is made by proper sized mild steel profile.

BEST IN CLASS FOR:



PELLETS & ENERGY:
WOOD PELLETS AND
BLACK PELLETS



- 1 = FEEDING
2 = DISCHARGE
3 = COLD AIR
4 = HOT AIR

MODEL	SURFACE m ²	OVERALL DIMENSIONS mm				WEIGHT APPROX. Kg
		A	B	C	D	
PGCC 14X14 RV	2	1920	1650	2460	2300	1150
PGCC 14X19 RV	2.7	2400	1650	2900	2780	1350
PGCC 19X19 RV	3.6	2400	2130	3030	2780	1700
PGCC 19X24 RV	4.5	2880	2130	3690	3260	2150
PGCC 19X28 RV	5.5	3360	2130	4080	3740	2500
PGCC 24X24 RV	5.7	2880	2610	3690	3260	2400
PGCC 24X28 RV	6.8	3360	2610	4090	3790	3000
PGCC 28X28 RV	8.2	3360	3090	4060	3790	3400
PGCC 24X38 RV	9.2	4320	2610	4890	4750	3800
PGCC 28X38 RV	11	4320	3090	4890	4750	4500

PALLET PRESS



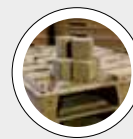
The single-opening press for pallet production is able to produce all kinds of pallet from all varieties of wood-based raw materials.

Press capacity varies from 50 to 60 pallets/hour depending on the pallet format produced.

All pallet are inspected one at a time for weight, dimensions and density, and an automatic feedback goes back to the press to ensure quality and compliancy with international standards.

A special control software system carries out an accurate real time analysis of production.

BEST IN CLASS FOR:



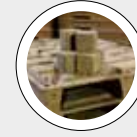
PRESSED WOOD PACKAGING:
PRESSED PALLETS



DYNABLOCKPRESS



BEST IN CLASS FOR:



PRESSED WOOD PACKAGING:
PALLET BLOCKS

The extrusion press for pallet block production is able to produce all kinds of pallet blocks from all varieties of wood-based raw materials.

The press is able to produce up to 90 m³/day depending on the pallet block format produced, and is extremely flexible when changing production formats. All pallet blocks are inspected one at a time for weight, dimensions and density, and an automatic feedback goes back to the press to ensure quality and compliancy with international standards.

A special control software system carries out an accurate real time analysis of production.

QUALITY CONTROL**AUTOMATIC PACKAGING SYSTEM**

SINGLE-OPENING PALLET BLOCK PRESS



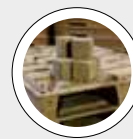
The single-opening press for pallet block production is able to produce all kinds of pallet blocks from all varieties of wood-based raw materials.

Press capacity varies from 70 to 90 m³/day depending on the pallet block format produced.

All pallet blocks are inspected one at a time for weight, dimensions and density, and an automatic feedback goes back to the press to ensure quality and compliancy with international standards.

A special control software system carries out an accurate real time analysis of production.

BEST IN CLASS FOR:



PRESSED WOOD PACKAGING:
PALLET BLOCKS



AUTOMATIC PACKAGING SYSTEM



On-Line Quality Controls

		WOOD BASED PANELS					
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD	
FBC200	306	•	•	•		•	
LBC100	308	•	•	•		•	
BL100 - BC200	310	•	•	•		•	
TM200	312	•	•	•		•	
LASERTHICK 100	314	•	•	•		•	
DYNAXSCALE	316	•	•	•			
CDP800	318		•				
ISO40X	320	•	•	•			
FDM100	322	•	•	•			
UM400	324	•	•	•			
UM700	326	•	•	•			
UM900	328	•	•	•			
MMW200	330	•	•				
PSD400	332	•	•	•			

FULL BLISTER CLASSIFIER

FBC200

WITH 100% CONTROL OF THE MEASURED PANEL

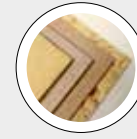


The FBC200 has been designed to detect unglued, delaminated, blown or low density areas, bubbles, cracks and other flaws inside any type of board (PB, MDF, OSB or Plywood). Unlike earlier systems that had a limited number of measuring channels and as a result were only able to guarantee a maximum board coverage of 30%, this system is able to detect defects over the whole board. It is possible to grade the quality of the production in progress and to adjust product parameter to avoid rejects and maximize customer satisfaction.

The system is composed of a sturdy beam, installed around the conveyor, complete with the electrical and pneumatic plant. It is possible to slide the bottom part of the system out to perform maintenance or repair without the need to stop production. The full bond/blister classifier (FBC) measuring sensors are mounted on the top and bottom beams on the board outfeed side. Since the sensors do not come into direct contact with the board, typical problems related to material wear are eliminated. In addition, when the system is installed at press outfeed, a pressurization unit is normally supplied which is mounted on the top of the beam to prevent the sensors from being damaged by the vapours released by the upper surface of the board.

The automatic calibration and dirt accumulation control ensure an efficient and highly reliable measuring control system.

The operator interface for setting up the plant parameters and those for the single productions is simple and straightforward to use and the formulas may be stored and retrieved at a later date. The display can be customised by choosing from the numerous high resolution 3D colour graphs available.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

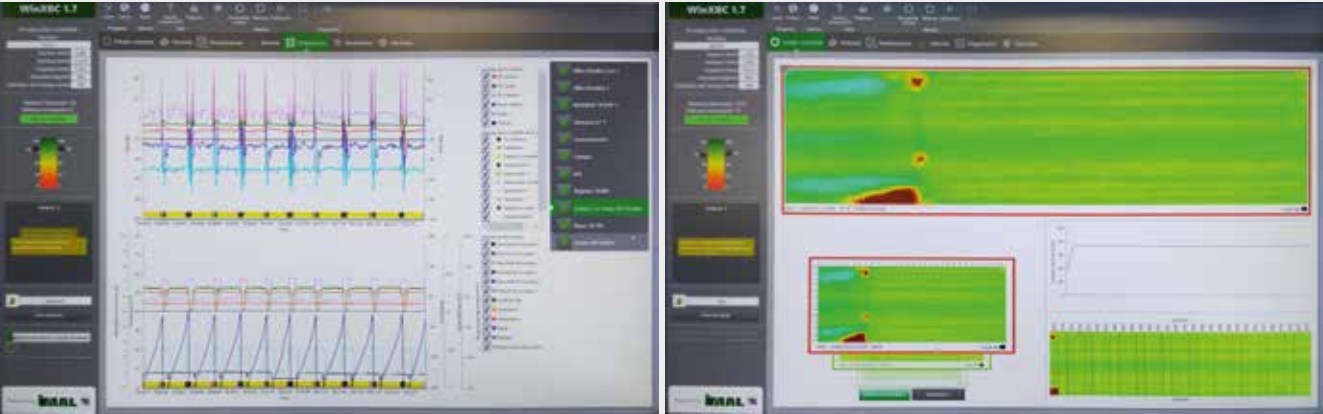
MDF/HDF

PLYWOOD

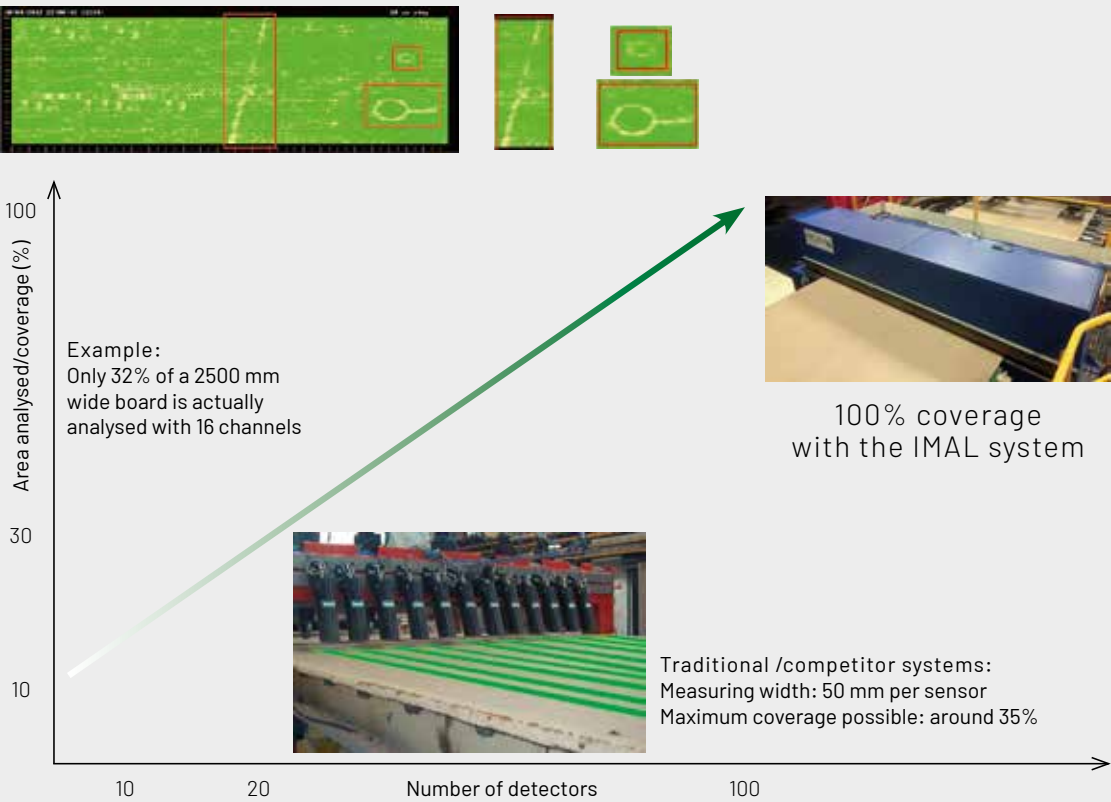
Numerical indications are also given. The parameters are stored in an SQL database and can be used to display and/or print reports on the desired productions, based on user determined choice criteria (date of production, shift, production name).

In addition to being user friendly and extremely intuitive to consent a prompt and immediate interpretation of the data collected, the software also provides detailed diagnostic screen pages to enable maintenance operators or Imal engineers carrying out remote assistance, to perform a full diagnosis of the equipment. A powerful microcontroller is mounted inside the receiver to transmit the data for the signal measured, to the CPU via Data Bus. The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix.

The elevated scanning accuracy over the whole board ensures that all kinds of defects are analysed and not just blisters, blows, delaminated areas.



The steel belt joint and repairs produce different pressures and cure to the board which the FBC200 is able to identify.



MAIN FEATURES

- Sturdy mechanical assembly of the structure and sensors
- Easy to use
- Clear and comprehensive software
- Operator is warned of an approaching blistered board, with the consequent optimization of process parameters, reduction of board defects and rejects
- Easy installation in on line processes and/or after saws
- Lower part can slide out for maintenance operations.

TECHNICAL DATA	
BOARD COVERAGE	100 %
BLISTER RESOLUTION	25 mm
MAX THICKNESS	50 mm
MAX BOARD SPEED	210 m/min
MAX BOARD TEMPERATURE	180 °C
MAX READ OUT WID	up to 4000 mm
NUMBER OF CHANNELS	48 min - 156 max

LIGHT BLISTER CLASSIFIER

LBC100

WITH 100% CONTROL OF THE MEASURED PANEL



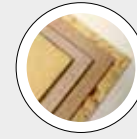
The LBC100 has been designed to detect unglued, delaminated, blown or low density areas, bubbles, cracks and other flaws inside any type of board (PB, MDF, OSB and Plywood).

Unlike earlier systems that had a limited number of measuring channels and i.e. 12, 14 or 16 channels etc, and hence covering a minimum percentage of the board, the LBC100 can mount as many as 54 channels with a 75 mm resolution. It is possible to grade the quality of the production in progress and to adjust the product parameter to avoid rejects and maximize customer satisfaction.

The system is composed of a sturdy beam, installed around the conveyor, complete with the electrical and pneumatic plant. It may be installed in combination with the TM200 thickness gauging system on the same beam. The full bond/blister classifier LBC measuring sensors are mounted on the top and bottom beams on the board outfeed side. Since the sensors do not come into direct contact with the board, typical problems related to material wear are eliminated. In addition, when the system is installed at press outfeed, a pressurization unit is normally supplied which is mounted on the top of the beam to prevent the sensors from being damaged by the vapours released by the upper surface of the board.

The automatic calibration and dirt accumulation control ensure an efficient and highly reliable measuring control system. It is possible to slide the bottom part of the system out to perform maintenance or repair without the need to stop production.

The operator interface for setting up the plant parameters and those for the single productions is simple and straightforward to use and the formulas may be stored and retrieved at a later date.

BEST IN CLASS FOR:**WOOD BASED PANELS:**

PB/SPB

OSB/LSB/FOSB

MDF/HDF

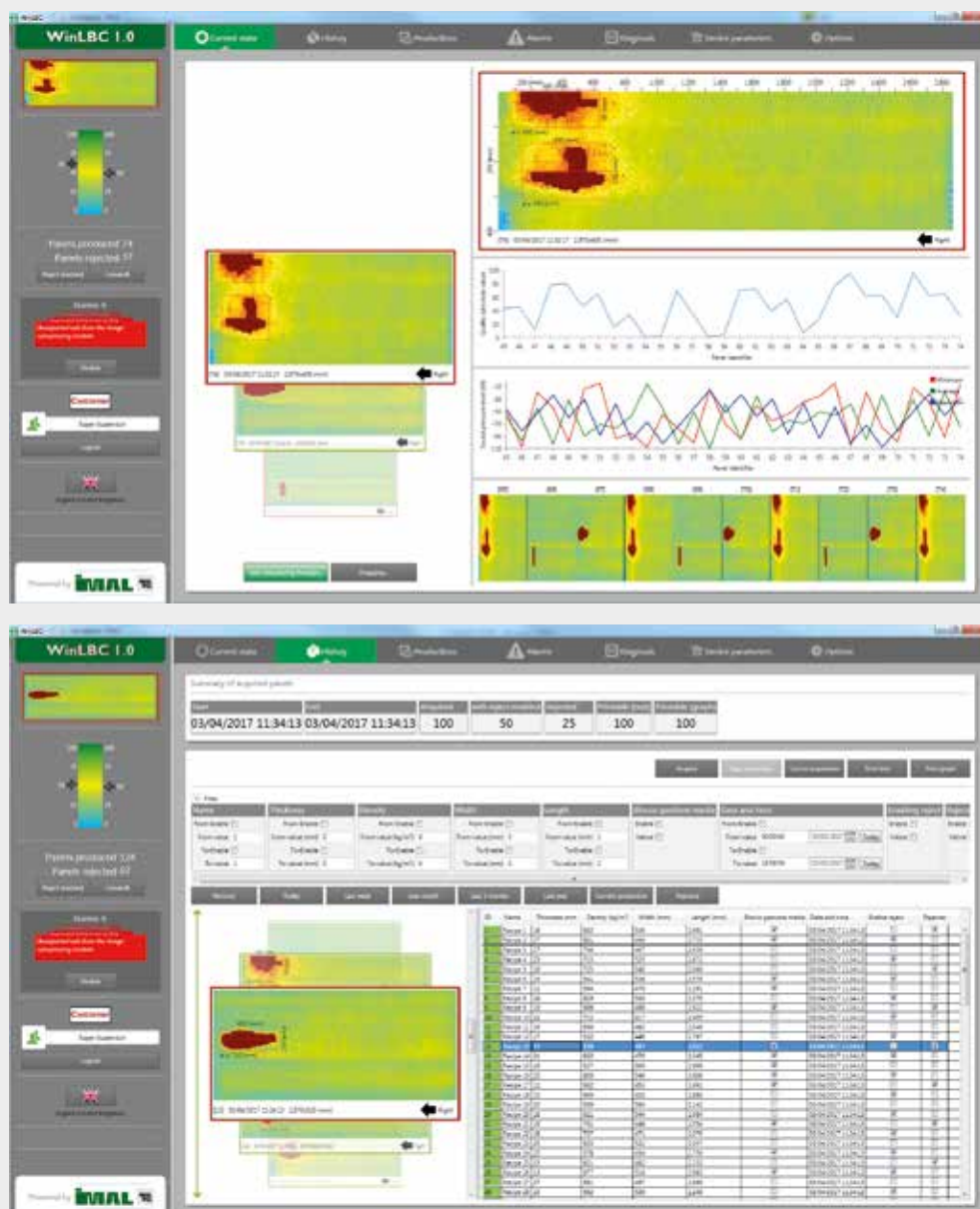
PLYWOOD

The display can be customised by choosing from the numerous high resolution 3D colour graphs available.

Numerical indications are also given. The parameters are stored in an SQL database and can be used to display and/or print reports on the desired productions, based on user determined choice criteria (date of production, shift, production name). In addition to being user friendly and extremely intuitive to consent a prompt and immediate interpretation of the data collected, the software also provides detailed diagnostic screen pages to enable maintenance operators or Imal engineers carrying out remote assistance, to perform a full diagnosis of the equipment.

A powerful microcontroller is mounted inside the receiver to transmit the data for the signal measured, to the CPU via Data Bus. The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix.

The elevated scanning accuracy over the whole board ensures that all kinds of defects are analysed and not just blisters, blows, delaminated areas.



MAIN FEATURES

• Sturdy mechanical assembly of the structure and sensors • Easy to use • Clear and comprehensive software • Operator is warned of an approaching blistered board, with the consequent optimization of process parameters, reduction of board defects and rejects • Easy installation in on line processes and/or after saws • Lower part can slide out for maintenance operations.

TECHNICAL DATA

NUMBER OF CHANNELS	18 min - 54 max
DISTANCE BETWEEN EACH CHANNEL	75 mm (fixed)
MAX THICKNESS	50 mm
MAX BOARD SPEED	210 m/min
MAX BOARD TEMPERATURE	180 °C
READ OUT AVAILABLE	1350 to 4050 mm

BLISTER CLASSIFIER BL100 - BC200

BLISTER AND DELAMINATION DETECTION SYSTEM

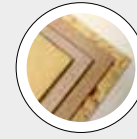


The IMAL BLISTER systems BL100 and BC200 have been designed for the on-line detection of flaws or imperfections which may occur in wood-based panels (particleboard, OSB, MDF, Plywood and LVL) such as unglued areas, blistered or blown areas, bubbles, cracks, etc. Each system consists of a sturdy tubular steel beam; the fully detachable structure installs around the board roller conveyor at press or sander outlet and comes complete with the electrical and pneumatic plant. An electrical box, housing the microprocessor, is mounted on the side of the assembly, whereas the PC, monitor and printer are normally located in the control room. The particular functioning principle of the system (ultrasonic impulses) avoids any direct contact with the board as well as eliminating all the usual problems related to material wear. The BL100 version is generally used on lines where maximum board thickness does not exceed 50 mm and densities are over 500 kg/m³. The BC200 version on the other hand is preferable for thicker boards (up to 120 mm) or for low density boards. Furthermore, the system is able to provide an indication of board quality on a 256 colour scale.

MAIN FEATURES

- Sturdy mechanical assembly of the structure and of the sensors in particular
- A correct measurement is made without contact with the board
- Diagnostics and control of the system's operating status
- Fast measuring speed

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB
OSB/LSB/FOSB
MDF/HDF
PLYWOOD
LVL

- An efficient pneumatic system ensures that the transmitters are kept clean, reducing maintenance
- Incorporated database to store the measurement reports, for statistical analysis and graph print-outs
- Numerous graphs available such as: blister position on board, production trend blisters, opening trend, board quality trends
- Network linking possible with TCP/IP protocol, for Siemens S7 and Allen-Bradley ControlLogix

ADVANTAGES

- Repeatability, reliability, comprehensive and accurate measurement
- Improved production quality
- On-line visualization of the production process
- Quick and easy to install
- Little maintenance required
- It can be mounted on the same beam used to support the IMAL thickness gauge.



TECHNICAL DATA	
MAX BOARD THICKNESS	50 mm (120 mm optional)
MAX LINE SPEED	210 m/min (can be accelerated during the measurement)
CHANNEL WIDTH	35 mm
MIN CHANNEL SPACING	(Centerline to centerline) 100 mm
NUMBER OF SENSORS	2 ÷ 32
MAX BOARD TEMPERATURE	130 °C
MAX OPERATING TEMPERATURE	50 °C
CLEANING SYSTEM	Automatic after each board, with compressed air

OUTPUT ALARMS FOR	
BLISTER LENGTH	From 10 mm up to the full length of the board (programmable)
BLISTER WIDTH	Min in relation to the distance between sensors
SINGLE BLISTER	Total surface (programmable)
PERCENTAGE	Of defective area on the full board (programmable)

These alarms are either available immediately or at the end of the board, and may be paralleled for global alarms, automatic reject or used on each channel for markers, automatic controls etc.

TM200 & TM200-LEV

TM200

TO MEASURE BOARD THICKNESS AND WEIGHT IN REAL TIME



The TM200 system has been designed for the on-line measurement of thickness, weight and density (when used in conjunction with the weighing scale).

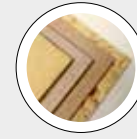
The TM200 system consists of a sturdy tubular steel beam; the fully detachable structure installs around the board roller conveyor at press or sander outfeed, and comes complete with the electrical and pneumatic plant.

An electric box housing the micro processor is mounted on the side of the structure, whereas the PC, monitor and printer are normally located in the control room.

MAIN FEATURES

- Measurement is not influenced by vibration or board undulation
- Board thickness measured non stop
- Reliable, complete and accurate measurements with good repeatability
- The board is not damaged in any way by the measurement
- Fast moving system to ensure accurate measurement even with high-speed cycles
- Incorporated database to store the measurement reports, for statistical analysis and graph printouts
- Numerous graphs available such as: boards produced, pressings effected, average thickness, weight and density, for error search and forming line control etc....
- Network linking possible with TCP/IP for Siemens S5/S7, Allen-Bradley ControlLogix
- Normally installed after single opening, multi-opening or continuous presses.

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

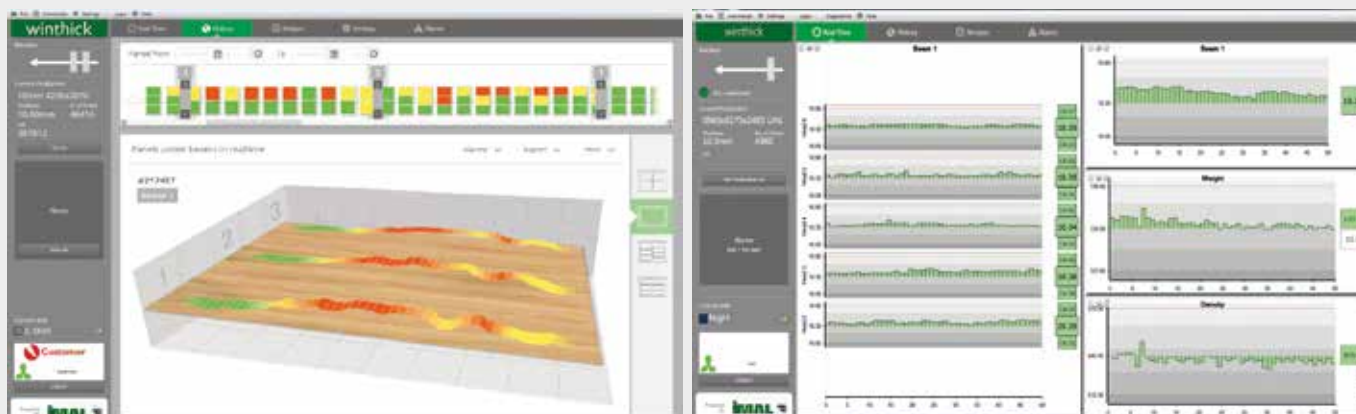
MDF/HDF

PLYWOOD

LVL

ADVANTAGES

- Extremely accurate measuring ability
- Quick and easy to install
- Simple to use
- Little routine maintenance needed
- Self-calibrating system for thickness and weighing scale (when present).



The TM200 – LEV version is also available for installation on the sanding line. This version differs from the standard version in that the system is able to control measuring points distributed over several beams (up to 4 beams for a total of 48 measuring points), with the measurements conveniently displayed on the same monitor.



TECHNICAL DATA

LONGITUDINAL MEASURING POINTS (WIN-LEV)	From 1 to 4
TRANSVERSAL MEASURING POINTS	From 1 to 12
MAX MEASURABLE THICKNESS	50 mm (80 ÷ 120 optional)
MIN RESOLUTION	1/100 mm
MAX ERROR	2/100 mm
MAX LINE SPEED	210 m/min
MAX TEMPERATURE OF THE BOARD BEING MEASURED	180 °C
MAX OPERATING TEMPERATURE OF CUBICLE	40 °C

NO CONTACT THICKNESS METER **LASERTHICK 100**

TO MEASURE BOARD THICKNESS AND WEIGHT REAL TIME

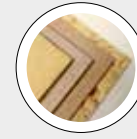


LASERTHICK 100 is particularly useful for measuring board thickness in a continuous work process where, due to the very nature of the process, a contact system would not be suitable (low density boards or surfaces which are particularly delicate). The system consists of one or more steel or aluminium beams. The fully detachable structure installs around the board roller/belt conveyor, and comes complete with the electrical and pneumatic plant. An electric box housing the microprocessor is mounted on the side of the structure, whereas the PC, monitor and printer are normally located in the control room. The system is equipped with the necessary hardware for reading board weight taken by a weighing scale, and hence it is possible to display weight as well as thickness, and so calculate board density, matching all the data to the same board which are then displayed graphically.

MAIN FEATURES

- Measurement is not influenced by vibration or board undulation if the sensors are mounted on the top and bottom of the beam (TMLD, differential measurement)
- Sensors can be mounted on the top of the beam only (TML option) if the board travels along a belt or if there are no particular problems with vibration
- Board thickness measured non-stop
- Reliable, complete and accurate measurements with good repeatability
- Blowers/sprayers to keep the sensors clean
- Side measuring heads can be disabled when producing narrow boards
- Electronic weight transducers for the weighing scale easily and rapidly installed on the existing conveyor

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

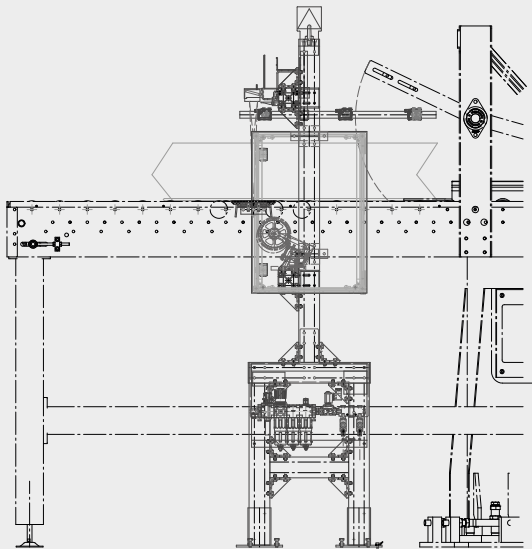
PLYWOOD

LVL

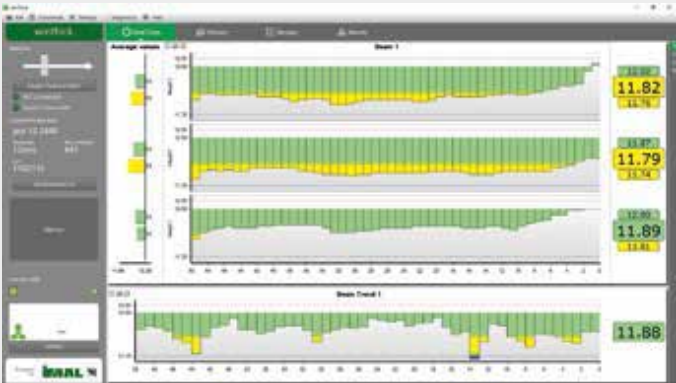
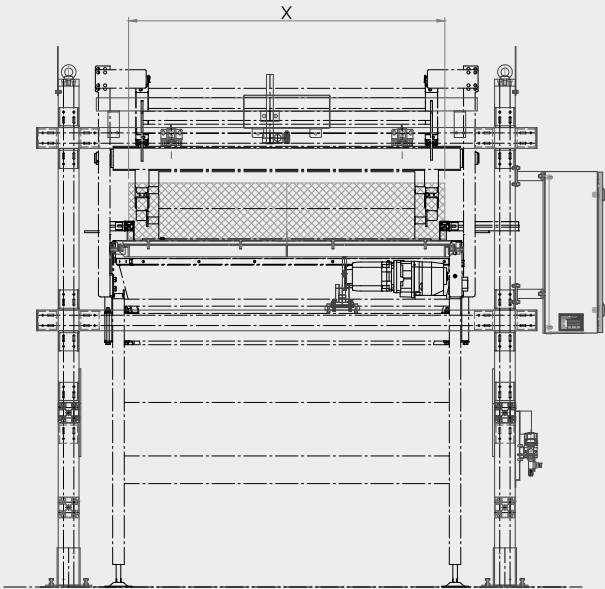
- Incorporated database to store the measurement reports, for statistical analysis and graph printouts
- Numerous 3D and 2D graphs available such as: boards produced, pressings effected, average thickness, weight and density, for error search and forming line control etc....
- Network linking possible with TCP/IP for Siemens S5/S7, Allen-Bradley ControlLogix
- Normally installed after single opening, multi-opening or continuous presses.

ADVANTAGES

- Extremely accurate measuring ability
- Quick and easy to install
- Simple to use
- Low maintenance
- Auto-tuning thickness calibration system using a set of sample weights designed by IMAL or on the basis of customer requirements
- Self-calibrating system for weighing scale (when present).



← WORKING LINE



TECHNICAL DATA

TRANSVERSAL MEASURING POINTS	From 1 to 9
MAX MEASURABLE THICKNESS	up to 2500 mm
MIN RESOLUTION	approx. $\pm 1/10$ mm (depending on the range)
MAX LINE SPEED	300 m/min
MAX OPERATING TEMPERATURE OF CUBICLE	50 °C

X-RAY WEIGHT PER AREA ANALYSER

DYNAXSCALE

NO CONTACT ONLINE WEIGHT MEASUREMENT

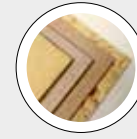


The system permits a continuous and reliable measurement of the weight per area (kg/m^2) of the board, even at high speeds. The unit is equipped with "n" number of X-ray tubes, designed to ensure that the emission characteristics are suitable for these particular measuring requirements, combined with solid crystal receivers (the "state-of-the-art" in terms of X-ray receivers).

Both devices have been designed to achieve elevated sensitivity with regard to variations in density and good measuring accuracy, without neglecting the prime objective which is that of guaranteeing that they are safe to use.

The X-rays emitted by the transmitters are collimated to prevent any potential scattering (which would generate noise and consequently impact negatively on the measurement) and to minimize X-ray emission in the area surrounding the unit. The receivers are also equipped with collimators, again aimed at limiting the noise due to scattering and hence achieve better measuring accuracy.

The measurements are conducted without any contact with the material that is being analysed. The machine is supplied on the basis of customer specifications depending on the type of board produced, the weight to be measured, and board size. It is possible, via software, to make a full diagnosis of the unit and manage the alarms. When used in conjunction with the thickness gauge, in addition to the weight per area (kg/m^2), each measuring point is shown as well as board weight (kg) and average density (kg/m^3).

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

- No contact with the board • Elevated sensitivity and good measuring repeatability
- Greater intrinsic safety with respect to radioactive sources • X-ray beam collimation system to reduce radiation emission
- System can be customised to customer specifications • Cooling and drying systems to stabilize the signals.



TECHNICAL DATA	
MAX BOARD WIDTH	4000 mm
MAX BOARD THICKNESS	45 mm
MAX PRODUCTION SPEED	3000 mm/s
MEASURING RANGE	2 - 40 kg/m ²
ACCURACY	± 0.5%
MAX NUMBER OF MEASURING POINTS	7

ON-LINE DENSITY PROFILE METER

CDP800

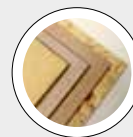
NO CONTACT DENSITY PROFILE OF THE PRODUCT - PATENTED



The unit has been designed to perform the on-line density profile analysis on wood based panels while the production process is in progress. The system exploits the theory adopted in X-ray operated systems to conduct a non-destructive test on the board produced. Both the transmitter and X-ray receiver are mounted below the board to prevent them from being affected by any potential overheating and to ensure that transmitter and receiver are perfectly aligned, preventing issues related to thermal dilation.

MAIN FEATURES

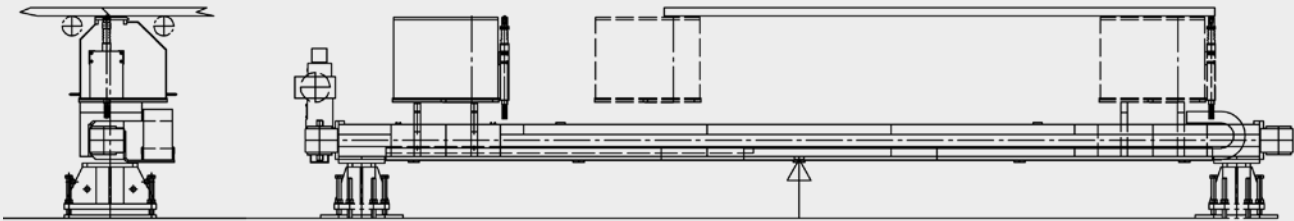
- Compact, easy to position and suitable for installation on all types of lines
- Collimated and suitably screened X-ray beam • Designed to minimize scattered radiation • Extremely safe to use thanks to the application of advanced technology • Non-invasive measurement • Accurate board density profile analysis • On-line measurement and graphic illustration of the density profile • 2D and 3D visualization with the possibility to compare graphs • Maintenance may be carried out on line without interrupting production • Production may be changed without the need to change any of the machine parameters
- Incorporated database for statistical analysis and storing the density profiles • Test results swiftly compared with other laboratory testing equipment
- The device is calibrated automatically, no operation required for calibration
- The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix.

BEST IN CLASS FOR:

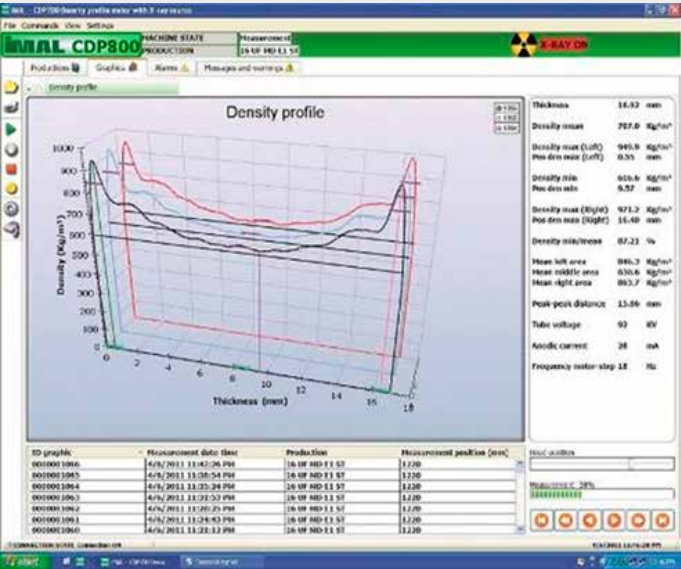
WOOD BASED PANELS:
MDF/HDF

ADVANTAGES

- Real time monitoring of production quality and press performance • Density profile measured on line after multi-opening press line for the first time ever • Extremely economical and accurate mobile analyser
- Special algorithm used, patented application • Reduced start up times • Optimising of the amount of material used in the production process • No isotopes: no radioactive emission without power supply • The entire device is installed below the board
- Fine-tuned and workshop calibrated prior to shipment.



Dimensions will vary on the basis of customer requirements.



TECHNICAL DATA	
THICKNESS	3 ÷ 60 mm
MEASURABLE DENSITY	400 ÷ 2000 Kg/m³
MAX MEASURING SPEED (RELASE TO THICKNESS)	0.25 mm/sec
GRAPH RESOLUTION	1/100 mm
MAX BOARD WIDTH	4000 mm

ON-LINE X-RAY MAT DENSITY GAUGE **ISO40X**

RADIOMETRIC GAUGE FOR THE TRANSVERSAL SURFACE DENSITY MEASUREMENT



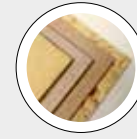
The system performs an accurate on-line surface density analysis (weight per surface unit) along the cross section of the mat being examined. It is also possible to measure lengthways, selecting a point on the mat where the scanner can be positioned automatically.

The analysis is conducted without any contact with the material by exploiting the X-ray control theory and the use of non destructive testing techniques. The solid state crystal receiver, the "state-of-the-art" in terms of X-ray receivers, consents rapid measurement data acquisition and consequently a much faster mat scanning speed with respect to standard systems.

MAIN FEATURES

- Well collimated and suitably screened X-ray beam • Engineering aimed at minimizing scattered radiation. • Elevated sensitivity and measuring repeatability
- No contact with the mat • Device controlled by remote PC • Average profile of the last "x" scans • Graph printing management • Alarm management • Deviation ranges(+/-- and +/-) shown on graph for instantaneous values (and on the averages graph) as the mat is being scanned, in relation to the average value of the last scan made • Calibration system for reading belt density • The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix • System may be customized to suit customer requirements
- Suitable for any kind of wood based panel.

BEST IN CLASS FOR:



WOOD BASED PANELS:

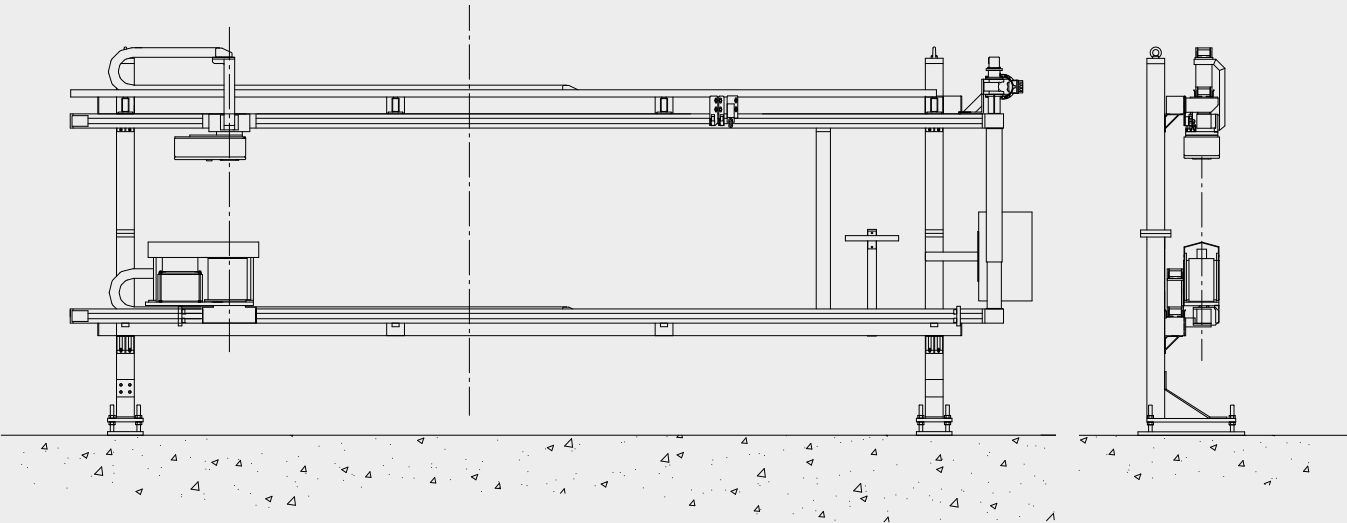
PB/SPB

OSB/LSB/FOSB

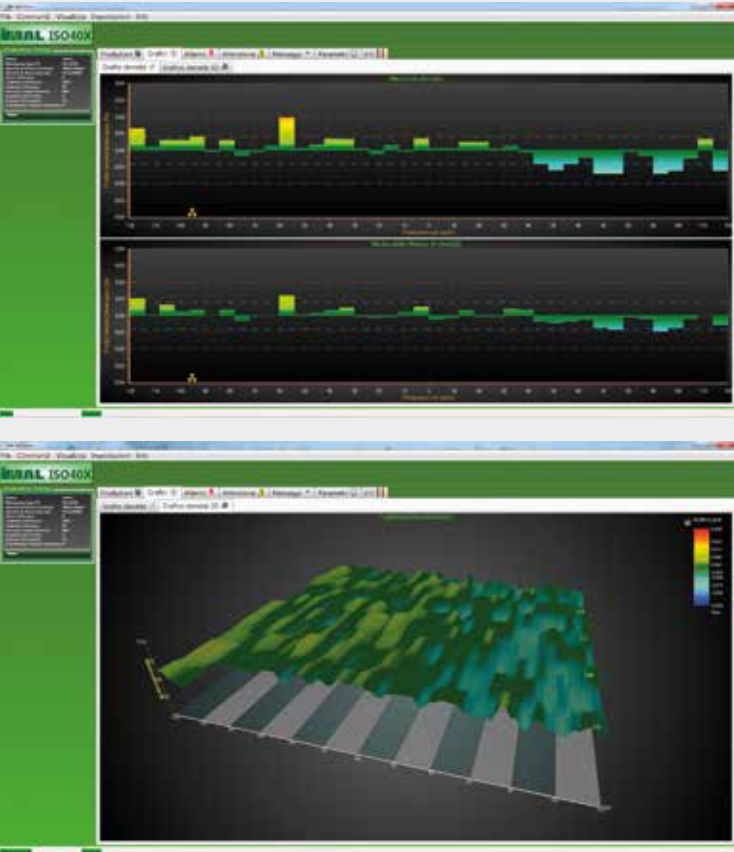
MDF/HDF

ADVANTAGES

- The device is not equipped with radioactive isotopes: no radiogenic emission without power supply • Real time monitoring of production quality • Low maintenance costs. • Extremely fast scanning speed thanks to the solid state crystal receiver.



Dimensions will vary on the basis of customer requirements.



SURFACE DENSITY PROFILE GRAPH

The bar graph shows the surface density profile along the transversal section of the line; each bar corresponds to the average value of the measurements taken at a minimum distance of 5 cm. This graph is continually updated as the board moves forward.

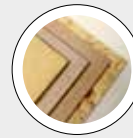
It is also possible to see the average graph which gives the average of the last “x” scans, where “x” is a programmable parameter.

TECHNICAL DATA	
MAT WIDTH	as required (4 m maximum)
MAT HEIGHT	800 mm maximum
MEASURING RANGE	0 ÷ 40000 g/m²
ACCURACY	±0.5%
PRODUCTION SPEED	up to 2500 m/s
OPERATING TEMPERATURE RANGE	5 °C ÷ 45 °C

X-RAY FIBRE DENSITY METER

FDM100

TO MEASURE THE WEIGHT PER SURFACE UNIT FOR FORMING MACHINES

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

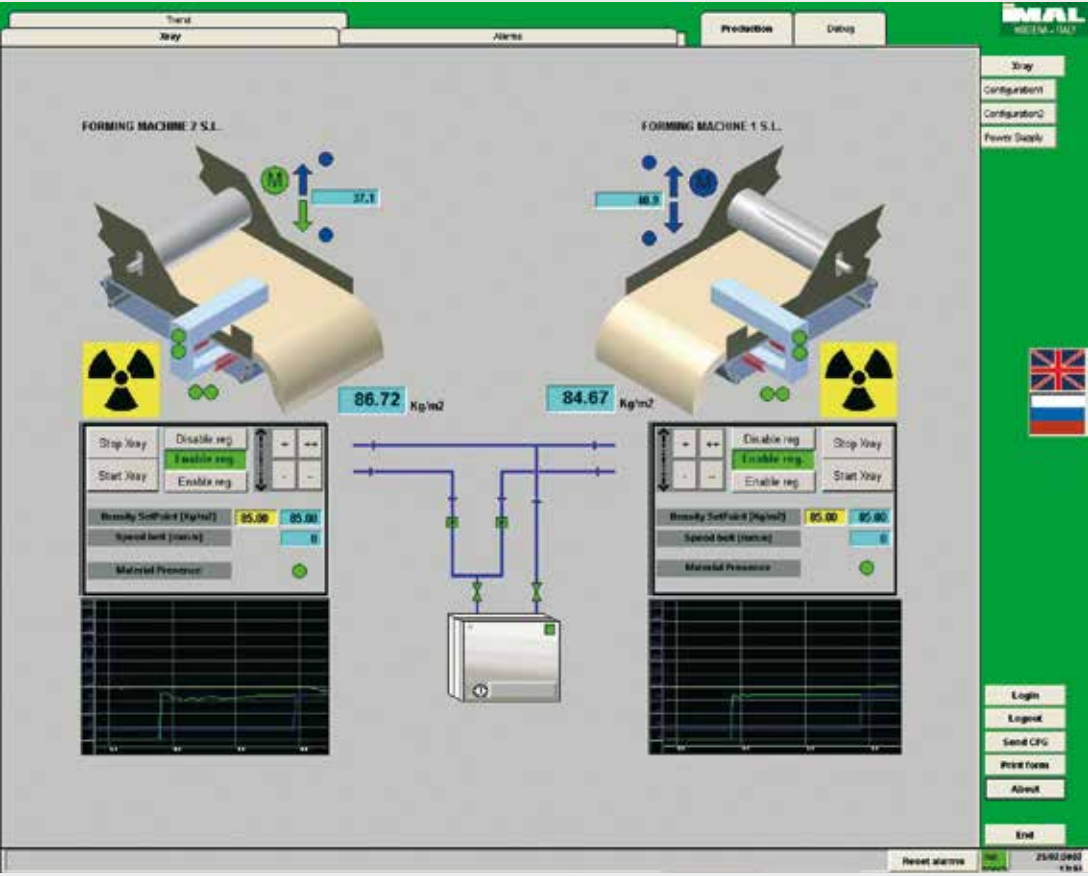
The system, which has been especially designed for installation on the forming machine, enables the weight per surface unit to be read and regulated continually in order to keep mat weight constant.

It replaces the more dangerous isotope systems, and reduces and simplifies installation and maintenance procedures.

The measuring system consists of an X-ray transmitter and receiver, located respectively above and below the forming bin belt and mounted on a C-shaped support to facilitate maintenance.

ADVANTAGES

- X-ray operated: the device is not equipped with radioactive isotopes: no radiogenic emission without power supply
- On-line weight per area control and automatic former regulation.

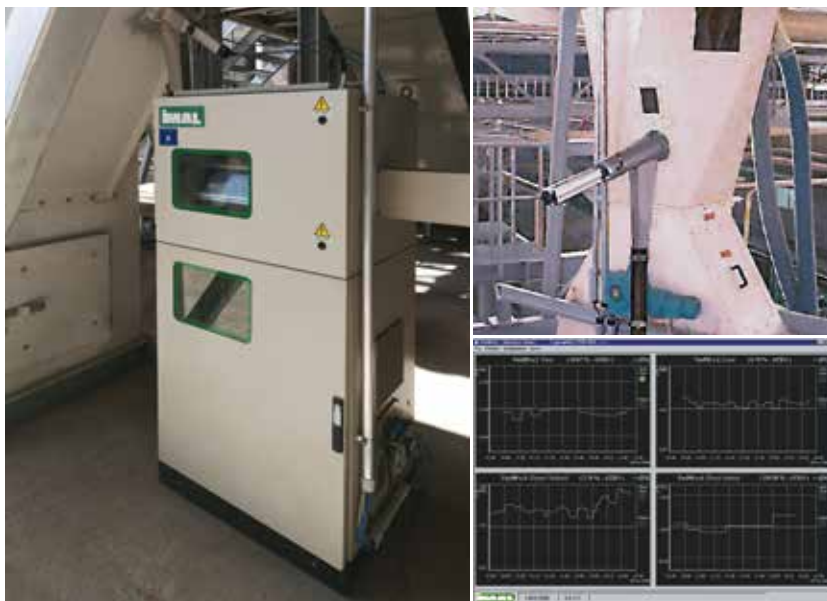


TECHNICAL DATA	
WEIGHT PER AREA	0 ÷ 45 kg/m²
MEASURING ACCURACY	+ 1%
MEASUREMENT SPEED	Up to 3 m/s

ON-LINE MOISTURE METER

UM400

TO MEASURE THE AMOUNT OF MOISTURE CONTAINED IN THE MATERIAL



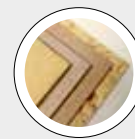
The UM400 microprocessing instrument has been designed to determine on-line the percentage of moisture present in the wood. The material is dried by the heat of an infrared lamp. The method used is unaffected by any side effects which may be caused by colour, density, chemical properties or absorption, all of which may produce unreliable results with other methods. A pneumatic arm extracts the material from the production line and places it in a thermostatic chamber containing a precision weighing scale, where the moisture test will be carried out. When the final weight is reached the moisture content is calculated and displayed. The procedure is performed automatically and does not require an operator.

MAIN FEATURES

- User friendly software • Simple and clear graphics • Incorporated database to store the measurements and effect statistical analysis • Easy to install
- May be interfaced with other computers and network linked to PLC.

ADVANTAGES

- Real time measurement of the moisture content • No risk of human error with the measurements • Elevated measuring precision • Simple to use • No maintenance • Able to manage up to 8 UM400s at the same time with just 1 PC
- May be installed anywhere in the plant.

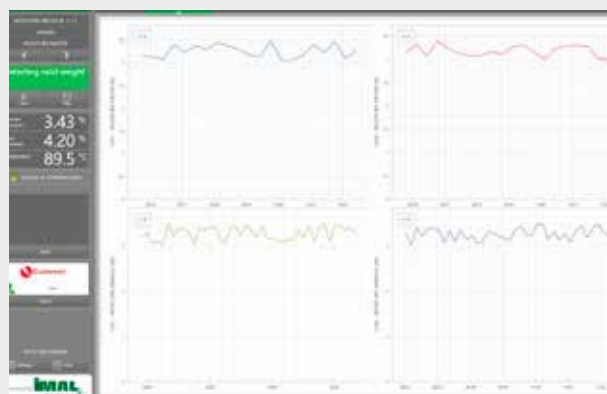
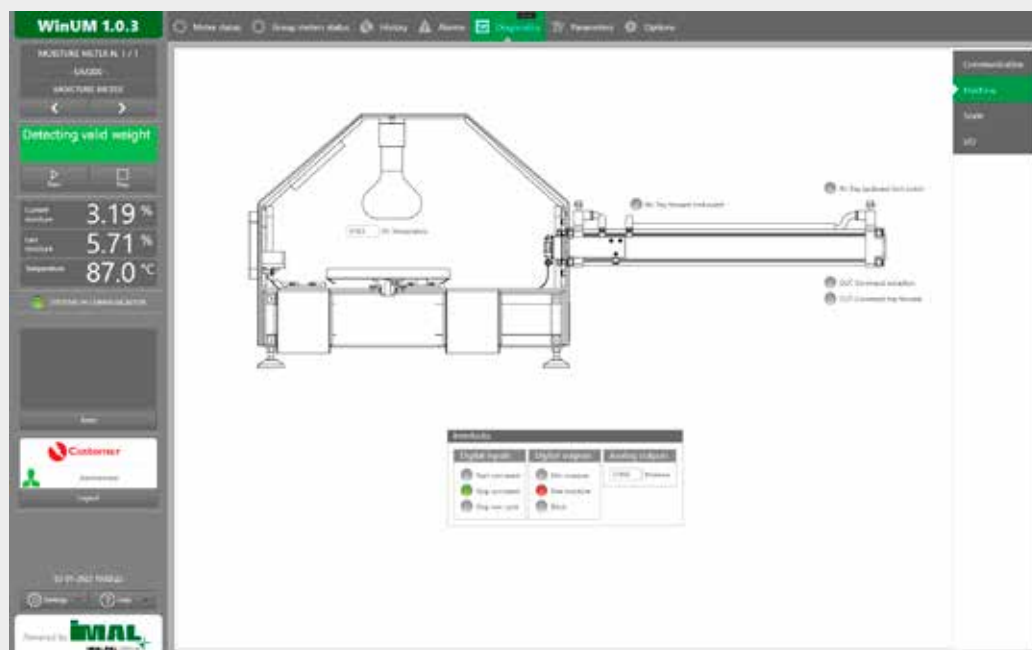
BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



WORKING PRINCIPLE

2 function modes: • **Automatic P control:** the measuring cycle ends when weight variation over a time unit (programmable in seconds) falls below or is equal to the P which has been set (programmable in 1/100 g)

• **Manual timer control:** the operator sets the time for the measuring cycle in minutes, and at the end of the cycle, the final weight and moisture content are displayed and stored and/or printed.

TECHNICAL DATA

FULL SCALE	0 ÷ 200% ATRO
ACCURACY	0.1%
RESOLUTION	0.01%
CHAMBER OPERATING TEMPERATURE RANGE	+30 ÷ 250 °C (programmable)

ON-LINE INFRARED MOISTURE METER

UM700

TO MEASURE THE AMOUNT OF MOISTURE CONTAINED IN A VARIETY OF PRODUCTS



The UM700 is an infrared photometric analyser which uses fixed near infrared wavelengths to measure the amount of moisture contained in a variety of products. The system is based on the capacity of the materials to absorb certain wavelengths of infrared radiation. Material temperature readout may be added as an option.

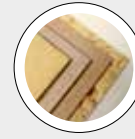
The UM700 is a "stand-alone" sensor for the on-line monitoring of moisture content. Optional wall-mountable or hand-held operator interfaces are available for setup, calibration and maintenance. In applications where material needs to be collected from a downward flow, for example from inside a chute, a material collecting system may be supplied. It is possible to add a second cooling kit if temperatures are very high in the installation area or, on the contrary, a heated cover for areas where temperatures are low.

MAIN FEATURES

- Unaffected by light or material height
- No contact analysis
- No auxiliary signal processors needed for signal processing
- Dual analog output
- Versatile interface through RS 485 communication
- On-line moisture monitoring possible with analogue signal to remote PC
- Pre-set factory calibration
- Easy to install.

ADVANTAGES

- The on-line monitoring of the moisture content may be used to perceive variations in the production process
- The data saved may be used to provide an historical moisture trend.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

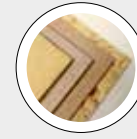


TECHNICAL DATA	
MOISTURE RANGE	Min. 0.1% - Max. 95%
TEMPERATURE RANGE (OPTIONAL)	Min. 5°C - Max. 100°C
ACCURACY	± 0.5% of calibrated range
REPEATABILITY	± 0.5% of calibrated range
STABILITY	Requires 1 calibration a year
MAX OPERATING AMBIENT TEMPERATURE WITH COOLER KIT	55 °C
SENSOR DISTANCE FROM SAMPLE SURFACE	From 150 to 350 mm
AREA SAMPLED	75 cm² standard
POWER	90/260 V - 50/60 Hz
OUTPUT	4 ÷ 20 mA - optional 0 - 10 V
DIMENSIONS	406 x 152 x 178 mm (L x W x D)
WEIGHT	10.8 kg
PROTECTION	IP65 CEI EN 60529

ON-LINE MICROWAVE MOISTURE METER

UM900

TO MEASURE MOISTURE CONTENT

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

The UM900 microwave moisture meter owes its creation to the constant research and investigation into the development of new techniques to achieve accurate detection and monitoring of the parameters involved in the production process.

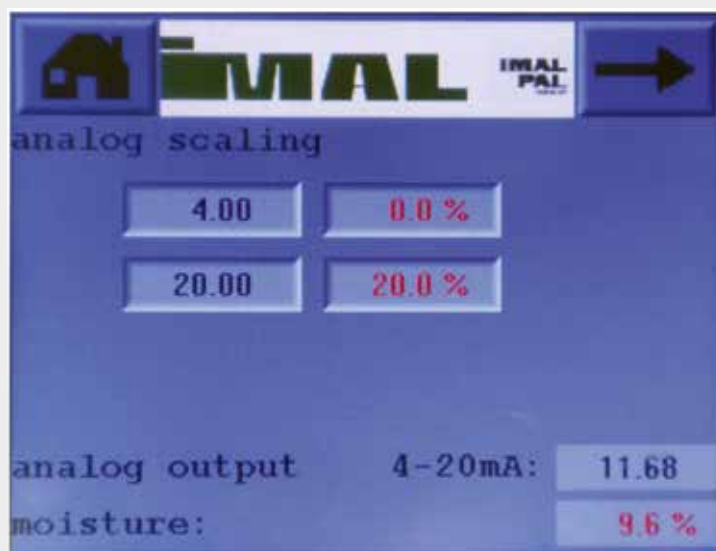
The UM900 is able to conduct the on-line measurement of the moisture content, density and temperature of the material analysed.

MAIN FEATURES

- Charts and graphs updated real time with programmable alarm levels for an optimal control of the process
- Performs a vectorial moisture measurement irrespective of density, temperature, formula used, etc.
- Configuration of analogue and digital outputs
- Automatic stabilizing of the temperature inside to ensure elevated measuring precision
- Calibration stable over time
- May be used for any kind of wood
- Quicker to calibrate thanks to a simple calibration procedure
- Easy to install.

ADVANTAGES

- The on-line monitoring of the moisture content may be used to perceive variations in the production process
- The data saved may be used to provide an historical moisture trend.



TECHNICAL DATA

MOISTURE MEASURING RANGE	Min. 0.1% - Max. 95%
MEASURING PRECISION	0.2%
OPERATING TEMPERATURE RANGE	0 ÷ +50 °C may be increased if controlled by thermostat
ANALOGUE INPUT/OUTPUT SIGNALS	4 - 20 mA
MEASURING TIME	< 1 sec

MMW200 MILLIMETRE WAVE GAUGE

MMW200

TO MEASURE WEIGHT PER AREA, MOISTURE CONTENT AND THICKNESS OF THE MAT



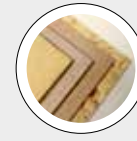
The system performs a rapid and continuous measurement of the weight per area, moisture content and thickness along the transversal section of the mat. It is normally installed just after the pre-press to monitor the formed mat. The analysis takes place without any contact with the mat and is perfectly safe for operators to use, thanks to the Terahertz technology, the same technology applied in the airport body scanner systems.

The source consists of a SFHH (Safe For Human Health) millimetre wave emitter, operating on the same principle as a Level Probe Radar, but designed with emission characteristics that are suitable for online measurement requirements.

Thanks to the properties of the millimetre waves and the processing of a sophisticated algorithm, the unit can provide the measurement of the weight per area and thickness not only for the whole mat but for the single layers that form the mat as well.

The system may be connected up as a feedback to the IMAL MWR system which automatically lowers the bars ("skis") which keep the material pressed down upstream of the scalper in areas where weight distribution is lower so that the scalper removes a smaller quantity of material or none at all (the pre-pressed material passes below the level of the scalper without being levelled off).

Consequently, in the areas where there is too much material the bars rise so as not to compress the material, and the scalper can remove any excess material.

BEST IN CLASS FOR:

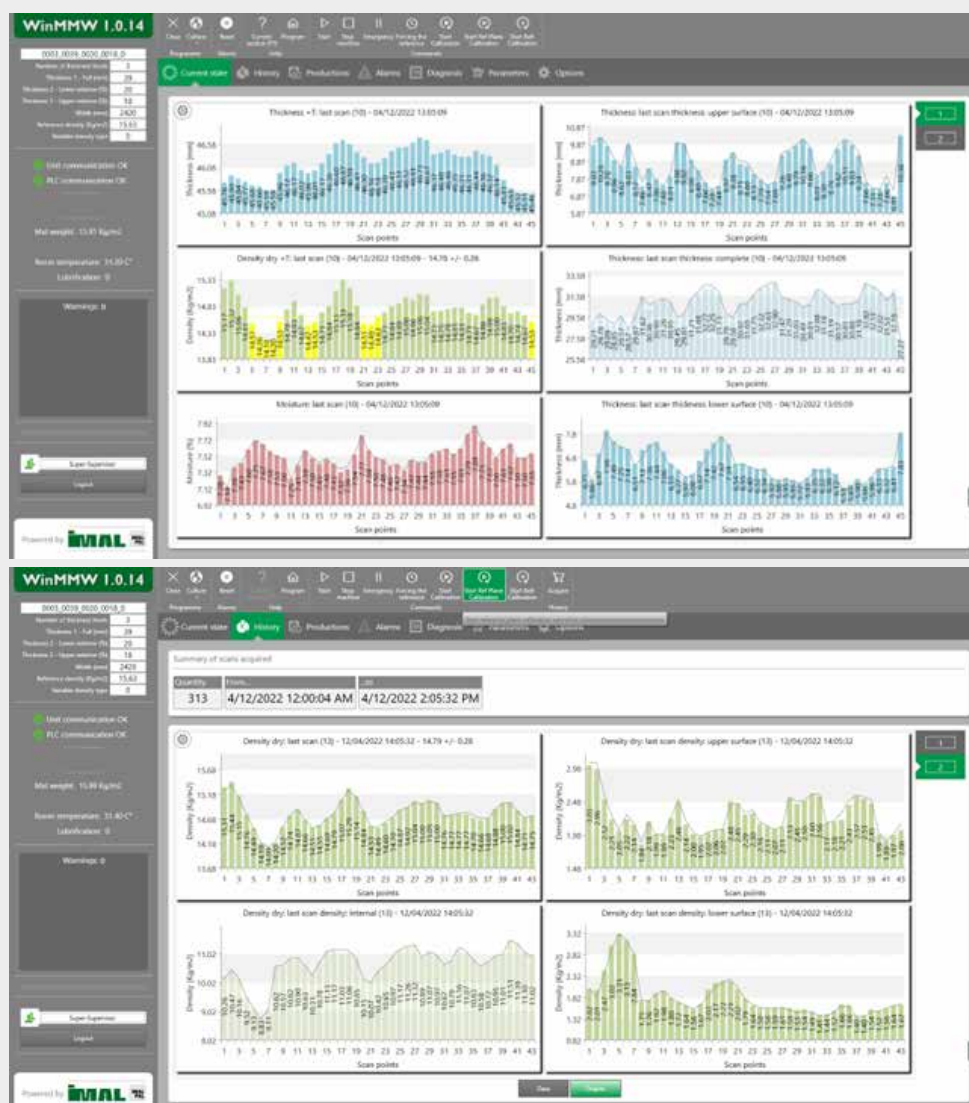
WOOD BASED PANELS:

PB/SPB

MDF/HDF

MAIN FEATURES

- No contact with the mat • No radioactive sources (full intrinsic safety) • Elevated sensitivity and good measuring repeatability
- Possibility of analysing the inner layers individually



It is possible to set the following parameters in the regulation and control software:

- Properties of the mat being analysed (weight per area setpoint, thickness, moisture)
- Alarm management
- Limit ranges (+/- e +/-) on the graphs for the instant values while the mat is being scanned
- Graphs with the average values of the last X scans
- Unit can be monitored from tablets and handheld devices via WiFi and Browser
- Possibility to produce reports and manage all the data in an easier and faster way, based on a modern SQL server database that is easily linked to your company data manager to enable all the necessary analyses now required by the market

TECHNICAL DATA

MAT WIDTH	4000 mm
MAT HEIGHT	200 mm
PRODUCTION SPEED	2.000 mm/sec
MOISTURE RANGE	0 ÷ 15%

PRESS SECURITY DEVICE

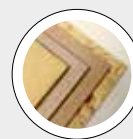
PSD400

TO IDENTIFY IMPURITIES PRESENT IN THE WOOD FLOW



The PSD on-line Press Security Device, has been designed to meet the ever increasing need for panel manufacturers (particleboard, OSB and MDF) to identify in the formed mat, impurities such as tiny pebbles, stones, metal and other high density foreign bodies like plastic and lumps of glue from the wood. Real time detection and elimination of these impurities at pre-press outfeed, especially in the case of thin panels, will protect and safeguard press and steel belts. The device is also able to measure the density distributed over the entire width of the mat. This measurement is essential for correcting forming density distribution and consequently for optimizing production quality and reducing costs related to excess material at the same time.

Highly sensitive, accurate and reliable sensors, specially designed for the application, pick up the signal to produce a clear and well-defined image of the mat, which is then rapidly and accurately processed real time by special DSP devices to identify the particles of a different density to that of wood fibre, and to provide the means for the selective elimination of the particle detected.

BEST IN CLASS FOR:

WOOD BASED PANELS:

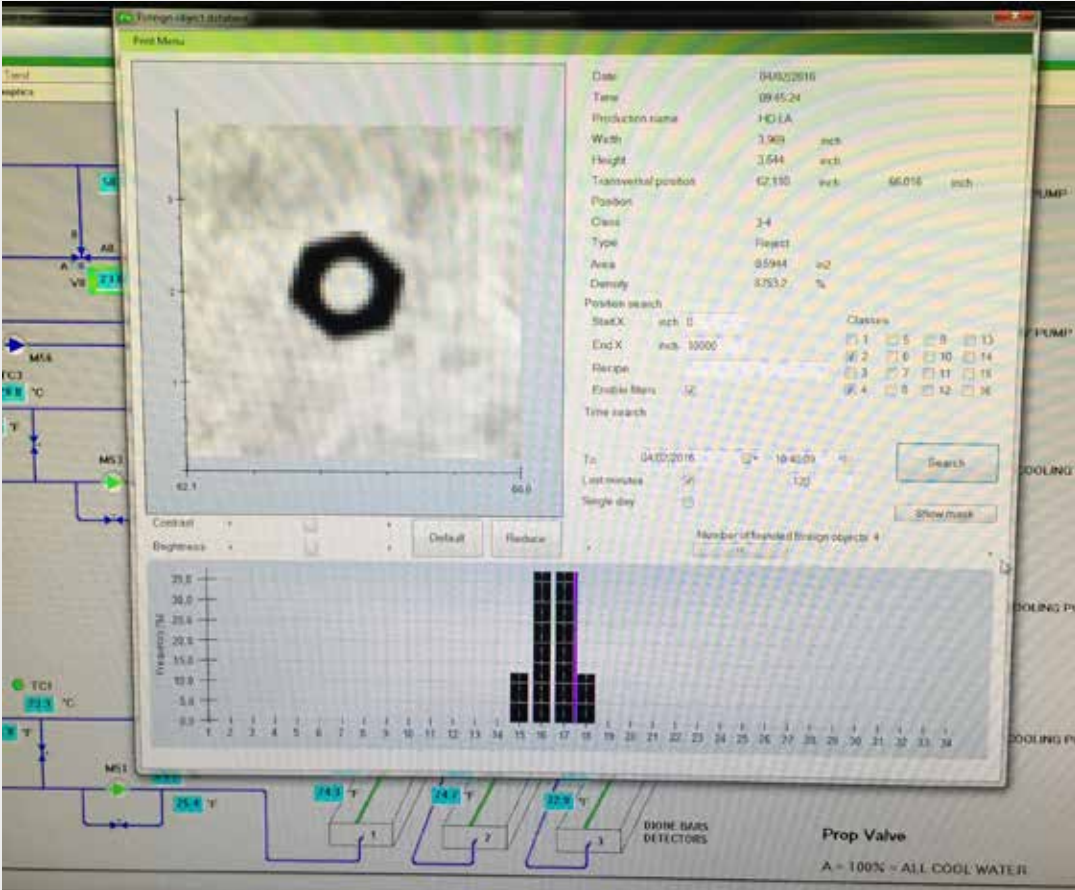
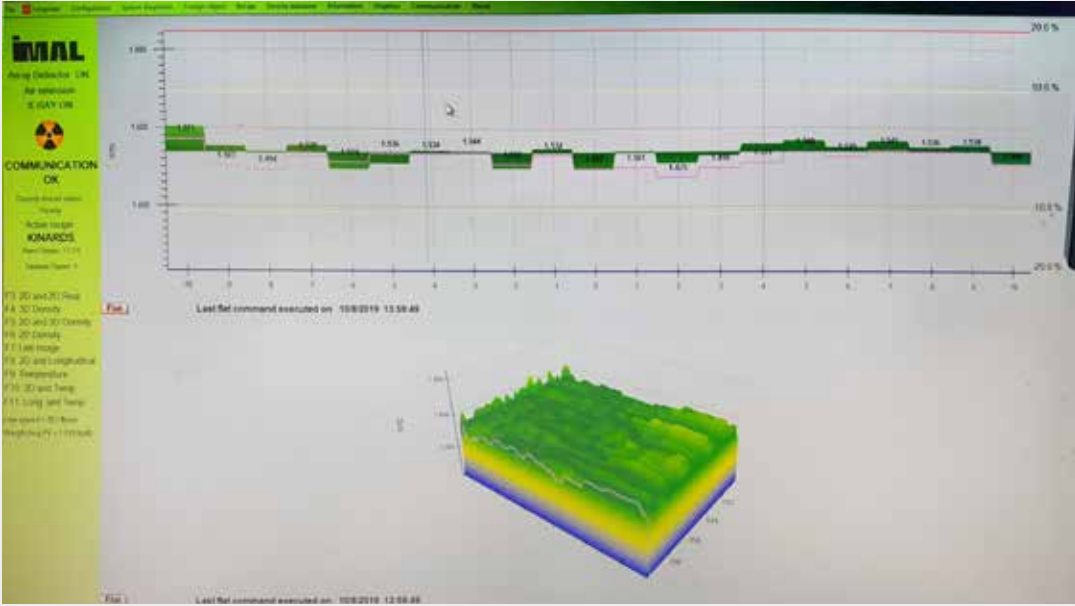
PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

- Reliable and long lasting X-ray source
- Collimated and suitably screened X-ray beam
- Engineering aimed at minimizing scattered radiation
- Impurities which may be detected: calcareous materials, silica, concrete and stone, pieces of brick, metal objects, glue lumps, high density materials in general
- Compact size
- Reject devices may be operated by the activation of a useful contact, whenever an impurity is detected
- Each production has 16 reject classes available for differentiating density and area.





TECHNICAL DATA

WIDTH OF MAT	Up to 3658 mm
MAX. MAT HEIGHT	500 mm
SPEED OF MATERIAL FLOW	Up to 3 m/s
RESOLUTION	0.4 mm
SMALLEST DETECTABLE FOREIGN PARTICLE	0.8 x 0.8 mm

On-Line Safety Controls

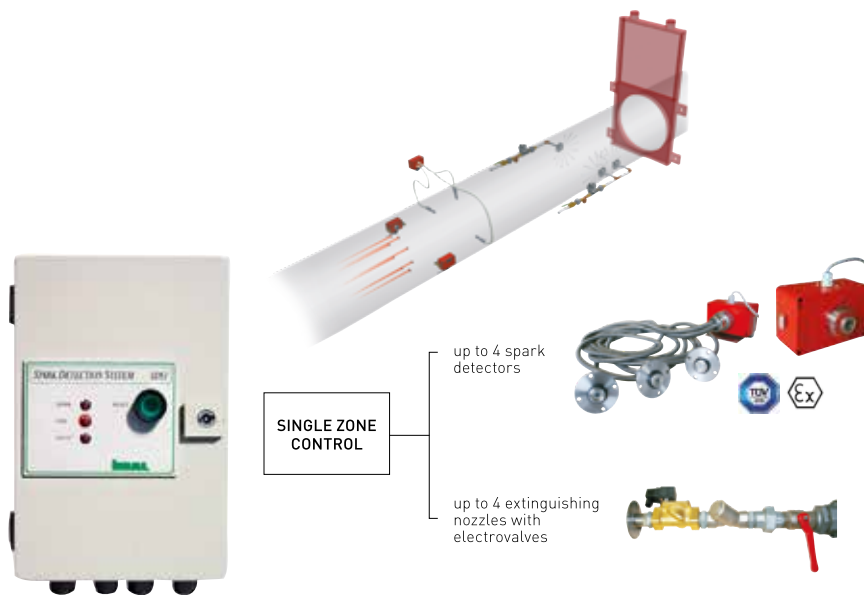
		WOOD BASED PANELS					
		page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
SDS-1	336	•	•	•			
SDS-4	338	•	•	•			
SDS-BUS	340	•	•	•			
APX300	344	•	•	•			

	PRESSED WOOD PACKAGING			
	PALLET BLOCKS			
	PRESSED PALLETS			
	STRINGERS & BEAMS			
	PELLETS & ENERGY			
	WOOD PELLETS AND BLACK PELLETS			
	GREEN FUELS AND BIOMASS			
	THERMAL AND ELECTRIC ENERGY			
	WOOD RECYCLING AND WASTE TREATMENT			
	WOOD RECYCLING			
	SLUDGE RECYCLING			
	PLASTIC RECYCLING			
	CUSTOMIZED SOLUTIONS FOR RECYCLING			

SPARK DETECTING AND EXTINGUISHING SYSTEM

SDS-1

IMMEDIATE SPARK DETECTION TO REDUCE FIRE RISKS

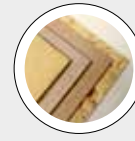


The SDS-1 series spark detection and extinguishing systems have been designed and constructed to achieve spark detection in real time in all those environments where there is risk of fire (conveyors, filters, silos, screens, etc.). The system is integrated with an efficient extinguishing system which utilizes water sprayed at high pressure, or it can activate the customer's existing fire extinguishing system with foam, dust, etc. and is equipped with controls to perform efficiently in any operative situation.

MAIN FEATURES

The SDS spark detectors **conform to the requirements of ATEX directive 2014/34/UE** for use as intended in potentially explosive atmospheres due to the presence of combustible dust (zones 20, 21 or 22) with **EU-type Examination Certificate**.

- Compliance with European Standards EN 60079-0; EN 60079-31; EN ISO 60079-36
- Extremely rapid system response
- Emergency back-up power unit
- Expandable system
- Infrared detectors with special fibre optics to withstand temperatures of up to 290 °C
- No calibration
- Auto-testing function to test sensor efficiency
- Constant electric control carried out on the extinguishing unit
- Up to 4 spark detectors.

BEST IN CLASS FOR:

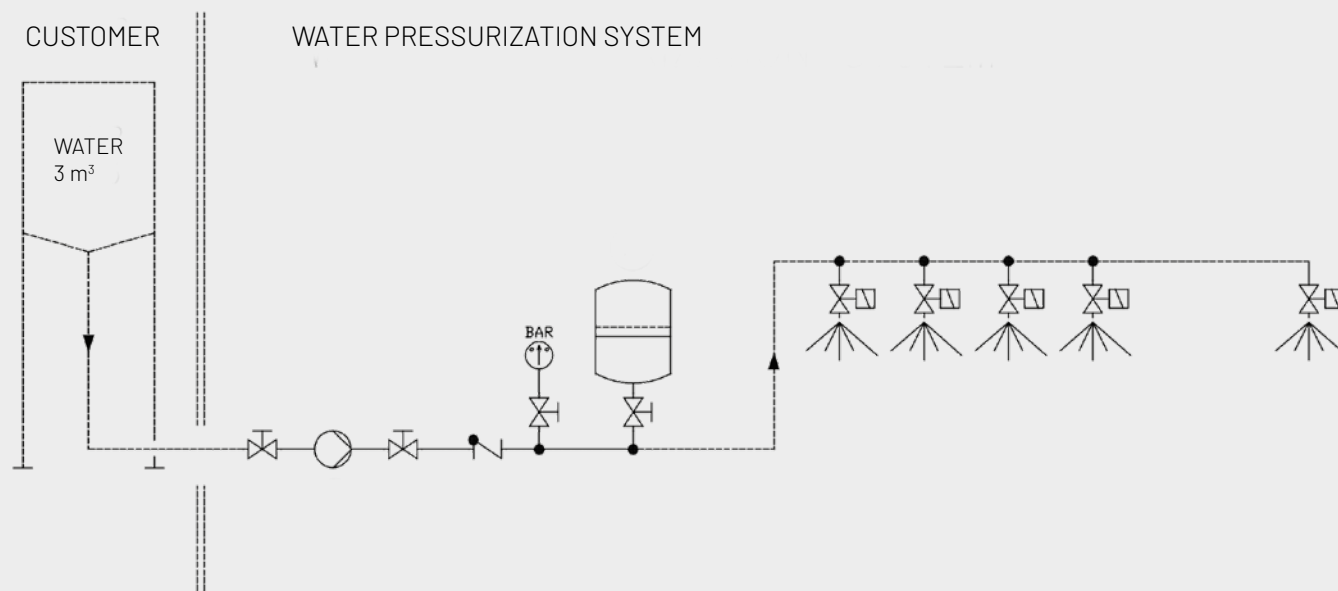
WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

If the production plant does not have pressurized water (about 7 bar), IMAL may supply a pump and tank system in order to reach and maintain operating pressure during functioning.



SPARK DETECTING AND EXTINGUISHING SYSTEM

SDS-4

IMMEDIATE SPARK DETECTION TO REDUCE FIRE RISKS

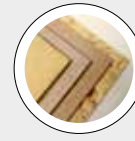


The SDS series spark detection and extinguishing system has been designed and developed to achieve spark detection in real time in all those environments where there is risk of fire (conveyors, filters, silos, screens etc.). The system consists of an I/O module that receives signals from the sensors and controls the opening of the extinguishing valves.

The detectors are sensitive to infrared radiation and have been purposely studied for use in pneumatic conveying systems. Fibre optic sensors may be used in extremely hot environments, consenting the control of conveyors where temperatures can be as high as 290 °C. The sensor auto test ensures that each sensor is functioning properly.

It is possible to disable a single area without affecting the other extinguishing areas.

The extinguishing nozzles spray pressurized water into the conveyor, and are located downstream of the spark sensors, this allows each spark to be extinguished with a timed spray, thus reducing the amount of water required and minimizing damage to production. If the production plant does not have pressurized water (about 7 bar), IMAL may supply a pump and tank system in order to reach and maintain operating pressure during functioning.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

The SDS spark detectors **conform to the requirements of ATEX directive 2014/34/UE** for use as intended in potentially explosive atmospheres due to the presence of combustible dust (zones 20, 21 or 22) with **EU-type Examination Certificate**.

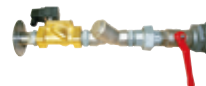
- Compliance with European Standards EN 60079-0; EN 60079-31; EN ISO 60079-36
- Extremely rapid system response • Efficient functioning irrespective of temperature or light present in the ducts controlled
- Easy to install and use • Set up configuration by computer • Self-test function to search for breakdowns or failures • Spark sensors do not require calibration.

**AREA 1**

up to 4 spark detectors

up to 4 extinguishing
nozzles with
electrovalves**AREA 2**

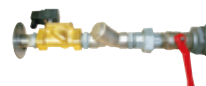
up to 4 spark detectors

up to 4 extinguishing
nozzles with
electrovalves**AREA 3**

up to 4 spark detectors

up to 4 extinguishing
nozzles with
electrovalves**AREA 4**

up to 4 spark detectors

up to 4 extinguishing
nozzles with
electrovalves

SPARK DETECTING AND EXTINGUISHING SYSTEM

SDS-BUS

IMMEDIATE SPARK DETECTION TO REDUCE FIRE RISKS



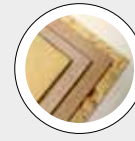
The SDS series spark detection and extinguishing systems have been designed and constructed to achieve spark detection in real time in all those environments where there is risk of fire (conveyors, filters, silos, screens, etc.).

The system is integrated with an efficient extinguishing system which utilizes water sprayed at high pressure, or it can activate the customer's existing fire extinguishing system with foam, dust, etc. and is equipped with controls to operate efficiently in any operative situation.

MAIN FEATURES

The SDS spark detection system **conforms to the requirements of ATEX directive 2014/34/UE** for use as intended in potentially explosive atmospheres due to the presence of combustible dust (zones 20, 21 or 22) with **EU-type Examination Certificate**.

- Compliance with European Standards EN 60079-0; EN 60079-31; EN ISO 60079-36
- Extremely rapid system response
- Emergency back-up power unit
- Modular and expandable system
- Incorporated database to store alarms and record operations carried out on the system
- Infrared detectors with special fibre optics to withstand temperatures of up to 290 °C
- No calibration
- Auto-testing function to test sensor efficiency
- Possibility of linking up with any kind of PLC
- Constant electric control carried out on the extinguishing unit
- Global monitoring of all plant areas as well as instant individual monitoring of any one area via the graphic displays provided (PC/display panel)
- System can run independently and efficiently without PC
- Easy access to any area of the plant.

BEST IN CLASS FOR:

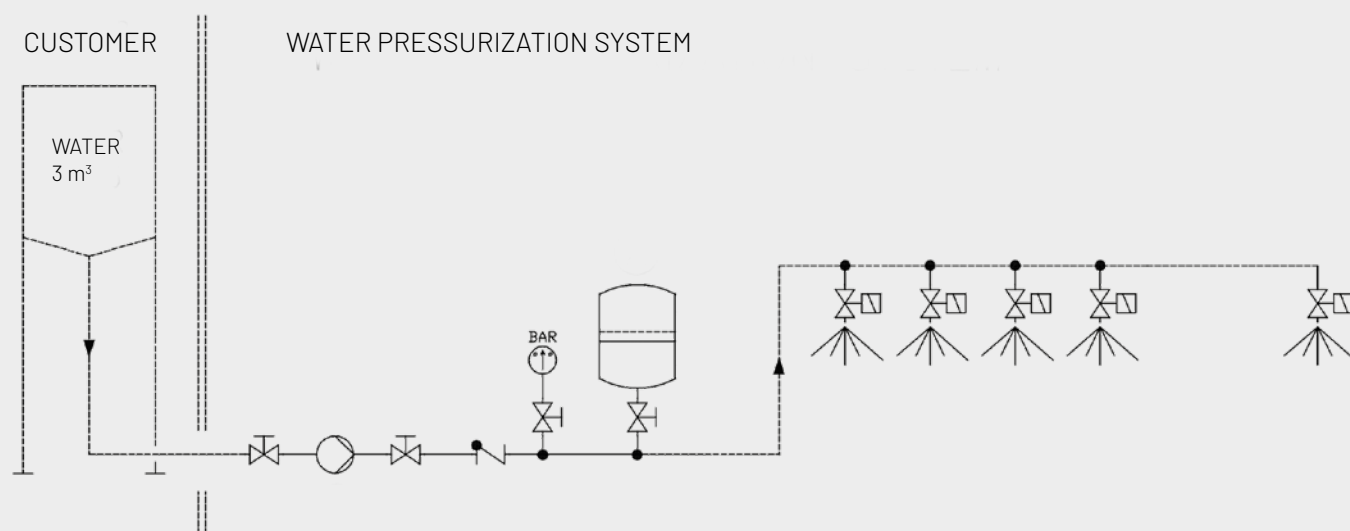
WOOD BASED PANELS:

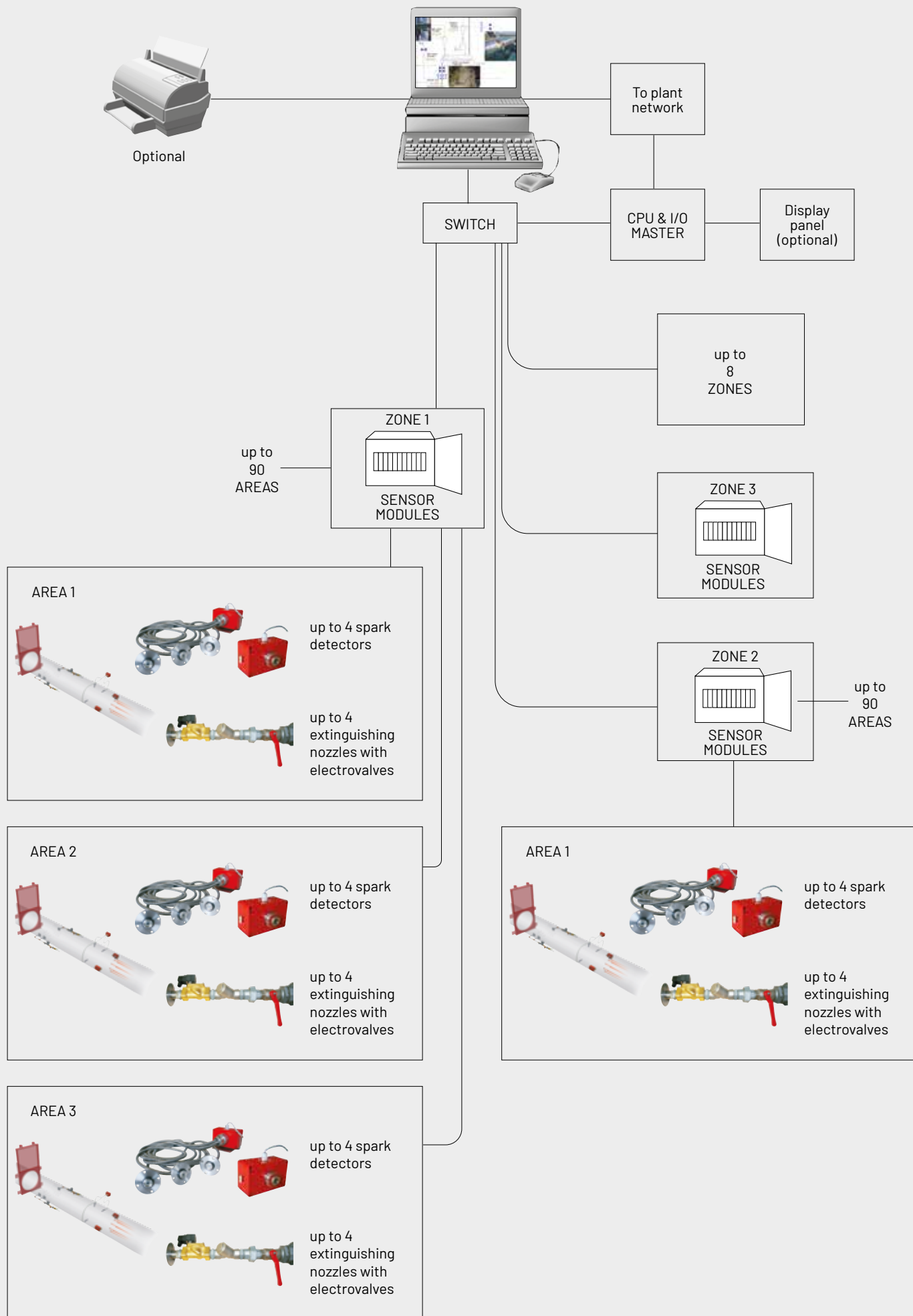
PB/SPB

OSB/LSB/FOSB

MDF/HDF

If the production plant does not have pressurized water (about 7 bar), IMAL may supply a pump and tank system in order to reach and maintain operating pressure during functioning.





S80D

INFRARED DETECTORS

This detector is suitable for operation where temperatures do not exceed 80 °C. Standard applications for this detector include pneumatic conveyors, screw feeders, belt conveyors etc.



TECHNICAL DATA	
POWER SUPPLY	24 VDC
QUIESCENT SUPPLY CURRENT	20 mA
FULL LOAD SUPPLY CURRENT	100 mA
SENSOR TEMPERATURE OPERATING RANGE	-10 ÷ +80 °C
SENSITIVITY SPECTRUM	0.8 ÷ 3 µm
REVERSE POLARITY SUPPLY PROTECTION	yes
SHORT CIRCUIT OUTPUT PROTECTION	yes
CASE MATERIAL	AISI12 DIN1725
CASE PROTECTION	IP65 CEI EN 60529
DIMENSIONS	80 x 125 x 57 mm

S80F

OPTICAL FIBRE INFRARED DETECTORS

This detector is suitable for operation where temperatures can be as high as 290 °C. Standard applications for this type of detector include dryers and conveyors where extremely hot material is transported.



TECHNICAL DATA	
POWER SUPPLY	24 VDC
QUIESCENT SUPPLY CURRENT	20 mA
FULL LOAD SUPPLY CURRENT	100 mA
SENSOR TEMPERATURE OPERATING RANGE	-10 ÷ +80 °C
OPTICAL FIBRE MAX OPERATING RANGE	290 °C
SENSITIVITY SPECTRUM	0.7 ÷ 1.3 µm
REVERSE POLARITY SUPPLY PROTECTION	yes
SHORT CIRCUIT OUTPUT PROTECTION	yes
CASE MATERIAL	AISI12 DIN1725
CASE PROTECTION	IP65 CEI EN 60529
DIMENSIONS	80 x 125 x 57 mm

SSR1

EXTINGUISHING UNIT

Each extinguishing unit consists of: • No. 1 manual ball valve
• No. 1 filter • Spraying nozzles with electrovalves.

The nozzles spray pressurized water directly into the conveyor and are mounted downstream of the spark detectors. This enables each spark to be extinguished with a timed spray, thus reducing the quantity of water required and, at the same time, minimizing any potential damage to production.



CYCLONE ANTI-PLUGGING SYSTEM

APX300

X-RAY OPERATED UNIT WHICH, UNLIKE INFRARED UNITS, IS NOT INFLUENCED BY DUST BUILD UP



The APX300 system has been designed to prevent cyclone plugging which is one of the major causes of production downtimes.

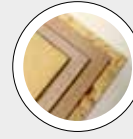
The APX300 plugging detection device consists of a set of appliances, a generator and X-ray detector, which are positioned on opposite sides of the system controlled. The signal emitted by the generator travels across the gap to the receiver which in turn picks up and processes the signal.

MAIN FEATURES

- Highly efficient performance • Versatile and suitable for a wide range of applications (silos, chutes, piping, conveying systems, etc.) • System immune to factors such as dirt, humidity, temperature, noise, vibration, etc • No risk whatsoever of contamination from radioactive sources • Transmitter and receiver do not come into contact with the material • Both NC and NO alarm contacts available: silo plugging alarm may be managed by any kind of logic control system • Future expansion possible.

ADVANTAGES

- X-ray operated: the device is not equipped with radioactive isotopes: no radiogenic emission without power supply • No production downtimes because of cyclone plugging • No expensive or complicated cyclone cleaning operations required • No risk of material being discharged into the environment with a consequent reduction in pollution.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



TECHNICAL DATA

	TRANSMITTER	RECEIVER
SUPPLY VOLTAGE	24 VDC	24 VDC
SUPPLY CURRENT	1 A	100 mA
OPERATING TEMPERATURE RANGE	-10 ÷ +60 °C	-10 ÷ +60 °C
TX/RX DISTANCE IN AIR	up to 5 m	up to 5 m
ELECTRICAL PROTECTIONS	Reverse supply - Fuse 2A	Reverse supply
OUTPUT	not provided for	0 ÷ 10 V*
TERMINAL BOARD CONNECTION	2 fixes poles	6 removable poles
EXTERNAL DIMENSIONS	320 x 170 x 150 mm	200 x 150 x 97 mm

*Free contact selectable threshold

Laboratory Equipment

		WOOD BASED PANELS				
	page number	PB/SPB	MDF/HDF	OSB/LSB/FOSB	INSULATION BOARDS	PLYWOOD
IB800 - IBX800 - LABLOCK	348	•	•	•		•
SW200 & BT200	350	•	•	•		
DPX400 e DPX400-LTE	352	•	•	•		
GA300	354	•	•	•		
FIBERCAM100 - SCREENCAM 100	356	•	•			
VU200	358	•	•	•		
VM100	359	•	•	•		
LS300/400	360	•	•	•		
GEL TIMER	362	•	•	•		
LABFORMER100	364	•	•			
PL100	366	•	•	•		
LGB	368	•	•	•		
UM3000	370	•	•	•		
UM2000-LTE	372	•	•	•		
UC950	374	•	•			
SMC200	376	•	•	•		•
LABROUGHNESS	378	•	•			

BOARD PROPERTY TESTER IB800 – IBX800 – LABLOCK

TO CARRY OUT LABORATORY TESTS FOR BOARD QUALITY CONTROL



Density profile analyzer
in the IBX800 version

The IB800 laboratory testing machine has been designed to test the quality and mechanical characteristics of wood-based panels (particleboard, MDF, OSB, plywood and pallet blocks) and to then process the results obtained. The IB800 combines simplicity of use with safe and reliable operation thanks to a microprocessor which controls the data measurement process and file management. It comes complete with a set of accessories to conduct all the tests in full compliance with today's standards (European standards, North American standards and others upon request).

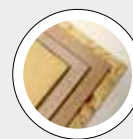
TESTS PERFORMED IN COMPLIANCE WITH EN EUROPEAN STANDARDS

• Dimensions (EN 325) • Density (EN 323) • Tensile strength (EN319) • Surface soundness (EN311) • Screw holding (EN320) • Bending strength and Modulus of Elasticity (EN310).

OTHER TESTS FOR WHICH IT IS POSSIBLE TO COLLECT AND STORE DATA IN THE IB800 DATABASE, IN CONJUNCTION WITH OTHER EQUIPMENT:

• Swelling and absorption (EN317) • Cyclic test in wet conditions (EN321) • Moisture content (EN322) • Boil test (EN1087-1) • Formaldehyde content (EN ISO 12460-5 / 12460-3) • Surface absorption (EN382) • Dimensional changes according to humidity (EN318) • PB, MDF and OSB moisture values • Particle / fiber screening test • Sand content • Hardness.

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

PLYWOOD



PRESSED WOOD PACKAGING:

PALLET BLOCKS

It is possible to supply, upon request, the apparatus required for carrying out other EN tests (such as the EN314-1 for plywood for example) or tests in compliance with ASTM, NZS, JIS standards. Apparatus may also be supplied for some particular tests which, although they are not standard, are nevertheless required by some board manufacturers.

IBX800

The IBX800 version is available which is equipped with a device to measure density profile as well. The X-ray assembly consists essentially of an X-ray source and a receiver between which the sample is placed for the density profile analysis. The density profile sample-holder can hold several samples at the same time which are separated by spacers that come with the supply: the unit scans each sample automatically, hence facilitating the task of the operator.

The operator can programme and carry out the tests which need to be conducted to control the quality of the board produced with simple operations. The user interface combines top level graphics with the most modern software technology for filing data and the subsequent data search. All the data are stored in an SQL server database, from where they may be exported to other applications, like Excel for example, and/or printed (in graph form and/or as a numerical report). It is possible to connect the database up to the plant network to share all the test results. The software has features that will help the operator to carry out the tests, such as for example a photograph showing which tools to use for a particular test and a short video tutorial.

A QR code reader may be installed as an optional for the automatic identification of samples prepared by the IMAL SMC200, to save time and avoid human error.

IB800 can import data from the DPX400 and DPX400-LTE density profile meters.

LABLOCK

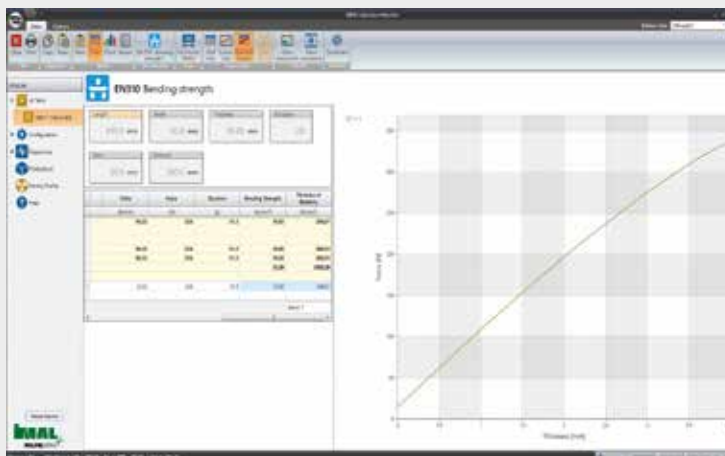
The IB800 LABLOCK option is also available to carry out withdrawal and head pull-through resistance of pallet nails and staples (EN 12777-2) and Resistance of pallet joints (EN 12777-3) on pallet blocks.

Equipment to carry out the principal tests required by the CHEP standards (Chep TS-WP-BLOCK tine compression, Chep TS-WP-BLOCK nail insertion, Chep TS-WP-BLOCK nail pull/retention, Chep TS-WP-BLOCK tensile strength) may also be supplied upon request.

TEST IN PROGRESS



TEST REPORT



OPZIONE LABLOCK - LABLOCK OPTION



WATER BATH FOR SWELLING AND BOIL TESTS

SW200 & BT200

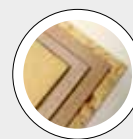
The SW200 and BT200 appliances consist of a water bath which is used to carry out laboratory and immersion tests on samples of wood-based panels (particleboard, MDF, OSB) in accordance with EN European standard requirements (it may also be used in conjunction with other IMAL equipment) such as:

- Swelling and absorption (EN 317)
- Boil test (EN 1087-1)

The system has a control unit for regulating temperature as required by the EN standards. Up to 2 separate timers may be set on the touchscreen display (one per sample rack). Temperature is monitored from the trend view.

The equipment comes with racks for immersing the samples for the test that is to be carried out, the 2 racks for the EN317 swelling test have been designed to house the samples in full compliance with the standard requirements and the distances indicated. The number of samples which may be immersed will depend on sample thickness plus a minimum space between one sample and the next. The SW200 can hold up to 136 samples (depending on thickness). The 2 racks for the BT200 version for the EN1087-1 test can house the samples that have been glued to the relative supports, the bath can hold 24 samples.

Water temperature is set on the display in relation to the test which is to be carried out, and is regulated by a PID control; an immersion heater is fitted

BEST IN CLASS FOR:**WOOD BASED PANELS:**

PB/SPB

OSB/LSB/FOSB

MDF/HDF

inside the tank to regulate the water temperature at the required value. If the difference between water temperature set-point and the environmental temperature is less than 2°C, an optional immersion cooling circuit can be provided. Imal recommends a solution of this kind to keep the temperature where the machine is located at the recommended temperature and to ensure that the water remains “still” during the test as per the standard requirements.

The system is also equipped with a level control, safety temperature control and drain tap.

The SW200 and BT200 are an integral part of the IMAL Smartlab platform. A webserver is also included to monitor the state of the unit with remote connection from PC and mobile or tablet as well.

X-RAY DENSITY PROFILE ANALYZER

DPX400 - DPX400-LTE

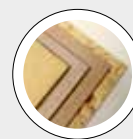
TO MEASURE BOARD THICKNESS AND TO PROVIDE THE DENSITY PROFILE



The DPX400 is a laboratory machine, used to supply the density profile of particleboard, OSB or MDF samples, measured along the thickness. The samples may be of varying thickness and may be measured individually or in groups so as to highlight any particular differences in material distribution at various points on the same board (e. g. different distribution on the two sides of the same board). The machine has been manufactured using top quality products and the most advanced, sophisticated technology. Its ergonomic and functional design provide handy access to all instruments in a work friendly environment.

MAIN FEATURES

- No contact with the sample • High sensitivity and good measuring accuracy • Greater intrinsic safety in relation to radioactive sources • Two sample holders are supplied so that the operator may prepare a second set of samples while the first lot is being tested, to speed up the various operations
- Weighing scale with centesimal divisions • Auto-gauging station to read width, length, thickness at the same time. A special programme designed to run with Windows, is used to set up the main parameters required to operate the equipment and to manage the measurement data collected. Thanks to this programme it is possible to view the density profile graph during the measurement procedure, to store it, print it, or to process some of the measurements. You can also select and display, for instance, some of the functions listed below: • Average density • Mirror image on the same density profile graph to highlight any differences which there could be between the two surfaces • Maximum and minimum points • Profile density as a percentage

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

(0-100%) or in kg/m³ • Comparison of several different density profiles on the same graph • Magnifying of any one area of the density profile. Each graph can be stored in the programme's database, which is SQL format, and by means of a simple dialogue box, it is possible to carry out searches on the data stored, using various search criteria (more than one of these may be used at a time) like: • Production name • Lot • Thickness • Date • Time period • You can also configure zones called "average left", "average centre" and "average right" of the board on which you may calculate a partial density average, and which can be shown on the graph. The whole machine has been planned and designed with the operator's safety as the main objective; this is why an X-ray tube has been used instead of a radioactive source.

The intrinsic safety of employing an X-ray tube is due to two main factors:

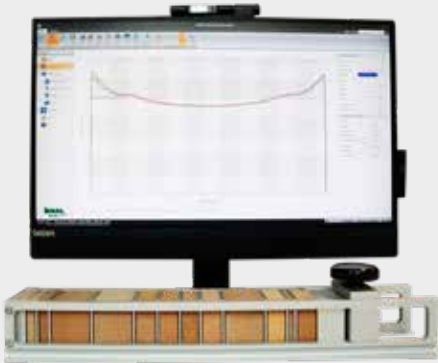
- If there is no power supply going through to the X-ray tube, there is no emission

whatsoever • As tube emission is strictly linked to the control electronics, it is possible to obtain an amount of X-ray emission which gives excellent measuring resolution and accuracy but which, at the same time, is well below the intensity of radioactive sources normally used in industry, and therefore less dangerous. Furthermore, the material used to construct the container, and the internal layout of the various components are such that there is no risk of any emission outside the apparatus.

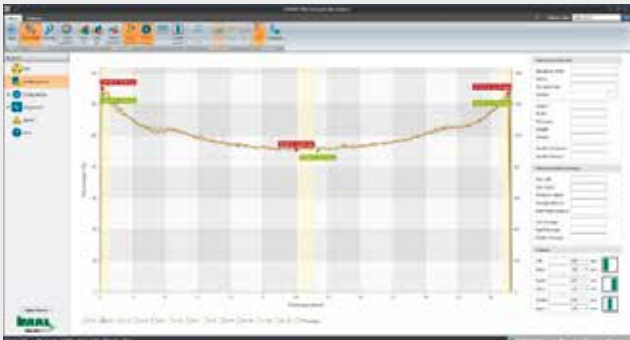
FUNCTIONING PRINCIPLE

The system proposed, based on the X-ray control theory, can analyse the density profile without any contact at all between material and measuring instrument: it comprises an X-ray source and a receiver, between which the density profile sample is placed. The sample is placed in a tray holder and is moved using high precision mechanics, which guarantee extremely small and accurate positioning and movements. Two sample holders are supplied so that the operator may prepare a second set of samples while the first lot is being tested, to speed up the various operations. The machine is of horizontal construction, which, as well as ensuring that it takes up as little space as possible, means that it is also easily integrated with other IMAL automatic and semi-automatic measuring equipment like the IB800 Board property tester. All the electronics required to govern movement and operation of the measuring unit (X-ray tube and relative receiver), are housed in one solid and compact assembly. The ideal emission intensity for the material being tested is obtained by varying the current and/or voltage to the X-ray tube. Rapid response and precision are the two main features of the receiver employed. The combination of these two features makes it possible, for the first time ever, to reach incredible speeds, whilst maintaining at the same time, exceptional precision as well as excellent measuring repeatability.

TECHNICAL DATA	
SIZE OF SAMPLE HOLDER	350 mm
SAMPLE THICKNESS	1÷ 100 mm
MEASURING TECHNOLOGY ADOPTED	Collimated X-ray sources 28kV -1 mA
SCANNING SPEED	0.01 ÷ 0.5 mm/s
RESOLUTION	0.01 ÷ 0.05 mm
REPEATABILITY	0.1%
PRECISION	±0.1%
DATA PROCESSING STANDARDS	DIN, EN, ASTM, ANSI



A smaller version is also available, the DPX400-LTE. The main difference to the standard version is that the dimensions in this case are measured by a digital calliper connected directly to the PC via USB and the sample holder is smaller, 200 mm, and not interchangeable. The two devices are identical in terms of X-ray analysis.

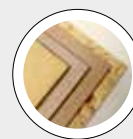


LAB FORMALDEHYDE TESTER

GA300

The GA300 apparatus for the gas analysis test permits a rapid calculation of the amount of formaldehyde released by wood-based panels. Testing is conducted to meet EN ISO 12460-3 standard requirements. The sample, which has been suitably prepared for testing, is placed inside an hermetically sealed chamber at a controlled temperature, pressure and air flow. The formaldehyde released by the sample inside the chamber collects in the controlled flow of hot air that travels through the chamber. The air containing the formaldehyde is passed through wash bottles at outfeed where the formaldehyde recombines with the water. The amount of formaldehyde contained in the water is measured using the photometric method. The result is given in milligrams of formaldehyde per square meter of board surface in one hour (mg/m²h).

The GA300 gas analyser rapidly provides details on the amount of formaldehyde released by the boards produced to enable timely corrections to the production parameters. Since a full test lasts approximately 4 hours, the results will be received around every 2 hours if a two chamber lab tester is used, (with respect to the sample taken during the previous 4 hours). Whereas, in the case of the four chamber tester, the results are received every hour.

BEST IN CLASS FOR:**WOOD BASED PANELS:**

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

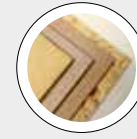
- Possibility of controlling 2 test chambers with one device (may be expanded to 4 chambers)
- Each chamber is able to control temperature and air flow regulation independently
- Test data may be printed and recorded after the analysis
- The gas collection times and temperature regulation may be configured should any changes be introduced to the standard, or for experimenting purposes
- As well as processing the data for each analysis, the central processor is able to supply the calibration value of the spectrophotometer.



TECHNICAL DATA

DIMENSIONS OF TESTING CHAMBER	96 x 555 mm
DIMENSIONS OF SAMPLE	50 x 400 mm
HUMIDITY OF AIR	2 ± 1% r.h.
OPERATING TEMPERATURE	60 °C ± 0.5
AIR PRESSURE	Mains pressure
OPERATING OVERPRESSURE	1000 ÷ 1200 Pa
AIR FLOW IN CHAMBER	60 ± 3 l/h
PRODUCTION SAMPLING FREQUENCY	2 test chambers: approx. every two hours 4 test chambers: approx. every hour
INSTALLED POWER	1.3 kW or 2.5 kW

OPTICAL LAB FIBRE SCREEN

FIBERCAM100 – SCREENCAM100TO MEASURE THE PERCENTAGE OF THE VARIOUS GRANULOMETRIES OF
THE FIBERS AND PARTICLES**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

MDF/HDF

The application of optical technology permits an accurate measurement of the dimensions of the fibers (FIBERCAM100) and particles (SCREENCAM100), without ruining the materia in any way (as happens with water systems), with elevated repeatability and rapid response times. The analyzing software, in conjunction with the numerous images taken, calculates the actual length (extension) and width of the fibers/particles even in cases where they are laid one over the other. Denser \pm umps, on the other hand, are not analyzed.

The result of each test is stored in the local database and may be consulted over the company network. In addition, the test results may be printed with the figures and the graph showing the granulometry distribution.

The impartial verification of test repeatability and/or comparison with previous tests, is made by placing one graph over the other by means of a simple set of menu choices.

Automatic cleaning system with connection to external vacuum cleaner.

Are available also the online versions for measuring and processing the principal properties of the fibres/particles directly in the process, hence the measurements are virtually taken real time, it takes just about 3-5 seconds to reach the scanning unit.

MAIN FEATURES

- Accurate measurement of the true dimensions • Elevated repeatability • Test performed rapidly • Measurement easily conducted • Simulation of any number of sieves • Simple to use • Suitable for application on line (optional).



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TECHNICAL DATA	
MEASURING RANGE FIBERCAM100	0.05 ÷ 30 mm
MEASURING RANGE SCREENCAM100	Two ranges available [0.10 ± 35mm][0.25 - 70mm]
NO. OF SCREENS	up to 15 virtual sieves may be programmed
TEST TIME	< 2 min
REPEATABILITY	error < 1%
MAX SCANS	up to 800,000 image/min
CLEANED AUTOMATICALLY AFTER EACH CYCLE	yes

INFRASONIC LABORATORY SIFTER

VU200

TO ASSESS THE PERCENTAGE OF THE VARIOUS
GRANULOMETRIES PRESENT IN THE MATERIAL



The has been designed to screen out products like sawdust, chips, and wood fibre, in relation to particle size. By applying an acoustic pressure of adjustable frequency and intensity, the material is dry-sieved and collected in calibrated screens which are positioned in decreasing order. By weighing each sieve, the operator may calculate the percentage of the single granulometries, and obtain numerical information on the composition of the material used.

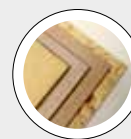
MAIN FEATURES

- Used for both fibre and wood chips • Excellent screening precision in a very short time • Acoustic vibration to prevent the material from accumulating
- Single oscillating air column to move even the smallest particles through the sieves • No screen wear or particle friction • See-through sieves to inspect the screening process • Simple to use • It can house up to 9 sieves with a diameter of 150 mm including the bottom and the lid.

TECHNICAL DATA

POWER SUPPLY	110/230 V - 50/60 Hz
OPERATING TEMPERATURE RANGE	+5 ÷ 45 °C
MAX. HUMIDITY	Any
WEIGHT	35 kg
DIMENSIONS	450 x 850 x 460 mm
SIEVE DIAMETER	150 mm (internal 129 mm)

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

ADVANTAGES

- Accurate quality control of the material used in the productive process • Improvement in the quality of the boards produced
- Less material wasted in the production process.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

VIBRATING SIFTER

VM100

TO ASSESS THE PERCENTAGE OF THE VARIOUS GRANULOMETRIES PRESENT IN THE MATERIAL



Electro-magnetic impulse operated Sifter, controlled by a separate micro-processor with the following functions:

- Sifting time can be set from 0 to 20 minutes • Variable vibrating intensity
- Continuous or adjustable intermittent sifting mode.

The vibrating action combines three different types of movement (vertical-lateral-rotational), making this vibrating sifter extremely efficient and reliable. It can house up to twelve sieves with a diameter of 200 mm inclusive of the bottom and lid, or ten 300 mm diameter sieves with bottom and lid.

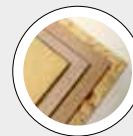
TECHNICAL DATA

ABSORBED POWER	450 W
ELECTRICAL POWER SUPPLY (SINGLE PHASE)	110/230 V 50/60 hz
DIMENSIONS (Ø x h)	450 x 1200 mm
SIEVE DIAMETERS AVAILABLE	200 - 300 mm
MAX NUMBER OF SIEVES WHICH MAY BE FITTED	11
VIBRATIONS PER MINUTE	max 3000 N°/min

OSCILLATING SCREENS
LS300/400



BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

The laboratory screens are designed for an accurate simulation of the industrial process, obtaining results which are comparable to the process itself.

The LS consists of a base which supports a central shaft equipped with balancing counterweights and motor.

The screening box consists of a modular set of sieves mounted on a plate fixed to an eccentric shaft, which is supported and driven by the central shaft. Both shafts (the central driving shaft and the upper eccentric shaft) are assembled on special lubricated bearings which ensure a precise and smooth eccentric oscillating movement.

SIEVES FOR LS300/400							
ITEM	SIZE mm	INCH / MESH	DIAMETER mm	WIDTH mm	DEPTH mm	HEIGHT mm	
1	35	1 3/8"	300	900	550	1300	
2	25	1"					
3	20	NONE					
4	16	5/8"					
5	10	NONE					
6	8	5/16"					
7	6.14	NONE					
8	5	NONE					
9	4.5	NONE					
10	4	N. 5					
11	3	NONE					
12	2	N. 10					
13	1.5	NONE					
14	1.4	N. 14					
15	1.34	NONE					
16	1.27	NONE					
17	1	N. 18					
18	0.8	NONE					
19	0.71	N. 25					
20	0.6	N. 30					
21	0.5	N. 35					
22	0.4	NONE					
23	0.35	N. 45					
24	0.307	N. 50					
25	0.25	N. 60					
26	0.237	NONE					
27	0.14	N. 100					
28	0.063	N. 230					
ITEM	SIZE mm	INCH / MESH	DIAMETER mm	WIDTH mm	DEPTH mm	HEIGHT mm	
1	30	-	400	900	550	1300	
2	19.8	-					
3	12	-					
4	10.5	-					
5	10	-					
6	7.96	-					
7	6	-					
8	5.06	-					
9	4	-					
10	2	-					
11	1	-					
12	0.237	-					

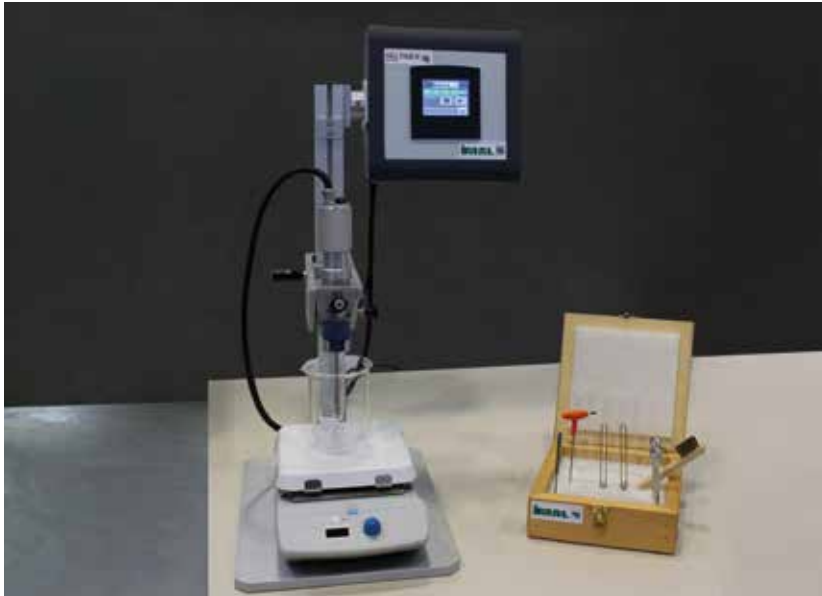
TECHNICAL DATA

Movement	Eccentric-oscillatory
Eccentricity	25 mm
Operating time	0 ÷ 8 min
Sieve diameter	300 mm or 400 mm
Sieve height	70 mm
Stainless steel sieves	Up to n.8
Installed power	0.37 kW
Voltage	110/220 V 50/60 hz

GLUE MIX GEL TIME CONTROL

GEL TIMER

TO ENSURE PERFECT TEST REPEATABILITY AND GEL TIME ACCURACY



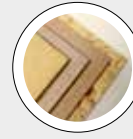
The Geltimer has been designed to measure the gel time of the resin delivered by the supplier and the gel time of the glue mix applied in the blender and the blow line.

It permits the glue comparison between several different production plants to assess quality repeatability of the various resins supplied.

The device produces highly accurate measurements: the electronic system measures mixer motor torque and hence the absorption power. The initial torque value when the mixer is immersed in the resin and started, is zero (offset). A difference is set, beyond which the resin is considered to have hardened.

MAIN FEATURES

- Accurate measurements • Elevated repeatability • Test conducted rapidly
- Easy to use • Test results may be saved (up to 200) • Up to 200 sensitivity settings possible.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF



TECHNICAL DATA

Motor power	6 W
Power supply	230 V 50/60 Hz
Environmental operating temperature	+10 ÷ 40 °C
Degree of humidity	< 85% without condensation
Other environmental conditions	Enclosed environment/room, non explosive atmosphere

LABORATORY FORMER **LABFORMER100**

TO FORM AND PRODUCE SAMPLE PANELS FOR TESTING PURPOSES

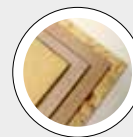


LABFORMER100 has been designed to produce a 500mm x 500mm MDF or particleboard panel with density evenly distributed over the surface, in a simple and rapid manner (other sizes on request).

The material is loaded into the former on a tray, which may be filled beforehand. Once the tray is loaded, the material is conveyed by a belt, the speed of which may be set via the software. A set of speed-controlled, height adjustable comb rolls form the mat in a homogenous manner. The speed at which the bottom tray moves may also be adjusted to achieve an optimal longitudinal distribution of the material. Lastly, a cylinder pre-presses the newly formed mat before it is extracted to be hot pressed. The software has a self-learning function making it possible to calculate, at the start of each new test, the number of longitudinal cycles which need to be run to ensure that the mat is composed of complete layers and that it is perfectly flat.

At the end of the mat forming cycle, the mat can be pre-pressed by the pneumatic cylinder located in the tray discharge area. The portable tray is used to remove the mat and place it in the hot press to produce the board for testing purposes. The front panel is equipped with a user-friendly touchscreen for all the various parameter settings. The data for the mat which is to be produced is set from the screen and the various recipes may be saved in the database for easy retrieval in future.

BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

MDF/HDF

MAIN FEATURES

- Adjustable forming belt speed • Adjustable roll height • User friendly touch screen
- Self learning software • Internal database
- Pre-press.

USER FRIENDLY SOFTWARE INTERFACE



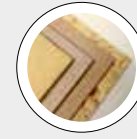
TECHNICAL DATA

MAT DIMENSIONS	500 mm x 500 mm standard (600 x 600 or 500 x 800 also available, other sizes on request)
MAXIMUM FINISHED BOARD THICKNESS	MDF 3 - 40 mm, PB 8 - 50 m
MAXIMUM DIMENSIONS	W: 1200 mm, L: 4300 mm, H: 1800 mm
APPROXIMATE WEIGHT	1600 kg
BUILT-IN ELECTRICAL PANEL	Yes
7" COLOUR TOUCHSCREEN DISPLAY	

LABORATORY PRESS

PL100

TO PRESS BOARD FOR BOARDS FOR TESTING PURPOSES

**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

The laboratory press is able to produce sample boards for testing purposes, with adjustable specific pressure and adjustable temperature for binder curing. The PL100 Laboratory Press is produced in a standard 600 x 600 mm version but other sizes may be evaluated upon request.

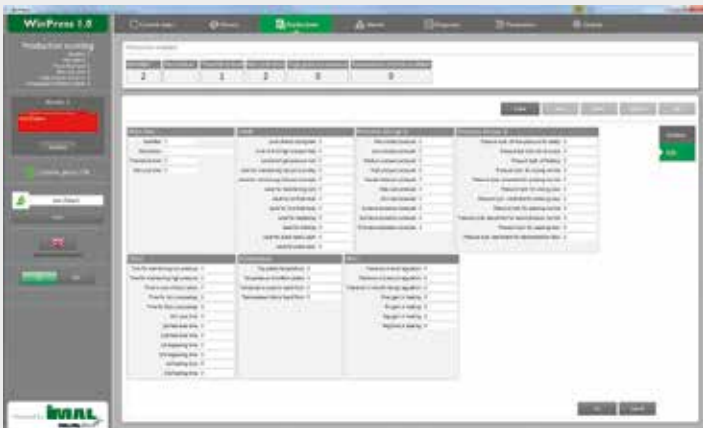
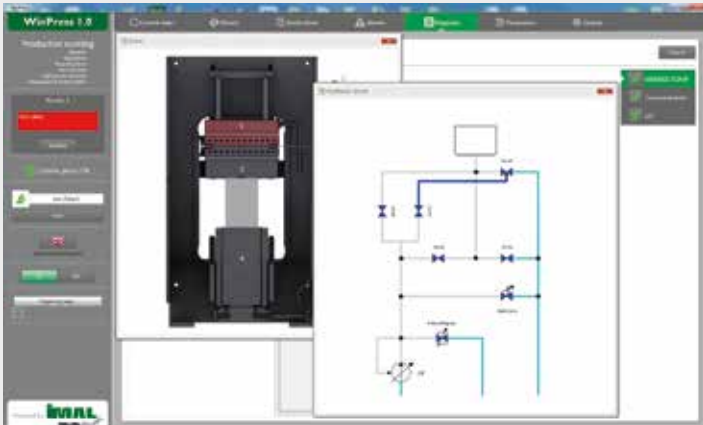
The laboratory press has its own electronic control which reads the signal coming from a level transducer and the pressure inside the cylinder.

The data regarding the cycle required is stored in its memory. The system controls the various phases of the cycle following a logic sequence, and the switching over from one phase to the next occurs as soon as a specific condition is fulfilled. The parameters available to the operator are thickness, time, pressure and internal temperature of the board during the press cycle.

The memory is ample enough to store a large number of cycles (the number is limited by the computer's hard disk storage capacity), and the parameters relating to each cycle are stored as well.

The system directly controls the hydraulic valves to obtain the desired cycle.

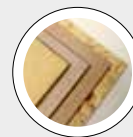
The software has been developed on two bases: a computer to set, store and display the data, for which clear and intuitive graphics are used, and a micro-processor for the actual control of the process, which has been created with the aid of sturdy and reliable HW, suitably designed for the purpose.



TECHNICAL DATA

HOT PLATEN SIZE	600 x 600 mm
AVAILABLE WITH DIFFERENT PLATEN SIZE	YES
OPERATING PRESSURE	max 250 bar (3620 PSI)
HOT PLATEN TEMPERATURE	250 °C (480 °F)
INSTALLED POWER	26 kW
SPECIFIC PRESSURE 600 X 600 AT 250 BAR	540 N/cm ² (782 lbf/in ²)
CYLINDER DIAMETER	320 mm (12 5/8")
PRESS APERTURE/CYLINDER STROKE	400 mm (15 3/4")
DIFFERENT PRESSING CYCLES SETTABLE	YES
POWER AND PHASE (AS PER SITE INSTALLATION REQUIREMENTS)	from 400 V / 50 Hz
INCORPORATED HYDRAULIC CONTROL UNIT	YES
TOUCH SCREEN COMPUTER/MONITOR	YES
INCORPORATED ELECTRICAL CABINET	YES

LABORATORY GLUE BLENDER

LGB**BEST IN CLASS FOR:**

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

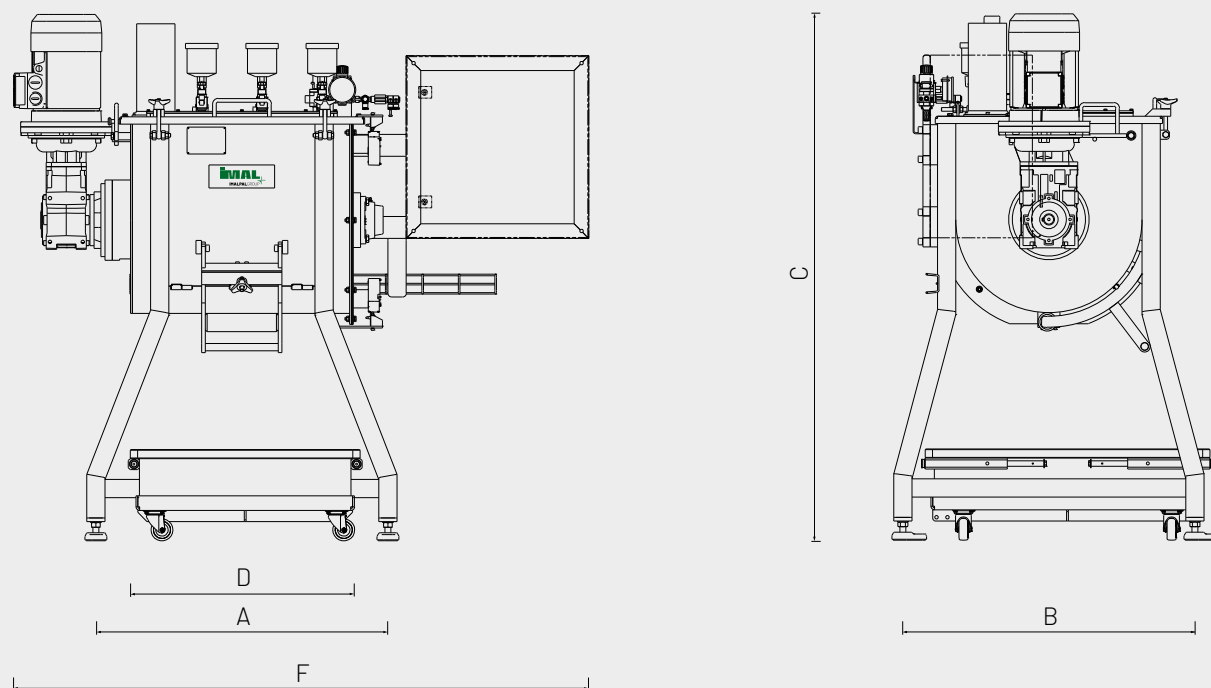
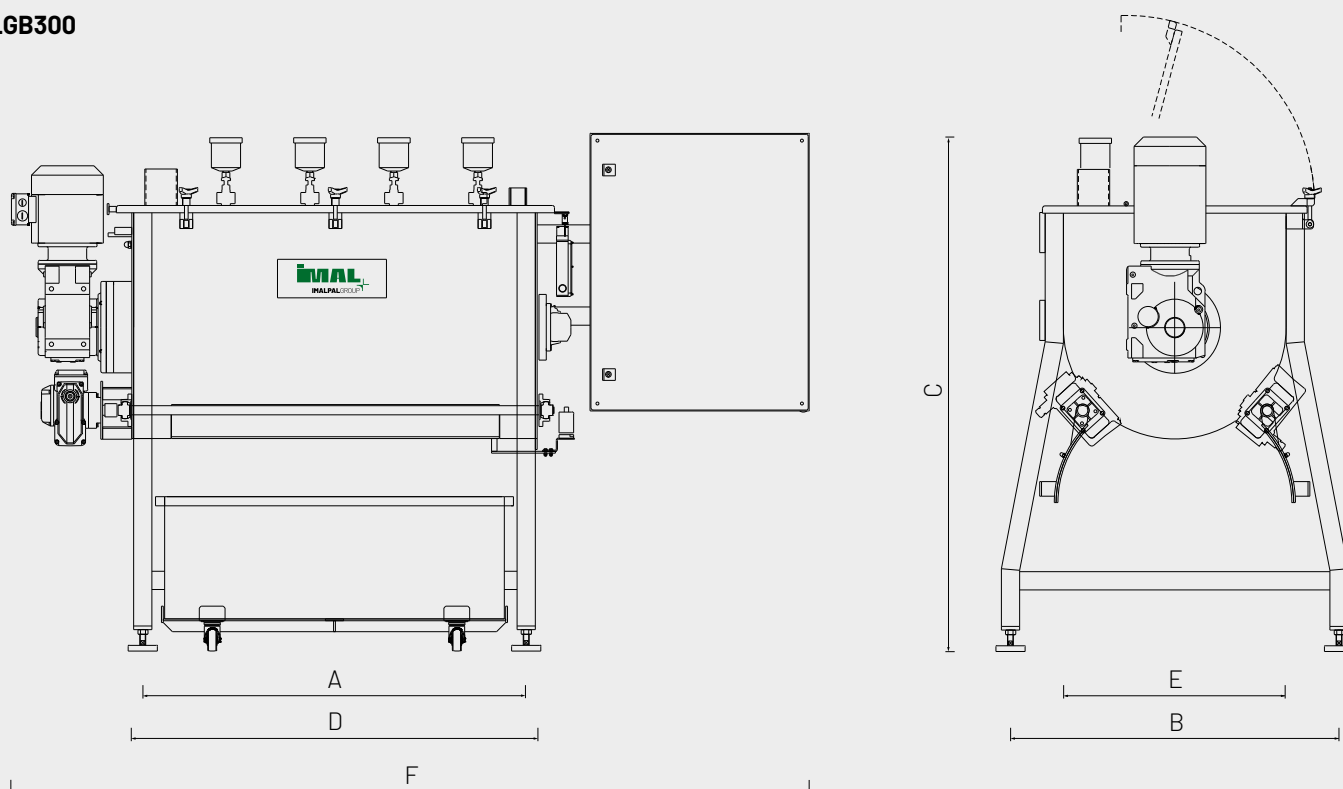


The glue blender, installed on a metal supporting structure, consists of a suitable sized drum, a top door for manually loading the material, and a bottom door through which the material is discharged. The mixing tools inside the drum are mounted on a shaft which is operated by a gear motor. Pneumatic nozzles spray the glue mixture onto the material.

A small graduated tank containing the glue mixture, is situated at the top of the assembly.

The glue mixture flows at a variable rate into the blender by means of a manual valve. The machine comes complete with an electric control panel.

The mixing time of the shaft may be set using the timer.

LGB100**LGB300**

MODEL	MAX. FLOW dm ³	MAX. POWER kW	OVERALL DIMENSIONS mm					
			A	B	C	D	E	F
LGB100	100	3	800	800	1450	605	510	1570
LGB300	300	1.1	1050	900	1450	1100	650	2185

LABORATORY MOISTURE METER

UM3000

TO ASSESS MOISTURE CONTENT, BOARD DENSITY AND PERCENTAGE OF SCREENING RESIDUE



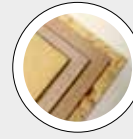
The UM3000 has been designed to measure the amount of moisture contained in the material. The material is dried by the heat coming from an infrared lamp. The method used is unaffected by any side effects which may be caused by colour, density, chemical properties or absorption which, with other methods, could produce unreliable results. It is equipped with a colour touchscreen for entering the data for the sample to be tested simply and rapidly and where the results are displayed graphically and numerically in a user-friendly manner and stored in the internal database. The unit comes with a printer for printing the report. The results may also be transmitted via Ethernet to the facility's project data management or shared over the IMAL Smartlab platform. A web server is also included to monitor the state of the device with remote connection not only via PC but also via smartphone or tablet.

MAIN FEATURES

- Internal temperature control • Integrated thermal printer to print data and graphs directly • Rapidly calibrated (directly from keyboard) • User friendly interface • Calibration certification using primary reference samples • May be used with all kinds of powdery and/or granular material.

ADVANTAGES

- Elevated measuring precision • Tests carried out rapidly • Measuring repeatability • No maintenance required.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

AUTOMATIC P CONTROL

This function enables you to view and print the moisture percentage in relation to the dry weight (ATRO) as well as to the initial weight (Total), showing the month, day and time of the test (hour and minutes). The sample is weighed before and after the drying process. The measuring procedure ends when the variation in weight over a time unit (programmable in seconds) falls below or is equal to the P which has been set (programmable in 1/100 g).

• Ø Dry material: $((Wi-Wf)/Wf)*100$ (moisture to dry weight) • Ø Wet material: $((Wi-Wf)/Wi)*100$ (moisture to total weight) where Wi=initial weight; Wf=end weight.

MANUAL TIMER CONTROL

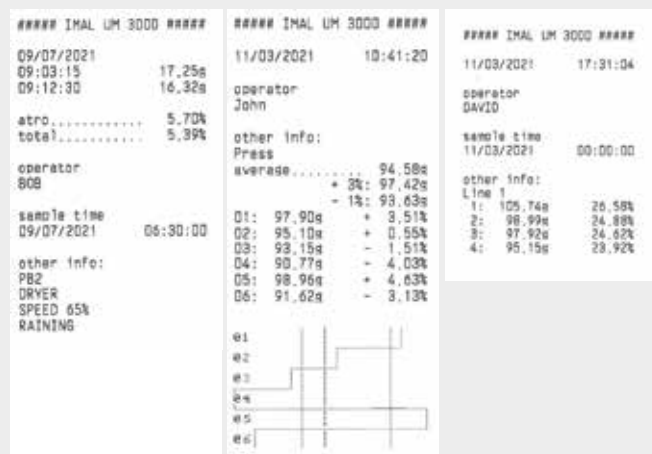
The operator sets the time for the measuring cycle in minutes, and at the end of the cycle, the final weight and moisture content are displayed and stored and/or printed.

WEIGHT DISTRIBUTION - WEIGHING SCALE

This function enables you to print the weight distribution graph. The samples are obtained by cutting a strip of board into equal parts and weighing each part. Once the sample has been measured, a graph is printed showing the weight distribution and the deviation if any, from the average value.

SCREENING RESIDUE PERCENTAGES SCALE

With this function it is possible to calculate and print the relative percentages of the material which has settled in the various sieves at the end of the screening cycle.



SOFTWARE INTERFACE



TECHNICAL DATA

MAX CAPACITY	1000 g
READING DIVISION	0.01 g
MOISTURE RESOLUTION	0.01%
ENVIRONMENTAL TEMPERATURE	+5 ÷ 40 °C

LABORATORY MOISTURE METER

UM2000-LTE

TO DETERMINE THE MOISTURE CONTENT OF ANY KIND
OF POWDER AND/OR GRANULAR MATERIAL

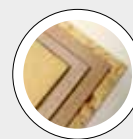


The UM2000-LTE has been designed to determine moisture content in a very simple and reliable manner. The material is dried by a round halogen quartz lamp which applies a constant heat to the sample, at one or more temperatures that have been programmed accordingly by the operator.

The method is not influenced by the effects produced by colour, density, chemical properties or absorption which can render the measurements obtained by other methods unreliable. A sample of suitable weight is placed on the scale pan inside the drying chamber.

The test parameters are programmed from the keyboard beforehand by the operator and the test starts when the relative key is pressed or when the lid is closed.

The unit has a large LED display to facilitate the reading of the data and a luminous bar to display the weight of the sample in proportion to the full scale and to monitor the weighing process.

BEST IN CLASS FOR:

WOOD BASED PANELS:

PB/SPB

OSB/LSB/FOSB

MDF/HDF

MAIN FEATURES

- RS-232 bi-directional data interface and USB for handling and storing test results and setup parameters
- Various drying modes which are easy to programme and retrieve
- Internal temperature control over a range of 50 ÷ 160 °C
- Specially designed, user-friendly software
- Calibration certified with primary gauging samples.

ADVANTAGES

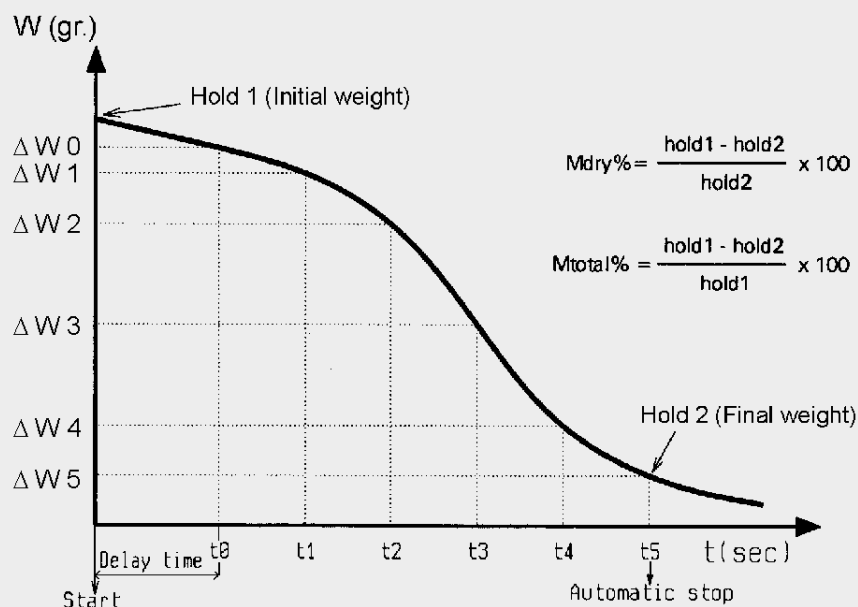
- Elevated measuring accuracy
- Test conducted rapidly
- Good measuring repeatability
- No maintenance required.

MOISTURE TEST
 FILE NAME: Surface
 DATE: 24/02/2011
 TIME: 18:33:25
 SER NO: 00AE809387
 TEST NO: 1
 USER NO: 000000
 Result: %ATRO MOISTURE
 Heating: Single
 Interval: 10 Sec
 Stop: STABLE
 0.002 g
 60 Sec
 Start: MANUAL
 INIT MASS: 4.823 g

MODE	TEMP	TIME	RESULT
Single	41C	00:10	0.17 %AM
Single	62C	00:20	0.90 %AM
Single	82C	00:30	2.03 %AM
Single	99C	00:40	3.32 %AM
Single	111C	00:50	4.42 %AM
Single	111C	01:00	5.10 %AM
Single	111C	01:10	5.47 %AM
Single	110C	01:20	5.77 %AM
Single	110C	01:30	5.98 %AM
Single	111C	01:40	6.16 %AM
Single	110C	01:50	6.30 %AM
Single	110C	02:00	6.44 %AM
Single	110C	02:10	6.56 %AM
Single	111C	02:20	6.66 %AM
Single	110C	02:30	6.73 %AM
Single	111C	02:40	6.80 %AM
Single	111C	02:50	6.89 %AM
Single	111C	03:00	6.94 %AM
Single	111C	03:10	6.99 %AM
Single	111C	03:20	7.04 %AM
Single	111C	03:30	7.06 %AM
Single	111C	03:40	7.08 %AM
Single	111C	03:50	7.11 %AM
Single	111C	04:00	7.13 %AM
Single	111C	04:10	7.15 %AM
Single	111C	04:20	7.18 %AM
Single	111C	04:30	7.20 %AM
Single	111C	04:40	7.20 %AM
Single	111C	04:50	7.20 %AM
Single	111C	05:00	7.23 %AM
Single	111C	05:10	7.23 %AM
Single	111C	05:20	7.25 %AM
Single	111C	05:30	7.25 %AM
Single	111C	05:40	7.27 %AM
Single	111C	05:50	7.27 %AM
Single	111C	06:00	7.27 %AM

***** AUTO STOP *****
 LAST TEMP: 111 C
 FINAL MASS: 4.496 g
 TEST TIME: 06:00
 MASS LOST: 0.327 g
 RESULT: 7.27 %AM

WORKING PRINCIPLE



TECHNICAL DATA

MAX capacity	50 g
Reading division (d)	1 mg / 0.01%
Moisture resolution	0.01%
Weighing repeatability	2 mg s.d.
Moisture repeatability	10 g 0.05% sample
Min recommended weight	2 g
Environmental temperature	0 ÷ +40 °C

AUTOMATIC CALCULATION PROGRAMMES

% of moisture in relation to the initial weight	Initial mass - dry mass / initial mass
% of solids	Dry mass / initial mass
ATRO % M	Initial mass - dry mass / dry mass
ATRO % S	Percentage of solids/dry base

CRITERIA FOR STOPPING THE DEVICE AUTOMATICALLY

Stop when three consecutive results are identical	Interval between one readout and the next programmable from 5 to 99 sec.
Stop when three consecutive results are identical or at end of maximum time programmed	Time and readout intervals programmable from between 5 and 99 sec.

HEATING CRITERIA

Traditional drying	Gradual heating to the final temperature within the period of time set by the operator.
Step drying method	Heating to temperature 1 for x minutes, then to temperature 2 for x minutes, then to temperature 3 for x minutes (3 stages).
Quick pre-heat	The temperature rises to 30% beyond the temperature set and then falls to the temperature required. This procedure is useful for expediting test times for certain kinds of products.

MOISTURE METER

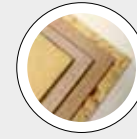
UC950TO MEASURE MOISTURE CONTENT OF WOOD CHIPS AND SAWDUST ON
ARRIVAL AT THE PLANT

The system has been designed to provide a rapid measurement of the moisture content present in wood chips and sawdust manually, at the entrance to the production facility, so that the actual cost of the raw material may be determined on a dry basis.

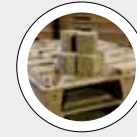
The material is collected by the operator from the truck transporting the chips or sawdust at the entrance to the production facility and then placed in the chute (35 - 50 litres). The system levels the material and immediately measures moisture content within a range of 10% - 150% on a dry basis and the moisture content over the total within a range of 10% - 60%. The moisture content measured is then displayed on the screen.

Microwave technology is applied to conduct the measurement which is extremely rapid and accurate since the measurement is taken over an area of approximately 300 mm. The result may be printed utilizing the built-in printer. The printout may then be stapled to the delivery note to determine the actual cost of the raw material on a dry basis.

Once the measurement has been conducted the material is emptied from the chute manually, so that the system is ready to conduct the next test.

BEST IN CLASS FOR:

WOOD BASED PANELS:
PB/SPB
MDF/HDF



PRESSED WOOD PACKAGING:
PALLET BLOCKS



PELLETS & ENERGY:
GREEN FUELS AND BIOMASS



TECHNICAL DATA

MOISTURE RANGE	10% - 60% referred to the total (TOTAL) 10% - 150% referred to a dry basis (ATRO)
OPERATING TEMPERATURE RANGE	-5 ÷ +50 °C
MEASURING TIME FROM WHEN THE SAMPLE IS INSERTED	20 sec max
REMOTE OUTPUTS	via analogue 4 - 20 mA output or serial port
VOLTAGE	115 - 230 VAC
PRINTER	yes

SANDING, MARKING & CUTTING MACHINE FOR LABORATORY TEST SAMPLES

SMC200

SAND, MARK & CUT



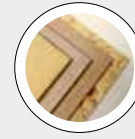
The SMC200 is a fully automatic system for preparing laboratory samples for testing purposes. Once the strip taken from the production line has been inserted into the process, it is cut into samples on the basis of the cutting pattern programmed. If contemplated in the cutting pattern for standard compliance purposes, the SMC200 can also sand the top and bottom of the sample with extreme precision. The rejects are separated out from the good samples at the end of the cycle and these are marked with a QR code for performing EN tests with other IMAL systems like the IB800 and an alpha-numeric code for rapid identification.

MAIN FEATURES

- The SMC200 is able to handle the cutting and sanding of the samples autonomously, starting from the "laboratory cut" made by the continuous saw; this gives the operator time to concentrate on other tasks such as running the tests themselves.
- To achieve a quality cut and sanding of the samples with repeatability, the SMC200 does not require operator intervention for the preparation of the samples hence ensuring a constant sample quality.
- For an optimal distribution of the samples over the panel.
- To manage the number and size of the samples which are to be cut.
- To keep track of the samples that have been cut.

The SMC200 cuts and sands the samples with 0.1 mm precision, thus ensuring that the samples are produced with straight edges and parallel surfaces.

- To run an elevated number of tests daily with the assistance of just one operator
- To cut and sand the samples without putting operator safety at risk, the SMC200 does not require operator intervention hence minimizing exposure to unnecessary risks.

BEST IN CLASS FOR:**WOOD BASED PANELS:**

PB/SPB

OSB/LSB/FOSB

MDF/HDF

PLYWOOD

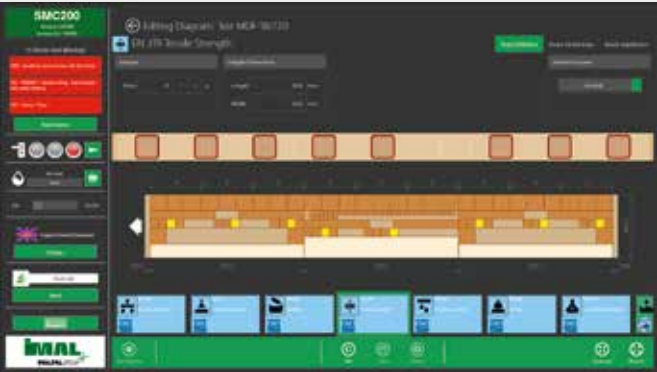
The SMC200 cuts and sands the samples with 0.1 mm precision, thus ensuring that the samples are produced with straight edges and parallel surfaces.



The operator uses the alphanumeric code to separate and order the samples allocated for the various tests. The Data Matrix code is used to identify the sample in the database and allows compatible equipment (e.g.: IB800) to access the position data that the SMC200 has stored.



CUTTING PATTERN VIEW

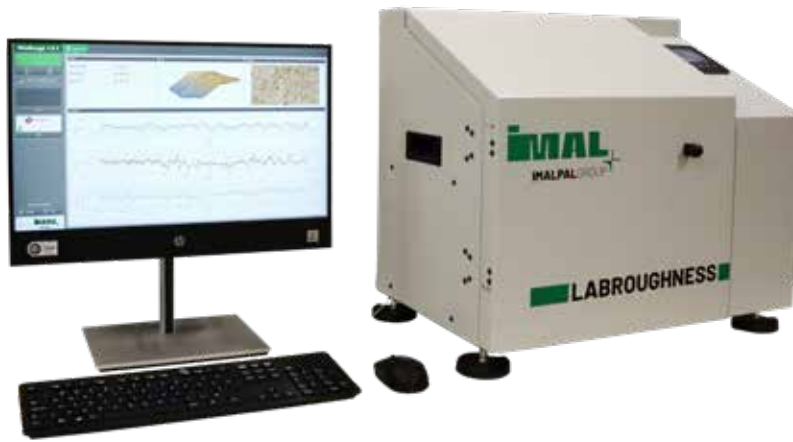


DEBUG VIEW

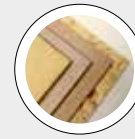


TECHNICAL DATA	
POWER SUPPLY	400 V
POWER INSTALLED	23 kW
CUTTING RANGE WIDTH	Up to 630 mm
CUTTING RANGE LENGTH	Up to 4000 mm
CUTTING RANGE FINAL SAMPLE	25 ÷ 1350 mm
THICKNESS	Up to 50 mm
DATA PROCESSING	DIN, EN, ASTM, ANSI
AIR PRESSURE	6 bar
SUCTION	Option - 12.000 m³/h , 25 m/sec.
DIMENSIONS	6.600 x 2.200 x 2.150 mm

LABROUGHNESS



BEST IN CLASS FOR:



WOOD BASED PANELS:

PB/SPB

MDF/HDF

The LABROUGHNESS Roughness Optic Control has been designed to select and grade samples of wood-based panels in relation to their surface roughness; the device is able to supply an analysis of the surface profile of the sample. The sample grading is determined by the analysis of the parameters obtained, e.g. Ra, Ry, Rz... The device is equipped with a camera that takes high resolution photographs of the surface of the sample that is being analysed.

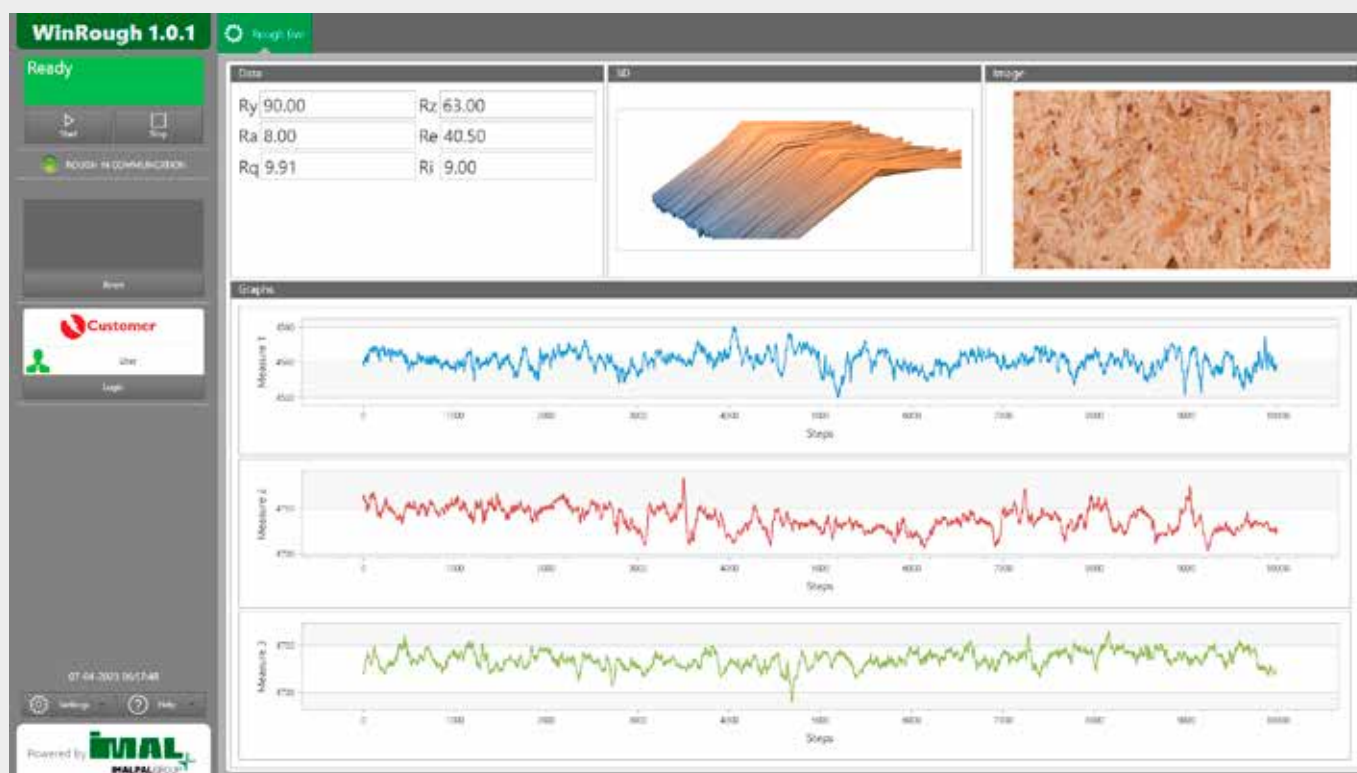
It has a built-in touch panel for carrying out all the operations required. It may be connected via Ethernet to a PC for carrying out a more detailed analysis utilizing the dedicated WinRough software supplied with the unit.

MAIN FEATURES:

- Non-invasive measurement: unlike traditional contact methods, the system utilizes an optic laser triangulation technique to conduct the test
- Profile with micron resolution
- Possibility of conducting up to 3 scans on the sample analysed along different pre-established paths
- Rapid response
- High resolution image of the surface of the board
- User-friendly software for analysing and storing the data and images taken by the unit

ADVANTAGES:

- Samples graded on the basis of their surface finish, to select the most suitable ones for the subsequent work processes such as lacquering and lamination
- Improved board quality
- Fewer rejects



MAIN FEATURES

SAMPLE SIZE	100 mm x 100 mm
MAXIMUM SAMPLE THICKNESS	65 mm
LASER TRIANGULATION SENSOR RESOLUTION	1 μ m
CAMERA RESOLUTION	2 Mpixel/cm ²
POWER SUPPLY	220 Vac - 110Vac

alphabetical

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