

Opening, Dosing and Sorting Systems, Mixing and Conditioning Units, Stationary Shredders



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BRT HARTNER **BO** 

#### Bag Opener





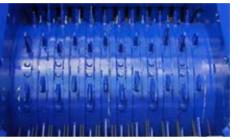
The economical alternative to shredding technology. The BRT HARTNER Bag Opener **BO** with feed hopper buffers, opens and empties the plastic bags and transfers the metered material to subsequent sorting and treatment plants. The hopper is fed batchwise by a front loader or by grab crane. Upon request, the BRT HARTNER Bag Opener **BO** can also be provided as a basic version without feed hopper.

- > Virtually 100% opening and emptying of the plastic bags
- > High opening rate of "bags within bags"
- Suitable for a wide range of material, e.g. household waste, packaging material, wastepaper, residual waste
- Protection against entaglement and wrapping of strings, tapes, wires and foils
- > Loosened up and evened out material supply to the sorting process
- > Low servicing and maintenance requirements
- Overcharge protection and automatic switch-off in case of blockages caused by bulky and disruptive material
- Large infeed hopper for feeding by front-end loader or by gripper

	BO 13	BO 17	BO 23
Working width	approx. 1.300 mm	approx. 1.700 mm	approx. 2.300 mm
Hopper length	up to 14.000 mm	up to 14.000 mm	up to 14.000 mm
Hopper volume min.	9 m³	12 m³	16 m³
Hopper volume max.	30 m³	40 m³	55 m³
Power requirement	17 - 36 kW	22 - 43 kW	28 - 52 kW
Total weight	10 - 16 t	12 - 18 t	16 - 22 t
Opening rate min.	95 %	95 %	95 %
Max. throughput with lightweight packaging	10 t/h	13 t/h	20 t/h
Max. throughput with MSW / household waste	24 t/h	36 t/h	50 t/h













#### Bag Opener for small plastic bags



The BRT HARTNER **BOS** Bag Opener opens and empties even small plastic waste bags and pouches. It was developed especially for the application in biowaste. After passing the **BOS** Bag Opener the foils are big enough to be screened out of the material stream. The feeding can be carried out directly into the chute of the machine.



- Virtually 100% opening and emptying even of small waste bags
- Low acquisition costs
- Extremely robust and resistant to wear
- Loosened up and evened out material supply into the sorting process
- Ready-to-connect design

- Low servicing and maintenance requirements
- Space-saving
- Silent machine operating
- Slow runner
- Especially efficient with an upstream Feed and Metering Hopper

	BOS 12	BOS 18	BOS 24
Working width	1.200 mm	1.800 mm	2.400 mm
Chute volume	2,5 m³	3,6 m³	4,4 m³
Outer length	2.700 mm	3.300 mm	3.900 mm
Outer width	2.200 mm	2.200 mm	2.200 mm
Power requirement	37 kW	45 kW	55 kW
Total weight	6 t	8 t	10 t
Opening rate min.	95 %	95 %	95 %
Max. throughput	30 m³/h	45 m³/h	60 m³/h
Max. throughput at 800 kg/m³	24 t/h	36 t/h	48 t/h



## BOS









BRT HARTNER BB Bale Breaker





The BRT HARTNER BB Bale Breaker serves for unraveling and loosening of press bales consisting of PET-bottles, waste paper, residual waste, plastics and numerous other recyclable materials. The Bale Breaker does not shred or crush the material, but loosens it up for effective subsequent processing.

A dynamic hold-down device ensures excellent handling of impurities and disruptive material. The bunker walls of the BRT HARTNER BB are designed as removable plug-in walls. This allows for individual wall elements to be removed or added. Upon request, the machine can also be delivered with a closed bunker in order to enable feeding of loose material by wheel loader as well as the feeding of bales.

- Suitable for PET-bottles, residual waste, plastic containers, waste paper, sorting residues, etc.
- Efficient opening of bales and loosening up of material
- Even and continuous material discharge
- Infinitely adjustable throughput rate
- Large feed hopper for long feeding intervals
- Ready-to connect unit with drives and electrical control system
- Freely selectable positioning of the lateral plug-in walls

Working width	1.780 mm
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Total height	2.500 mm
Hopper length min.	6.000 mm
Total length min.	8.400 mm
Extension in steps of	2.000 mm
Total length max.	14.400 mm
Power requirement	11,5 - 22 kW
Weight	from 11,5 t
Throughput	up to 10 t / h

ВВ













#### Feed and Metering Hopper





BRT HARTNER Dosing Hoppers are designed for continuous and even feeding of the most different materials and are equipped with an electrical volume flow regulation, a frequency-controlled dosing unit and a moving floor conveyor.

Feed and Metering Hoppers are preferably used for feeding of sorting and treatment plants with waste paper, packaging waste, household waste, commercial and mixed construction waste, glass, refuse derived fuel, metals and electric waste.

A wheel loader can, for example, be used to load the dosing bunker. The bunker is available in different sizes in order to adapt to the task intervals that are specific to the operational requirements. The moving floor conveyor transports the material to the integrated dosing unit. There, the material is loosened up and presented to downstream sorting processes as an even and continuous material stream.

Optical sensors control the material height on the discharge belt. The rotational speed of the dosing unit and the velocity of the moving floor are adjusted accordingly.

- > For waste paper, household waste, commercial and mixed construction waste, RDF, biowaste, etc.
- Loosened up and even material feeding to sorting and recovery units
- Access to the bunker via maintenance door with safety switch
- Entanglement protection and self-cleaning effect of the dosing drum against strings, long foils, cords and wires
- Large feed hopper for long feeding intervals
- Low maintenance and servicing requirements
- > Efficiency boost of as much as 20% compared to common feeding methods
- Ready for operation construction including drives and electrical control system

	D 17	D23
Working width	1.700 mm	2.300 mm
Number of conveyor slats	12 pieces	16 pieces
Fill level	1.900 mm	1.900 mm
Total height	2.500 mm	2.500 mm
Extension in steps of	2.000 mm	2.000 mm
Total length max.	17.900 mm	17.900 mm
Volume	14 - 47 m³	19 - 64 m³
Power requirement	11 - 33 kW	11 - 33 kW
Weight	from 10 t	from 11 t













#### Moving Floor Conveyor



The BRT HARTNER **MF** Moving Floor Conveyors can be manufactured in virtually every length and width in transportable units. The combination of different units allows for any size of the bunker surfaces.

Each BRT HARTNER **MF** Moving Floor consists of push-board groups which can be moved independently from each other. For transporting of material, all groups are moved in the requested conveying direction which also moves the material. In the following step, the groups are individually drawn backwards. The material is held back on the push-boards that are standing still. Reversing the conveying direction achieves optimal bunker feeding and utilization of the hopper volume. Additional equipment such as sidewalls, completely closed hoppers or metering and discharging devices are available upon request.



- > Transport of all kinds of material, no matter if featherweight, heavyweight, wet and sticky or highly abrasive
- > Modular design for any required size
- Conveying speed infinitely adjustable
- > Easy integration into existing material bunkers
- Also available as driveable heavy-duty design for direct feeding by truck
- Moving floor without rotating parts, therefore no danger of entangling
- High carrying capacity, safe against impact load
- > With metering and discharge devices upon request

	MF 17	MF 23	MF 29
Working width	1.700 mm	2.300 mm	2.900 mm
Number of push boards	12 pieces	16 pieces	20 pieces
Height Moving Floor	approx. 400 mm	approx .400 mm	approx. 400 mm
Fill level max.	1.800 mm	2.400 mm	3.000 mm
Moving Floor length min.	6.500 mm	6.500 mm	6.500 mm
Total length min.	8.000 mm	8.000 mm	8.000 mm
Extension in steps of	2.000 mm	2.000 mm	2.000 mm
Power requirement	4 - 22 kW	4 - 22 kW	4 - 22 kW
Weight	from 5 t	from 6 t	from 7 t



# MF









BRT HARTNER DC

### Decompactor





**DC** Feed Hoppers with Decompactor are used in mechanical and biological waste treatment facilities. They are especially suitable for the intake, buffering and dosing of rotting material, digestates and organic waste.

The system consists of a sturdy feed hopper with a drag chain conveyor and a decompaction unit with two or three rollers. The rollers loosen up the material and prepare it for even transfer to subsequent plant components.

DC Feed Hoppers with Decompaction Unit consist of a heavy, sturdy and torsion-resistant sheet steel and sectional steel construction. They are adjusted to the requirements of the input material. It is possible to equip the machine with a belt conveyor instead of a drag chain conveyor.

	DC 14 / 2	DC 18 / 2	DC 18 / 3
Working width	1.400 mm	1.800 mm	1.800 mm
Centre distance	7.250 / 10.000 / 12.750 mm	7.250 / 10.000 / 12.750 mm	7.250 / 10.000 / 12.750 mm
Inclination	0°	0°	0°
Decompactor shafts	2 pieces	2 pieces	3 pieces
Volume hopper	10 - 20 m³	13 - 25 m³	20 - 36 m³
Throughput	up to 200 m³/h	up to 200 m³/h	up to 200 m³/h
Power scraping chain	up to 1,1 kW	up to 1,1 kW	up to 1,1 kW
Power decompactor shafts	2 x 7,5 - 15 kW	2 or 3, x 7,5 – 15 kW	3 x 7,5 - 15 kW

 $^{24}$ 



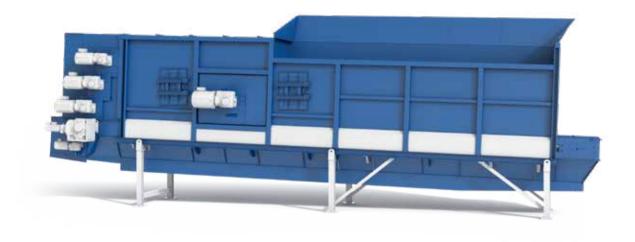






#### Digestate Mixer





The BRT HARTNER **DM** Digestate Mixer is a machine used for the optimal production of mixes from digestate, sewage sludge and the like on the one hand and structuring materials such as green waste, raw compost and screen overflow on the other. The system of mixing the substrates with the aid of mixing rollers in the material flow effectively prevents compaction or kneading effects and loosens up the substrate.

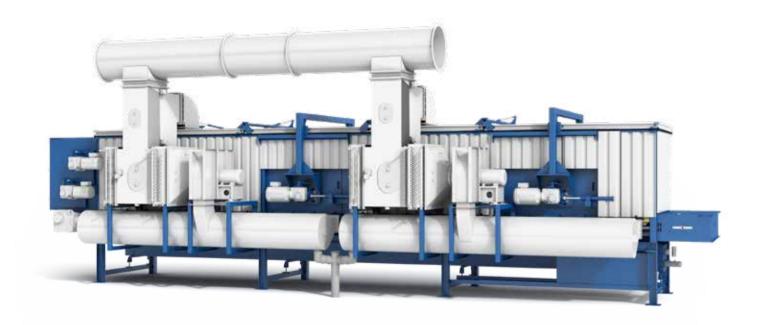
This is a great benefit for aerobic post-treatment of the substrate. The BRT HARTNER DM furthermore excels with its high throughput at great resistance against impurities, which allows for its optimal integration into the automated material flow of a system as well as into a downstream batch system.

	DM 12	DM 20
Useful length	approx. 6.400 mm	approx. 11.900 mm
Useful width	approx. 1.200 mm	approx. 2.000 mm
Filling height	approx. 1.200 mm	approx. 1.700 mm
Filling volume	approx. 10 m <sup>3</sup>	approx. 40 m <sup>3</sup>
Feeding length	approx. 1.500 mm	approx. 6.800 mm
Discharge width	approx. 1.200 mm	approx. 2.000 mm
Diameter mixing roller	approx. 750 mm	approx. 1.200 mm
Diameter of mixing/discharge rollers	approx. 610 mm	approx. 610 mm
Throughput	36 - 180 m <sup>3</sup> /h	80 - 250 m³/h



### Digestate Conditioner

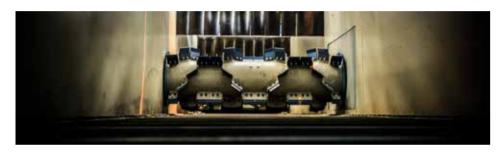




Digestate Conditioner. For perfect treatment of digestate mixtures before the aerobic treatment and for thermal drying of the material, the input substrates are mixed, homogenized and then loosened up. The pressure ventilation of the material with pre-heated air, optionally also available with circulation air and active floor heating of the closed machine, is the basis for an optimized ammoniac and water output through the exhaust air which is processed by the exhaust air treatment system.

	DCD 20 / 125	DCD 20 / 245
Useful length	approx. 12.500 mm	approx. 24.500 mm
Filling volume	approx. 30 m³	approx. 60 m³
Useful width	approx. 2.000 mm	approx. 2.000 mm
Filling height	approx. 1.200 mm	approx. 1.200 mm
Throughput	10 - 22 m³/h	10 - 22 m³/h
Treatment time	1,25 - 3 hours	2,5 - 6 hours









#### **Ballistic Separator**



#### BRT HARTNER **BSH**

The BRT HARTNER **BSH** is a Ballistic Separator for packaging and household waste (single piece weight: < 10 kg). The paddles and sieve meshes are made of unalloyed construction steel.

#### BRT HARTNER **BSW**

The BRT HARTNER **BSW** is a medium-heavy machine for household and commercial waste (single piece weight: < 20 kg). The reinforced paddles and sieve meshes are made of wear resistant steel. This ensures a long service life even with rough applications.



The BRT HARTNER **BSV** is designed for heavy applications with commercial waste and mixed construction waste (single piece weight: < 30 kg). The paddles and sieve screens consist of wear-resistant steel. The lateral sheets at the paddles are additionally reinforced. Furthermore, the entire machine frame and the shafts are adapted to the increased requirements. All eccentric bearings are doubled. As opposed to the BSH and BSW versions, both shafts of the BSV are driven by an electric gear motor with 22 kW drive power.

	BS 40	BS 45	BS 60	B2 90	BS 120
Useful width	2.070 mm	2.070 mm	2.770 mm	4.140 mm	5.540 mm
Paddle length	5.080 mm	6.300 mm	6.300 mm	6.300 mm	6.300 mm
Drive power	11 kW*	11 kW*	11 kW *	22 kW	22 kW
Throughput*	40 - 45 m³/h	45 - 60 m³/h	60 - 90 m³/h	90 - 120 m³/h	120 - 200 m³/h
Sieve area	10,5 m²	13 m²	17,4 m²	26 m²	34,9 m²
Paddle no.	6	6	8	12	16
Height - machine frame	1.500 mm	1.500 mm	1.500 mm	1.500 mm	1.500 mm
Length - machine frame	5.800 mm	7.100 mm	7.100 mm	7.100 mm	7.100 mm

<sup>\*</sup>drive power of the BSV version 22 kW















**BPS 45** 

The BRT HARTNER **BPS** is suitable within the range of the waste paper assortment both for the separation from paper and cardboard boxes and for the finesorting of the problematic disturbing of portions in the waste paper, here particularly also for the improvement of the deinking quality.



- > Sturdy machine-design for durable application
- Shaft with eccentric bearings
- Robust changeable bearings
- Patented adjustable screen holes
- Many types for each purpose
- Sieve-area from 10,9 m² to 43,6 m²

- Paddle width 338 mm
- > 6 / 8 / 12 / 16 / 24 paddles
- > Throughput from 6 t/h to 45 t/h
- > Easy to maintain
- > For fine and coarse screening
- High housing

Model	1 Deck	1 Deck	1 Deck	2 Deck	2 Deck	2 Deck	3 Deck
Paddle width	338 mm	338 mm	338 mm	338 mm	338 mm	338 mm	338 mm
Useful width	2.070 mm	2.070 mm	2.770 mm	2.070 mm	2.070 mm	2.770 mm	2.770 mm
Paddle length	5.300 mm	6.300 mm	6.300 mm	2x 4.300 mm	2x 5.300 mm	2x 5.300 mm	3x 5.300 mm
Outlet opening	258 mm	258 mm	258 mm	258 mm	258 mm	258 mm	258 mm
Drive power	11 kW	11 kW	11 kW	22 kW	22 kW	22 kW	33 kW
Throughput	10-12 t/h	12-14 t/h	14-16 t/h	18-20 t/h	20-22 t/h	25-30 t/h	35-45 t/h
Sieve area	10,9 m²	13 m²	17,3 m²	17,6 m²	21,8 m²	29,1 m²	43,6 m²
Paddle no.	6	6	8	12	12	16	24







#### Screen Drum





SD Screen Drums are used to screen commercial waste, household waste and other types of material. It enables screening in several steps with different sized openings. The typical screen cut size is from 60 to 300 mm. The SD Screen Drums thoroughly turn and throw the material so that ideal separation rates are reached. Different entanglement protection features make this 3D screen very maintenance and cleaning friendly.

The machine is available in three different diameters and a total of seven different lengths. The SD Screen Drum is extremely sturdy. The bearing races, radial wheels, screen sheets and other wear parts have a very long lifespan.

	SD 21	SD 25	SD 30
Drum diameter	2.100 mm	2.450 mm	2.950 mm
Length of sieving surface	6.000 mm	7.000 - 12.000 mm	8.000 - 14.000 mm
Total length of drum body	8.000 mm	9.000 - 14.000 mm	10.000 - 16.000 mm
Total sieving area	40 m²	54 m² - 92 m²	74 m² - 130 m²
Thickness of screen plates	8 or 10 mm	8 or 10 mm	8 or 10 mm
Drum inclination	4°	4°	4°
Number of races	4	8 or 12	8 or 12
Drive	1 x 11 kW	2 x 7,5 kW or 2 x 15 kW	2 x 7,5 kW or 2 x 15 kW
Total weight	15 t	22 - 28 t	28 - 36 t



### Stationary Trommel Screen



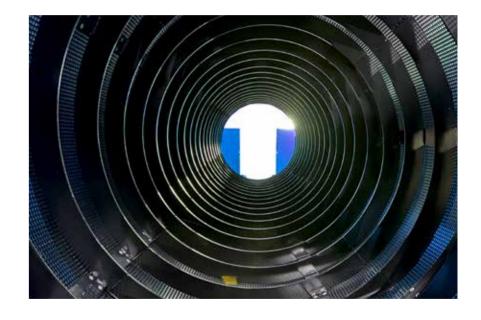


The **ST** Stationary Trommel Screens are a modification of the Mobile Drum Screens of the Terra Select brand. These screens are designed for stationary plants and therefore electrically driven and firmly mounted onto a substructure. The application range is very versatile and includes compost, all kinds of soil or wood as well as household waste or metal. The screening of fine particles up to 80 mm grit size is the priority with this machine. If requested, the drum screen can also be equipped with entanglement protection or a cleaning device with a scraper. A housing made of sheet steel completes the scope of supply.

	ST 20	ST 22	ST 25		
Drum diameter	2.000 mm	2.200 mm	2.500 mm		
Length of sieving surface	up to 8.400 mm	up to 8.400 mm up to 8.400 mm			
Total length of drum body	up to 9.000 mm	up to 9.000 mm	9.000 mm		
Total sieving area	up to 53 m²	up to 58 m²	up to 66 m²		
Thickness of screen plates	6 or 8 mm				
Internal screw	180 mm high and 6 mm thick				
Drum inclination	0°				
Number of radial wheels	4	4	4		
Drive	2 x 7,5 kW	2 x 11 kW	4 x 9,2 kW		











**SC** Rotor screens provide a reliable and durable solution for the sorting of waste paper and cardboard that is impervious to impurities. The input material is fed from the front. The cardboard "swims" over the screen. The mixed paper is pulled down through the rotor screen discs.

- Efficient separation of cardboard and cardboard packagings from mixed paper
- > Reasonable price, long service life
- Impervious to disruptive material
- Loosened up and even material feeding to subsequent sorting

- > Easily exchangeable screens discs
- > Dynamic adjustment of the screen cut
- > Easy to clean
- Frequency controlled speed adjustment (optional)
- > Inclination adjustment available as an option

	SC 40	SC 60	SC 90
Working width	1.800 mm	1.800 mm	1.800 mm
Length	approx. 4.000 mm	approx. 6.000 mm	approx. 9.000 mm
Screen surface	approx. 6,7 m²	approx. 9,8 m²	approx. 14,7 m²
Weight	approx. 2,6 t	approx. 5,2 t	approx. 7,8 t
Screen cut	> A4	> A4	> A4
Amount of rotor elements	10	15	22
Amount of discs per element	8	8	8
Power requirement	3 kW	6 kW	9 kW
Throughput	up to 10 t/h	up to 20 t/h	up to 30 t/h













The **SF** Fine Screen is used for post-treatment of the mixed paper fraction. Producing a loose and even material stream, the fine screen prepares the material in an optimal way for manual, mechanical or optical sorting. The oversize grain consists mainly of valuable deinking material.

- > Optimal subsequent treatment of mixed paper fraction
- > Efficient screening of disruptive materials and small parts
- Dynamic adjustment of the screen cut
- Reasonable price, long service life
- Loosened up and even material feeding to post-sorting
- Easy to clean
- > Frequency controlled speed adjustment (optional)
- Easy integration into existing sorting plants

	SF 40	SF 60	SF 90
Working width	1.800 mm	1.800 mm	1.800 mm
Length	approx. 4.000 mm	approx. 6.000 mm	approx. 9.000 mm
Screen surface	approx. 6,7 m <sup>2</sup>	approx. 9,8 m <sup>2</sup>	approx. 14,7 m²
Weight	approx. 2,4 t	approx. 5,0 t	approx. 7,5 t
Screen cut	> 100 mm	> 100 mm	> 100 mm
Cascade	-	500 mm	500 mm
Amount of rotor elements	24	36	54
Amount of discs per element	15 - 19	15 - 19	15 - 19
Power requirement	2,2 kW	4,4 kW	6,6 kW
Throughput waste paper and cardboard	up to 7 t/h	up to 12 t/h	up to 18 t/h



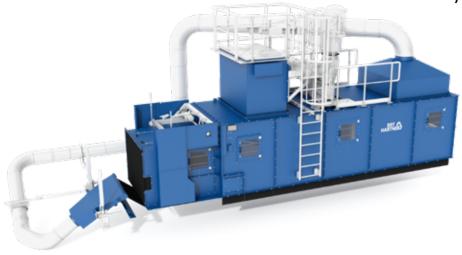




BRT HARTNER BBS

#### Air Belt Separator





The **BBS** Air Belt Separator classifies the input material into a lightweight and a heavyweight fraction. Suitable input for an air sifting machine for best separation results and high throughputs is free-flowing, preconditioned material with a defined particle size.

The infeed material is evenly fed onto the acceleration belt. The input material passes a nozzle in free fall that is located under the head of the acceleration belt. Very light components are blown out of the stream over the arch belt directly into the settling chamber. In the transfer area, very heavy parts fall down on a heavymaterial discharge belt. All other particles bounce against the arch belt and are also separated into light and heavy fractions by the radius and the adjustable inclination of the arch belt. In the settling chamber the light fraction is separated from the air stream and discharged by the light material discharge belt.

The separator operates in recirculation mode. A second fan extracts the dust-laden air through a filter from the settling chamber and transfers the cleaned air to the surroundings. The separated dust is supplied to the light material fraction.

- High recovery rate of light fraction
- Numerous adjustment parameters allow machine adaptation to reach an optimal separation result with different materials
- > Integrated filter unit

	BBS
Working width	1.600 mm
Throughput	up to 160 m³/h
Length total	9.200 mm
Width total	2.400 mm
Height total	4.600 mm
Installed electrical power	43 kW
Arch belt	2,2 kW
Fan for nozzle	22,0 kW
Fan for underpressure generation	15,0 kW



# **BBS**









#### Electric Waste Dismantler



Manual opening of plastic housings of used electrical household appliances is time-consuming and dangerous. Splitters and sharp edges, as well as the appliances' contents may cause injuries.

The **EWD** Electric Waste Dismantler executes this work automatically, safely and fast. The plastic housings are coarsely broken. The inside parts remain largely intact and can be removed safely. They are freely accessible and – as opposed to shredders – they are not destroyed. The crushed housings and metal parts are transported to subsequent sorting in a continuous material flow.



- Suitable for household appliances: vacuum cleaners, kitchen appliances, lawn mowers etc.
- Cracking of the plastic housings for removal of metal parts
- Turnkey design
- Metered material transfer to sorting

- No risk of injury for sorting staff
- > Low dust formation
- Space-saving
- > Low noise level
- > Low energy consumption
- > Economic purchase price
- > Slow runner

EWD 12	EWD 18	EWD24
1.200 mm	1.800 mm	2.400 mm
2 m³	2 m³	2 m³
2.700 mm	3.300 mm	3.900 mm
2.200 mm	2.200 mm	2.200 mm
approx. 3.800 mm	approx. 3.800 mm	approx. 3.800 mm
11 kW	11 kW	15 kW
6 t	8 t	10 t
18 rpm	18 rpm	18 rpm
30 m³/h	45 m³/h	60 m³/h
2 t/h	3 t/h	4 t/h
	1.200 mm 2 m³ 2.700 mm 2.200 mm approx. 3.800 mm 11 kW 6 t 18 rpm 30 m³/h	1.200 mm     1.800 mm       2 m³     2 m³       2.700 mm     3.300 mm       2.200 mm     2.200 mm       approx. 3.800 mm     approx. 3.800 mm       11 kW     11 kW       6 t     8 t       18 rpm     18 rpm       30 m³/h     45 m³/h











Bale Dewiring





The **BD** Bale Dewiring machine automatically removes wire strappings from compressed bales. The bales are fed to a sturdy steel plate conveyor. The cutting device takes hold of the wires, pulls them from the bale and cuts them. Then the wires are coiled and discharged to the bottom. Employment of staff for manual bale wire cutting – which is a very dangerous task – is no longer necessary. It is recommended to operate the **BD** Bale Dewiring in combi-nation with the well-established **BB** Bale Breaker. The complete automation of material preparation by BRT HARTNER technology saves personnel, time and costs.

- > Mechanic dewiring of press bales
- > Automatic opening and removing of wire strapping
- > Coiling and compacting of removed bale wires
- Wire cutting without danger of injury
- > For bales consisting of plastics, foils, PET bottles, paper etc.
- > Self-acting adaptation to bale size
- > Automatic adjustment to material density
- High availability due to wear-resistant blades
- Delivery complete with apron conveyor, all drives and electric control system
- Compact material preparation system in combination with **BB** Bale Breaker

Working width	1.400 mm
Bale dimensions max. (W x H x L)	1.200 x 1.200 x 2.500 mm
Bale weight	approx. 400 - 2.500 kg
Machine width	4.600 mm
Machine length	6.500 mm
Machine height	3.250 mm
Power requirement	15 kW
Throughput	up to 60 bales/h









Closed PET bottles or other plastic containers with a high density have to be perforated in order to be pressed. This is done with perforators. The **PS/PD** Perforators are available in three working lengths as single and double perforators. Knife bars made of special steel guarantee a long service life. The knives can be re-sharpened or simply changed. The sturdy machine design even allows for the use as a glass crusher.



The **PS / PD** Perforators are installed in discharge chutes of manual sorting lines. The bunkers can be used a lot more effectively as the bottles and containers are not only perforated but also reduced in volume. The perforators can also be retrofitted into the infeed chute of a press.

For universal use, a complete, semi-mobile solution is provided. It consists of a perforator, a chute with frame and a control and is set up above the infeed belt to presses or containers. The perforators can also be fed by wheel loader. The machine perforates and flattens the bottles and containers which facilitates transport on subsequent ascending conveyors.

- Perforating rate > 95%
- > Throughput up to 160 m³/h
- > Applicable for bottles and containers from 0,5 l to 5 l
- > Low drive power
- > Low investment costs

- > Long service life
- > Tools are resharpenable and exchangeable
- Reduction of the material volume of approx. 30%
- Optionally available with electric control system

	P5 U6	P5 12	P5 14	PD 06	PD 12	PD 14
Working width	600 mm	1.200 mm	1.400 mm	600 mm	1.200 mm	1.400 mm
Length	1.050 mm	1.620 mm	1.820 mm	1.050 mm	1.620 mm	1.820 mm
Width	680 mm	680 mm	680 mm	1.360 mm	1.360 mm	1.360 mm
Height	360 mm					
Weight	300 kg	600 kg	700 kg	600 kg	1.200 kg	1.400 kg
Number of trommels	1	1	1	2	2	2
Number of knife bars	8	16	16	16	32	32
Power requirement	2 kW	4 kW	4 kW	4 kW	8 kW	8 kW
Speed	60 rpm					
Throughput	40 m³/h	70 m³/h	80 m³/h	80 m³/h	140 m³/h	160 m³/h

 $r_2$ 



# PS/PD



Double Perforator with Chute



Double Perforator



Single Perforator









#### Stationary Shredder

### TEUTON ZS 55

ZS 55

The TEUTON **ZS 55** by Eggersmann is currently the most versatile stationary shredder on the market.

From coarse pre-shredding – even of the most difficult infeed materials – to the finished final product, the TEUTON **ZS 55** offers great application versatility thanks to its unique screen basket system. The machine can be flexibly set up to account for various framework conditions such as input material, throughput rate and desired final particle size and can thus be incorporated into existing recycling processes and plants with ease.

Due to its sturdy steel construction, the TEUTON **ZS 55** is designed for severe operating conditions and delivers a continuous shredding process as well as even discharge of the shredded material to downstream conveying systems.



TEUTON **ZS 55** only requires minimal maintenance. The daily check requires nothing more than opening the shredding chamber via the machine's touch panel, providing safe and comfortable access.

Total weight	28 t
Power requirement (2 x three-phase 160 kW = 320 kW)	2 x three-phase 160 kW = 320 kW
Number of replaceable teeth on shredding rotor	30
Number of counter teeth	19
Rotor length	3.000 mm
Rotor diameter	1.050 mm
Rotor speed (variable)	max. 40 rpm
Rotor drive	electro-hydraulic planetary gear
Control	radio remote control (optional)



#### Stationary Pre-Shredder



### FORUS SES 25

**SES 25** 

The FORUS **SES** 25 is a two-shaft shredder with electric drive. It is used as a pre-shredder for different types of material. It shreds household waste, bulky waste, commercial waste, old wood and demolition wood, green cuttings and organic waste effortlessly. The slow-running shredder processes foils, paper and electric waste with equal efficiency. The final particle size varies from 150 to 350 mm, depending on the tools that are used.

The drive and the electric control system are integrated into the machine frame which makes for a compact construction design with hook lift and container rollers. The FORUS **SES** 25 is equipped with a hydraulically tiltable chute for easy infeed.

The FORUS **SES** 25 is an excellent allrounder, a performance package which reliably adapts to your requirements.

	02020
Total weight	approx. 12 t
Drive	electro-hydraulic
Number of replaceable teeth on shredding rotor	40 - 80 pcs.
Rotor length	1.500 mm
Rotor diameter	2x 570 mm
Crushing beam	types A1 to A5
Drive power	132 kW





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<sup>1.</sup> All specifications, descriptions and illustrations are subject to change without prior notice.

<sup>2.</sup> Illustrations and descriptions may include options that are not part of the standard equipment.