



**STATIONARY RECYCLING MACHINES**  
Opening · Dosing · Mixing · Sorting · Shredding

# Content

## Opening

5	BRT HARTNER <b>BO</b>	Bag Opener
7	BRT HARTNER <b>BOS</b>	Bag Opener for small plastic bags
9	BRT HARTNER <b>EWD</b>	Electric Waste Dismantler
11	BRT HARTNER <b>PS/PD</b>	Perforator
13	BRT HARTNER <b>BD</b>	Bale Dewirer

## Dosing

15	BRT HARTNER <b>BB</b>	Bale Breaker
17	BRT HARTNER <b>D</b>	Feed and Metering Hopper
19	BRT HARTNER <b>MF</b>	Moving Floor Conveyor
21	BRT HARTNER <b>DC</b>	Decompactor

## Mixing

23	BRT HARTNER <b>DM</b>	Digestate Mixer
----	-----------------------	-----------------

## Sorting

25	BRT HARTNER <b>BS</b>	Ballistic Separator
27	BRT HARTNER <b>BPS</b>	Papersorter
29	BRT HARTNER <b>SD</b>	Screen Drum
31	BRT HARTNER <b>ST</b>	Trommel Screen
33	BRT HARTNER <b>SC</b>	Coarse Screen
35	BRT HARTNER <b>SF</b>	Fine Screen
37	BRT HARTNER <b>STS</b>	Star Screen
39	BRT HARTNER <b>BBS</b>	Air Belt Separator
41	BRT HARTNER <b>AS</b>	Automatic Sorter

## Shredding

43	BRT HARTNER <b>ARCTOS</b>	Universal Shredder
----	---------------------------	--------------------

## BAG OPENER

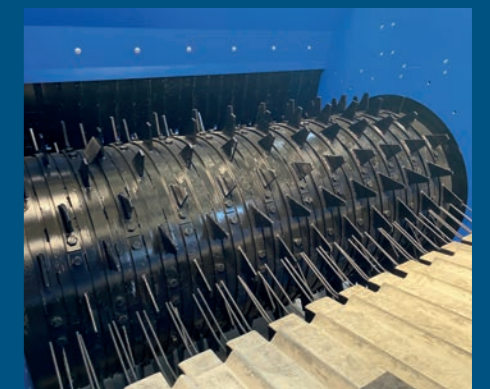
BO 13 | BO 17 | BO 23

The BRT HARTNER **BO** is the economical alternative to shredding technology. The Bag Opener 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 Bag Opener 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 entanglement 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 wheel loader or by gripper

	<b>BO 13</b>	<b>BO 17</b>	<b>BO 23</b>
Working width approx.	1,300 mm	1,700 mm	2,300 mm
Hopper length up to	14,000 mm		20,000 mm
Hopper volume min.	9 m <sup>3</sup>	12 m <sup>3</sup>	16 m <sup>3</sup>
Hopper volume max.	30 m <sup>3</sup>	40 m <sup>3</sup>	76 m <sup>3</sup>
Power requirement	17 – 36 kW	28 – 43 kW	36 – 62 kW
Total weight	10 – 16 t	12 – 18 t	16 – 22 t
Opening rate min.	95 %		
Max. throughput with lightweight packaging	12 t/h	17 t/h	25 t/h
Max. throughput with MSW / household waste	27 t/h	39 t/h	50 t/h

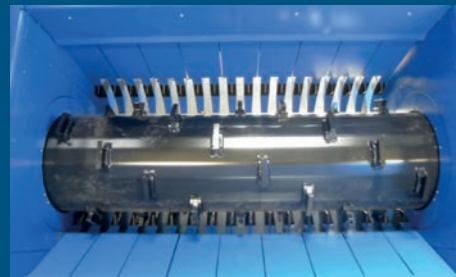


## BAG OPENER FOR SMALL PLASTIC BAGS

BOS 12 | BOS 18 | BOS 24

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 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.



	<b>BOS 12</b>	<b>BOS 18</b>	<b>BOS 24</b>
Working width	1,200 mm	1,800 mm	2,400 mm
Chute volume	2.5 m <sup>3</sup>	3.6 m <sup>3</sup>	4.4 m <sup>3</sup>
Outer length	2,700 mm	3,300 mm	3,900 mm
Outer width	2,200 mm		
Power requirement	37 kW	45 kW	55 kW
Total weight	7 t	8 t	9 t
Opening rate min.	95 %		
Max. throughput	30 m <sup>3</sup> /h	45 m <sup>3</sup> /h	60 m <sup>3</sup> /h
Max. throughput at 800 kg/m <sup>3</sup>	24 t/h	36 t/h	48 t/h

- › 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

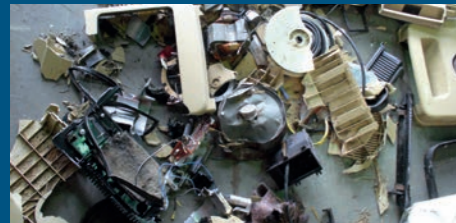
## ELECTRIC WASTE DISMANTLER

EWD 12 | EWD 18 | EWD 24

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 BRT HARTNER **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.



	<b>EWD 12</b>	<b>EWD 18</b>	<b>EWD 24</b>
Working width	1,200 mm	1,800 mm	2,400 mm
Chute volume	2.5 m <sup>3</sup>	3.0 m <sup>3</sup>	4.4 m <sup>3</sup>
Outer length	2,700 mm	3,300 mm	3,900 mm
Outer width	2,200 mm		
Feeding height approx.	3,800 mm		
Power requirement	11 kW		15 kW
Total weight	7 t	8 t	9 t
Max. speed	18 rpm		
Max. throughput	30 m <sup>3</sup> /h	45 m <sup>3</sup> /h	60 m <sup>3</sup> /h
Max. throughput with electric devices	2 t/h	3 t/h	4 t/h

- › Suitable for household appliances: vacuum cleaners, kitchen appliances, lawn mowers etc.
- › Cracking of the plastic housings for removal of metal parts
- › Ready-to-connect design
- › No risk of injury for sorting staff
- › Low dust formation
- › Space-saving
- › Low noise level
- › Low energy consumption
- › Economic purchase price
- › Slow runner

## PERFORATOR

PS 06 | PS 12 | PS 14 | PD 06 | PD 12 | PD 14

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 BRT HARTNER **PS / PD** 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 resharpened or simply changed. The sturdy machine design even allows for the use as a glass crusher.

The Perforators are installed in discharge chutes of manual sorting lines. The bunkers can be used a

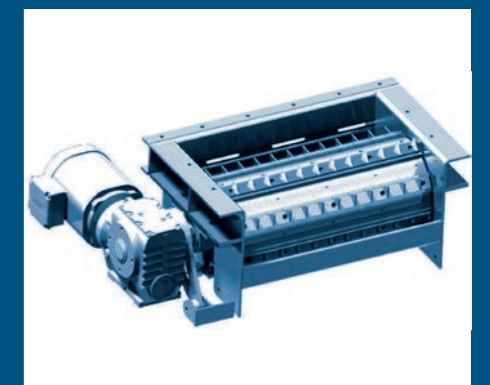
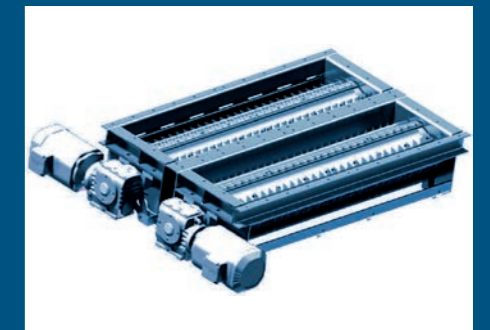
lot more effectively as the bottles and containers are not only perforated but also reduced in volume.

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 m<sup>3</sup>/h
- › Applicable for bottles and containers from 0,5 l to 5 l
- › Low drive power
- › Low susceptibility to disruptive materials
- › Low investment costs
- › Long service life
- › Tools are resharpenable and exchangeable
- › Reduction of the material volume of approx. 30%
- › Particularly suitable for retrofitting
- › Optionally available with electric control system

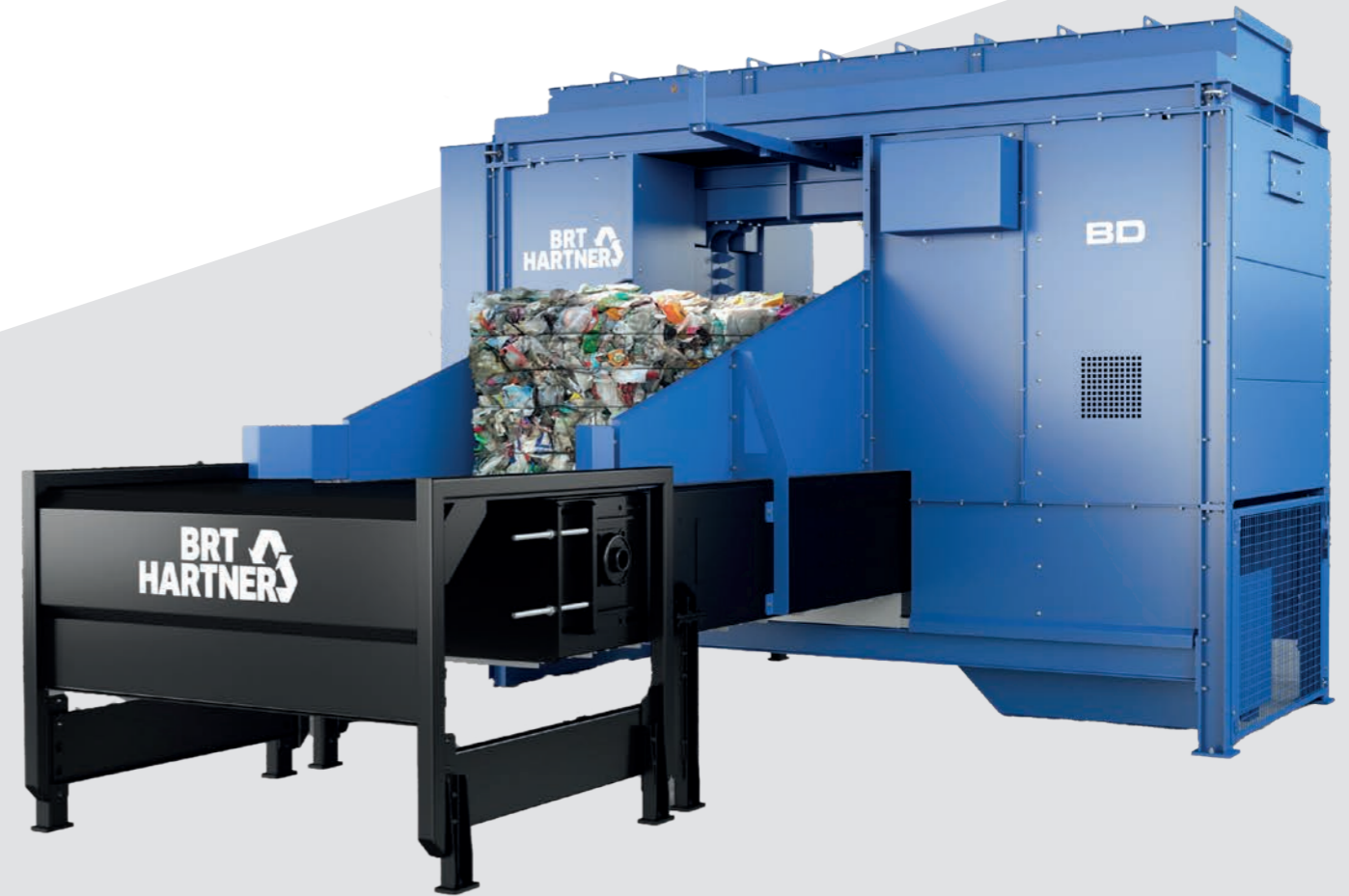
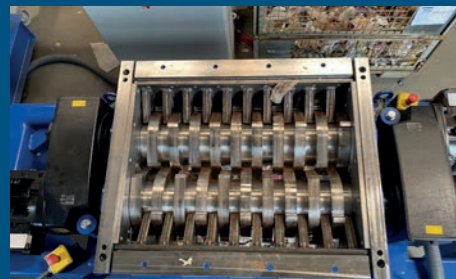
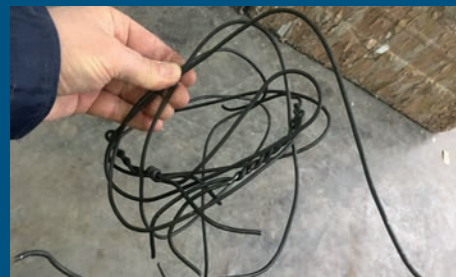


	PS 06	PS 12	PS 14	PD 06	PD 12	PD 14
Working width	600 mm	1,200 mm	1,400 mm	600 mm	1,200 mm	1,400 mm
Length	1,050 mm	1,620 mm	1,820 mm	1,050 mm	1,620 mm	1,820 mm
Width	680 mm			1,360 mm		
Height	360 mm					
Weight	220 kg	390 kg	430 kg	450 kg	790 kg	880 kg
Number of trommels	1			2		
Number of knife bars	8	16		32		
Power requirement	2 kW	4 kW		8 kW		
Speed	60 rpm					
Throughput	40 m <sup>3</sup> /h	70 m <sup>3</sup> /h	80 m <sup>3</sup> /h	140 m <sup>3</sup> /h	160 m <sup>3</sup> /h	

## BALE DEWIRER BD 14 | BD 20

The BRT HARTNER **BD** Bale Dewirer 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. An optional rotary shear can be provided here. Employment of staff for manual

bale wire cutting – which is a very dangerous task – is no longer necessary. It is recommended to operate the Bale Dewirer in combination with the well-established BRT HARTNER **BB** Bale Breaker. The complete automation of material preparation by BRT HARTNER technology saves personnel, time and costs.



	<b>BD 14</b>	<b>BD 20</b>
Working width	1,500 mm	
Bale dimensions max. (w x h x l)	1,200 x 1,200 x 1,500 mm	1,200 x 2,000 x 1,700 mm
Bale weight approx.	400 – 2,500 kg	
Machine width	5,000 mm	6,800 mm
Machine length	6,800 mm	
Machine height	3,900 mm	4,400 mm
Power requirement	31 kW	38 kW
Throughput up to	40 bales/h	

- › 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
- › Special version **BD 20** for bales with height up to 2,000 mm
- › Optionally available with tilting device for cross-wired bales
- › High availability due to wear-resistant blades
- › Delivery complete with apron conveyor, all drives and electric control system
- › Optionally available with rotary shears for shredding of the wires
- › Compact material preparation system in combination with **BB** Bale Breaker

## BALE BREAKER

### BB

The BRT HARTNER **BB** Bale Breaker serves for unravelling 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 Bale Breaker 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 bales of 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
- › Compact material preparation system in combination with BRT HARTNER **BD** Bale Dewatering Unit

	<b>BB</b>
Working width	1,780 mm
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	15 – 26 kW
Weight from	10 t
Throughput up to	20 bales/h



## FEED AND METERING HOPPER

D 17 | D 23 | D 29

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	D 23	D 29
Working width	1,700 mm	2,300 mm	2,900 mm
Number of conveyor slats	12 pieces	16 pieces	20 pieces
Fill level	1,900 mm		
Total height	2,500 mm		
Extension in steps of	2,000 mm		
Total length max.	17,900 mm	19,900 mm	
Hopper volume	13 – 46 m <sup>3</sup>	18 – 71 m <sup>3</sup>	33 – 88 m <sup>3</sup>
Power requirement	11 – 33 kW		
Weight from	7 t	9 t	11 t



## MOVING FLOOR CONVEYOR

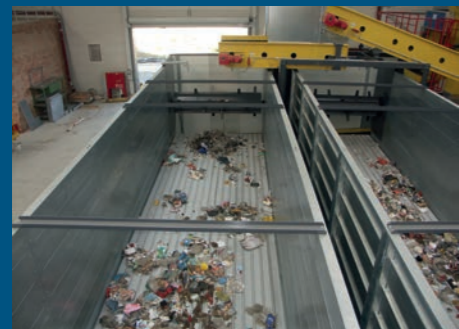
### MF 17 | MF 23 | MF 29

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.

The Moving Floors consist 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 adjustable
- › Easy integration into existing material bunkers
- › Also available as truck-accessible design for direct feeding
- › Moving floor without rotating parts, therefore no danger of entangling
- › High carrying capacity, safe against impact load
- › With metering and discharge devices upon request



	<b>MF 17</b>	<b>MF 23</b>	<b>MF 29</b>
Working width	1,700 mm	2,300 mm	2,900 mm
Number of conveyor slats	12 pieces	16 pieces	20 pieces
Height moving floor approx.	400 mm		
Fill level max.	1,800 mm	2,400 mm	3,000 mm
Moving floor length min.	6,500 mm		
Total length min.	8,000 mm		
Extension in steps of	2,000 mm		
Power requirement	4 - 22 kW		
Weight from	5 t	6 t	7 t



## DECOMPACTOR

DC 14/2 | DC 18/2 | DC 18/3

BRT HARTNER DC Feed Hoppers with Decompackers are used in mechanical and biological waste treatment facilities. They are especially suitable for the intake, buffering and dosing of rotting material, fines 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.

The 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.

- › Constant monitoring of the synchronization of the scraper chain conveyor
- › Either two or three decompaction rollers according to the filling height
- › Designed for heavy, biological material with a high share of fines
- › Exchangeable tools on the decompaction rollers
- › Breaking up bridging and intense loosening
- › Good dosing – even with uneven infeed
- › Bunker construction as closed tank

	DC 14 / 2	DC 18 / 2	DC 18 / 3
Working width	1,400 mm	1,800 mm	
Centre distance	7,250 / 10,000 / 12,750 mm		
Decompactor shafts	2 pieces		3 pieces
Hopper volume	10 – 19 m <sup>3</sup>	13 – 24 m <sup>3</sup>	19 – 35 m <sup>3</sup>
Throughput up to	200 m <sup>3</sup> /h		
Power scraping chain 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



## DIGESTATE MIXER DM 12 | DM 20

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 Digestate Mixer 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.

- › Unique combination of BRT HARTNER **DC** Decompactor and mixing unit of a turner
- › Two versions depending on filling by conveyor belt or by wheel loader
- › Scraper chain conveyor with monitoring of synchronization
- › Driven swivel device for the mixing unit to increase availability
- › Two, respectively three, rollers of the decompaction unit, depending on the construction design



	<b>DM 12</b>	<b>DM 20</b>
Useful length approx.	6,400 mm	11,900 mm
Useful width approx.	1,200 mm	2,000 mm
Filling height approx.	1,200 mm	1,700 mm
Hopper volume approx.	10 m <sup>3</sup>	40 m <sup>3</sup>
Feeding length approx.	1,500 mm	6,800 mm
Discharge width approx.	1,200 mm	2,000 mm
Diameter mixing roller approx.	750 mm	1,200 mm
Diameter of mixing / discharge rollers approx.	610 mm	
Throughput	36 – 180 m <sup>3</sup> /h	80 – 250 m <sup>3</sup> /h



## BALLISTIC SEPARATOR

BS 30 | BS 40 | BS 45 | BS 60 | BS 90 | BS 120

Depending on the kind of waste, the BRT HARTNER **BS** Ballistic Separator is available as **BSH**, **BSW** or **BSV** in different versions.

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.

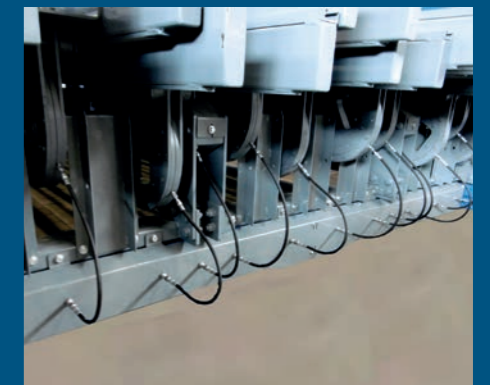
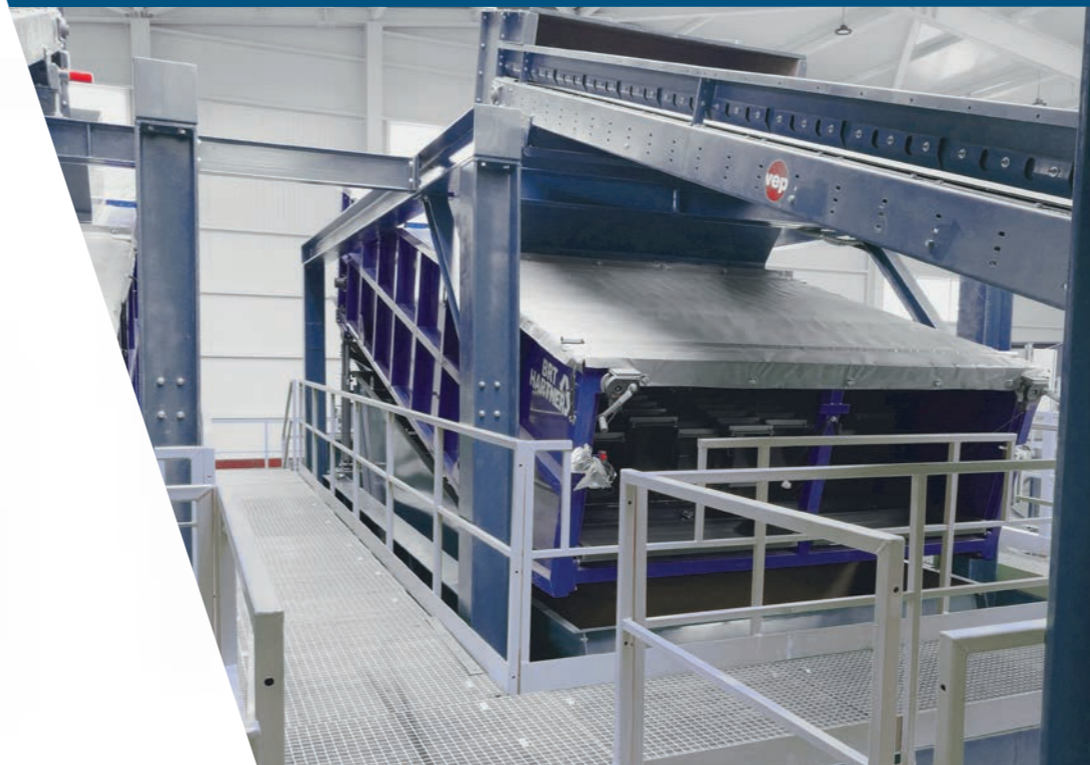
The BRT HARTNER **BSW** is a medium-heavy machine for household and commercial waste (single piece weight: < 20 kg). The reinforced paddles and sieve meshes are made of wear resistant steel. This ensures a long service life

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 BRT HARTNER **BSH** and **BSW** versions, both shafts of the **BSV** are driven by an electric gear motor with 22 kW drive power.

- › Different lengths and working widths for different throughput capacities
- › Three machine types for three special types of application
- › Unique straight shafts with individually exchangeable eccentric bearings
- › Exchangeable sieve grid plates on the paddles
- › Sturdy construction with easy access to maintenance points
- › Central greasing of the bearings and hand-hydraulic inclination adjustment
- › Numerous additional options available



	BS 30	BS 40	BS 45	BS 60	BS 90	BS 120
Useful width	1,387 mm	2,070 mm		2,770 mm	4,150 mm	5,540 mm
Paddle length	5,080 mm			6,300 mm		
Drive power	11 kW		11 kW *		22 kW	
Throughput	30 - 35 m <sup>3</sup> /h	40 - 45 m <sup>3</sup> /h	45 - 60 m <sup>3</sup> /h	60 - 90 m <sup>3</sup> /h	90 - 120 m <sup>3</sup> /h	120 - 200 m <sup>3</sup> /h
Sieve area approx.	7 m <sup>2</sup>	11 m <sup>2</sup>	13 m <sup>2</sup>	17 m <sup>2</sup>	25 m <sup>2</sup>	34 m <sup>2</sup>
Number of paddles	4	6		8	12	16
Height - machine frame	1,500 mm					
Length - machine frame	5,900 mm			7,100 mm		

\*drive power of the BSV version 22 kW

## PAPERSORTER

BPS 12 | BPS 14 | BPS 16 | BPS 20 |  
BPS 22 | BPS 30 | BPS 45

The BRT HARTNER **BPS** Papersorter is suitable within the range of the waste paper assortment both for the separation from paper and cardboard boxes and for the fine sorting of the problematic disruptive material in the waste paper, here particularly also for the improvement of the deinking quality.

The Papersorter utilises the proven elements of the BRT HARTNER **BS** Ballistic Separator. By using several screen decks, it is possible to rotate the material and thus prevent undersized particles from being carried over. Foldable maintenance platforms within the machine facilitate servicing.

- › Sturdy machine-design for durable application
- › Shaft with patented eccentric bearings
- › Robust changeable bearings
- › Adjustable screen holes
- › Many types for different purposes
- › Screw-on screen plates
- › Easy to maintain
- › High housing
- › For fine and coarse screening



	<b>BPS 12</b>	<b>BPS 14</b>	<b>BPS 16</b>	<b>BPS 20</b>	<b>BPS 22</b>	<b>BPS 30</b>	<b>BPS 45</b>
Model	1 Deck			2 Decks			3 Decks
Paddle width	338 mm						
Useful width	2,070 mm		2,770 mm	2,070 mm		2,770 mm	
Paddle length	5,300 mm	6,300 mm		2 x 4,300 mm	2 x 5,300 mm		3 x 5,300 mm
Outlet opening	258 mm						
Drive power	11 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 m <sup>2</sup>	13 m <sup>2</sup>	17.3 m <sup>2</sup>	17.6 m <sup>2</sup>	21.8 m <sup>2</sup>	29.1 m <sup>2</sup>	43.6 m <sup>2</sup>
Number of paddles	6		8	12		16	24



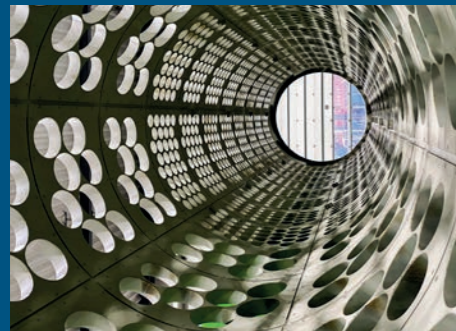
## SCREEN DRUM SD 21 | SD 25 | SD 30

BRT HARTNER 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 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 six different lengths. The Screen Drum is extremely sturdy. The bearing races, radial wheels, screen sheets and other wear parts have a very long lifespan.

- › Extremely sturdy construction design of the screen drum and the frame
- › Screen hole size up to max. 300 mm, either rectangular or round
- › Entanglement protection with flat bars or tube sleeves
- › Screwable, exchangeable screen elements
- › Driven by durable heavy duty support wheels (press-on tyres)
- › With infeed chute and lighting as a standard
- › Including safety switch and key interlock system
- › Protection against unintentional rotation of the drum due to motor brakes
- › Electric control system with control cabinet available as optional additional equipment



	<b>SD 21</b>	<b>SD 25</b>	<b>SD 30</b>
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 m <sup>2</sup>	54 m <sup>2</sup> - 92 m <sup>2</sup>	74 m <sup>2</sup> - 130 m <sup>2</sup>
Thickness of screen plates	8 or 10 mm		
Drum inclination	4°		
Number of radial wheels	4	8 or 12	
Drive	11 kW	15 - 30 kW	
Total weight	15 t	22 - 28 t	28 - 36 t



## TROMMEL SCREEN ST 20 | ST 22 | ST 25

The BRT HARTNER **ST** Trommel Screens are designed for stationary plants. Therefore they are electrically driven and firmly mounted onto a substructure.

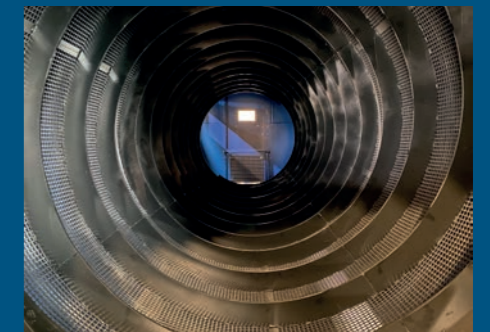
The application range is very versatile and includes compost, all kinds of soil or wood as well as

household waste or metal. The screening of fine particles up to 80 mm grit size is the priority with this machine.

If requested, the Trommel Screen can also be equipped with entanglement protection or a cleaning device with a rotating brush and a scraper. A housing made of sheet steel completes the scope of supply.

- › Horizontal layout with two internal screw conveyors
- › Hand-hydraulic operation of the upper maintenance flaps
- › Central securing of the lower maintenance flaps with safety switches
- › Screen hole sizes up to max. 80 mm, either rectangular or round
- › Cleaning device round brush and scraper optionally available
- › Entanglement protection alternatively available with flat bars
- › Bolted, replaceable screen elements available as an option
- › Electric control unit with switch cabinet as additional equipment

	ST 20	ST 22	ST 25
Trommel diameter	2,000 mm	2,200 mm	2,500 mm
Length of sieving surface	3,500 – 8,000 mm		8,000 mm
Total length of drum body	4,500 – 9,100 mm		9,000 mm
Total sieving area	20 – 50 m <sup>2</sup>	24 – 55 m <sup>2</sup>	63 m <sup>2</sup>
Thickness of screen plates	6 or 8 mm		
Internal screw	120 mm	180 mm	
Trommel inclination	0°		
Number of radial wheels	4		
Drive	11 kW	15 kW	22 kW



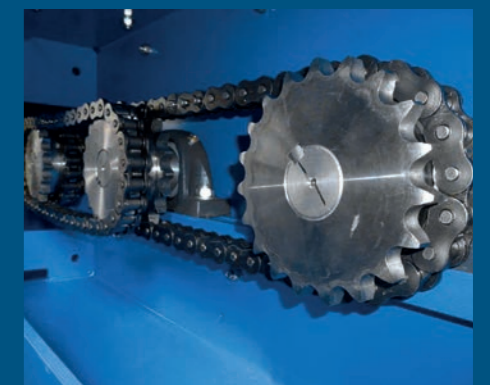
## COARSE SCREEN

SC 40 | SC 60 | SC 90

BRT HARTNER **SC** Coarse 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 screen 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		
Length approx.	4,000 mm	6,000 mm	9,000 mm
Screen surface approx.	6.7 m <sup>2</sup>	9.8 m <sup>2</sup>	15.3 m <sup>2</sup>
Weight approx.	3.5 t	5.1 t	7.8 t
Screen cut	> A4		
Number of rotor elements	10	15	22
Number of discs per element	8		
Power requirement	3 kW	6 kW	9 kW
Throughput up to	10 t/h	20 t/h	30 t/h



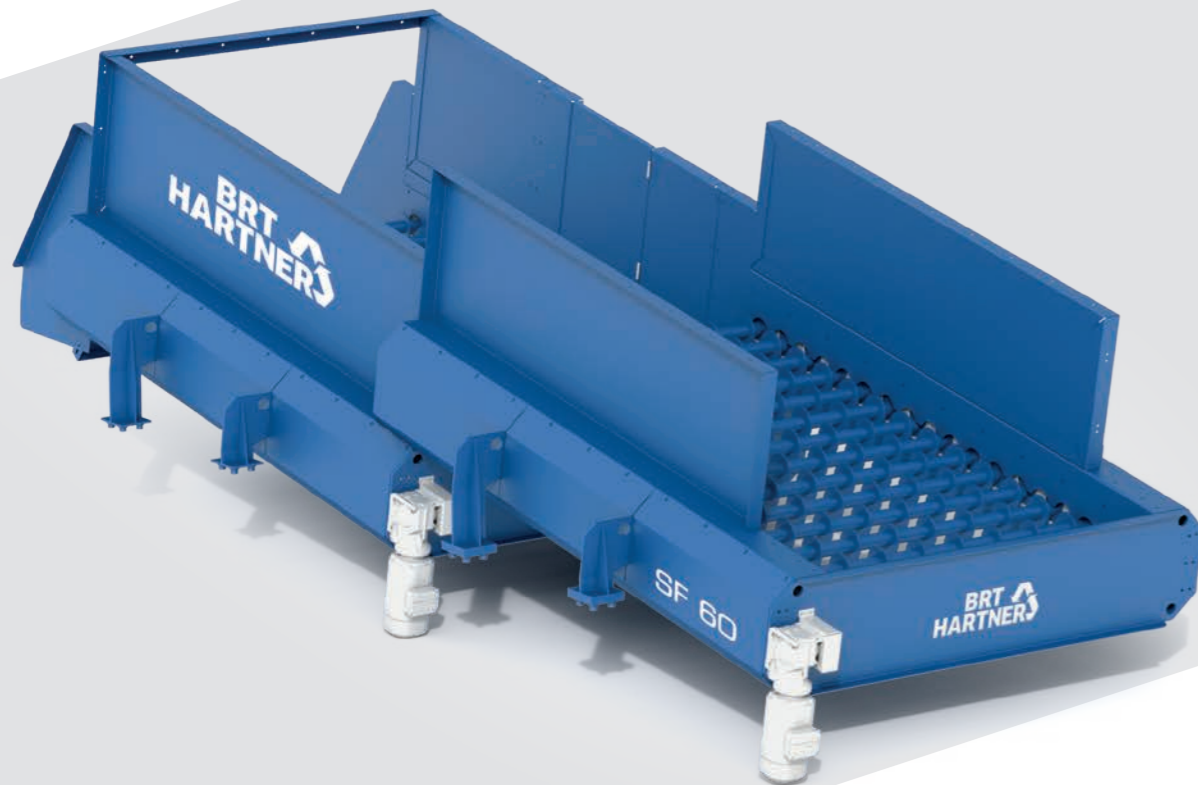
## FINE SCREEN

SF 40 | SF 60 | SF 90

The BRT HARTNER **SF** Fine Rotor 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		
Length approx.	4,000 mm	6,000 mm	9,000 mm
Screen surface approx.	6.7 m <sup>2</sup>	9.8 m <sup>2</sup>	15.3 m <sup>2</sup>
Weight approx.	2.9 t	4.5 t	7.0 t
Screen cut	> 100 mm		
Cascade	-	500 mm	
Number of rotor elements	24	36	54
Number of discs per element	15 - 19		
Power requirement	2.2 kW	4.4 kW	6.6 kW
Throughput mixed paper up to	7 t/h	12 t/h	18 t/h



## STAR SCREEN STS

The BRT HARTNER **STS** Star Screens are primarily designed for screening biological materials such as compost, wood chips or bark mulch. Additionally, they are also used for applications like bottom ash in incineration plants. The elasticity of the high-quality sieve stars allows them to be used even in moist and slightly adhesive materials. The screen cut can be changed and adjusted by selecting different screen star sizes and

changing the spacing. Large pieces of material are gradually moved by the rotating screen stars across the screening surface to the discharge point. Fine particles fall through the gaps between the screening stars and the shafts. The star screen machine has a whole range of special features that make it unique and extremely efficient. The self-cleaning effect significantly reduces operating costs.

- › Screen stars made of high-quality and highly elastic plastic
- › DURAMAX cleaning elements for effective cleaning of the sieve gaps
- › QuickChange-System for easy and safe replacement of the screen shafts
- › Split-Speed-Method for different and even alternating speeds
- › Extremely high throughputs with maximum separation quality and low cleaning effort
- › By default with a PVC tarpaulin as a machine cover
- › By default with an electrical control unit and with switch cabinet
- › Alternatively machine covers made of stainless steel
- › Separation quality of up to 90 % depending on the material and the moisture



	<b>STS</b>
Working width	1,250 mm
Screen deck lengths	3,500 mm, 5,300 mm or 7,500 mm
Sieving area up to max.	9.4 m <sup>2</sup>
Screen cut	8 – 150 mm
Number of star screen shafts	min. 14 to max. 57 pieces
Size of screen star	diameters 166, 340 or 350 mm
Number of fingers per screen star	8 or 12
Drive power	11 – max. 29 kW
Throughput	100 – 170 m <sup>3</sup> /h



## AIR BELT SEPARATOR BBS 10 | BBS 16

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

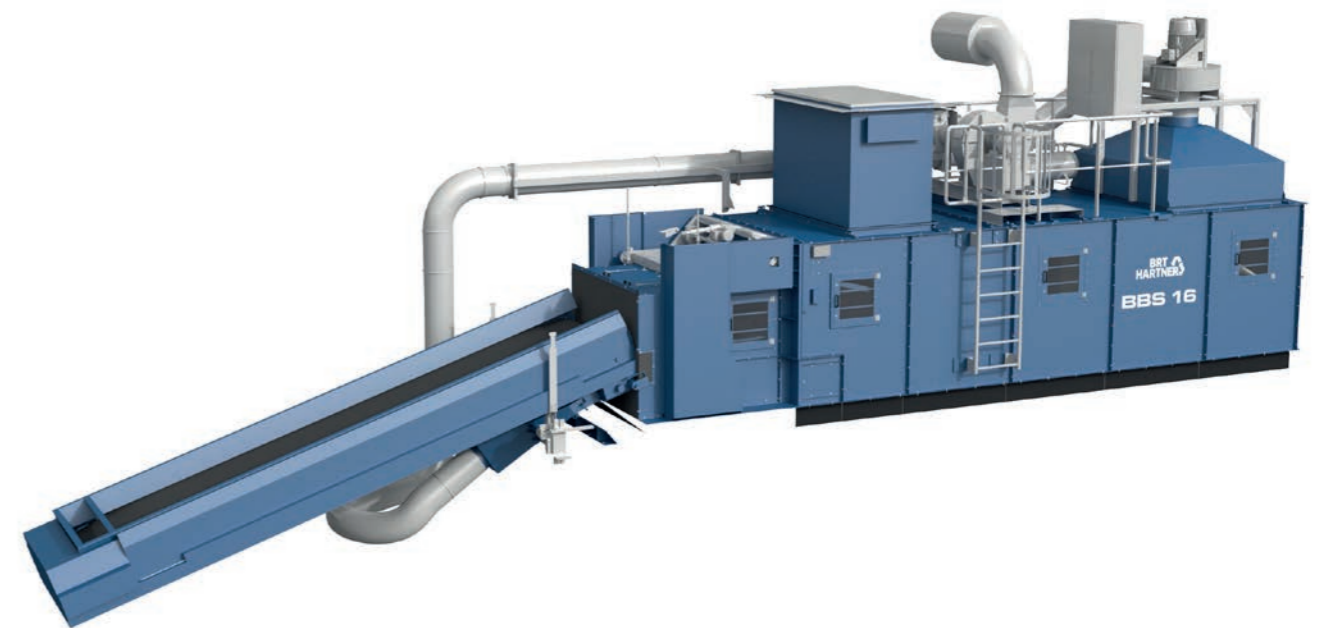
The infeed material is evenly fed onto the corresponding acceleration belt. It passes a nozzle in free fall that is located under the head of the acceleration belt. Very light components are blown out of the stream over the arch belt directly into the settling chamber. In the transfer area, very heavy parts fall down on a heavy material 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. This process avoids the costs for complex dust extraction systems.



	<b>BBS 10</b>	<b>BBS 16</b>
Working width	1,000 mm	1,600 mm
Throughput up to	100 m <sup>3</sup> /h	160 m <sup>3</sup> /h
Total length	9,200 mm	
Total width	1,800 mm	2,300 mm
Total height	4,470 mm	
Installed electrical power	27 kW	42 kW
Arch belt	2.2 kW	
Acceleration belt	4 kW	
Fan for nozzle	15 kW	22 kW
Fan for underpressure generation	7.5 kW	15 kW
Lifting device for curved belt	2.2 kW	



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

## AUTOMATIC SORTER

AS 10 | AS 14 | AS 20 | AS 28

The BRT HARTNER **AS** Automatic Sorter is a high-performance, automatic system for the optical sorting of packaging, plastics, metals and similar materials. It is ideal for substitute fuel production, to separate plastic types, to remove contaminants or for pre-treatment before chemical recycling. The system can be customised to the requirements of the specific material flow. Thanks to the high precision and speed, a consistently high discharge rate and product purity is achieved even at maximum machine throughput. The high efficiency and flexibility of the system, combined with an optimal lighting concept, reduce operating costs and ensure future-proof solutions.

With its multi-sensor analysis system, the **AS** Automatic Sorter utilises the full potential of a modern AI-based setup. The basis for this is the proven sensor fusion technology.

The system consists of an acceleration belt, a sorting module and a collection hood. The objects are distributed on the acceleration belt and fed to the sorting module at high speed. The objects are recognised by the sensors and removed from the material flow by a blast of compressed air.

Depending on the equipment variant, different sensors are integrated into the sorting module for detection by means of sensor fusion. All measured values are already calculated without loss and without further interfaces at raw data level in just one evaluation unit. Additional detection and outsourcing of data to other, upstream evaluation units are therefore not necessary. On this basis, all recorded data is available to artificial intelligence (AI) unfiltered, thus significantly increasing sorting efficiency.



	AS 10	AS 14	AS 20	AS 28
Working width	1,000 mm	1,400 mm	2,000 mm	2,800 mm
Material size	30 - 300 mm			
Material density	50 - 100 kg / m <sup>3</sup>			
Throughput	max. 50 m <sup>3</sup> / h	max. 70 m <sup>3</sup> / h	max. 100 m <sup>3</sup> / h	max. 140 m <sup>3</sup> / h
Electrical connection	approx. 5 kW		approx. 8 kW	

- › Sensor fusion basic concept with four sensors whose measured values are integrated at the raw data level
- › NIR sensor: HSI camera (hyperspectral imaging camera) of the latest design with the highest resolution (standard)
- › Optional retrofitting and integration of additional sensors (RGB colour camera, 3D sensor or metal sensor)
- › Spectrum AI as standard – optionally expandable to AI for differentiating defined objects (object AI)
- › Loss-free evaluation of data in just one system without interfaces
- › High degree of in-house production and development with rapid adaptability
- › Cost-orientated lighting system with freely available light sources
- › Easily accessible for cleaning and maintenance work

# UNIVERSAL SHREDDER

BM 21 | BM 29 | OM 29 | BM 36 | OM 36

The BRT HARTNER **ARCTOS** is one of the most versatile stationary shredders on the market.

It covers a wide range of applications from coarse pre-shredding – even with the most difficult material – to finished end products, thanks to its unique screen basket system and the cutting gap adjustment of the counter teeth.

The machine is flexibly adjustable to the given conditions, such as input material, throughput and desired final grain size. This means it can also be easily integrated into existing recycling processes and plants.

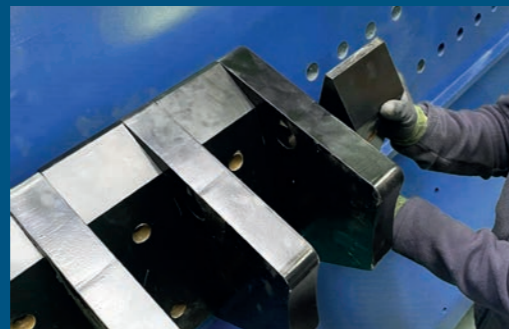
Its robust steel construction enables it to withstand even the highest strains. This ensures a long-lasting and continuous shredding process as well as an even discharge of the

processed material to downstream conveying systems.

Maintenance requirements are kept to a minimum. For daily checks, the shredding chamber is opened directly on the machine. This ensures both convenient and safe access. All wear parts are bolted and easy to replace or weld on.

The wide range of variants in the **ARCTOS** series offers the right solution for all applications and requirements. Depending on the necessary throughput, the OM model is available with rotor lengths of 3.6 m or 2.9 m and a powerful 2 x 200 kW drive. The BM model series is equipped with a cost-optimised 160 kW or 200 kW drive. In addition to rotor lengths of 3.6 m and 2.9 m, the machine with an additional rotor length of 2.1 m is a particularly space-saving version of the **ARCTOS** shredder.

- › Optimum feeding width even for large wheel loaders or grabs
- › Load monitoring and reverse function offer maximum safety in the event of disruptive objects
- › Quick, tool-free adjustment of the cutting gap using perforated plates
- › The strip or hex screen baskets can be changed quickly and easily
- › Counter teeth in an easy-to-handle, bolted segment design.
- › Extremely long rotor service life thanks to unique cover with marathon armour plates
- › Easy rotor replacement
- › Drive and control elements as a compact unit in a power pack
- › Easy transport without oversize widths



	<b>BM 21</b>	<b>BM 29</b>	<b>OM 29</b>	<b>BM 36</b>	<b>OM 36</b>
	Electro-hydraulic				
Power	160 or 200 kW	200 kW	2 x 200 kW	200 kW	2 x 200 kW
Rotor teeth	28	38		48 or 36	
Counter teeth	15	20		25	
Segments	3	4		5	
Rotor speed	10 – 35 rpm				
Rotor length	2,110 mm	2,835 mm		3,560 mm	
Rotor diameter	610 mm				
Flight circle rotor tooth	982 mm				
Length	4,150 mm	4,875 mm		5,600 mm	
Width	2,875 mm				
Height	4,990 mm				
Volume infeed funnel	5 m <sup>3</sup>	8 m <sup>3</sup>		11 m <sup>3</sup>	
Loading edge (height)	3,630 mm				
Infeed width	2,150 mm	2,900 mm		3,600 mm	
Weight shredding unit	13,000 kg	15,200 kg	15,700 kg	17,500 kg	18,000 kg
Weight Powerpack	5,200 kg		6,500 kg	5,200 kg	6,500 kg





**BRT HARTNER GmbH**  
Lengericher Straße 1  
49479 Ibbenbüren  
Germany

[www.brt-hartner.de](http://www.brt-hartner.de)  
E-Mail: [sales-BRT-HARTNER@f-e.de](mailto:sales-BRT-HARTNER@f-e.de)

1. All specifications, descriptions and illustrations are subject to change without prior notice.
2. Illustrations and descriptions may include options which are not part of the standard equipment.