STADLER
Ballistic separators

As a global market leader in ballistic separators, we are conscious of our pioneering role.

We are always listening to our customers all over the world – we offer a wide range of intelligent solutions for a huge variety of infeed materials.

Ballistic separators overview

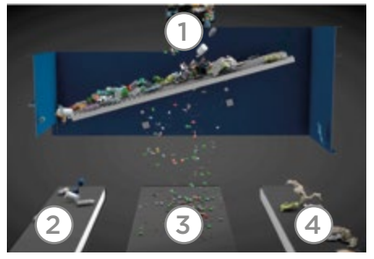
Our robust selection

STADLER ballistic separators stand out from the crowd thanks to a whole series of exclusive performance features.

Model shown
STT5000

- The pivoting frame with tilt adjustment means there is no need to tilt the entire machine. There is no longer any need to adjust the conveyors – saving time and money.
- Bolt-on screens, which can be replaced individually when they are worn
- Particularly robust construction
- Shafts with protective covers
- High energy efficiency
- Convenient features such as large maintenance openings – both above and below the working area.
- A real highlight is the stacking function of our STT2000 and STT5000 ballistic separators. This facilitates multi-level sorting of different particle sizes.
- The first of its kind – the STT6000 ballistic separator is the powerhouse for very special infeeds. It is able to efficiently sort construction, industrial and bulky waste, even if it has not been pre-sorted or shredded.

Type overview	Infeed material	Tilt adjustment
STT2000	· Paper/cardboard · Films and mixed hollow body products · Lightweight packaging · Plastic · Plastic fraction from domestic waste	Manual 0° – 25°
PPK2000	· Paper · OCC · Cardboard	Cannot be adjusted (pre-set to optimum value) 10°
STT5000	· Pre-screened MSW · Mixed industrial and bulky waste · Mixed construction waste	Hydraulic 7.5° – 25°
STT6000	· Unsorted and unshredded construction waste · Industrial waste · Bulky waste with individual pieces up to 100 kg	Manual 17.5° – 20°



1. Infeed material
2. Rolling fraction
3. Screened fraction
4. Flat fraction

Extracted fractions		Typical components
Rolling	2	Hard, heavy and typically 3D materials such as plastic containers, plastic bottles, wood, tins, stone
Screened	3	Materials smaller than the diameter of the paddle perforations
Flat	4	Soft, light and typically flat materials such as films, paper, textiles

STT2000 ballistic separator

PIVOTING FRAME

· With manual tilt adjustment between 0° and 25° for fast adjustment of sorting quality

EASY MAINTENANCE AND ADJUSTMENT

· Bolt-on screens
· Easy access to all areas of the machinery thanks to maintenance doors

SHAFT QUALITY

· Robust design for sorting dry waste
· Optimum rating of shaft stroke and speed – for maximum throughput and minimum machine vibrations

MODEL VARIETY

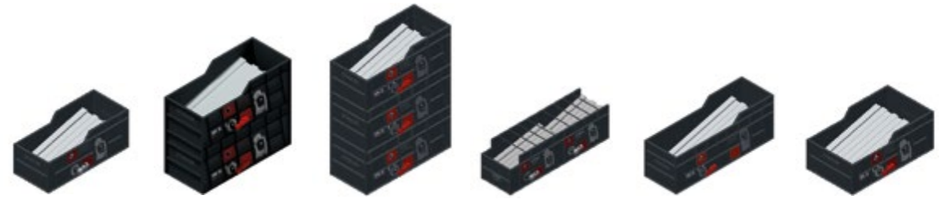
· A choice of various machine widths and lengths for high-efficiency sorting processes in line with the required throughputs

STACKING

· A maximum of three ballistic separators can be stacked to increase the separation quality for different particle size fractions

ADJUSTABLE OUTER SKIN

· For flexible design of the material infeed and plant integration



Type	STT2000_6_1	STT2000_6_2	STT2000_6_3	STT2000_6_2H	STT2000_6L_1	STT2000_8_1
L × W × H **	5.5 × 2.5 × 2.3 m	5.5 × 2.5 × 4.6 m	5.5 × 2.5 × 7.0 m	8.1 × 2.5 × 2.4 m	7.4 × 2.5 × 2.3 m	5.5 × 3.2 × 2.3 m
Drive power	4 kW	2 × 4 kW	3 × 4 kW	2 × 4 kW	4 kW	2 × 4 kW
Number of paddles	6	2 × 6	3 × 6	2 × 6	6	8
Screen area	8.8 m^2	2 × 8.8 m^2	3 × 8.8 m^2	2 × 8.8 m^2	13.1 m^2	11.7 m^2
Weight	6 t	12 t	18 t	12 t	7 t	8 t
Volume flow*	60 m^3/h with screen covering 45 mm	90 m^3/h with screen covering 45 mm bottom and 120 mm top	125 m^3/h with screen covering 45 mm bottom, 120 mm centre, 120 × 240 mm top	65 m^3/h with screen covering 45 mm	65 m^3/h with screen covering 45 mm	85 m^3/h with screen covering 45 mm

* The values given are reference values and may vary according to particle size distribution, screen perforation sizes and material composition. Throughput rates can be calculated exactly based on tests carried out in our Technology Centre.
** Widths without drive motor

PPK2000 ballistic separator

For separating paper, OCC and cardboard – without 3D fractions

PADDLES

· Z-shaped paddles for effective separation of paper and cardboard
· Bolt-on coverings with different perforations and surfaces for easy maintenance and adjustment

MAINTENANCE DOORS

· For convenient access to all machine areas

SHAFT QUALITY

· Robust design for sorting dry waste
· Optimum rating of shaft stroke and speed – for maximum throughput with minimal machine vibrations

ADJUSTABLE OUTER SKIN

· For flexible design of the material infeed and plant integration

Paddles
Z-shaped with fall stage

Maintenance doors
Easy access to the inside of the separator for maintenance and cleaning

Type	**PPK2000_6_1**
L × W × H**	5.8 × 2.5 × 2.4 m
Drive power	4 kW
Number of paddles	6
Screen area	13 m^2
Weight	6 t
Volume flow*	60 m^3/h with screen covering 300 × 250 mm

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** Widths without drive motor

Feature
Special paddle adaptation for optimised separation of cardboard

STT5000 ballistic separator

PIVOTING FRAME

· With hydraulic tilt adjustment between 7.5° and 25° for easy adjustment of sorting quality

PADDLES

· Bolt-on coverings with different perforations and surfaces for easy maintenance and adjustment.
· Very robust design for processing flows of moderately heavy and heavy materials

MAINTENANCE DOORS

· For convenient access to all areas of the machinery

SHAFT QUALITY

· Robust design for sorting moist waste.
· Optimum rating of shaft stroke and speed – for maximum throughput and minimum machine vibrations

MODEL VARIETY

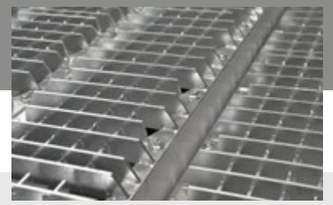
· A choice of various machine widths and lengths for high-efficiency sorting processes in line with the required throughputs

MODULAR STACKING

· A maximum of two ballistic separators can be stacked to increase separation quality for different particle size fractions

ADJUSTABLE OUTER SKIN

· For flexible design of the material infeed and plant integration



Paddles
The paddles are made of special profiles that are 10 mm thick

Maintenance doors
Easy access to the inside of the separator for maintenance and cleaning

Hydraulic adjustment
Tilt angle of the paddles can be adjusted

Pivoting frame
Extremely robust materials and construction

Type	STT5000_4_1	STT5000_6_1	STT5000_6_2	STT5000_8_1
L × W × H**	6.9 × 1.8 × 3.2 m	6.9 × 2.5 × 3.2 m	6.9 × 2.5 × 5.8 m	6.9 × 3.2 × 3.2 m
Drive power	9.2 kW	11 kW	2 × 11 kW	2 × 9.2 kW
Number of paddles	4	6	2 × 6	8
Screen area	7.5 m^2	11.3 m^2	2 × 11.3 m^2	15 m^2
Weight	10 t	13 t	26 t	17 t
Volume flow*	45 m^3/h with screen covering 50 mm	70 m^3/h with screen covering 50 mm	100 m^3/h with screen covering 50 mm bottom and 130 mm top	95 m^3/h with screen covering 50 mm

* The values given are reference values and may vary according to particle size distribution, screen perforation sizes and material composition. Throughput rates can be calculated exactly based on tests carried out in our Technology Centre.
** Widths without drive motor

Specially designed for large material

Thanks to generously sized material outlets and completely smooth contours in the screen outlet, the STT6000 can sort individual particles that are up to two metres long.

SHAFT QUALITY

· Single-piece cast shafts with an extra-large diameter provide extremely good stability without the need for additional supports inside the machinery

LUBRICATION

· Since the labyrinth sealing gaps are filled with grease during operation via the lubricant holes in the shafts, the multi-sealed shaft bearings do not require any additional lubrication

PADDLES

· The special layout of five paddles and very thick materials ensure low-vibration operation and maximum stability – even if the materials being sorted are incredibly heavy

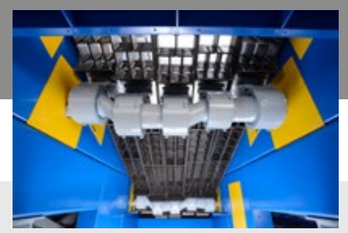
PROTECTION AGAINST WEAR

· The side walls around the paddles feature replaceable wear protection plates

MAINTENANCE DOORS

· For convenient access to all areas of the machinery

STT6000 ballistic separator



Shafts
280 mm for extreme stability

Lubrication
Central lubrication during operation

Two drives
Unique drive solution for prolonged shaft service life

Type	**STT6000_5_1**
L × W × H **	6.1 × 3.0 × 6.1 m
Drive power	2 × 18.5 kW
Number of paddles	5
Screen area	14.2 m^2
Weight	25 t
Volume flow*	200 m^3/h with screen covering 200 mm

* The values given are reference values and may vary according to particle size distribution, screen perforation sizes and material composition. Throughput rates can be calculated exactly based on tests carried out in our Technology Centre.
** Widths without drive motor

Landfill extraction
2-stage separation: screen 90–200 mm

Landfill extraction
Rolling > 200 mm

Landfill extraction
Large-surface fraction