**The Ballistic Separator**

### Input Material Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Typ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper, Cardboard</td>
<td>PPK</td>
</tr>
<tr>
<td>Light packaging, mixed paper and cardboard, film, drinking and detergent bottles</td>
<td>STT2000</td>
</tr>
<tr>
<td>Non-hazardous Industrial Waste, Construction and Demolition waste, Organic separation from Domestic Waste, Processing of Bulky Waste.</td>
<td>STT5000</td>
</tr>
</tbody>
</table>

### Separated materials:

- **Flat and light 2D:** Film, Paper, Cardboard, Textiles and fiberous materials
- **Fines:** The material will be separated dependant on the particle size and the diameter of the paddle perforations
- **Rolling and heavy 3D:** Plastic Containers, Bottles, Stone, Wood, Cans and Ferrous materials
### Our Ballistic Separators

<table>
<thead>
<tr>
<th>Type</th>
<th>STT 2000</th>
<th>STT 2000_102</th>
<th>STT2000_103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processed material</td>
<td>Light packaging material, mixed paper and cardboard, film, and plastic containers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>Directly after the in-feed of material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separating Levels</td>
<td>1 Level</td>
<td>2 Levels</td>
<td>3 Levels</td>
</tr>
<tr>
<td>Aim</td>
<td>Separation of the material stream into 3 fractions: 3D rolling, fines and 2D flats</td>
<td>Separation of the material stream into 4 fractions: 3D rolling, fines and 2D flat: 2 fractions</td>
<td>Separation of the material stream into 5 fractions: 3D rolling, fines and 2D: 3 fractions</td>
</tr>
</tbody>
</table>
| Results            | 3 extracted fractions:  
|                    | • 3D: different plastic containers, ferrous and non-ferrous materials  
|                    | • fines: materials which are smaller than the paddle perforations  
|                    | • 2D: paper, cardboard and film | 4 extracted fractions:  
|                    | • 3D: different containers fines: shredded materials  
|                    | • 2D: 2 different fractions according to the diameter. The smallest could be used as RDF | 5 extracted fractions:  
|                    | • 3D: different containers fines: shredded materials  
|                    | • 2D: 3 different fractions according to the diameter. The 3rd level achieves better separation results |

<table>
<thead>
<tr>
<th>Type</th>
<th>STT_5000_101</th>
<th>STT_5000_102</th>
<th>PKK</th>
</tr>
</thead>
</table>
| Processed material | Non-hazardous Industrial Waste (Shredded or Unshredded)  
|                    | Bulky waste, Demolition waste, Domestic waste with organic separation | Paper and Cardboard |                          |
| Position           | • After the infeed (shredded or unshredded)  
|                    | • Fraction after the trommel screen in the volume flow < 300mm | Directly after the first material infeed |                          |
| Separating levels  | 1 Level                   | 2 Level                   | 1 Level                   |
| Ziele              | Material into 3 fractions: 3D rolling, fines and 2D flat | Material into 4 fractions: 3D rolling, fines and 2D flat: 2 fractions | Separation of the cardboard (>DIN A4) from the material stream mixed paper |
| Results            | 3 extracted fractions:  
|                    | • 3D rolling, heavy: plastic containers or different metals, stones, wood  
|                    | • fine: materials with a smaller granulation than the diameter of the paddle perforations.  
|                    | • 2D: paper, cardboard, film and textiles | 4 extracted fractions:  
|                    | • 3D rolling and heavy: different containers  
|                    | • fine: mixed materials with a smaller granulation than the diameter of the paddle perforations  
|                    | • 2D: 2 fractions according to size | 2 extracted fractions:  
|                    | • cardboard  
|                    | • Mixed paper |                          |                          |
The Ballistic Separator STT2000

Paddles for Separation
With perforations in various sizes and forms according to your requirements

Variability
Possible to combine up to 3 Ballistic Separators to achieve separation into various different sizes

<table>
<thead>
<tr>
<th>Type STT_2000</th>
<th>L x W x H</th>
<th>Drive output</th>
<th>Working area</th>
<th>Weight</th>
<th>Angle adjustment</th>
<th>Screen perforation</th>
<th>Material density</th>
<th>Grading</th>
<th>volume/mass flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>STT_2000_101</td>
<td>5.5 x 2.3 x 2.5** m</td>
<td>4 kW 400 V</td>
<td>8.4 m²</td>
<td>6t</td>
<td>10° - 25°</td>
<td>50 x 50</td>
<td>50 kg/m³</td>
<td>&lt;220 mm</td>
<td>60 m³/h* 3t/h</td>
</tr>
<tr>
<td>STT_2000_102</td>
<td>5.5 x 4.0 x 2.5** m</td>
<td>2 x 4 kW 400 V</td>
<td>2 x 8.4 m²</td>
<td>12t</td>
<td>10° - 25°</td>
<td>Above: 120 x 120 Below: 50 x 50</td>
<td>65 kg/m³</td>
<td>Refuse bags &lt;120 l</td>
<td>90 m³/h* 6t/h</td>
</tr>
<tr>
<td>STT_2000_103</td>
<td>5.5 x 5.7 x 2.5** m</td>
<td>3 x 4 kW 400 V</td>
<td>3 x 8.4 m²</td>
<td>18t</td>
<td>10° - 25°</td>
<td>Above: 120 x 240 Middle: 120 x 120 Below: 50 x 50</td>
<td>80 kg/m³</td>
<td>Refuse bags &lt;120 l</td>
<td>125 m³/h* 10t/h</td>
</tr>
</tbody>
</table>

* The values given are reference values and may vary according to grain size distribution, screen perforation sizes and material composition
** Throughput rates can be calculated exactly based on tests carried out in our Technology Centre (Please see next page)
The Ballistic Separator STT5000

Screening paddle
The paddles are made of 10 mm special steel plates

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

Hydraulic Adjustment
Easy Adjustment of the angle of the Paddles

Steel Structure
Extremely robust materials and construction

### Type STT_5000_101

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<thead>
<tr>
<th>L x W x H</th>
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<th>Working area</th>
<th>Weight</th>
<th>Angle adjustment</th>
<th>Material</th>
<th>Screen perforation</th>
<th>Material density</th>
<th>Grading</th>
<th>Volume/mass flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.8 x 2.5 x 2.5** m</td>
<td>11 kW 400 V</td>
<td>10.9 m³</td>
<td>13 t</td>
<td>15° - 25°</td>
<td>Co-mingled</td>
<td>50 x 50</td>
<td>100 kg / m³</td>
<td>Refuse bags &lt; 120 l</td>
<td>70 m³/h* 7t/h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Industrial waste</td>
<td>50 x 50</td>
<td>180 kg / m³</td>
<td>&lt; 300</td>
<td>80 m³/h* 15t/h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Industrial waste (pre-shredded)</td>
<td>130 x 130</td>
<td>200 kg / m³</td>
<td>&lt; 300</td>
<td>140 m³/h* 28t/h</td>
</tr>
</tbody>
</table>

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** Widths without motor
The Ballistic Separator PPK

**Screen Area**
Wide screening area with steel paddles

**Characteristics**
Special paddle adaption gives optimized Cardboard separation

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

<table>
<thead>
<tr>
<th>Type PPK</th>
<th>L x W x H</th>
<th>Drive output</th>
<th>Working area</th>
<th>Weight</th>
<th>Angle adjustment</th>
<th>Material</th>
<th>Screen perforation</th>
<th>Material density</th>
<th>Grading</th>
<th>Volume/mass flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPK</td>
<td>6.5 x 2.0 x 2.5 m</td>
<td>4 kW 400 V</td>
<td>12.6 m²</td>
<td>6.5t</td>
<td>- Mixed paper</td>
<td>300 x 250 mm</td>
<td>200 kg/m³</td>
<td>Material ≤ DIN A1</td>
<td>56 m³/h* 15t/h</td>
<td></td>
</tr>
</tbody>
</table>

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Throughput rates can be calculated exactly based on tests carried out in our Technology Centre (Please see next page).

** Widths without motor
Centre for Development and Progress STADLER®

In Stadler’s testing centre in Altshausen, we offer customers the opportunity to test their material on our machines. Here waste is run through a particular machine and the resulting fractions are weighed and analysed. This is also where new machines and standard units are continually tested for function, wear resistance, flexibility and efficiency.

Our Skills:
- Technical Know-how
- Competence
- Experience
- Motivation
- High Quality
- Responsibility

Our Services:
- Expert, on-site support
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- Professional Installation
- Professional Service and Maintenance

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Innovation
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True service only begins when the current project has been delivered; with strong support and service back up. We react quickly and reliably and carry out repairs in record time so that your downtimes are kept to a minimum. Service from STADLER® is based on your operational requirements. For this reason, STADLER® is the right partner for you.
Call us – we will provide you with all the information you need for your project.