Metal separator Metro SF 50 / 70 / 100 / 150

Dimensions Metro SF 50 / 70

Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum sensitivity 1)</th>
<th>Maximum throughput 2)</th>
<th>ØA</th>
<th>ØB</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro SF-050</td>
<td>0.4</td>
<td>2000 l/h</td>
<td>44</td>
<td>80</td>
<td>90</td>
<td>M8</td>
<td>15</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Metro SF-070</td>
<td>0.5</td>
<td>5000 l/h</td>
<td>68</td>
<td>80</td>
<td>90</td>
<td>M8</td>
<td>15</td>
<td>21</td>
<td>26</td>
</tr>
</tbody>
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Option Colorronic

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1) The stated detection sensitivity (ferrous ball Ø in mm) applies for nonconductive products at the standard operation frequency and refers to the centre of the detection aperture (most disadvantageous position). Products that show intrinsic conductivity due to moisture content, electrolytes or other conductive contents may reduce the sensitivity as well as variations of product temperature, environmental effects (mechanical shocks and vibrations, electromagnetic pollution) or the set product angle. The detectable size of metal particles depends on their nature, shape and position while passing the metal detector.

2) The stated throughput rate is based on well pourable granules. The shape of the particles and thus the flow characteristic of the bulk material determines the throughput rate which can vary. Upstream installed magnet separators may also reduce the throughput rate due to reduction of the cross section.

All dimensions in mm

Subject to change without notice !
Dimensions Metro SF 100 (Option Colortronic)

1. Control unit MS+ Control
2. Compressed-air connection
3. Separation unit
4. Inlet flange plate
5. Material outlet (Jacob pipe system)
6. Reject outlet (Jacob pipe system)

All dimensions in mm

Technical data

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<tr>
<th>Type</th>
<th>Maximum sensitivity (\varnothing) Ferrous ball</th>
<th>Maximum throughput (l/h)</th>
<th>Weight [kg]</th>
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<tbody>
<tr>
<td>Metro SF-100</td>
<td>0.7</td>
<td>12000</td>
<td>31</td>
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<tr>
<td>Metro SF-150</td>
<td>1.2</td>
<td>25000 l/h</td>
<td>40</td>
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All dimensions in mm
Technical data sheet Metro SF-50-150-1-TB-EN-V1.0.docx

Metal separator Metro SF 50 / 70 / 100 / 150

■ Conditions of use

Use: For inspecting free falling bulk materials in the plastics industry and similar applications in other industries as well as applications with low hygienic requirements.

Bulk material classification:
- Grain shape: Powder, Granulates, Flakes
- Max. grain size: Ball shape Ø < 8 mm
- Pourability: Good, medium, poor
- Attributes: Dry, damp, not abrasive, product effects (material conductivity) can be compensated
- Material flow: Free fall, falling height max 500 mm above top edge (No back draft of material), depressurized
- Bulk material temperature: Maximum +80° C
- Ambient conditions: -10° C to +50° C, 25% to 85% rH, no condensation
- Storage and shipping conditions: -10° C to +50° C, 25% to 85% rH, no condensation

■ Scope of delivery / Design / Connections

Scope of delivery: Metal separator comprising two modules, a detection module with the attached control unit MS+ Control and a separation module connected by a pull ring. Inlet and outlets made according to Jacob pipe system.

Mechanical design:
- Electronics housing: sheet steel, varnished, aluminium grey (RAL 9007)
- Detection unit: nominal width 30-70, cover plate varnished, aluminium grey (RAL9007) nominal width 100-250 cover plate stainless steel 1.4301 (AISI 304), surface brushed
- Separation unit complete: stainless steel 1.4301 (AISI 304), bead blasted
- Scanning pipe: PE-EL (electrical conductive to avoid false tripping)
- Parts in contact with product: stainless steel 1.4301 (AISI 304), PE-EL, Teflon, PA, aluminium surface brushed
- Compressed air connection: 5-8 bar; 6/8 mm hose connection
- Compressed air consumption: Metro SF 50, 70, 100: approx. 0.4 l / switch operation
  Metro SF 150: approx. 0.5 l / switch operation

Electrical design:
- Operating voltage: 100-240 VAC (±10%), 50/60 Hz
- Current consumption: approx. 300 mA / 115 V, approx.150 mA / 230 V
- Mains cable: 1.8 m with plug
- Ingress protection: IP 65 (rain shelter required if operated outdoor)
- Eject duration (metal impulse): adjustable from 0.05 to 60 sec
- Self-monitoring system: detection coil and outputs
- Scanning sensitivity: adjustable from 1% to 100%
- Operation: see technical data sheet for Control Unit MS+ Control

■ Accessories

- Visual alarm
- Failure indication
- Failure and metal indication
- Audible alarm
- Failure indication
- Failure and metal indication
- Combination alarm (visual alarm and audible alarm)
- Failure indication
- Failure and metal indication
- Filter control valve
- Counter (Detection counter) in a separate housing
- Push button for manual rejection in a separate housing
- Push button for functional test in a separate housing
- Test samples
- Reject outlet, connection piece with clamping ring and spiral tube (d=80mm), length 3 m

■ Options

- Compressed-air monitor
- Monitor system for separation unit
- Cable set for remote control unit: 3 m, 6 m, 10 m, 15 m
- Explosion-proof version ATEX
- US-power cable
- Model with improved wearout protection in plastics applications
- Pipe transition pieces, customized flanges
- Magnet systems for pre-removal of ferrous metals
- Inline magnet
- Magnet drum separator
- Special varnishes
- Special supply voltages
- Design for bulk material temperatures up to 140° C
- Design suitable for direct contact with food stuff