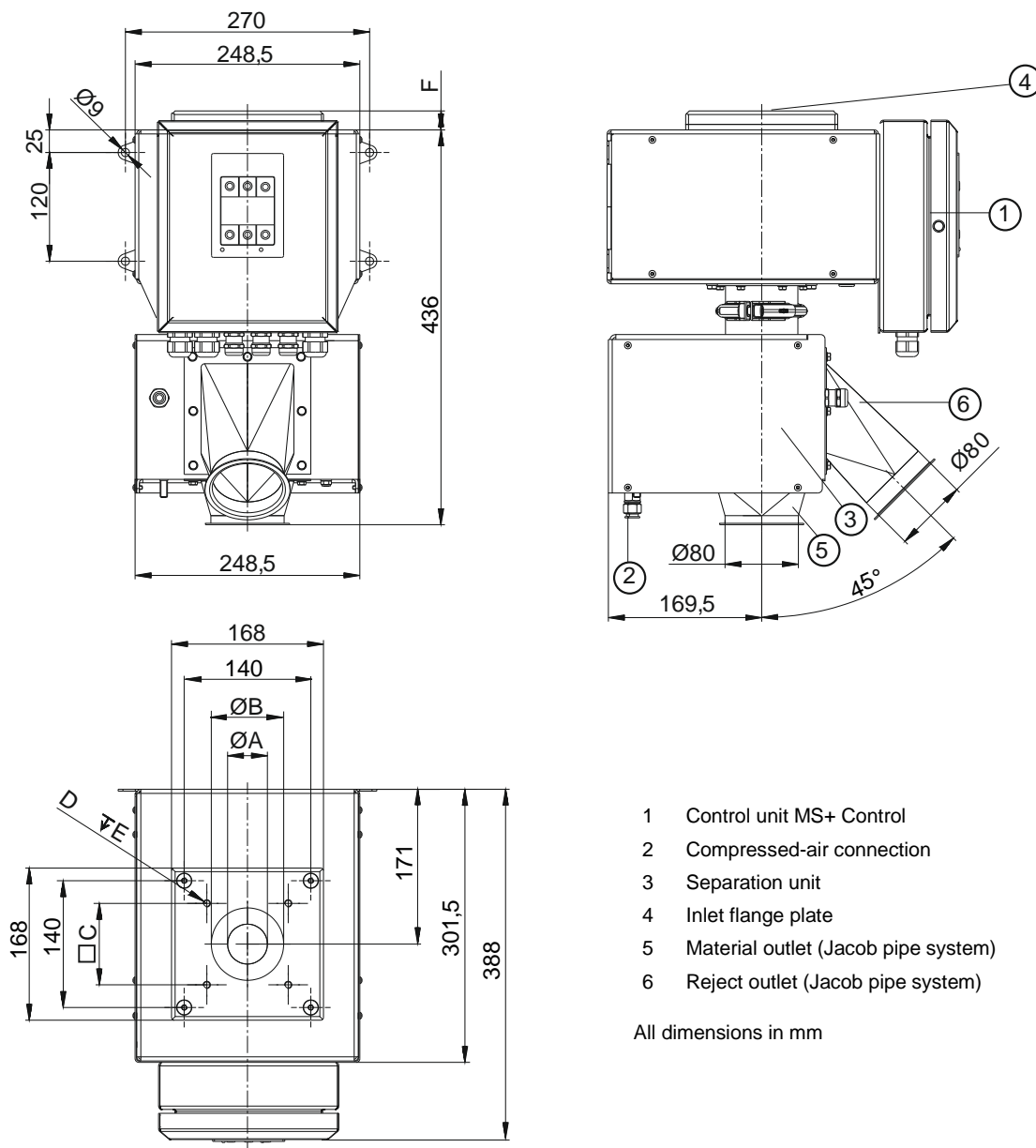


Metal separator Metro SF 50 / 70 / 100 / 150

■ Dimensions Metro SF 50 / 70



- 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

Type	Maximum sensitivity ¹⁾ Ø Ferrous ball	Maximum throughput ²⁾	ØA	ØB	C	D	E	F	Weight [kg]
Metro SF-050	0.4	2000 l/h	44	80	90	M8	15	21	26
Metro SF-070	0.5	5000 l/h	68	80	90	M8	15	21	26

Option Colortronic

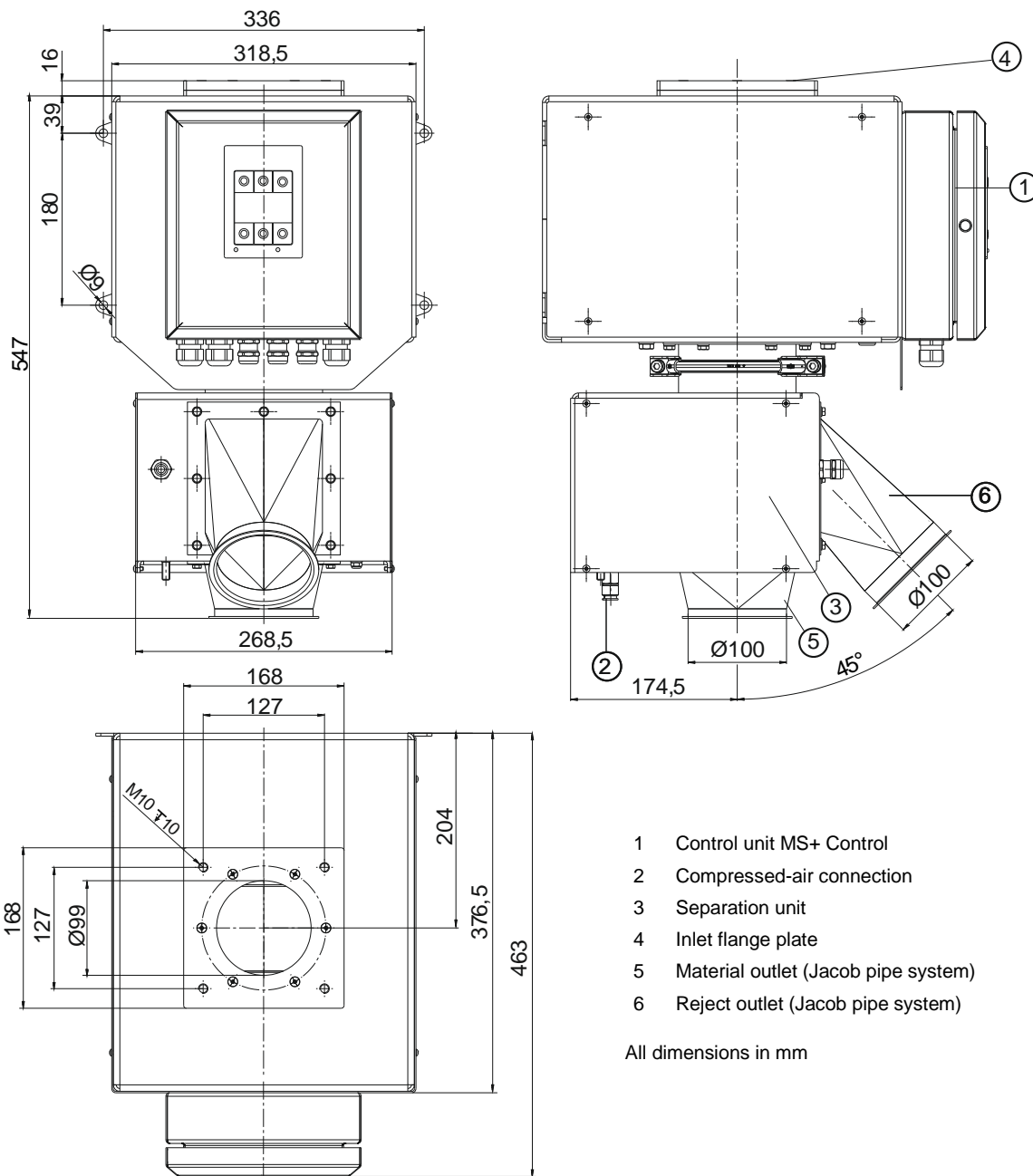
Metro SF-050	0.4	2000 l/h	44	50	110	M10	10	16	26
Metro SF-070	0.5	5000 l/h	/	68	110	M10	10	16	26

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 determine 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

Metal separator Metro SF 50 / 70 / 100 / 150

■ 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

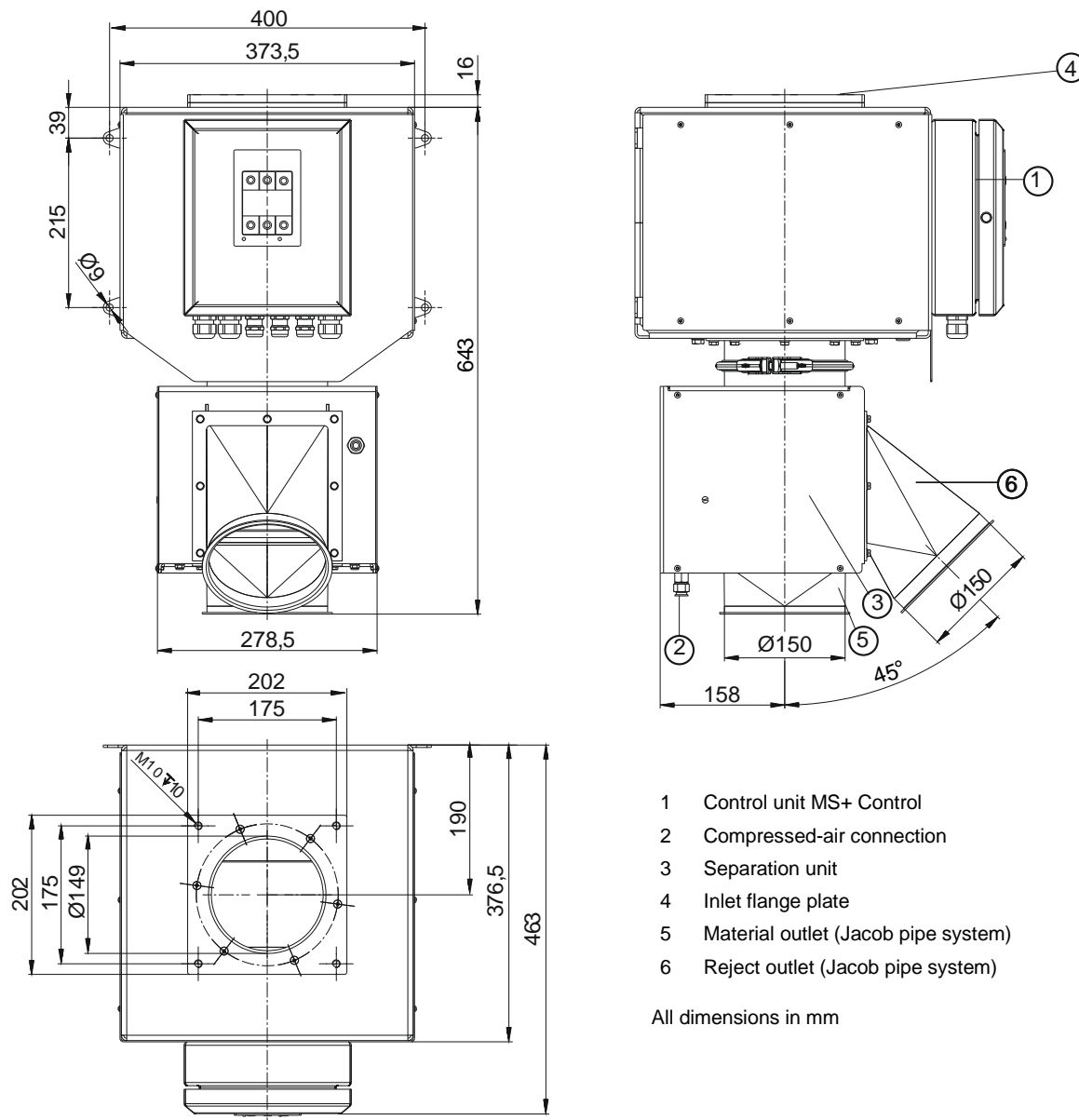
Type	Maximum sensitivity ¹⁾ Ø Ferrous ball	Maximum throughput ²⁾	Weight [kg]
Metro SF-100	0.7	12000 l/h	31

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 determine the throughput rate which can vary. Upstream installed magnet separators may also reduce the throughput rate due to reduction of the cross section.

Metal separator Metro SF 50 / 70 / 100 / 150

■ Dimensions Metro SF 150 (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

Type	Maximum sensitivity ¹⁾ Ø Ferrous ball	Maximum throughput ²⁾	Weight [kg]
Metro SF-150	1.2	25000 l/h	40

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 determine 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



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 moduls, a detection modul with the attached control unit MS+ Control and a separation modul 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
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

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

■ Options

- | | | |
|---|---|--|
| <input type="checkbox"/> Compressed-air monitor | <input type="checkbox"/> Explosion-proof version ATEX | <input type="checkbox"/> Cable set for remote control unit: 3 m, 6 m, 10 m, 15 m |
| <input type="checkbox"/> Monitor system for separation unit | <input type="checkbox"/> US-power cable | |

■ Special versions / Supplementary systems

- | | |
|---|--|
| <input type="checkbox"/> Special varnishes | <input type="checkbox"/> Model with improved wearout protection in plastics applications |
| <input type="checkbox"/> Special supply voltages | <input type="checkbox"/> Pipe transition pieces, customized flanges |
| <input type="checkbox"/> Design for bulk material temperatures up to 140° C | <input type="checkbox"/> Magnet systems for pre-removal of ferrous metals |
| <input type="checkbox"/> Design suitable for direct contact with food stuff | <input type="checkbox"/> Inline magnet |
| | <input type="checkbox"/> Magnet drum separator |