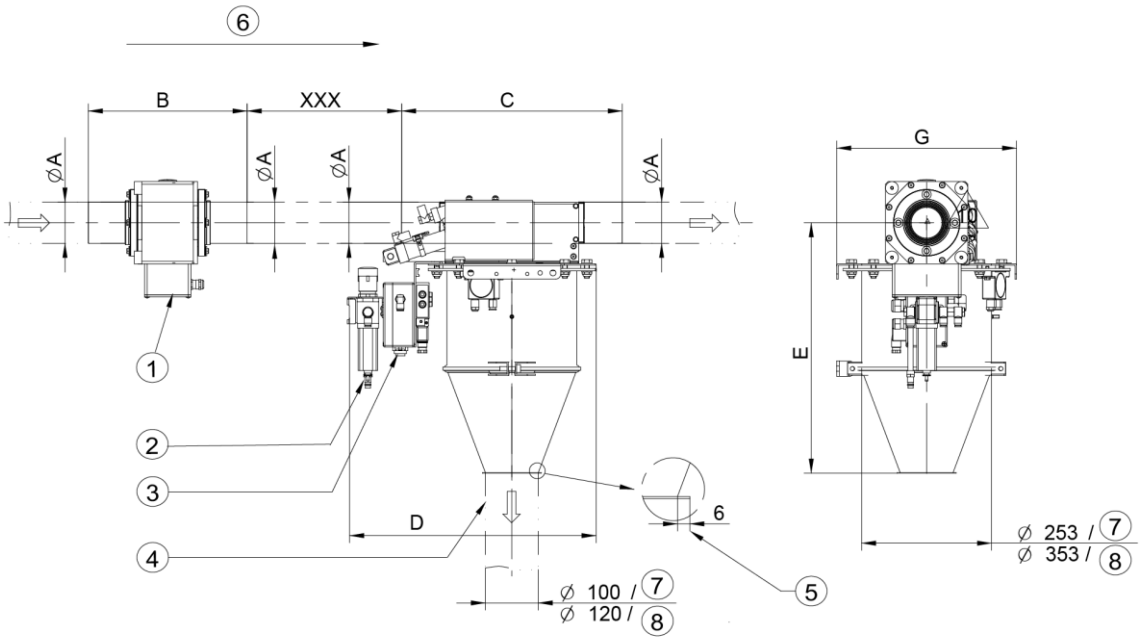
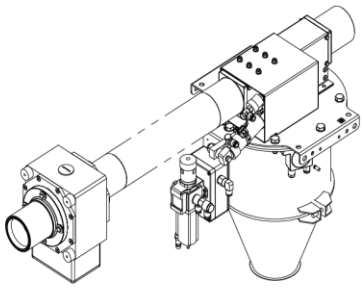
Dimensions





XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (usemultiplier 0.07 [s] from pipe diameter size 3)

1 Detector
2 Pneumatics
3 Monitoring
4 Rejects outlet
5 Jacob system
6 Conveying direction
7 Diameter valid for pipe diameter size 1+2
8 Diameter valid for pipe diameter size 3

	ø A	B	C	D	E	G	Weight [kg]*
Size 1	38, 45, 50, 55, 60, 65	270	340	482	693	350	ø38-50: 25 ø55-65: 35
Size 2	70, 76, 80	310	430	482	693	350	40
Size 3	89	420	1067	590	950	470	40
Size 4	100 **, 120 **	276	667	590	950	470	ø100: 50 ø120: 100

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)
** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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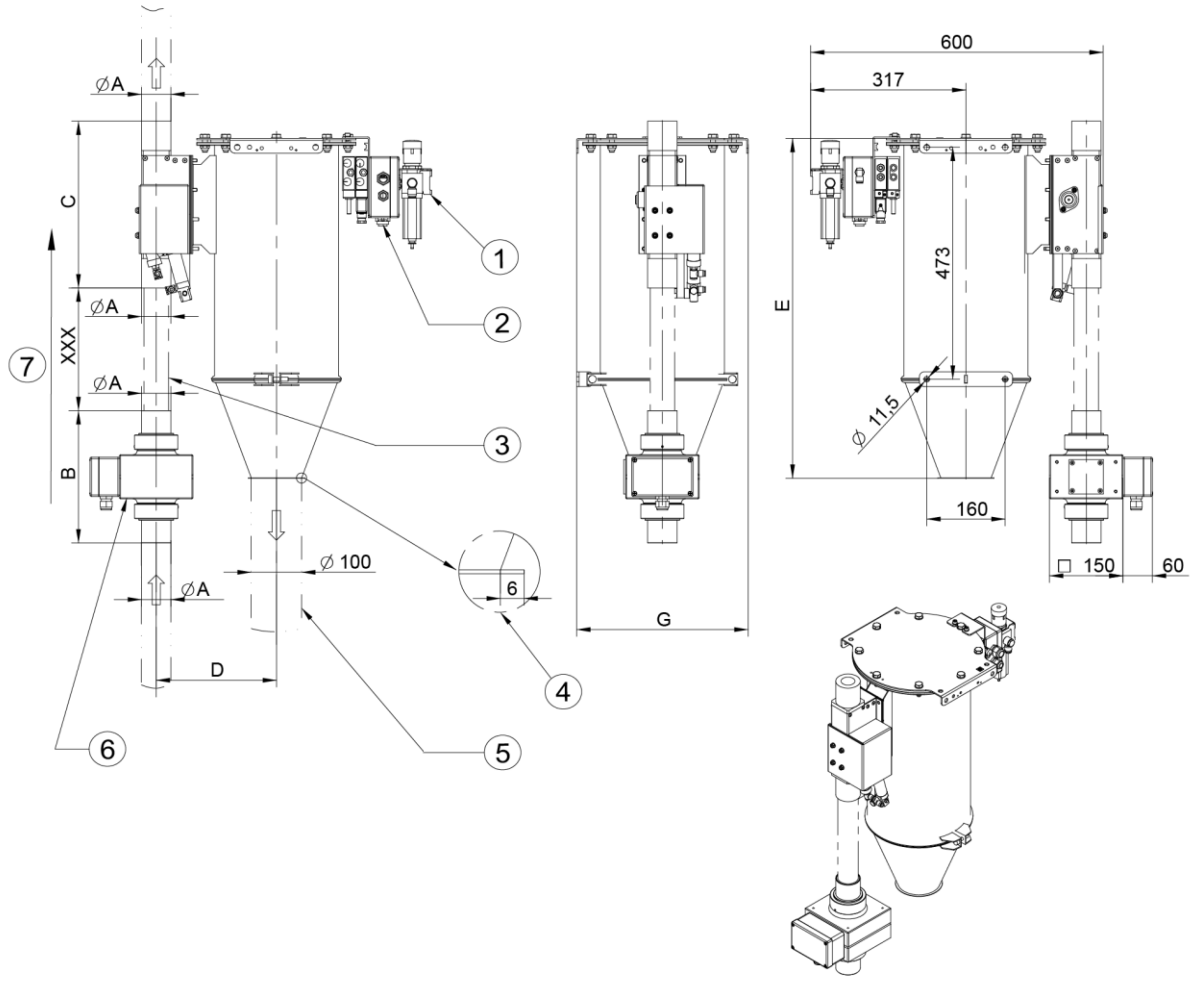
Dimensions – Vertical version (UP)



XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (use multiplier 0.07 [s] from pipe diameter size 3)

1 Pneumatics
2 Monitoring
3 Pipe, provided by customer
4 Jacob system
5 Rejects outlet
6 Detector
7 Conveying direction

	ØA	B	C	D	E	G	Weight [kg]*
Size 1	38, 45, 50, 55, 60, 65	270	340	246	693	350	ø38-50: 25 ø55-65: 35
Size 2	70, 76, 80	310	430	250	693	350	40
Size 3	89	420	1067	324	950	470	40
Size 4	100 **, 120 **	276	667	324	950	470	ø100: 50 ø120: 100

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)
** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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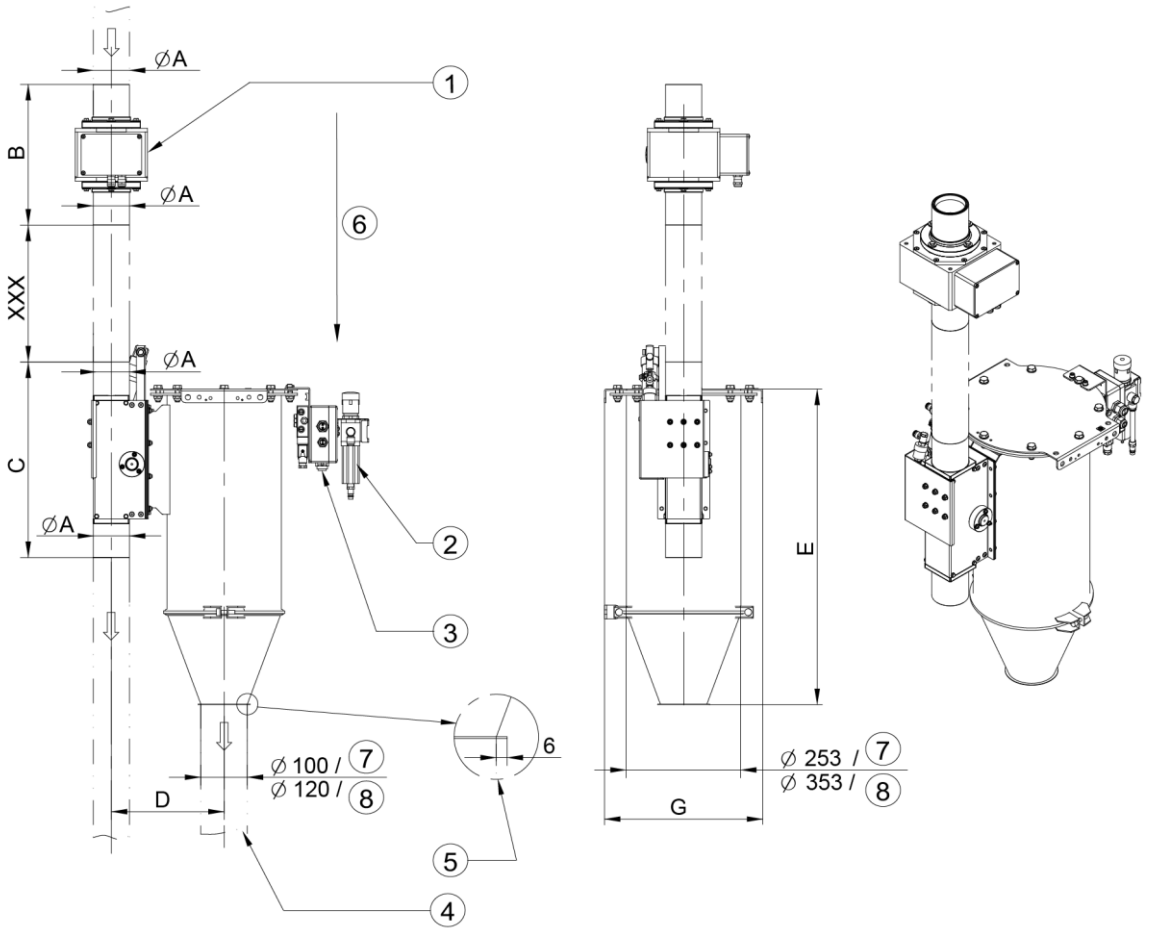
Dimensions – Vertical version (DOWN)



XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (use multiplier 0.07 [s] from pipe diameter size 3)

1. Detector
2. Pneumatics
3. Monitoring
4. Rejects outlet
5. Jacob system
6. Conveying direction
7. Diameter valid for pipe diameter size 1+2
8. Diameter valid for pipe diameter size 3

	ØA	B	C	D	E	G	Weight [kg]*
Size 1	38, 45, 50, 55, 60, 65	270	340	246	693	350	ø38-50: 25 ø55-65: 35
Size 2	70, 76, 80	310	430	250	693	350	40
Size 3	89	420	1067	324	950	470	40
Size 4	100 **, 120 **	276	667	324	950	470	ø100: 50 ø120: 100

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)
** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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Product description

The P-TRON FM PCR-C is a compact metal separator for **discontinuous suction conveying of bulk materials**. It can be flexibly integrated into **horizontal and vertical conveying lines**, reliably recognises and removes all types of metal and precisely separates them via a fast separation diverter.

With discontinuous conveying, the **reject material is automatically discharged via the pendulum flap** after each completed conveying cycle, ensuring a clean product flow. This keeps the material flow stable and material impurities are efficiently separated from the product – for trouble-free system operation.

Areas of application

The P-TRON FM PCR-C is suitable for applications in the **non-food** sector.

Non-food	For applications in the plastics, recycling and chemical industries, e.g. granulate, ground materials and powders, as well as in other industrial sectors with comparable products and requirements.
Hygienic requirement	Not suitable for the food sector.

Bulk material classification

Product shape	Granulate, round materials
Grain size	0.5 mm to 10 mm - *different specifications on request*
Properties of the bulk material	Dry - *Different specifications on request*
Flowability	Good (not bridging)
Type of material flow	Discontinuous suction conveying
Max. conveying speed	10 m/s to 30 m/s

Ambient conditions

Installation type	Horizontal installation (Version-H): left/right | right/left Vertical installation (Version-V): bottom/top | top/bottom
Product temperature	Max. +80°C
Ambient temperature	-10°C to +50°C
Storage / transport conditions	-10°C to +60°C
Relative humidity	0% to 95% (without condensation)
Permissible pressure in the conveying line	Max. 0.5 bar negative pressure (relative pressure)

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Equipment & specifications

Electronics version	AMD 03 / AMD 05 *(see technical data sheet for electronics)*
Operator interface	AMD 03: Hotkeys AMD 05: Graphic display with membrane keypad, keypad
Operating unit - Assembly type	Separated (2 m)
Installation	NWØ38 to NWØ120 without connecting pipe between Detector coil and separation mechanism
Detector coil	Painted aluminium (RAL 3027)
Protection class of overall device	IP 54
Parts in contact with the product	Detector coil: Aluminium Separation system: Stainless steel AISI 304 Sensing tube material: GRP (glass fibre reinforced plastic) Sealing material: PU (polyurethane)
Compressed air connection	Compressed air supply: min. 6 bar - max. 10 bar Compressed air maintenance unit incl. hose with plug nipple (7.2 mm)
Noise level	Max. 95 dB (A) during switching operation
Device connection	Detector coil / separation system: - NWØ38 - NWØ89 Aluminium - NWØ100 - NWØ120 Stainless steel AISI 304

Detection accuracy

NW ⌀	FE ⌀		Non-FE ⌀		AISI 304 ⌀	
	AMD 03	AMD 05	AMD 03	AMD 05	AMD 03	AMD 05
38 – 50 (PCR-C 55)	0.6	0.5	0.64	0.5	1.0	0.8
55 – 65 (PCR-C 70)	0.7	0.6	0.8	0.6	1.2	1.0
70 – 80 (PCR-C 90)	0.8	0.6	1.0	0.6	1.2	1.0
89 – 100 (PCR-C 115)	1.0	0.7	1.0	0.64	1.5	1.0
120 (PCR-C 135)	1.0	0.7	1.2	0.8	1.5	1.2

All dimensions in [mm]

The specified sensitivities (ball Ø in mm) are based on factory settings and were determined under simulated production conditions in the centre of the passage opening. They refer to typical products according to the bulk materials classification and serve as a guide. The actual detection performance depends on the selected frequency as well as on product properties such as shape, conductivity and flow properties. An individual assessment is required for deviating product or process conditions.

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Standard scope of delivery

Metal separator (metal detector, separation unit, separation mechanism, evaluation electronics, connection and connection cable)
Separation mechanism with attached collecting container and pendulum flap

Operating instructions with spare parts list and electronic connection diagram
EU Declaration of Conformity:

- 2006/42/EC (Machinery Directive)
- 2014/30/EU (EMC Directive)
- 2011/65/EU (RoHS Directive)
- Delegated directive (EU) 2015/863 (extension of the RoHS Directive)

Versions

- Wear-protected design
- High-temperature version max. 140 °C
- High-temperature version max. 180 °C

Conformity

Optionally available:

- NRTL certification (61010-1)
- IEC certification (61010-1)

Options

- Advanced system monitoring: Compressed, separation mechanism

Accessories

- Test button (mounted on the electronics housing)
- Signal combination for error status warning

Optionally available for AMD 5:

- mesuEXPORT (automatic protocol export)
- mesuREMOTE (remote maintenance kit)
- mesuLINK (networking software)
- WLAN module

Note:
If you require further product information that goes beyond the content of this technical data sheet and in particular concerns a specific use and the application of this product, please contact us.

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