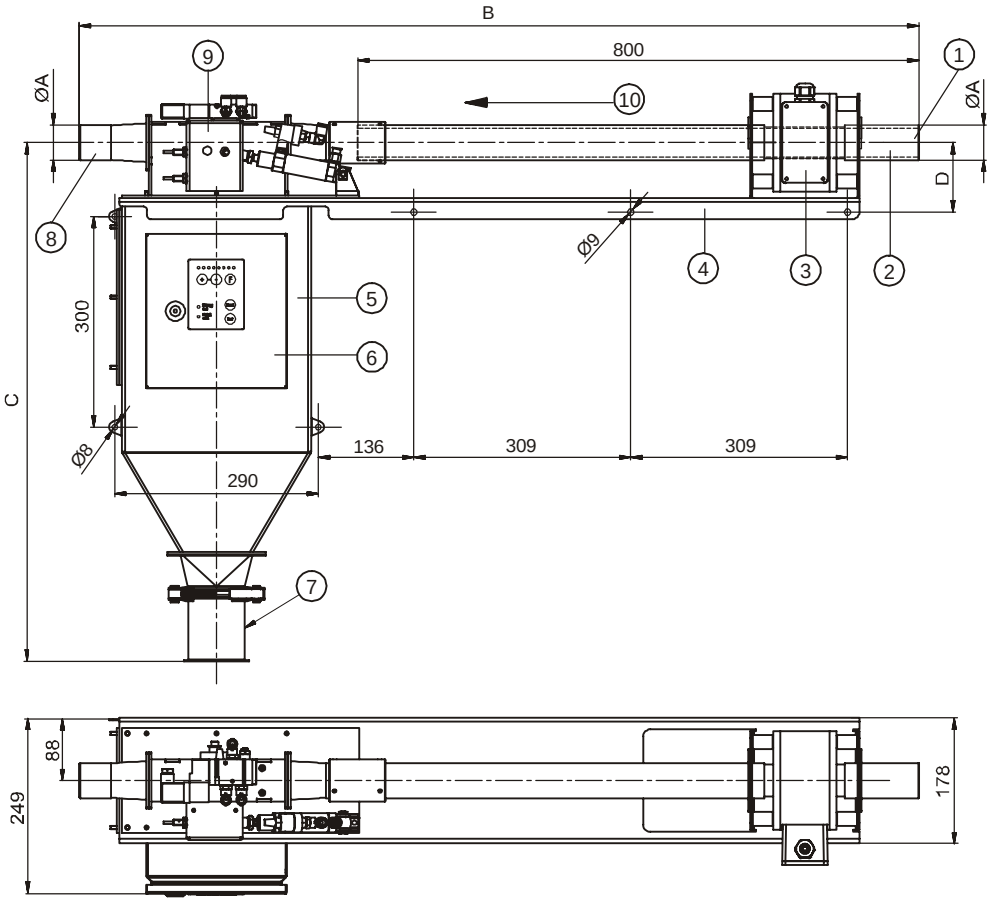
# GF 40-70-PRIMUS metal separator

## ■ Dimensions

**Horizontal conveyance**




| | | | |
|---|---|---|---|
| 1 | Inlet | 6 | Control unit |
| 2 | Scanning pipe | 7 | Reject outlet (80 mm „System Jacob“) |
| 3 | Detection coil | 8 | Material outlet |
| 4 | Mounting frame | 9 | Separation unit |
| 5 | Container | 10 | Conveying direction |

## ■ Technical data

| Type | GF-P 40 | GF-P 50 | GF-P 60 | GF-P 70 |
|---|---|---|---|---|
| **Article number** | GF-P040-0 | GF-P050-0 | GF-P060-0 | GF-P070-0 |
| **Inlet and outlet pipe diameter ØA** | 40 x 3.7 | 50 x 4.6 | 60 x 2.1 | 70 x 1.8 |
| **Effective ID of inlet pipe** | 32.6 | 40.8 | 55.8 | 66.4 |
| **B** | 1156 | 1196 | 1210 | 1266 |
| **C** | 734 | 739 | 744 | 747 |
| **D** | 94 | 99 | 104 | 107 |
| **Maximum scanning sensitivity[1] Ø Fe-ball:** | | | | |
| **at V = 10 m/sec** | 0.50 | 0.50 | 0.62 | 0.70 |
| **at V = 20 m/sec** | 0.61 | 0.61 | 0.77 | 0.86 |
| **Weight [kg]** | 26.5 | 26.5 | 26.5 | 27.5 |

Larger types on request

All dimensions in mm

[1] The specified sensitivity (sphere Ø in mm) is related to the centre of the aperture of the detector (most unfavourable position). The achievable sensitivity within a product depends on its product effect (intrinsic conductivity caused by moisture, carbon content, metal oxides etc.), the product temperature and environmental influences. The detectability of metal particles is also determined by their nature, shape and position.

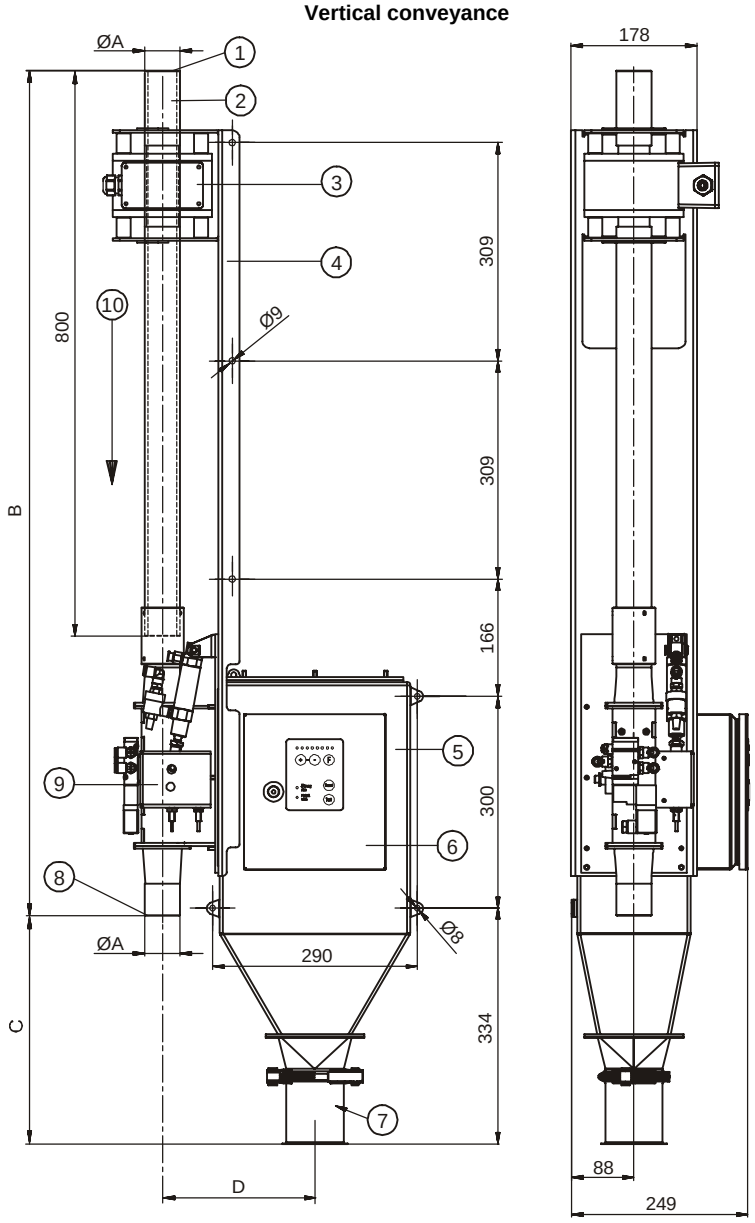


S+S Separation and Sorting Technology GmbH • Regener Str. 130 • D-94513 Schönberg • Germany
Tel. +49(0)8554/308-0 • Fax: +49(0)8554/2606 • e-mail: info@se-so-tec.com • Internet: www.se-so-tec.com

# GF 40-70-PRIMUS metal separator

## ■ Dimensions

**Vertical conveyance**




1 Inlet
2 Scanning pipe
3 Detection coil
4 Mounting frame
5 Container
6 Control unit
7 Reject outlet (80 mm „System Jacob“)
8 Material outlet
9 Separation unit
10 Conveying direction

## ■ Technical data

| Type | GF-P 40 | GF-P 50 | GF-P 60 | GF-P 70 |
|---|---|---|---|---|
| **Article number** | GF-P040-0 | GF-P050-0 | GF-P060-0 | GF-P070-0 |
| **Inlet and outlet pipe diameter ØA** | 40 x 3.7 | 50 x 4.6 | 60 x 2.1 | 70 x 1.8 |
| **Effective ID of inlet pipe** | 32.6 | 40.8 | 55.8 | 66.4 |
| **B** | 1156 | 1196 | 1210 | 1266 |
| **C** | 331.5 | 323.5 | 323.5 | 296.5 |
| **D** | 215 | 220 | 225 | 228 |
| **Maximum scanning sensitivity[1] Ø Fe-ball:** | | | | |
| **at V = 10 m/sec** | 0.50 | 0.50 | 0.62 | 0.70 |
| **at V = 20 m/sec** | 0.61 | 0.61 | 0.77 | 0.86 |
| **Weight [kg]** | 26.5 | 26.5 | 26.5 | 27.5 |

Larger types on request

All dimensions in mm

[1] The specified sensitivity (sphere Ø in mm) is related to the centre of the aperture of the detector (most unfavourable position). The achievable sensitivity within a product depends on its product effect (intrinsic conductivity caused by moisture, carbon content, metal oxides etc.), the product temperature and environmental influences. The detectability of metal particles is also determined by their nature, shape and position.



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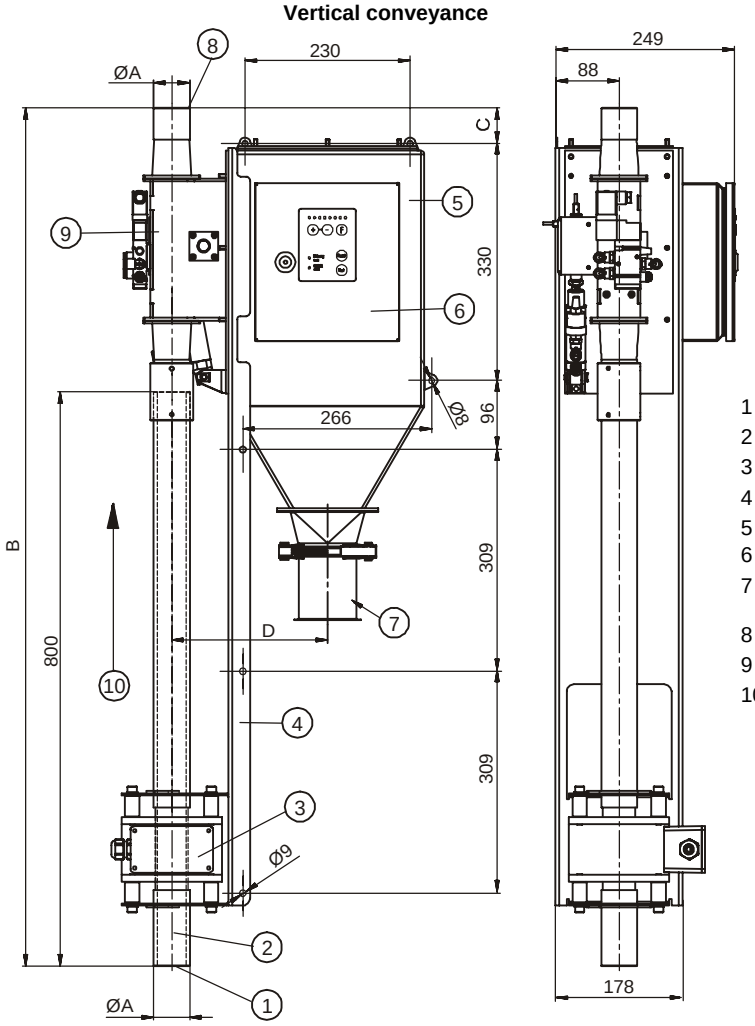
# GF 40-70-PRIMUS metal separator

## ■ Dimensions

**Vertical conveyance**




1 Inlet
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## ■ Technical data

| Type | GF-P 40 | GF-P 50 | GF-P 60 | GF-P 70 |
|---|---|---|---|---|
| **Article number** | GF-P040-0 | GF-P050-0 | GF-P060-0 | GF-P070-0 |
| **Inlet and outlet pipe diameter ØA** | 40 x 3.7 | 50 x 4.6 | 60 x 2.1 | 70 x 1.8 |
| **Effective ID of inlet pipe** | 32.6 | 40.8 | 55.8 | 66.4 |
| **B** | 1156 | 1196 | 1210 | 1266 |
| **C** | 42.5 | 50.5 | 50.5 | 77.5 |
| **D** | 215 | 220 | 225 | 228 |
| **Maximum scanning sensitivity[1] Ø Fe-ball:** | | | | |
| **at V = 10 m/sec** | 0.50 | 0.50 | 0.62 | 0.70 |
| **at V = 20 m/sec** | 0.61 | 0.61 | 0.77 | 0.86 |
| **Weight [kg]** | 26.5 | 26.5 | 26.5 | 27.5 |

Larger types on request

All dimensions in mm

[1] The specified sensitivity (sphere Ø in mm) is related to the centre of the aperture of the detector (most unfavourable position). The achievable sensitivity within a product depends on its product effect (intrinsic conductivity caused by moisture, carbon content, metal oxides etc.), the product temperature and environmental influences. The detectability of metal particles is also determined by their nature, shape and position.



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# GF 40-70-PRIMUS metal separator

## ■ Conditions of use

| | |
|---|---|
| **Use:** | For the inspection of granulated and ground material in vacuum or pressure feeding systems in the plastics industry as well as other industries with similar applications. |
| **Product characteristics:** | Dry, pourable, no long fibres, possibly existing product effect compensatable, grain size < 8 mm |
| **Product temperature:** | -10° C to +80° C |
| **Ambient temperature:** | -10° C to +60° C |

## ■ Scope of delivery / Standard design

| | |
|---|---|
| **Scope of delivery:** | Compact unit with integrated metal detector, separation unit with container, mount on PRIMUS control unit. |
| **Operation:** | • Membrane keypad with 3 keys as well as Reset and Test buttons<br>• Access protection<br>• LED lights for operation, metal alarm and fault |
| **Separation unit:** | Stainless steel 1.4301 (AISI 304), PTFE |
| **Electronics housing:** | Mild steel, varnished, aluminium grey (RAL 9007) |
| **Parts in contact with material:** | Stainless steel 1.4301 (AISI 304), PE-EL |
| **Scanning pipe:** | PE-EL (antistatic) |
| **Operating voltage:** | 100-240 VAC (±10%), 50/60 Hz |
| **Current input:** | Approx 160 mA/115 V, approx 80 mA/230 V |
| **Mains cable:** | 1.8 m with plug |
| **Type of protection:** | IP 54 |
| **Compressed air connection:** | 6-8 bar; 6/8 mm tube connection |
| **Vacuum conveying:** | 0.5 bar |
| **Pressure feeding:** | Maximum 2 bar |
| **Maximum material conveying speed:** | 20 m/sec |
| **Eject duration:** | Adjustable from 0.05 to 29 sec |
| **Scanning sensitivity:** | Selectable with 8 adjustments |
| **Self monitoring:** | Detection coil and outputs |

## ■ Options / Accessories

- ☐ External beacon
  - ☐ Alarm indication
  - ☐ Alarm and metal indication
- ☐ External horn
  - ☐ Alarm indication
  - ☐ Alarm and metal indication
- ☐ External signal combination (beacon / horn)
  - ☐ Alarm indication
  - ☐ Alarm and metal indication
- ☐ Control unit can be operated remotely up to 15 m
- ☐ Filter control valve
- ☐ Counter (number of detections)
- ☐ Compressed-air monitor
- ☐ Level indicator for reject box
- ☐ Continuous vacuum or pressure conveying: automatic emptying of the reject bin by means of two pinch valves
- ☐ Discontinuous pressure conveying: automatic emptying by means of one pinch valves
- ☐ Function monitor for reject diverter
- ☐ Low wear scanning pipe
- ☐ Test samples

## ■ Special versions

- ☐ Special supply voltages
- ☐ Special varnishes
- ☐ High abrasive materials
- ☐ Pipe connections customized
  - ☐ ……
- ☐ Product temperature to 140° C
- ☐ Higher product temperature range
- ☐ Explosion-proof
- ☐ .....



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