



- Product Purity.
- Greater Security.
- Added Value.



GF 4000

Metal separation system for
pneumatic conveyor pipes



- ✓ **Detection and separation** of magnetic and non-magnetic metal impurities
- ✓ For the inspection of **bulk materials** (granulate, powder, etc.)
- ✓ **Easy to integrate** in existing vacuum or pressure pipeline systems
- ✓ Designed for **high flow rates**, trouble-free operation even at high conveying speed
- ✓ Guarantees **product quality** conforming to HACCP
- ✓ Available in versions up to **ATEX** Zone 20 (inside)

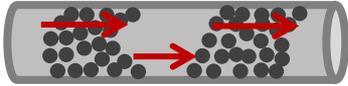


Inspection of:

- Fine-grained bulks or granules (as an option also powder) e.g. flour, breadcrumbs, cereals,...
- max. grain size: $\varnothing < 8 \text{ mm}$
- max. product temperature 60°C



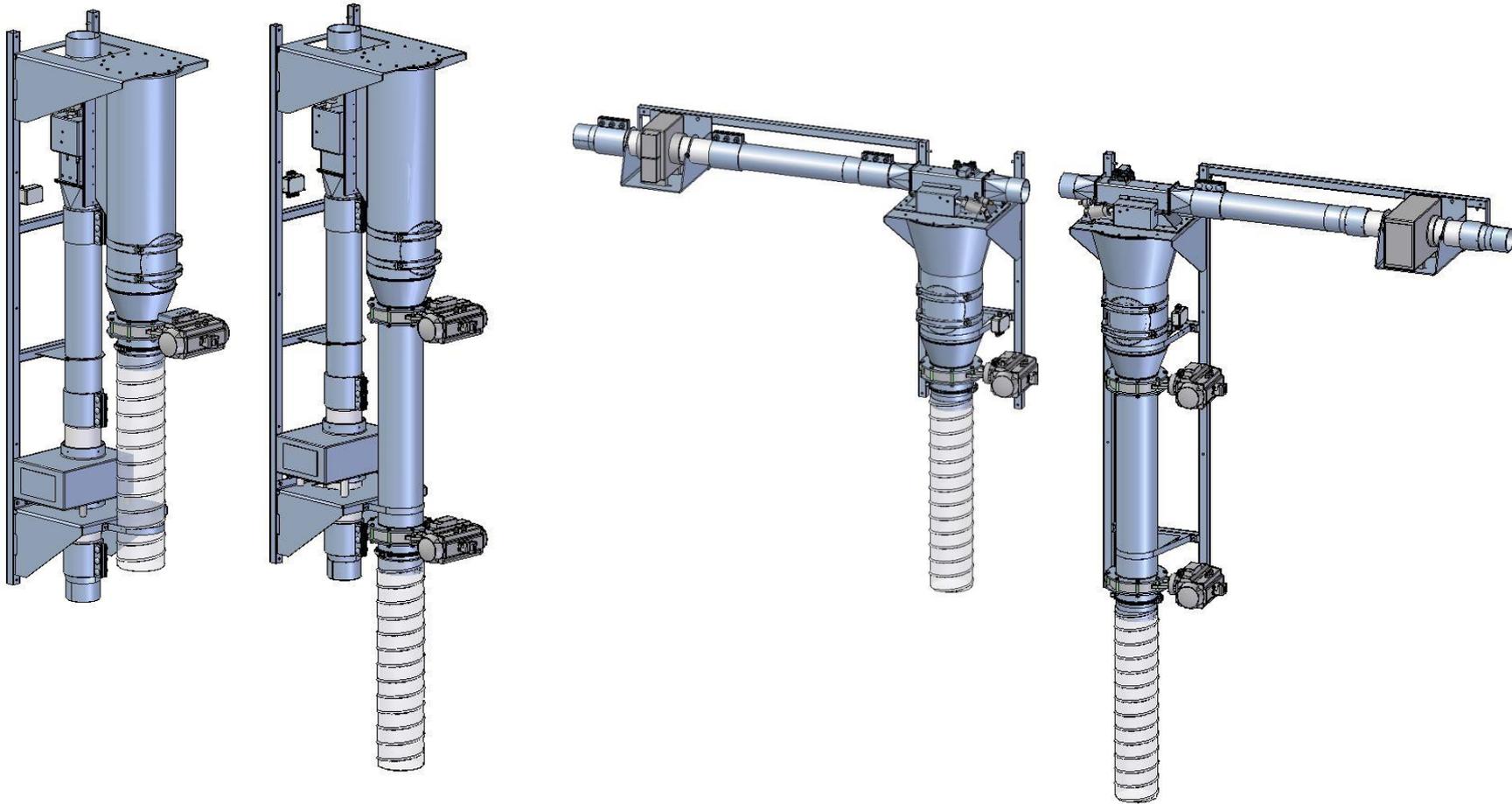
Limitations:

- No „slug“ conveying 
- Max. overpressure in the conveying pipe 1 bar (NW 120/150 max. 0,5 bar)
- Max. underpressure in the pipe for vacuum conveying 0,5 bar
- Max. material conveying speed 20 m/sec

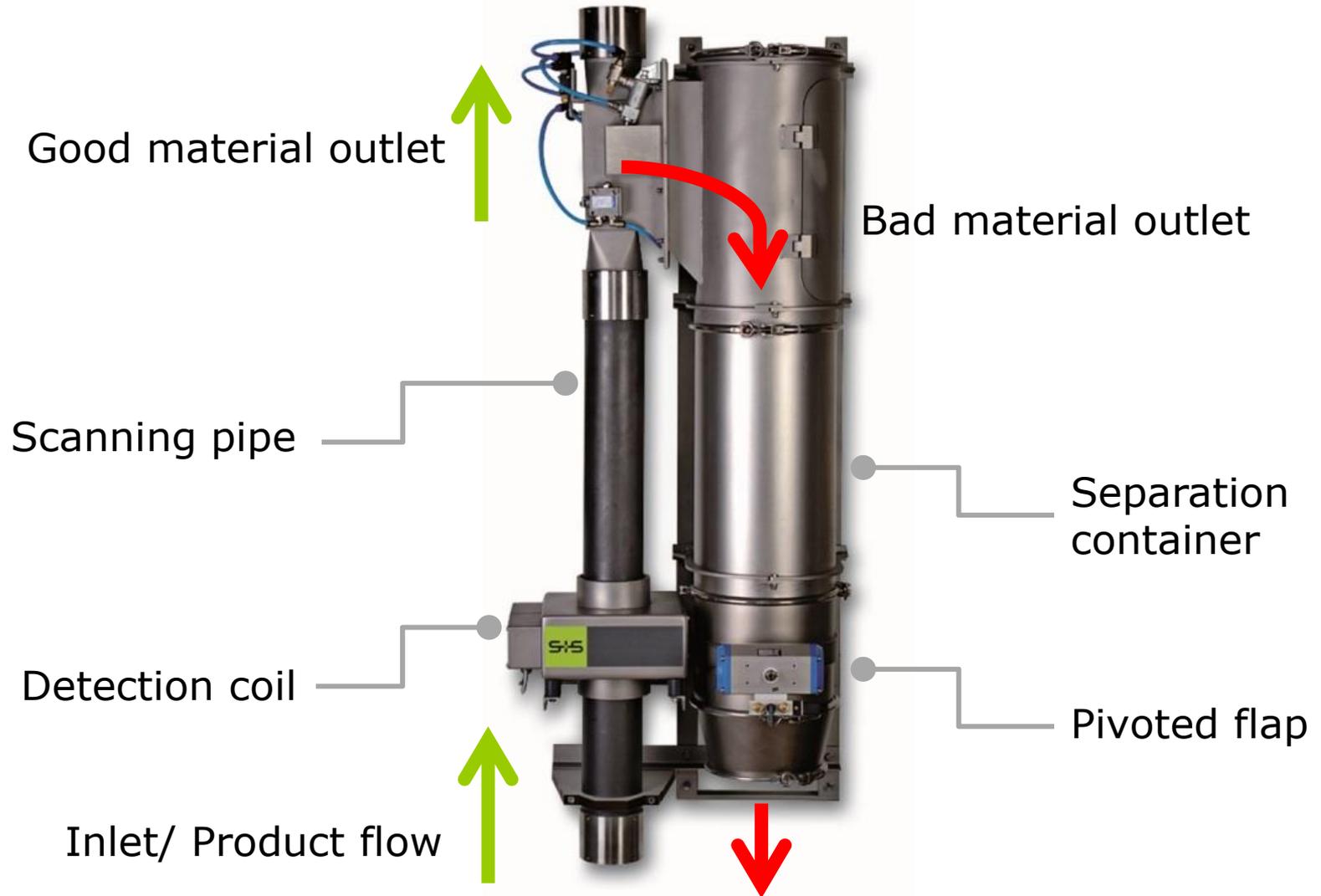
Installation situation:

- Vacuum or pressure conveying pipes
- Horizontal or vertical conveying

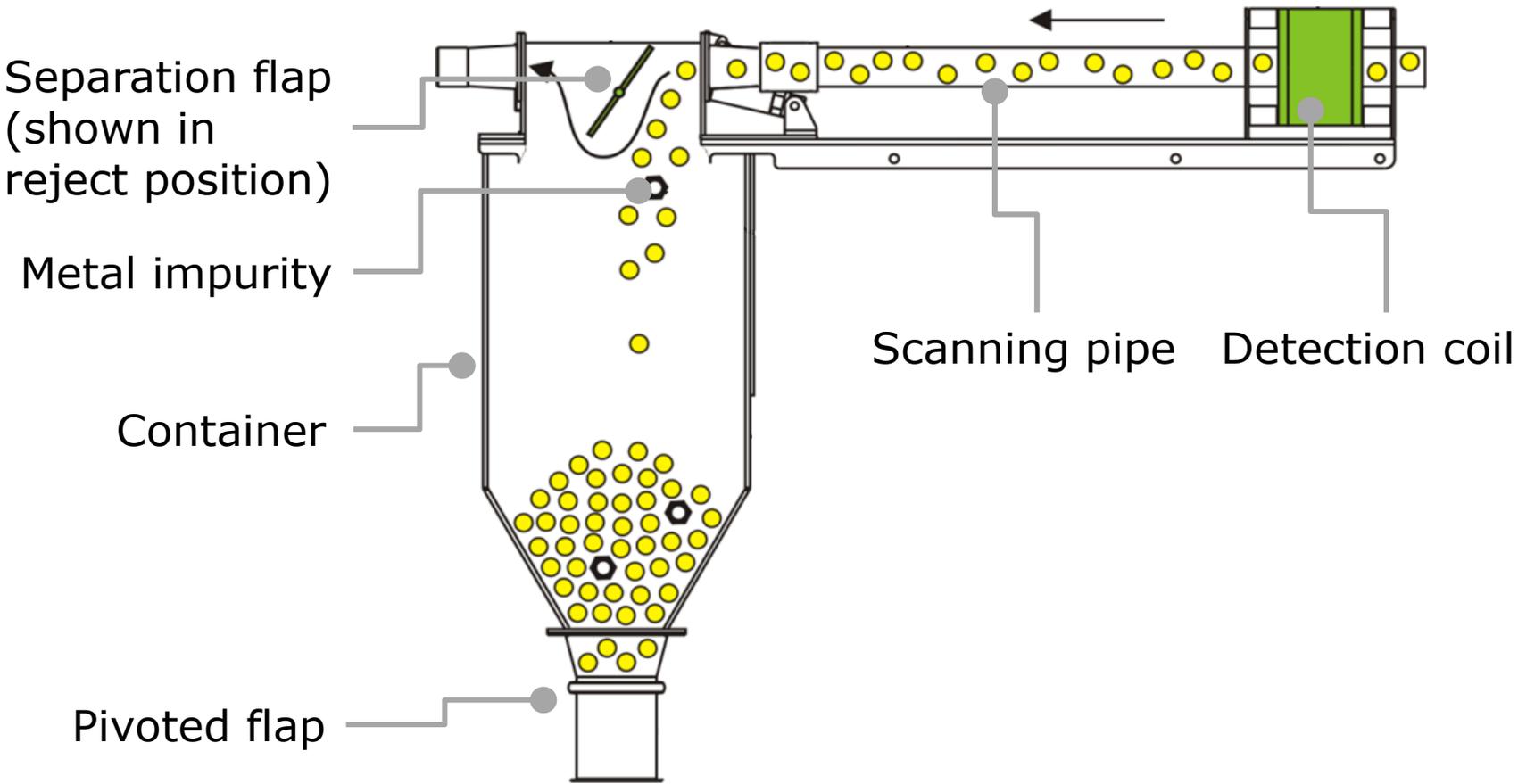
Conditions of use| installation situation



- Vertical or horizontal
- With one or two pivoted flaps



System design | functional principle



- Discontinuous conveying: short conveying cycles, depending on the throughput rate

Type of conveyance	Installation direction	Design
Discontinuous vacuum conveying	Vertical (preferred bottom up)	<ul style="list-style-type: none">■ GF with one pivoted flap is possible, the machine operator has to control the fill level. Due to this a filling level indicator is recommended.■ GF with second pivoted flap is recommended. The advantage is that both flaps are controlled by the control unit and the collecting bin will be emptied during each conveying interruption.
	Horizontal (after stopping the conveying it can happen that metal particles lay down between detection coil and separation system)	

- Discontinuous conveying: short conveying cycles, depending on the throughput rate

Type of conveyance	Installation direction	Design
Discontinuous pressure conveying	Vertical (preferred bottom up)	<ul style="list-style-type: none">■ GF with one pivoted flap is possible, the machine operator has to control the fill level. Due to this a filling level indicator is recommended.■ GF with second pivoted flap is recommended. The advantage is that both flaps are controlled by the control unit and the collecting bin will be emptied during each conveying interruption.
	Horizontal (after stopping the conveying it can happen that metal particles lay down between detection coil and separation system)	

- Continuous conveying: conveying cycles > 5 minutes

Type of conveyance	Installation direction	Design
Continuous vacuum conveying	Vertical	<ul style="list-style-type: none"> GF with second pivoted flap is necessary. The advantage is that both flaps are controlled by the control unit and the collecting bin will be emptied automatically after each metal detection during the operation without pressure or vacuum loss.
	Horizontal	
Continuous pressure conveying	Vertical	
	Horizontal	

- **Inline inspection** between silo and filling system (e.g. in mill plants)
- **Incoming goods** inspection prior to filling silos



- GF 4000 for the inspection of cappuccino powder



- GF 4000 for the inspection of breadcrumbs
- Continuous pressure conveying (vertical, bottom-up)
- 2 pivoted flaps



- GF 4000 for the inspection of milk powder
- Discontinuous pressure conveying (vertical)
- 1 pivoted flap



- ✓ **Maximum resistance to interferences** and **highly reliable** both- mechanically and operationally
- ✓ The **rapid-reacting “Quick-Flap-System”** removes metal contamination without interruption of the production flow and without pressure loss
- ✓ **Easy integration** into existing pipelines
 - ✓ Proven solution for installations at locations with limited space
 - ✓ Availability of standard connections

Thank you very much for your attention.

