GF 4000-GP metal separator

■ Dimensions

Horizontal conveyance   **Vertical conveyance**
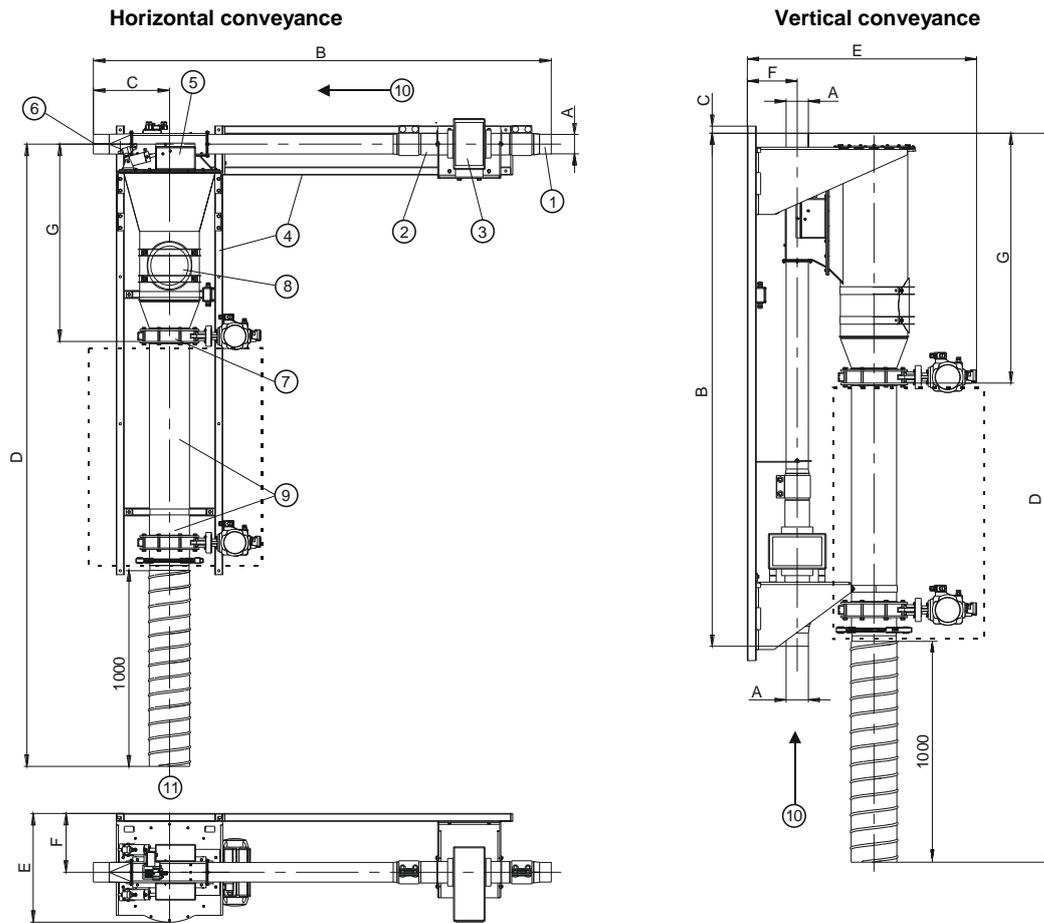
1	Inlet	4	Mounting frame	7	Pivoted flap	10	Conveying direction
2	Scanning pipe	5	Separation unit	8	Cleaning access	11	Reject outlet with spiral hose
3	Detection coil	6	Material outlet	9	Tundish and second pivoted flap (available for continuously conveyed				(accident prevention regulations)

■ Technical data

Type	GF4000/50-GP		GF4000/80-GP		GF4000/100-GP		GF4000/120-GP		GF4000/150-GP	
Article number	GF4-GP050-0		GF4-GP080-0		GF4-GP100-0		GF4-GP120-0		GF4-GP150-0	
Pipe diameter (inlet / material outlet) A	50x2		80x2		100x2		120x2		150x2	
Effective inner diameter	44		76		96		116		146	
Reject outlet pipe diameter	200		200		200		200		200	
	horizontal	vertical	horizontal	vertical	horizontal	vertical	horizontal	vertical	horizontal	vertical
B	2052	2052	2256	2256	2322	2322	2342	2342	2620	2620
C	271	141	300	96	386	32.5	386	32.5	438	29
D	3133	3341	3143	3247	3176	3300	3176	3300	3182	3455
E	555	1031	555	1031	555	1031	555	1031	670	1031
F	300	264	300	260	300	225	300	225	360	209
G	964	1031	974	1178	1007	1131	1007	1131	1023	1305
Maximum scanning sensitivity[1] Ø Fe-ball:										
at V = 10 m/sec	0.28 mm		0.50 mm		0.63 mm		0.75 mm		0.81 mm	
at V = 20 m/sec	0.38 mm		0.68 mm		0.86 mm		1.02 mm		1.09 mm	
Weight [kg]	150		160		185		210		245	

Machines with different throughputs are available on request.   All dimensions in mm

[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.

■ Conditions of use

Use:	For the inspection of bulk materials (as an option also with specially sealed separation unit for the inspection of powder materials) in vacuum and pressure conveying pipes in the food, chemical, and pharmaceutical industry, and also in other industry sectors with similar applications and corresponding hygienic requirements.

Bulk material classification:

- **Grain shape:** Fine-grained bulks or granules (as an option also for powder)
- **Max. grain size:** Ball shape ø < 8 mm
- **Pourability:** Good
- **Attributes:** Dry, not abrasive, product effects (material conductivity) can be compensated
- **Material flow:** Vacuum or pressure conveying (plug feeding is not permissible)
- **Bulk material temperature:** Maximum +60° C
- **Ambient conditions:** -10° C to +45° C, 25% to 85% rH, no condensation
- **Storage and shipping conditions:** -10° C to +50° C, 25% to 85% rH, no condensation
- **Permissible overpressure in the conveying pipe:** Max. 1 bar (NW 120/150 max. 0.5 bar)
- **Permissible underpressure in the conveying pipe for vacuum conveying:** Max. 0.5 bar
- **Material conveying speed:** Max. 20 m/sec

■ Scope of delivery / Design / Connections

Scope of delivery:	Compact unit with integrated metal detector, separator unit with reject container, one pivoted flap for stop and go conveying systems, spiral hose and separated control unit GENIUS+; inlet and material outlet with smooth pipe connection pieces.
Mechanical design:	Frame, detection coil and electronics housing: Stainless steel 1.4301 (AISI 304), bead blasted
	Separation unit: Stainless steel 1.4301 (AISI 304)
	Scanning pipe: PTFE-EL
	Parts in contact with product: Stainless steel 1.4301 (AISI 304), PTFE, PTFE-EL, NBR, PE-UHMW
	Connecting cable (pneumatic / control unit): Standard length 3 m, pluggable
	Connecting cable (coil / control unit): Standard length 3 m
	Compressed air connection: 5-8 bar; 6/8 mm hose connection
	Compressed air consumption: Approx. 0.5 – 3.0 l / switching operation (depending on size)
Electrical design:	Operating voltage: 100-240 VAC (±10%), 50/60 Hz
	Mains cable: 1.8 m with safety plug
	Current consumption: Max. 800 mA
	Ingress protection: IP 65
	Eject duration (metal impulse): Adjustable from 0.05 to 30 sec
	Self-monitoring system: Detection coil and outputs

■ 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
- ☐ Push button for manual rejection in a separate housing

- ☐ Push button for functional test in a separate housing
- ☐ Test samples
- ☐ UL/CSA certificate

■ Options

- ☐ 5.7" colour touch-screen incl. USB interface
- ☐ Multi-frequency technology Duo
- ☐ Serial interface RS232 with plug (IP65, 4-pole)
- ☐ Serial interface RS485 with plug (IP65, 4-pole)
- ☐ Ethernet interface (TCP/IP 100 Mbit/s, IP65, RJ45)
- ☐ WLAN interface (802.11 b/g) with integrated aerial

- ☐ Compressed-air monitor
- ☐ Automatic emptying via two pivoted flaps and an additional reject container for continuous vacuum or pressure conveying
- ☐ Separation unit for powder materials (dust-proof)
- ☐ Level indicator

- ☐ Monitor system for separation unit
- ☐ Cable set for remote control unit
  - ☐ Length 6 m
- ☐ US-power cable

■ Special versions / Supplementary systems

- ☐ Design for bulk material temperatures up to 140° C
- ☐ Explosion-proof version ATEX

- ☐ Model with improved wear out protection
- ☐ Pipe transition pieces, customized flanges

- ☐ Pharma design on request
- ☐ Magnet systems for pre-removal of ferrous metals