

# RAPID 5000

## Metal separator for free-fall applications

- Metal separator for the inspection of powdery and fine-grained bulk materials
- Detects magnetic and non-magnetic metal contaminations
- Separation by way of stainless steel reject flap
- Hygienic design without any corners and edges in the separation unit
- Complies with IFS and HACCP



- Separation unit and product-contacting metal parts completely made of stainless steel 1.4301 (AISI 304)
- Low mounting height guarantees easy integration of the metal separator in existing pipe systems
- Separate detection and separation units:
  - The free-fall height can be adapted on site
  - The position of the reject outlet can be swivelled to match the position of the collecting container
- Quick and minimum-effort installation due to standard Jacob connection system
- Auto-learn function with product compensation for optimal adaptation to the intrinsic conductivity of the product to be inspected
- Increased interference immunity to electromagnetic pollution and vibration
- Highest scanning sensitivity for all metals

## Function:

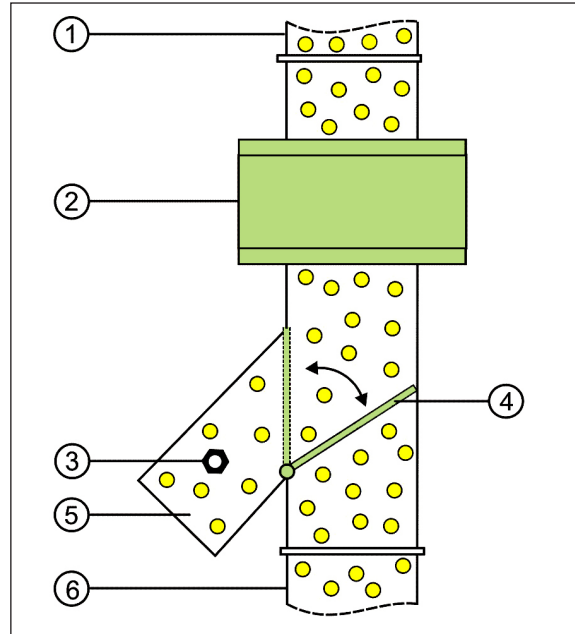
The RAPID 5000 metal separator is used for the inspection of bulk materials in free-fall conveyor pipes. It detects all magnetic and non-magnetic metal contaminations (steel, stainless steel, aluminium, ...) - even if such contaminations are embedded in the product. Metal contaminations are rejected by means of the separation unit ("Quick Flap").

The RAPID 5000 metal separator primarily is used in industries with very high hygienic demands.

## Application

- Incoming inspection (product purity and machine protection) of raw spices, ingredients, raw materials, etc. prior to the processing machine (e.g. mill).
- Quality inspection (product purity) of herbs, tea, spices, chemical additives (e.g. ascorbic acid, surfactants), etc. directly before filling in bigbags and silos.
- Quality inspection of milk powder, flour, sugar, etc. directly before a bag-forming, filling, and sealing machine.

## Function diagram:



1) Inlet                      2) Detection coil        3) Metal contaminant  
 4) Reject flap              5) Reject outlet        6) Material outlet



*Installation example: IFS compliant metal detection directly before the filling of spice products into bigbags. (old version)*

## Control units:

Two control units (GENIUS+ and SENSITY) with graded performance features are available.

Common features:

- Highest sensitivity for all metals (2-channel technology)
  - Digital signal processing and quartz-stable search frequency
  - State-of-the-art microprocessor technology with self-monitoring, auto-balancing, and temperature compensation
  - Product compensation with auto-learn function
  - Multi-product memory
  - Password protection / access protection
  - Special EMC combifilter for suppressing external interference
- (For further information please refer to the "Control Units" GENIUS+ and SENSITY brochure).

## Typical fields of application:

- Chemical industry
- Pharmaceutical industry
- Food industry