MFE

Metal separator for extruders, injection moulding and blow moulding machines

- detects and removes even the smallest magnetic and non-magnetic metal particles from regranulates and virgin material
- reduces breakdowns and machine downtimes providing a rapid return on investment
- ensures constant production process parameters
- “Last Chance” controller: installed directly above the material infeed
- product effect compensation: intrinsic conductivity of bulk materials (eg from moisture or carbon) can be “tuned out” automatically

The MFE metal separator is installed directly above the material infeed of an extruder, injection moulding or blow moulding machine. It provides precision identification and removal of magnetic and non-magnetic metal contaminants from a slow, downward-moving column of material. Its solid and compact design allows material feed systems to be mounted directly on top of the metal separation unit.

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Even the smallest metal particles in molten plastic can cause expensive and time-consuming damage to extruders, injection and blow moulding machinery. As the use of plastic regranulates increases so does the probability of metal contamination, causing blockages in nozzles and filters. However, machine breakdowns, loss of production and failure to deliver are not the only result; the cost of repairing an extruder spiral or cylinder damaged by just one single larger piece of metal is many times more expensive than the cost of an MFE system.

The design of the MFE series guarantees excellent operational reliability, even at high throughputs. With only slight modification these metal separators can be used most successfully in free-fall applications.

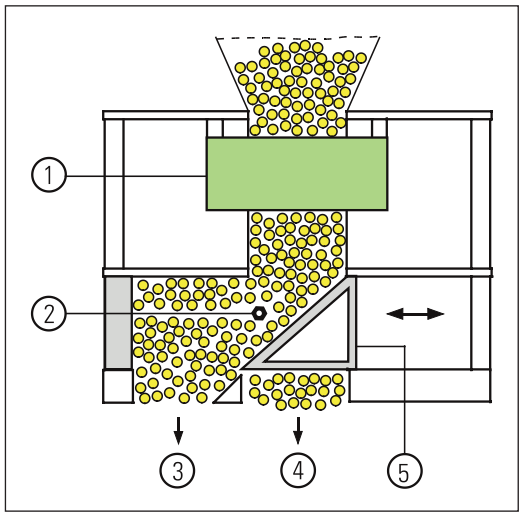
MFE metal separators increase machine availability and productivity providing a fast return on investment.

MFE metal separator installed at the material infeed

MFE metal separators offer the following performance features:

- excellent metal detection, maximum resistance to interference and high mechanical and operational reliability
- automatic self-calibration and ongoing self-monitoring and temperature adjustment

Function chart:



1) Detection coil 2) Metal contaminant 3) Reject outlet 4) Good material outlet 5) Separating slide

- fully automatic process once optimal customisation of scanning sensitivity and reject duration is achieved
- effective and reliable removal of metal contaminants even with high proportions of regranulate
- metal contaminants are removed into a reject material container by means of a separating slide
- due to its compact design, heavy conveyor, mixing or dosing equipment can be attached to the detection and separation unit
- the pneumatically-driven reject system works so quickly that metal particles are consistently removed from free-falling granulate not only at the initial fill but also at subsequent top-ups

Typical applications:

- Automobile industry: plastic tanks
- Household goods: housing components
- Plastics recycling: regranulation
- Construction industry: profiles

MFE metal separators are available in the following standard widths: 70 mm, 100 mm, 120 mm, 150 mm

If you need more detailed information ask for our technical data sheet or a discussion with our experienced S+S Sales team.