PROTECTOR PRIMUS

Metal separator for extruders, injection moulding and blow moulding machines

- detects and removes even the smallest metallic impurities from regranulates and virgin material
- reduces breakdowns and machine downtimes providing a rapid return on investment
- ensures constant production process parameters
- “Last Chance” controller: directly above the material infeed
- product effect compensation for conductive bulk materials
- patented reject mechanism ensures effective and reliable removal of contaminants

The PROTECTOR PRIMUS metal separator is installed directly above the material infeed of an extruder, injection moulding or blow moulding machine. Other features include high sensitivity across all metals, an extremely compact, space-saving design and the ability to operate successfully with all conveying systems especially vacuum conveyors.

S+S
Separation and
Sorting Technology
GmbH

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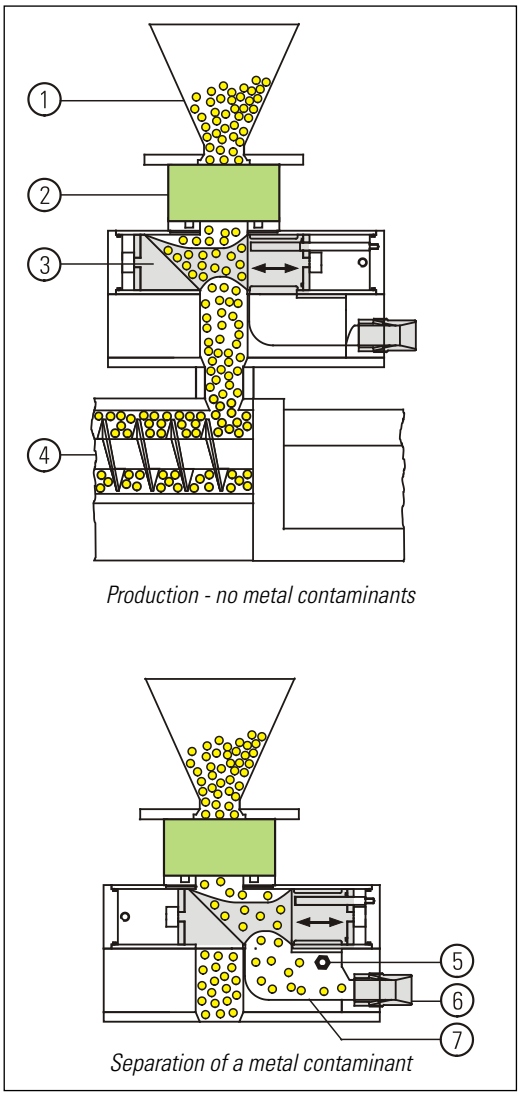
Even the smallest metal particles in molten plastic can cause expensive and time-consuming damage to extruders, injection and blow moulding machinery. As the use of plastic regranulates increases so does the probability of metal contamination, causing blockages in nozzles and filters. However, machine 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 a PROTECTOR PRIMUS system.
PROTECTOR PRIMUS combines the proven benefits of existing metal separators for this application with improved performance features which we have developed in close co-operation with our customers. Machine availability and productivity are greatly increased providing a fast return on investment.

PROTECTOR PRIMUS metal separator installed at the material infeed of an injection moulding machine



Production - no metal contaminants

Separation of a metal contaminant

1) Material hopper 2) Detection coil 3) Separation unit
4) Processing machine 5) Metal contaminant
6) Venturi nozzle system 7) Reject outlet

PROTECTOR PRIMUS metal separators offer the following performance features:

- high mechanical stability and maximum resistance to interference guarantees excellent metal detection and operational reliability
- automatic self-calibration and continuous self-monitoring and temperature adjustment
- fine tuning the metal separator to achieve optimal customisation of scanning sensitivity and reject duration ensures the entire process is fully automatic with no interruption to the flow of material
- patented reject mechanism ensures effective and reliable removal of contaminants; there is very little risk of jamming, even with high proportions of regranulate (dust)
- metal contaminants are removed by means of a separating slide and a Venturi nozzle via a flexible hose into a reject material container
- due to its robust and compact design (aluminium block design), 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-up

Typical applications:

- Automobile industry: bumpers
- Electronics industry: connector components
- Data processing: optical discs
- Household goods: housing components
- Drinks industry: bottle caps
- Construction industry: profiles

PROTECTOR PRIMUS metal separators are available in the following standard widths: 30 mm, 40 mm, 50 mm, 60 mm

For detailed information please request our technical data sheets or use the experience our S+S sales consultants.