

Metal separators allow an economic processing of regenerated material

Submitted by: S+S Separation and Sorting Technology GmbH

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Since its foundation in 1965 the Zollner Elektronik AG headquartered in Zandt in the Upper Palatinate has developed from a specialist for electrotechnology into an internationally successful system services provider for EMS (Electronic Manufacturing Services). With 6,700 employees at 14 locations all over the world, Zollner today ranks among the top 15 worldwide. The parent plant in Zandt has about 2,100 employees.

The rapid growth was accompanied by a constant expansion of the company's range of products, and since 2001 the production spectrum in Zandt also includes plastic injection moulding with dedicated mould and toolmaking departments. The production hall in Zandt features 16 machines for plastics processing which primarily produce parts for industrial electronics and for the automotive industry. The production lines are designed for an extensive range covering small series of 500 parts per year through to annual production quantities of three million parts.

Environmental awareness, but also economic considerations, have resulted in the use of industry-quality granulate (regenerated material) for various products. With many articles a slight loss of properties does not prevent the use of such material. In a few cases a slight contamination with foreign objects such as metal particles makes processing more difficult. Depending on the production system this may cause unwanted machine downtimes.

The apparent economic advantage thus is quickly lost if the resulting downtimes cannot be avoided. The most obvious solution of using metal separators resulted in immediate success.

A partner who assists in meeting the requirements for maximum process reliability and highest quality is S+S Separation and Sorting Technology GmbH. For the inspection and purification of such industrial materials S+S provided metal separators of type GF Primus. After the installation of the metal separator, production could be continued without machine downtimes. It is only the use of metal separators that allows an economic processing of granulate mixed with regenerated material or ground material.

The GF PRIMUS metal separator removes metallic contaminations (steel, stainless steel, aluminium, etc.) from the pneumatically conveyed regenerated material. Installed directly in the pneumatic conveyor pipe of the material conveyor for the injection moulding machine, it reliably separates metallic contaminations, even such contaminations that are embedded in a granulate grain.

With the "Easy Mount System" the metal separator can be installed in already existing pneumatic conveyor pipes without any problems. Parts that are in contact with the product are made of stainless steel (1.4301). The outwardly sealed separating unit prevents any impairment of the function of the material conveyors due to outside air.

Product effects of the bulk material that are caused by moisture, colour pigments, or carbons, are automatically compensated, which guarantees a constant scanning sensitivity. With default settings the systems provide outstanding ease of operation. One advantage of the fast-acting "Quick-Flap-System" is the minimum loss of good material. The contaminated material is collected in a collection container and

is thus available for detailed analyses.

S+S – an overview

S+S Separation and Sorting Technology GmbH of Schönberg, Bavaria, manufactures machines and systems for the detection/separation of contaminants, for product inspection, and for the sorting of material flows. Product sales primarily focus on the food, plastics, chemical, pharmaceutical, wood, textile, and recycling industries. S+S is one of the world's leading suppliers with subsidiaries in Great Britain, China, Singapore, France, and in the USA, a representative office in India, and more than 40 agencies all over the world. The main factory in Schönberg presently employs 230 people, and 2007 turnover amounted to Euro 22 million.

Further information can be obtained from:

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