

A photograph of an industrial injection molding machine. A white magnetic separator unit is mounted on the machine, with the label "SYS Magnetic Separator" visible. The background shows the complex machinery of the factory floor with overhead lights.

SYS Magnetic Separator

Injection moulding company outfits 600 machines with SAFEMAG

Safe and economic consumer protection

Injection moulding company

Product: SAFEMAG

One of the world's leading injection moulding company attaches greatest importance to the subject of quality in all areas. Regarding quality, the toy manufacturer does not make any compromise, neither with respect to the safety of their products, nor with respect to their responsibility towards customers, manufacturers, consumers, and the environment. Quality is a fundamental criterion that is a central theme in corporate philosophy and business politics. Quality assurance measures are defined in a global quality assurance system.

For the plastics that are used for e.g. in toys, the manufacturer does not only apply the same stringent

standards that also are applicable for packagings in the food sector, but makes even further demands concerning the properties of the raw materials. The company operates its own plastics development laboratory and a test laboratory. All plastic products bear the CE mark of the European Union. The injection moulding company thereby guarantees that the respective product complies with the regulations of the EU directive for toys. Products for the American market must comply with the 'Code of Federal Regulation' and with the ASTM standard F963.



Sesotec has successfully designed a highly efficient and with only 60 millimetres a very flat magnet system. The compact and sturdy aluminium-block design of the SAFEMAG allows the installation of conveyor, mixing, and dosing units directly on the inline magnet.

As problems occurred in the production process being caused by metal contaminations in the plastics granulate, this was the starting point for the installation of magnet systems. Plastics recycling material from the grinding mill was considered to be the source of contamination. Metal particles had deposited in the plastifying screw and in the nozzles and were responsible for costly downtimes of the injection moulding machines. In

certain cases the metal contaminations even could have damaged the injection moulds or – in the worst case – a metal part even could have stuck out of a finished plastic product.

Sesotec has developed a magnet system that can be installed directly on the material inlet of injection moulding machines, beneath the dosing unit. As a „Last Chance Controller“ this magnet system allows metal separation to be performed as late as possible in the production process. One important advantage is that for the installation directly on the processing machine, only one magnet system is needed per machine.

Since the magnet system had to be integrated in an already existing line, the injection moulding company demanded a very flat design. Changing the course of the pipes above the machine would have been very difficult and would have caused immense costs. A space of approximately 80 millimetres was available for installation.

The magnet system had to provide outstanding ease of handling, and quick and efficient cleaning also had to be ensured. For this reason the magnet system features a pullout at the front. Opening two quick-release locks is all that is required for pulling out the aluminium block with the magnet rods for cleaning purposes. Metal contaminations can then be manually removed from the magnet rods. Following a test phase with ten SAFEMAG magnet systems, which yielded excellent results, the injection moulding company decided to install magnet systems at all the 600 injection moulding machines.

Sesotec - an overview

The Sesotec group is one of the leading manufacturers of machines and systems for contaminant detection and material sorting. Product sales primarily focus on the food, plastics, and recycling industries. Sesotec's global presence includes subsidiaries in Great Britain, Singapore, China, USA, France, Italy (2), India, Canada, Thailand, a representative office in Turkey, and more than 60 partners all over the world.

www.sesotec.com