Manufacturer drawn to strength, versatility of magnetic separators

Because of its high standards, a national manufacturer of pharmaceutical and medical products opts for the strongest magnetic separation equipment available. It's a choice that has helped the manufacturer to maintain a good reputation, avoid recalls, and ensure customer safety. With that mindset, one of the manufacturer's engineers inquired at a trade show about the magnetic separators supplied by Eriez, Erie, PA, which include rare-earth magnets.

The magnets are made with Erium 3000, a powerful third-generation, rare-earth compound. Depending upon their configuration, the magnets provide as much as 25 times the attractive force of similar-sized conventional permanent magnets.

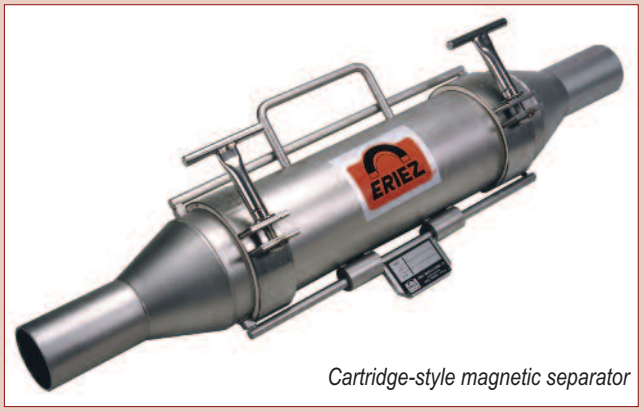
Cartridge-style magnetic separators typically remove tramp iron from dry, free-flowing materials conveyed in pneumatic pipelines. As material enters the housing, a solid stainless steel cone distributes it, forcing it to pass close to the magnet, which attracts and holds any ferrous contaminants. Good product flows onward and out of the housing. Grate-type magnetic separators also use powerful magnets and fit round, oval, rectangular, or odd-shaped spaces. They, too, remove ferrous contamination from free-flowing materials that pass by.

Once the supplier's sales and engineering staff understood how the manufacturer planned to use the separators, together the companies decided that Rare Earth RF (radial-field) cartridge magnets and Rare Earth Model P round grate magnets were the right choice. Both combine strong attractive force and a sanitary, easy-to-clean design.

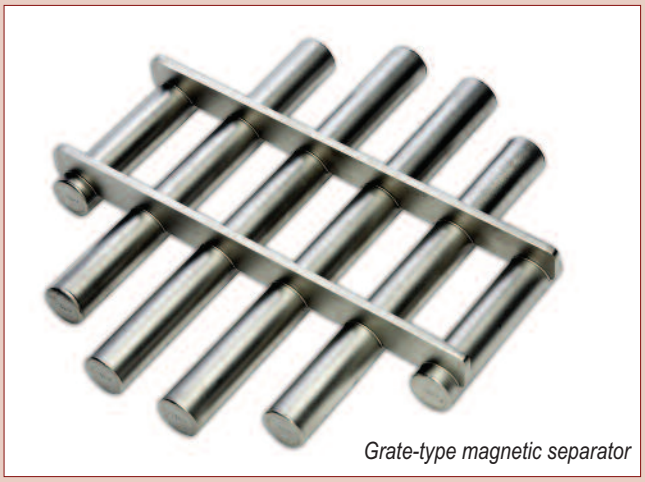
Five cartridge magnets were installed in the manufacturer's pneumatic conveying lines, and 14 grate magnets, of various sizes, were installed at mixing vessel inlets and at the end of gravity feed chutes.

To meet the manufacturer's sanitation requirements, the magnetic separators are made of 316 stainless steel with a surface finish of 30 Ra. They also use passivated welds, as well as sanitary magnetic elements free of cracks, pits, and crevices. The powders that pass through the separators have particle sizes of 30 to 100 microns and include a calcium carbonate for coating tablets. The separators also handle other fine pharmaceutical powders.

Beyond the appeal of a strong attractive force and a sanitary design is the user-friendly, easy-to-maintain construction,



Cartridge-style magnetic separator


Grate-type magnetic separator

which simplifies procedures in the manufacturer's batch operations. Once operators transfer a batch, they stop to clean the magnets and other equipment and then start the next batch.

Since installing the equipment, the manufacturer has discovered only tiny bits of ferrous contaminants in separators, which is good news. Better yet is the knowledge that nothing ferrous is likely to have escaped the draw of the powerful rare-earth magnets. *T&C*

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