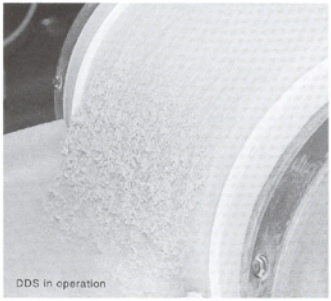
NEW TECHNOLOGICAL DEVELOPMENT

DDS DYNAMIC DRUM SEPARATOR



DDS in operation

Eriez have a new separation technique for the removal of fine iron from fine, dry powders using the Dynamic Drum Separator

(Patent Applied For No. 9700081.4)

Principle of Operation

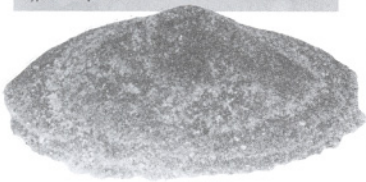
The powder is fed via a belt into a magnetic field. Fine magnetic particles are attracted to the belt surface, freed from surrounding material particles and then discharged underneath the head pulley of the conveyor system. The non magnetic fine powder does not react with the magnetic field and falls away from the head pulley in a normal trajectory. A strategically placed splitter enables separation of the iron from the non magnetic powder.

The success of the DDS is attributed to the unique **Eriez Dynamic Agitation Effect**. This greatly improves magnetics recovery and minimises product loss.

Typical fine powder

Features of the new DDS

- Utilises the highest strength Rare Earth permanent magnets.
- Simple robust design for easy installation into existing plants.
- Totally enclosed, dust tight.



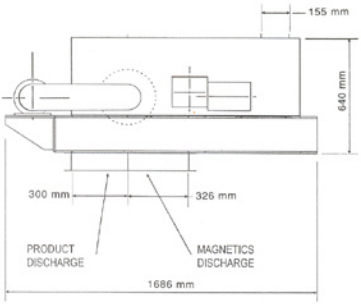
Separated fine iron

Advantages of the new DDS

- Achieves greater levels of fine iron separation from powders than any previously existing magnetic separation systems.
- The DDS is the most effective, automatic, self cleaning magnetic system for purifying fine, dry powders.
- Successful separation is not dependent upon the magnet system being periodically cleaned as in some batch fed type systems.

DDS DYNAMIC DRUM SEPARATOR

Overall Dimensions

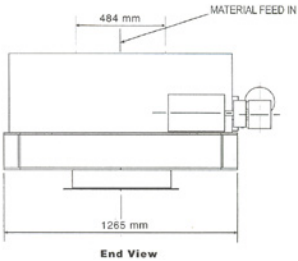


Applications

The DDS is ideally suited for separating free fine iron from dry milled powders less than 100 micron.

Typical materials are:

CORUNDUM, SILICON CARBIDE, QUARTZ, GLASS, GRANITES, PEGMATITE, LIMESTONE, CALCITE, TALC, ALUMINA, CEMENTS, CERAMICS, INDUSTRIAL MINERALS, FOODSTUFFS, CHEMICALS



Performance Information

Capacities are nominally up to 3.0t/hr per module depending upon the application. Results have shown the efficiency of the DDS to far exceed other existing systems. Typical results on a fine milled glass showed comparative separation efficiencies of:

Two pass Rare Earth Magnetic Tube System:	8% Fe reduction
Two pass Rare Earth Magnetic Drum System:	13% Fe reduction
ONE PASS DYNAMIC DRUM SEPARATOR:	**48% Fe reduction**

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