

MAG-3

Magnetic Separator



Paramagnetic minerals separation

3 separation stages

No dust casing

MAG-3 Magnetic separator

High field magnetic separator

Paramagnetic minerals separation

MAG-3 magnetic separators are ideal devices to deironing a wide range of sand materials. Paramagnetic minerals (hematite, biotite, ilmenite, ecc...) are simply captured by MAG-3's powerful magnets. MAG-3 magnetic separators are particularly indicated for the iron removal of fine particle size products (typically from 0,1 to 1,8 mm).

Effective separation: example

Incoming material: feldspar sand glass grade with 1'450 ppm of iron; separated material: 850 ppm of iron;
REDUCTION: 41%.

The effectiveness of the separation depends on the particle size, moisture, initial iron concentration and magnetic behavior of the material.

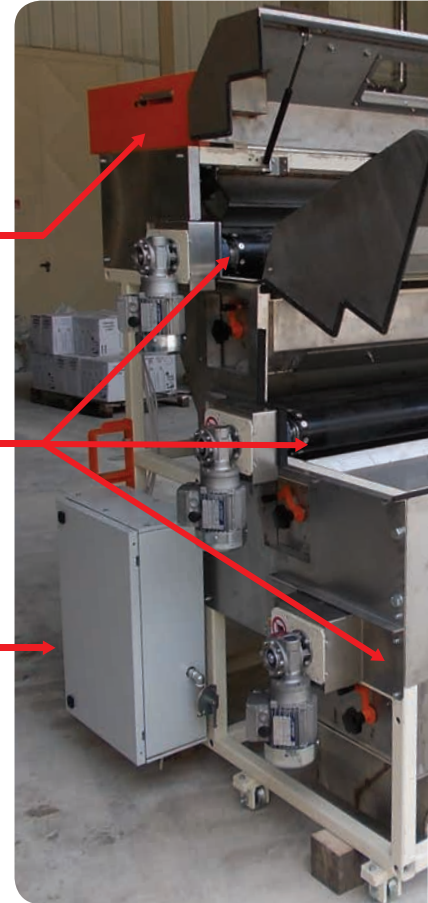
3 separation stages

Three neodymium magnetic drums that drag the same number of belts: three successive stages of separation for effective iron removal. The first stage is fed from the hopper integrated on the machine: the magnetic component of the material is retained in correspondence of the magnetic drum; the remaining material part continues its trajectory on the second and later on the third stage, completing the refining cycle.

Feeding hopper

Separation stages

Air valve box



Waste control

Paramagnetic material release area is well separated from the deironed material trajectory: according to the desired refining degree, a series of adjustable bulkheads conveys the magnetic waste outside the machine.

Automatic cleaning

Magnetic and driven drums are kept clean by an internal air blow: a light over-pressure prevents dust collection under the belts.

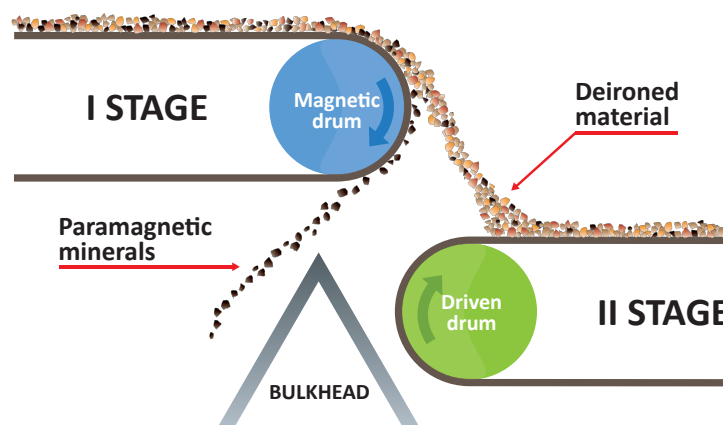
Technical data-sheet

Single belt area	200 x 1'500 mm
Magnetic area width	1'500 mm
Maximum belt speed	43 m/min
Installed electric power	0,3 kW
Air consumption	0,9 dm ³ /h a 6 bar
Weight	800 kg
Dimensions	2'160 x 1'350 x 1'800 mm
Maximum production rate*	8 t/h
Field intensity	20'000 Gauss

* the production rate depends on the kind of treated sand.



Dust protection cover and access door



Belt's adjustable speed

Magnetic separation is much more effective if the transitioning material layer is thin. For this reason MAG-3 separators motorization is controlled via VSD, reaching belt's speeds up to 43 m/min and a maximum production rate up to 8 t/h.

Effective separation thanks to the 20'000 Gauss neodymium magnets and the real-time belt speed control

No dust-casing

MAG-3 magnetic separators do not release dust outside, being enclosed in a special under-pressure casing. The machine is mounted on rails, to allow the perfect alignment with the external feeding source and to permit simply maintenance.



Safety

Minerali Industriali's machines are designed and realized according to the best available standards, ensuring the highest degree of safety for the operators. All machines are CE certified.

Laboratory tests

Minerali Industriali, as raw materials manufacturer for glass and ceramic industry, makes available its laboratories and experimental equipments for analysis and industrial simulations.

Industrial trials

Minerali Industriali's plants are available to the customers for industrial trials.

Efficiency warranty

Minerali Industriali equipment performances depend on the material to be treated.
Based on the outcome of the industrial trial, Minerali Industriali declares and warrants the machine's production rate.

Refunded trials

Minerali industriali asks to the interested customers to cover only the execution tests cost in its laboratories or plants.
In case of machine purchase, this amount will be entirely refunded.

Turnkey solutions

Minerali Industriali offer involves design, installation assistance, start-up and personnel training.

Customer care

Minerali Industriali technical office is available for spare parts supply and for any assistance the customer may need.

Payments facilities

Minerali Industriali collaborates with the leading credit institutions and it is available to study financial dedicated solutions with the customer.



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