GOUDSMIT magnetic systems

High Gradient Separator



HIGH GRADIENT SEPARATOR

The importance of separating iron from the flow of raw materials is becoming increasingly more important. In dry and granular raw materials with small to extremely small iron particles, and in production processes where the required degree of iron separation is high, the separation of iron causes many problems. Goudsmit Magnetic Systems have developed a system that can meet all these requirements: the high gradient separator. This system has been specially developed for making the separation of magnetic and weak magnetic particles from dry, granular raw materials possible.

FINE RAW MATERIALS

The problem of separating iron from fine granular raw materials is well-known in the **chemical**, **mineral** and **recycling industries** in particular. These consist of products such as **feldspar**, **quartz sand**, **mica**, **cement**, **chrome sand**, **ceramic powders and plastic granulate**. The separation of iron from light magnetic



materials, such as nickle plated copper, is even more complicated. With the new technique used by the high gradient separator it is now however possible to separate iron from these raw materials.

NEOFLUX®-DRIVE ROLL

The high gradient separator consists of a bypass belt equipped with an extremely powerful Neoflux®drive roll. The raw materials from which the iron has to be separated is fed through a vibrating channel, and due to this the raw material is finely distributed over the belt. On passing the Neoflux® roll the magnetic particles are attracted, causing them to fall to the rear. The non-magnetic particles fall straight downwards. Via an adjustable flap the various particles are separated in the correct manner. The high gradient separator also separates para-magnetic materials. In addition continuous monitoring and cleansing of the raw materials also takes place.

MULTIPLE MAGNET ROLLS

Goudsmit Magnetic Systems has a number of standard sizes in which the high gradient separator is produced, and all of these sizes only require a low installation height. It is also possible to

Petunialaan 19 P.O. Box 18 - 5580 AA WAALRE The Netherlands Tel.:+31-(0)40-2213283 Fax.:+31-(0)40-2217325 www.goudsmit-magnetics.nl systems@goudsmit-magnetics.nl Available in a single or two-stage version in belt widths of 400, 600 and 800 mm. Other dimensions available on request. Capacity at a belt width of 800 mm. Light granulate : \pm 1,6 tonnes/hr Quartz sand : \pm 2,4 tonnes/hr Rough granulate : \pm 5,6 tonnes/hr

make a system in accordance with customer specifications. Depending on the requirements made and the application, a choice can be made for a single stage system or for multiple magnet rolls under one another. This results in an even higher degree of iron separation.

The high gradient separator realises an exceptionally high degree of iron separation of even smallest particles, to approximately 25 microns. The powerful **Neoflux®** Magnet rolls have an inductive strength of 10.000 Gauss. **This, together with continuous cleansing and low installation height, makes the high gradient separator suitable for many applications.**



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