

HIGH INTENSITY ELECTRO MAGNETIC SEPARATORS TYPE VOG



High intensity, multi-zone dry disc magnetic separators for purification and concentration of dry products, especially minerals, as well as separation of swarf metals



VOG3.400S

The high degree of selectivity achieved by this range of Dry Disc Magnetic Separators produces exceptionally clean magnetics fractions with high magnetics recovery.

Applications

- Concentration of dry, granular minerals such as ilmenite, garnet, monazite, wolframite, columbite-tantalite etc
- Removal of minerals of low magnetic susceptibility from cassiterite, zircon, scheelite, rutile etc
- Purification of quartz for the glassmaking industry
- Purification of abrasives
- Extraction of iron oxides from chemical and food products
- Separation of different types of swarf

Features

- Wide range of models and sizes to cater for different applications and capacities
- Feed hopper with adjustable gate for uniform material distribution across feeder tray
- Conveyor belt with variable speed geared motor unit
- Height adjustable revolving discs
- Robust support framework
- Choice of fixed or belt type permanent magnetic scalper
- Control unit with separate potentiometers and ON/OFF switch for individual elements: vibratory feeder, conveyor belt motor, disc motors and coil circuits

Capacity

Minerals	Particle Size mm	Capacity kg/hr
Heavy Mineral sands <i>ilmenite, monazite</i>	-0.7	500
Columbite-Tantalite Concentrate	-1.1	500
Garnet/Monazite Separation	-0.4	400
Titanium Alloy	-1.0	400
Wolframite-Cassiterite Concentrate	-1.1	500

This complete aluminium swarf separating system with bulk feed hopper and control hopper with vibratory feeder incorporates a VOG1.400S Magnetic Separator.



Principle of Operation

A vibratory feeder discharges material onto belt conveyor and carries it beneath the permanent magnetic scalper and revolving discs.

Zones of high magnetic gradient on the undersides of the discs attract the magnetic particles in the feed and carry them beyond the edges of the belt conveyor where they are discharged into chutes on each side of the conveyor.

Counterweighted scrapers in contact with the undersides of the discs ensure that all particles are prevented from re-entering the high intensity magnetic field.

Adjustment of jacking bolts above each disc alters the air gap between the disc and the conveyor belt, allowing selectivity to be changed. Optimum selectivity can be accurately achieved by combining disc height adjustment with variation of coil current from the control panel.

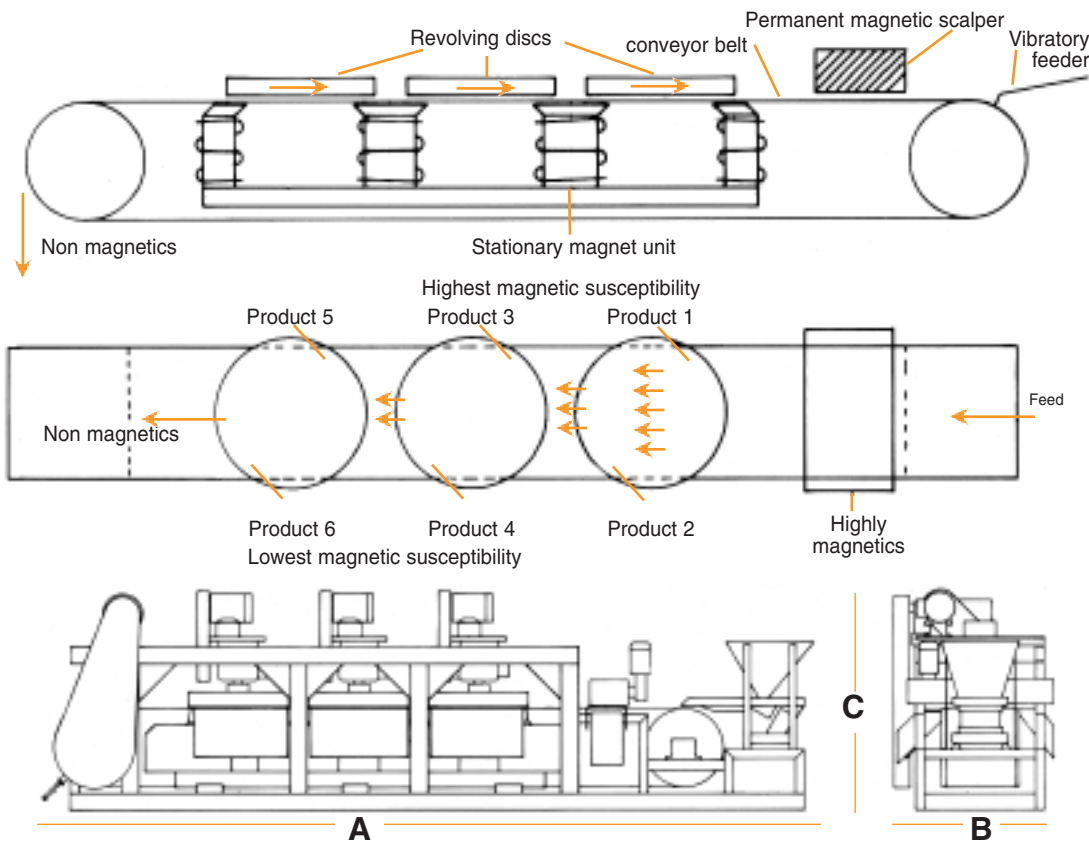


Diagram shows a VOG3.400S* with self-discharge scalper

Models and Capacities

Capacities vary considerably depending on bulk density, particle size and susceptibility of the magnetic fraction. To establish capacity and

performance, contact our engineers with a view to sample testing.

Model	Magnet kW	Total Drive kW	Overall dimensions (mm)			Nett Weight (kg)	Gross Weight (kg)	Ship Space (m³)
			A	B	C			
VOG1.250*	0.8	1.7	2280	695	1065	750	1100	3.4
VOG2.250	1.2	2.8	2815	695	1065	1000	1400	4.5
VOG3.250	1.6	3.9	3350	695	1065	1280	1750	5.4
VOG1.250S	0.8	1.8	2680	695	1065	800	1200	4.2
VOG2.250S	1.2	2.9	3215	695	1065	1050	1500	5.1
VOG3.250S	1.6	4.0	3750	695	1065	1330	1850	6.0
VOG1.400	1.5	2.3	2645	910	1250	1200	1650	5.1
VOG2.400	2.3	3.8	3330	910	1250	2000	2500	6.4
VOG3.400	3.1	5.3	4015	910	1250	2800	3360	7.8
VOG1.400S	1.5	2.4	3045	910	1250	1250	1700	5.9
VOG2.400S	2.3	3.9	3730	910	1250	2050	2550	7.2
VOG3.400S	3.1	5.4	4415	910	1250	2850	3420	8.5

*First digit: number of discs. Last 3 digits: belt width in mm. S at the end signifies that a motorised scalper is fitted.

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