



MASTER MAGNETS LIMITED



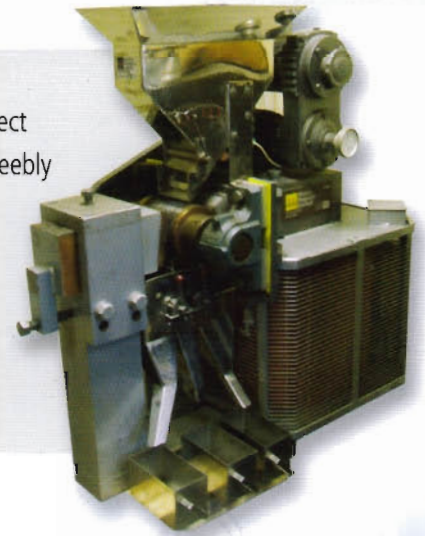
LABORATORY EQUIPMENT

TEST FACILITIES

Master Magnets have a comprehensive testing laboratory with experienced staff, available to process samples, and advise on the selection of the correct production separator. For sample tests in a client's own laboratory, Master Magnets manufacture and supply a wide range of laboratory scale machines.

Induced roll separator

Master Magnets Pilot/Laboratory Induced Roll Separator is a versatile machine offering direct scale up to industrial size machines. High intensities produced enable separations of very feebly magnetic granular material. Readily alterable separating parameters enable the separator to be used as a research tool. A continuously rated coil enables the machine to be used as a pilot separator. Replaceable pole noses of differing shapes are available. The separator is easily cleaned for use in between tests. Machines are supplied complete with control gear. Note: A two roll version of this separator is also available.

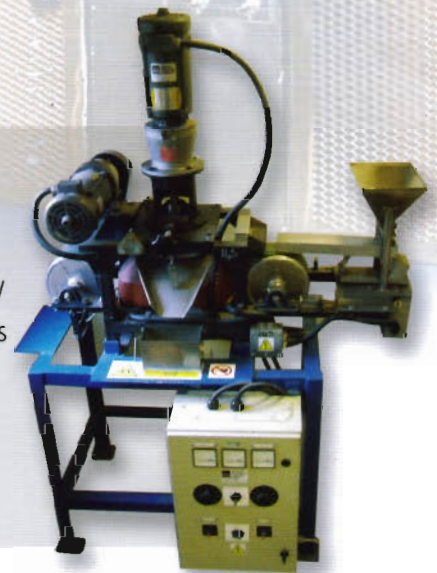


Bench Type Induced Roll Separator

Master Magnets Bench Type Induced Roll Separator is ideally suited for very small samples. The separator makes very little compromise to its larger standard machine in its separation quality. The machine is short rated. Control gear is integrated in the machine.

Induced roll separator

This separator enables selective separations to be carried out at one pass giving two clearly differing magnetic minerals and a relatively non-magnetic product. Appreciating researchers requirements, separating parameters are easily variable, Separations carried out can be related to industrial size separators. The separator is supplied complete with control gear.



Dry Test Magnet

An essential tool in every laboratory for static testing of small quantities of ore, giving a preliminary guide to the magnetic content and the type of commercial separator and magnetic intensity required. The sample is introduced onto a sampling table and the magnetic material is attracted to a pick up pole. The gap between the sampling table and the pick up pole is variable, and the distance between the fixed pole and the pick up pole is also adjustable, thus giving a guide to the magnetic gradient required. Intensity variable from a maximum of 2 Tesla at a minimum gap of approximately 3mm. The machine is supplied complete with control gear.



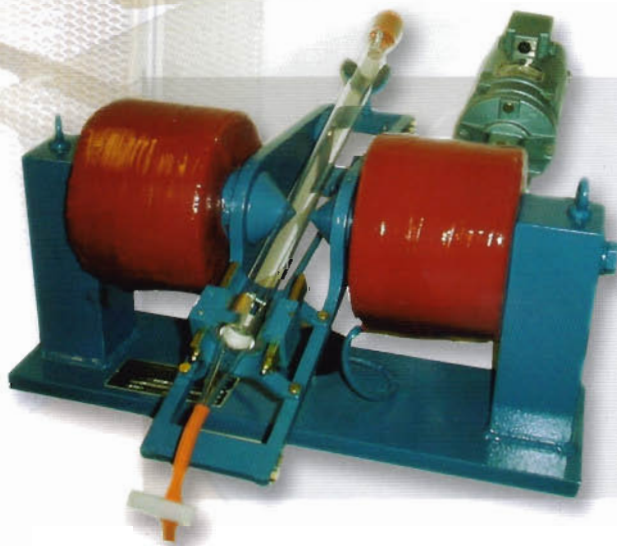


A/P Drum Separator

The multi-pole alternate pole drum separator is mainly used for upgrading highly magnetic material such as magnetite, iron ores etc., where the material is predominantly magnetic. A large number of magnetic poles placed over a long arc ensure rapid and successive tumbling action, releasing trapped non-magnetic material. Rotational speed of the drum is variable via a vari-speed motor. The separator is also capable of producing a middling product by the aid of a hinged section, allowing a close control of the final grade of magnetics. Standard laboratory size separator has a shell diameter of 250mm and a drum width of 150mm.

Isodynamic Separator

A truly scientific piece of apparatus, where a very high selectivity of minerals is required. The separator is capable of separation of all paramagnetic and some diamagnetic minerals. The track in which the material flows operates at an incline or vertically and tilted. Material flow can be aided by a vibrator unit suitable for a 200/250 volts supply. Other supplies can be accommodated. Vertical fall and other paramagnetic liquid attachments are available.



Tube Tester

A long established laboratory tool for assessing the true magnetic content of magnetite, Ferro silicon etc., from small samples in a wet form and assessing the efficiency of commercial separators. This is an internationally recognised standard laboratory tool providing reliable test data. The gyratory action produces a clean magnet product. The frequency of gyration and magnet current is variable. The separator is supplied complete with control gear.

Wet Test Chute

For assessing the efficiency of drum type heavy media magnetic separators in coal preparation plants. Below a hinged sloping plate, a permanent magnet unit is contained in a frame. The slurry where magnetic content is to be determined is poured onto the tray, the magnetics being held onto the tray. The tray is lifted and the magnetics are removed for analysis. Accessories provided are water jet attachments, 2 beakers and an evaporating dish. Sample containers are provided as an additional item for home orders.





Laboratory Wet Drum Separator

Designed primarily for the study of concentration and reclamation of iron ores, Ferro silicon and magnetite. It is also used for the study of mill scale from milling operations. The drum magnet unit is made from high-energy permanent magnets. The unit is so designed that it can be easily cleaned after every test. A mixer pump and re-circulatory system is available as an optional extra.

Laboratory Wet High Intensity Separator (WHIMS) Jaw Type

Suitable for processing samples requiring wet treatment at high magnetic fields and high field gradients on a batch basis. Separator matrix canister is designed to give free flow or regulated flow condition. A wide array of matrix material is available, wedge wire bars, grooved plates, expanded metal, wire wool, steel balls etc., for a true study of the most suitable matrix. The separator is capable of treating samples of approximately 500 grams dependant upon the magnetic content. Hand held wash and scour water discharge mechanism is provided with flow meters as an extra. The control panel is provided with a variable rheostat and rectifier with a digital display ammeter. Control panels are made either suitable for single phase or 3 phase supply. It should be taken into consideration that as an addition, a range of canister type small bore water cooled magnets are available with bores varying from 25mm to 75mm. Intensities of 3 Tesla and below are available.



Master Magnets have over twenty five years experience providing innovative magnetic solutions to industries involved in recycling, demolition and reclamation, mining and quarrying, food processing, ceramics production and powders and minerals processing. The MasterMag range of systems are known for high performance and reliable operations including magnetic separators for metals reclamation, tramp metal protection and high intensity mineral separation.

Please visit our Website at www.mastermagnets.com to view the entire range of Master Magnets Equipment where brochure and video downloads are available.

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