

WHIMS

Wet High Intensity Magnetic Separator



Application

The Wet High Intensity Magnetic Separator (WHIMS) can be used in a wide variety of applications throughout the mining and metals industry. Some typical applications are:

Ferrous metal ore: Recovery of hematite, limonite, siderite, chromite, manganese ores, etc.

Nonferrous metal ore: Separation of fine embedded wolframite from quartz, magnetic pyrite from cassiterite in a polymetallic sulfide ore, and cassiterite, wolframite from limonite, etc. Separation of tungsten, wolframite from garnet, etc.

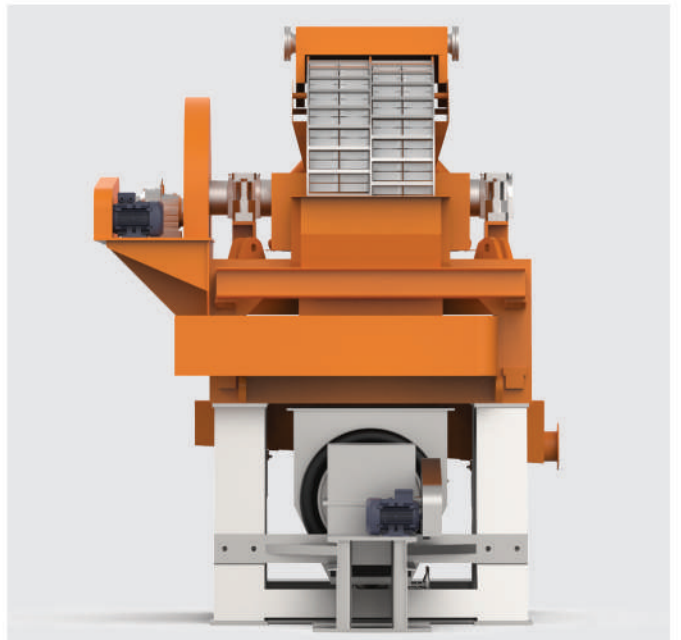
Rare earth metal: Recovery of titanium iron ore, iron and tantalum-niobium ore, lithium mica, monazite, and phosphorus yttrium ore. Separation of lithium pyroxene from hornblende, tantalum from niobium, iron ore from microlite, titanium iron ore from man-made rutile, and rutile from garnet etc.

Non-metallic ores: Purification of glass ceramics industrial raw materials like quartz, feldspar and kaolin, Purification of high-temperature refractory silicates like andalusite & kyanite. Elimination of iron, hornblende, mica, electrical stone, garnet and other harmful impurities, etc.

Other applications: Wastewater treatment for steel mills and power plants or removing catalyst pollution from chemical raw materials.

Main Features

- High performance
- High availability
- Low operating costs
- Low maintenance costs
- High efficiency and reliable performance
- High capacity
- Advanced design
(resistance to corrosion, wear and fatigue)





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Description:

FMS Company is involved in design a wide range of Wet High Intensity Magnetic Separator as new products .Design and manufacturing of Wet High Intensity Magnetic Separator are according to accepted standards. Because of the ability of WHIMS, this equipment is offered in different specifications based on customer's demand.

Maximum Field Intensity: 10000 Gauss.

Manufactured Wet High Intensity Magnetic Separators (WHIMS) by FMS Company are Applicable for Upgrading Ferrous Metals, Separating Non-Ferrous Metals and Recovering Rare Earth materials.

The electrical current ($\approx 1400A$) is passed through the coil and creates a high intensity magnetic field (≈ 10000 Gausses).

This magnetic field will magnetizes the rotating matrix ring. The matrix in magnetic field will acts like a permanent magnet and attracts the fines. When the matrix is out of the magnetic field, washing water will wash the matrix and all the magnetic particles will carry into concentrate launder. In tailing box, a high frequency, low pulse stroke is used to wash away the very weak magnetic material from the matrix compartments into discharge launder.

More strongly magnetic particles remain in the matrix and are carried by the rotation of the vertical ring into the middling area of the separating chamber.

