

MAGNETIC SEPARATORS

Examples of application of magnetic separators in various fields

Removal of iron from various kinds of raw materials and semi-finished products and collection of iron powder are called magnetic separation. KANETEC offers a wide variety of magnetic separators for use with lump materials, granular materials, clay-like materials and liquids.

Examples of usage in various fields

Steel making and mining	Separation of steel materials and collection of iron in residues.
Machine, press, plant	Processing of scraps and collection of flux.
Food, candy, can making	Removal of iron from raw materials and foreign matter in manufacturing processes.
Pulp, paper, stone crushing	Removal of iron from raw materials and protection of crushers.
Chemicals	Removal of iron from raw materials and waste liquid.
Casting and nonferrous	Removal of iron from casting sand and chips.
Sand and cement	
Feed and fertilizer	Removal of iron from raw materials and mixed machined parts.
Textile and fabric	
Sugar, salt and cigarettes	Removal of iron from raw materials.

Selection of magnetic separators and notes for inquiry

A magnetic separator to select must be suitable for the purpose of use and have a sufficient capacity. To select such a most suitable separator, when inquiring about separators, conditions such as the purpose of use and properties of materials need to be informed, as detailed below:

- Purpose (improving the grade, collecting useful magnetic substances, etc.)
- Kind, composition and components of raw materials
- Grain size of raw materials (□□ mm - □□ mm, □□ mesh - □□ mesh)
- Water content, raw material temperature
- Apparent specific gravity (bulk density)
- Kind, shape and grain size of mixed magnetic substances
- Amount of raw materials to process per hour (kg/h, m3/h)
- Amount and ratio of mixed magnetic substances
- Other special conditions



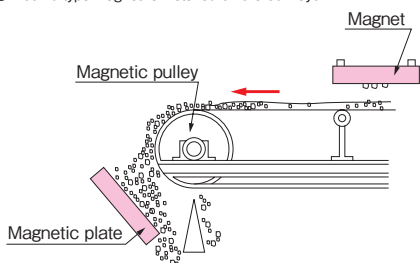
Tests of separating samples available.

Please contact your nearest KANETEC sales office. Then we will do separation tests and model selection for you.

※ Please use the Facsimile Communication Form (Selection Data) on page 176 and page 177 to select the best separator.

Separation on conveyor (dry)

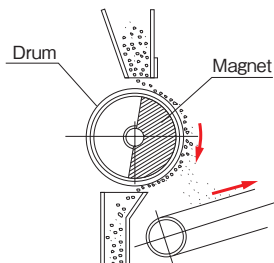
- A magnetic pulley is used.
- A magnet is suspended over the conveyor.
- A plate magnet is installed on the discharge side of a conveyor.
- A grid type magnet is installed on the discharge side of a conveyor.
- A comb type magnet is installed on the conveyor.



Listed on pages 139, 140, 142 & 145.

Separation by magnetic drum (dry)

- A magnetic drum is installed at the bottom of the hopper chute.
- A magnetic drum is installed at the exit of a vibrator feeder.
- A magnetic drum is installed on the discharge side of a conveyor.
- A magnetic drum is installed at the raw material exit.



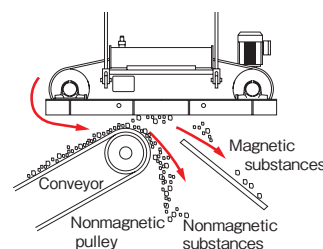
Listed on pages 141 & 143.

Separation by suspended separator (dry)

To automatically remove iron pieces, bolts and nuts on a conveyor, a suspended magnetic separator is installed to attract and remove iron pieces.

For fully automatic removal and discharge: BST, SPM, etc.

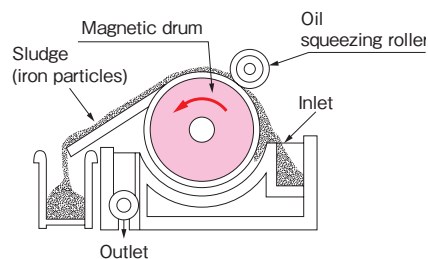
For automatic removal and manual discharge: HEM-BS, HEM-C, KPMJ, KPMD, etc.



Listed on pages 137 & 138.

Separation in fluid (wet)

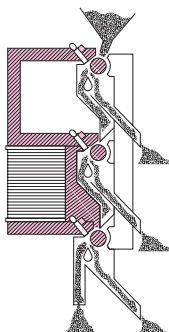
A coolant separator (removal of iron particles in grinding fluid, waste oil, cooling oil), drum separator (collection of iron ores and iron sand materials) or plate magnet (removal of iron particles deposited in oil tanks) is used.



Listed on pages 115, 116, 117, 144 & 145.

High magnetic force separator (dry)

A magnetic separator generating a high magnetic force of 2.6 T (26000 G). Used for weak magnetic substances that cannot be removed sufficiently by a standard separator.

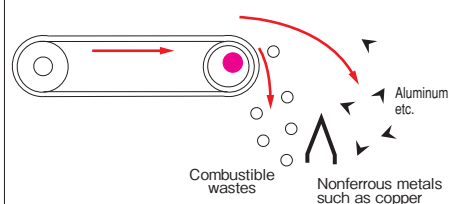


Listed on page 143.

Nonferrous metal separator

Aluminum items can be sorted and separated from noncombustible wastes and large crushed wastes efficiently.

A permanent magnet is used as a source of magnetic field for sorting, which is rotated at high speed to cause eddy current to sort materials.



Listed on pages 135 & 136.

All data in this catalog is based on the Measurement Act in Japan and KANETEC has standardized the indication of the magnetic flux density in the units of mT and T: 0.1 mT = 1 G 1 mT = 10 G 1 T = 10000 G