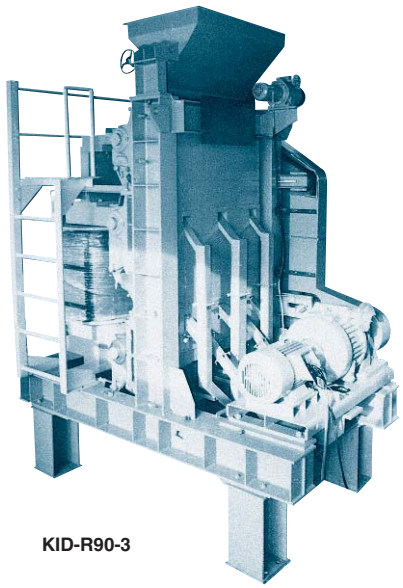
The high magnetic force separators are designed to generate a magnetic force as large as 2.6 T (26000 G) for separation of weak magnetic substances. In addition to the "induction roll type KID-R" and "cross belt type KID-B" that have a large processing capacity, a smaller capacity "induction type KID" and "electromagnetic filter KIF" are also available.

Model KID-R INDUCTION TYPE MAGNETIC SEPARATOR



KID-R90-3

[Application]

These separators are suitable for separation of weak magnetic substances that exist in powder and bulk materials of quartz sand (glass material), high grade casting sand and chromite sand. In addition, these separators are used to remove iron ores from such nonferrous minerals as tungsten, manganese ore, titanium ore, monazite, garnet and ilmenite, to remove weak magnetic oxides from casting sand (quartz sand) and to separate weak magnetic substances from other powder and bulk materials.

[Features]

- The induction roller generates 2.6 T max. (Tesla) at a sharp gradient and high magnetic flux density.
- The magnetic force can easily be adjusted according to magnetic substances in raw materials.
- The roller revolution can be varied steplessly. According to properties of raw materials, the influence of the centrifugal force by the roller can be adjusted to optimum separation. (Optional)
- When the 2-stage or 3-stage type is used, highly efficient separation is possible.
- These separators are of dry type that does not need auxiliary equipment for pre- and post-treatment.
- These separators are designed to contain dust to prevent pollution by dust.

Conditions of substances to process

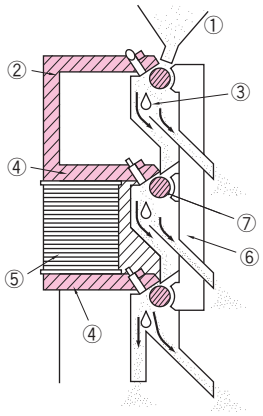
Optimum substances to process are dry and flow freely and their grain size is from 8 to 150 mesh.

Capacity

The amount to process is about 200 kg/h to 1000 kg/h per induction roller width 100 mm, though it varies according to kinds and grain sizes of substances to separate and required level of separation.

One-stage or 2-stage according to applications

Because a high magnetic force is required, the magnetomotive force is induced by the roller by use of yoke so that weak magnetic substances can be separated from flowing raw materials. The figure shows the 3-stage type. One-stage, 2-stage and 3-stage are determined by the number of induction rollers.



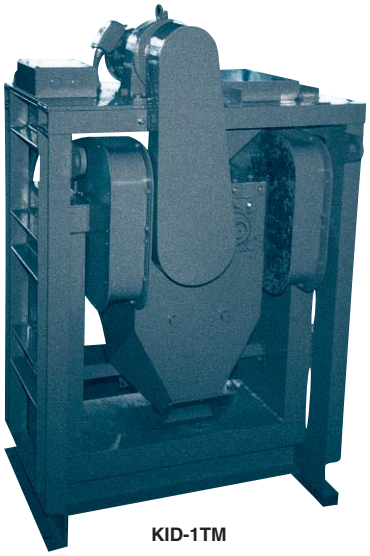
〈3-stage〉
①Hopper
②Magnetic pole for rough separation
③Branch plate
④High magnetic force pole
⑤Coil
⑥Yoke
⑦Induction magnetic roller

[mm(in)]

Model	Loller	Flow Capacity	Dimensions			Power Consumption			Mass
			Length	Width	Height	Magnet	Motor 1	Motor 2	
KID-R35-1	1-stage	2.4m3/h	1650 (64.9)	1000 (39.3)	2300 (90.5)	1.5kW	3.7kW	250VA	2.5—3.0 ton 5512—6614 lb
KID-R35-2	2-stage								
KID-R35-3	3-stage								
KID-R60-1	1-stage	4.0m3/h	1700 (66.9)	2300 (90.5)	2500 (98.4)	5.5kW	7.5kW	750VA	7.0—7.5 ton 15430—16530 lb
KID-R60-2	2-stage								
KID-R60-3	3-stage								
KID-R90-1	1-stage	6.0m3/h		2600 (102.4)		10.0kW	11.0kW		9.0—10.0ton 19840—22050 lb
KID-R90-2	2-stage								
KID-R90-3	3-stage								

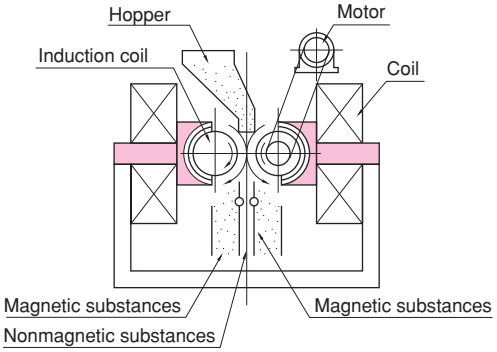
※Magnetic separators dedicated for weak magnetic substances. If strong magnetic substances are mixed, they need to be removed at the preceding stage.

Model KID INDUCTION TYPE MAGNETIC SEPARATOR



KID-1TM

Suitable for removing weak magnetic substances from glass raw materials, ceramic raw materials and chemical products. In particular, these separators work best with fine particles smaller than 1 mm. Weak magnetic substances in bulk materials are separated by a strong magnetic force.



[mm(in)]

Model	Flow Capacity	Dimensions			Motor	Electro Magnet	Mass	Material
		Width	Depth	Height				
KID-250	0.15m³/h	665(26.1)	350(13.7)	750(29.5)	0.2 kW	0.2kW	300kg/ 661 lb	Sand & powder smaller than 1mm(0.03)
KID-1TM	1.0 m³/h	810(31.8)	650(25.5)	1300(51.1)	0.4 kW	0.6kW	900kg/1984 lb	Sand & powder smaller than 3mm(0.11)
KID-3TM	3.0 m³/h		850(33.4)	1500(59.0)	0.75kW	1.2kW	1700kg/3748 lb	Sand & powder smaller than 3mm(0.11)