

Compact Powerful Magnet for FA

Our compact powerful magnets for FA offer control of magnetic field lines using a metal holder, resulting in a magnet with greater attraction than an individual magnet.

Attraction force

The load that can be held by the compact powerful magnet for FA using attraction in the vertical direction.

The attraction force changes depending on the temperature, the material of the object to be attracted, and the surface roughness. The attractive force also depends on the type of magnet.

Magnet type

● Hard ferrite (HF)

A hard ferrite is a sintered powder of iron oxide with strontium or other additives.

It is one of the standard magnets. When heated, the attraction force weakens. It has excellent corrosion resistance.

● Alnico (AN)

The main components of alnico are aluminum, nickel, cobalt and iron. This is also made by sintering or casting.

The attraction force is very strong. The attraction force hardly weakens even when heated. It can also be used at high temperatures. It has excellent corrosion resistance.

	Hard ferrite (HF)	Alnico AlNiCo (AN)	Samarium-cobalt SmCo (SC)	Neodymium NdFeB (ND)
Attraction force	△	○	○	◎
Corrosion Resistance	◎	◎	○	×
Heat Resistance Temperature	200°C	450°C	200°C	80°C

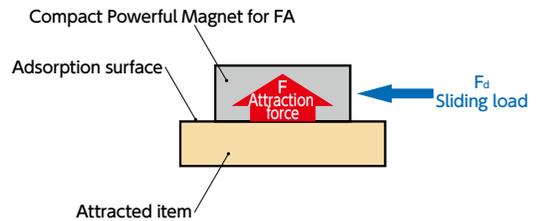
◎: Excellent ○: Very good
△: Standard ×: Not suitable

Sliding load

The load that can cause sliding in the horizontal direction when held by the compact powerful magnet for FA using attraction.

The sliding load changes depending on the surface roughness of the object being attracted and the coefficient of friction of the attraction surface.

The sliding load is about 20% - 30% of the attraction force.



● Samarium-cobalt (SC)

Samarium-cobalt is a sintered product using samarium and cobalt as the main constituents. The attraction force is very strong, second only to neodymium magnets.

When heated, the attraction force weakens. It has excellent corrosion resistance.

● Neodymium (ND)

Neodymium is a sintered product using neodymium, iron and boron as the main constituents. The attraction force is the strongest. When heated, the attraction force weakens.

Not suitable for use at high temperatures. Treated with a nickel plating to improve corrosion resistance.

⚠ Precautions for Use

- The attraction force decreases as temperature increases.

If the heat resistant temperature is exceeded, the attraction force may drop and may not be restored even if the temperature drops below the heat-resistant temperature.

- The heat resistant temperature changes depending on the dimensions.

The values in chart are for reference only. They are not guaranteed values.