

Handling Precautions

1. Precautions for safety

- a) Large magnets exert an extremely powerful suction force (and sometimes a repelling force) on other magnets or metal scraps and other magnetically attracted substances. This force is capable of causing you to suddenly lose your balance or suffer serious injury if your hand or other parts of your body become trapped in the magnetic field while carrying or installing the magnets. Please take sufficient care when handling these magnets and always use appropriate tools.
- b) The sharp edges of magnets can cause injury to your fingers and hands especially. Please handle the magnets with care.
- c) When attaching magnets using a hollow-core coil, please be aware that the magnet may suddenly spring away from the coil. For safety's sake, place the magnet in the center area of the coil and secure it.
- d) Keep magnets out of the reach of children so as to avoid accidental swallowing. Should this occur, see a physician immediately.
- e) People whose skin is allergic to metals should avoid working with magnets, as this may cause an adverse reaction (rough, red skin).
- f) It is extremely dangerous to handle magnets near people who are wearing pacemakers or other electronic medical devices. Take special care when using magnets around medical equipment, as it may impair normal operations.
- h) Magnets are generally susceptible to breakage. Please take care when handling any magnet, and be aware that magnet fragments can easily enter your eyes or cause other serious bodily injury.

2. Design Precautions

- a) Some anisotropic Ferrite Magnets, depending on the material, suffer reduced magnetism at low temperature. Always check the performance of the magnet at the temperature at which it will be used.
- b) Ferrite Magnets are often used for transmission; since the material cracks very easily, take measures to protect it from shock.

3. Handling Precautions

- a) If magnetized Magnets are placed one on top of another, they can become difficult to pull apart or chip. Separate the magnets by using a spacer such as cardboard.
- b) If a magnetized magnet is allowed to be attracted to a metal plate or if two magnetized magnets are allowed to attract or repel each other, their magnetism may decrease, so use caution.
- c) If a magnetized magnet enters an AC or DC magnetic field, its magnetism may decrease.
- d) A magnetized magnet will attract debris such as iron filings, so unpack it from the case in a dust-free environment.
- e) A magnet can adhere to small magnetic bodies even if unmagnetized, so use caution in handling. In addition, when mounting a magnet in a precision motor, clean it after assembly before use.
- f) Each magnet has its own characteristic Curie temperature, depending on the material. If a magnet is heated to near the Curie temperature, it will lose its magnetism. If it is absolutely necessary to heat a magnet in an assembly process, please consult with us.
- g) If a magnet is held to, for example, a yoke by adhesion, select an appropriate adhesive and adhesion method so that mechanical distortion will not remain after adhesion. If the magnet is used while residual stress is still applied, the magnet may be cracked by even a slight shock.
- h) Magnets are not very resistant to shock and are easily cracked and chipped, so use caution. Cracking and chipping may cause deterioration of the magnet's characteristics, as well as loss of rigidity.

4. Others

- a) Please keep magnets away from magnetic tape, floppy disks, prepaid cards, CRTs, magnetic tickets, electronic watches and similar items. This can result in loss of recorded data or lead to malfunction due to magnetization.
- b) Please keep magnets away from electronic devices such as measuring boards and control panels, as this may cause them to malfunction or result in an accident.
- c) When cutting a magnet, please be aware that resulting magnetic dust can catch fire spontaneously due to the heat produced by friction during cutting. Keep magnets away from fire or flammable materials. As a precaution against fire, keep a dry chemical extinguisher, a supply of sand, and any other necessary equipment. Also, do NOT use an electric vacuum cleaner.