



Magna-Track™ Magnetic Mounting System for ECEX Air Intake Screens

Our Magnetic Track Mounting System lets you easily mount ECEX Air Intake Screens in sensitive or difficult to reach areas. Using Powerful Neodymium Magnets, the *Magna-Track* Mounting System eliminates / reduces drilling and installation time. Simply insert magnets into connectors, cut track to length, assemble track and connectors and place over intake opening. Once installed, the screens can be released from the *Magna-Track* frame using quick-release twist lock fasteners while the track stays retained on the equipment or the entire assembly can be easily removed as needed.

Mounting ECEX Air Intake Screens Doesn't Get Any Faster or Easier Than This!



Features / Benefits

- **Reduces installation liability** – Eliminates risk associated with drilling and screw fixing near sensitive components
- **Reduces Installation Time and Cost by up to 50%**
- **Compatible with Both our PVC and Anodised Aluminum Track**
- **Colossal Mounting Strength** – Retains screen over intake opening without losing tension. Each magnet provides 7-8 Kgs of pull strength and can be placed at any interval as needed.
- **Magnets “click” into track connectors – Can’t fall out**
- **Mounts to Painted and Non-Painted Steel Surfaces.**
- **Mounts to Non-Magnetic Surfaces** (aluminum, plastic louvers, fiberglass, etc.) Using Magna-Plates constructed of 1.75” x 1.75” 18ga. galvanised steel plate attached using 3M VHB industrial double-sided tape or with mounting screws.
- **Enables Placement of Screens Where Screw Fasteners Can't Be Applied** Due to inaccessibility or danger of hitting sensitive internal components.
- **Magna-Track Connectors & Track system Mounts Flush Against the Mounting Surface - No Gaps and No Air Overflow.**
- **Use of Track with the Connectors Overcomes Weak Shear Strength - Screens maintain tension under flow of air** because the track retains twist-lock fasteners in their position.
- **Screens Can Be Attached with or Without Back Support**
- **Can be Attached to Equipment Vertically and Horizontally.**
- **Enables Removal of Screens Without Removal of Magna-Track Frame**
- **Compatible with All HVAC Makes & Models.**
- **All Components are Rust Proof / Resistant.**

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Magna-Track™ Connectors – How They Work



No Drill / No Screws / No Problem!

ECEX Air Intake Screens with the new *Magna-Track* connectors combine durable track connectors and high energy magnets to create a powerful magnetic mounting system that is ideal in applications where mounting screws are not desired. Use of the *Magna-Track* connectors with either our PVC or our Anodised Aluminium Track magnetically fixes the track while retaining it flush to the connecting face ensuring that there are no perimeter gaps; Furthermore, because all magnets are strongest when pulled perpendicular to the attachment surface and weakest when sliding parallel to the attachment surface, magnets have weak shear strength and can easily slide across a metal surface – Use of the *Magna-Track* Mounting System solves the “weak shear strength” problem by locking the twist lock fasteners into their horizontal and vertical position with the track, so they cannot be sucked (parallel / inward) towards the intake opening under the flow of air – making this a highly stable and superior magnetic mounting solution compared with individual magnetic fasteners.

The *Magna-Track* Connectors utilise Super-High-Energy 15 mm x 15 mm x 8 mm Neodymium magnets which provide aggressive surface attachment of 7-8Kgs of pull strength *per magnet*.

Magna-Track magnets are triple plated with a **Nickel / Copper / Nickel** coating to optimise durability and prevent corrosion. Neodymium magnets are a member of the Rare-Earth Magnet family and are the most powerful type of permanent magnets. They are also referred to as **NdFeB magnets**, or “**NIB**” because they are composed mainly of neodymium (Nd), Iron (Fe) and Boron (B). Magnets used in the *Magna-Track* product have a high resistance to demagnetisation; unlike most other types of magnets, they will not lose their magnetisation when in contact with other magnets or if dropped.

How Magna-Track Connectors Arrive with Your Order:

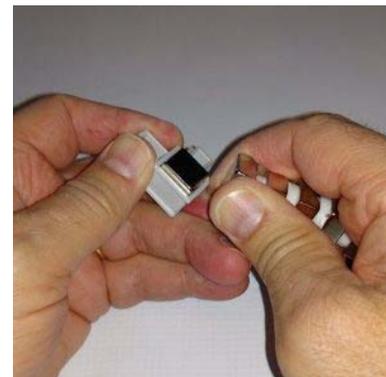
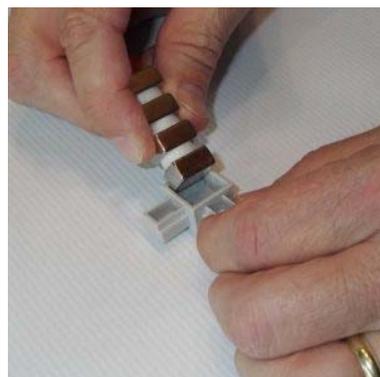
Track Connectors are universal parts that are available in “Corner” and “T” configuration and are available with or without magnets – They are used to connect lengths of track together to create a linear run of track or, to connect them into a square or rectangular frame. Since not every application requires the use of magnets, they are supplied along with connectors in quantities of 6 sets per package. *Magnets are not sold separately without connectors.*

When you receive your magnets, they come wrapped in a protective tube with spacers between each magnet to help prevent damage and to help you separate these powerful magnets when inserting into the back of the connectors. When separating the magnets, be sure to keep the magnets far enough apart so the magnetic field doesn't attract them to other magnets or unintended surfaces. If not exercising caution, the magnetic force can cause the magnets to violently slam into one another or into unintended surfaces, risking damage.

Inserting Magnets into Connectors:

Holding the stack of magnets, simply press the bottom magnet into the cavity on the back of the connector, then slide the stack above the inserted magnet sideways and away from the inserted magnet. *Be sure to set the stack down at least 500mm from any other magnets! Once inserted into the cavity, the magnets will not come out of the cavity.*

Because the magnets are sized to fit snugly and permanently into the cavity of the connector, inserting them may require greater strength than pressing them in with your thumb – if that is the case, place the magnet onto a flat surface and press the connector onto the magnet using your body weight. **NOTE: Never use a metal or hard object to strike a magnet as it can fracture the coating and inner structure)** When fully inserted into the connector, the exposed surface of the magnet should be flush or slightly higher than the rim of the cavity so it comes into direct contact with the point of attachment.



Frequently Asked Questions

- **What is the benefit of using magnetic fasteners?**

The benefit of using the Magna-Track mounting system is that it reduces the liability associated with using screw fasteners. Since there is no drilling or use of screws involved, there is no risk of damaging sensitive internal components such as condenser coils or electrical wires. It can also help in locations where it's impossible to get a drill in.

- **What is the difference Between the *Magna-Track* Mounting System and other individual magnetic toggle fasteners seen in the market?**

Individual Toggle Style Fasteners that have an extruded magnet riveted to the bottom of the base of the fastener adds thickness to the base creating a stand-off which results in there being a gap between the back of the air intake screen and the mounting surface, which allows for air and debris overflow which can defeat the screen. Further, the magnetic pull strength of the individual magnetic fasteners is approximately 5kg with a lateral / slide strength of only around 1.1Kg. It should be noted that all magnets have substantially weaker lateral / slide strength pull strength which allows the magnets to slide easily across the attachment surface hence, when screens are drawn inward under the flow of air, the air pressure transfers the stress to the outer perimeter of the screen resulting in individually attached magnetic fasteners being sucked inwards toward the intake opening – resulting in the screen losing tension. **Note:** Once the individual fasteners have been moved out of their intended position, the screen will “gap” around the perimeter it then susceptible to removal and loss due to wind.

In contrast, the *Magna-Track* system uses powerful Rare Earth Neodymium Magnets with a triple nickel / copper / nickel coating that provide a colossal 7-8Kgs of pull strength *per magnet*. Because the magnets are inserted into connectors which pull the mounting track flush up against the mounting surface, there is NO GAP and NO DEBRIS OVERFLOW. Further, when the quick release twist-lock fasteners are slid into the track they traverse along the track and become self-centering to the grommets on the screen, ensuring a perfect alignment hence screen doesn't wrinkle. Additionally, because the track connects together to create a frame, the twist lock fasteners are locked into position and cannot be pulled or slide inward toward the intake opening when the screen transfers the air pressure to the perimeter of the screen – Therefore, the screens retain tension and remain firmly affixed to the mounting surface.

- **What is the pull strength of the *Magna-Track*?**

When pulling the magnet in a direction perpendicular to the attachment surface, each *Magna-Track* magnet requires approximately 7-8Kgs of pull to release it from the surface. The easiest way to release the magnetically held screen from a surface is to slide it in a direction parallel to the attachment point or, by lifting or pulling the magnetic connectors (like a door) such as to move the magnets in a right angle direction for release away from the surface.

- **Is it faster to install ECEX Air Intake Screens with *Magna-Track* vs. using screws?**

Absolutely! You can cut the installation time to less than half vs. using screws to mount the fasteners or track.

- **Can the *Magna-Track* System be used as a full replacement for screw mounting?**

Yes, in many cases it can however, every application and environment should be carefully considered. Use of screws to mount individual fasteners or to attach the mounting track is the traditional and highly effective way of mounting the screens; using the *Magna-Track* in combination with screw mounting will help to attach the screen around sensitive components such as electrical boxes or areas having coils up against the back of a mounting point.

- **Does using multiple magnets around the perimeter of an opening increase the overall pull force to remove the screen?**

No. Using multiple magnets around the perimeter doesn't accumulate the pull force. However, using multiple magnets around the perimeter distributes the weight across all of the magnets so the weight load is reduced to each magnetic point of connection.

It's important to keep in mind that the purpose of the *Magna-Track* frame is to establish a fastening point for the screen – Once the *Magna-Track* frame has been attached to the unit it isn't necessary to remove it when removing the screen – To remove the screen itself, simply unfasten the quick-release twistlock fasteners and remove the screen away from the *Magna-Track* Frame – This is particularly recommended on larger screen installations.

- **Do I need to glue the magnets into the connector cavity?**

No. The connectors are designed with a special surface on the inside of the cavity wall – Once the magnet is inserted into the connector cavity it will not come out when the screen and frame are removed from the mounting surface. If you are worried that the magnet will come out – you can apply an industrial epoxy.

- **Can Neodymium magnets be soldered or welded?**

No. The high, intense temperatures will cause the magnets to demagnetise or catch fire.

- **Do I need to worry about outdoor and surface temperatures with Neodymium magnets?**

In air intake applications such as rooftop units, chillers, air handling units, louvers, dry coolers and cooling towers) metal surfaces on and around an intake opening rarely reach 50 degrees C. Maximum operating temperature for the *Magna-Track* System loss of magnetisation is 80 degrees C.

- **Are there any health or safety risks with the use of Neodymium magnets?**

There are no known health risks related to exposure to Neodymium magnets. However, there can be potential problems if a person handling the magnets has a heart pacemaker or other electrical surgical implant or external medical device. Consult your doctor before handling the magnets if you have a pacemaker or rely on other electrical medical devices.

- **Can *Magna-Track* magnets damage my watch and electronics?**

Yes, they can. The strong magnetic field of Neodymium magnets can magnetise the works inside of a wrist watch and damage magnetic media such as magnetic recording tape or mag stripes on the back of credit cards. Further, they can damage mobile phones, computers and tablets. When working with magnets remove your wrist-watch and store it away from the work area and do not place magnets in your pocket or in close proximity to your wallet or electronics. Note: Once the magnets have been inserted into the connector cavity and connected to the track and screen, the magnetic field is largely shielded and the magnet should pose little threat to your watch and electronics unless they come in very close contact with the magnets..

- **How far apart should the magnets be to hold my screen securely?**

Magnets should be placed no further apart than 48" / 1,220mm, which is the standard length of our aluminium Track. Depending upon overall size / weight of the screen, more magnets may be desired at closer intervals.

- **Can I cut or drill into the *Magna-Track* magnet?**

No. We don't recommend any kind of machining to the finished magnet. Neodymium magnets are very hard and brittle, making them vulnerable to fracture and breakage; Furthermore, drilling through the nickel / copper / Nickel plating will cause the iron to oxidize and rust quickly. Once the magnets have been inserted into the connectors, they are protected from impact and damage.