

# Installation, Operation and Maintenance Instructions



## GRATE-IN- HOUSING MODEL TGH, FGH

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*WORLD AUTHORITY IN ADVANCED TECHNOLOGY FOR MAGNETIC, VIBRATORY and INSPECTION APPLICATIONS*

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# Introduction

This manual details the proper steps for operating and maintaining the Eriez Model TGH & FGH Permanent Magnetic Gate-in-Housing.

Careful attention to these Operating Requirements will assure the most efficient and dependable performance of this equipment.

Standard magnet circuits are suitable for temperatures below 150°F (65°C). Special circuits are required for higher temperatures depending upon application criteria. Please review the Eriez order acknowledgment or contact your local representative if you have questions about the circuit provided and its temperature limitations.

If there are any questions or comments about the manual, please call the factory at 814/835-6000 for Gate-in-Housing assistance.



## **CAUTION - STRONG MAGNET**

**This equipment includes one or more extremely powerful magnetic circuits. The magnetic field may be much stronger than the Earth's background field at a distance several times the largest dimension of the equipment.**

- **If you use a heart pacemaker or similar device you must never approach the equipment because your device may malfunction in the magnetic field with consequences up to and including death.**
- **To avoid serious pinch-type injuries caused by objects attracted to the magnet, keep all steel and iron objects well away from the equipment. Do not allow hands, fingers, and other body parts to be caught between the equipment and nearby steel or iron objects.**
- **Keep credit cards, computer disks, and other magnetic storage devices away from the equipment because magnetically stored information may be corrupted by the magnetic field.**
- **Keep electronic devices, such as computers or monitors, away from the equipment because exposure to the magnetic field may result in malfunction or permanent damage to such devices.**

**Contact Eriez if you have a question regarding these precautions.**

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# Installation

Attach the housing firmly to your existing ductwork or supporting structure, making use of the flanges provided at top and bottom. If possible, position the grate section at a height above the floor that makes removing the magnets for cleaning convenient

for the average worker. When positioning and supporting the housing, keep in mind that a strong pull may be required to remove the grates for cleaning if they are heavily loaded.

## Operation and Maintenance

The Eriez Model TGH and FGH Permanent Magnetic Grate-in-Housing is designed to operate in a line of vertical product flow. It requires no maintenance other than periodic removal of accumulated tramp iron. The tramp iron must be removed as often as is practical. Prolonged operation without cleaning will cause the magnets to magnetically short circuit and the grate will not be fully efficient until the iron has been removed. To clean the magnets, simply slide the grates out of the housing one grate at a time and wipe the tramp iron from the tubes with a wiping rag.

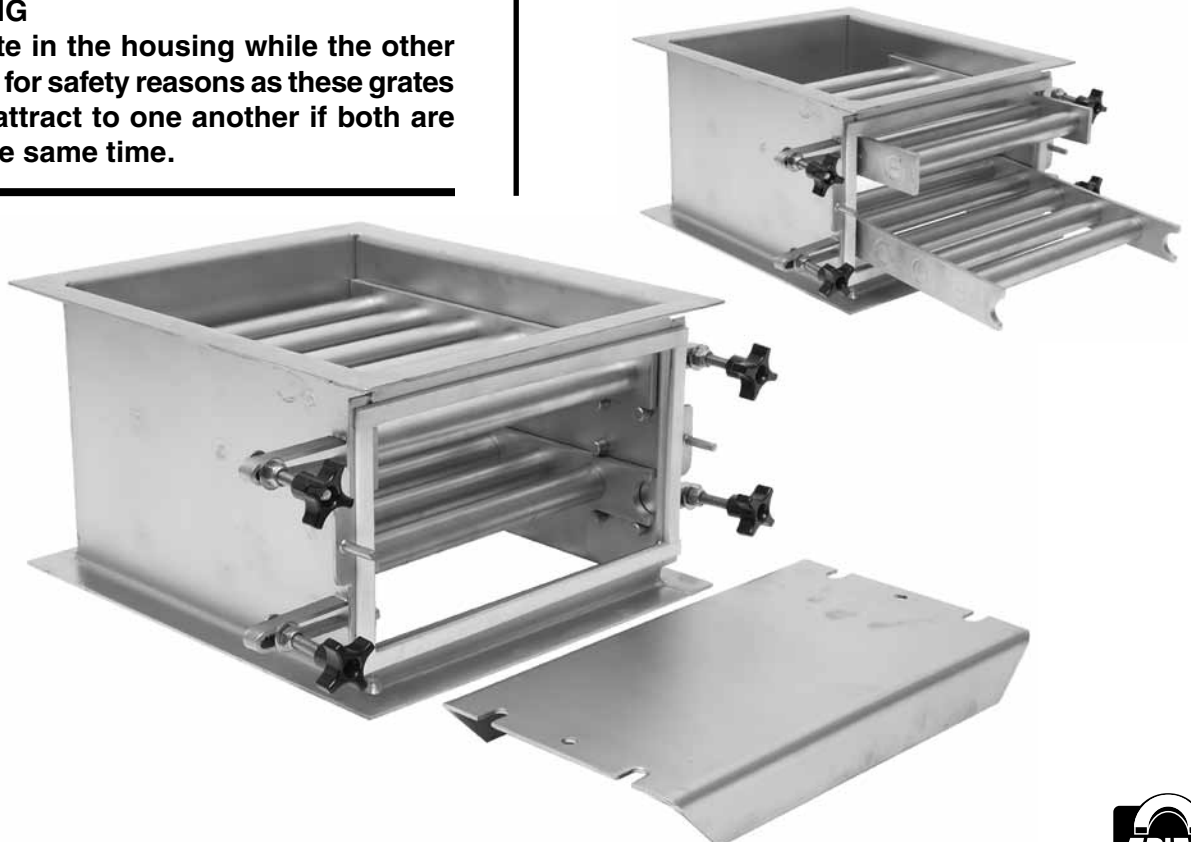
### **! WARNING**

Keep one grate in the housing while the other one is cleaned for safety reasons as these grates will violently attract to one another if both are removed at the same time.

Using the sticky side of masking tape will achieve close to 100% iron removal from the tube after wiping with a rag. Then replace the grate in the housing.

### **! WARNING**

Do not attempt to clean the magnets by “beating” it against the floor or table. The magnet will be damaged beyond repair. This will void the warranty.



# Repair and Alteration

Alteration and disassembly of the magnetic grate would disturb a carefully engineered magnetic circuit which could only be restored by returning the unit to our factory for rebuilding and recharging. Repair, alteration or disassembly

of this magnetic equipment in the field without written authorization and instructions by Eriez Manufacturing Company nullifies the responsibility and guarantee of the manufacturer.

## Warning

Each tube magnet in the grate consists of a number of powerful magnetic castings contained within a thin-wall nonmagnetic stainless steel tube. If your product is abrasive to the point of wearing through the nonmagnetic magnet tubing, magnet material

may enter the product stream. This exposure could be harmful to the quality of your product. When cleaning the grate, check for signs of excessive tube wear.

## Factors that Affect Magnet Performance

### 1. HIGH TEMPERATURE

Standard rare earth circuits should not be subjected to temperatures in excess of 150°F (65°C). Special circuits are available for higher temperatures.

### 2. DIRECT CURRENT

Welding equipment should not be used on or in close proximity to Eriez Permanent magnet circuits. Demagnetization can result from this.

### 3. MOISTURE

The raw magnet material should not be exposed to liquids. This would normally only result from breaching the magnet's stainless steel enclosure.

### 4. PHYSICAL ABUSE

The magnet castings are brittle, and when subjected to repeated abuse such as banging on a table or dropping on the floor, the castings may shatter and the tubes may crack. Over time abuse will cause the magnetic field to diminish.

*Note: Some safety warning labels or guarding may have been removed before photographing this equipment.*

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