User Manual Magnetic Transporter HX

General Safety Standards:

To ensure the safe use of magnetic transporters, it is mandatory to strictly follow the following provisions: the operation of such devices must be entrusted exclusively to qualified personnel, properly trained in safety regulations and after consulting the relevant documentation. The operator is Responsible for compliance with the rules and the correct functioning of the transporter. It is also recommended to appoint an experienced supervisor responsible for overseeing operating conditions and safety during use.

Applications and Methods of Use for HX Magnetic Handles

Recommended Uses:

HX magnetic handles are an extremely effective solution for the manual handling of flat parts made of magnetizable steel. The use of these magnetic transporters makes it significantly easier to lift sheets from stacks, extract sheets horizontally from shelves, and transport metal components during operational phases.

Operational Advantages:

The use of HX magnetic handles provides a secure grip and hold during the transport of materials, thereby increasing operator safety. In many contexts, such as clearing cutting tables, extracting parts from equipment like saws, precise positioning of elements for welding, guiding pieces, or lifting components from boxes, the magnetic transporter proves to be a reliable and versatile “extra hand.”

Ease of Use:

The use of HX magnetic handles is extremely intuitive: simply place the magnetic transporter on the piece to be moved and activate it by pressing the handle down and turning it to the ON position. In this way, the component can be immediately lifted, transported, or removed from the stack. To release the piece, just place it on a stable surface, press down again, and turn the lever to OFF, making the operation quick and safe.

Model	Dimensions Heigth (mm)	Diameter (mm)	WLL (kg)	min. Material Thickness (mm)	Weight (kg)
HX-30 Magnetic transporter	175	62	30	1	1,5
HX-60 Magnetic transporter	175	78	60	2	2
HX-120 Magnetic transporter	188	98	120	3	3,5
Fattore minimo di sicurezza 2,5					

Preliminary checks before use:

Before each use, the magnetic transporter must undergo a careful safety inspection. It is essential that the contact surface is completely clean, smooth, and free from any visible damage. The presence of adhering dirt can compromise operation, so it is recommended to remove it thoroughly using a small hard brush or by blowing away residues with compressed air.

Cleaning the contact surface:

To ensure maximum magnetic holding force, the load to be transported must have a smooth and clean surface, without the presence of dirt, chips, flakes, paint, or other materials on the area in contact with the magnetic transporter. It is essential to remove all residues, preferably with a manual brush or by using compressed air. Any element that creates an air gap between the steel poles and the load hinders the transmission of magnetic force, thus significantly reducing the lifting capacity.

Optimal contact conditions:

The magnetic surface, that is, the contact area of the magnetic transporter, must adhere completely to the load. This means that the contact surface of the load must be at least the same size as that of the magnetic transporter. If this condition is not met, maximum lifting force cannot be guaranteed.

Furthermore, to achieve full lifting force, the contact surface must be perfectly flat and must not have interruptions, breaks, or holes. If the contact surface is reduced, only partial lifting force will be achieved compared to the nominal value.

Positioning the magnetic transporter:

When lifting a load horizontally, it is essential that the magnetic transporter is positioned approximately at the center of gravity of the load, to ensure safe and balanced lifting. In case of any doubts, it is recommended to contact the manufacturer or supplier before use.

Limitation of Nominal Lifting Force:

The nominal lifting force is guaranteed if the above conditions are met and the load consists of low-carbon steel, such as S275JR or C22. The presence of additives in the alloy reduces the lifting force; for example, with chromium/nickel/molybdenum steel, a reduction of up to about 60% of the nominal force can occur. For thicknesses less than 2 mm, the nominal lifting force of the magnetic transporter can decrease by up to 50% or more. However, this reduction does not limit the application range of the magnetic transporter. Note that if the thin sheet is excessively curved, especially in the case of large dimensions, it may detach from the transporter during horizontal lifting. It is also recommended that the maximum temperature of the piece does not exceed 80°C.

Maintenance and Assistance of Magnetic Transporters:

Proper maintenance and servicing of magnetic transporters is essential to ensure their safety and efficiency over time. These operations must be carried out exclusively by expert personnel, appointed by the operator, in order to avoid accidental damage or worsening of any existing defects.

Inspection and Cleaning of the Magnetic Holding Surface:

Maintenance activities should focus mainly on checking the magnetic holding surface. It is essential that this surface is kept in optimal condition, with particular attention to cleanliness. Any residues must be removed to ensure full contact with the piece to be moved, thus avoiding a possible reduction in holding force.

Rust Prevention:

Another fundamental aspect of maintenance is preventing the formation of rust on the steel poles. The presence of oxidation can compromise magnetic adhesion and, consequently, the safety of lifting operations. Therefore, it is necessary to regularly check the magnetic poles and intervene promptly in case of rust formation.

Inspection and Repair of Damage:

The steel magnetic poles must be carefully examined to identify any damage such as burrs, scratches, or raised areas. These defects can prevent perfect contact with the piece, reducing the effectiveness of the magnetic transporter. In the case of minor damage, it is possible to remove them by sanding. It is recommended to use a fine-grained sandpaper sheet, preferably placed on a flat, non-magnetizable surface, or alternatively, a large, flat sharpening stone. This procedure restores the flatness of the surface and ensures optimal contact with the material to be lifted.

Important:

Damaged magnetic transporters must not be repaired by the operator. They must be sent to the manufacturer for repair or disposed of by the operator.

Optional Levers and Handles:

With the HX, the standard T-handle can be replaced with an optional handle. To do this, the set screws must be loosened and the handle replaced. It is important to ensure that the fixing hole is centred on the set screw before tightening it again.

Model	Height (mm)
T-handle for HX	100
Cylinder handle for HX	120
Extended handle 400mm	400
Extended handle 600mm	600

Standard T-Grip

Fist grip for quick turnover at body Height

Extended handle for ergonomic picking from boxes or from the floor

YOU MUST READ THIS WARNING BEFORE HANDLING THE MAGNETS

Heart Pacemakers:

Keep magnets away from heart pacemaker. The operation of heart pacemakers will be affected by the close proximity of a magnet. Magnets can seat a pacemaker working in a way that is not suitable for the pacemaker user and that might affect their health.

Airfreight:

Magnetic fields of improperly packaged magnets could influence airplane navigation devices. In the worst cases it could lead to an accident. Pease send Airfreight magnets only in packaging with sufficient magnetic shieling, please refer to the respective regulation. More information is available on the IATA website (www.iata.org) or from your designated carrier.

Danger for children:

Ensure that children under 16 are not allowed to play with magnets and children over 16 are told about the potential danger of the magnets and supervised by an adult who has read and understood these warnings. If two or more small magnets are swallowed, they could attract each other trough the walls of the intestines, this would cause major swelling, life-threatening injuries and need surgery to remove them.

Nickel allergy:

Many of our magnets have coatings that contain nickel. Some people have an allergic reaction when they come into contact with nickel. Nickel allergies could develop from constant contact with nickel-plated objects. Avoid constant skin contact with nickel-plated magnets. Avoid contact with magnets if you already have a nickel allergy.

Nipping:

when magnets are brought close enough they can have a surprising power. Finger are quickly caught between them which could cause a painful nip or even a blood blister. Do not place these magnets up your nose or around the ears.

Magnetically sensitive Items:

Keep a safe distance (>50mm) between the magnets and all objects that can be damaged by magnetism. These include mechanical watches, heart pacemakers, CRT monitors and televisions, credit cards, diskettes and other magnetically stored media.

Liability:

Vega Technik does not accept responsibility for damage that has been caused by the improper handling of magnets. With the purchase of this magnet you confirm that you have read, understood and accepted on the following warnings.