

Baking Tray Handling & Storage

Pneumatically operated magnetic systems for fast
& efficient tray handling - no need for manual intervention.



Magnetic Tray Handling Systems

Improve your process efficiency

Fast & efficient handling for your production lines...

Bread tin loading and unloading from the conveyors is an arduous and time consuming process particularly when done manually.

With growing demands for process efficiency and safety at work considerations, many bakeries are automating this process.

Eclipse provides a solution for baking tray storage systems in automated bakeries. The pneumatically operated magnetic gantry beams provide the gripping system for automated handling systems. They are now widely used in large bakeries to lift different bread tins, straps, bun trays and lids.

The system picks multiple trays from storage and deposits them onto the production line. Once the production of a particular bread type has finished the trays are returned to storage and the next tray type is brought to the line. The same magnetic head can be used for different types of tray.

The beams range from handling single tins, up to 16 straps at the same time and everything between.

The system allows sets of straps to be easily handled, off loaded and stacked into secure stores areas.

At the same time different straps and tin types can be picked and placed onto the in-feed conveyor.

Construction

Beam

The gantry beam is manufactured from mild steel or aluminium box section. All service pipework is fully enclosed along one side of the beam. An identical enclosure along the other side houses the signal wiring, both services terminate in their own central connection point.

Magnetic Heads

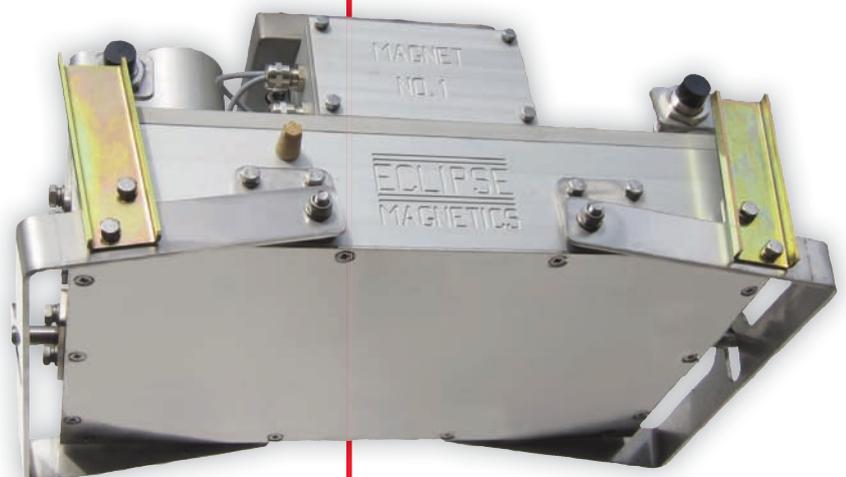
High-energy magnets retain their magnetism indefinitely. The magnet arrangement takes into account all tray types to be handled. The magnetic face is supplied with a stainless steel contact/wear plate. The magnets are switched on and off by compressed air. The pressure requirements are 5 bar minimum to 10 bar maximum.

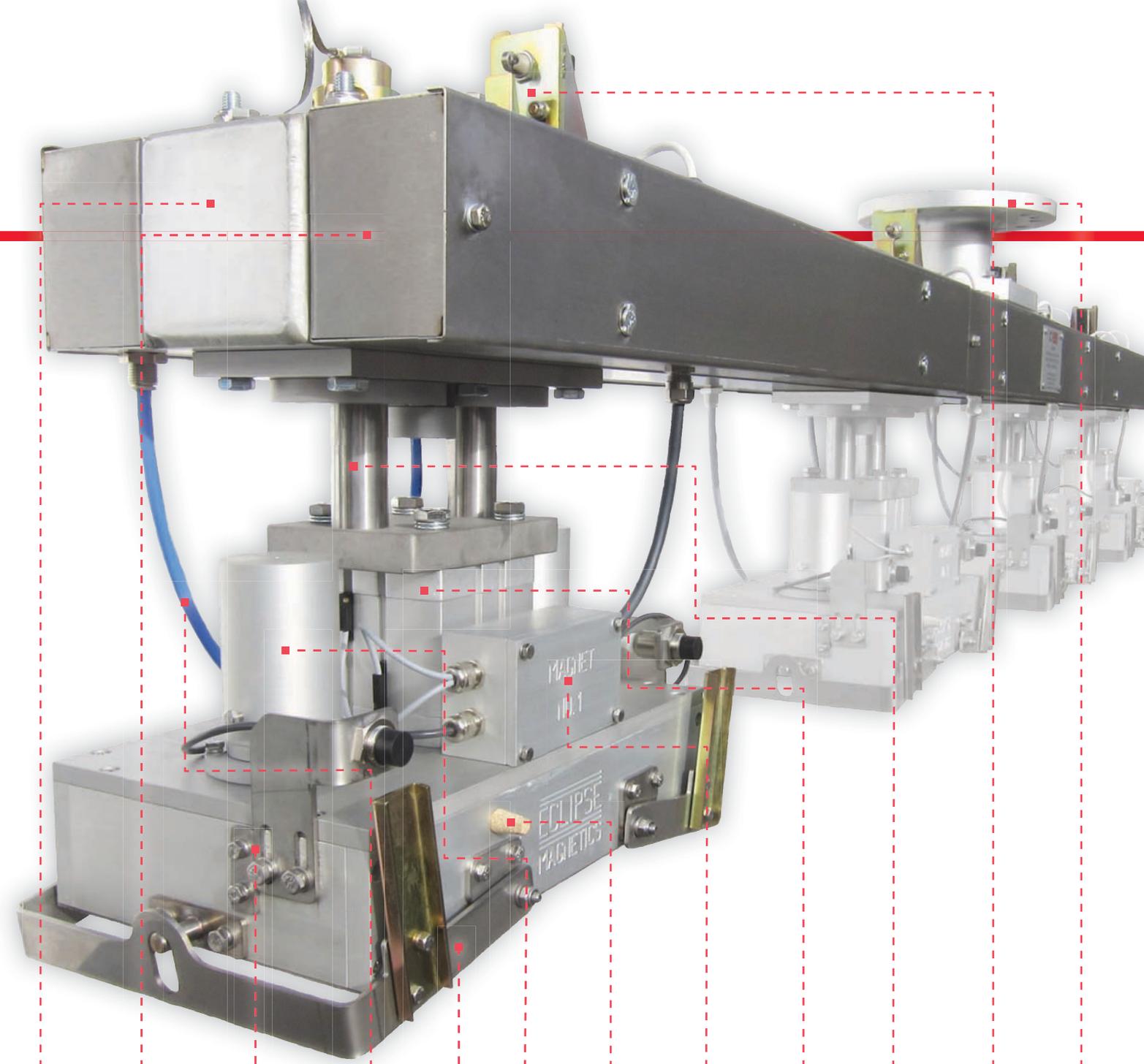
Compliance Assemblies

Vertical compliance assemblies integrated into the beam ensure that the magnets are correctly seated on the trays and provide up to 100mm of vertical movement.

Advantages of using the Magnet Handling Systems vs Grippers or Suction Cups

- One magnet can be used for a full range of product.
- No adjustment required
- Positioning is not critical once the correct size is specified
- Failsafe operation air required for switching only.
- No Damage to tin surface especially when nonstick coating is in place
- No contact with tin or tray cavity
- No requirement to lift on solid surface
- No loose parts to fall in cavities and contaminate product
- Longevity, the magnets do not suffer wear or premature failures
- Minimum service required
- Same systems have been operating for 10 – 12 years





- Anodised Aluminium or Mild Steel Beam
- Stainless Steel Trunking for Air & Electrical Connections
- Pneumatically Actuated Magnet (Anodised)
- Magnet Air Connections
- Part Present Sensor
- Linear Guide Shafts
- Air Cooling (optional)
- Signal Connections
- Air Cylinder Actuator
- Compliance Assembly
- Crash Detection
- Robot Mount (optional)

**Magnetic Tray Handling Systems
from Eclipse Magnetics,
the best thing since...**



Ancillary Products

Eclipse manufactures a range of other products for bakery applications including a variety of conveying and handling systems. We are also a world leader in foreign body removal systems for the food industry. We offer a wide range of high performance separation and detection products to protect your processing line from ferrous contamination.



Vibratory Sieves



Housed Grids



PneuMag



Artemis - The latest generation in metal detection



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While every effort has been made to ensure the accuracy of the information in this publication please note that specifications may change without notice.



A world leader in magnetic technology

