MAGNETIC LIFTERS
EPM Fixed Spreader Beam

Features
- EPMs suspended from fixed length spreader beam so that the maximum range of plates are covered.
- Optimise the available work area by elimination of dunnage.
- Electronic control panel along with standby PCB card.
- Double Mag Cycle - this ensures the safe lifting of the load.
- Power Control – Magnetic Power can be varied in 4 steps
- Magnets can be selectively switched according to the length of the plate being handled.
  - Smaller Plates – Only internal magnets are switched ON.
  - Larger Plates – All the magnets are switched ON.
- Safety Interlock Key – to Magnetize/ Demagnetize 2 buttons are to be pressed simultaneously. This eliminates the chance of accidental operation of the magnet.
- “Inching” feature – When the magnet is switched ON, it might lift more than a single plate. Inching is a feature, which when invoked reduces the magnetic power slowly such that additional plates, if lifted, are dropped. This is used to make sure that only one plate is handled at a time.
- ADPREM – Accidental Demagnetization PREvention Mechanism. Disable the demagnetization cycle when carrying load.
- Lamp Block – Displays the systems present state.
- Chain and Hanging Arrangement – made of grade 80 high strength steel along with bull ring.

Optional Units
- Radio Remote Control – Operates from a convenient distance all the functions i.e, MAG/DEMAG/Inching/ Telescopic Contraction and Expansion (if provided).

Application
- For loading/ unloading plates from Railway Wagons/ trucks.
- For storing in Plate yards.
- For feeding plates onto a flame/ plasma cutting machine table, one at a time.
- Can be used with EOT/ Gantry/ Mobile Cranes etc.

<table>
<thead>
<tr>
<th>Art No</th>
<th>Beam Weight (Apprx)</th>
<th>Magnet Specifications</th>
<th>Plate Characteristics</th>
<th>Lifting Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kg</td>
<td>Number of Magnets</td>
<td>Magnet Distance</td>
<td>Lifting Capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L1 mm, L2 mm, L3 mm, L4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>mm, mm, mm, mm, mm</td>
<td>mm, mm, mm, mm</td>
<td></td>
</tr>
<tr>
<td>23102.01</td>
<td>750</td>
<td>5 (5x1)</td>
<td>1050 5 500 6300 500 3000</td>
<td>2,000</td>
</tr>
<tr>
<td>23102.02</td>
<td>1200</td>
<td>4 (2x2)</td>
<td>2800 5 3000 6300 500 3000</td>
<td>4,000</td>
</tr>
<tr>
<td>23102.03</td>
<td>1500</td>
<td>8 (4x2)</td>
<td>2200 5 2500 12500 500 3000</td>
<td>5,000</td>
</tr>
<tr>
<td>23102.04</td>
<td>1800</td>
<td>8 (4x2)</td>
<td>2200 5 2500 12500 500 3000</td>
<td>7,500</td>
</tr>
<tr>
<td>23102.05</td>
<td>2500</td>
<td>8 (4x2)</td>
<td>2200 8 2500 12500 500 3500</td>
<td>10,000</td>
</tr>
<tr>
<td>23102.06</td>
<td>2800</td>
<td>8 (4x2)</td>
<td>2200 8 2500 12500 500 3500</td>
<td>12,000</td>
</tr>
<tr>
<td>23102.07</td>
<td>3300</td>
<td>8 (4x2)</td>
<td>2200 8 2500 12500 500 3500</td>
<td>16,000</td>
</tr>
</tbody>
</table>

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.

PERMISSIBLE OVERHANG OF PLATES
- TH - 5 mm: 1350 mm
- TH - 6 mm: 1425 mm
- TH - 8 mm: 1550 mm
- TH - 10 mm: 1750 mm
- TH - 12 mm: 1900 mm

Electro Permanent Magnetic Plate Handling System
EPM Telescopic Spreader Beam

Features
The more versatile lifting magnet system with the additional features:
- One set of EPM placed on the fixed part of the spreader beam and another set placed on the telescopic part.
- The length of the system can be adjusted depending on the length of the plate being handled.
  - Shorter plates: activate only the inner magnets.
  - Medium plates: activate all the magnets with the telescopic arm in the closed position.
  - Long plates: activate all the magnets with the telescopic arm in the expanded position.

### EPM Telescopic Spreader Beam

<table>
<thead>
<tr>
<th>Art No</th>
<th>Beam Weight (Approx)</th>
<th>Beam Height</th>
<th>Magnet Specifications</th>
<th>Lifting Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>23103.01</td>
<td>1500 kg</td>
<td>8 (4x2)</td>
<td>1500 mm</td>
<td>750 mm</td>
</tr>
<tr>
<td>23103.02</td>
<td>2500 kg</td>
<td>8 (4x2)</td>
<td>2800 mm</td>
<td>1600 mm</td>
</tr>
<tr>
<td>23103.03</td>
<td>3000 kg</td>
<td>8 (4x2)</td>
<td>2800 mm</td>
<td>1600 mm</td>
</tr>
<tr>
<td>23103.04</td>
<td>3200 kg</td>
<td>8 (4x2)</td>
<td>2800 mm</td>
<td>1600 mm</td>
</tr>
<tr>
<td>23103.05</td>
<td>3800 kg</td>
<td>8 (4x2)</td>
<td>2800 mm</td>
<td>1600 mm</td>
</tr>
</tbody>
</table>

* Due to continuous upgrading in design there could be changes in specifications.
* Other sizes on request.
### Features
- Tilting Electro Permanent Magnets for handling Single plates in either vertical or horizontal position.
- "Inching" feature – drops additional plates making sure that only one plate is handled.
- Supplied along with fixed spreader beam.
- Simple self-tilting mechanism by appropriate positioning on plates lifted. No additional mechanism required.
- Horizontally placed plates can be stacked in vertical position or Vertically stacked plates can be kept in horizontal position by appropriate placement of the magnets.
- Spreader beam fitted with elastic suspension for EPMs/ control panel/ indicative tower lamp/ Chain & Bull Ring etc.
- Radio Remote Control integrated.

### Application
- Unloading from trucks and stacking in vertical position.
- Typically from Vertical storage to a Flame/ laser/ plasma cutting table, etc.
- Can be used with EOT/ Gantry/ Mobile Cranes.

### Technical Specifications

<table>
<thead>
<tr>
<th>Art No</th>
<th>Beam Weight (Appr)</th>
<th>Magnet Specifications</th>
<th>Plate Characteristics</th>
<th>Lifting Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Magnets</td>
<td>Magnetic Distance</td>
<td>To</td>
</tr>
<tr>
<td>2310.01</td>
<td>2000</td>
<td>4</td>
<td>1500</td>
<td>5</td>
</tr>
<tr>
<td>2310.02</td>
<td>3000</td>
<td>4</td>
<td>2800</td>
<td>5</td>
</tr>
<tr>
<td>2310.03</td>
<td>3200</td>
<td>4</td>
<td>2800</td>
<td>5</td>
</tr>
<tr>
<td>2310.04</td>
<td>3500</td>
<td>4</td>
<td>2800</td>
<td>5</td>
</tr>
<tr>
<td>2310.05</td>
<td>4000</td>
<td>6</td>
<td>2000</td>
<td>5</td>
</tr>
</tbody>
</table>

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
Features
- For handling Billets/Slab/Blooms.
- Supplied along with fixed spreader beam.
- Handling of Billets/ Blooms up to 600°C (in core).
- Single layer of material can be handled.

Application
- Typically for storing/ unloading & handling of billets.
- Hot billet in Steel Melting Shop can be handled.
- Can be used with EOT/ Gantry/ Mobile Cranes etc.

<table>
<thead>
<tr>
<th>Art No</th>
<th>Beam Weight</th>
<th>Number of Magnets</th>
<th>Magnet Specifications</th>
<th>Billet Lifting Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>W (mm)</td>
<td>L (mm)</td>
</tr>
<tr>
<td>23106.01</td>
<td>800</td>
<td>1</td>
<td>600</td>
<td>900</td>
</tr>
<tr>
<td>23106.02</td>
<td>1500</td>
<td>2</td>
<td>460</td>
<td>900</td>
</tr>
<tr>
<td>23106.03</td>
<td>2000</td>
<td>2</td>
<td>560</td>
<td>1350</td>
</tr>
<tr>
<td>23106.04</td>
<td>3000</td>
<td>2</td>
<td>560</td>
<td>1700</td>
</tr>
</tbody>
</table>

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
Features
- Electro Permanent Magnets in module with mounting holes.
- Each magnet is completely sealed with no moving parts.
- Magnets with Safety factor of 3.
- Spring Suspension Box can be added to take care of waviness of plate.

Note:
- The modules can be integrated with our controllers for EPM lifting magnet systems with all its features.
- ADPREM can also be integrated into the magnet module.

Application
- EPM Modules can be suspended from existing spreader beam.
- Can be used as Robotic Grip.
- Multiple modules can be added on a spreader beam to handle longer plates.

Modular Electro Permanent Magnets - Build your own Systems

<table>
<thead>
<tr>
<th>Art No.</th>
<th>Magnet Dimension</th>
<th>Self Weight</th>
<th>Maximum Plate Size</th>
<th>Tear Off Capacity</th>
<th>Lifting Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L (mm)</td>
<td>W (mm)</td>
<td>Kg</td>
<td>mm x mm</td>
<td>Kg</td>
</tr>
<tr>
<td>23105.01</td>
<td>170</td>
<td>170</td>
<td>20</td>
<td>1500 x 1500</td>
<td>&gt; 900</td>
</tr>
<tr>
<td>23105.02</td>
<td>290</td>
<td>170</td>
<td>30</td>
<td>1500 x 2000</td>
<td>&gt; 1500</td>
</tr>
<tr>
<td>23105.03</td>
<td>330</td>
<td>240</td>
<td>45</td>
<td>2000 x 2000</td>
<td>&gt; 2250</td>
</tr>
<tr>
<td>23105.04</td>
<td>325</td>
<td>235</td>
<td>45</td>
<td>2000 x 2500</td>
<td>&gt; 3000</td>
</tr>
<tr>
<td>23105.05</td>
<td>415</td>
<td>235</td>
<td>55</td>
<td>2500 x 2500</td>
<td>&gt; 3750</td>
</tr>
<tr>
<td>23105.06</td>
<td>505</td>
<td>235</td>
<td>65</td>
<td>2500 x 3000</td>
<td>&gt; 4500</td>
</tr>
<tr>
<td>23105.07</td>
<td>630</td>
<td>250</td>
<td>90</td>
<td>3000 x 3000</td>
<td>&gt; 6000</td>
</tr>
</tbody>
</table>

- System fabricated using
  - EPM Lifting Magnets.
  - ADPREM – hook plate.
  - Spring Box
  - Control Panel
  - Cable Reeling Drum

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
Special Applications

- Chassis Handling
- Pipe Handling
- Coil Handling - Eye Horizontal Position
- Coil Handling - Eye Vertical Position
- Cut-Out Handling
- Slab/Bloom Handling
- Pick & Place Robotic Magnet

Magnetic Lifters
**Controllers**

**Control Panel EPM**

Features
- Power station of the Electro Permanent Magnetic Lifters in compact IP54 cabinet.
- Available in Single / Multi Channels.
- Power variation in 4 steps.
- Has Magnetization/ Common/ Demagnetization/ Contraction and Expansion (if applicable) Push Buttons.
- Dual Magnetisation Cycle with safety push button.
  - 1st Shot – 75% to check safe lifting capability.
  - 2nd Shot – 100% to ensure safe travel.
- Standby spare PCB provided inside the panel to ensure non-stop working and reduce downtime.
- Fitted with Indication Tower Block along with audio alarm to display the system’s present state.
- “ADPREM” (Accidental Demagnetization PREvention Mechanism) ready.
- Radio Remote Control Ready.

<table>
<thead>
<tr>
<th>Art No</th>
<th>No of Channels</th>
<th>Spreader Beam Type</th>
<th>Operating Voltage</th>
<th>Rated Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>93109.01</td>
<td>1</td>
<td>Fixed</td>
<td>440</td>
<td>50</td>
</tr>
<tr>
<td>93109.02</td>
<td>2</td>
<td>Fixed</td>
<td>440</td>
<td>50</td>
</tr>
<tr>
<td>93109.03</td>
<td>2</td>
<td>Telescopic</td>
<td>440</td>
<td>50</td>
</tr>
</tbody>
</table>

**Radio Remote Control**

Features
- Gives flexibility to operator to stand at a convenient place and operate the magnet – means more safety of operator.
- Enables the operation of Pickup/ Magnetization/ Demagnetization/ Inchig/ telescopic expansion/ telescopic contraction (if applicable).
- Compact receiver box can be easily fitted inside the control panel.
- Can operate the magnet from 100 meters distance.

<table>
<thead>
<tr>
<th>Art No</th>
<th>Range</th>
<th>Supply Voltage</th>
<th>Number of Buttons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meter</td>
<td>Receiver V DC</td>
<td>Transmitter V DC</td>
</tr>
<tr>
<td>90110.01</td>
<td>100</td>
<td>12/24</td>
<td>9</td>
</tr>
<tr>
<td>90110.02</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90110.03</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90110.04</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90110.05</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
Features
- Spring Operated Cable Reeling Drums gives automatic reeling and unreeling of flexible cables for up/down movement in cranes for power supply to Lifting Magnets.
- Self Coiling Reels are used for simple installation up to 15 Meters Height.
- Generally mounted parallel to main hoist on the trolley.
- Special type Sprocket/Motor driven CRD is available.
- Slip ring less Cable Reeling Drum and CRD with stall torque motor drive also available.
- CRD available up to 40 Meters Coiling Length.
- The CRD comes along with a junction box at the end of the cable which can be mounted on the crane Shackle head along with plug and socket.

<table>
<thead>
<tr>
<th>Art No</th>
<th>Drum Dia</th>
<th>No of Dead Turns</th>
<th>Can accommodate cable upto</th>
<th>Cable Reeling Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>90111.01</td>
<td>250</td>
<td>2</td>
<td>3 x 2.5 mm²</td>
<td>4</td>
</tr>
<tr>
<td>90111.02</td>
<td>400</td>
<td>2</td>
<td>3 x 6 mm²</td>
<td>12</td>
</tr>
<tr>
<td>90111.03</td>
<td>400</td>
<td>2</td>
<td>3 x 6 mm²</td>
<td>15</td>
</tr>
<tr>
<td>90111.04</td>
<td>450</td>
<td>2</td>
<td>9 x 2.5 mm²</td>
<td>15</td>
</tr>
</tbody>
</table>

Application
- Used for giving power supply to Electro/ Electro Permanent Magnets from Crane top.
- In single girder cranes, small CRD’s are mounted on separate trolley attached with cross travel.
- Special type compact CRD for Hydra and other Mobile Crane application.

For sprocket driven, details of Crance hoist rope drum dia, no. of falls of wire rope etc., are required.

* Due to continuous upgradation in design there could be changes in specifications.
* Other sizes on request.
Battery Operated Electro Permanent Magnetic Lifter

Self contained - hook to crane & lift
Features

- Revolutionary technique for safe magnetic lifting.
- Light weight and robust construction.
- Safety factor of 2 is maintained for each magnet.
- EPM Lifter-Battery power only needed to switch On and Off.
- No battery power is needed to keep magnet On.
- 2 Pole design for lifting both round and flat components.
- Maintenance free completely sealed rechargeable batteries.
- With battery fully charged - can switch On/Off approximately 300 times.
- Warning signal when battery charge level is low.
- In built battery charger with over charge protection.
- Battery Charging cable is in built in a sliding case.
- Automatic Sequential switching On/Off using contact less relay. The magnet initially is in Off condition. After placing on the load, as the magnet pulls up, it actuates a contact less relay and the magnet is auto-matically switched On. When it is hoisted down, the magnet remains On. Now when it is lifted the same is switched OFF and release the job.
- Ready to use Magnets can be hooked to crane giving incredible flexibility and unbeaten cost reduction for moving ferrous load.
- BATEPM ACE is made with multiple magnets for handling longer sheets / bars plates.

Applications

- Near flame cutting machines.
- In stock yards for handling flats, plates, rounds.
- For loading / unloading on machine tools like grinding, CNC Milling, lathes, power saw and during assembly.
- Since no mechanical lever is actuated, very comfortable for operator even while working at odd site condition.
- Radio Remote Control (Optional).

<table>
<thead>
<tr>
<th>Art No.</th>
<th>LIFTING Flat Load (Kg)</th>
<th>Canaceing Round Load (Kg)</th>
<th>Battery (VDC)</th>
<th>Charging (VAC)</th>
<th>Self Weight (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23101.01</td>
<td>1500</td>
<td>750</td>
<td>2 x 12</td>
<td>230</td>
<td>120</td>
</tr>
<tr>
<td>23101.02</td>
<td>3000</td>
<td>1500</td>
<td>2 x 12</td>
<td>230</td>
<td>200</td>
</tr>
<tr>
<td>23101.03</td>
<td>5000</td>
<td>2500</td>
<td>2 x 12</td>
<td>230</td>
<td>375</td>
</tr>
</tbody>
</table>

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
MAGNETIC LIFTERS

MAGNALIFT Electro Magnetic Circular Lifters

Features
• Easy & speedy handling of solids and scraps.
• Compact and Light weight models are available with optimum load carrying capacity.
• Optimum cross section combined with high magnetic flux produced ensures maximum lifting capacity with respect to the magnet self weight.
• Special Heavy Steel Mill Duty Series with Heavy Duty Manganese Casting Bumper Plate also available with deep field design, Higher Duty Cycle for enhanced Magnetic Operation and Higher Lifting Capacity.
• Manufactured with Cast Steel body and/or Fabricated structure.
• Duty Cycle 50%/ 60%/ 75% per 10 minute.
• Aluminium/Copper/Anodised Aluminium Conductor wound coil, special “H” or “C” Class insulation.
• Completely sealed with thermal conductive compound and protected terminal box.
• Supplied along with standard three-fall chain suspension with bull ring.
• Non Linear Resistors for surge suppression (optional).
• Operates on 220 Volts DC, other voltage on request.
• Compact Heavy duty control panel with easy maintenance.
• Lead Acid/Ni-cd Battery Back-up with Charger.
• Cable Reeling Drums in various types are available.

Steel Mill Duty Series
### Magnetic Lifters

**Heavy Duty Series**

<table>
<thead>
<tr>
<th>Art No</th>
<th>Dia of Magnet (mm)</th>
<th>Rated Power (KW)</th>
<th>Approx. weight (Kg)</th>
<th>Slab ingot (Kg)</th>
<th>Pig Iron (Kg)</th>
<th>Cast iron Scrap (Grade 3a) (Kg)</th>
<th>Solid Scrap (Grade 24) (Kg)</th>
<th>Short Steel Turnings (Grade 40) (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22205.01</td>
<td>700</td>
<td>2.5</td>
<td>365</td>
<td>4000</td>
<td>215</td>
<td>175</td>
<td>165</td>
<td>75</td>
</tr>
<tr>
<td>22205.02</td>
<td>900</td>
<td>4</td>
<td>650</td>
<td>6945</td>
<td>375</td>
<td>300</td>
<td>280</td>
<td>130</td>
</tr>
<tr>
<td>22205.03</td>
<td>1000</td>
<td>4.5</td>
<td>880</td>
<td>8815</td>
<td>485</td>
<td>390</td>
<td>365</td>
<td>170</td>
</tr>
<tr>
<td>22205.04</td>
<td>1100</td>
<td>6.0</td>
<td>1250</td>
<td>11345</td>
<td>640</td>
<td>500</td>
<td>490</td>
<td>225</td>
</tr>
<tr>
<td>22205.05</td>
<td>1300</td>
<td>8.5</td>
<td>1820</td>
<td>16265</td>
<td>975</td>
<td>780</td>
<td>745</td>
<td>340</td>
</tr>
<tr>
<td>22205.06</td>
<td>1600</td>
<td>11</td>
<td>2740</td>
<td>23000</td>
<td>1400</td>
<td>1150</td>
<td>1100</td>
<td>500</td>
</tr>
<tr>
<td>22205.07</td>
<td>1800</td>
<td>13.9</td>
<td>3670</td>
<td>30010</td>
<td>2000</td>
<td>1600</td>
<td>1500</td>
<td>700</td>
</tr>
<tr>
<td>22205.08</td>
<td>2000</td>
<td>17.2</td>
<td>4750</td>
<td>35450</td>
<td>2575</td>
<td>2070</td>
<td>1960</td>
<td>900</td>
</tr>
</tbody>
</table>

**Steel Mill Duty Series**

<table>
<thead>
<tr>
<th>Art No</th>
<th>Dia of Magnet (mm)</th>
<th>Rated Power (KW)</th>
<th>Approx. weight (Kg)</th>
<th>Slab ingot (Kg)</th>
<th>Pig Iron (Kg)</th>
<th>Cast iron Scrap (Grade 3a) (Kg)</th>
<th>Solid Scrap (Grade 24) (Kg)</th>
<th>Short Steel Turnings (Grade 40) (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22206.01</td>
<td>1130</td>
<td>8</td>
<td>1520</td>
<td>14700</td>
<td>800</td>
<td>700</td>
<td>650</td>
<td>300</td>
</tr>
<tr>
<td>22206.02</td>
<td>1350</td>
<td>10.5</td>
<td>2320</td>
<td>22000</td>
<td>1250</td>
<td>1100</td>
<td>1000</td>
<td>500</td>
</tr>
<tr>
<td>22206.03</td>
<td>1440</td>
<td>12.5</td>
<td>2850</td>
<td>26300</td>
<td>1500</td>
<td>1300</td>
<td>1200</td>
<td>600</td>
</tr>
<tr>
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<td>14</td>
<td>3380</td>
<td>30500</td>
<td>1750</td>
<td>1500</td>
<td>1400</td>
<td>700</td>
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<td>14.5</td>
<td>3550</td>
<td>31000</td>
<td>1800</td>
<td>1550</td>
<td>1450</td>
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<td>18</td>
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<td>2350</td>
<td>2050</td>
<td>1900</td>
<td>950</td>
</tr>
<tr>
<td>22206.07</td>
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<td>20</td>
<td>6130</td>
<td>44500</td>
<td>2650</td>
<td>2350</td>
<td>2200</td>
<td>1100</td>
</tr>
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<td>2020</td>
<td>23.5</td>
<td>8150</td>
<td>56000</td>
<td>3300</td>
<td>3000</td>
<td>2800</td>
<td>1350</td>
</tr>
<tr>
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<td>27.5</td>
<td>10600</td>
<td>68500</td>
<td>4000</td>
<td>3700</td>
<td>3500</td>
<td>1700</td>
</tr>
</tbody>
</table>

**Application**

- Loading/unloading of steel scraps/pig irons/cast iron/boring/turning/broken steel.
- Handles slabs, blooms and ingots.
- Handle plates/angle/channels.
- Used in smelt mixing operation.
- Can be used with mobile cranes.
- Direct feeding in the furnace.
- Sweeping/cleaning of mill area.

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**Heavy Duty Series**

- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
MAGNETIC LIFTERS

MAGNALIFT Electro Magnetic Rectangular Lifters

Bi-polar magnet coil handling upto dia 1200x3000 mm long.
Features
• Manufactured in fabricated structure & also in Cast body.
• Compact, light weight & increased heavy duty cycle.
• Aluminium/Copper/Anodised Aluminium Conductor wound coil, special “H” or “C” Class insulation.
• Completely sealed with thermal conductive compound and protected terminal box.
• Custom designed poles for special profiles.
• Operates on 220 Volts DC.
• Magnets for handling hot materials upto 600°C also available.
• Optional battery back up can be supplied.
• The ordering code for Aluminium wound lifters are 22102.
• The ordering code for Anodised Aluminium wound lifters are 22103.
• Spreader beams suitable for 12’/24 Mts long billets/ plates/ Re-bars are also supplied as per customer’s specification.

Applications
• Useful for production and stock yards.
• Loading/unloading of steel plates/billets/bars/blooms from trucks.
• Handles slabs, blooms and ingots.
• Can be used in tandem from spreader beam.
• Special design for handling large coils.

Technical Specifications

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>Self Weight (Kg)</th>
<th>Power (KW)</th>
<th>Size</th>
<th>Billet Length (M)</th>
<th>Billet Lifting Capacity (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22101.01</td>
<td>560</td>
<td>900</td>
<td>380</td>
<td>1200</td>
<td>5.00</td>
<td>5 x 130</td>
<td>6</td>
<td>5000</td>
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<td>22101.02</td>
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<td>1200</td>
<td>380</td>
<td>1650</td>
<td>6.00</td>
<td>7 x 130</td>
<td>6</td>
<td>7000</td>
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<td>22101.03</td>
<td>560</td>
<td>1600</td>
<td>380</td>
<td>2000</td>
<td>7.00</td>
<td>8 x 150</td>
<td>6</td>
<td>10000</td>
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<tr>
<td>22101.04</td>
<td>700</td>
<td>1700</td>
<td>380</td>
<td>2800</td>
<td>7.50</td>
<td>6 x 230</td>
<td>6</td>
<td>12000</td>
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<tr>
<td>22101.05</td>
<td>900</td>
<td>2000</td>
<td>380</td>
<td>5000</td>
<td>12.00</td>
<td>3 x 550</td>
<td>6</td>
<td>20000</td>
</tr>
</tbody>
</table>

* Due to continuous upgradation in design there could be changes in specifications.
* Other sizes on request.
Features
• Tested to 3 times the rated lifting capacity.
• State of art design.
• Smaller and lighter than ever.
• Made with high energy rare earth NdFeB magnets.
• All Steel body and thus very stable.
• Easily transportable.
• Actuating lever with positive spring lock.

Applications
• For handling of steel plates, blocks, rounds, press moulds and loading/unloading on machines.
• Commonly used near flame cutting.
• Very handy during fabrication.
• Can handle finished components without leaving behind any scratch marks, unlike binding and slinging.
• Can be used with spreader beam hanging multiple magnets for long plates/pipes/bars.
• Can be used with mobile cranes.

Benefits
• More effective use of floor space by eliminating dunnage & increasing stacking height.
• Large and heavy work piece can be moved safely and easily by a single operator.
• Suitable for both flat and round components.
• Labour saving, time saving.
MAGNETIC LIFTERS

Due to continuous upgradation in design there could be changes in specifications

Other sizes on request.

Calculation of Lifting Capacity of a Lifting Magnet: $= T \times S \times M \times A \times C \times SWL$

Example:

$T4 \times S2 \times M2 \times A2 \times C1 \times 1000$

$= 100\% \times 90\% \times 90\% \times 75\% \times 100\% \times 1000$

$= 607.5 \text{ Kg}$

Testing plate thickness 60 mm. (90 mm for Art. No. 21101.08) • Lifting capacity depends with: - Thickness of load - Roughness of job surface - Hardness of material - Contact area of magnet - Temperature of the load.

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Retained Capacity (SWL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>70 100% 100% 100% 100% 100%</td>
</tr>
<tr>
<td>T2</td>
<td>60 70% 90% 100% 100% 100%</td>
</tr>
<tr>
<td>T3</td>
<td>50 85% 90% 85% 100% 100%</td>
</tr>
<tr>
<td>T4</td>
<td>45 80% 85% 90% 100% 100%</td>
</tr>
<tr>
<td>T5</td>
<td>40 70% 85% 90% 90% 90%</td>
</tr>
<tr>
<td>T6</td>
<td>35 70% 75% 85% 70% 70%</td>
</tr>
<tr>
<td>T7</td>
<td>30 60% 65% 80% 80% 80%</td>
</tr>
<tr>
<td>T8</td>
<td>25 55% 70% 70% 70% 70%</td>
</tr>
<tr>
<td>T9</td>
<td>20 45% 60% 75% 70% 70%</td>
</tr>
<tr>
<td>T10</td>
<td>15 45% 60% 70% 90% 90%</td>
</tr>
<tr>
<td>T11</td>
<td>10 – 50% 60% 100% 100%</td>
</tr>
<tr>
<td>T12</td>
<td>5 – – 30% 50% 40% 40%</td>
</tr>
</tbody>
</table>

All dimensions are in mm.

Spreader Beam With Adjustable Magnets.

Loading on Machine Bed
MAGNETIC LIFTERS

Small Lifters

**H-LIFT**

*Hand Drag Sheet Lifters*

**Features**
- Easy grip powerful magnet with handle.
- Can lift/drag top sheet from stack for pulling out without any damage.
- Optimum flux density – effectively lifts thick/thin sheets.
- Magnets are always ON. To release, a cam mechanism pushes down the sheet at contact point.

**Applications**
- Useful in press shops for feeding one sheet at a time in machine.
- Used as single or in pairs for carrying sheets for either horizontal or vertical transportation.
- Two people can hold from side for carrying sheet of dimension 3 x 1250 x 2500 mm.

All dimensions are in mm.

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>Lift Capacity (Kg)</th>
<th>Sliding Force (Kg)</th>
<th>Weight (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21102.01</td>
<td>100</td>
<td>150</td>
<td>35</td>
<td>90</td>
<td>35</td>
<td>3.0</td>
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<tr>
<td>21102.02</td>
<td>140</td>
<td>190</td>
<td>40</td>
<td>160</td>
<td>60</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Caution: • Do not use it as a hoist • For handling finished components after grinding operation, use thin plastic sheet to avoid scratch.

**S-LIFT**

*Sheet Lifters*

**Features**
- Simple, easy, flexible, economical and light weight.
- Can swivel 150° and lift sheets vertically and horizontally.
- Can lift non-homogeneous parts with unbalanced weight and load.
- Optimum flux density – effectively lifts thick/thin sheets.
- Magnets always remain ON.
- Cam mechanism jack up lever releases the jobs easily with the help of long handle.

**Applications**
- Useful in shop floor for stacking of sheets size upto 1250 x 2500 mm.
- Loading/unloading of plates from planners, boring, milling machine.
- Most suitable near flame cutting machines.

All dimensions are in mm.

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>Lift Capacity (Kg)</th>
<th>Sliding Force (Kg)</th>
<th>Weight (Kg)</th>
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</thead>
<tbody>
<tr>
<td>21103.01</td>
<td>110</td>
<td>210</td>
<td>250</td>
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<tr>
<td>21103.02</td>
<td>180</td>
<td>320</td>
<td>500</td>
<td>150</td>
<td>13.5</td>
</tr>
</tbody>
</table>

Caution: • Due to continuous upgradation in design there could be changes in specifications. • Other sizes on request.
MAGNETIC LIFTERS

TOUCHER MAGNET

Features
- Handy with easy gripper.
- Attracts and removes with one touch, jack up lever.
- Low field magnetic power to handle finished components.
- Can handle oily/warm components.

Applications
- To hold small/complex shaped components while polishing/grinding.
- To lift oily finished grinded jobs from surface grinding machine.
- Useful during critical welding application.

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>Lift Capacity (Kg)</th>
<th>Weight (Kg)</th>
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<tbody>
<tr>
<td>21104.01</td>
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<td>60</td>
<td>40</td>
<td>25</td>
<td>1.2</td>
</tr>
</tbody>
</table>

All dimensions are in mm.

MAGNETIC TONG

Features
- Handy with long reach.
- Keeps hands away from power press.
- Low magnetic field to lift thin sheets.
- One touch release of components.

Applications
- To feed small components in power press.
- To remove punched component from press.

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>Lift Capacity (Kg)</th>
<th>Weight (Kg)</th>
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<tbody>
<tr>
<td>21105.01</td>
<td>50</td>
<td>30</td>
<td>300</td>
<td>5</td>
<td>0.75</td>
</tr>
</tbody>
</table>

All dimensions are in mm.

PALM MAGNET

Features
- Can be strapped in hand over gloves.
- Handy magnet with multiple use.
- Low field magnetic power to handle thin sheets one by one.
- Release the components manually.

Applications
- To feed small punched components in power press.
- Used as wrist watch to hold critical components during assembly.

<table>
<thead>
<tr>
<th>Art No.</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>Lift Capacity (Kg)</th>
<th>Weight (Kg)</th>
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</thead>
<tbody>
<tr>
<td>21106.01</td>
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<td>38</td>
<td>20</td>
<td>5</td>
<td>0.50</td>
</tr>
</tbody>
</table>

All dimensions are in mm.
- Due to continuous upgradation in design there could be changes in specifications.
- Other sizes on request.
MR. MAGNALIFT SAYS

“Get the best out of your magnet!”

1. Support cable with robust clamp instead of hook block.
2. Lifting magnets are intermittent rated, and will overheat if left on. A hot magnet will not lift as much or last as long.
3. Give your magnet a rest between loads. It will lift a lot more in a day, when operated properly.
4. The magnet will lift more as it narrows pieces jumping up and preventing magnet contacting pills.
5. When not in use store the magnet under cover or use a tarpaulin. Don't put it on the ground to cook, to avoid moisture absorption of moisture into the shell.
6. Don't use magnet dry.
7. Tighten magnet temperature.
8. Don't use magnet or drop ball.
10. Check bolts chance periodically. This prevents moisture creeping through joint in magnet and terminal box which may cause short circuits.