WINKLE

ELECTRO PERMANENT MAGNETS



WINKLE

PERMANENT MAGNETS HOLD THE LOAD. ELECTRICITY ONLY SWITCHES IT.

A conventional lifting electromagnet needs current for as long as the load is in the air — and a backup battery in case the power drops. In a Winkle electropermanent magnet (EPM), the holding force comes from permanent magnets. Power is used only for a few seconds to switch the magnet ON or OFF, which cuts energy use and removes the battery from the safety chain.

ELECTROMAGNETS VS. ELECTROPERMANENT MAGNETS

	CONVENTIONAL ELECTROMAGNETS	WINKLE ELECTROPERMANENT (EPM)
Source of the holding force	Continuous DC current through the coil	Permanent magnets inside each module
Electricity during the lift	Required for the whole lift	Only a short pulse to magnetize or demagnetize
Power failure with load suspended	Load is held only if a backup battery is fitted	Load stays held — the magnetic state does not depend on power
Backup batteries	Required, with recurring replacement cost	Not required — no recurring battery replacement cost
DC contactors	Maintenance required	No DC contactor maintenance
Electrical power consumption	Reference	97% less than a similar electromagnet

97% LESS
electrical power than a similar electromagnet

4 STEPS
of magnetic power adjustment for thin plates*

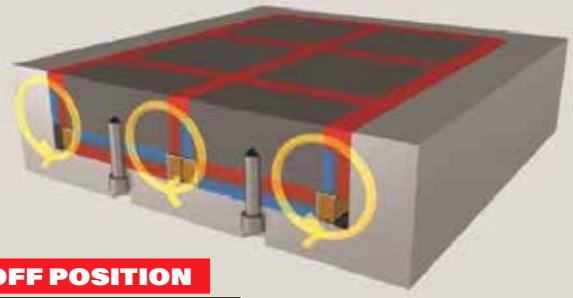
1 OPERATOR
Loads and unloads — no slingers, chains or clamps

WHAT YOU GAIN

- Lower energy bill and no battery replacement cycle.
- Load stays secured if the supply is interrupted.
- Faster cycles: no slinging, no chains, no dunnage.
- Operator stays at a safe distance with radio remote control.

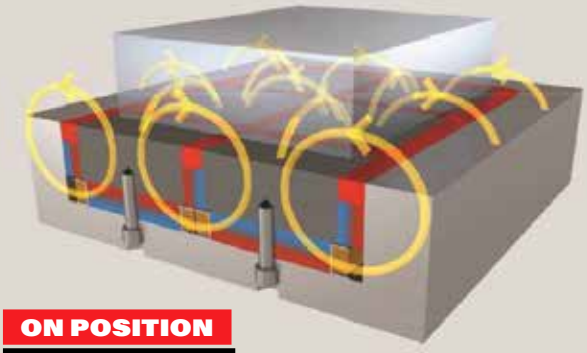


TWO STABLE STATES. ONE SHORT PULSE.



OFF POSITION
DEMAGNETIZED

The magnetic flux circulates inside the module. Nothing is attracted: the magnet can be positioned and removed freely.



ON POSITION
MAGNETIZED

A short electrical pulse redirects the flux out through the poles and into the steel load. The load is held by the permanent magnets — no current is needed to keep it.

SAFETY & CONTROL FEATURES

ADPREM

Accidental Demagnetization PREvention Mechanism: the demagnetization cycle is disabled while the load is hanging or chains are in tension.

FEATURED ON: BILLET · COIL · FIXED SPREADER BEAM · SLAB

DOUBLE MAG CYCLE

Ensures safe lifting at more than 100% SWL.

FEATURED ON: FIXED SPREADER BEAM · VERTICAL PLATE

TWO-STEP MAGNETIZATION

75% of magnetic power at pick-up to stay within safety limits, 100% before transport.

FEATURED ON: BILLET HANDLING

4-STEP POWER CONTROL

Magnetic power adjusts in 4 steps, with lower settings for thin plates.

FEATURED ON: FIXED SPREADER BEAM · VERTICAL PLATE

INCHING

Gradually reduces magnetic power to release extra thin plates, so only one plate is handled at a time.

FEATURED ON: FIXED SPREADER BEAM · VERTICAL PLATE

SELECTIVE SWITCHING

Magnets switch according to plate length — inner magnets for short plates, all magnets for long plates.

FEATURED ON: FIXED · TELESCOPIC · VERTICAL · CUTTING TABLE

RADIO REMOTE CONTROL

Operates from a convenient distance, keeping the operator away from the load.

FEATURED ON: BILLET · COIL · FIXED · SLAB · VERTICAL

ANTI-RELEASE (BATTERY)

Built-in security mechanism prevents demagnetization when the load is suspended.

FEATURED ON: SAFEBAT

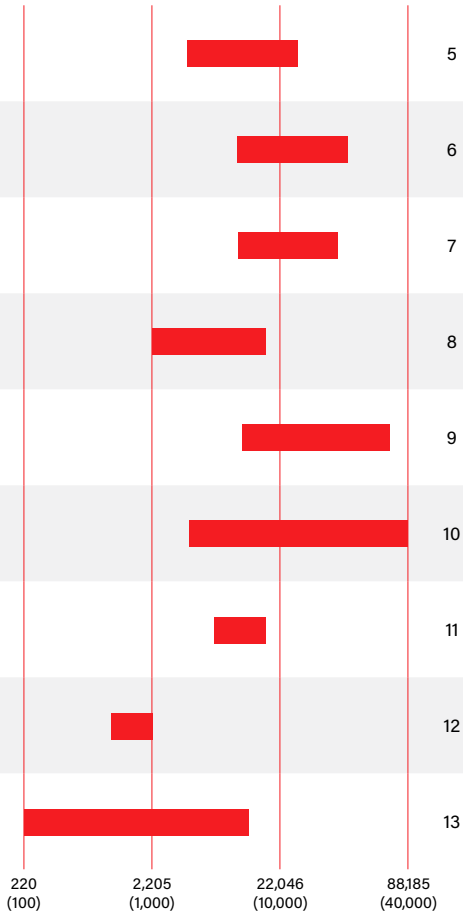
WINKLE

FIND THE RIGHT SYSTEM FOR YOUR LOAD.

Nine handling solutions built on the same principle. Use this table to shortlist the system for your load, then turn to the product page for full technical data.

SYSTEM	RATED CAPACITY LB (KG)	MAX PLATE SIZE IN (MM)	MIN. THICKNESS IN (MM)	PAGE
EPM Fixed Spreader Beam Plates	4,409 – 35,274 (2,000 – 16,000)	118.1 × 492.1 (3,000 × 12,500)	0.20 (5)	5
EPM Telescopic Beam Long plates	8,818 – 39,683 (4,000 – 18,000)	137.8 × 629.9 (3,500 × 16,000)	0.20 (5)	6
EPM Vertical Plate Handling System Plates, vertical or horizontal	8,818 – 35,274 (4,000 – 16,000)	118.1 × 492.1 (3,000 × 12,500)	0.20 (5)	7
EPM Plate Lifting System for Cutting Table Full plates, cut-outs, skeletons	2,205 – 17,637 (1,000 – 8,000)	98.4 × 315.0 (2,500 × 8,000)	0.16 (4)	8
EPM Slab Handling System Slabs, thick plates, blocks	11,023 – 66,139 (5,000 – 30,000)	137.8 × 236.2 (3,500 × 6,000)	1.18 (30)	9
EPM Coil Handling System Coils (eye-horizontal / eye-vertical)	4,409 – 88,185 (2,000 – 40,000)	Coil OD up to 84.6 (2,150)	0.012 strip (0.3)	10
Billet Handling System Billets	6,614 – 16,535 (3,000 – 7,500)	Layer 66.9 wide · 472.4 long (1,700 · 12,000)	—	11
SAFEBAT EPM Battery Magnet Cut-outs, parts, rounds	1,102 – 2,205 (500 – 1,000)	118.1 × 78.7 (3,000 × 2,000)	0.39 (10)	12
e-LIFT Permanent Magnetic Lifter Plates, blocks, rounds	220 – 11,023 (100 – 5,000)	196.9 × 118.1 (5,000 × 3,000)	—	13

CAPACITY RANGE LB (KG) • LOG SCALE



Values taken from the technical data tables in this catalogue.
Max. load size = largest width × length (coil: outer diameter; billet: layer width and length).
Other sizes on request.

PLATES

Fixed Spreader Beam, Telescopic Beam, Vertical Plate Handling, Cutting Table.



STEEL MILL PRODUCTS

Billet Handling, Slab Handling, Coil Handling.



PARTS & WORKSHOP

SAFEBAT battery EPM, e-LIFT manual permanent lifter.

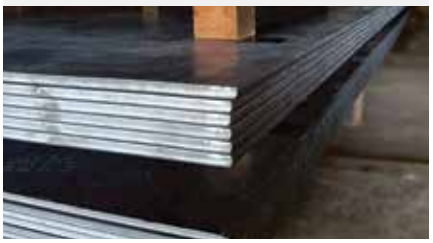


PLATE HANDLING

EPM FIXED SPREADER BEAM

EPMs suspended from a fixed-length spreader beam, positioned to cover the widest range of plate sizes — with power and magnet selection matched to each plate.



KEY FEATURES

- EPMs suspended from a fixed-length spreader beam, positioned to cover the widest range of plate sizes.
- Plates stack directly on top of each other, with no wooden dunnage.
- No additional person required to attach chains.
- The Double Mag Cycle ensures safe lifting at more than 100% SWL.
- Magnetic power adjusts in 4 steps, with lower settings for thin plates.
- Uses 97% less power than a comparable electromagnet, with no recurring battery replacement costs and no DC contactor maintenance.
- Magnets switch according to plate length: internal magnets for smaller plates, all magnets for larger plates.
- The inching feature gradually reduces magnetic power to release any extra thin plates picked up, so only one plate is handled at a time.
- ADPREM disables demagnetization while the load is hanging or the chains are in tension.
- Radio remote control — operates from a convenient distance.

APPLICATIONS

Loading and unloading plates from railway wagons and trucks.

Storing in plate yards.

Feeding plates onto a flame or plasma cutting table.

Can be used with EOT, gantry and mobile cranes.

TECHNICAL DATA

RATED CAPACITY LB (KG)	**MINIMUM THICKNESS** IN (MM)	**WIDTH (MIN/MAX)** IN (MM)	**LENGTH (MIN/MAX)** IN (MM)	**NO. OF MAGNETS**	**WEIGHT** LB (KG)
4,409 (2,000)	0.20 (5)	19.7/59.1 (500/1,500)	78.7/248.0 (2,000/6,300)	4 x 1	1,653 (750)
8,818 (4,000)	0.20 (5)	19.7/98.4 (500/2,500)	78.7/248.0 (2,000/6,300)	4 x 2	2,646 (1,200)
11,023 (5,000)	0.20 (5)	19.7/98.4 (500/2,500)	118.1/492.1 (3,000/12,500)	5 x 2	3,307 (1,500)
16,535 (7,500)	0.20 (5)	19.7/98.4 (500/2,500)	118.1/492.1 (3,000/12,500)	5 x 2	3,968 (1,800)
22,046 (10,000)	0.20 (5)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	5 x 2	5,512 (2,500)
26,455 (12,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	5 x 2	6,173 (2,800)
35,274 (16,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	5 x 2	7,275 (3,300)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

WINKLE

EPM TELESCOPIC BEAM

The most versatile lifting magnet system: a telescopic beam whose length adjusts to the plate, with additional features over the EPM Fixed Spreader Beam.



KEY FEATURES

- The more versatile lifting magnet system, with additional features over the EPM Fixed Spreader Beam.
- One set of EPM modules is placed on the fixed part of the beam, another set on the telescopic part.
- A separate electrical actuator moves the telescopic part, ensuring movement is always equal and in sync.
- No oil seepage.
- The length of the moving beam can be adjusted to the length of the plate to be handled.

APPLICATIONS

Saves space for storing and moving on the shop floor.

Storing in plate yards.

Feeding plates onto a flame or plasma cutting table, one at a time.

Loading and unloading plates from railway wagons and trucks.

Can be used with EOT, gantry and mobile cranes.

MAGNET SELECTION BY PLATE LENGTH

1. **SHORTER PLATE.** Activate only the inner magnets.
2. **MEDIUM / THICK PLATE.** Activate all the magnets with the telescopic arm closed.
3. **LONG PLATE.** Activate all the magnets with the telescopic arm extended.

TECHNICAL DATA

RATED CAPACITY LB (KG)	MINIMUM THICKNESS IN (MM)	WIDTH (MIN/MAX) IN (MM)	LENGTH (MIN/MAX) IN (MM)	NO. OF MAGNETS	WEIGHT LB (KG)
8,818 (4,000)	0.20 (5)	19.7/98.4 (500/2,500)	78.7/248.0 (2,000/6,300)	4 x 2	2,646 (1,200)
16,535 (7,500)	0.20 (5)	19.7/98.4 (500/2,500)	118.1/492.1 (3,000/12,500)	4 x 2	3,968 (1,800)
22,046 (10,000)	0.20 (5)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	4 x 2	5,512 (2,500)
26,455 (12,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	4 x 2	6,173 (2,800)
35,274 (16,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/492.1 (3,000/12,500)	4 x 2	7,275 (3,300)
30,865 (14,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/629.9 (3,000/16,000)	6 x 2	7,716 (3,500)
39,683 (18,000)	0.24 (6)	19.7/118.1 (500/3,000)	118.1/629.9 (3,000/16,000)	6 x 2	8,818 J(4,000)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

PLATE HANDLING — VERTICAL STORAGE

EPM VERTICAL PLATE HANDLING SYSTEM

Handles plates in either vertical or horizontal orientation — store plates on edge to save floor space and sort them easily.





KEY FEATURES

- Handles plates in either vertical or horizontal orientation.
- EPMs suspended from a fixed-length spreader beam, positioned to cover the widest range of plate sizes.
- A simple self-tilting mechanism requires no additional actuation.
- With appropriate magnet placement, horizontally placed plates can be stacked vertically, and vertically stacked plates can be placed horizontally.
- No additional person required to attach plate clamps, slings or chains.
- The Double Mag Cycle ensures safe lifting at more than 100% SWL.
- The inching feature gradually reduces magnetic power to release any extra thin plate picked up, so only one plate is handled at a time.
- Magnetic power adjusts in 4 steps, with lower settings for thin plates.
- Magnets switch according to plate length: only internal magnets for smaller plates, all magnets for larger plates.
- Radio remote control — operates from a convenient distance.

APPLICATIONS

Optimum use of space: vertically stored plates take less space and are easy to sort.

Feeding plates onto a flame or plasma cutting table, one at a time.

Loading and unloading plates from railway wagons and trucks.

Can be used with EOT, gantry and mobile cranes.

TECHNICAL DATA

RATED CAPACITY LB (KG)	**MINIMUM THICKNESS** IN (MM)	**WIDTH (MIN/MAX)** IN (MM)	**LENGTH (MIN/MAX)** IN (MM)	**NO. OF MAGNETS**	**WEIGHT** LB (KG)
8,818 (4,000)	0.20 (5)	19.7/98.4 (500/2,500)	78.7 (2,000)	4 x 1	3,968 (1,800)
16,535 (7,500)	0.20 (5)	19.7/98.4 (500/2,500)	118.1/492.1 (3,000/12,500)	6 x 1	6,173 (2,800)
22,046 (10,000)	0.20 (5)	39.4/118.1 (1,000/3,000)	118.1/492.1 (3,000/12,500)	6 x 1	7,055 (3,200)
26,455 (12,000)	0.24 (6)	39.4/118. (1,000/3,000)	118.1/492.1 (3,000/12,500)	6 x 1	7,496 (3,400)
35,274 (16,000)	0.24 (6)	39.4/118.1 (1,000/3,000)	118.1/492.1 (3,000/12,500)	6 x 1	8,818 (4,000)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

WINKLE

FABRICATION — TOTAL COVERAGE — FLAME & PLASMA CUTTING

EPM PLATE LIFTING SYSTEM FOR CUTTING TABLE

One magnet to load the full plate on the cutting table, then unload the cut-outs and the skeleton in one or two lifts — more torch time, less idle machine time.





KEY FEATURES

- Optimized magnet and beam weight to make the most of your crane capacity.
- Use the magnet to load the full plate on the machine.
- After cutting, unload the cut-outs and skeleton with the same magnet in 1 or 2 lifts.
- Customised magnet module switching.
- Total or selective coverage.

PRODUCTIVITY & SAFETY

Cut more parts per shift by maximizing torch time.

Quick parts removal eliminates idle machine time.

Stop using the table as a sorting table.

One person can load and unload the plate and cut-outs.

Increased safety by keeping the operator off the cutting table.

TECHNICAL DATA

BEAM TYPE	WEIGHT LB (KG)	THICKNESS (MIN/MAX) IN (MM)	MIN. CUT PIECE IN (MM)	MAX CUTOUT AREA (WIDTH/HEIGHT) IN (MM)	MAX FULL PLATE AREA (WIDTH/HEIGHT) IN (MM)	RATED CAPACITY LB (KG)
Fixed	1,653 (750)	0.16/0.63 (4/16)	11.8 x 11.8 (300 x 300)	59.1/118.1 (1,500/3,000)	59.1/118.1 (1,500/3,000)	2,205 (1,000)
Fixed	4,409 (2,000)	0.16/0.98 (4/25)	11.8 x 11.8 (300 x 300)	59.1/157.5 (1,500/4,000)	59.1/157.5 (1,500/4,000)	3,307 (1,500)
Fixed	6,393 (2,900)	0.16/0.98 (4/25)	11.8 x 11.8 (300 x 300)	78.7/157.5 (2,000/4,000)	78.7/157.5 (2,000/4,000)	4,409 (2,000)
Fixed	7,496 (3,400)	0.16/0.98 (4/25)	11.8 x 11.8 (300 x 300)	59.1/248.0 (1,500/6,300)	59.1/248.0 (1,500/6,300)	4,409 (2,000)
Fixed	10,141 (4,600)	0.16/0.98 (4/25)	11.8 x 11.8 (300 x 300)	98.4/248.0 (2,500/6,300)	98.4/248.0 (2,500/6,300)	6,614 (3,000)
Fixed	14,551 (6,600)	0.31/1.97 (8/50)	19.7 x 19.7 (500 x 500)	98.4/248.0 (2,500/6,300)	98.4/315.0 (2,500/8,000)	17,637 (8,000)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

STELL MILLS — PORTS — HEAVY PLATE

EPM SLAB HANDLING SYSTEM

Heavy-duty handling of slabs and thick plates, stacked directly on top of each other without dunnage, clearances or chains.



KEY FEATURES

- Maximum power at high operating air gaps.
- Slabs and plates can be stored one on top of another without wooden dunnage.
- Does not require clearances or gaps.
- No additional person required to attach chains.
- ADPREM — Accidental Demagnetization PREvention Mechanism disables the demagnetization cycle when the load is hanging and chains are in tension.
- Radio remote control — operates from a convenient distance.
- Electrical power consumption 97% lower than a similar electromagnet. No recurring battery replacement cost.

APPLICATIONS

Storing plates, flat loads and blocks.

Ports.

Steel mills.

Loading and unloading plates from railway wagons and trucks.

Can be used with EOT, gantry and mobile cranes.

TECHNICAL DATA

RATED CAPACITY LB (KG)	**MINIMUM THICKNESS** IN (MM)	**WIDTH (MIN/MAX)** IN (MM)	**LENGTH (MIN/MAX)** IN (MM)	**WEIGHT** LB (KG)
11,023 (5,000)	1.18 (30)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	1,345 (610)
22,046 (10,000)	1.18 (30)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	2,094 (950)
33,069 (15,000)	1.57 (40)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	2,866 (1,300)
44,092 (20,000)	1.57 (40)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	3,858 (1,750)
55,116 (25,000)	3.15 (80)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	4,740 (2,150)
66,139 (30,000)	3.15 (80)	39.4/137.8 (1,000/3,500)	39.4/236.2 (1,000/6,000)	5,952 (2,700)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

WINKLE

COIL PROCESSING — SERVICE CENTRES

EPM COIL HANDLING SYSTEM

Quick and secure coil handling from the top face of the coil — no clamps, C-hooks or chains, and no damage to the coil.





KEY FEATURES

- Handling the coil is quick and secure.
- No damage to the coil, unlike clamps, C-hooks or chains.
- Contacts the top face of the coil — no compression or deformation.
- No additional room required for lifting and placing.
- Magnets available for handling coils horizontally or vertically.
- Maximum performance even with high operating air gaps.
- No additional person required to attach slings, chains or clamps.
- ADPREM — Accidental Demagnetization PREvention Mechanism disables the demagnetization cycle when the load is hanging.
- Radio remote control — operates from a convenient distance.

APPLICATIONS

Eye-horizontal handling during storage.

Eye-vertical handling during annealing, and of finished product during packing.

Can be used with EOT, gantry and mobile cranes.

TECHNICAL DATA

RATED CAPACITY LB (KG)	**THICKNESS** IN (MM)	**INNER DIAMETER** IN (MM)	**OUTER DIAMETER** IN (MM)	**COIL HEIGHT** IN (MM)
4,409 (2,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	59.1 (1,500)	1.0 – 11.8 (25 – 300)
11,023 (5,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	66.9 (1,700)	2.0 – 11.8 (50 – 300)
22,046 (10,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	78.7 (2,000)	15.7 – 53.1 (400 – 1,350)
33,069 (15,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	55.1 (1,400)	15.7 – 53.1 (400 – 1,350)
44,092 (20,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	74.8 (1,900)	15.7 – 53.1 (400 – 1,350)
55,116 (25,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	78.7 (2,000)	19.7 – 53.1 (500 – 1,350)
66,139 (30,000)	0.012 – 0.24 (0.3 – 6.0)	20.0 – 24.0 (508 – 610)	82.7 (2,100)	19.7 – 59.1 (500 – 1,500)
88,185 (40,000)	0.012 – 0.24) 0.3 – 6.0)	20.0 – 24.0 (508 – 610)	84.6 (2,150)	23.6 – 72.8 (600 – 1,850)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

STELL MILLS — LONG PRODUCTS

BILLET HANDLING SYSTEM

EPM modules suspended from a fixed-length spreader beam, positioned to cover the maximum range of billet sizes — billets are stacked directly on each other, with no dunnage.



KEY FEATURES

- EPMs suspended from a fixed-length spreader beam.
- EPM modules positioned to cover the maximum range of billet sizes.
- Billets can be stored one on top of another without wooden dunnage — no clearances or gaps required between billets.
- No additional person required to attach chains.
- Two-step magnetization: only 75% of magnetic power at pick-up, to keep lifting within safety limits; 100% power before transport.
- ADPREM — Accidental Demagnetization PREvention Mechanism disables the demagnetization cycle while the load is hanging or chains are in tension.
- Radio remote control — operates from a convenient distance.
- Electrical power consumption 97% lower than a similar electromagnet. No recurring battery replacement cost. No maintenance of DC contactors.

APPLICATIONS

Steel mills.

Loading and unloading of trucks, ships and rail cars.

Handling in steel mills and foundries (temperature up to 1,112 °F or 600 °C).

Can be used with EOT, gantry and mobile cranes.

TECHNICAL DATA

RATED CAPACITY LB (KG)	**LAYER WIDTH** IN (MM)	**LENGTH (MIN/MAX)** IN (MM)	**NO. OF MAGNETS**
6,614 (3,000)	23.6 (600)	19.7/118.1 (500/3,000)	1
8,818 (4,000)	39.4 (1,000)	118.1/236.2 (3,000/6,000)	2
11,023 (5,000)	55.1 (1,400)	236.2/472.4 (6,000/12,000)	2
16,535 (7,500)	66.9 (1,700)	236.2/472.4 (6,000/12,000)	2

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

WINKLE

BATTERY EPM —CUT-OUT & PART HANDLING

SAFEBAT EPM BATTERY MAGNET

Small, compact, robust and handy — a battery-powered electropermanent magnet for cut-outs and parts, independent of the main power supply.



KEY FEATURES

- Small, compact, robust and handy.
- Selectable manual or automatic switching.
- Independent of main power supply.
- Lithium-ion battery charged in approx. 3 hours.
- For flat and round material.
- Auto-mode for loading and unloading from a distance.

PROFESSIONAL ADVANTAGES

No battery power flows during lifting — only an electric pulse from the battery for a few seconds is required for magnetization or demagnetization.

A built-in security mechanism prevents demagnetization when the load is suspended, so unintentional release of the load is prevented.

TECHNICAL DATA

MODEL	MAGNET SIZE IN (MM)	LIFTING CAPACITY FLAT LB (KG)	LIFTING CAPACITY ROUND LB (KG)	MAX PLATE SIZE IN (MM)	SWITCHING PER CHARGE	SELF WEIGHT LB (KG)
SB500	7.1 x 6.3 x 11.0 (180 x 160 x 280)	1,102 (500)	441 (200)	98.4 x 59.1 x ≥ 0.39 (2,500 x 1,500 x ≥ 10)	1,000 times	49 (22)
SB1000	12.4 x 6.9 x 8.9 (315 x 175 x 225)	2,205 (1,000)	882 (400)	118.1 x 78.7 x ≥ 0.79 (3,000 x 2,000 x ≥ 20)	300 times	77 (35)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

MANUAL PERMANENT MAGNET — NO POWER REQUIRED

E-LIFT PERMANENT MAGNETIC LIFTER

A manual, lever-actuated permanent magnetic lifter for workshop and fabrication handling — completes the EPM range for lighter loads.



100 – 5,000 KG
flat lifting capacity

3 TIMES
rated capacity — test load

MANUAL
actuating lever with positive spring lock

KEY FEATURES

- Monolithic steel body increases rigidity.
- Smaller and lighter than ever.
- Easily transportable.
- Tested at 3 times the rated lifting capacity.
- Actuating lever with positive spring lock.

BENEFITS

- More effective use of floor space by eliminating dunnage and
- Increasing stacking height.
- Large and heavy workpieces can be moved safely and easily by a single operator.
- Suitable for both flat and round components.
- Labour saving, time saving.

APPLICATIONS

Handling steel plates, blocks, rounds and press moulds; loading and unloading on machines.

Commonly used near flame cutting. Very handy during fabrication.

Handles finished components without leaving scratch marks, unlike binding and slinging.

Can be used with a spreader beam carrying multiple magnets for long plates, pipes and bars.

Can be used with mobile cranes.

TECHNICAL DATA

LIFTING CAPACITY (FLAT/DIA) LB (KG)	DIMENSIONS IN (MM) L	W	H	SELF WEIGHT LB (KG)	TESTED FOR LOAD LB (KG)	MAX JOB SIZE (L/W) IN (MM)	ROUND JOB SIZE RANGE DIA. IN(MM)
220/99 (100/45)	5.3 (135)	2.8 (70)	5.5 (140)	9 (4)	661 (300)	47.2/31.5 (1,200/800)	1.6 – 3.9 (40 – 100)
441/198 (200/90)	6.9 (175)	2.8 (70)	5.5 (140)	13 (6)	1,323 (600)	47.2/31.5 (1,200/800)	1.6 – 3.9 (40 – 100)
661/276 (300/125)	7.7 (195)	3.5 (90)	6.7 (170)	20 (9)	1,984 (900)	78.7/39.4 (2,000/1,000)	1.6 – 3.9 (40 – 100)
1,102/496 (500/225)	10.0 (255)	3.9 (100)	8.3 (210)	37 (17)	3,307 (1,500)	78.7/59.1 (2,000/1,500)	2.4 – 7.9 (60 – 200)
2,205/992 (1,000/450)	14.0 (355)	4.7 (120)	11.4 (290)	79 (36)	6,614 (3,000)	118.1/59.1 (3,000/1,500)	3.1 – 13.8 (80 – 350)
4,409/1,984 (2,000/900)	17.5 (445)	7.2 (182)	13.2 (335)	205 (93)	13,228 (6,000)	137.8/78.7 (3,500/2,000)	4.7 – 15.7 (120 – 400)
6,614/2,976 (3,000/1,350)	18.5 (470)	10.2 (260)	16.7 (425)	353 (160)	19,842 (9,000)	137.8/78.7 (3,500/2,000)	5.9 – 15.7 (150 – 400)
11,023/4,960 (5,000/2,250)	24.0 (610)	14.6 (370)	21.3 (540)	1,047 (475)	33,069 (15,000)	196.9/118.1 (5,000/3,000)	7.9 – 17.7 (200 – 450)

Generally Cable Reeling drum is recommended for feeding electric power supply during the up/down movement of hoist.
This information is subject to change without notice. Other sizes on request.

WINKLE

IN THE FIELD

APPLICATION EXEMPLES.

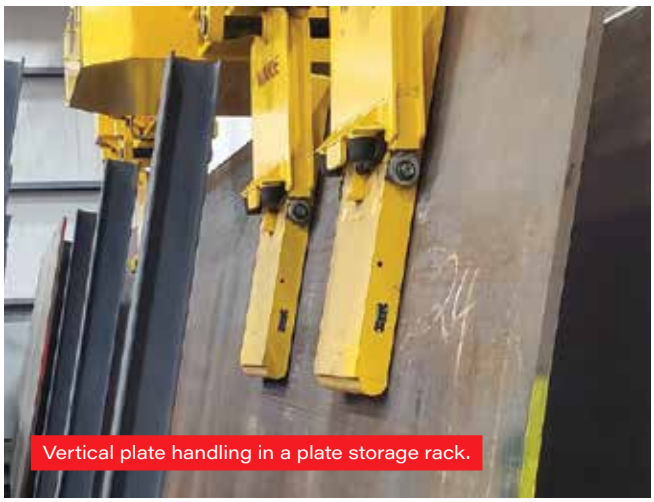
Steel mills, service centres, fabrication shops, ports and plate yards — wherever steel is lifted, stacked or fed to a machine.



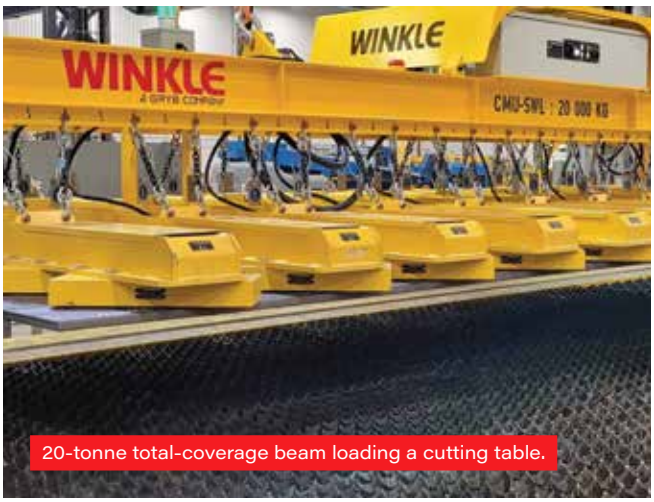
Billet handling beam in a steel mill.



EPM plate handling system lifting a full plate.



Vertical plate handling in a plate storage rack.



20-tonne total-coverage beam loading a cutting table.



EPM lifting frame for cutting-table loading.



EPM coil lifter in a coil processing line.

GET THE RIGHT MAGNET

SPECIFY YOUR SYSTEM.

Every Winkle EPM system is sized to the load, the crane and the process. Send us the information below and our team will recommend the configuration — standard or custom.

LOAD

- ☐ Type: plate, slab, billet, coil, bar,
- ☐ pipe, cut parts
- ☐ Material / grade and surface
- ☐ condition
- ☐ Min. and max. dimensions (length × width, or coil ID / OD / height)
- ☐ Min. and max. thickness
- ☐ Max. weight per lift

HANDLING

- ☐ Single plate or several plates per lift
- ☐ Orientation: horizontal, vertical, tilting
- ☐ Max. load temperature
- ☐ Stacking: with or without dunnage
- ☐ Lifts per hour / shift

SITE

- ☐ Crane type: EOT, gantry, mobile
- ☐ Crane capacity and hook height
- ☐ Available power supply (voltage /frequency)
- ☐ Indoor or outdoor use
- ☐ Remote control and options required

SEND US YOUR LOAD DATA. WE SIZE THE MAGNET.

1-330-823-9730
INFO@WINKLEINDUSTRIES.COM
WINKLEINDUSTRIES.COM



WINKLE | GRYB

1-330-823-9730
INFO@WINKLEINDUSTRIES.COM

FOLLOW US

2080, West Main Street, Alliance , OH 44601

WINKLEINDUSTRIES.COM

WI-CA-EPM-E-26-02