

**DIMET** 

LIFTING ELECTROMAGNETS



CATALOGUE

**2021**



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DIMET GmbH & Co.KG is a one of the leading producers of lifting magnets with headquarter in Germany and sales network worldwide.

Established in 2000 as an engineering company, DIMET has developed into a modern high-technology enterprise with extensive production and designing capabilities, offering wide range of solutions for cargo lifting and material handling.

Our products are working all around the globe in the most complex environments, proving their high reliability and performance.

We design and manufacture wide range of lifting electromagnets, electro-permanent lifting magnets, electromagnetic spreader beams, iron separators, control systems, grab buckets and a wide range of lifting equipment.

CE, EAC confirmed. The company's management system satisfies ISO 9001 requirements.

So whenever your company needs a solution for scrap processing, coil, rail, slab or any other material handling, we will find the best possible one for you.



## OUR ADVANTAGES

- High-qualified personnel
- Strong R&D capability and engineering excellence
- Own inventions, some of them are patented
- High-quality pre-sales & after-sales technical services

## Main features of DIMET electromagnets

### Rugged cast case

Provides supplementary durability and lowers electromagnet heating

### Coil design

High quality wire in advanced insulation reduces possibility of turn-to-turn short circuit

### High-quality sealing compound

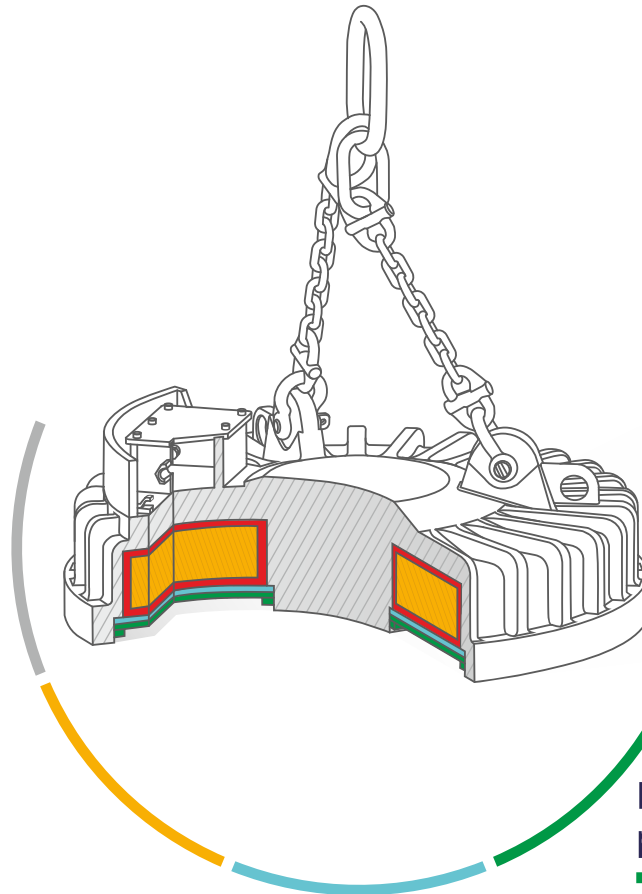
Prevents coil damage and reduces heating of electromagnet coil

### Heavy-duty steel bottom plate

Protects the coil and significantly increases electromagnet service life

### Heat insulation gasket

Provides additional coil protection during operations with hot loads up to 1200 °F



## Your benefits of using DIMET electromagnets



Productivity increase due to efficient design of electromagnet.



Long service life of electromagnet due to specially designed case and coil.



economy

Energy saving due to cutting-edge energy-efficient construction of electromagnet.



Compatible with all modern equipment through universal attachment and connection system.

### Transported cargo

- ▶ Scrap
- ▶ Turnings
- ▶ Metal charge

### Compatible equipment

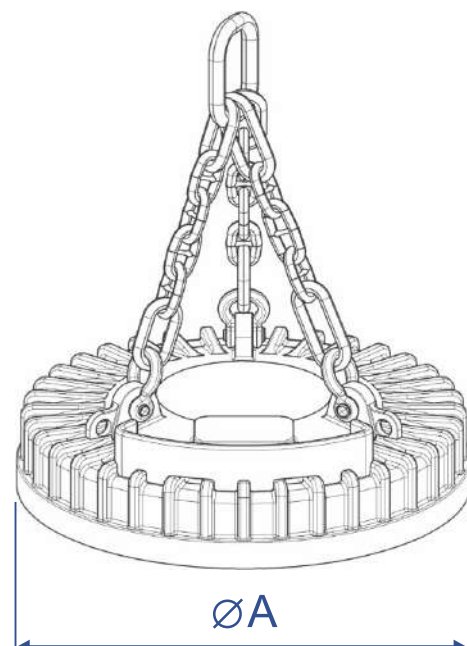
- ▶ Mobile material handlers
- ▶ Overhead cranes
- ▶ Portal cranes
- ▶ Gantry cranes
- ▶ Railway cranes

### Key features

- ▶ Long continuous operating period
- ▶ Special design is available for operation in underwater conditions
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

### Winding type

- ▶ Aluminium coil





### EMG-SM SERIES (lightweight scrap, steel turnings)

Model	Diameter ØA, in	Weight, lbs	Rated current, A	Rated power, W	Lifting capacity, lbs				
					Slabs	#1 HM	#2 HM	Billets	Turnings
EMG 085 SM	34	1550	18	3900	13200	770	505	1015	400
EMG 105 SM	41	1900	25	5500	18700	1015	640	1190	485
EMG 115 SM	45	2470	31	6820	24200	1345	840	1540	640
EMG 125 SM	49	3100	39	8580	28600	1765	1060	1785	770
EMG 135 SM	53	3850	46	10120	33000	2270	1370	2250	900
EMG 145 SM	57	4750	52	11440	39600	2710	1740	2645	1060
EMG 155 SM	61	5950	61	13400	44000	3330	2205	3260	1320
EMG 170 SM	67	7100	72	15840	60500	3840	2600	3970	1560
EMG 185 SM	73	8830	85	18700	72750	4830	3175	4850	1850
EMG 200 SM	79	9920	105	23100	82670	5890	3680	5755	2180

### EMG-HC series (heavy scrap, bundles, ingots)

Model	Diameter ØA, in	Weight, lbs	Rated current, A	Rated power, W	Lifting capacity, lbs				
					Slabs	#1 HM	#2 HM	Billets	Turnings
EMG 125 HC	49	4635	50	11000	38580	2760	1760	2870	1120
EMG 145 HC	57	7730	65	14300	55100	4150	2830	4530	1760
EMG 170 HC	67	12140	85	18700	79370	6500	4400	6800	2700
EMG 185 HC	73	17660	100	22000	99200	9890	6600	10060	3880
EMG 210 HC	83	22500	114	25000	143490	12360	8380	12580	5070
EMG 230 HC	90	32000	140	30800	154320	17440	14570	17660	6950

With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Scrap
- ▶ Turnings
- ▶ Metal charge

## Compatible equipment

- ▶ Mobile material handlers
- ▶ Overhead cranes
- ▶ Portal cranes
- ▶ Gantry cranes
- ▶ Railway cranes

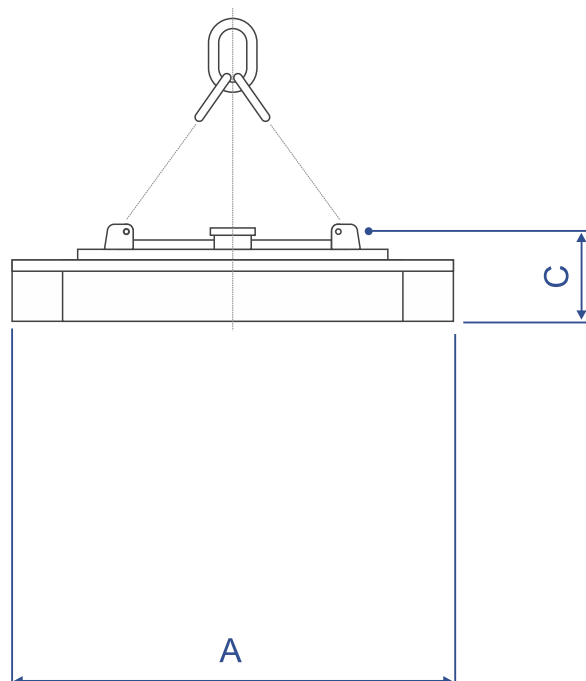


## Key features

- ▶ Used for unloading of scrap out of the railcar
- ▶ High stability of lifting operations
- ▶ Special design for operation in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

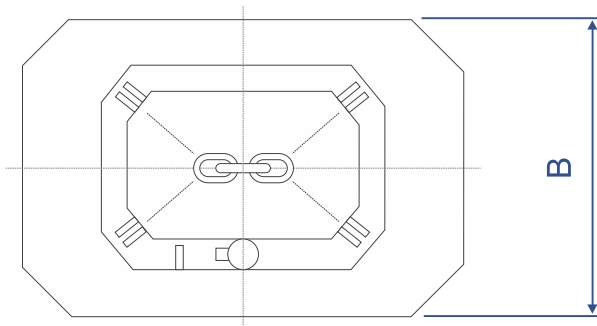
## Winding type

- ▶ Aluminium coil



## EMG SCRAP-B SERIES Rectangular scrap magnets

Parameters	EMG 230-150-50/A-U1	EMG 260-180-50/A-U1	EMG 300-200-52/A-U1	EMG 350-220-52/A-U1
Rated voltage, V	220	220	220	220
Rated electromagnet current at 70° F, A	110	140	170	200
Rated power, kW	24,2	30,8	37,4	44
Capacity for heated winding, kW	15,7	20	26	29
Pull-off force, lbs	242800	287000	353200	441500
Lifting capacity for plates, lbs	121400	143490	176600	220750
Lifting capacity for scrap, lbs				
#1HM	4850	6180	7700	8830
#2HM	7720	9270	11030	13245
Lifting capacity for steel turnings, lbs	3970	4400	5300	7060
Lifting capacity for pig iron, lbs	7280	9500	11480	13690
Dimensions AxBxC, in	91x59x20	102x71x20	118x79x20	138x87x20
Weight, lbs	12140	16560	22075	28035



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Scrap
- ▶ Turnings
- ▶ Metal charge

### Compatible equipment

- ▶ Mobile material handlers
- ▶ Overhead cranes
- ▶ Portal cranes
- ▶ Gantry cranes
- ▶ Railway cranes

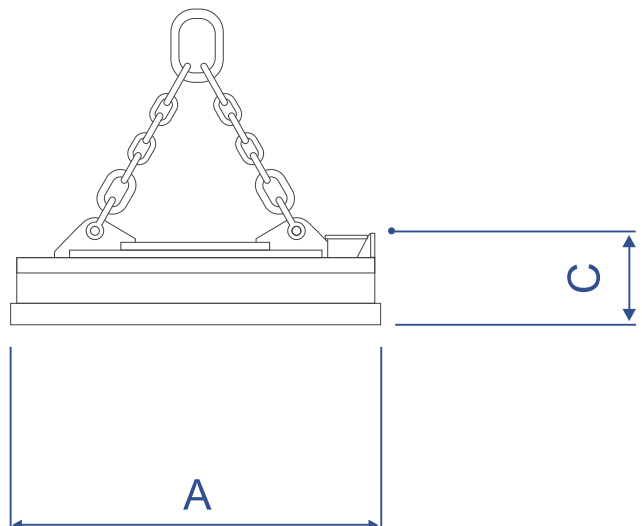


### Key features

- ▶ Used for railcar cleaning
- ▶ Stability of lifting operations
- ▶ Special design for operation in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

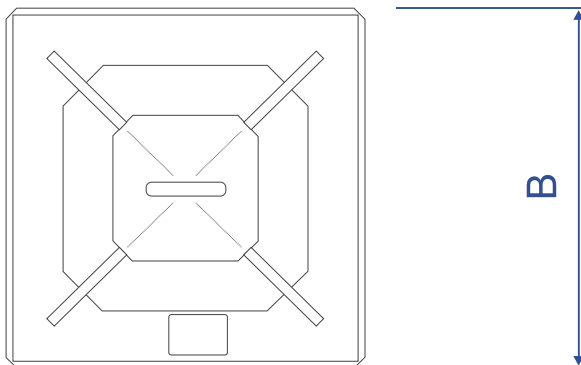
### Winding type

- ▶ Aluminium coil



## SCRAP-Z SERIES (for cleaning of wagons from scrap)

Parameters	EMG 120-120-32/A-U1	EMG 170-170-32/A-U1
Rated current, A	45	52
Rated capacity, W	9900	11400
Capacity for heated winding, W	6600	8800
Pull-off strength, lbs	55100	77200
Lifting capacity for slabs, lbs	29762	38600
Lifting capacity for scrap, lbs		
#1HM	1900	2200
#2HM	1300	1500
Lifting capacity for steel turnings, lbs	550	900
Lifting capacity for pig iron, lbs	1800	2000
Dimensions AxBxC, in	47x47x12	67x67x12
Weight, lbs	3500	5100



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Slabs
- ▶ Forgings
- ▶ Heavy-weight metal blanks

### Compatible equipment

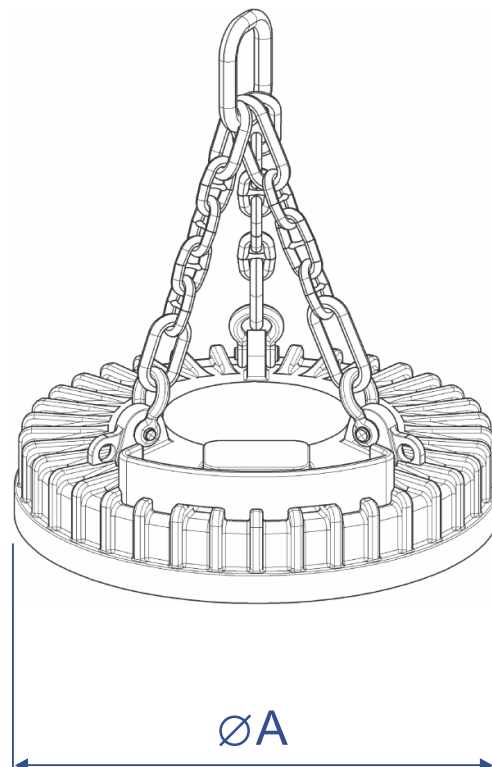
- ▶ Cranes
- ▶ Spreader beams

### Key features

- ▶ Energy saving as per ton of the transported cargo
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

### Winding type

- ▶ Aluminium coil
- ▶ Copper coil
- ▶

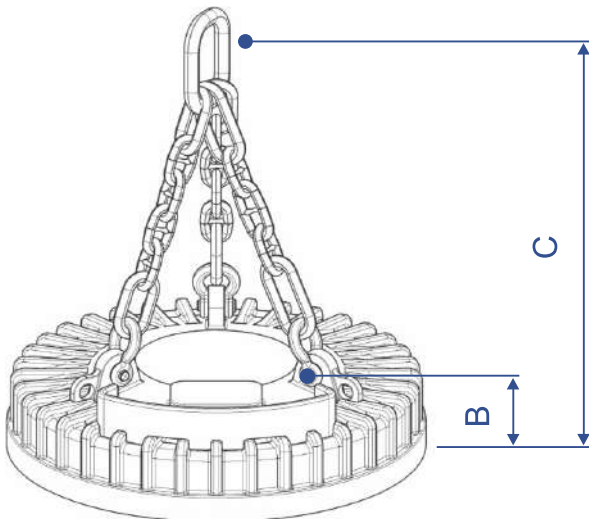


## SLAB-T SERIES (handling of slabs, forgings)

Model	Pull-off force lbs, at least	Lifting capacity for slabs (lbs) temperature lbs current, A			Weight, lbs	Rated current, A	Rated power, W	Power with the heated coil, W	ØAxBxC, in
		390° F	750° F	1110° F					
EMG 100ST/AT-U1	55100	26500	24300	20900	2300	22±8%	4800	3400	39x13x43
EMG 120ST/AT-U1	77200	37500	35300	29800	3400	38±8%	8400	5800	47x13x53
EMG 140ST/AT-U1	110300	52980	49700	43500	4700	58±8%	12800	8900	55x14x55
EMG 160ST/AT-U1	154500	74000	70200	61800	8200	70±8%	15400	10800	62x21x66
EMG 180ST/AT-U1	220750	106000	100440	88300	11000	82±8%	18000	12700	70x18x64

### SLAB-T SERIES HEAT-RESISTANT ELECTROMAGNETS

developed in special cast cases with extended poles for extremely heavy operating mode for high efficient handling of slabs, forgings, heavyweight metal blanks at steel mills, marine terminals and EPC companies, with the cargo temperature up to 1200°F.



With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Slabs
- ▶ Compatible equipment
- ▶ Cranes
- ▶ Spreader beams

## Key features

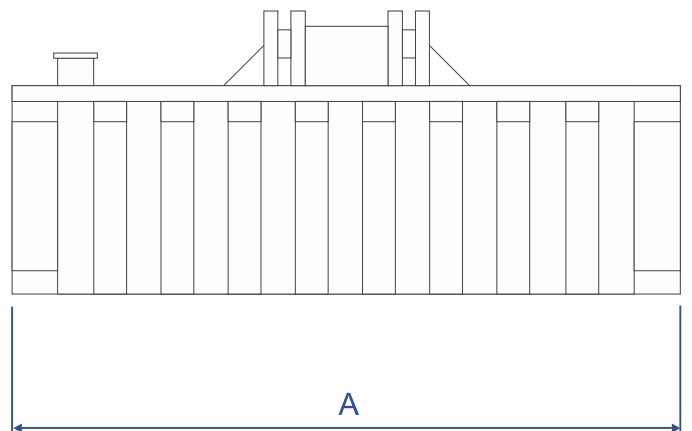
- ▶ Special designed wear-resistant case for long-term operation
- ▶ Special magnet shape with pole for secure slabs turning

## Advantages

- ▶ Fast slab turning
- ▶ Safety during operation
- ▶ Cost effective
- ▶ Low noise level during operation

## Winding type

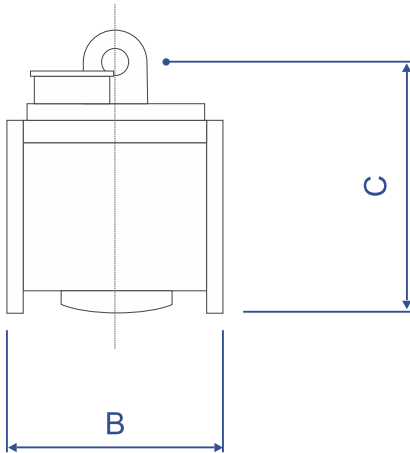
- ▶ Aluminium coil
- ▶ Copper coil





## EMGM series (electromagnets for mild slab turning)

Parameters	EMGM 175-77-54/AT-U1	EMGM 240-76-90/AT-U1
DC voltage, V	220	220
Current at 70° F, A	60±8%	100±8%
Nominal power, kW	13,2	22
ED, %	75	75
ED, hot load (392°F), %	60	60
ED, hot load (932°F), %	40	40
Pull-off force, min, lbs	110300	220750
Lifting capacity for a plate, max, lbs	55100	110300
Dimensions, AxBxC in	70x30x21	94x30x31
Coil material	Aluminium	Aluminium
Weight (without chain), lbs	8500	15450
Maximum load temperature, °F	932	932
Protection class IP 54	54	54
Operating temperature, °F	-20...+45	-20...+45



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Slabs
- ▶ Blooms
- ▶ Rails

### Compatible equipment

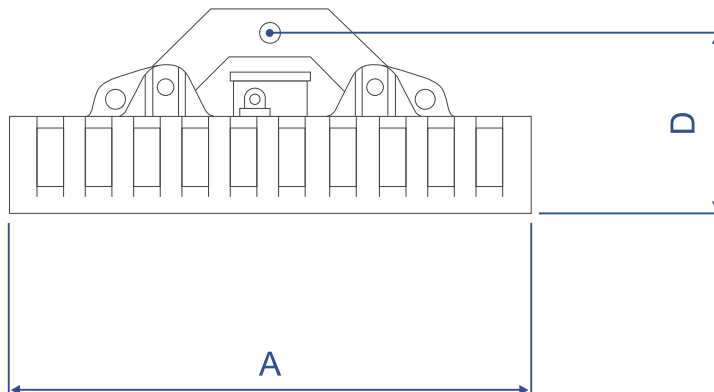
- ▶ Cranes
- ▶ Spreader beams

### Key features

- ▶ Energy saving
- ▶ Cargo temperature up to 1200° F

### Winding type

- ▶ Aluminium coil



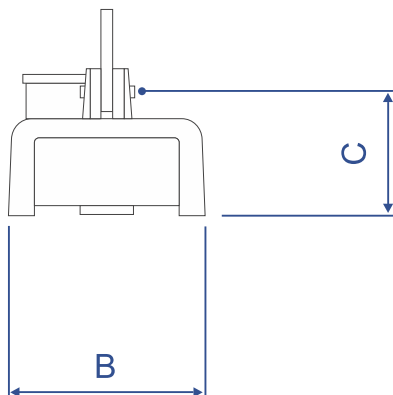
## EMG SERIES Rectangular electromagnets (for reloading of blooms, rails, forgings)

Substitution of PM15, PM25, PM26 SERIES

Model	Pull-off force, lbs	Lifting capacity for slabs, minimum, lbs	Rated current, A	Rated power, W	Capacity for heated winding, W	Weight, lbs	AxBxCxD, in
EMG 110-64-42/A-U1	44100	22000	18±8%	4000	2600	3300	43x25x17x26
EMG 170-70-41/A-U1	66100	33100	35±8%	7700	5200	4400	67x28x16x28

HEAT-RESISTANT SERIES OF ELECTROMAGNETS FOR SLABS, BLOOMS AND RAILS developed in special cast cases with extended poles for superheavy operating mode for high efficiency handling of slabs, forgings, heavyweight metal blanks at steel mills, marine terminals and EPC companies, with the cargo temperature up to 1200°F.

Model	Pull-off force, lbs	Lifting capacity for slabs depending on load t° F, lbs			Rated current, A	Rated power, W	Capacity for heated winding, W	Weight, lbs	AxBxCxD, in
		390° F	750° F	1110° F					
EMG 110-64-ST/AT-U1	61700	30900	26460	17640	18±8%	4000	2600	4200	43x25x17x26
EMG 170-70-ST/AT-U1	94800	47400	40000	28660	30±8%	6600	4300	5300	67x28x16x28



With cargo temperature up to 1200 °F (depending on the steel grade)

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## Transported cargo

- ▶ Slabs
- ▶ Sheet steel in packs or in single pieces
- ▶ Rectangular metal blanks
- ▶ Tubes in packs

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## Compatible equipment

- ▶ Cranes
- ▶ Spreader beams

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## Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for use in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

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## Winding type

- ▶ Aluminium coil



**EMGS SERIES (for reloading of sheet steel in pieces)**

Model	EMGS 055-30- 33/A-U1	EMGS 060-40- 32/A-U1	EMGS 100-34- 37/A-U1	EMGS 110-34- 35/A-U1	EMGS 120-34- 36/A-U1	EMGS 185-38- 38/A-U1	EMGS 200-38- 36/A-U1	EMGS 220-38- 36/A-U1	EMGS 270-36- 37/A-U1
Voltage, V	220	220	220	220	220	220	220	220	220
Rated current of electromagnet at 70° F, A	3,6	11,8	12,5	11	11	20	20	20	15
Rated power, kW	0,8	2,6	2,75	2,4	2,4	4,4	4,4	4,4	3,3
Pull-off force lbs	4400	11000	19800	17600	26500	28700	33100	33100	44150
Lifting capacity for plates, lbs	2200	5500	9900	8800	13200	14300	16550	16550	22000
Lifting capacity for sheets, lbs	1500	3700	5100	4400	7700	8800	11000	11000	13200
Dimensions AxBxC, in	19x11x12	23x15x12	31x20x15	39x23x17	47x25x18	55x27x18	78x15x14	36x15x14	106x14x15
Weight, lbs	400	800	1100	1000	1550	1900	2000	2200	2650

**EMGS SERIES (for reloading of sheet steel in packs)**

Model	EMGS 080-54-40/ A-U1	EMGS 100-60-44/ A-U1	EMGS 110-60-50/ A-U1	EMGS 120-64-46/ A-U1	EMGS 140-70-48/ A-U1	EMGS 160-76-54/ A-U1
Voltage, V	220	220	220	220	220	220
Rated current of electromagnet at 70° F, A	16	20	19	30	40	50
Rated power, kW	3,5	4,4	4,2	6,6	8,8	11
Pull-off force, lbs	22100	44200	55200	66200	88300	132450
Lifting capacity for plates, lbs	11000	22100	27600	33100	44150	66200
Lifting capacity for sheets, lbs in bundles	3300	4400	6000	7700	11000	16500
Dimensions AxBxC, in	31x21x16	39x25x17	43x23x19	47x25x18	55x27x19	63x30x21
Weight, lbs	1550	2200	3000	3400	4900	6600

With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Round metal blanks
- ▶ Rectangular metal blanks
- ▶ Blooms and rails
- ▶ Tubes in packs
- ▶ Rebars in packs

## Compatible equipment

- ▶ Cranes
- ▶ Spreader beams

## Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for use in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

## Winding type

- ▶ Aluminium coil



**EMGS SERIES (for reloading of square and round blanks)**

Model	EMGS 110-60-50/ AT-U1	EMGS 110-69-52/ AT-U1	EMGS 120-76-52/ AT-U1	EMGS 130-75-52/ AT-U1	EMGS 135-71-51/ AT-U1	EMGS 140-97-63/ AT-U1	EMGS 145-66-49/ AT-U1
Voltage, V	220	220	220	220	220	220	220
Rated current of electromagnet at 70° F, A	19	20	30	30	25	34	34
Rated power, kW	4,2	4,4	6,6	6,6	5,5	7,5	7,5
Pull-off force, lbs	55200	61800	88300	106000	66200	132500	110400
Lifting capacity for round blanks, lbs	-	21000	28700	30900	22100	33100	30900
Lifting capacity for hot round blanks, lbs	-	15500	24300	26500	16600	25400	26500
Lifting capacity for plates, lbs	27600	30900	44150	53000	33000	66200	55200
Lifting capacity for blanks, lbs	22100	20500	39800	48600	30900	57400	48600
Lifting capacity for hot blanks, lbs 932° F	16550	19900	33000	37500	19900	43000	37500
Dimensions AxBxC, in	43x23x19	43x27x10	47x30x20	51x29x20	53x28x20	53x28x20	57x26x19
Weight, lbs	3000	3550	4400	5300	4200	4200	5100

**EMGS SERIES (for reloading of packs of rebars, tubes, long steel products)**

Model	Voltage, V	Rated current of electromagnet at 70° F, A	Rated power, kW	Steady-state power, kW	Lifting capacity for re-bars in bundles, lbs	Lifting capacity for rolled steel section in bundles, lbs	Lifting capacity for tubes in bundles, lbs	Weight, lbs
EMGS 070-74-48/A-U1	220	17	3,8	3,8	9930	7730	6630	2300
EMGS 110-86-45/A-U1	220	28	6,2	6,2	11040	9930	8830	3500
EMGS 120-86-48/A-U1	220	30	6,6	6,6	13300	11040	9930	4400
EMGS 140-80-48/A-U1	220	40	8,8	8,8	17660	13250	11040	4750



With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Bundles of rebars, circle, rolled wire

## Compatible equipment

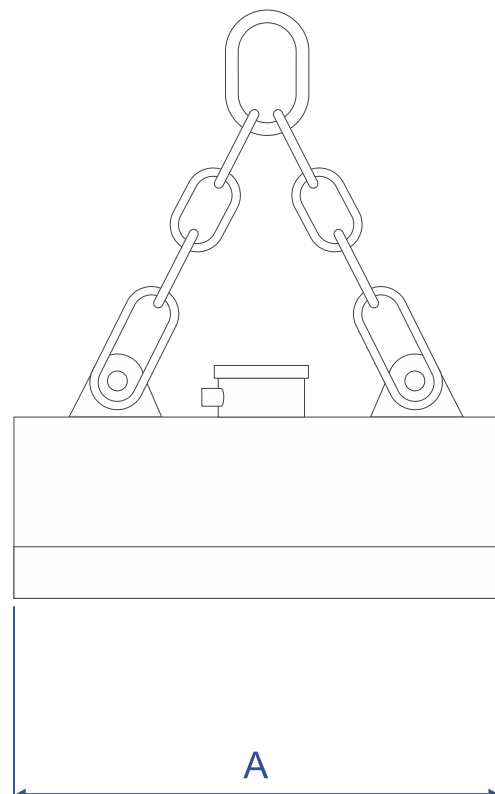
- ▶ Cranes
- ▶ Spreader beams

## Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for use in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

## Winding type

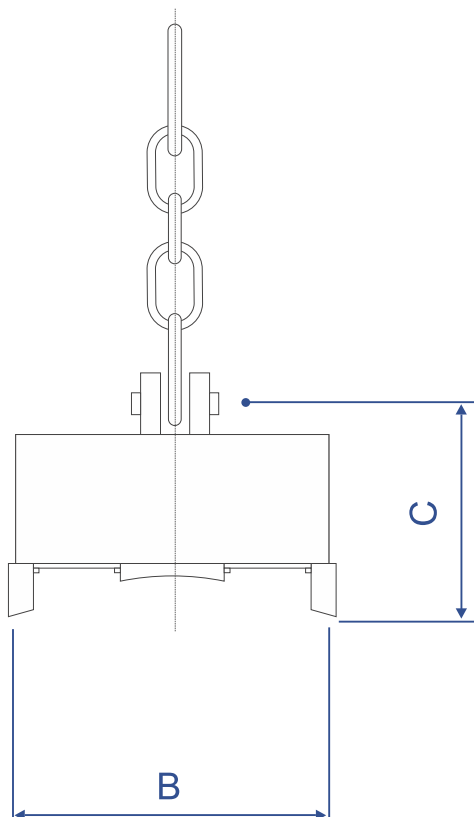
- ▶ Aluminium coil





## EMGK SERIES (for lifting of packs and bundles of rebars, circle, rolled wire)

Parameters	EMGK 105-70-54/ A-U1	EMGK 110-67-54/ A-U1	EMGK 120-65-52/ A-U1	EMGK 130-65-54/ A-U1	EMGK 140-65-52/ A-U1	EMGK 160-65-54/ A-U1	EMGK 180-65-51/ A-U1
Rated voltage, V	220	220	220	220	220	220	220
Rated current of electromagnet 70° F, A	25	28	28	30	30	35	32
Rated power, kW	5,5	6,2	6,2	6,6	6,6	7,7	7,7
Lifting capacity, lbs	8830	9930	9930	11030	12150	13900	14350
Outer coil diameter, in	49	49	49	49	49	49	49
Coil width, max, in	43	47	51	55	59	67	74
Dimensions AxBxC, in	41x27x21	43x26x21	47x25x20	51x25x21	55x25x20	63x25x21	70x25x20
Weight, lbs	3050	3400	3640	3970	4200	4860	5300



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Long rolled steel
- ▶ Packs of tube blanks, circle, pipes

### Compatible equipment

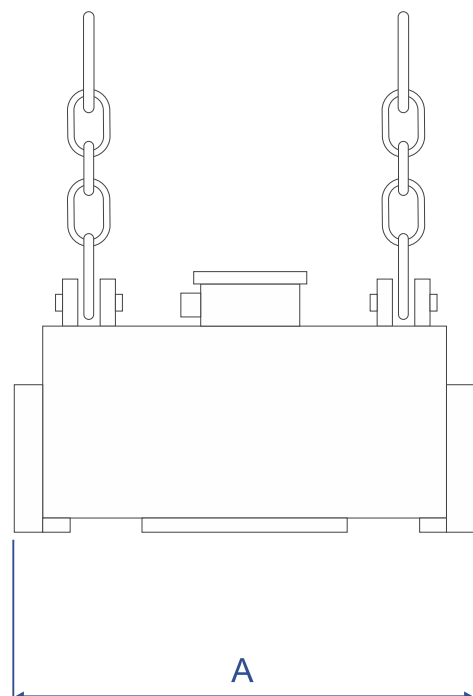
- ▶ Cranes
- ▶ Spreader beams

### Key features

- ▶ High reliability and durability of the winding
- ▶ Energy saving as per ton of the transported cargo
- ▶ Special design is available for operation in underwater conditions
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

### Winding type

- ▶ Aluminium coil

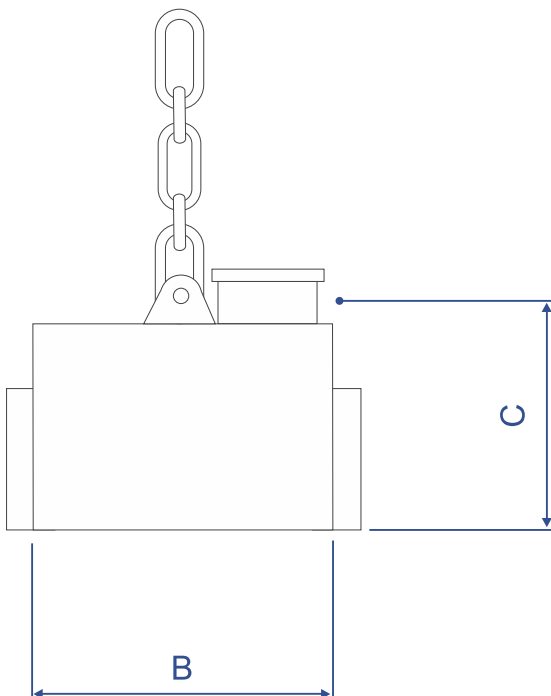


### EMGP series (for long rolled products in packs)

Parameters	EMGP 088-62-51/A-U1	EMGP 090-65-57/A-U1	EMGP 110-68-60/A-U1
Rated voltage, V	220	220	220
Rated current of electromagnet 70° F	20	22	27
Rated power, kW	4,4	4,8	6,0
Lifting capacity for pack of rolled products, lbs	4400	6600	13300
Lifting capacity for pack of rebars, lbs	6600	8830	19900
Lifting capacity for circle Ø15-23 in, lbs	13300	22100	35320
Dimensions, AxBxC, in	34x24x20	35x25x22	43x26x23
Weight, lbs	2430	2900	4000

### EMGP series (for circle)

Parameters	EMGP 112-88-56/A-U1	EMGP 160-110-65/A-U1
Rated voltage, V	220	220
Rated current at 70° F	28	41
Rated power, kW	6,2	9,0
Lifting capacity for circle Ø15-23 in, lbs	22100	44150
Dimensions, AxBxC, in	44x34x22	63x43x25
Weight, lbs	4000	10800



With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Sheet steel in coils
- ▶ Sheet steel in coils, lifting from the lateral and end sides
- ▶ Rolled wire coils, rebar coils, from the end side

## Compatible equipment

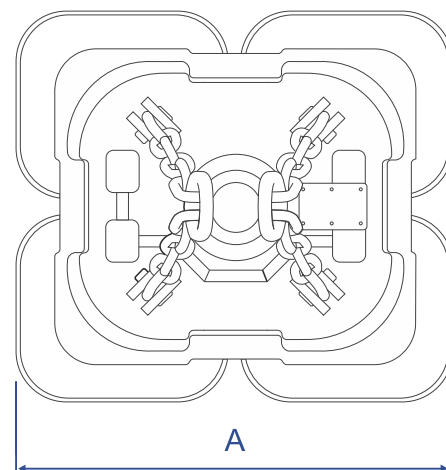
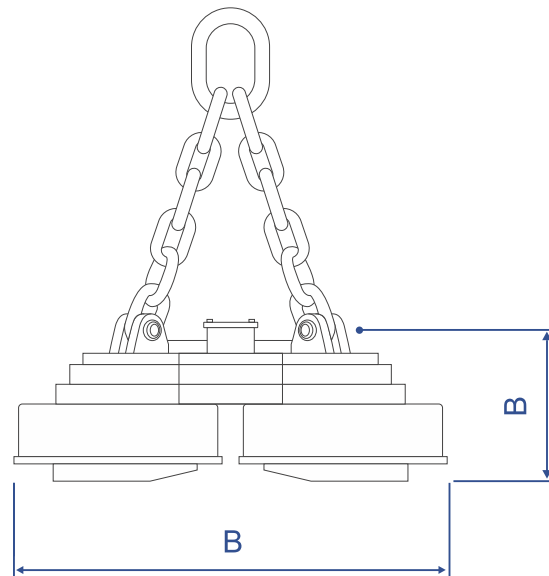
- ▶ Cranes

## Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

## Winding type

- ▶ Aluminium coil



## EMGU SERIES

(for lifting of rolls and coils from end and lateral sides)

Parameters	EMGU 160/A-U1	EMGU 170/A-U1	EMGU 200/A-U1	EMGU 220/A-U1
Rated voltage, V	220	220	220	220
Rated current of electromagnet at 70° F	60±8%	70±8%	80±8%	80±8%
Rated power, kW	13,2	15,2	17,6	17,6
Duty cycle, % 75	75	75	75	75
Pull-off force on the flat plate, at least, lbs	110400	128000	176600	198700
Lifting capacity:				
For plates, up to, lbs	55200	64000	88300	99400
For coils, for the end side, up to, lbs	49150	51900	77300	99400
For coils, from the lateral side, up to, lbs	33100	38600	55200	66200
Maximum outer diameter of the coil, in	63	67	78	86
Minimum inner diameter of the coil, in	23	23	23	31
Dimensions AxBxC, in	64x52x20	59x59x21	72x65x22	74x67x24
Weight, lbs	7950	8830	12140	14350



With cargo temperature up to 1200 °F (depending on the steel grade)

## Transported cargo

- ▶ Sheet steel in coils
- ▶ Rolled wire coils, rebar coils, circle from the end side

## Compatible equipment

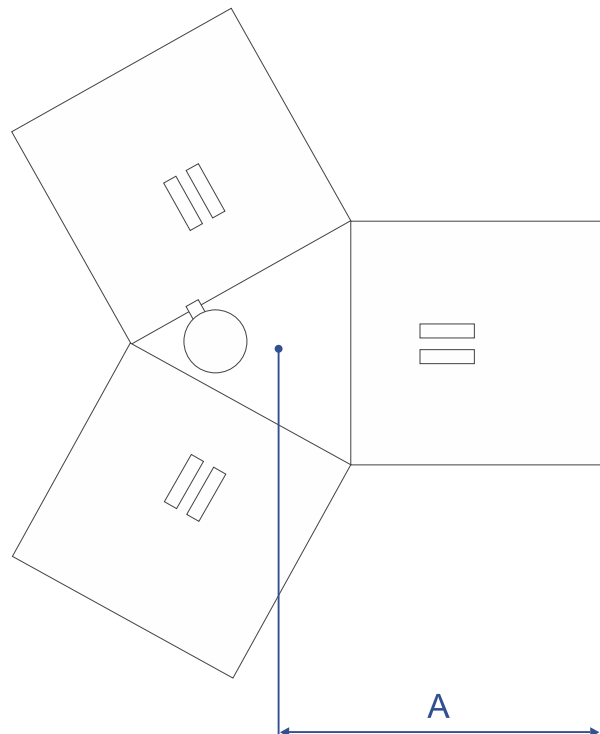
- ▶ Cranes
- ▶ Spreader beams

## Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for operation in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

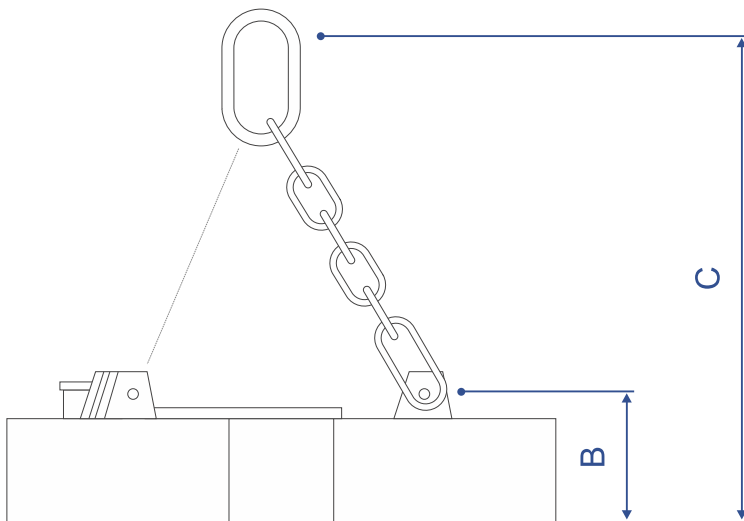
## Winding type

- ▶ Aluminium coil



## EMGR SERIES (for lifting of coils from the end side)

Parameters	EMGR 150/A	EMGR 160/A	EMGR 180/A	EMGR 200/A	EMGR 220/A	EMGR 250/A
Rated voltage, V	220	220	220	220	220	220
Rated current of electromagnet at 70° F, A	45	60	80	90	90	120
Rated power, kW	9,9	13,2	17,6	19,8	19,8	26,4
Steady-state power, kW	6,4	8,4	11,5	12,9	12,9	17,2
Maximum coil diameter, in	59	63	71	79	87	98
Lifting capacity for coil, max, lbs	22000	33100	55100	70500	79400	92600
Dimensions AxBxC, in	30x17x59	31x18x63	35x20x67	39x22x71	43x23x79	48x23x83
Weight, lbs	4900	6600	9900	12100	13200	15400



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Sheet steel in coils, lifting from the lateral side

### Compatible equipment

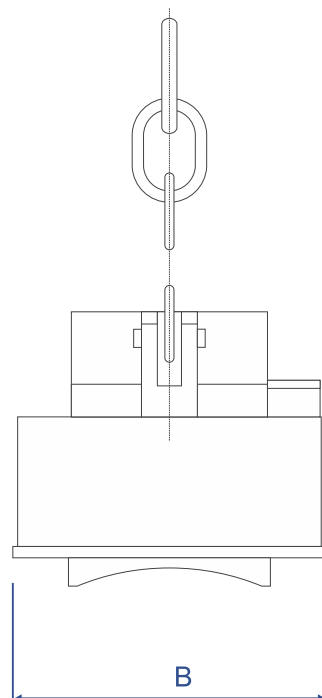
- ▶ Cranes
- ▶ Spreader beams

### Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for use in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° degrees F) as an option

### Winding type

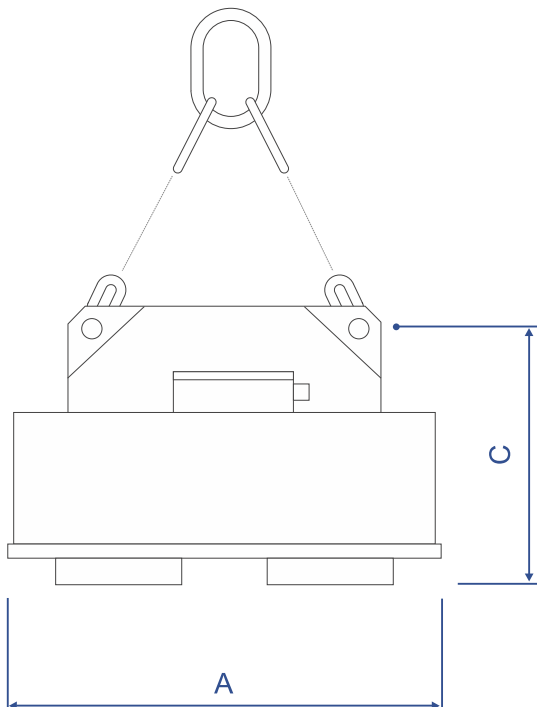
- ▶ Aluminium coil





## EMGB SERIES (for lifting of coils from the lateral side)

Parameters	EMGB 100-98-60/A-U1	EMGB 116-84-65/A-U1	EMGB 120-98-75/A-U1	EMGB 145-153-85/A-U1
Rated voltage, V	220	220	220	220
Rated current at 70° F, A	45	60	60	80
Rated power, kW	9,9	13,2	13,2	17,6
Maximum coil diameter, in	55	63	70	78
Lifting capacity for coil, max, lbs	26500	33100	39700	39700
Dimensions AxBxC, in	40x38x23	45x33x25	47x38x29	57x60x33
Weight, lbs	5100	6200	8170	17660



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

- ▶ Large diameter tubes

### Compatible equipment

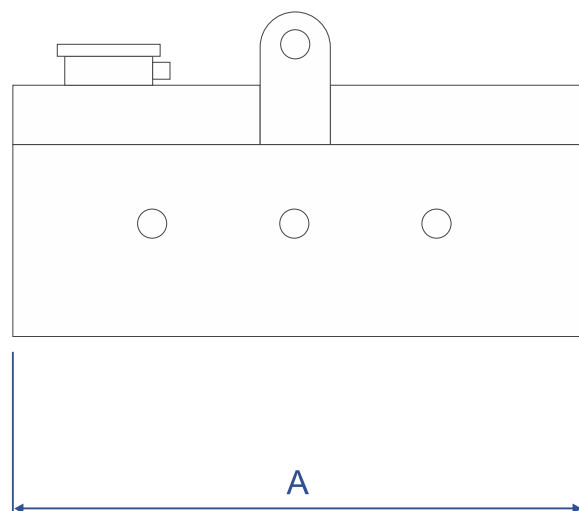
- ▶ Cranes
- ▶ Spreader beams

### Key features

- ▶ High reliability and durability of the winding
- ▶ High stability of lifting operations
- ▶ Special design for use in underwater conditions as an option
- ▶ Heat-resistant version (cargo temperature up to 1200° F) as an option

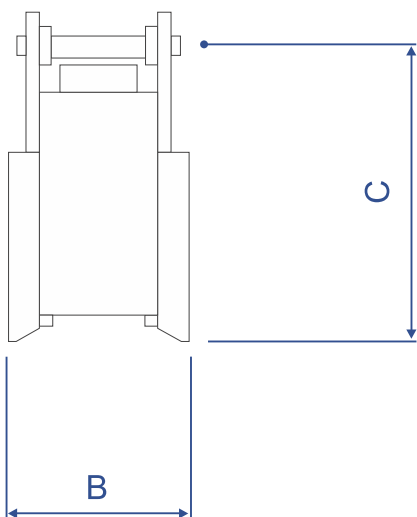
### Winding type

- ▶ Aluminium coil



## EMGT SERIES (for lifting of large diameter tubes)

Parameters	EMGT 100/A-U1	EMGT 120/A-U1	EMGT 140/A-U1
Rated voltage, V	220	220	220
Rated current at 70° F, A	22	45	54
Rated power, kW	4,8	9,9	11,9
Steady-state power, kW	3,4	6,9	8,3
Lifting capacity, lbs	6600	13250	22100
Pipe diameter, in	15-31	27-55	39-78
Dimensions AxBxC, in	39x12x23	47x14x24	55x16x25
Weight, lbs	1770	2760	4400



With cargo temperature up to 1200 °F (depending on the steel grade)

### Transported cargo

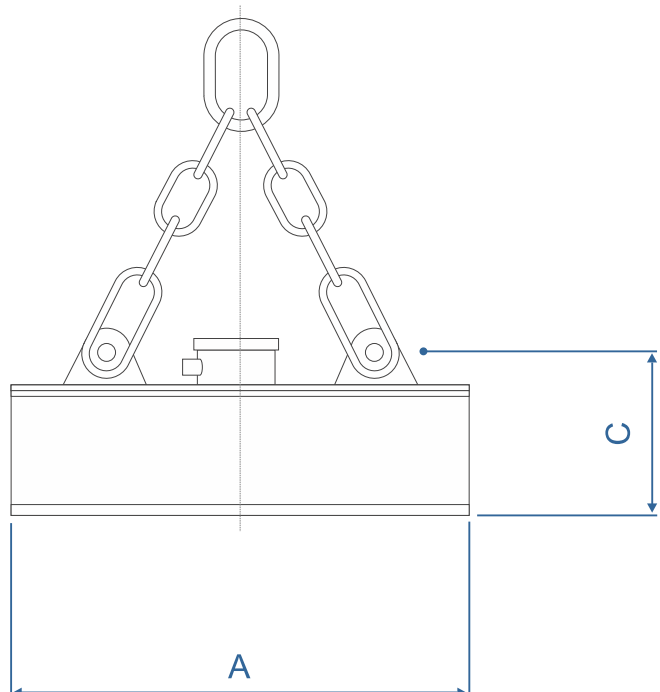
- ▶ Sheet steel in packs or in single pieces
- ▶ Slabs

### Compatible equipment

- ▶ Cranes
- ▶ Spreader beams

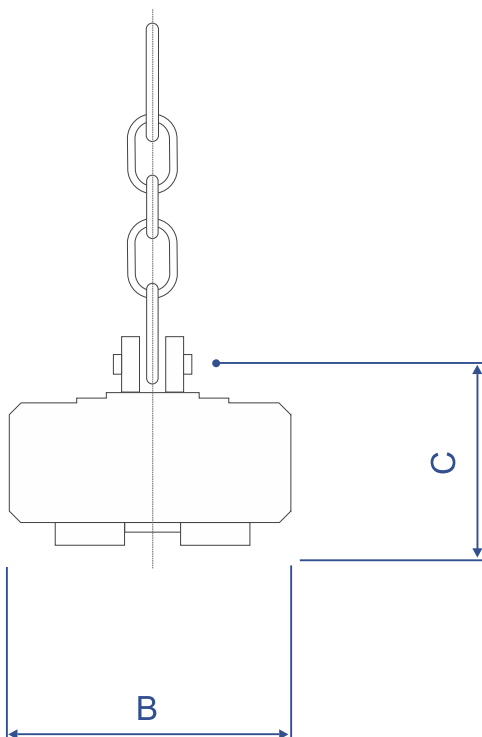
### Key features

- ▶ The electro-permanent magnet can be switched with pulse without requiring continuous current
- ▶ The magnetized cargo hold by the magnet as long as required
- ▶ Energy saving
- ▶ High safety level
- ▶ Easy control
- ▶ High level of labor efficiency



Electropermanent magnets of IMG series  
(for reloading of sheet steel in packs, slabs)

Parameters	IMG 120-60-32-U1	IMG 130-70-35-U1	IMG 150-76-37-U1
Impulse voltage, V	230	230	230
Impulse current, A	20	32	30
Impulse current, W	4600	7360	6900
Pull-off force, lbs	66250	99400	112600
Lifting capacity for plates, lbs	22100	33100	37500
Lifting capacity for square blanks, lbs	14400	22100	25400
Dimensions, in	47x23x12	51x27x13	59x30x14
Weight, lbs	2650	4100	5080



### Transported cargo

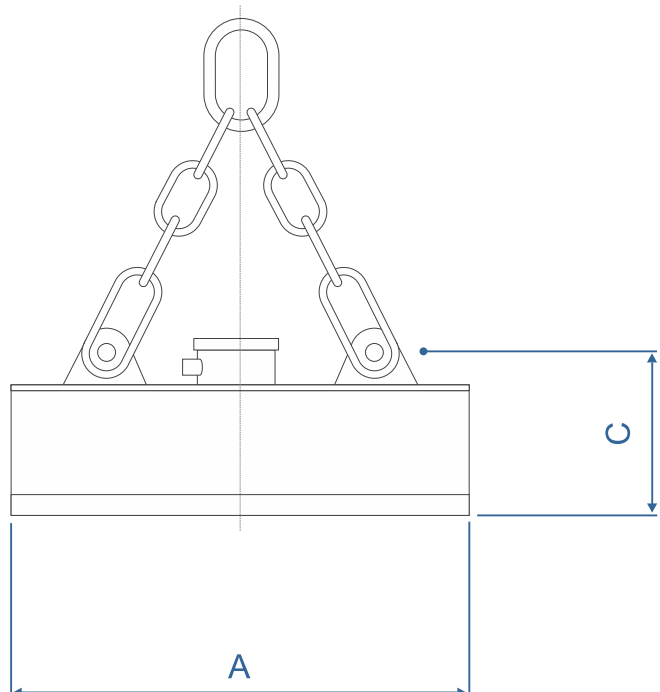
- ▶ Round blank of large diameter

### Compatible equipment

- ▶ Cranes
- ▶ Spreader beams

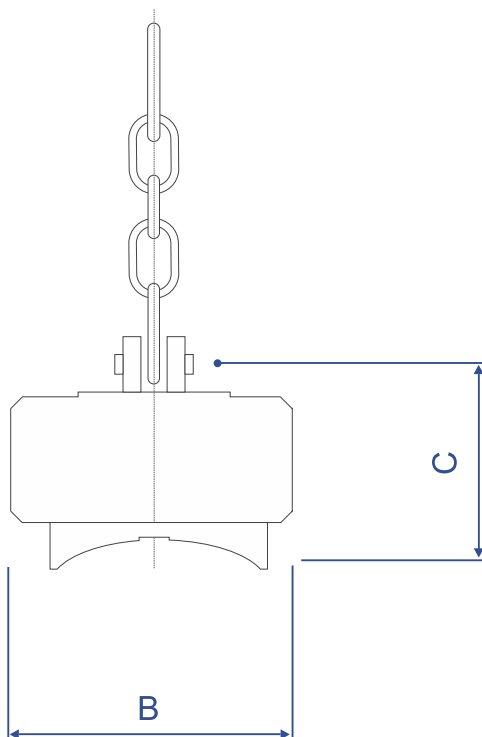
### Key features

- ▶ The electro-permanent magnet can be switched with pulse current without requiring continuous current
- ▶ The magnetized cargo hold by the magnet as long as required
- ▶ Energy saving
- ▶ High safety level
- ▶ Easy control
- ▶ High level of labor efficiency



**IMGK SERIES Electropermanent magnets**  
 (used for grabbing and reloading of large diameter round blanks)

Parameters	IMGK 160-70-40-U1	IMGK 220-66-40-U1	IMGK 400-66-44-U1
Impulse voltage, V	230	230	230
Impulse current, A	40	65	90
Impulse power, W	9200	15000	20700
Weight, lbs	4900	6100	12400
Pull-off force for a circle, lbs	53000	72900	185400
Lifting capacity for circle, lbs	17660	24300	61800
Minimum circle diameter, in	11	16	16
Maximum circle diameter, in	17	21	23
Dimensions, in	63x27x15	86x26x15	157x26x17



## Transported cargo

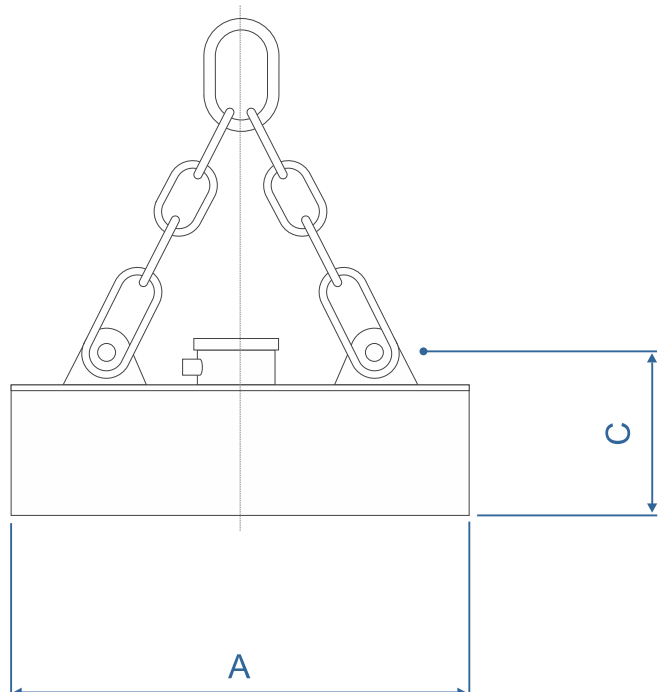
- ▶ Sheet steel in packs or in single pieces

## Compatible equipment

- ▶ Cranes
- ▶ Spreader beams

## Key features

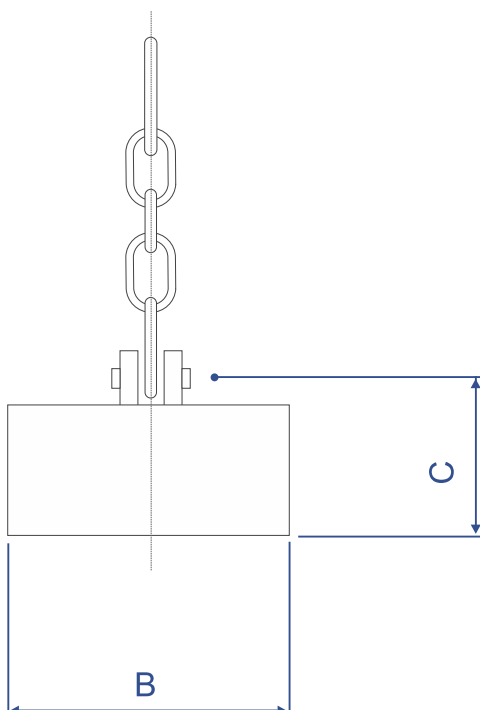
- ▶ The electro-permanent magnet can be switched with pulse current without requiring continuous current
- ▶ The magnetized cargo hold by the magnet as long as required
- ▶ Energy saving
- ▶ High safety level
- ▶ Easy control
- ▶ High level of labor efficiency





IMGK SERIES Electropermanent magnets  
(used for reloading of sheet steel in single pieces)

Parameters	IMGS 075-25-23-U1	IMGS 130-37-30-U1	IMGS 180-48-31-U1
Impulse voltage, V	230	230	230
Impulse current, A	10	15	32
Impulse power, W	2300	3500	7400
Weight, lbs	550	1650	3200
Pull-off force, lbs	17200	42000	89400
Lifting capacity for a plate, lbs	5740	13900	29800
Lifting capacity for sheet, lbs	3300	7950	15450
Minimum sheet thickness, in	0,15	0,17	0,23
Dimensions, in	29x10x9	51x3x12	71x19x12



## Application

- ▶ Long cargo transfer
- ▶ Handling of pipes, slabs, sheet products in packs or by the piece
- ▶ Removing sheets from plasma cutting machines

## Compatible equipment

- ▶ Cranes

## Key features

- ▶ Spreader beams designed and manufactured for specific customer needs
- ▶ Convenience during operation, time and cost saving, improved labour efficiency



## Application

- ▶ Electromagnet spreader beam is intended for mild slab turning. It consists of the traverse itself, two special electromagnets and uninterrupted power supply system. The spreader beam significantly speeds up the slab turning process compared to stationary hydraulic devices for slab turning

## Compatible equipment

- ▶ Cranes

## Key features

- ▶ Fast slab turning
- ▶ Safety during operation
- ▶ Cost effective
- ▶ Low noise level during operation



## Application

- ▶ Module for reloading, grabbing and sorting of scrap and steel

## Complete set

- ▶ SM SERIES Electromagnet
- ▶ DYNASET Generator

## Key features

- ▶ Easy installation and possibility to quick change during operation



## Technical data

Model	Electromagnet	Lifting capacity, lbs			Generator power, W	Rated current, A	Weight, lbs
		#1 HM	#2 HM	Billets			
SG 085SM-DNS06	EMG 085SM	770	500	1010	6	3900	2760
SG 105SM-DNS06	EMG 105SM	1010	640	1190	6	5500	3100
SG 115SM-DNS10	EMG 115SM	1350	840	1540	10	6800	4130
SG 125SM-DNS10	EMG 125SM	1870	1190	1920	10	8600	4740
SG 135SM-DNS12	EMG 135SM	2270	1370	2250	12	10100	5630
SG 145SM-DNS12	EMG 135SM	2710	1740	2650	12	11400	6500

This system can be developed for any DIMET electromagnet

### Application

- ▶ Power supply and control of lifting direct current electromagnets of any power, and simultaneous supply of several electromagnets, the total current of which does not exceed the permissible values. The types of the supplied electromagnets: all the DIMET electromagnets, as well as electromagnets of any other manufacturers

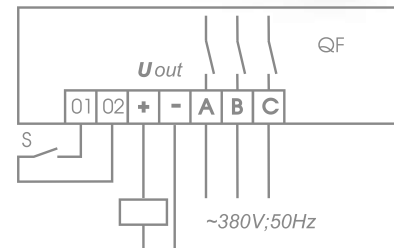


### Compatible equipment

- ▶ Electromagnets
- ▶ Cranes

### Main types of protection

- ▶ Limitation of the maximum output voltage at the level of 220-230 V
- ▶ Protection from short circuit under load
- ▶ Protection from core-to-core fault and earth fault
- ▶ Feeding cable breakdown alarm
- ▶ Alarm of surface-leakage current excess in the electromagnet circuit (in case of electromagnet overheating)
- ▶ Alarm of occurrence of interturn short circuits in the electromagnet
- ▶ Alarm of excess of the maximum permissible current



Parameters	PN-500-3-100A	PN-500-3-150A	PN-500-3-200A	PN-500-3-250A
Power supply	three-phase	three-phase	three-phase	three-phase
Supply voltage, V	380±60	380±60	380±60	380±60
Frequency, Hz	50	50	50	50
Output voltage regulation range, V	10-230	10-230	60-230	60-230
Demagnetizing time, at most, sec	3	3	5	5
Duty cycle, %	75	75	75	75
Maximum permissible current at duty cycle – 75%, A	100	150	200	250
Overall dimensions, in	14x6x14	14x6x14	17x7x14	17x7x14
Coupling sizes, in	10x13	10x13	10x13	10x13
Weight, at most, lbs	26	27	35	37

## Application

- ▶ Operation with generators, installed on the crane facilities and scrap handlers when the fixed network is absent. Intended for supply and control of lifting direct current electromagnets of any power and for combined operation with generators of 220 or 380 V. Types of the supplied electromagnets: all the DIMET electromagnets, as well as electromagnets of any other manufacturers

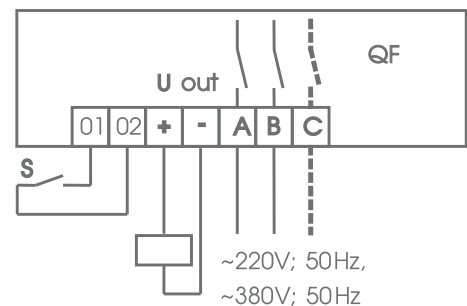


## Compatible equipment

- ▶ Electromagnets
- ▶ Cranes
- ▶ Scrap handlers

## Main types of protection

- ▶ Limitation of the maximum output voltage at the level of 220-230 V
- ▶ Protection from short circuit under load
- ▶ Protection from core-to-core fault and earth fault
- ▶ Feeding cable breakdown alarm
- ▶ Alarm of surface-leakage current excess in the electromagnet circuit (in case of electromagnet overheating)
- ▶ Alarm of occurrence of interturn short circuits in the electromagnet
- ▶ Alarm of excess of the maximum permissible current



Parameters	PN-500-G-50A	PN-500-G-100A	PN-500-G-150A
Power supply	generator	generator	generator
Voltage supply, V	220/380±60	220/380±60	220/380±60
Frequency, Hz	50	50	50
Control range of output voltage, V	10-230	10-230	10-230
Demagnetization time, max, sec	3	3	3
Current-carrying rating at DC-75%, A	50	100	150
Dimensions, in	14x6x15	14x6x15	14x6x15
Coupling size, in	10x14	10x14	10x14
Weight at most, lbs	26	27	28

### Application

- ▶ Standby power supply for electromagnet

### Major tasks

- ▶ Provision of operation safety, prevention from emergency cargo release after supply voltage blackout
- ▶ Control of voltage supply on all the three network phases
- ▶ Alarm of disappearance of the main supply and switch of the electromagnet operation to standby power supply from batteries
- ▶ Connected parallel to electromagnet



### Key features

- ▶ Convenience of operation: application of unat (10 years) in the circuit of uninterrupted power supply, status monitoring of each battery, automatic battery recharge
- ▶ Limitation of the maximum output voltage at the level of  $220\pm 5\%$  V, which prevents from electromagnet breakdown
- ▶ Alphanumeric display of the current parameters, working modes and emergency shutoffs, audio alarm of emergency situations secures the convenience of operation of this equipment

Parameters	IBPN-500-100A	IBPN-500-150A	IBPN-500-200A	IBPN-500-250A
Power supply	three-phase	three-phase	three-phase	three-phase
Voltage supply, V	380±60	380±60	380±60	380±60
Frequency, Hz	50	50	50	50
Permanent output voltage, V	220±5%	220±5%	220±5%	220±5%
Battery operation, min	15	15	15	15
Max. permissible current, A	100	150	200	250
Overall dimensions at most, in	62x40x25	62x40x25	52x71x22	52x71x22
Weight at most, lbs	905	950	1412	1456



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