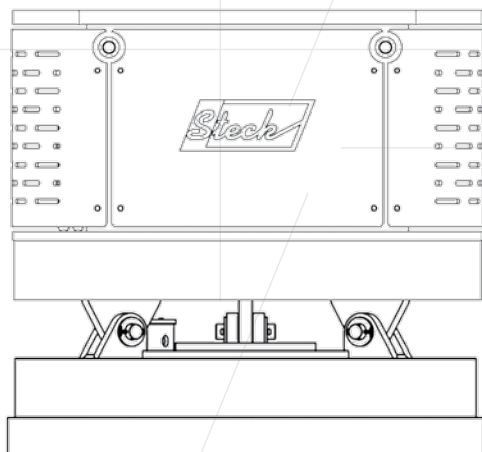
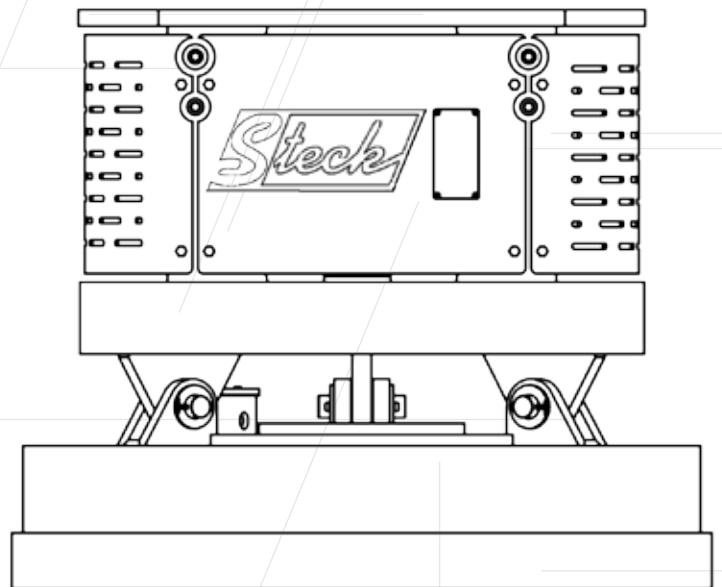




## Lifting magnets



## Lifting magnets

### Overview of the differences

- warranty
- Drive motor (axial piston motor up to 400bar)
- Generator
- M8
- M14
- M16

### Environmentally friendly

- internal leakage oil return

### Easy handling:

- compact construction, integrated power supply
- no additional installation on excavator needed
- magnet pendulum with parking device
- remote control
- multifunctional status display

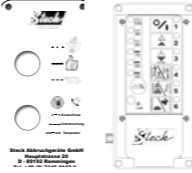
### Easy maintenance:

- maintenance- free components
- fourfold protection against short- circuit and overload
- vibration resistant and shakeproof
- parametrized digital generator governor
- plug & play: pluggable connections for easy commissioning and service

### Generator :

- brushless, robust synchronous generator
- housing made of corrosion- free alloys
- dirty resistant housing/ special profile
- up to 25% shorter cycle times in
- maximum efficiency.
- protection class IP 65
- wear-free electronics

	Standard	Plus semi-auto. drop control	Premium electric drop control
Warranty	24 months		36 months
Drive motor	12 ccm		25 ccm
Generator	9 kW		13 kW
M8	✗	✗	✓
M14	✓	✓	✓
M16	✓	✓	✓
Internal leakage oil return	✓	✓	✓
Compact construction	✓	✓	✓
No additional installation	✓	✓	✓
Magnet pendulum	✓	✓	✓
Remote control	✗	✗	✓
Multifunctional status display	✗	✓	✓
Maintenance-free components	✓	✓	✓
Protection against short-circuit	✓	✓	✓
Vibration resistant	✓	✓	✓
Digital generator governor	✓	✓	✓
Plug & play	✓	✓	✓
Brushless generator	✓	✓	✓
Corrosion-free housing	✓	✓	✓
Dirty resistant housing	✓	✓	✓
Shorter cycle times	✓	✓	✓
Maximum efficiency	✓	✓	✓
Protection class IP 65	✓	✓	✓
Wear-free electronics	✓	✓	✓



### Hydraulic

Automatic regulation of pressure in the system due to intelligent valve unit.

- vibration free and stable hydraulic drive.
- Emergency running properties (in the event of an abrupt oil cut-off)
- hydraulic motor (axial piston motor up to 400bar)
- high speed range
- smooth operation across the entire speed range
- High efficiency
- suitable for applications with high angular accelerations due to its high torsional strength

### chassis:

- louvers for better cooling
- reinforcement for more stability
- stiffening tube for more stability

### Elektronic :

Safely through self-protective electronics :

- Protection against short circuit , loose contact and interruption
- overload
- overtemperature
- lower and overspeed
- waterproof protected against weather

### Easy and efficient control:

- simple hydraulic connection (hammer hydraulics)
- Thorough clamshell angular momentum or due to remote control
- Clear and fast on- board- diagnosis.
- Fast and precise localization in case of disturbances.
- Flash code for remote diagnosis.

### Intelligent control:

- automatic self-adjustment to various magnetic disk sizes
- extensive diagnostic capability
- vibration-free and stable hydraulic

	Standard	Plus semi-auto. drop control	Premium electric drop control
Automatic pressure regulation	✓	✓	✓
Vibration free drive	✓	✓	✓
Emergency running properties	✓	✓	✓
Hydraulic motor (up to 400bar)	✓	✓	✓
High speed range	✓	✓	✓
Smooth operation	✓	✓	✓
High efficiency	✓	✓	✓
Suitable for high angular accelerations	✓	✓	✓
Louvers for cooling	✓	✓	✓
Reinforcement for stability	✓	✓	✓
Stiffening tube for stability	✓	✓	✓
Self-protective electronics	✗	✓	✓
Protection against short circuit	✓	✓	✓
Overload protection	✓	✓	✓
Overtemperature protection	✓	✓	✓
Lower and overspeed protection	✓	✓	✓
Waterproof protection	✓	✓	✓
Simple hydraulic connection	✗	✗	✓
Thorough clamshell angular momentum	✗	✓	✓
Clear and fast on-board diagnosis	✓	✓	✓
Fast and precise localization	✗	✓	✓
Flash code for remote diagnosis	✗	✓	✓
Automatic self-adjustment	✗	✗	✓
Extensive diagnostic capability	✗	✓	✓
Vibration-free and stable hydraulic	✓	✓	✓

## Lifting magnets

### Advantages of magnet plates:

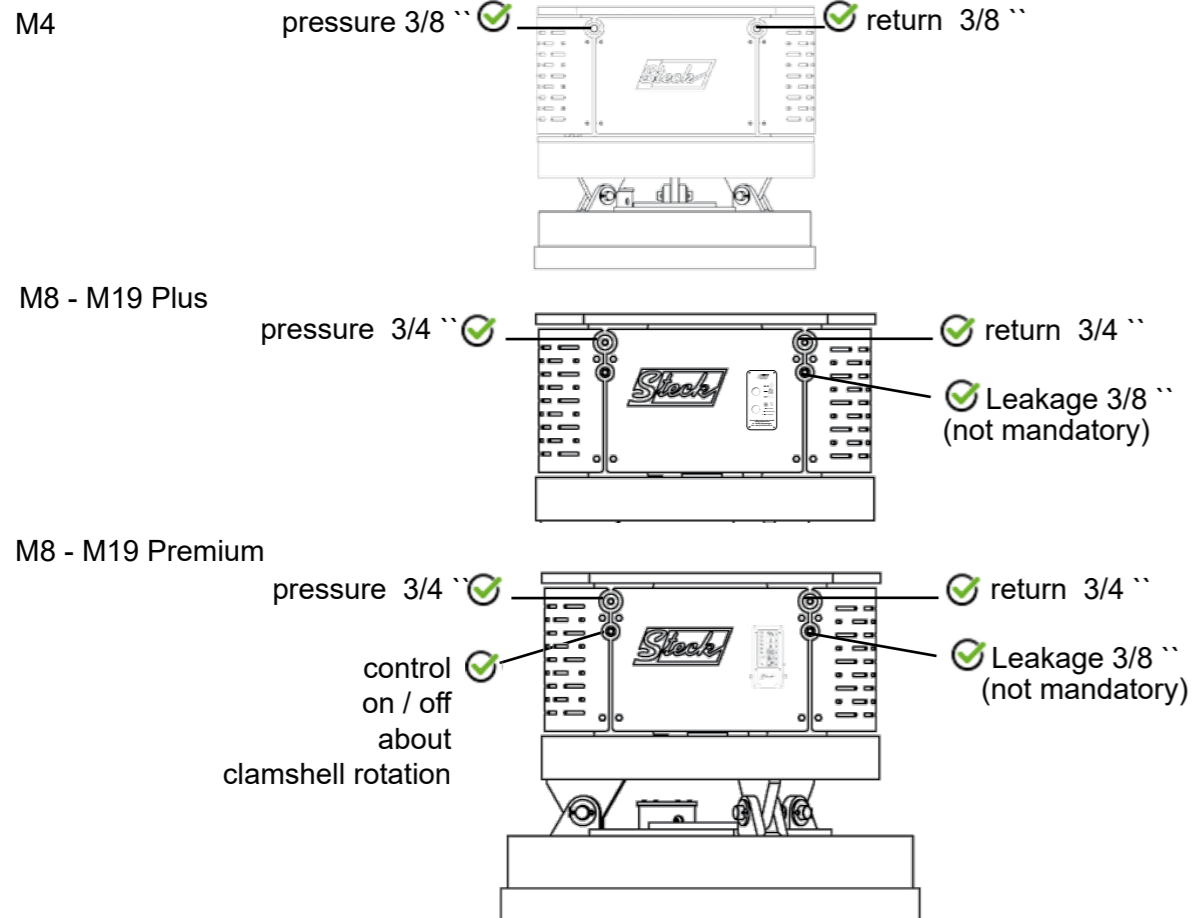
- Hermetically closed steel housing shakeproof and wear-resistant vibrations and abrasion
- Magnetic circuit protected against external influences and moisture.
- optimal weight-performance ratio guarantees maximum handling easy.
- Temperature equalization due to steel surface.
- cable protection

	Standard	Plus semi-auto. drop control	Premium electric drop control
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓

### Operation of magnet plates:

No special maintenance needed except from periodic checking of electric connections, suspension connections and housing.

### Connection for hydraulic components - Premium



### Setting/ regulation of hydraulic:

Therefore no precise hydraulic setting needed

Setting details	M4
Oil flow	60 - 120 litres
Operating pressure	80 - 270 bar

Setting details	M8 - M19	recommended setting	M8 - M19
Oil flow	90 - 250 litres	Oil flow	140 litres
Operating pressure	200 - 300 bar	Operating pressure	> 250 bar
Return pressure max.	< 30 bar	Return pressure	< 20 bar
Leakage oil max.	< 10 bar	Leakage oil	< 10 bar



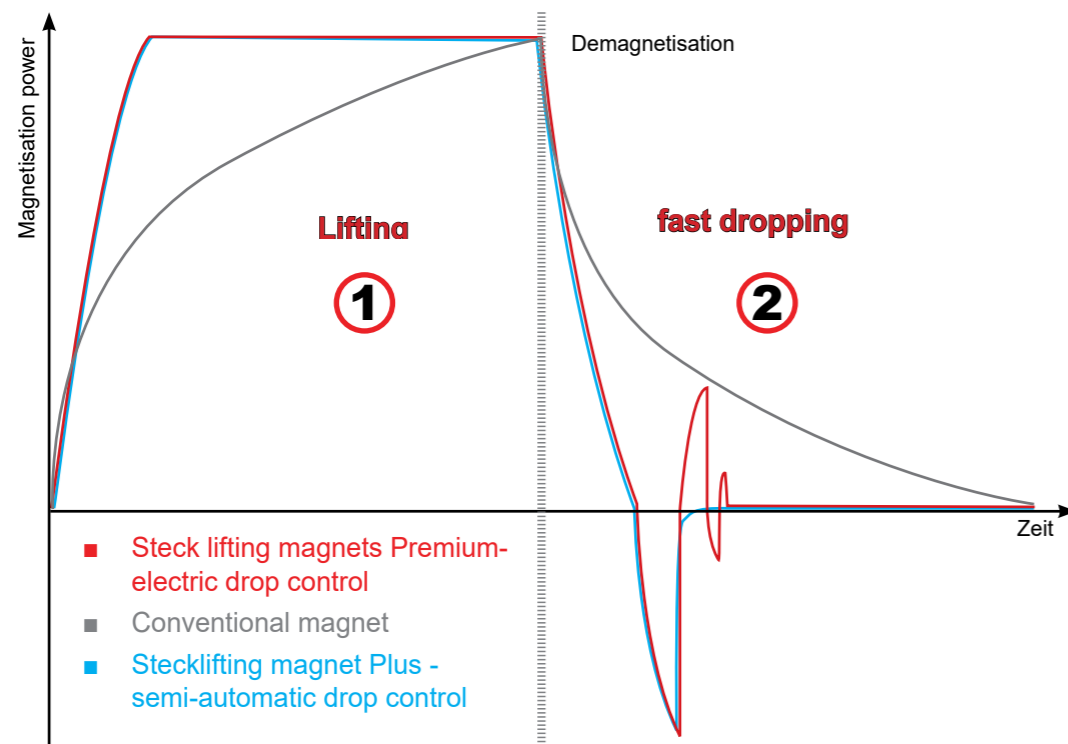
## /// Lifting magnets advantage

### 1 Efficient lifting with voltage surge

To work even more efficient, Steck generator use a special technique. Due to a higher cut-in voltage the magnet picks up more material, before holding voltage is adjusted automatically. Therefore more material is loaded faster and safer. As a consequence this technology saves working time, wearing and fuel.

### 2 Variable demagnetization phase optimizes dropping

Time and strength of demagnetization determine the dropping of the magnet. Steck generators adjust these factors perfectly to the performance of the magnet. Thereby a faster turn on is possible too. After demagnetization the magnet is completely clean (no chips, pipes, plates or mixed scrap).



Magnetic plate with teeth



M16 up rigid, down pendular



M16S Premium up - down rigid



M4 compared to M16



M16 with rotation 360°

## Lifting magnets

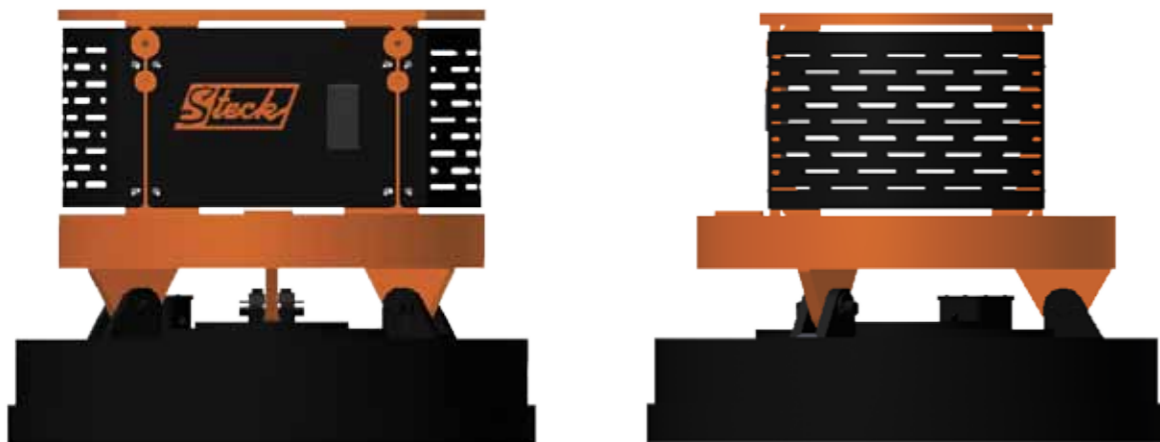
M4S Rigid version (S) Standard



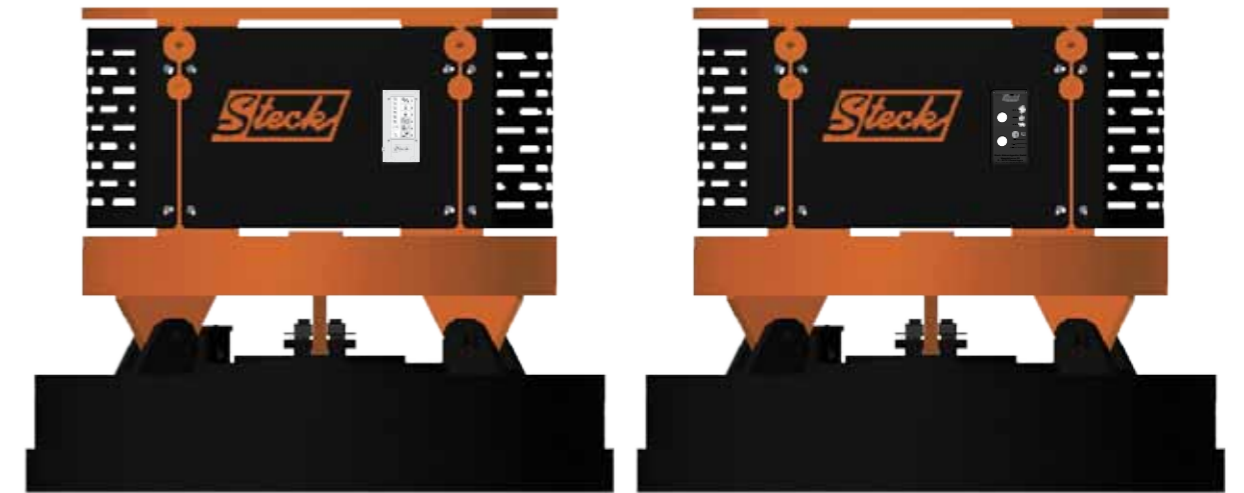
Technical details	M4S
operating weight (t)	6 - 12
weight without adapter (kg)	420
load capacity (kg)	2.700
Ø in mm	720
height	620
quick hitch	MS08

## Lifting magnets - Standard

M8S to M19S Rigid version (S) Standard

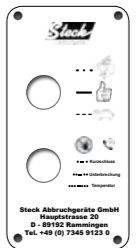


Technical details	M 8	M 14	M 16	M 19
operating weight (t)	7 - 15	12 - 30	15 - 45	24 - 55
weight without adapter (kg)	800	1.360	1.650	1.970
generator power(kW)	9	9	9	9
magnet plate power (kW) cold	6	6	8,9	8,9
magnet plate power (kW) according to VDE0580	4,4	4,4	7	7



## Lifting magnets - Plus

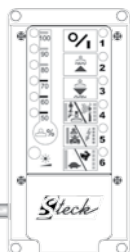
M14S to M19S Rigid version (S) Plus



Technical details	M 14	M 16	M 19
operating weight (t)	12 - 30	15 - 45	24 - 55
weight without adapter (kg)	1.360	1.650	1.970
total height (mm)	1.017	1.042	1.022
total diameter (mm)	1.060	1.250	1.350
generator power(kW)	13	13	13
magnet plate power (kW) cold	7	10,8	12,8
magnet plate power (kW) according to VDE0580	5,5	9	10

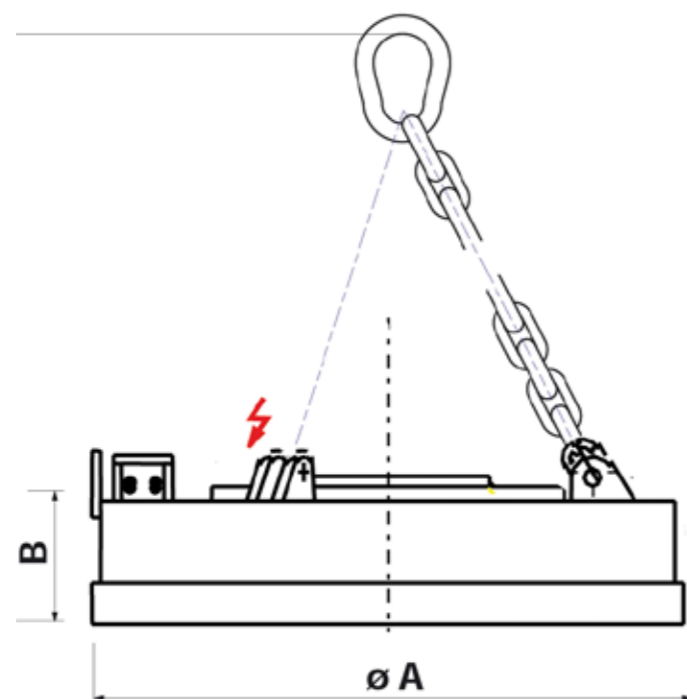
## Lifting magnets - Premium

M8S to M19S Rigid version (S) Premium



Technical details	M 8	M 14	M 16	M 19
operating weight (t)	7 - 15	12 - 30	15 - 45	24 - 55
weight without adapter (kg)	800	1.360	1.650	1.970
total height (mm)	1.000	1.017	1.042	1.022
total diameter (mm)	860	1.060	1.250	1.350
generator power(kW)	9	13	13	13
magnet plate power (kW) cold	6	7	10,8	12,8
magnet plate power (kW) according to VDE0580	4,4	5,5	9	10

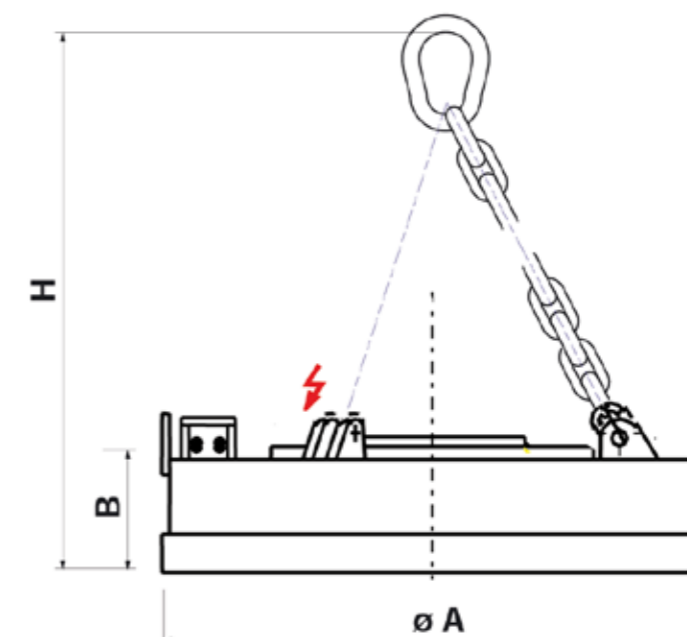
## Magnet plates



Lifting magnets	M4
weight (kg)	365
dimension A= Ø (mm)	720
dimension B (mm)	225
mains voltage (Vgs)	24
magnet power (kW)	0,6
with air gap Ø /300 <sup>1</sup> Tensile strength (kg)	5.500
load capacity <sup>1</sup> skelp block (kg)	2.700
load capacity <sup>1</sup> iron ball (kg)	740
load capacity <sup>1</sup> pig iron (kg)	85
load capacity <sup>1</sup> scrap 3A 2,2+2, 5 T/m <sup>3</sup> (kg)	65
load capacity <sup>1</sup> scrap 24 1,9+2,0 T/m <sup>3</sup> (kg)	55
load capacity <sup>1</sup> scrap 40 0,8+1, 0 T/m <sup>3</sup> (kg)	35
Magnets plate	MP4

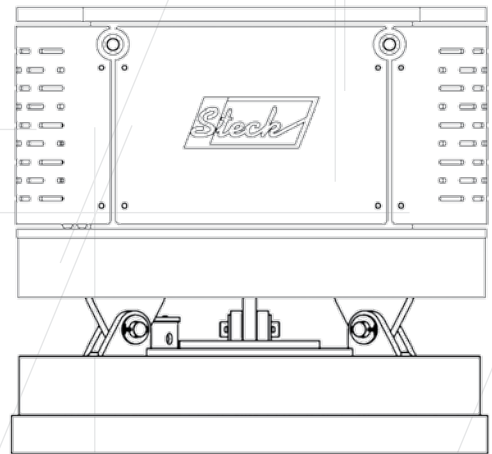
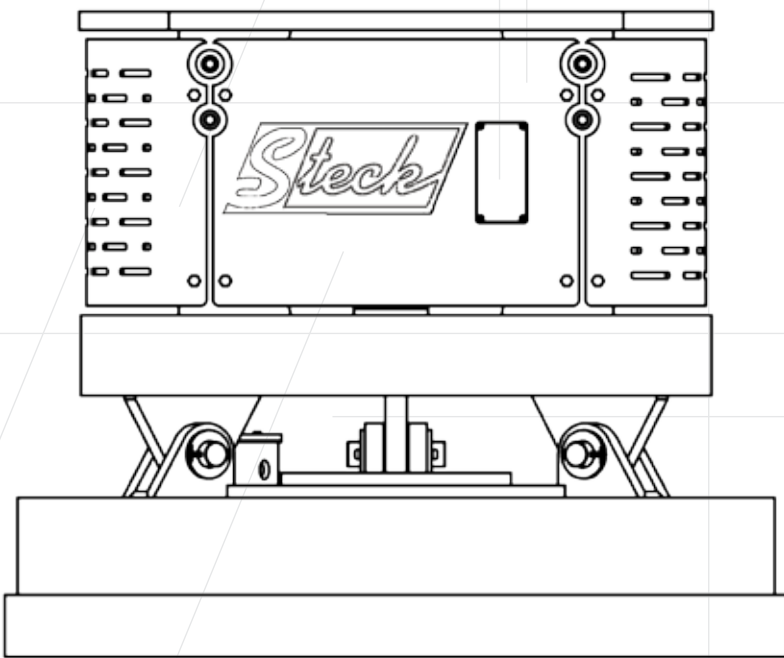
<sup>1</sup> According to VDE 0580. Defined in 5 hours from changing labor (50%), at ambient temperature of 20°C.

Due to special construction of magnet plate a better depth effect is achieved. Magnet plate is made of wear- resistant material which lead to longer lifetime.



Lifting magnets	M8	M14	M15	M16	M19
weight (kg)	550	780	890	1.100	1.400
dimension A= Ø (mm)	860	1.060	1.140	1.250	1.450
dimension B (mm)	280	280	280	305	285
dimension H (mm)	975	975	975	1.000	1.000
Ø magnet (mm)	860	1.060	1.140	1.250	1.450
mains voltage (Vgs)	220	220	220	220	220
magnet power (kW)	4,4	5,5	7	9	10
with air gap Ø /300 <sup>1</sup> Tensile strength (kg)	8.200	11.500	13.000	15.000	18.000
load capacity <sup>1</sup> skelp block (kg)	4.100	5.750	6.500	7.500	9.000
load capacity <sup>1</sup> iron ball (kg)	1.700	2.600	3.000	3.500	4.200
load capacity <sup>1</sup> pig iron (kg)	200	280	320	410	580
load capacity <sup>1</sup> scrap 3A 2,2+2, 5 T/m <sup>3</sup> (kg)	170	255	290	370	530
load capacity <sup>1</sup> scrap 24 1,9+2,0 T/m <sup>3</sup> (kg)	160	240	280	360	510
load capacity <sup>1</sup> scrap 40 0,8+1, 0 T/m <sup>3</sup> (kg)	80	120	140	190	240
Magnets plate	MP6	MP8	MP9	MP11	MP14

<sup>1</sup> According to VDE 0580. Defined in 5 hours from changing labor (50%), at ambient temperature of 20°C.



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