



Maximum Performance

## Drive Units for Cranes and Hoists

Complete System Solutions for your competitive Advantage





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## Drive Units for Cranes and Hoists

**Complete System Solutions for your competitive Advantage.**

40 years of experience and more than one million hoist drive units: This is the solid basis for the ABM Greiffenberger product range tailored to the high demands of the hoisting technology. We offer you a one-stop source for the complete system solution from hoist drives from hoist motors, travel drives and frequency inverters to electric chain hoists and entertainment hoists. Our powerful, durable and innovative solutions are sure to give you a competitive edge.

Move Forward Together – our well-respected global partners in the hoisting industry:



Durable & powerful

## Hoist Drives

**For precise, safe load handling.**

Hoist drives from ABM Greiffenberger lift **loads of 3.2 t to 40 t** (rope reeving 4/1, FEM 2 m) with complete safety and reliability. The aluminum housings are low weight and provide high corrosion resistance. U-shaped mounting of the cable drums allows simple and space-saving installation.

- Extended application range thanks to a larger center distance
- Doubled service life, FEM 2 m design with 4/1 rope reeving
- Lifting speed of up to 200 Hz without load with inverter operation shortens the cycle time
- Quiet running



Dynamic & low-vibration

## Travel Drives

**Ready-to-install system solutions.**

The hoist drives and motors together with the travel drives from ABM Greiffenberger form **ready-to-install system solutions**. The travel drives are available as **helical, parallel shaft and angular gearboxes** – each with integrated safety brake. ABM Greiffenberger offers an appropriate solution **for every speed and accuracy requirement** with two product lines: Profi-Line travel drives enable two travel speeds, Automation-Line drives enable operation for reliable processes with variable speeds and satisfies the highest demands for positioning accuracy.

- Low-maintenance and corrosion-protected
- High-quality, quiet gearing
- Specific motor and gearbox designs
- High overall efficiency



Reliable & low-vibration

## Hoist Motors

**Many advantages due to ABM Greiffenberger know-how.**

The starting current of the hoist motors is low, a dynamic ramp-up curve creates the prerequisite for high crane performance. Even at high throughput rates, ABM Greiffenberger hoist motors ensure precise, safe load handling with soft acceleration, extremely smooth running and low-wear safety brakes.

- Soft and safe acceleration
- Increased corrosion resistance
- Optimized starting and breakdown torques
- Reliable dual surface safety brake
- Certified to CE, UL/CSA



Modular & compact

## Inverter VFD

**Performance for any application.**

With the VFD frequency inverter, ABM Greiffenberger offers the complete drive technology for cranes: The inverter can be individually parameterized to ensure optimal performance for any application. In addition, the number of travel drive versions can be reduced by powering different wheel diameters with the same variant.

- Compact, modular design
- Optimal control characteristics
- Easy commissioning
- Integrated PLC



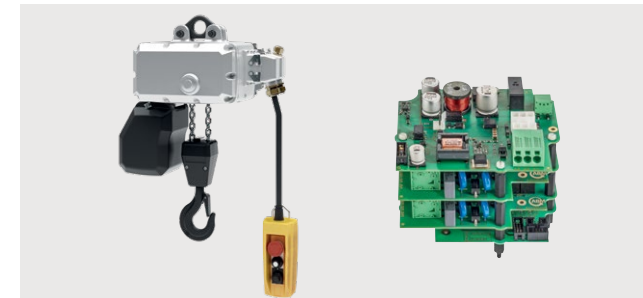
Safe & powerful

## Electric Chain & Entertainment Hoists

**Performance and reliability at high loads.**

The electric chain and entertainment hoists can handle loads up to 2 tons. They feature great versatility, a compact design and reliable operation. ABM Greiffenberger has developed an **integrated electronic control system** specifically for electric chain hoists: The basic version for lifting and lowering can easily be supplemented with an additional **plug and play** circuit board for the horizontal travel function.

- Reliable overload protection through friction clutch
- Minimum energy consumption due to a high degree of efficiency
- Robust, low-maintenance & corrosion-protected
- Quiet running due to high-quality helical gearing
- Modular system with multiple options, e.g. electronic control





Long-lived & powerful

### Hoist Drives

#### Advantages

**Large center distance**

→ Expanded usage range

**Design per FEM 2M with reeving 4/1**

→ Doubling of life time

**Increased lifting speed up to 200 Hz without load in inverter operation**

→ Shorter cycle times

→ Low noise operation due to high grade gearing

**Direct motor mounting to gearbox without intermediate flange**

→ Compact dimensions and reduced weight

**Improved heat dissipation through gearbox housing**

→ Optimum energy efficiency

**Aluminum housing**

→ Low own weight and high corrosion resistance

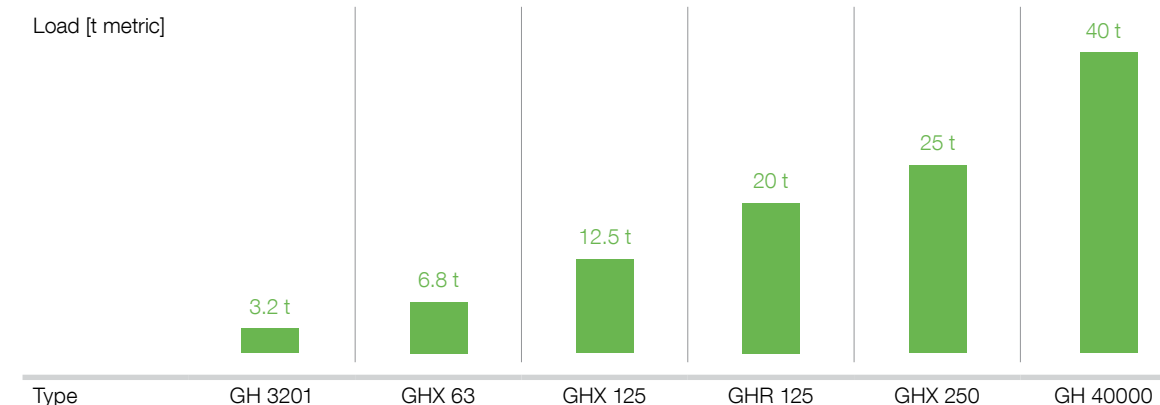
**High starting torque**



#### Basic Data & Options

|                  |   |
|------------------|---|
| Motor type       | 12/2 poles or inverter operation  |
| Rated output     | up to 38 kW   |
| Gear type        | 3-stage aluminum helical gearbox for direct mounting of drum  |
| Lifting speeds   | 4 - 15 m/min with reeving 4/1   |
| Drum diameter    | 140 - 405 mm  |
| Lifting capacity | 3.2 to 40 t (metric)  |
| Protection class | IP54 (optional IP65)  |
| Cooling          | Cooling: self or separately driven fan  |
| Design           | Design per FEM  |
| Brake            | Dual surface safety brake<br>Optional: quick reaction rectifier, function and wear monitoring                                     |
| Standard         | PTC and thermal sensors, tropics and corrosion protection, CE and UL/CSA approved   |
| Options          | CSA approved, encoder, separately driven fan, special power supply voltages<br>Other FEM classifications and reeving upon request |

#### Output Overview | Reeving 4/1, FEM 2m

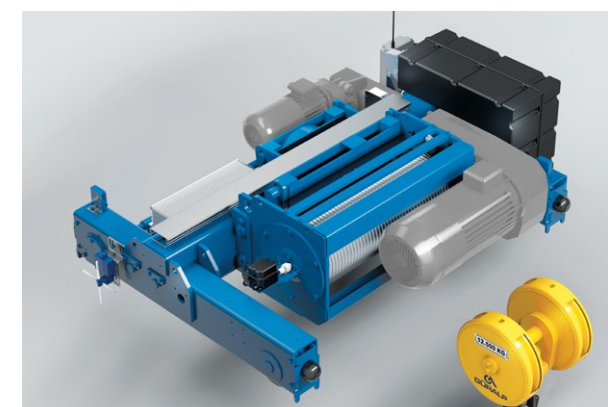


Type GH 3201 GHX 63 GHX 125 GHR 125 GHX 250 GH 40000

#### Technical Data

| Type                        | GH 3201                                | GHX 63          | GHX 125     | GHR 200     | GHX 250     | GH 40000     |
|-----------------------------|--|-----------------|-------------|-------------|-------------|--------------|
| Lifting capacity [t metric] | 3.2                                    | 6.8             | 12.5        | 20          | 25          | 40 - 80      |
| Lifting speeds [m/min]      | 4.0 - 8.0                              | 4.0 - 8.0       | 4.0 - 8.0   | 4.0 - 8.0   | 4.0 - 8.0   | 2.6 - 7.6    |
| FEM classification          | 2m                                     | 2m              | 2m          | 1Am         | 2m          | 1Am          |
| Motor output [kW]           | 2.5 - 4.5                              | 4.9 - 7.6       | 7.6 - 12.5  | 12.5 - 16   | 12.5 - 20.0 | 20.0 - 38.0  |
| Output shaft per DIN 5480   | W40x2x18x8f                            | W45x2x21x8f     | W65x2x31x8f | W75x2x36x8f | W90x2x44x8f | W110x2x54x8f |
| Drum diameter [mm]          | 140                                    | 170 / 215 / 270 | 270 / 325   | 295 / 325   | 325 / 405   | 405          |
| Protection class            | Motor IP65, brake IP54 (optional IP65) |                 |             |             |             |              |

#### Application Examples







Dynamic & low vibration

### Travel Drives

#### Advantages

Design per FEM

Low vibration movement of loads

Low noise and long life due to high grade gearing

Safety with integrated dual surface safety brake

Comprehensive mounting options (helical, parallel shaft and angular gearboxes)

Robust and maintenance free

Aluminum housing

→ Low own weight and high corrosion resistance

High overall efficiency

Compact design

High gear reduction ratios

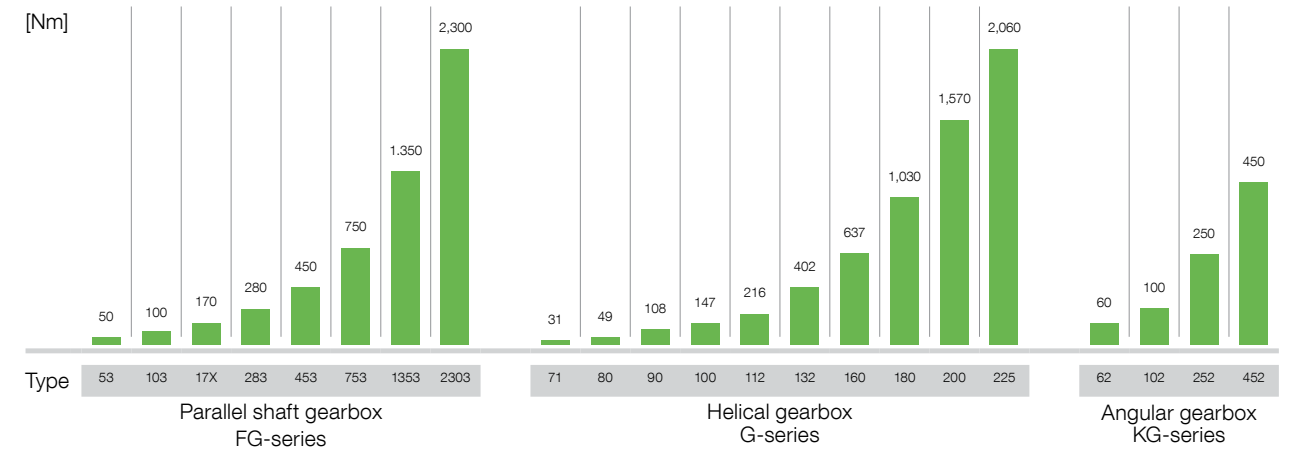
Optimally adapted to customer requirements



### Basic Data & Options

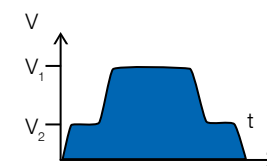
|                                      | PROFI-LINE   | AUTOMATION-LINE      |
|--------------------------------------|--|----------------------|
| Power supply voltages                | 380 - 415 V 50 Hz (440 - 480 V 60 Hz)  | 380 - 415 V 87 Hz    |
| Number of poles / connections        | 8/2 poles star / star  | 4 pole delta         |
| Travel speed                         | 5/20 m/min // 10/40 m/min  | 20 m/min // 40 m/min |
| Duty cycle                           | FEM 2m   |                      |
| Acceleration                         | with load = 0.1 m/s <sup>2</sup> without load < 0.6 m/s <sup>2</sup>   |                      |
| Output torque helical gearbox        | 31 - 2,060 Nm  |                      |
| Output torque parallel shaft gearbox | 170 - 2,300 Nm   |                      |
| Output torque angular gearbox        | 60 - 450 Nm  |                      |
| Service factor                       | > 1.5  | > 1.3                |
| Protection class / Style             | IP54, aluminum junction box  |                      |
| Brake                                | Dual surface brake   |                      |
| Output shaft                         | Solid or spline shaft per DIN 5480   |                      |
| Options                              | Phase isolation, protection class IP65, UL / CSA approbated, thermal sensors, PTC resistor, brake with manual release, motor connection through quick disconnects special travel speeds upon request |                      |

### Output Overview



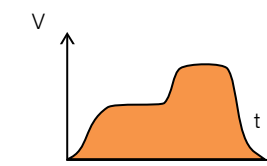
### Two lines for every travel speed and positioning requirement

#### PROFI-LINE



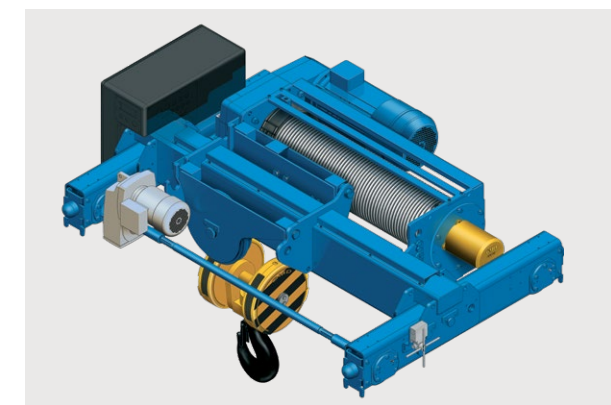
- Two travel speeds
- Safe soft starts with 2-speed motors (8/2 poles) with specially designed windings and rotors and integrated oscillating weight

#### AUTOMATION-LINE



- Variable travel speeds for maximum positioning accuracy
- 4-pole motors with 87 Hz characteristics designed specifically for inverter operation
- Individual inverter tuning of important parameters
- Particularly soft start and stop characteristics reduces load oscillation to a minimum

### Application Examples





Modular & compact

### Inverter VFD

### Advantages

#### Individual parametrization

→ Optimum performance

#### Reduced number of versions

→ Different wheel diameters can be used with one type of travel drive

#### 87 Hz characteristics

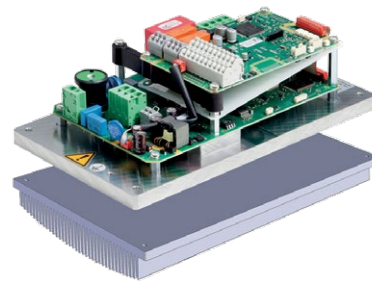
#### Compact design

#### Modular design

#### Excellent control properties

#### Simple start-up

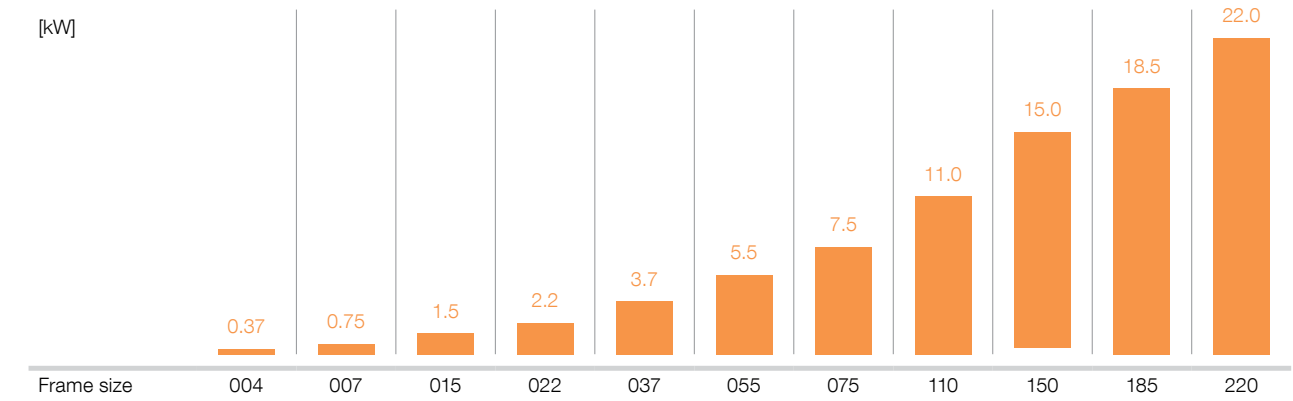
#### Integrated PLC



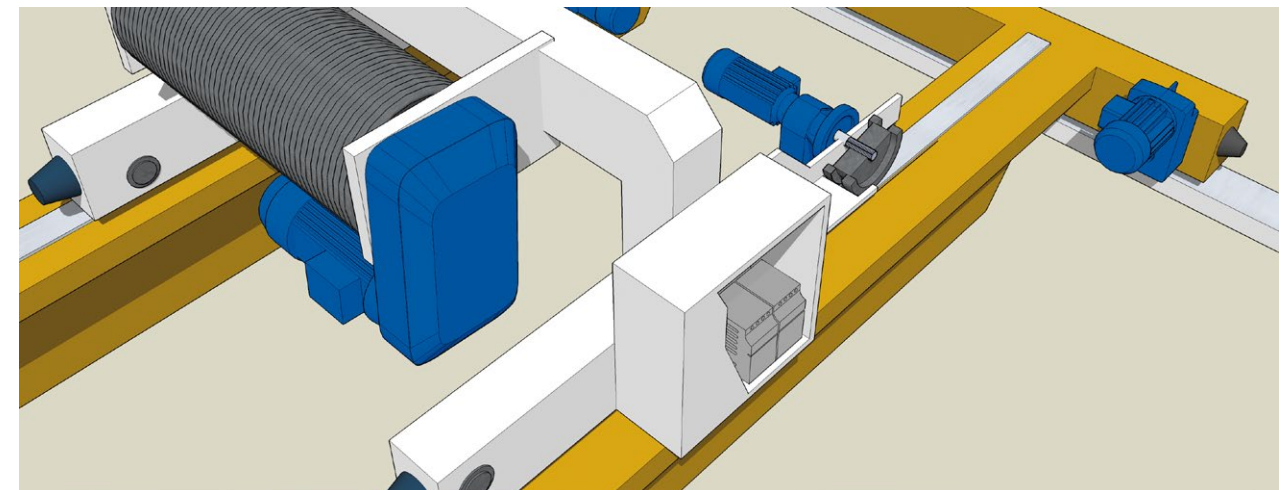
### Basic Data & Options

|                   |   |
|-------------------|---|
| Input voltage     | 1-phase: 200 – 240 V<br>3-phase: 380 – 480 V                              |
| Input frequency   | 50 – 60 Hz  |
| Motor output      | 0.37 – 22.0 kW  |
| Output voltage    | 0 V – power supply voltage  |
| Output frequency  | 0 – 599 Hz  |
| Control algorithm | U/f (multi-motor operation), sensorless and field oriented vector control |
| Brake chopper     | integrated  |
| Protection class  | IP20  |
| Fieldbus          | Profibus, CANopen, Device Net, Lon Works, MODBUS                          |
| Options           | Keypad, parameter interface, commissioning software<br>Expansion module   |

### Output Overview



### Application Example





Safe & powerful

### Chain & Entertainment Hoists

#### Advantages - Mechanical

Reliable overload protection with friction clutch

Minimum energy consumption due to a high degree of efficiency

Robust, low maintenance & corrosion protected

Low noise and energy efficient operation with high grade helical gearing

Modular design with many options



#### Advantages - Electronics

Integrated electronic control

→ No wear of switch contacts such as relays, brakers etc.

Basis circuit board for lifting and lowering

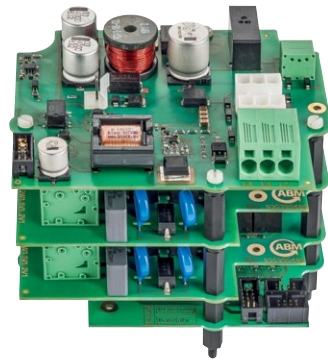
→ Simple expansion of travel function by plug & play with only one board

Integrated protective function

Including brake activation

Long life & robust

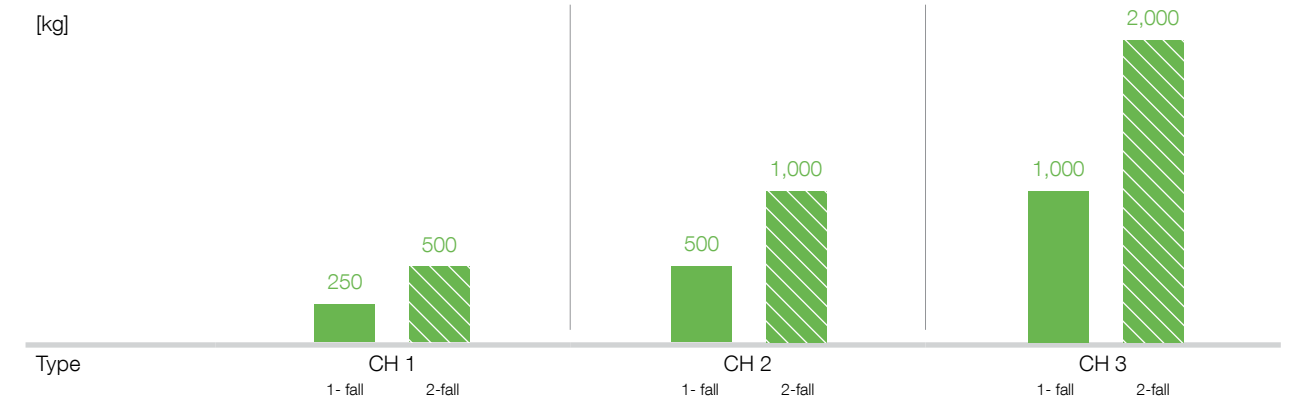
Compact design



### Basic Data

|                    |  |
|--------------------|--|
| Lifting capacity   | 125 - 2,000 kg (1- resp. 2-fall operation)     |
| FEM-classification | up to FEM 3m                                   |
| Lifting speeds     | 2.5 to 10 m/min                                |
| Motor types        | single speed induction motors / 2-speed motors |

### Output Overview

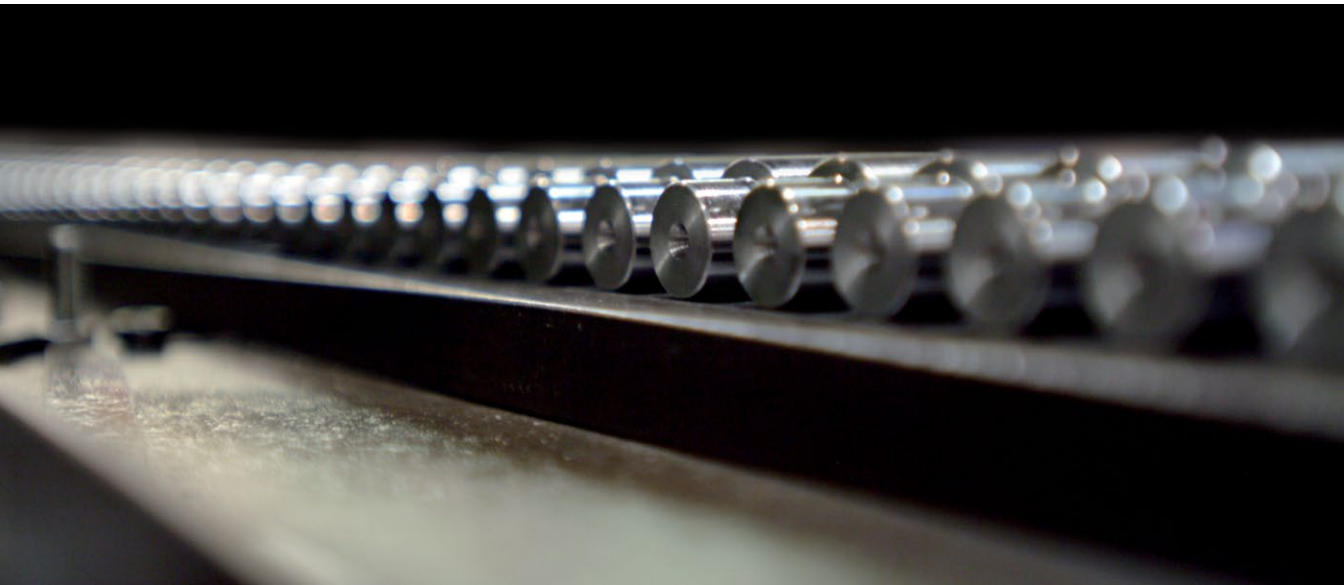


### Basic Configuration & Options

|                      |   | Basic Configuration | Options |
|----------------------|---|---------------------|---------|
| Lifting speeds       | Single speed  |                     | ⊗       |
|                      | Two speed   | ✓                   |         |
| Power supply voltage | 380 - 415 V / 50 Hz<br>(440 - 480 V / 60 Hz upon request) | ✓                   |         |
|                      | Special voltages / frequencies                            |                     | ⊗       |
| Mounting bracket     | Eye bolt  | ✓                   |         |
|                      | Rotating hook mounting                                    |                     | ⊗       |
| Control              | Direct control  | ✓                   |         |
|                      | Integrated electronic control: lifting & lowering         |                     | ⊗       |
|                      | Integrated electronic control: lifting, lowering & travel |                     | ⊗       |
| Limit switch         | Stopping at highest and lowest hook position              |                     | ⊗       |
| Limit switch         | Adjustable lifting height                                 |                     | ⊗       |
| Additional options   | Load hook, intermediate ring                              |                     | ⊗       |

### Application Examples





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Dynamics for each Application and Use

## We drive the World

A dense network of international subsidiaries and sales offices in all major industrial countries ensure close contact with our customers around the world – and guarantee an excellent standard of service.

**Kindly contact us for further detailed information.**

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