Advantages

- Integration of the motor in the machine
- Elimination of the gearbox
- No play / no loose
- Very high dynamics
- Very high acceleration
- Very high positioning accuracy
- Simple, robust drive concept
- Suitable for high vacuum and clean room
- Wide range of applications
- Long life
- High motor constant
- Low noise generation
- minimal maintanance

This is us

EAAT GmbH develops and manufactures custom made electrical products and automation and drive technology components. From prototype to series , we are the right partner for you.

Our customers benefit from our many years of experience in developing and manufacturing electrical products.

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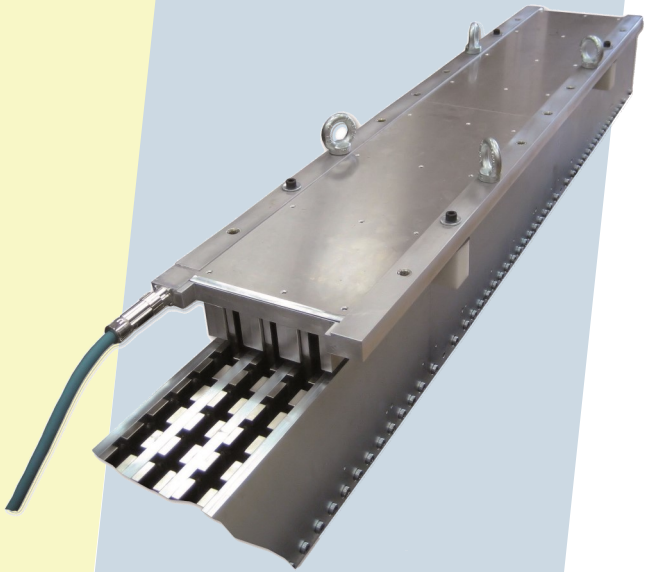
Direct Drives



Direct Drives

Discription

Direct Drives ...

are drives that do not require a gearbox! Our direct drives are tailored to meet our customer‘s needs and are adapted to the in situ technical conditions. One differentialtes linear and rotary direct drives.

Linear direct drives

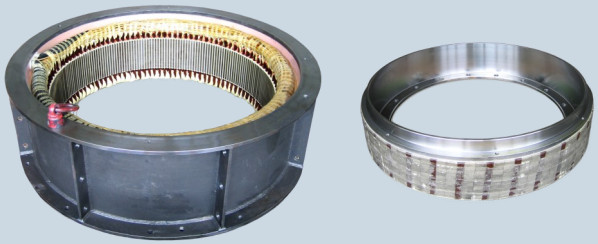
The linear direct drive is a straight moving unit. It consists of the components linear motor, measuring system and frequency converter.

Dates:

- Forces: 10 N to 10 kN
- Positioning: to 1 µm
- Travel: 10 mm to 5 m
- Speed: 0,5 mm/s to 10 m/s
- Acceleration: 1 m/s² to 300 m/s²

Rotary direct drives

The rotating direct output is usually designed as a torque drive consisting of motor , measuring system and frequency converter.



Discription

Dates:

- Torque: 0,5 Nm to > 14.000 Nm
- Speed: 0,5 min $^{-1}$ to 1.000 min $^{-1}$
- Positioning: to 1 µm
- Power: 1 W to 250.000 W

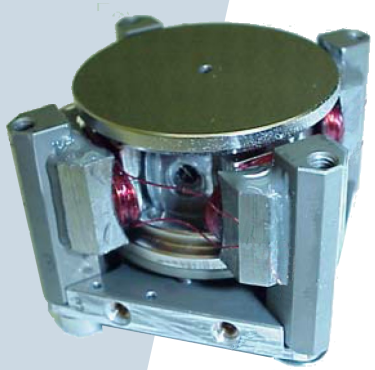
Functions and applications

Linear direct drives

- Flat asynchronous AC linear motors
- Flat synchronous three-phase linear motors
- Flat, ironless permanent magnet three-phase linear motors
- Cylindrical, groove-less permanent-magnet three-phase linear motors

Rotating direct drives

- Press drives
- Assembly table drives
- Indexing table
- Turning and milling equipment



Examples

Special drives

Mirror adjustment unit

Spherically shaped linear actuators move a gimbal - mounted body (mirror) in one or two axes.

- Maximum angular resolution: 0,0002 degrees
- Maximum deflection: ± 10 degrees
- Limiting frequency : 1 kHz
- Used for the communication from satelites

Test bench with magnetic bearing

- Magnetic in two plane and axially mounted shaft to power a test specimen
- Guided bearing force running parallel of the shaft
- Tilting of the shaft: ± 0,08 Grad
- Maximum power at the test specimen: 0 bis 4 kN