Electric swivel unit with globoidal drive

Body-in-white swivel applications

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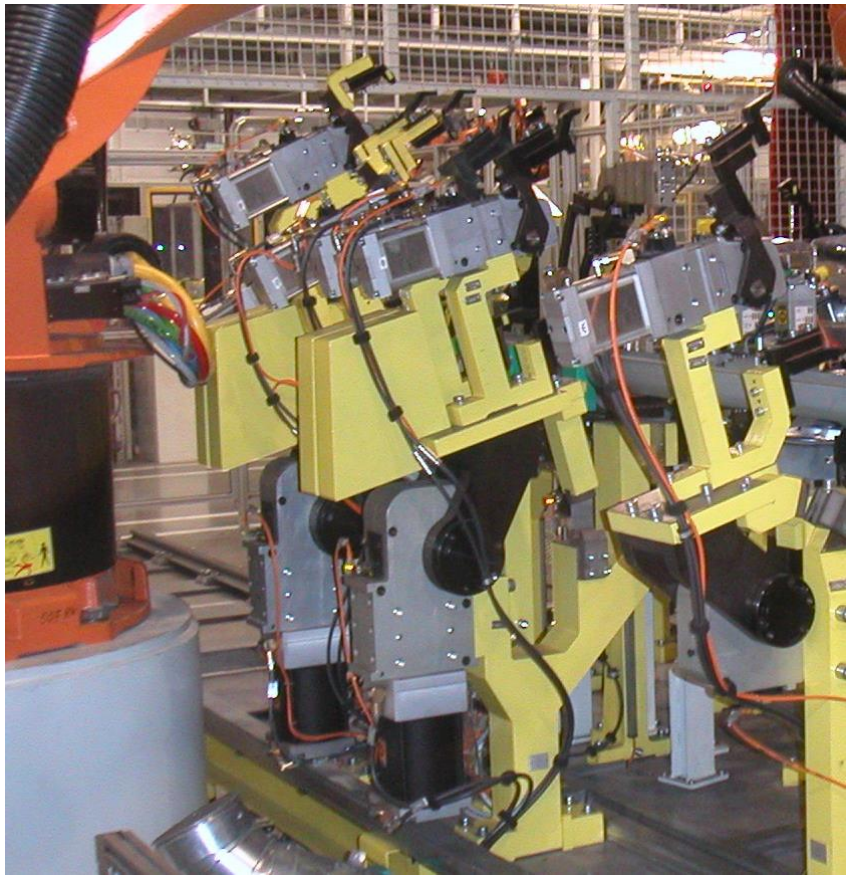
Erfindergeist serienmäßig.

Requirement: moving 20 – 100 kg!

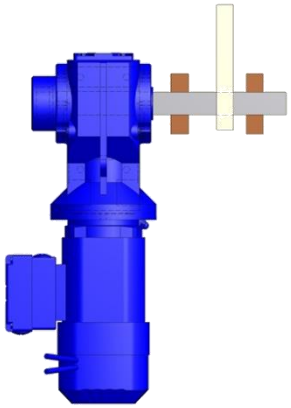
- In automation, swivel units are used to bring heavy loads, e.g. complete clamping assemblies, fixture elements or welding tongs into position, frequently with gross weights exceeding 50 kg

Pneumatic shows limits

- Tooling system in accordance with the construction principle of the power clamp
- High-volume air cylinders tend to vibrate under high loads and short cycle times
- Critical emergency stop behaviour due to the compressed air in the cylinder chambers.
- Negative energy balance due to high air consumption

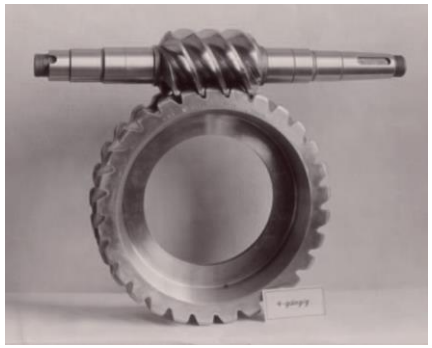


1. External motor/drive unit with swivel bearing



- Individual special designs
- High construction volume
- Unfavorable failure situation in the installations
- Critical spare parts inventory

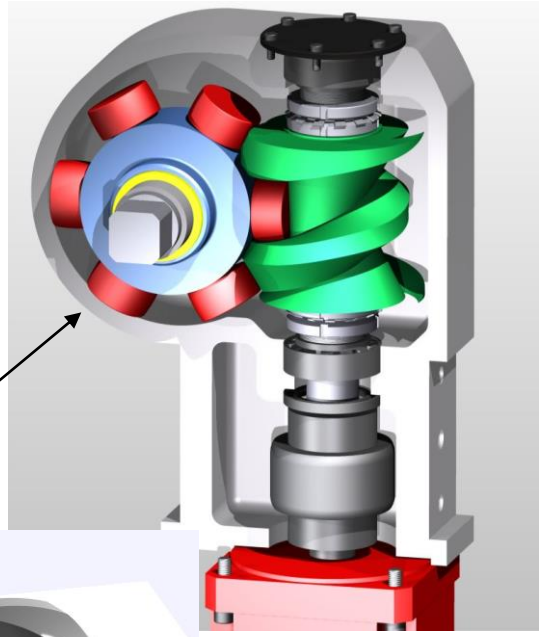
2. Motor with worm or spindle transmission

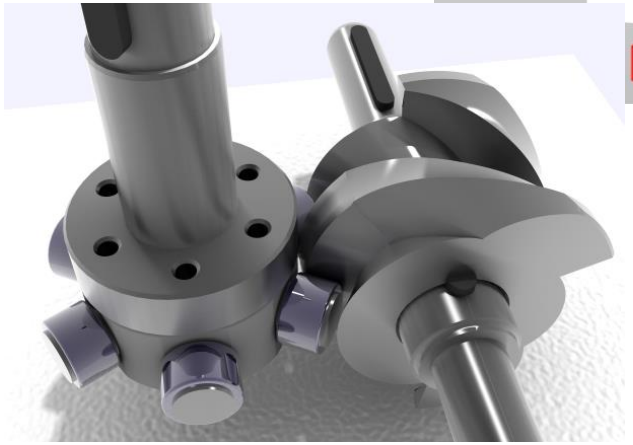


- Compact design
- Transmission mechanism not free from play
- Insufficient resistance of the spindle drive in relation to emergency stops
- High dissipation loss through worm gears

Solution: TÜNKERS globoidal swivel unit

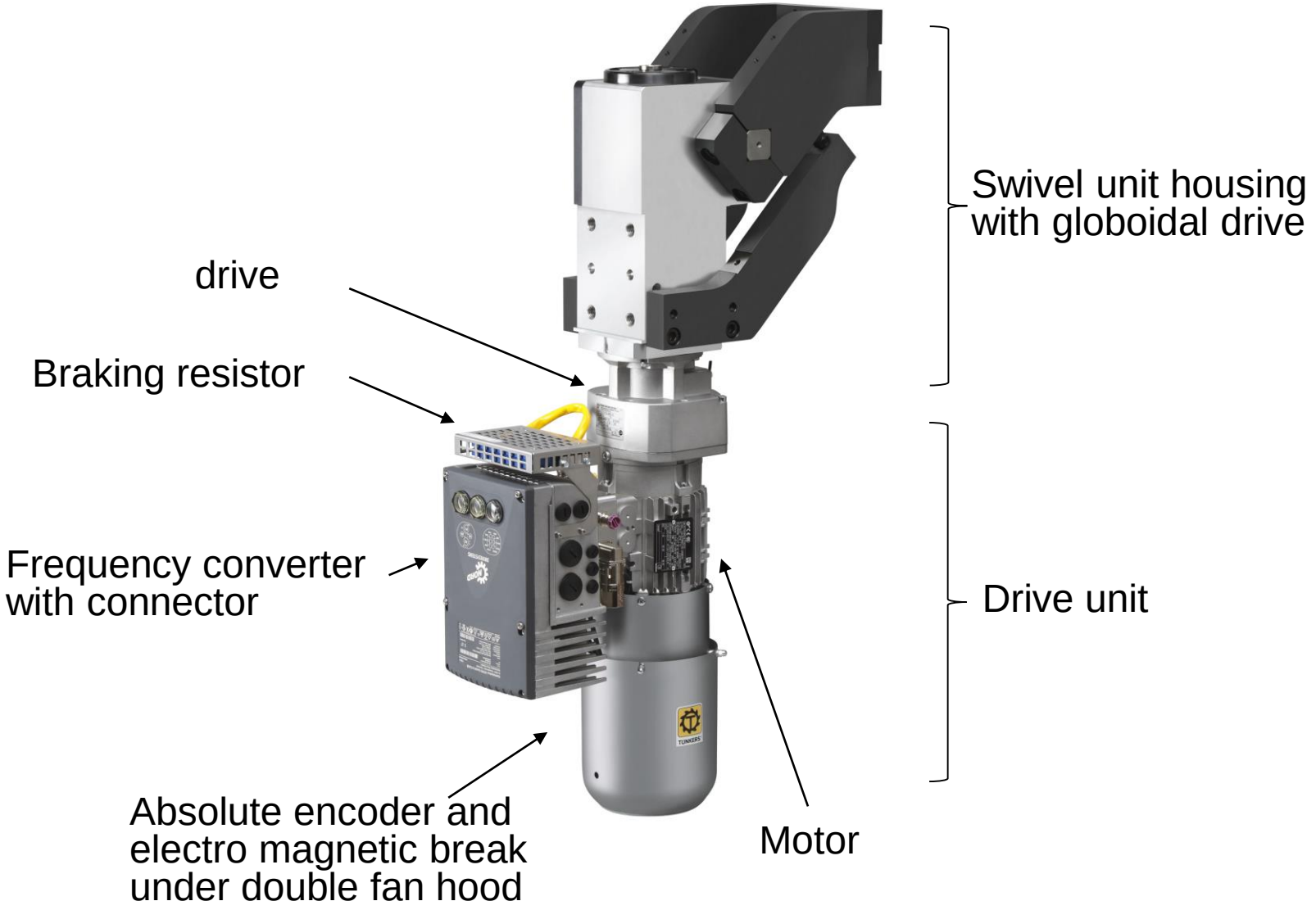
- Transmission of the swivel movement via a globoidal drive
- Utilisation of EXPERT-TÜNKERS know-how of rotary tables and small gear boxes
- Power transmission via support rollers in needle bearings
- Cam mounted in eccentric bearing for backlash free drive bearing
- Compact design with compatible main dimensions to the TÜNKERS pneumatic series
- High emergency stop resistance





Approved basis: EXPERT-TÜNKERS globoidal drives

EGS with new drive concept
Overview



Advantage new drive concept

- Cycle time advantage over the pneumatics by adjustable speed (<2 sec to >3 sec at 135° opening angle)
- Positioning without referenced by absolute encoder on the motor
- Speed feedback by combi sensor for highly accurate positioning, with constant torque down to standstill
- Compact design built by inverter with integrated fieldbus interface
  - No control cabinet necessary
- Easy connection by power and bus connectors
- Integrated safe stop (STO) in the inverter
- Control via all common bus systems (Profibus, Profinet, etc.)
- Easy commissioning by using software modules
- Service-friendly due to plug converters and portable memory device that hosts the parameters.

Overview technical data

	EGS 125	EGS 250	EGS 500
Drehmoment / *torque*	125 Nm	250 Nm	500 Nm
Länge / *lenght*	710 mm	725 mm	743 mm
Breite / *weidth*	167 mm	187 mm	216 mm
Tiefe / *depth*	326 mm	363 mm	400,5 mm
Gewicht / *weight*	27 kg	37kg	42 kg
max. Schwenkwinkel / *max. pivot angle*	> 360°	> 360°	> 360°

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Thank you for your attention

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