

Efficiency and slimline design in the application.



The slimline shaft-mounted helical gearboxes are characterized by high permissible radial forces, closely stepped transmission ratios and a low backlash.

They are available in a 2-stage, 3-stage and 4-stage design with a torque of up to 19,000 Nm and a ratio of up to $i = 4,300$.

Highlights

- Energy efficiency classes for an economic and future-proof use in many applications and countries
- Slimline design saves installation space of the machine
- Solid shaft, hollow shaft and shrink disc for direct integration into the machine
- Little backlash during axial output ensures maximum efficiency
- High center distance provides more free space in your application

Shaft-mounted helical geared motors are a compact, powerful drive unit. Numerous options at the input and output ends ensure that the drive can be easily and precisely adjusted to suit your application.

Types m550 and MF

- With IE2 and IE3 three-phase AC motors according to the ErP Directive: Power range 0.12 ... 55 kW
- With inverter-optimized MF three-phase AC motors: Power range 0.55 ... 22 kW

Types Lenze Smart Motor

- With m300 Lenze Smart Motors: Rated torque of 1.75 Nm and 5 Nm

Types MCS, m850 and MCA

- With synchronous servo motors and asynchronous servo motors: Power range: 0.25 ... 38.4 kW



m550



Lenze Smart Motor



MCS



m850



MCA

Matched to your ambient conditions

| Gearboxes with | Three-phase AC motors | Lenze Smart Motor | Servo motors |
|---------------------------------|--------------------------------|-------------------|--------------|
| Degree of protection (EN 60529) | IP55 | | IP54/IP65 |
| Energy efficiency class | IE2, IE3 or inverter-optimized | | |
| Approvals | cURus, EAC, CCC and UkrSepro | | |
| Storage temperature | -30 ... 60 °C | | |
| Operating temperature | -20 ... 40 °C | | |

Surface and corrosion protection

| Gearboxes with | Three-phase AC motors, Lenze Smart Motors, servo motors |
|----------------|---------------------------------------------------------|
| OKS-G (primed) | 1K priming coat |
| OKS-S (small) | 2K-PUR top coat |
| OKS-M (medium) | 1K priming coat, 2K-PUR top coat |
| OKS-L (large) | 2K-EP priming coat, 2K-PUR top coat |

Technical data

| Gearbox size | | g500-S130 | g500-S220 | g500-S400 | g500-S660 | g500-S950 | g500-S2100 | g500-S3100 | g500-S4500 | g500-S8000 | g500-S14000 | g500-S19000 |
|-------------------------|----|-----------|-----------|-----------|--------------------|-----------|------------|------------|----------------------|------------|-------------|-------------|
| Rated torque | Nm | 130 | 220 | 400 | 660 | 950 | 2,100 | 3,100 | 4,500 | 8,000 | 14,000 | 19,000 |
| Ratio range | | 4 - 100 | 4 - 3,500 | 3 - 3,900 | 4 - 4,200 | 4 - 4,000 | 5 - 4,300 | 5 - 4,100 | 5 - 4,100 | 5 - 380 | 5 - 370 | 8 - 350 |
| Solid shaft dimensions | mm | 25 x 50 | 25 x 50 | 30 x 60 | 35 x 70 40 x 80 | 40 x 80 | 50 x 100 | 60 x 120 | 70 x 140 80 x 160 | 90 x 170 | 110 x 210 | 120 x 210 |
| Hollow shaft dimensions | mm | 25 | 25 30 | 30 35 | 40 45 | 40 | 50 55 | 60 70 | 70 80 | 90 | 100 | 120 |
| Shrink disc dimensions | mm | 25 | 25 30 | 35 | 40 | 40 | 50 | 65 | 75 80 | 95 | 105 | 125 |
| Flange dimensions | mm | 160 | 160 | 200 | 200 250 | 250 | 250 300 | 350 | 400 450 | 450 | 550 | 660 |

Space-saving and with powerful torque.



Our axial shaft-mounted helical gearboxes are short, and capable of transmitting high torque levels. The low level of backlash offered by the toothing ensures the highest precision. Optimised tooth profiles and ground gears ensure both low-noise operation and low backlash.

The gearboxes are available in 2-stage and 3-stage versions with torque of to 11,615 Nm and a ratio of up to $i=856$.

Models

- 2-stage and 3-stage gearboxes
- Hollow shaft with keyway or shrink disc
- Solid shaft with feather key
- Foot or flange mounting
- Torque plate, including rubber buffer

Technical data

| Gearbox size | | GFL04 | GFL05 | GFL06 | GFL07 | GFL09 | GFL11 | GFL14 |
|--------------|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Max. torque | [Nm] | 172 | 345 | 657 | 1378 | 3170 | 5952 | 11615 |
| Ratio range | | 3.7 - 95 | 3.3 - 538 | 3.7 - 856 | 3.4 - 810 | 6.9 - 790 | 6.9 - 801 | 7.2 - 801 |
| Dimensions | | | | | | | | |
| Hollow shaft | [mm] | 25/30 | 30/35 | 40/45 | 50/55 | 60/70 | 70/80 | 100 |
| Solid shaft | [mm] | 25 x 50 | 30 x 60 | 40 x 80 | 50 x 100 | 60 x 120 | 80 x 160 | 100 x 200 |
| Flange | [mm] | 160 | 200 | 200/250 | 250/300 | 350 | 400/450 | 450 |

GFL shaft-mounted helical geared motors

Gearboxes



When combined with our integrated three-phase AC motors and servo motors, our shaft-mounted helical gearboxes form a compact, effective drive unit. Numerous drive-end and output-end options allow precise matching of the drive to your specific application.

Models

- With three-phase AC motors in line with the ErP Directive in the power range from 0.12 to 45 kW
- With servo motors in the power range from 0.25 to 20.3 kW
- The power range up to 7.5 kW is covered by a Drive Package, created together with the decentralised Inverter Drives 8400 motec.

Matched to your environmental conditions

| Gearboxes with | Three-phase AC motors | Servo motors |
|----------------------------------|--------------------------------------|--------------|
| Degree of protection | | |
| EN 60529 | IP55 | IP54 / IP65 |
| Approvals | cURus, EAC, CCC and UkrSepro | |
| Climatic conditions | | |
| Storage temperature | -30°C to +60°C | |
| Operating temperature | -20°C to +40°C | |
| Surface and corrosion protection | | |
| OKS-G (primed) | 1K primer coat | |
| OKS-S (small) | 2K-PUR top coat | |
| OKS-M (medium) | 1K primer coat 2K-PUR top coat | |
| OKS-L (large) | 2K-EP primer coat 2K-PUR top coat | |