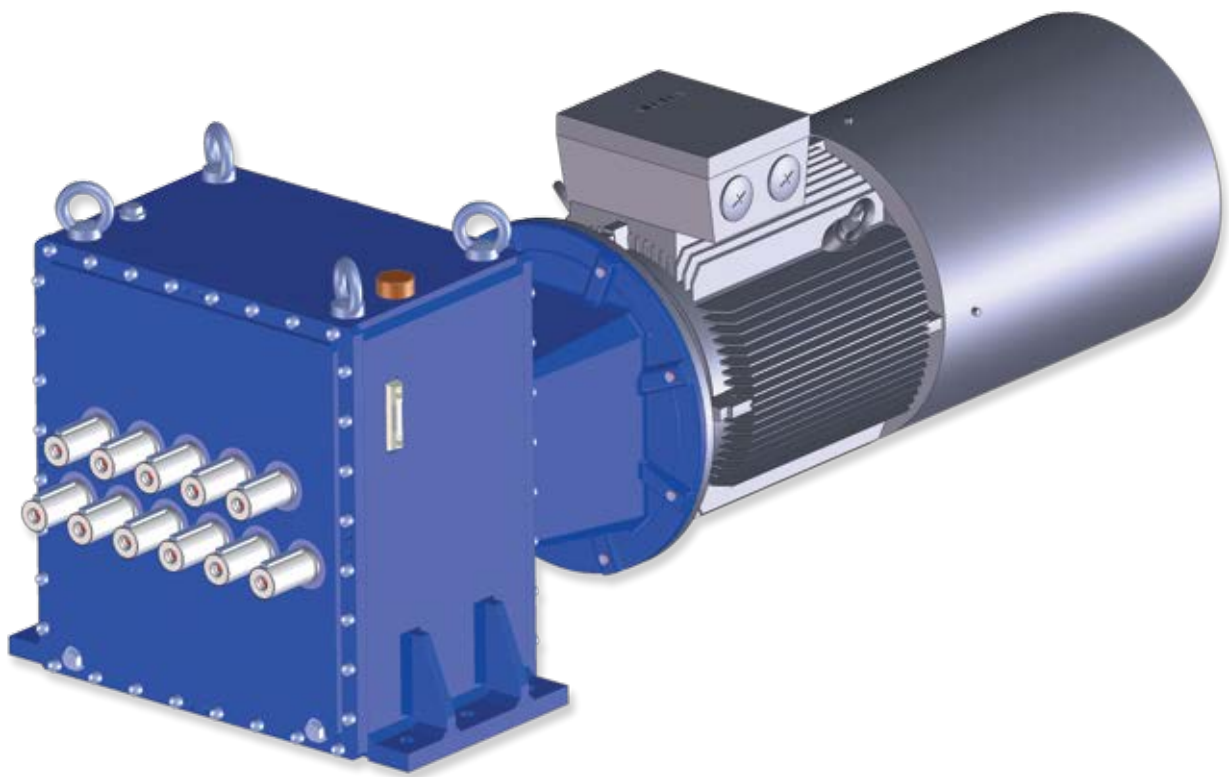


Special Gears for Capacity Levellers

Model range VG 2 - VG 21



Model range VG 2 - VG 21

Special gears for high capacity levellers

The current demand to produce high-quality steels and implement quality improvements results in an increasing need for high capacity levellers. Continuous levelling takes place with a number of levelling rollers which rotate in opposite directions and flatten the material through a set of hydraulic cylinders.

KNÖDLER has developed various spur distributor gears to drive the levelling rollers which meet the increasing demands for speed and torque. The levelling rollers can be driven by up to 21 shafts which ensure uniform and low-noise operation.

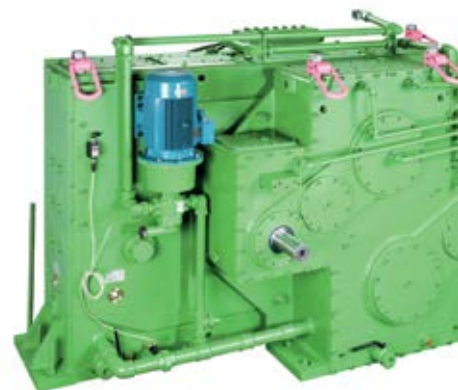
Spur distributor gear Type VG 17-220

For a major project in China, two leveller gears were supplied. The dimensions and performance data exceeded usual sizes. The picture shows a spur distributor gear type VG 17-220 with a drive power of 2x435 kW, an output speed of 80 min⁻¹ and 17 output shafts.

The transmission has the necessary cooling for the operation and injection lubrication as well as two independent countershaft transmission with 2 drive shafts for power sharing.

With more than 11 t weight and about 3 m length this is the biggest developed transmission of the company KNÖDLER and presented highest demands on design, manufacturing and logistics.

Apart from these large gears KNÖDLER also produces special gears for leveling machines in smaller sizes. These can be equipped as a modular gearbox system for different feed directions and partly with separate drive for feed rollers.



Model range VG 2 - VG 21

Spur distributor gear type VG 17-220

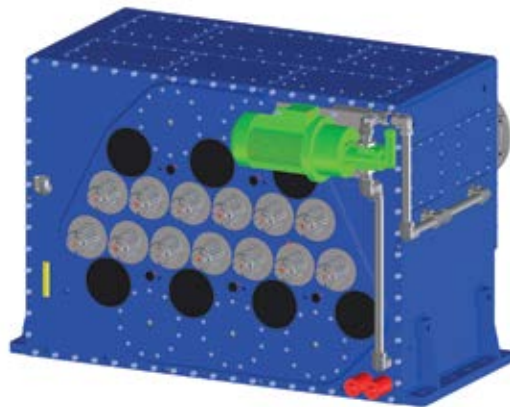
Drive power:	2 x 435 kW
Input speed:	1,148 min ⁻¹
Output speed:	79.6 min ⁻¹
Reduction:	i = 14.422 (total) i = 1:1 (shafts 1-17)
Output shafts:	17 pieces W 90x3x28x8f DIN 5480, 8 shafts above, 9 shafts below, opposite directions, position horizontal
Output torque:	104,400 Nm (total), per output shaft nominal 12,000 Nm, dynamic max. 15,000 Nm, static max. 24,000 Nm
Axis distance:	vertical 250 mm, horizontal 220 mm

- Driven by double countershaft transmission, 2 x input shaft Ø 85 x 180 mm, with keyway, drive trains internally connected
- with output Ø 45 x 60 mm for encoder, covered by a hood
- Bearing lifetime 20,000 h at nominal load

Power divider gear type VG 13

This gearbox with total 13 output shafts and a total weight of 9.5 tons was designed for a straightening machine for cut shapes and stamping parts.

Characteristics of this gear type are up to 35 gears, which are jointly engaged and supplied with complex oil jet lubrication.



Power divider gear for band and part straightening machine

Performance

- ▶ simple distributor stages or separate drive for the upper and lower drive shafts, gear trains internally synchronized
- ▶ for single- or multi-motor drive
- ▶ Drive for infeed rollers, optionally integrated into the main transmission
- ▶ Countershaft transmission of the plurality of the standard transmission program combinable, externally mounted or integrated into the power divider
- ▶ easy motor mounting via IEC flange and coupling

Technical data

- ▶ Number of output shafts: 2 - 21
- ▶ horizontal distance between the output shafts: 42 to 520 mm
- ▶ Sweeping directions left-right / right-left
- ▶ Output torques up to 30,000 Nm per shaft
- ▶ Output shafts with spline according to DIN 5480, possible cylindrical with key or special profiles

Helical bevel gear unit type KS 6000.4-S

This gearbox for tube bending machines is based on the smaller helical bevel gear units, which are already successfully in use. The magnitude of torque up to 66,000 Nm is new in this gearbox.

The main applications for this tube bending machine are e.g. axle parts for the automotive industry and exhaust systems for buses, trucks and cars.

The maximum pipe diameter is 160 x 3.5.



Consulting service

Call us if a standard gear is unsuitable for your area of application. Our experts will gladly advise you and help you to find the right solution for every technical challenge. We will also be happy to send you dimension sheets in PDF format in advance.



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