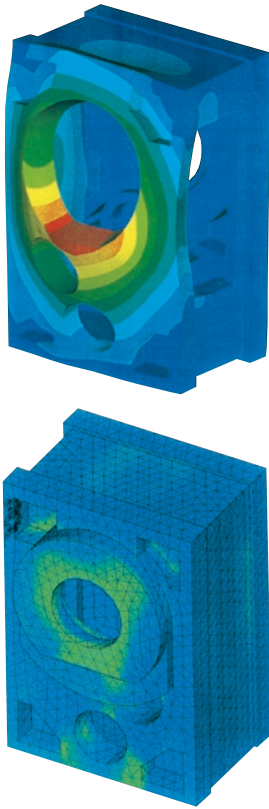


UNEX extruder gears

Customised top technology



The housing construction of the extruder gears is optimised by FEM.

STANDARD FOR HIGHEST GEAR QUALITY

Gear technology is the core of any extruder. The partially extreme drive torques lead to high permanent strain. Failures cause not only costly standstill times for the operator, but also turn into economic risks due to the connected delivery delays. Therefore, many renowned manufacturers of extrusion systems do not accept any compromises specifically in these important components and decide to use Koellmann Gear high-quality gears instead. Extruder gears by Koellmann Gear have proven their worth in thousands of plants around the world already. The proven top technology not only sets standards in reliability and longevity with its functional safety that has been unparalleled in competitive comparison, but also in customer satisfaction.

- ★ Compact, stiff ferrocast monoblock housings
- ★ Integrated pressure bearing and best lubricant supply
- ★ Specifically optimised, diagonally interlocked spur gears
- ★ Only roller bearings and shaft sealing rings of renowned manufacturers are used
- ★ Best efficiency at concurrently low sound pressure level

BENEFITS

▷ HIGHEST QUALITY

Koellmann Gear extruder gears are no modified standard products, but customised productions developed specifically for the respective area of use, made of high-quality components. All suppliers of cast parts, gears, shafts and bearings must meet the highest quality standards. This could hardly be warranted at production in low-wage countries or use of components produced there.

▷ BEST OPERATING SAFETY

Gear solutions by Koellmann Gear are deemed the best on the market. This high quality claim, which is a central part of our product philosophy, pays off for the customer. Koellmann gears have a statistic failure rate below one percent. Comprehensive and flexible service is available around the clock if interference occurs anyway.

▷ WARRANTY

With a warranty period of two years, Koellmann Gear commits to long-lived top technology.



The quality management of Koellmann Gear is certified to DIN EN ISO 9001 and VDA 6.4.

BUILDS AND ACCESSORIES

Extruder manufacturers can cover their entire gear demand with the individually customised Koellmann gears. They connect highest standardisation by compact single-part universal housings with maximum flexibility in builds, connections and accessories.

TECHNICAL DATA

- ▶ 1- and 3-stage design
- ▶ 18 sizes
- ▶ More than 500 versions
- ▶ Transmissions between 5:1 and 100:1
- ▶ Maximum output torques up to 200,000 Nm (under extruder conditions)

INSTALLATION SOLUTIONS

- ▶ Universal installation positions
- ▶ Z-, U- or angle build

OPTIONS OF LUBRICANT MONITORING

- ▶ Temperature monitoring
- ▶ Flow-rate monitoring
- ▶ Pressure monitoring
- ▶ Oil filter
- ▶ Level monitoring
- ▶ Particle monitoring

COOLING VERSIONS

- ▶ Integrated cooling coil
- ▶ External heat exchanger

LUBRICATION VERSIONS

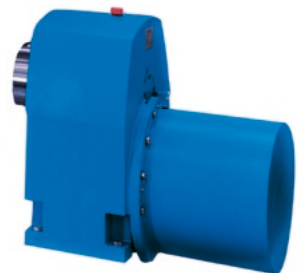
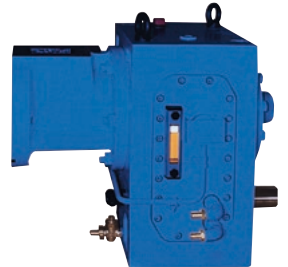
- ▶ Submersion lubrication
- ▶ Forced-feed lubrication

CUSTOMER-SPECIFIC INPUT DESIGNS

- ▶ Elastic coupling
- ▶ V-belt drive
- ▶ Motor lantern for attachment of a B5 motor
- ▶ Motor base
- ▶ With motor on request

CUSTOMER-SPECIFIC OUTPUT DESIGNS

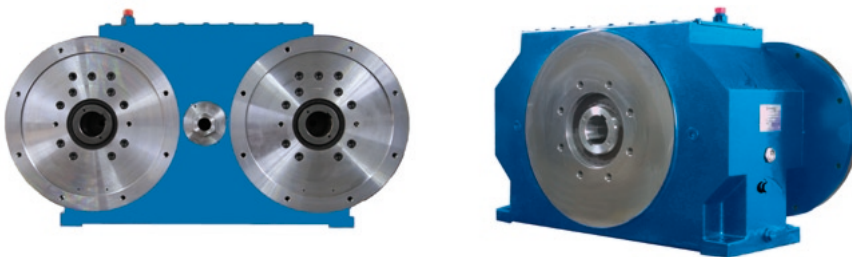
- ▶ Cylinder and screw connection according to customer specifications
- ▶ Cooled output lanterns in the intake area
- ▶ Screw extension possible by output shaft



Example: Gear
wizh torque motor

MORE MOTOR TECHNOLOGY

- ▶ Gear driven via 2 motors
- ▶ Use of standard-ICE-motors
- ▶ Free choice of the motor manufacturer
- ▶ Motors connected directly to the gear with flanges, short, compact build of the drive unit
- ▶ Removal of the motor without disassembly of the gear by deep-hole-drilled input shafts
- ▶ Screw extension optionally also backwards through the gear



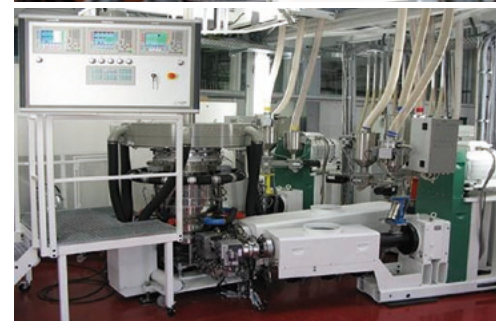
Example: 2-motor-technology

APPLICATIONS

Koellmann gears have been developed specifically for use in extruders. This permits a compact build with high performance density and long service life to be economically reconciled.

The wide usage range goes from the plastic or rubber-processing industry to recycling plants and food production.

- ▶ Systems for cable and pipe coating
- ▶ Production of plastic profiles and pipes
- ▶ Production of fuel tanks for the automotive industry
- ▶ Film-blowing systems for the packaging industry
- ▶ Blowing systems for plastic containers
- ▶ Extruders for rubber profiles
- ▶ Flat-film production



GLOBAL SERVICE

The special strengths of Koellmann Gear include comprehensive service for gears. The works customer service offers periodic maintenance as well as quick and unbureaucratic help in case of damage. A perfectly trained service team permits short times to reaction and global installer deployments.



PERFORMANCE RANGE

- ▶ Technical support (solutions for lubrication, cooling, monitoring components, changes to the technical data)
- ▶ Preventive maintenance (e.g. visual assessment / endoscopy, frequency analysis, oil analysis)
- ▶ Damage assessment (assessment / measurement of all components)
- ▶ Repairs, general overhauls (also for third-party gears)
- ▶ Replacement deliveries (continuous supply of interlocks, roller bearings, cooling coils, heat exchangers, motor pumps and other wear and standard parts)
- ▶ Training (for sale, construction and maintenance)



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