



FLENDER GEAR UNITS

# SET YOUR OWN STANDARD

The highest quality standard for  
reliable and efficient operation with  
Flender extruder gear units.

# EXTRUSION MADE EASY: EXTRUDER GEAR UNITS BY FLENDER

Experience. Performance. Reliability. We've been making extruder gear units for more than 50 years. During this time we have developed a wide variety of process optimized solutions in close cooperation with our customers. This expertise is reflected in our extruder gear unit series. Our gear units provide the highest degree of reliability for all applications in the plastics and rubber industry as well as in many other areas of the chemical and food sectors.

Our engineering competence and experience and a broadly positioned portfolio help us adapt quickly to changing process requirements such those found in recycling, for example.

## Flender – the top choice for extruder gear units

The combination of many years of application experience and the resulting expertise create the foundation for an extensive gear unit portfolio consisting of both standardized and specially adaptable extruder gear units. The emphasis here is always on our high quality requirements. This means our extruder gear units are among the most reliable and efficient on the market and they guarantee maximum plant availability. That makes Flender a dependable and competent partner all over the world.

Based on more than 50 years of experience, we now have an extensive gear unit portfolio that has developed continuously together with the requirements of the extruder industry.

### Your benefits

#### Efficiency

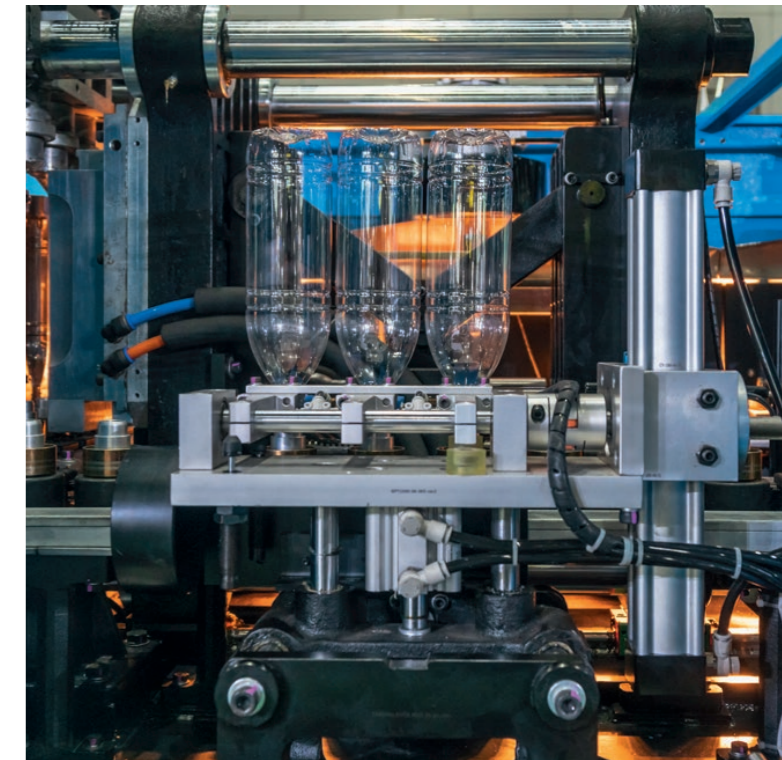
The efficiency of the standardized extruder gear units is already very high, but to boost it to an even higher level, the gear toothing can be manufactured with a geometry optimized for the extruder load spectrum based on customer requirements.

Another aspect that affects efficiency is gear unit cooling and lubrication. Here we also offer the option to customize or adapt our standardized solution to meet the needs of the specific application. In this case, the emphasis is on the shaft bearing and the shaft seal.

#### Reliability

In addition to our transparent, premium quality process, which includes key factors of certified raw material suppliers with regard to implementation, expertise and research in the area of heat treatment and oil, a project and development engineering team contributes to high reliability.

In the engineering phase, the dimensioning of the gear unit elements is designed such that the process forces and torques resulting from the extrusion process can



*Top-flight quality management and the most advanced test bench equipment ensures the continuous operation of our gear units in the demanding conditions of manufacturing plastic products.*

be accommodated safely and securely. In this way, the interaction among all gear unit elements is perfectly coordinated, which ensures the highest reliability.

#### Service expertise

In design, we always pay special attention to the gear unit components that are subject to wear. First of all, they are designed and utilized to achieve maximum service life and sustainable resource use. And second, there is always an option to replace them. Our global service organization is always available to you with technicians for on-site service or in local service centers. In addition, most of the wear parts are included in our stock so that they can be delivered to you quickly as needed in case of brief downtimes. Flender offers complete service internationally – across the entire product life cycle.

# COMPACT DESIGN AND RELIABLE TORQUE TRANSMISSION: SINGLE-SCREW EXTRUDER GEAR UNITS

The Flender gear unit product range provides outstanding coverage of the broad application spectrum of single-screw extruder gear units and the resulting requirements. Here the single-screw extruder gear unit portfolio relies on the gearing elements from the Flender standard product range. In this way, we can guarantee not only the highest production quality and related durability, but also a high degree of parts availability for short delivery times.



*Countless profiles are extruded. Powerful gear units significantly affect process efficiency and productivity in this case.*



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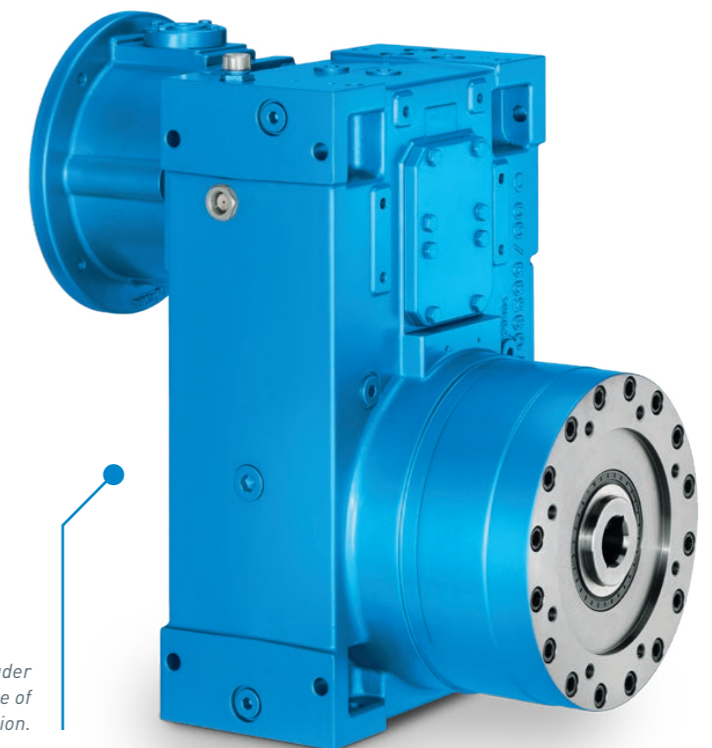
## Standardized single-shaft extruder gear units

Our single-screw extruder gear units in the standard product portfolio in the torque range from 4,000 Nm to 173,000 Nm are characterized by a robust housing design developed for the special requirements of extrusion.

This was the basis we used to create a gear unit that combines maximum flexibility in terms of machine interface with the highest degree of standardization. Every day, for over 20 years, we prove that you can trust us and the high reliability of this gear unit series.

## Customer-specific single-shaft extruder gear units

For extrusion applications with torque requirements exceeding 175,000 Nm and up to 1,400,000 Nm we offer solutions based on our standard portfolio for helical gear units. Here the design and arrangement of the application-specific extruder components is based on your specifications.

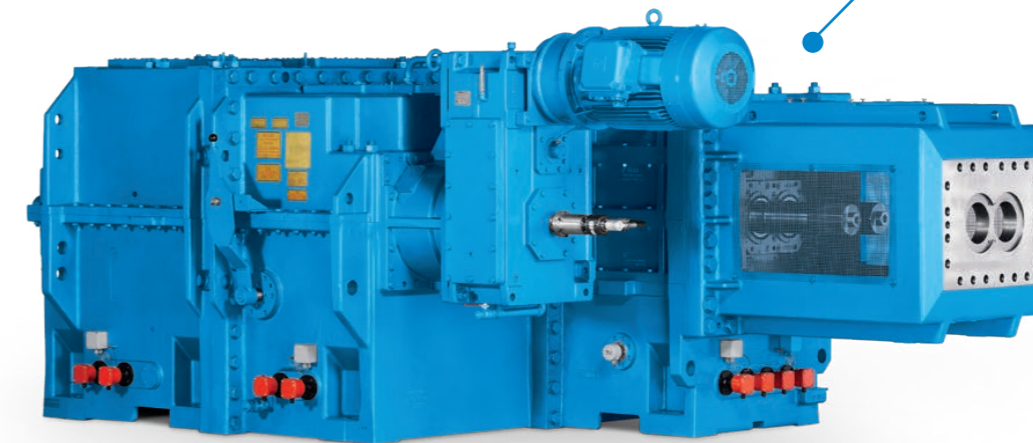


*Type E2/3HA – the single-screw extruder gear unit with both a high degree of standardization and a flexible machine connection.*

# EXCELLENT POWER DISTRIBUTION: CO-ROTATING AND COUNTER-ROTATING DOUBLE-SCREW EXTRUDER GEAR UNITS

Flender also offers a large number of double-screw extruder gear units. The portfolio includes two basic series for co-rotating gear units and one basic series for counter-rotating gear units. Together, they cover a broad extrusion application range.

In addition to the standardized basic series, in close cooperation with you we can also manufacture individually adapted double-screw extruder gear units customized precisely to meet your specific requirements.



A powerhouse – the double-screw extruder model 261F offers extreme capacity in the tightest of spaces.

## Parallel co-rotating output shafts

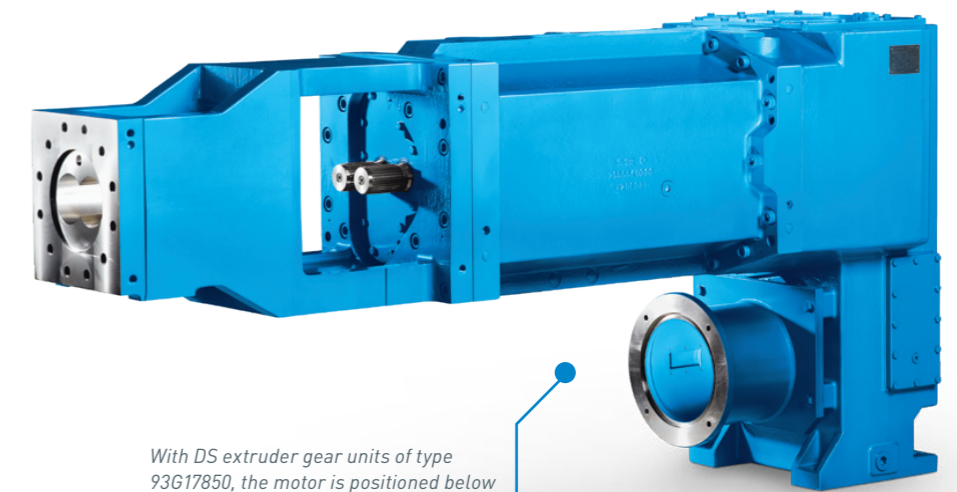
Flender has two basic series for parallel co-rotating double-screw extruder gear units: one basic series for applications with low specific extruder torques up to 10 Nm/cm<sup>3</sup> and one for applications with high specific extruder torques up to 18 Nm/cm<sup>3</sup>. Here the basic series cover extruder torques up to 110,000 Nm. Most often, the factor that differentiates double-screw extruder gear units with special requirements is their size alone. Here extruder torques up to 960,000 Nm are required in addition to other special needs. With all of the gear units, you benefit from optimum torque density.

**Applications:**  
Compounding, films, foam, ABS ...

## Parallel counter-rotating output shafts

Flender offers a standardized solution for parallel counter-rotating double-screw extruder gear units. The basic series for applications with high specific extruder torques up to 24 Nm/cm<sup>3</sup> covers extruder torques up to 150,000 Nm. Here you can also benefit from optimum torque density.

**Applications:**  
Pipes, profiles, sheets ...



With DS extruder gear units of type 93G17850, the motor is positioned below the application.



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Further information about  
single-screw extruder gear units:  
[www.flender.com/en/Products/Gear-Units/  
Single-Screw-Extruder-Gear-Units/p/  
single-screw-extruder-gearunits](http://www.flender.com/en/Products/Gear-Units/Single-Screw-Extruder-Gear-Units/p/single-screw-extruder-gearunits)



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p/double-screw-extruder-gearunits](http://www.flender.com/en/Products/Gear-Units/Double-Screw-Extruder-Gearboxes/p/double-screw-extruder-gearunits)



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Contact form:  
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