

New product Flender One

Flender introduces the gear unit of the future

- **New, single-stage helical gear unit with reduced power loss and significant savings in operating costs**
- **Focus on sustainability: resource conservation through precisely tailored sizing and energy-efficient operation**
- **Unique combination of product design, gear unit intelligence and digitalization**

The requirements placed on industrial gear units are as varied as the applications in which they are used. In almost all sectors and industrial processes, machines are driven and torques are transmitted. In most cases, different performance requirements, ambient conditions and installation positions make an individual gear unit solution necessary. It must be both cost- and energy-efficient, and quickly available. So far, this combination of customized design, efficiency and delivery time always left plant manufacturers and operators with the answer: not possible.

With Flender One, drive specialist Flender now introduces a gear unit solution that combines all this in one product. Flender One is the completely redesigned version of the single-stage helical gear unit that has long been the global benchmark in the paper industry and other industrial applications. Thanks to a revised housing design and optimized gear set, the new generation of these gear units lowers operating costs while making the most efficient use of resources possible. In addition, users benefit from fast and smart configuration options that greatly simplify the selection process. Thus, the gear unit delivery is accelerated.

Lower operating costs and energy consumption

The new iF Award-winning Flender One product design features a 35 percent larger housing surface. Thanks to the distinct cooling ribs, the thermal capacity increases significantly. Depending on the application the need for additional, external cooling

of the gear unit is eliminated. This saves valuable energy and thus costs in operation. The optimized Metaperform® gearing also reduces power loss by up to 50 percent compared with previous solutions. This is made possible by improved rolling behavior and the even more uniform contact surfaces of the gearing.



The new Flender One received the iF Award for its innovative design.

In times when climate change is one of the greatest challenges facing mankind, energy efficiency and sustainable product solutions take on a special significance. Flender One lives up to this as it is designed and dimensioned precisely for the application, not wasting unnecessary raw materials and resources. Flender engineers have succeeded in developing the world's narrowest gear ratio range with 103 steps between 1 and 7.1 per size. This allows the ratio to be optimized for maximum efficiency. The deviation between the desired speed and the available, technical solution is 1.5 percent at most. "Our goal is to make the world more sustainable together with our customers and partners. This is what our products stand for. With Flender One, our customers receive a completely new type of gear unit solution, precisely tailored to their application, exactly according to their requirements and preventing waste while utilizing the smallest drive concept possible. The reduced energy requirement during operation also helps to protect resources," says Andreas Evertz, CEO of the Flender Group.

Intelligence in configuration and operation

Flender One is unique in linking product design and digital services throughout the entire life cycle - from ordering to operation in the plant. Flender's new gear unit intelligence AIQ® is included by default in Flender One for the first time and provides plant operators with valuable information about the gear unit during operation, thanks to integrated sensor technology and extensive analysis functions. Operating states can be easily monitored via app and online portal if desired.

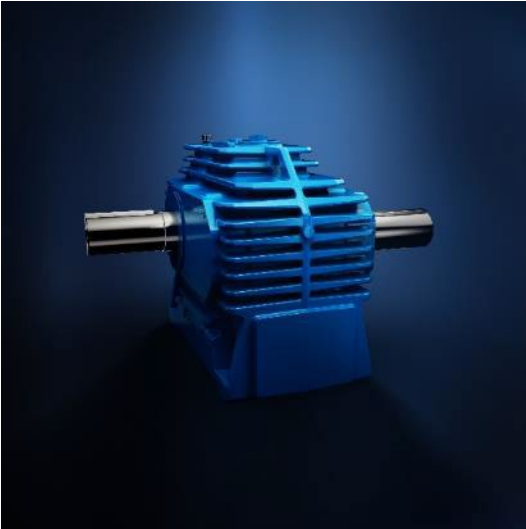
Detailed condition monitoring of the individual components detects deviations from the optimum at an early stage and enables potential failures to be predicted.

Operators are thus able not only to control the drivetrain and processes, but to optimize them. This results in reduced wear at constant performance and increases the availability of production plants.

A novelty in drive technology will also be the new product configurator, which was developed in cooperation with the digitalization partner adesso. Customers will soon be able to configure their customized gear unit online with just three pieces of information: Application, power and speed. More detailed parameters can also be added. Within seconds, the 3D data and a 360-degree preview of the gear unit are available. Flender based the development of the configurator on customer requirements. "We offer to take the time-consuming preliminary considerations off our customers' hands. We no longer ask for the specifications and features of the gear unit, but only for the desired benefits. Customers tell us how and where they want to use the gear unit, and we guide them which gear unit with which functions they need for this purpose," says Dr. Jan Reimann, Flender One project manager.

"Flender One is a step towards a completely new customer experience in drive technology. We are convinced that Flender One is not only a milestone, but also a worthy successor to the previous single-stage gear unit. We have understood the customer's wish to be able to obtain a suitable gear unit solution easily and at the same time with maximum precision. The customer can look forward not only to a new gear unit, but also to a faster ordering process and optimized operation throughout the entire life cycle thanks to AIQ®. This is a unique gear unit solution in the market," says Rouven Daniel, President Industrial Gears at Flender.

Flender One will be used primarily in the paper industry and in industrial pump applications. It can be ordered worldwide from Flender sales contacts as of September 15.



This press release and press pictures are available at
www.flender.com/company/press.

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Flender headquartered in Bocholt, Germany, is a leading global supplier for mechanical and electrical drive systems and has the reputation for highest performance, innovation, quality, and reliability of drive components for more than 120 years. Flender offers a broad variety of gear units, couplings and generators and associated services, with a focus on key industries such as wind power, cement, mining, oil & gas, power generation, water and wastewater, marine, conveyor and crane technology. Flender products and services combine the latest technology with extremely high quality and have been reliably providing the optimal transmission of power for decades. Flender has around 8,700 employees globally. Further information is available on the Internet at www.flender.com.