Services for Mechanical Drives
Portfolio overview
Siemens FLENDER Services – We care for our customers!

We care for our customers

We understand our customers' challenges and make their goals our goals by providing tailored services throughout the entire lifecycle.

| Nevzat Oezcan |
Senior Vice President
Services for Mechanical Drives
We know what our customers need

We are offering you a comprehensive service portfolio for every product in the Flender portfolio of gear units and couplings and for your third-party products as well.
Services for Mechanical Drives –
Our service portfolio for gear units and couplings at a glance

- Technical Support
- Remote Monitoring Services
- Mobile Services
- Support and Consulting Services
- Training Services
- Digital Services
- Extended Warranty
- Spare parts and repair packages
- Spare parts on demand
- Spare units
- Asset Optimization Service
- Repair Services
- Field and Maintenance Services
- Retrofit and Modernization Services
- Installation
- Commissioning
- Inspection
- Preventive maintenance
- Corrective maintenance
- One-to-one replacement
- Replacement with a state-of-the-art product
- Modification of parameters
- General overhaul
- Special investigation
- Standard repairs
- Repair analysis
- Special investigation
- General overhaul
- Standard repairs
- Repair analysis
- One-to-one replacement
- Replacement with a state-of-the-art product
- Modification of parameters
Keep your machines running with Digital Services

Digital Services

Maximize your plant's performance with data-based services

Gear Unit Condition Monitoring

- Remote Monitoring Services
- Mobile Services
Increased plant availability and reliability ensured by continuous monitoring and transparency

Digital Services > Gear Unit Condition Monitoring > Remote Monitoring Services

With online Condition Monitoring systems, Siemens provides a diagnostic tool optimally tailored to the individual requirements of plant operators. Our Remote Monitoring Services enable condition-oriented maintenance. Diagnostic know-how from drive experts, combined with the Siemens SIPLUS CMS hardware, considerably expands the options of normal machine protection.

Your benefits at a glance:

- Plannable maintenance activities
- Optimized spare parts management
- Reduced maintenance costs through early detection of wear-related anomalies
- Avoiding failures caused by mechanical overloads
Increased plant availability and reliability ensured by continuous monitoring and transparency

Remote Monitoring Services

- **Remote Monitoring Services for Standard Gear Units** covering a wide range of standard applications including drives for belt conveyors, bucket elevators, compressors, pumps, water turbines
- **Remote Monitoring Services for Application Gear Units** such as gear units for tube and vertical roller mills as well as planetary and extruder drives
- **Torque Monitoring** for all gear unit types

How it works:
- Online data collection and recording
- Transfer of the measured data to our Expert Center by secure data communication
- Qualified data analysis and diagnosis by our experts
- Concrete action recommendations as well as early warnings in the event of failure
Increased plant availability and reliability ensured by condition monitoring

Digital Services > Gear Unit Condition Monitoring > Mobile Services

Mobile Services offer a flexible and cost-effective solution for both Standard and Application Gear Units. Measurements are carried out using hand-held devices on site by Siemens service professionals at regular intervals or when required e.g. in troubleshooting cases. Data evaluation and diagnosis are carried out by our competent expert team.

Your benefits at a glance:

- Plannable maintenance activities
- Optimized spare parts management
- Reduced maintenance costs through early detection of wear-related anomalies
Exactly the right level of support and competence – and precisely tailored to suit your needs

Support and Consulting Services

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Benefit from comprehensive information about every aspect of your equipment
Our specialists offer support in resolving any issues relating to functionality or the operation of products.

Support and Consulting Services > Technical Support

Technical Support

Technical queries about products can arise at any time. Our specialists are happy to provide you with individual technical support via telephone or e-mail for all questions concerning the function, handling, application and troubleshooting of Mechanical Drives products.

Your benefits at a glance:
- Greater degree of planning reliability
- Optimal engineering efforts
- Improved availability of machinery
Increase your plant availability by optimizing your spares inventory

Spare Parts Services

Ensure optimum spares provisioning based on plant-specific spare part and repair packages

Service Offerings

- Spare parts on demand
- Spare part and repair packages
- Spare units
- Extended warranty
- Asset Optimization Service
Quick support when you need spare parts

Spare Parts Services > Spare parts on demand

To be able to supply you with spare parts at short notice, we keep numerous spare parts in stock – ready to dispatch anywhere in the world. We are offering express delivery of parts for urgent cases.

Your benefits at a glance:
- Spare parts of original manufacturer quality
- Supply of spare parts on demand for up to 10 years after product discontinuation
Individually assembled spare parts packages ensure that defective components can be replaced quickly

Spare Parts Services > Spare part and repair packages

Siemens offers tailored spare part and repair packages for standard and application specific gear units. The packages are predefined and contain the right set of components - including the suitable mounting accessories - for the respective type of breakdown. To prevent particularly expensive machine downtimes, plant operators can prepare themselves just in case by stocking parts on site.

Your benefits at a glance:
- Plannable repair activities
- Improved plant availability
- Increased productivity thanks to faster repair of damages
- Reliable spare parts availability
Spare gear units to minimize unplanned down time

We are offering you spare gear units based on your demand, for example, to replace defective equipment or for stocking on site to have it at hand and immediately available when needed.

Your benefits at a glance:
- Improved plant availability
- Plug-and-play solution
Extended warranty to increase transparency of operating costs

Spare Parts Services > Extended warranty

For spare gear units, we are offering an option of extending the liability for defects period beyond the normal period.

Your benefits at a glance:
- Greater transparency of machine or plant operating costs
- Lower economic risk thanks to improved plannability
Individual spare parts provisioning concepts based on a risk assessment conducted jointly with the customer

Spare Parts Services > Asset Optimization Service

In order to help you achieve an optimum balance between plant availability and capital, we are offering you individual concepts on spares provisioning. Based on the analysis of plant inventory and available spares in stock we develop tailored recommendations for actions.

Your benefits at a glance:

- An optimized inventory helps you react quickly and therefore maximize the availability of your machinery
- Reducing stocks of spare parts helps to cut costs
Professional repair services to maximize your efficiency and productivity

Repair Services

Benefit from a wide range of repair services – both in-house and on-site – supported by a global service network

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Greater transparency with repair analysis

Repair Services > Repair analysis

With repair analysis service we are offering a complete product assessment with a final report as well as preliminary estimation of repair cost and duration if technically possible.

Your benefits at a glance:
- Transparency over the services carried out through reports
- Greater degree of planning reliability
Our service specialists are the right people to contact in case your product develops a defect

Repair Services > Standard repairs

The standard repair service includes all necessary measures to investigate the condition of a product and restore its functionalities through either repair or replacement of the damaged parts or assembly groups.

Your benefits at a glance:

- Repairs on the high quality level of the manufacturer
- Transparency over the services carried out and the parts used through repair reports
- Worldwide network of certified workshops
Our experts always get to the bottom of the problem, even in difficult repair cases

Repair Services > Special investigation

If you wish to receive information on the error cause which goes beyond the scope of a standard repair, there is an option of ordering a special investigation. The purpose of a special investigation is not only to identify the failure cause but also to determine sustainable countermeasures.

Your benefits at a glance:
- Identification of fault causes
- Reduction in the incidence of expensive consequential and repeat faults
- Complete transparency when faults become costly
Enhanced productivity of machines and plants due to more efficient components

Repair Services > General overhaul

Within the general overhaul we assess the current condition of equipment, perform an oil change, replace all wearing and aging parts according to their specified lifetime and prepare a detailed report.

Your benefits at a glance:

- Prevention of stoppages due to replacement of parts that are subject to wear and age
- Reduction in unscheduled plant down times
- More reliable production
- Improved plant availability
- Reduction in lifecycle costs
Professional installation, commissioning and maintenance measures for maximum plant availability

Maximize your plant availability by using the professional installation, commissioning and corrective maintenance services provided by our experts.

Service Offerings

- Installation
- Commissioning
- Inspection
- Preventive maintenance
- Corrective maintenance
Expert installation by Siemens specialists for smooth operation of your equipment.

Field and Maintenance Services > Installation

Complex equipment needs to be expertly installed and commissioned to ensure its long lifetime. Our installation service includes gear units set up, fastening on the base plate, an establishment of the mechanical linkage with the neighboring drive train components.

Your benefits at a glance:
- Highly flexible service and an excellent cost-benefit ratio thanks to worldwide network of specially trained personnel
- Extensive product know-how
Complex equipment needs to be expertly installed and commissioned to ensure its long lifetime. Siemens is offering a worldwide network widely experienced commissioning personnel to provide you with this service which covers installation check, entire drive train alignment and connection to the power line, oil filling and a test run.

**Your benefits at a glance:**

- Highly flexible service and an excellent cost-benefit ratio thanks to worldwide network of specially trained personnel
- Extensive product know-how
Scheduled maintenance downtimes instead of unscheduled production stoppages

Field and Maintenance Services > Inspection

Inspection and preventive maintenance need to be carried out regularly, especially on machinery operating continuously in a harsh environment. The goal of your inspection service is to identify and assess the actual equipment condition by either visual inspection or endoscopic inspection of the internals. A final report with action recommendations is included.

Your benefits at a glance:

- Scheduled maintenance downtimes instead of unscheduled production outages
- Planning of inspection and preventive maintenance intervals to suit operating conditions
- Optimum performance of plants and systems
Increase the lifetime of your equipment by having the core components checked out regularly

Field and Maintenance Services > Preventive maintenance

Maximize your equipment availability by choosing our preventive maintenance service. Regular maintenance measures defined based on the products’ age and operating hours will help you keeping equipment in optimal operating condition.

Your benefits at a glance:

- Scheduled maintenance downtimes instead of unscheduled production outages
- Planning of inspection and preventive maintenance intervals to suit operating conditions
- Optimum performance of plants and systems
Corrective maintenance ensures optimum availability of industrial plants around the world

Field and Maintenance Services > Corrective maintenance

Corrective maintenance

To resolve unplanned equipment downtimes as quickly as possible we are offering a fault correction service for your equipment worldwide – in the form of an emergency service if necessary. The scope of this service includes troubleshooting, error cause identification, repair or replacement of defective components and provision of a final report.

Your benefits at a glance:
- Improved plant availability
- Repairs on the high quality level of the manufacturer
- Transparency over the services carried out and the parts used through repair reports
Use Siemens retrofit services to extend the lifetime of your equipment

Retrofit and Modernization Services

Service Offerings

- One-to-one replacement
- Replacement with a state of the art product
- Modification of parameters

Optimize the availability and reliability of your installed equipment by retrofitting existing products.
Particularly ideal for old and tried-and-tested configurations

Retrofit and Modernization Services > One-to-one replacement

The option of retrofitting a one-to-one duplicate of the original gear unit can be attractive in special cases, particularly for drive trains that have already reached a very long lifetime. In this case, original parts are replaced by an identical new part.

Your benefits at a glance:
- The core features of tried-and-tested drive trains remain unchanged
- Increased equipment availability
- Lower down time risks
- Reduced unplanned standstill times

Thanks to its 120 years expertise, Siemens has access to original design plans worldwide. As a result the new gear unit is an exact fit with the existing drive train.
Retrofit existing products and systems with state-of-the-art technology

Retrofit and Modernization Services > Replacement with a state-of-the-art product

Often it is possible to replace obsolete equipment with state-of-the-art products. In this case, best suitable gear units are selected from the current product range. If any modifications are necessary, these can be carried out at the factory or on site.

Your benefits at a glance:
- Investment costs are generally the lowest
- Increased equipment availability
- Improved spare parts availability
- Less maintenance effort for advanced product lifecycle
- Lower down time risks and reduced unplanned standstill times

• A suitable gear unit is selected from Siemens’ state-of-the-art product range
• Any customization that may be needed can be carried out in the factory or on site
**Customized solution for greater efficiency**

Retrofit and Modernization Services > Modification of parameters

Modification of parameters is an optimal choice in case the existing gear unit has to be modified to fit with a new working machine. Here, for example, a gear unit ratio, torque or shaft dimensions can be modified depending on the specific requirements.

**Your benefits at a glance:**
- Increased equipment availability
- Investment costs are lower compared to a new product

- Parameters of existing gear unit can be modified if needed
Siemens is your reliable partner

You want to find out more?

- **Gear Unit Condition Monitoring**
- **Retrofit for Gear Units**
- **Spare part and repair packages for Flender gear units**