

25
YEARS'
GESILCO

THE FIBRE
COMPOSITE
PRODUCT LINE
BY GEISLINGER

GEISLINGER® 
COUPLINGS AND DAMPERS. BUILT TO LAST.

**BUILT TO LAST.
THE COMPACT AND
LIGHTWEIGHT GESILCO®
DESIGN PAVES THE WAY
FOR GREAT OPPORTUNITIES.**

For 60 years Geislinger has been driven by its inventive spirit to develop innovative product solutions. This anniversary coincides with 25 years of experience in developing and manufacturing the lightweight Gesilco® fibre composite product line. Our Gesilco® coupling was the first one of its kind made from fibre composites for marine applications. Gesilco® products are customized for specific applications and are characterized by their lightweight design. This results in a weight reduction of up to 90% compared to standard solutions and leads to a significant improvement in the dynamic drivetrain behavior. Gesilco® products are maintenance-free, resistant to heat, frost, oil and offer electrical insulation as an option. The use of advanced materials and our state-of-the-art manufacturing methods give customers a competitive edge in the race for reduced weight, improved reliability and lower operating costs. Every Gesilco® product is customized to each application. The intense collaboration and exchange between the Geislinger R&D department, the production team, and our focus on tailor-made solutions gives Geislinger Gesilco® products a unique advantage. At Geislinger, we believe that the secret to creating the best product solution for our customers is to precisely design and craft every key element. With over 25 years of experience in manufacturing composite materials, we have learned how to get it exactly right.

ADVANTAGES

- Up to 90% weight reduction compared to standard product solutions
- Maintenance-free
- High misalignment capacity with minimum reaction forces
- Homokinetic torque transmission
- Advanced fibre composite material
- Tailor-made solutions
- Significant improvement in the dynamic drivetrain system behavior
- Most advanced torsional rigid displacement couplings and shafts
- Modular coupling and shaft solution
- Resistant to heat, frost and oil
- Improved reliability and reduced operating costs

25
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GESILCO



GESILCO® PRODUCT LINE



Gesilco® Butterfly

Coupling for short installation lengths

The Gesilco® Butterfly is a maintenance-free misalignment coupling. The membranes of the coupling are made of lightweight and highly flexible composite materials in order to achieve the lowest reaction force possible, which increases the system's reliability by protecting the driveline and bearings from possible overloads. This unique coupling is suitable for a wide range of applications. Its multiple designs make it compatible with a variety of connection interfaces.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power



Gesilco® Classic

Coupling for high misalignment compensation

The lightweight Gesilco® Classic misalignment coupling consists of two membranes and an intermediate shaft made of advanced composites. The membranes and the intermediate shaft are bonded together on the inside diameter of the membrane by a tapered collar. The membrane and intermediate shaft are constructed as a single piece. This compact Gesilco® coupling with high misalignment properties is often used for high speed and shock sensitive applications.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power



Gesilco® Monobrane

Coupling for long installation lengths

The Gesilco® Monobrane misalignment coupling consists of one single membrane made of advanced composite material. The Monobrane coupling is the modified design of the Gesilco® Butterfly Coupling. While the design of the Monobrane and Butterfly membrane is the same, the intermediate flange is arranged with a smaller diameter. This design allows the coupling to be directly connected to a Gesilco® composite shaft-line and therefore increases the misalignment capacity of the system.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power

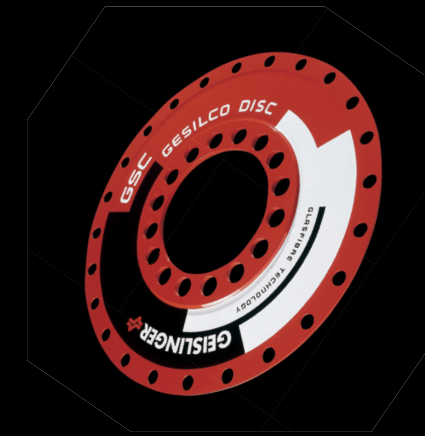


Gesilco® Composhaft

Coupling with modular installation concept

The Gesilco® Composhaft misalignment coupling consists of two double membranes and an intermediate shaft made of advanced composite materials. The membranes are corrugated with a decreasing wall thickness as the diameter increases. The superior advantages of the corrugated membrane design, in comparison to a flat membrane, are a higher deflection capacity and lower, almost linear reaction forces.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power



Gesilco® Disc

Electrically insulating coupling solution

The Gesilco® Disc coupling is specifically designed for closed coupled generator sets. The flat membrane allows the transmission of high torsional vibratory torques and radial forces at high engine speeds. The Gesilco® Disc with its homokinetic, non-magnetic and non-conductive properties, is a maintenance-free coupling solution, which can even be used in rough environmental conditions.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power



Silenco®

Coupling with high acoustic sound attenuation

The Silenco® coupling is an acoustically optimized misalignment coupling. It consists of flanges, maintenance-free composite membranes with increased damping properties, composite shafts, and steel spacers. The coupling provides resistance to heat, frost, oil and offers electrical insulation as an option. Depending on the acoustical needs and the required torque, different versions of flanges, membranes and shafts are available.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas, Wind Power

GESILCO® PRODUCT LINE



Compowind®

Coupling for double digit MNm class

The Compowind® is based on an innovative concept of lightweight and maintenance-free fibre composite membranes. Installed between the rotor hub and the gearbox, the low-speed misalignment coupling protects the gearbox and the whole drivetrain by significantly reducing non-torque loads and enables the gearbox to be mounted rigidly onto the main frame. As a result, bending modes and dynamic effects are eliminated. The reliability and life time of the wind turbine increases noticeably, resulting in reduced operational costs. The Geislinger Compowind® is resistant to heat, frost, salt water, oil and offers electrical insulation as an option.

Applications: Wind Power

Gesilco® Shaft

Lightweight, maintenance-free shaft solution

The Gesilco® shaft lines are made of advanced composite material and are characterized by their one-piece manufacturing with an integrated fibre flange connection. The Gesilco® shafts can easily be adapted to your requirements. Complete packages with steel adapters, bearings, bulkhead seals and Gesilco® composite misalignment couplings are possible. Outstanding shock capabilities and good acoustic attenuation further underline the use of Geislinger shafts for vessels running at high speeds.

Applications: Marine, Wind Power, Cooling Towers, Industrial Applications

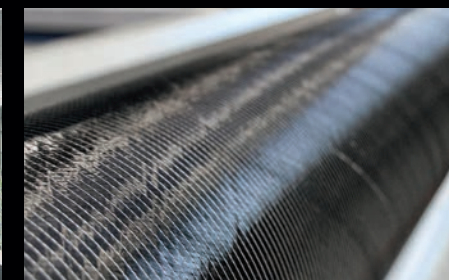
Carbotorq®

Lightweight torsional elastic coupling

The Carbotorq® is a lightweight maintenance-free elastomer coupling. It is designed to minimize reaction forces and bearing loads. Its innovative design provides torsional elasticity and misalignment capacities. The torsional elastic component is bonded between fibre composite membranes which provide elasticity and high internal damping properties.

Applications: Marine, Power Generation, Rail, Mining, Oil & Gas

MANUFACTURING, DESIGN AND CALCULATION BY GEISLINGER



CUSTOMIZED SOLUTIONS BY GEISLINGER

- In-house Design, Torsional Vibration Calculation (TVC), Whirling Calculation and Production
- State-of-the-art manufacturing methods with advanced composite materials
- The tight integration between R&D and production enables customized solutions for your specific needs

The compact and lightweight Gesilco® design paves the way for great opportunities.

The design, size, function and fibre angles of our Gesilco® products can be adapted to the specific requirements of your application. Acoustically optimized product solutions are possible as well.





LIGHTWEIGHT



TAILOR-MADE



MAINTENANCE-FREE

geislinger.com