APPLICATION GUIDE

MARINE
RAIL
MINING
OIL & GAS
POWER GENERATION

GEISLINGER®
COUPLINGS AND DAMPERS. BUILT TO LAST.

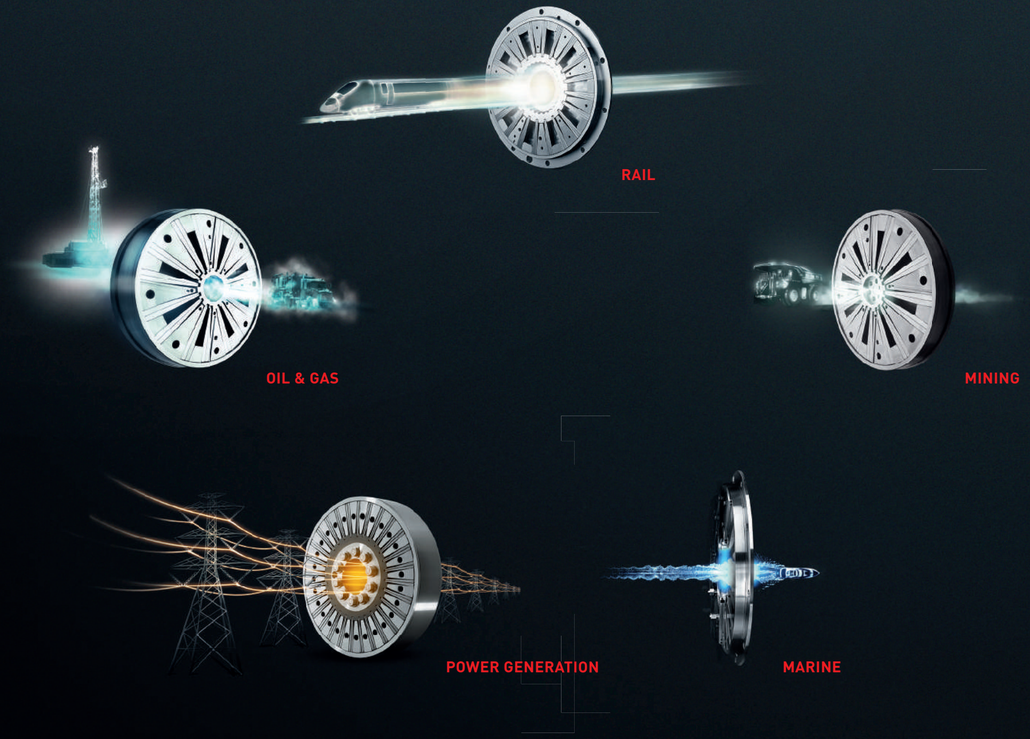
GEISLINGER.
LEADERS IN ENGINEERING.

Geislinger develops and produces torsional vibration dampers, torsional elastic, high-damping couplings, misalignment couplings, composite shafts and torsional vibration monitoring systems for large diesel and gas engines. Geislinger products are used in sectors such as marine, mining, oil & gas, rail, power generation and wind power.

Every Geislinger product is tailor-made and thus perfectly suited to the application it is designed for. Minimal cost of ownership, outstanding service life and a very high level of reliability are some of the most important features of our products. With more than 50 years' experience Geislinger is one of the leading experts in providing solutions to control torsional vibrations.

Research and development plays a major role in the company's philosophy and therefore Geislinger invests a high percentage of its yearly turnover in this key segment. To improve customer service and shorten delivery times, Geislinger locations and partners are based in the main markets worldwide. State-of-the-art machinery and work areas are part of the company's philosophy.

The result can be seen in the high quality of Geislinger products and the major role as a solid and competent development partner worldwide.



GEISLINGER

ONE CENTER.
FIVE BENEFITS.

Geislinger is a leading expert in torsional vibration research. With more than 50 years' experience in finding torsional vibration solutions, Geislinger has acquired an outstanding level of expertise in the field, ranging from expert knowledge on marine applications, oil & gas, power generation, rail, to wind power and other weight sensitive applications. Geislinger's experience on vibrations make them an ideal development partner in the field of torsional, axial, and bending vibrations.

ANALYSIS

In order to tackle the challenge of torsional vibrations in diverse applications, we have developed our own software. This development process was initiated more than five decades ago. Being continuously enhanced by our highly experienced engineers, the software has become one of the most outstanding torsional vibration software tools worldwide. By analysing exact input data, our experts are able to discover complications and find efficient solutions for these problems.

ENGINEERING

Geislinger's innovation is underlined by our motivation to produce long-lasting products which are perfectly fitted to individual applications. Our philosophy suggests that there is always room for improvement, which is why we invest a high percentage of our turnover in research in order to enhance the performance of our products even further. Using state-of-the-art machinery and tailoring each product precisely to the individual system, we aim to provide our customers with the perfect solutions for their applications.

SOLUTION

Geislinger works with advanced materials such as high-grade steel, composite material and elastomer in order to develop extremely compact and reliable designs with outstanding power density. The core benefits of our products include low cost of ownership, outstanding service life and high reliability. In addition to tailor-made products, Geislinger also offers standard solutions.

MONITORING

In order to ensure the correct performance of a system during operation and to facilitate a condition-based monitoring of the Geislinger products, we offer a monitoring system that was developed and improved by our experts for more than 25 years. By detecting critical overloads, damage to the damper, coupling and other drivetrain components can be avoided. For more details, please download our catalogue at geislinger.com.

SERVICES

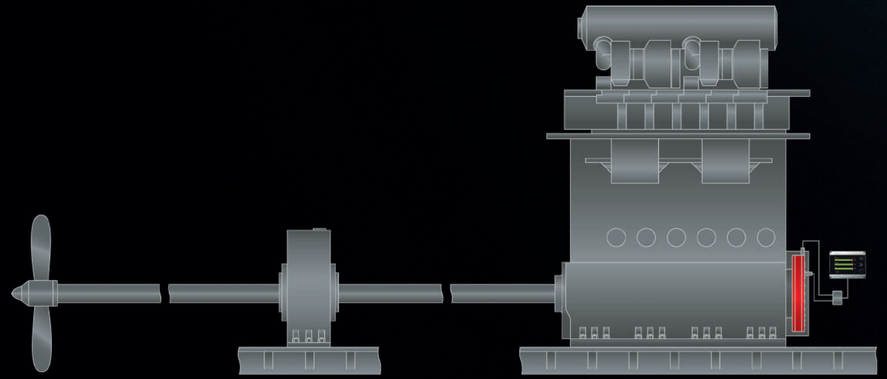
Professional maintenance of a system is essential in order to ensure its smooth performance over a long service period. Geislinger's services do not end with the sale of a product. A global network of subsidiaries and service partners provide after-sales services, anywhere, at any time. In addition, we maintain a large stock of spare parts and offer fast deliveries of genuine parts and products worldwide.

GEISLINGER

01

2-STROKE ENGINE AS MAIN DRIVE

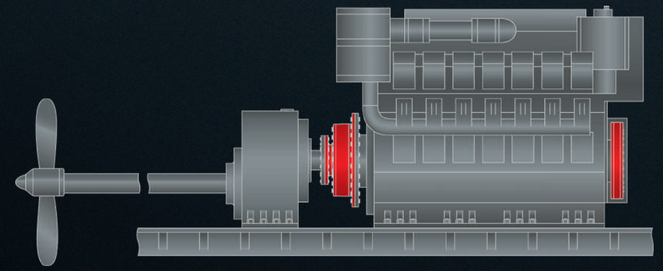
Geislinger Damper
Geislinger Vdamp®
Geislinger Monitoring



02

RIGIDLY MOUNTED 4-STROKE ENGINE WITH MECHANICAL DRIVELINE

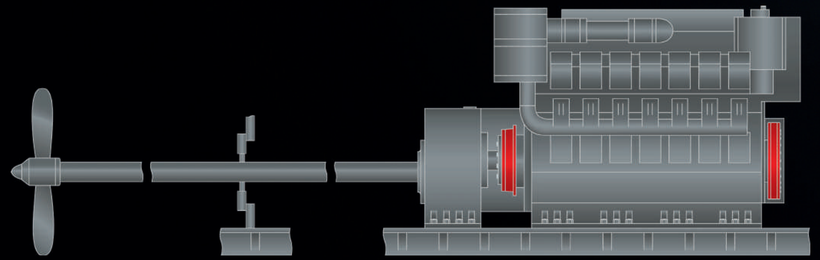
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling



03

4-STROKE ENGINE WITH CLOSED COUPLED GEARBOX

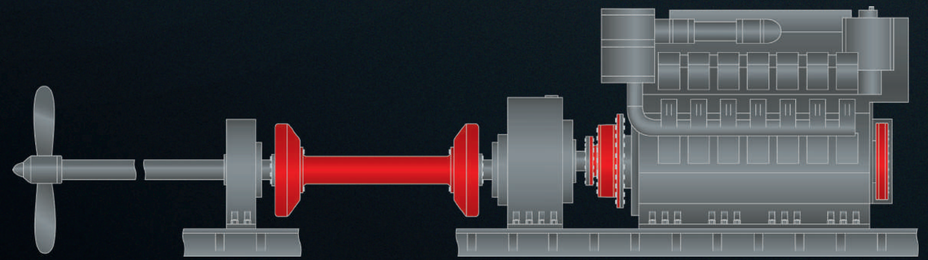
Geislinger Damper
Geislinger Vdamp®
Geislinger SAE Coupling
Carbotorq® Coupling
Geislinger Coupling



04

RIGIDLY MOUNTED 4-STROKE ENGINE WITH MECHANICAL DRIVELINE AND COMPOSITE SHAFTLINE

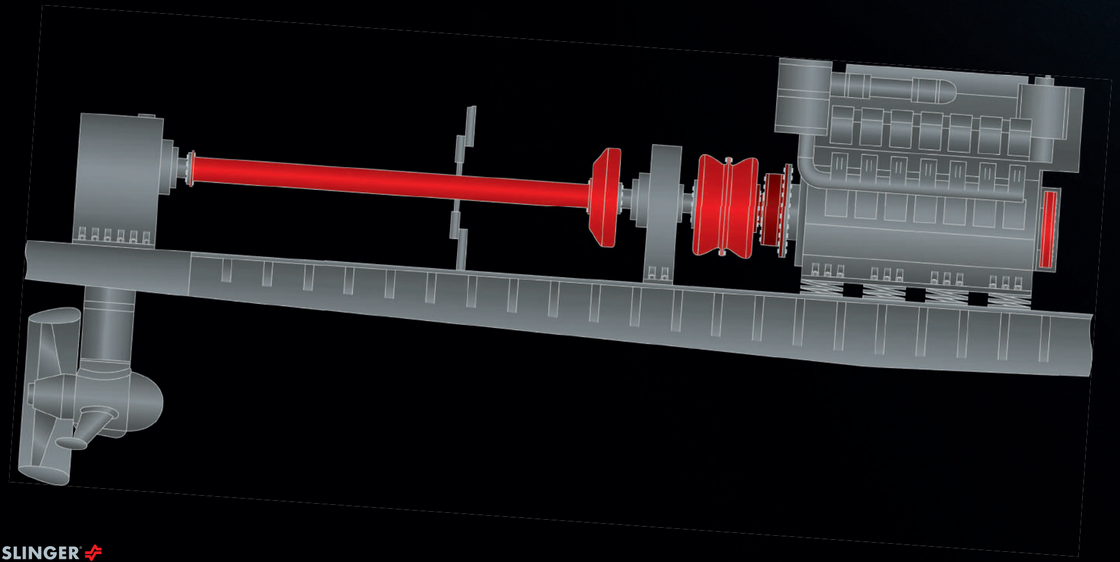
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Shaft with Monobrane



05

ELASTICALLY MOUNTED 4-STROKE ENGINE WITH MECHANICAL DRIVELINE TO Z-DRIVE, BULKHEAD SEAL AND COMPOSITE SHAFTLINE

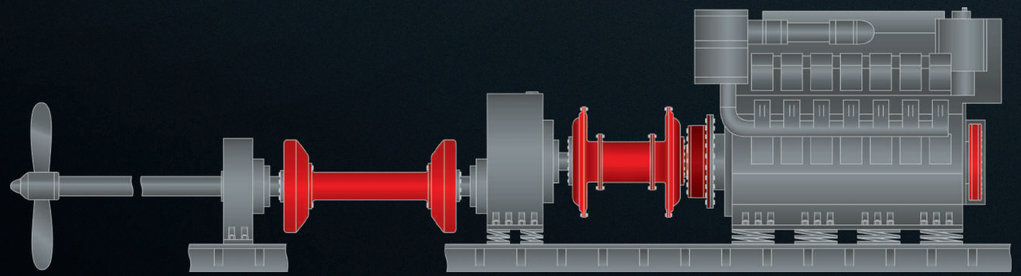
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Shaft with Monobrane
Gesilco® Coupling



06

ELASTICALLY MOUNTED 4-STROKE ENGINE TO MECHANICAL DRIVELINE WITH COMPOSITE SHAFTLINE AND SILENCO COUPLING FOR HIGH ACOUSTIC DEMANDS

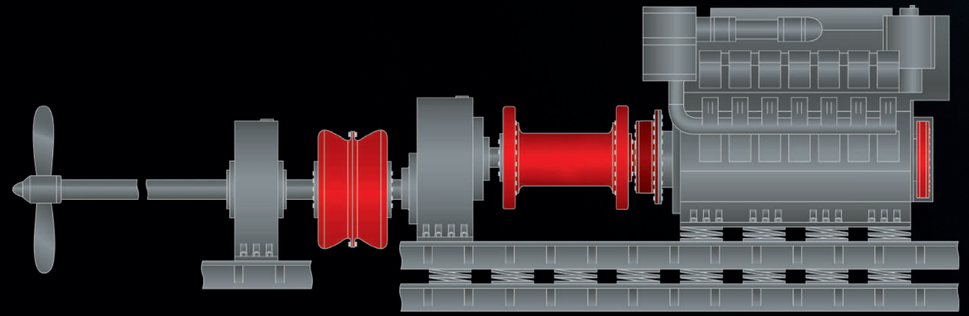
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Shaft
Silenco® Coupling



07

DOUBLE ELASTICALLY MOUNTED 4-STROKE ENGINE WITH MECHANICAL DRIVELINE

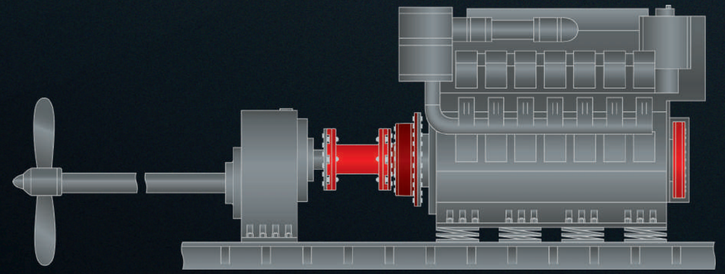
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Coupling
Gesilco® Composhaft



08

ELASTICALLY MOUNTED 4-STROKE ENGINE WITH MECHANICAL DRIVELINE

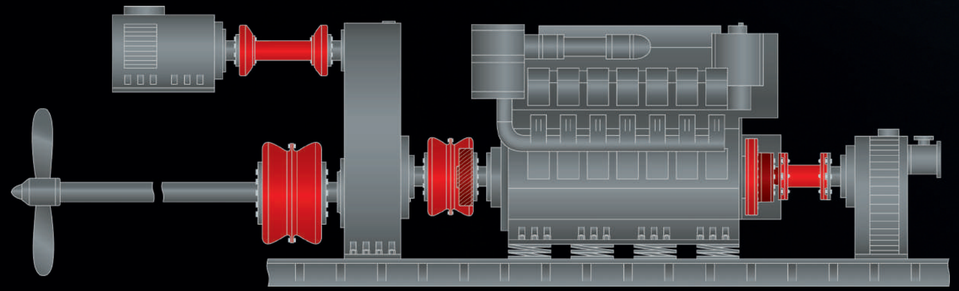
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Flexlink Coupling



09

ELASTICALLY MOUNTED HYBRID DRIVE SYSTEM WITH 4-STROKE ENGINE, PTO/PTI AND FIFI PUMP

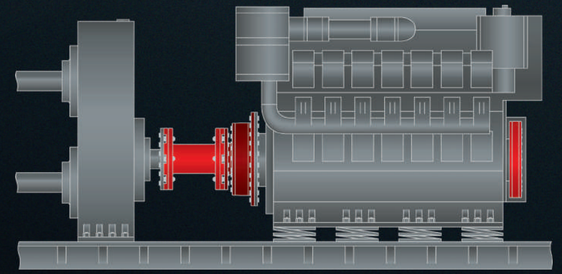
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Flexlink Coupling
Gesilco® Shaft with Monobrane
Gesilco® Coupling



10

ELASTICALLY MOUNTED 4-STROKE ENGINE WITH A DISTRIBUTION GEAR FOR INDUSTRIAL APPLICATIONS

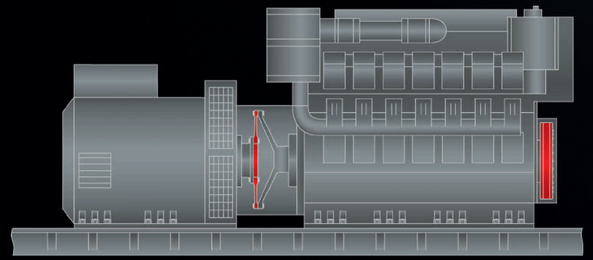
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Flexlink Coupling



11

4-STROKE ENGINE AND SINGLE BEARING GENERATOR

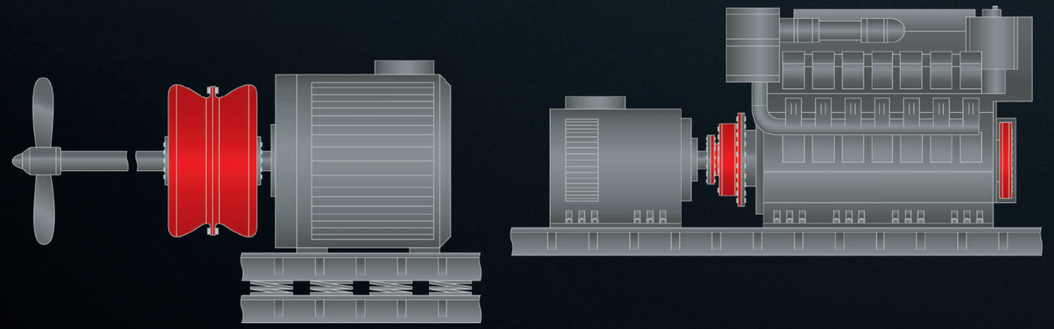
Geislinger Damper
Geislinger Vdamp®
Geislinger Gesilco® Disc



12

RIGIDLY MOUNTED 4-STROKE ENGINE WITH DOUBLE BEARING GENERATOR AND ELECTRIC DRIVELINE

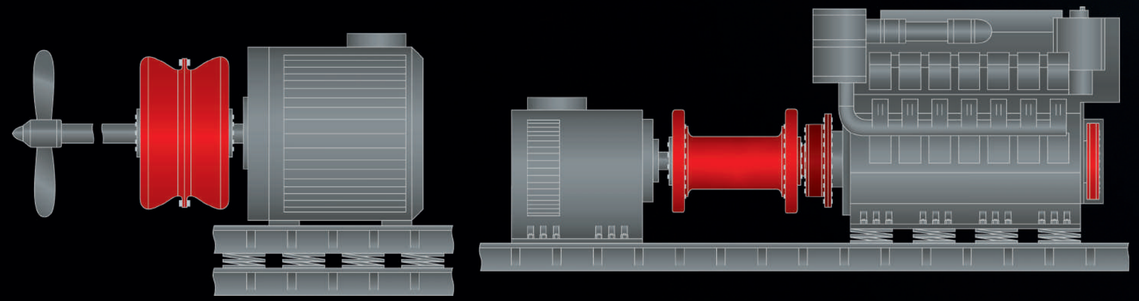
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Coupling



13

ELASTICALLY MOUNTED 4-STROKE ENGINE WITH DOUBLE BEARING GENERATOR AND ELECTRIC DRIVELINE

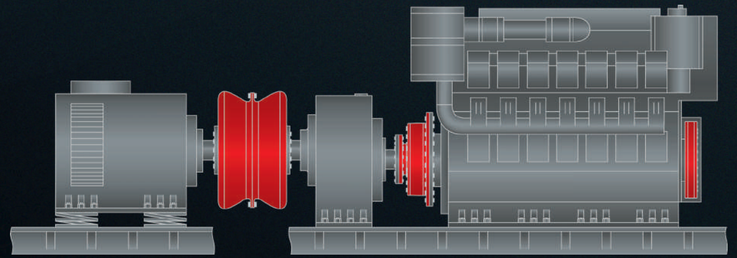
Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Coupling
Gesilco® Composhaft



14

RIGIDLY MOUNTED 4-STROKE ENGINE WITH TRANSMISSION TO A DOUBLE BEARING GENERATOR

Geislinger Damper
Geislinger Vdamp®
Geislinger Coupling
Gesilco® Coupling



GEISLINGER.
LEADERS IN ENGINEERING.

Geislinger develops and produces torsional vibration dampers, torsional elastic, high-damping couplings, misalignment couplings, composite shafts and torsional vibration monitoring systems for large diesel and gas engines as well as propulsion systems. Geislinger products are used in sectors such as marine, mining, rail, oil & gas, power generation, and wind power.

Geislinger products are based on more than 50 years' experience in the field of torsional vibrations. Our products are the result of long experience, proven technologies and state-of-the-art machinery.

GEISLINGER

GEISLINGER COUPLING

Robust torsional elastic, high damping steel spring coupling

The Geislinger Coupling is a torsional elastic high-damping steel spring coupling with hydrodynamic damping properties. High reliability, long intervals between overhauls, and low operating costs are some of the main features of this coupling. The Geislinger coupling is perfectly suited for all types of machinery, but in particular for diesel and gas engines.

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

GEISLINGER DAMPER

Tuned torsional vibration steel spring damper

The Geislinger Damper is a tuned torsional vibration damper. The steel springs optimize the natural frequency of a system in order to eliminate most of the critical resonance. The Geislinger Damper is specifically designed for large diesel & gas applications. It provides constant stiffness and high damping throughout its service life. The Geislinger Damper is often used in combination with a Geislinger Monitoring System which enables an early detection of critical loads.

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

GEISLINGER VDAMP®

Broadband torsional vibration viscous damper

The Geislinger Vdamp® is a viscous damper that protects shafts from possible damage caused by torsional vibrations. The vibrational energy is transformed into heat which then dissipates from the damper's surface into the ambient air. Due to the improved Geislinger calculation method, the viscous damper can be perfectly fitted to individual systems.

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

GEISLINGER MONITORING

Monitoring system for torsional vibrations

The Geislinger Monitoring system continuously monitors torsional vibrations. If the safety limits are exceeded, an alarm is triggered. The system can also be used for measuring axial vibrations, oil pressure, oil temperature, detecting misfiring and for power monitoring. By detecting critical overloads, damage to the damper, coupling or other drive train components can be avoided.

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

GEISLINGER

GEISLINGER
SAE COUPLING

Compact torsional elastic steel spring coupling for SAE standards

The Geislinger SAE-Coupling is based on a modular concept. Its enlarged oil volume and renowned fatigue resistant steel springs lead to a shortened lead time. The coupling is available in four different stiffness levels. Resistant to heat and oil, the Geislinger SAE-Coupling is the perfect solution for installations in harsh environments, such as bell or bearing carrier housings with low air ventilation.

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

GEISLINGER
FLEXLINK

Maintenance free, misalignment steel link coupling

The Geislinger Flexlink is a misalignment coupling specifically designed for heavy-duty applications. It provides low reaction forces even with maximum misalignments in axial-, radial-, and angular directions. This reduces the bearing loads and helps to avoid torsional excitations which in turn increases the life time of the drive train. The Geislinger Flexlink is resistant to heat and oil.

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

GEISLINGER
GESILCO® BUTTERFLY

Maintenance free, composite misalignment coupling

The Geislinger Gesilco® 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 drive line 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

GEISLINGER
GESILCO® SHAFT

Lightweight, maintenance-free shaft solutions

The Gesilco® shaft lines are made of advanced composite material and are characterised by their one-piece manufacturing with an integrated fibre flange connection. The Gesilco® shafts can be easily 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

GEISLINGER
GESILCO® DISC

Maintenance-free, electrically insulating composite coupling

The Geislinger 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

GEISLINGER
SILENCO®

Lightweight maintenance-free, composite coupling with high acoustic sound attenuation

The Geislinger 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 superior chemical resistance and it is electrically insulated. 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

GEISLINGER
GESILCO® COMPOSHAFT

Lightweight maintenance-free, composite coupling

The Gesilco® Composhaft® misalignment coupling consists of two double membranes and an intermediate shaft made of advanced composite materials. The membranes are corrugated with 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

GEISLINGER
CARBOTORQ®

Maintenance-free, composite & elastomer coupling

The Geislinger Carbotorq® is a light-weight 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. The high internal damping properties make it ideal for sound sensitive applications.

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

GEISLINGER

DISCOVER THE WORLD
OF GEISLINGER

geislinger.com

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