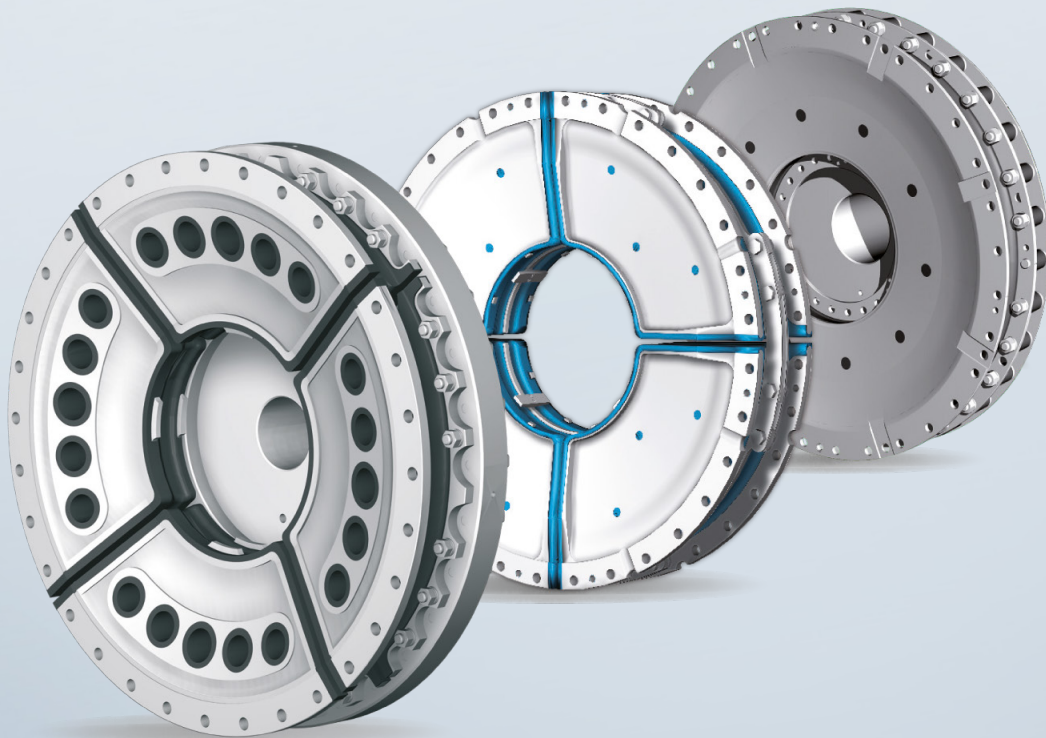


# RATO® SERVICE LIFE

AFTER SALES SERVICES



# AFTER SALES SERVICES

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THE AMBITION OF VULKAN COUPLINGS IS NOT JUST TO SELL OUR PRODUCTS, BUT TO PROVIDE INTEGRATED SYSTEM SOLUTIONS FOR A WIDE RANGE OF PROPULSION SYSTEMS TO CUSTOMERS WORLDWIDE.

## RATO® AFTER SALES SERVICES

The RATO® after sales service of VULKAN covers the supply of spare parts, as well as inspection, maintenance, and troubleshooting. Qualified and experienced VULKAN employees are the heart of our after sales services. They are responsible for all questions and services relating to the use and operation of the VULKAN products worldwide. 18 service stations worldwide are the basis for the unique RATO® service. Quick. Competent. Experienced.

**Your benefit: low operational costs of VULKAN couplings over many decades.**





## INSPECTION

To ensure continued optimal performance of the product and drive system, inspections should be performed at regular cycles, such as during engine overhauls, or if changes to the product are detected. All measures and findings that arise during the inspection process, including the procedures used, are recorded in a report and handed over to the customer. During an inspection, the VULKAN staff check the condition of the coupling and evaluate its ageing behaviour. Ageing processes, external influences and stresses to the elastomer can lead to deformation or cracks, which are examined, measured and evaluated by our staff according to established criteria. This contributes to a more accurate assessment of the ageing condition of the coupling, and allows early scheduling of any necessary maintenance work to the drive system.

**Your benefit: low operational costs, highest possible system availability.**



## MAINTENANCE

Professional maintenance guarantees a long life and trouble-free operation. It thus serves maintaining the value of your investment and ensures high system availability and low operating costs. Many years of expertise in the field of elastomer allows our RATO® service technicians fast and low-cost maintenance of highly flexible couplings and engine mounts from VULKAN on-site. Alignment and adjustment on complete propulsion systems are part of the maintenance package, such as the repair of various surface defects.

**Your benefit: long life expectancy, trouble-free operation, low cost of ownership.**

## TROUBLE SHOOTING

In case of damage or problems, VULKAN carries out a detailed analysis of the behaviour of the drive system. Damage can be caused for example through vibration problems in the drive train, coupling overload due to improper operating conditions or unusual events such as the grounding of the propeller. **VIBRATION MEASUREMENTS.** The experienced RATO® service engineers can also carry out on-site vibration measurements during various operating states to determine the cause of the problem. They are equipped with high-precision measurement hardware and software developed in-house by VULKAN. Real stresses to the drive system under operating conditions as well as torsional vibrations of the couplings are measured reliably by our systems. The mission as VULKAN sees it goes far beyond the mere supply of couplings. Rather, with many years of expertise as coupling manufacturer, VULKAN helps to achieve the highest possible performance of your system. In order to find a solution to the customers problem, our outstanding experienced RATO® engineers carry out a wide range of measurements. In addition to on-site investigations, the RATO® service engineers can rely on the expertise of our in-house vulcanisation processes, test facilities and the calculations of our technical departments to solve almost any problem. After every measurement, the customer receives a detailed report which includes despite analysis and description of the source of the problem, our recommendations, which help to avoid the same problems recurring in the future.

**Your benefit: low operational costs, failure-free operation.**



## SPARE PARTS

VULKAN Spare part network system. Demands on life time and availability of propulsion systems require a powerful system for the rapid and effective deployment of necessary spare parts. For decades, our customers appreciate the expert selection and fast delivery of spare parts by the VULKAN Spare part network system. Our service technicians will be happy to assist in replacing your coupling or mount.

**Your benefit: low operational costs, high system availability.**

