



Minimum downtimes with high flexibility for test rigs

Highly flexible couplings

Test rigs operate reliably and safely with Voith highly flexible couplings. The proven D, K and HP Couplings are used in test rigs for internal combustion engines. They are especially suited for development test rigs, endurance test rigs and end-of-line test rigs with speeds of up to 10000 rpm.

Voith offers highly flexible couplings with high torsional flexibility as well as high torque capacity. This ensures that the right coupling is available for every engine/brake combination.

Voith couplings shift a system's critical resonance frequencies below the operational speed range. In addition, the couplings dampen undesirable alternating torques. This increases the service life of all the test rig drive components. The test system has a high availability and downtimes are minimized.

Advantages

- + **Maximum availability of the entire test rig – low operating costs**

+ **Shifting the resonance speeds to low speed ranges reduces the load on the connected units – component lifetime increases**

+ **Adaptable connections – cost savings because additional adapters are unnecessary**
- + **Modular design – resulting in flexible and cost-effective system solutions**

+ **Only one coupling is needed for transient and intransient test cycles – set-up times are minimized**

Highly flexible couplings for test rigs – technical data

The 191 series D Coupling



- Especially suited to engines with 1 to 3 cylinders
- Nominal torque up to 2 560 Nm
- Speeds up to 10 000 rpm (depending on size)
- Available elastomer hardness values: 45, 50 or 60 ShA
- Temperature stability: -40°C to +90° C
- Weight reduction by using carbon

The 152 series K Coupling



- Suitable for engines with 3 or more cylinders
- Nominal torque up to 10 000 Nm
- Speeds up to 10 000 rpm (depending on size)
- Available elastomer hardness values: 45, 50, 60 or 70 ShA
- Temperature stability: -40° C to +90° C
- Additional damping possible via friction material
- Aluminum construction possible for weight-restricted applications

The 350 series HP Coupling



- Especially designed for test rigs with a dummy gearbox and a bell-house mounted arrangement
- Maximum torque up to 1 600 Nm
- Speeds up to 8 500 rpm
- Heat resistant up to 150° C ambient temperature
- Viscous-hydraulic damping system
- Multi-stage stiffness characteristics
- Maintenance-free

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