

# 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 10 000 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

## The 152 series K Coupling





- Especially suited to engines with 1 to 3 cylinders
- Nominal torque up to 2560 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



- Suitable for engines with 3 or more cylinders
- Nominal torque up to 10000 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



- Especially designed for test rigs with a dummy gearbox and a bell-house mounted arrangement
- Maximum torque up to 1600 Nm
- · Speeds up to 8500 rpm

The 350 series HP Coupling

- Heat resistant up to 150° C ambient temperature
- Viscous-hydraulic damping system
- Multi-stage stiffness characteristics
- Maintenance-free

Voith Group St. Poeltener Str. 43 89522 Heidenheim Germany Contact: Phone +4

Phone +49 201 557-8361 highflex@voith.com







