

**PRESS RELEASE**

Topic:	Powerful - FD-HS (High-Speed)
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The FD-HS (High-Speed) coupling is a disc pack coupling that was launched at the Automotive Testing Expo 2019 in Stuttgart. Compared to conventional disc pack couplings, the FD-HS is lighter in weight and designed for higher rotational speeds, the design also has a smaller outside diameter with shorter mounting lengths. Using high grade fitted bolts enables a backlash-free torque transmission through the disc packs that are made of corrosion-resistant, stainless spring steel. The disc packs are alternately bolted on the same pitch circle to the input and output flanges, these compensate for misalignments between the components to be connected.



The misalignment capability is dependent on the thickness of the disc pack, the size of the coupling or disc pack and the number of the bolts while the configuration of the disc pack determines the torque capacity. With their ability to compensate for axial and angular misalignments, it is designed with two elements and a spacer that also allows a radial misalignment capability, the thermal growth of the engine shafts is compensated for by the use of the flexible disc packs.

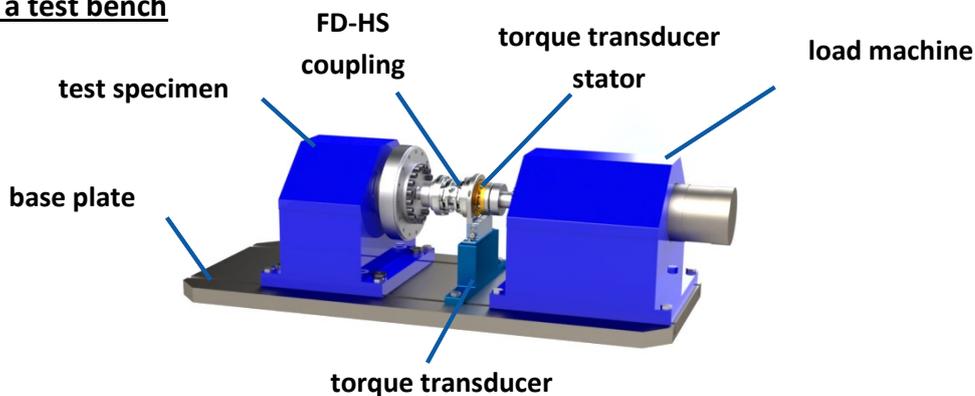
The disc packs are positively connected to the coupling flanges so that an ideal, inherent balancing quality is ensured. Our FD-HS couplings are typically balanced to run at maximum rotational speed in compliance with the DIN ISO 21940 standard. Alternatively, we are also able to supply these couplings according to the requirements of the ATEX directive and the API 671 standard.

The FD-HS series finds its applications in high-performance and high-speed systems. The coupling shape may vary according to the application and the functions of the associated equipment or machinery. Complete application details are required to enable us to calculate and select the correct coupling shape. We have multiple specific designs that can be used. For use with test benches this coupling is often used in combination with torque measuring flanges.

FD-HS couplings are extremely robust and fulfill the most versatile requirements encountered within a variety of rotary drive trains. When correctly aligned, the coupling is wear- and maintenance-free and offers a virtually unlimited life span.

<u>Properties</u>	<u>Benefit for the Customer</u>
Torsionally rigid and backlash-free torque transmission	Accurate measuring results
Directly adaptable to torque transducers	Less components required (cost reduction)
Compensates for axial, radial and angular misalignments	Helps to ease assembly
Suited for very high rotational speeds (up to 33,000 rpm)	Wide area of application
Low mass moment of inertia, high power density	Energy efficiency
Low reaction forces in case of shaft misalignment	Less load, longer service lives
Wear- and maintenance-free	Long life span, low life cycle costs

**Basic arrangement for e.g. a test bench**



**Image source:** REICH-Kupplungen, various construction shapes

## **About REICH-Kupplungen**

REICH-Kupplungen, headquartered in Bochum, is a global and specialised manufacturer of power transmission components, with a focus on the development and production of Torsionally flexible or Torsionally rigid coupling and a has many years manufacturing experience which is done in-house, so you are assured of competence in design and manufacture of your couplings for your power transmission requirements.

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