

# STÜWE



FRICTIONAL CONNECTIONS TECHNOLOGY THAT CONNECTS...





### on a high level











For more than 40 years STÜWE provides highly specialized frictional connections for sophisticated applications.

With more than 120 members of staff we produce shrink-discs, locking units, shaft couplings and other connectors, many of which are custom-designed for our clients.

Our patrons trust STÜWE's competence and product quality for many years, especially when it comes to extreme working conditions. Windpower turbines, ships or mining equipment are only a few examples. Our products are not only well-designed but also long-living. This connects. In 1948, Dipl.-Ing. Friedhelm Stüwe founded the "Maschinenfabrik STÜWE" in Sprockhövel as a crane and steel production business.

Time and again innovative products were launched in order to form a broad and solid basis for the future of the company. In 1967, the first shrink disc was developed, allowing an easy mechanical joining of shaft and hub. This new type of machine element went down on specialist literature as the "STÜWE Scheibe" (the STÜWE disc).

Further innovative products followed. Meanwhile STÜWE is considered to be the expert when it comes to frictional connections. A constant growth required an enlargement of the company. Today the second generation family business is run by Hartwig and Detlef Stüwe.



Renowned companies worldwide appreciate the benefits of our products. Take advantage of the powerful drive technology of the world's largest manufacturer of frictional shaft-hub connections. Made in Germany.





### We provide customized solutions













We do everything to keep our customers satisfied. Long-term patrons are securing not only our future.

This is why we keep up the pioneer spirit of the past and use modern design and production measures to constantly improve our products. We love to work together with our customers to mutually develop exactly the solution that is needed, strengthening our position as the technology leader.



STÜWE's frictional connections are the benchmarks in industry. Especially our various shrink disc are established widely throughout the driveline industry. Having an extremely high energy density they are little effected by shock loads and harsh environmental influences. STÜWE's products work reliably under extreme conditions.

We are recommending our products because we are convinced of the variety that we can offer. Should one of our standard products not be perfect for you we will use our highly sophisticated tools to optimize your individual hub-shaft connection until you are completely satisfied. Customized solutions are our specialities.



## With certified quality

Engineer, designer or fitter: all STÜWE staff is highly qualified. To secure this they are keeping up to be state-of-the-art.

This, together with modern production technology and optimized process managing secure our first-class performance.



As an ISO 9001 certified company we have everything under control, starting from raw material and ending with the finished high-precision part that leaves our factory. You can

depend on the quality, safety and reliability of every STÜWE product.







STÜWE

With know-how of more than 60 years of experience worldwide are realized shaft-hub connections for the ambitious drive technology by STÜWE.

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## One principle -

#### multifunctional

STÜWE fricitional connections can be mounted easily and without any damages, different from thermally jointed or otherwise jointed frictional connections. The clearance-fit between shaft and "STÜWE disc" respectively shaft-hub and STÜWE disc ensures easy mounting.

#### STRONG PERFORMANCE

- + Reliable transmission of torque greater than 11.000.000 Nm
- + Suitable for shaft diameters from 8 mm to more than 1000 mm
- + Quick and safe mounting
- Insensitive with shock loads, impacts or corrosive environment
- + No fretting corrosion
- + No special surface finish necessary for hub and shaft
- + Compact design
- + Hydraulical or mechanical tightening possible



All STÜWE frictional connections function by the same principal. Basically they consist of one inner ring and one outer ring, with corresponding conical surfaces.

By axially moving the outer ring against the inner ring – the movement can be done mechanically or hydraulically – the outer ring will be pushed out-

wards and the inner ring will be pushed inwards. The pressure between shaft and



hub, created by this displacement, can be used to transmit a torque respectively an axial load, by using the friction between the two contact faces.



The transmittable load depends on the coefficient of friction between the partners involved, the clearance fit, the length of contact and the shaft's diameter.

#### AREAS OF APPLICATION

STÜWE

- Belt-drives: connecting the belt-drum, shaft and gearconnection
- Wind Energy Turbines: main shaft-hub connection, break disc and couplings
- Ship drive train: shaft-coupling, break disc connection
- Packing machines, bag-handling devices fastening of levers, gear-linkage, rockers
- Fastening of gear- or chain wheels to shafts
- Fastening of discs to shafts
- Couplings in printing machines, stirring machines and others
- Connecting hollow-shaft gear-boxes to driveshafts
- Fixing seals and/or bearings axially
- Mining equipment: fasten bucket wheel
- Water mills: fastening paddle wheels
- Weaving and other fine-tool machines: fixing shafts and levers
- Many applications mor







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