

TS **Verbindungssteile**
Fasteners
Special-Fasteners ■ Sonderschrauben



**Fasteners for
all extremes**

TS Verbindungsteile **Fasteners** Special-Fasteners ▪ Sonderschrauben

TS Verbindungsteile – the company

„... always in motion“

Redeveloped and expanded operations have increased our flexibility and efficiency. Showcasing more than 50 years of experience in working with every type of stainless steel and alloy, using the latest machine tools and complimented by dedicated and highly trained staff, we are able to focus solely on solving challenges our customers are faced with in the world of fasteners.



TS Verbindungsteile
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01/2022

We connect reliably.



Reliable facts

Screws, nuts, bolts and more ... In three German factories, TS produces fasteners that meet inspection criteria and fasteners made of special steels, from one piece in sizes M 1.2 to M 200.

These products come in more than 100,000 different shapes and sizes: Produced according to DIN/EN/ISO/ANSI/BS/AS/ASME standards, or manufactured according to customer drawings or samples.

More than 300 different steels are held in stock and provide the base for the variety of products.

Nuts, washers and some screws in various sizes, all in corrosion-resistant and acid proof stainless steels, are also held in stock.



Quality and precision That is what our products stand for!

We see quality assurance as one of the most important parts in our production. Permanent checks are done throughout the whole production process. Various methods of testing and measurements are applied.

We are a long-term certified manufacturer according to ISO 9001, AD2000-W0, PED 2014/68/EU, and the VdTÜV leaflets 1253-1 / -2 and 4. In addition, we have been an approved manufacturer in the field of EN 9100 (defense, aerospace) for several years.

Also the national and international nuclear standards of KTA 1401, KTA 3201, AVD D100 / 50, IAEA 50-C-Q and ASME III - NCA3800 (transferred) are confirmed in customer approvals.



Products

Fast delivery – no problem

Our warehouse carries more than 300 different specialised steels. The applications our fasteners are used for are many and varied. Extremes in temperature, strength, and the environment are all catered for. Whatever your requirements we focus on your needs and provide solutions.

TS – your partner for demanding markets and industries

Chemical and Petroleum Engineering • Gas and Steam Turbine Power Generation • Gas and Diesel Engines • Marine and Maritime Shipping Industry • Mining and Heavy Engineering • Nuclear Energy and Fusion Research • Offshore and Subsea Technology • Aerospace • Offshore Wind Turbine and Wind Power Industry • Oil and Gas Industry including Process and Pipeline Equipment • Pulp and Paper industry • Valve, Pump and Flow control technology

Standard parts

We produce standard parts according to DIN, ISO, EN and ANSI/ASME in sizes from M 1.2 to M 200.

ISO Metric Thread Types:

- Metric ISO Thread (M)
- Metric ISO Fine Thread (MF)
- Pipe thread (PT)

British and Whitworth-Thread Types:

- British Standard Whitworth Coarse (BSW/WW)
- British Standard Fine (BSF)
- British Standard Pipe (BSP/G)
- British Standard Pipe Taper (BSPT/R)

American Thread Types:

- Unified National Coarse Thread (UNC)
- Unified National Fine Thread (UNF)
- Unified National Special Thread (UNS)
- National Taper Pipe (NPT)
- National Taper Pipe Dryseal (NPTF)
- 8-UN thread

Screws and bolts:

- Eye bolts
- T-bolts
- Hexagon bolts
- Hexagon fitting bolts
- Screw plugs

- Cheese head screws with hexagon socket
- Engineering studs
- Set screws
- Socket cap screws
- Countersunk screws
- Threaded bars

Nuts:

- Collar nuts
- Flat nuts
- Cap nuts
- Locking nuts
- Hexagon nuts

Washer:

- Serrated lock washers
- Spring washers
- Flat washers
- Ferrules
- Sleeves

Other:

- Grub screws
- Feather keys
- Studs

Parts made to drawing

Fasteners on demand – TS is your specialist for custom-made fasteners. We manufacture parts according your samples or drawings in various materials. If desired, parts will be delivered with required accreditations and certificates. Our experienced and qualified staff will help you with your project from development to delivery.

We connect reliably.

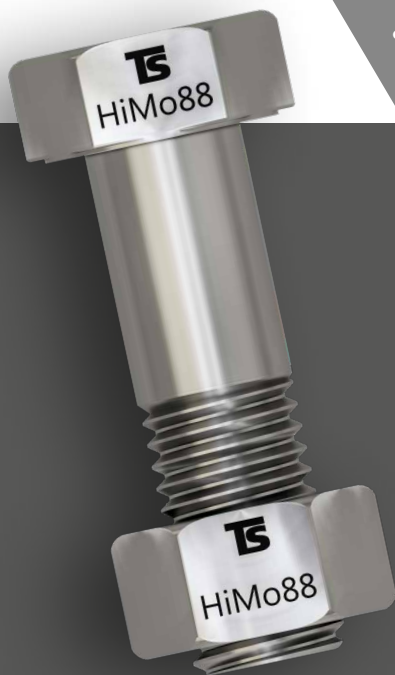


Product Range TS HiMo88®

- ISO 4017 Screws: M 8 to M 20
- ISO 4032 Nuts: M 6 to M 20
- ISO 7089 Washers HV250/HV300: M 8 to M 20
- ISO 10642 Countersunk screws M 6 to M 12
- DIN 975/976 und DIN 938/DIN939 Threaded bars and studbolts: M 6 to M 30
- Raw material up to 30 mm diameter available to manufacture numerous parts according to various standards and drawings on request

Benefits of HiMo fasteners and the TS HiMo88®

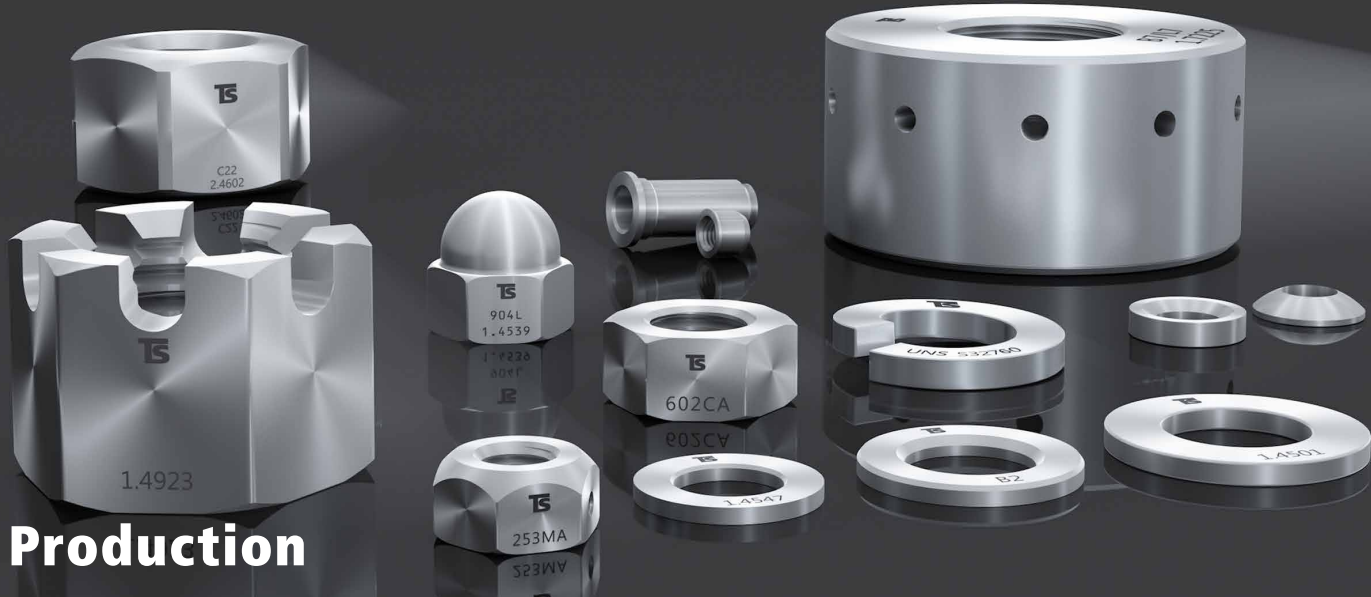
- Superior resistance to corrosion
- TS HiMo88® as a stainless steel also fulfills the actually ferritic strength classes 5.6 and 8.8, respectively 5 and 8
- Higher strength in fasteners tends to result in lower weights
- For low and high temperature applications from -200 to +400 °C
- Non-magnetic (permeability <1.01)
- Full traceability and certificates EN 10204/3.1 available
- Triple certifications and marking available (e.g. HiMo88 A4L-316L80)
- Approval for Pressure Vessel applications according PED 2014/68/EU optional



**TS HiMo88® a secure connection
for many applications.**

Turned and milled parts

We produce also precision turned and milled components from all machinable steels, like flanges and pipe fittings. Please contact us.



CNC turning and milling: Uncompromising quality

Due to use of the most advanced equipment TS is very cost effective and we manufacture small to medium batches on high tech CNC turning machines with up to 10 axles and rotary tools. For larger batches we use modern CNC Swiss type lathes with linear technology and high performance magazine-loaded bar-feeders. Our state of the art equipment enables us to guarantee precision and process uniformity of our products, allowing us to offer the most cost effective, high quality solution to our customers.

Hot forging: Innovation and cutting edge equipment giving efficient and economical supply

The advantages of hot forging mean that most metallic materials can be formed in unlimited ways and there is virtually no waste. Our state of the art plant presently produces hot forged fasteners from hex bolts, socket head cap screws to Torx® or other hexagon internal driving features in more than 80 high performance materials. We have both, vertical pyrometer controlled and the most advanced horizontal CNC hot forging presses with sensor controlled length measurement.

Coating

- | | |
|--|---|
| <ul style="list-style-type: none"> • Zinc chromate plating (Galvanising) with chromate coating in black, yellow, blue, olive • Zinc plating (Galvanising) with thick film passivation • Zinc flake coating/Mechanical coating • Hot dip galvanising (HDG) • Phosphate coating • Galvanic silver plating • Galvanic nickel plating | <ul style="list-style-type: none"> • Pickling and passivation • Tuflok coating • Nitride hardening • Gas nitride hardening • Plasma hardening • Case-hardening • Induction hardening • further coating or treatments available on request |
|--|---|



TS Express Service

Our TS Express Service Team supports you with all your urgent projects.

If it is urgent we are there for you around the clock. You can rely on us that your urgent project will be dealt with the highest priority.

Help desk

We are here for all your questions relating to our fasteners, materials, surface treatments and accreditations.

Just call +49-6561-95210

Logistics

It is your choice how your orders will be delivered. We make sure your order will be delivered world wide safely, reliably and fast:

- Parcel service standard or express for up to 31 kgs
- Air or Road Freight Standard or Express
- Direct delivery by courier
- Overnight express delivery

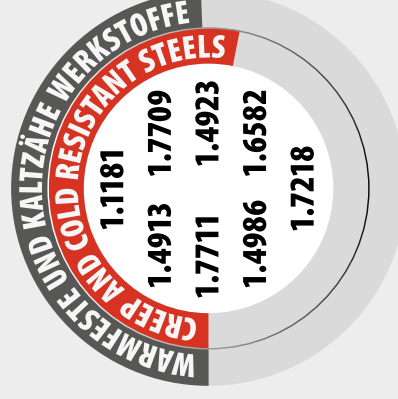
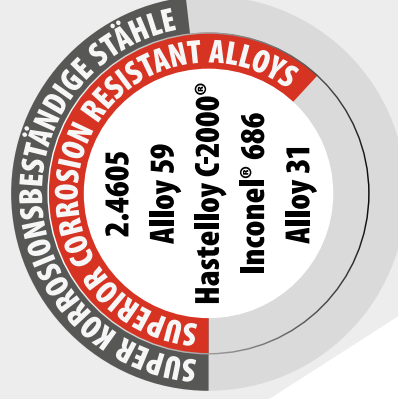
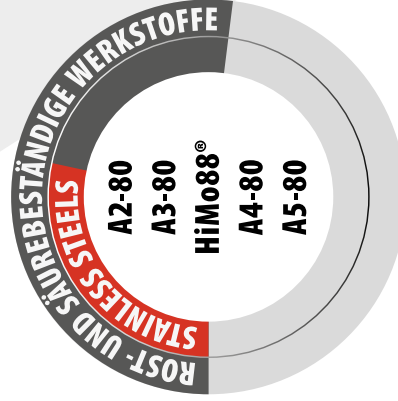
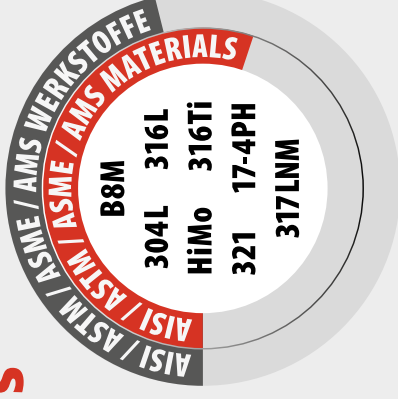


Verbindungssteile aus 300 verschiedenen Werkstoffen

Fasteners made of 300 different materials

Mit über 300 Werkstoffen ist unser Warenlager für jede Herausforderung gerüstet. Eine vollständige Liste der von uns verarbeitenden Werkstoffe senden wir Ihnen gerne zu.

With over 300 Alloys at our disposal we can provide you with a solution whether it's a small quantity of highly specialized nuts or large orders of studs and hex bolts. We are happy to send you our full material- and product lists.



Unsere komplette Werkstoffliste finden Sie auch online unter: www.ts-verbindingsteile.de/downloads
Our complete list of materials is also available online at: www.ts-fasteners.net/downloads

Zertifikate und Herstellerzulassungen: DIN EN ISO 9001:2015 • DIN EN 9100:2018 • DGRL 2014/68/EU • AD 2000-W0/TRD100 • VdTÜV-Blatt 1253-1/2/4 • KTA 1401 • AVS D100/50 (Nuklear) • KTA 3201.1 (Nuklear) • IAEA 50-C-Q (Nuklear) • DNV/GL zugelassener Hersteller • Bureau Veritas zugelassener Hersteller • ASME III, NCA 3800 (Kundenzulassung)

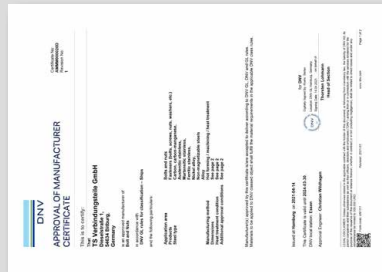
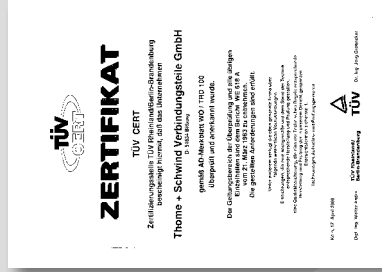
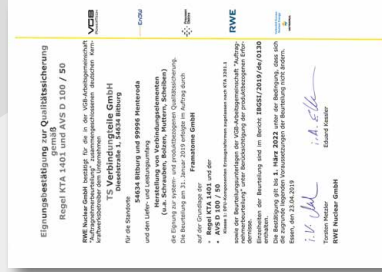
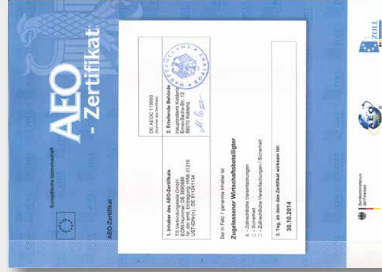
Wir bestätigen Ihnen gerne unsere Verbindungsteile nach Wunsch mit einem Abnahmeprüfzeugnis gemäß EN 10204 oder anderen möglichen Standards gemäß Kundenwunsch, wie z.B.: Abnahmeprüfzeugnis 2.1; 2.2; 3.1 (früher 3.1.B) • Abnahmeprüfzeugnis 3.2, (früher 3.1A/3.1C), durch entsprechende Abnahmegesellschaften wie z.B.: TÜV • Germanischer Lloyd (GL)/Det Norske Veritas (DNV) • Bureau Veritas (BV) • Lloyds Register (LRS) • American Bureau of Shipping (ABS) • China Classification Society (CCS) • Registro Italiano Navale (RINA) VINCOTTE • Russian Maritime Register of Shipping (RS) und weitere

Mit unserer langjährigen Erfahrung, bezüglich Materialauswahl, Prüfungen und Abnahmen, können wir Ihnen ebenfalls in Projekten von ASME und RCC-M behilflich sein.

Certificates and accreditations: DIN EN ISO 9001:2015 • DIN EN 9100:2018 • DGRL 2014/68/EU • AD 2000-W0/TRD100 • VdTÜV-leaflet 1253-1/2/4 • KTA 1401 • AVS D100/50 (nuclear) • KTA 3201.1 (nuclear) • IAEA 50-C-Q (nuclear) • DNV/GL accredited manufacturer • Bureau Veritas accredited manufacturer • ASME III, NCA 3800 (customer accreditation)

We supply certified and documented safety with certificates EN 10204 or other standards according to your needs, like: Certificates CoC; MTR; CMTR; 2.1; 2.2; 3.1 (earlier 3.1.B) • Certificates 3.2; (earlier 3.1A/3.1C), through classification societies e.g. TÜV • Germanischer Lloyd (GL)/Det Norske Veritas (DNV) • Bureau Veritas (BV) • Lloyds Register (LRS) • American Bureau of Shipping (ABS) • China Classification Society (CCS) • Registro Italiano Navale (RINA) VINCOTTE • Russian Maritime Register of Shipping (RS) and other

Our experience of many years in material selection, testing and certification helps us in assisting your projects of ASME and RCC-M



Wir verbinden zuverlässig. | We connect reliably.

**www.ts-verbindingsteile.de
www.ts-fasteners.net**