

# RIVETING SYSTEMS





## MANUFACTURING PROGRAMME

RIBE® FASTENER SYSTEMS develops and manufactures rivets from 0.8 mm to 10 mm in diameter, with a maximum shaft length of 140 mm for high-demand applications.

#### Products

- 📃 Stud rivets
- RI*FIT*<sup>®</sup> self piercing rivets
- 📃 Semitubular rivets
- 📃 Tubular rivets
- 💶 Ball bearing rivets
- 📃 Contact rivets
- RIBULB<sup>®</sup> blind rivets
- 📃 Special rivets

#### MATERIALS

- Stainless steels, light metal alloys, relay materials, copper alloys,
- all cold-formed materials, e.g. tempering steel up to 12.9

#### **COMPLEX REPROCESSING PROCEDURES**

- Reprocessing with and without cutting
- 📃 Heat treatments
- 🧧 Galvanic and chemical surface treatment

#### **AREAS OF APPLICATION**

- Automobile and electronics industry,
- suppliers, e.g. door locks, safety-belt tensioners, ABS relays, ball bearings etc.

#### **D**EVELOPMENT ACTIVITIES

- Special solutions developed for specific applications
- Constructional design (e.g. for cost and weight optimisation)
- Patterns, also for applications trials
- Performance of applications trials in our own laboratory
- Documentation of functional properties and quality requirements

#### **RIBE<sup>®</sup> QUALITY**

- Certified to ISO 9001, VDA 6 and QS 9000
- RIBE® Q-100 for fully automated manufacture

#### **PROCESSING SOLUTIONS**

RIBE® FASTENER SYSTEMS offers riveting systems and processing solutions for all applications.

# FOR HIGH-DEMAND APPLICATIONS

## **RIVETING TECHNOLOGY**

The range of rivets and riveting processes is very varied and is under continual further development. The areas of applications for rivets are just as varied.

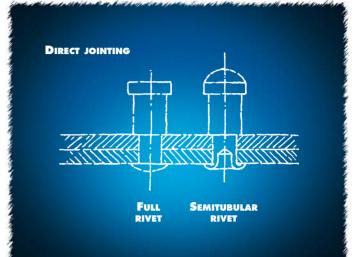
RIBE<sup>®</sup> rivets are used for high-demand jointing applications on building components

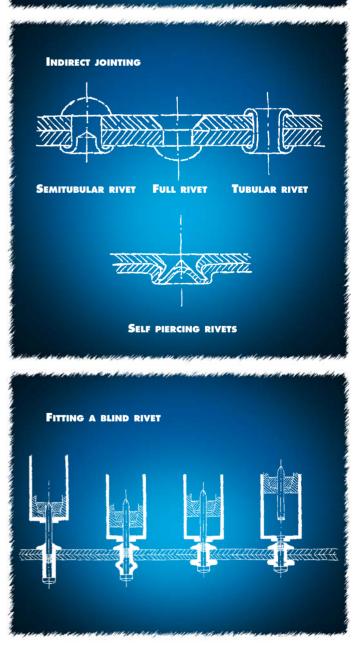
- of heavy or non-weldable materials, with coated surfaces,
- 🧾 of heavy or non-formable materials,
- whose joints must have high energy absorption properties
- which can only be joined without heating or whose material properties can be better used with non-heated jointing,
- 🧕 of different materials

and can also be designed as functional elements. When riveting, spot connections are produced by the cold forming of rivets or riveted areas. An exception is the punch riveting technique using semitubular rivets, since here both the rivet and at least one building component are reformed. The punching technique also has a special place in the preparation of sheet metal, since in contrast to all other riveting procedures, the building components to be joined do not have to be punched in advance.

With riveting systems, connections can not only be made quickly, but rivets also cannot be lost.

When dismantling a riveted connection however, the rivet must be destroyed to remove it, although the building component can be used again.











Stud rivets are always used where mobile joints are required. RIBE<sup>®</sup> has many years of experience in the cost-effective manufacture of highquality mobile joints using special semitubular or full rivets.

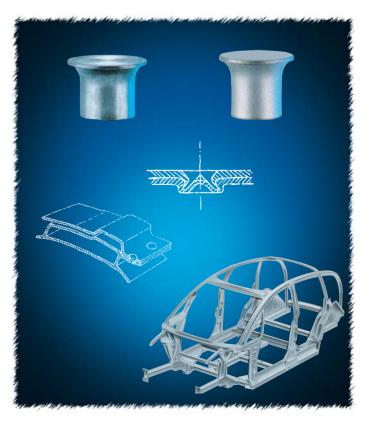
RIBE<sup>®</sup> stud rivets are found amongst other places in many automobile applications, where the highest levels of reliability and safety are required.





RIFIT<sup>®</sup> and ALUFORM<sup>®</sup> RIFIT<sup>®</sup> are used for the joining of a wide range of different combinations of materials, both with and without surface coatings. These highly stable self piercing rivets have proved their reliability in series production.

RIBE<sup>®</sup> FASTENER SYSTEMS offers punch riveting systems for all applications – from hand riveting to punch-riveting stations and fully automated applications. RIBE<sup>®</sup> FASTENER SYSTEMS will provide you with the right self piercing rivet connection for your special application.

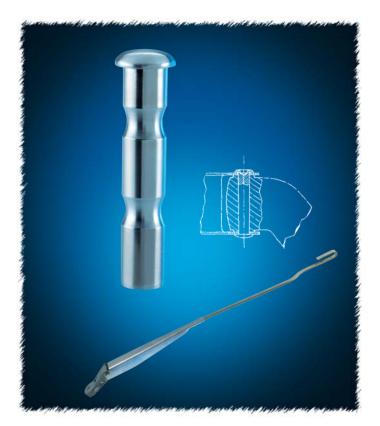


# FOR HIGH-DEMAND APPLICATIONS

## SEMITUBULAR RIVETS

Semitubular rivets have blind holes on the side opposite the swage-head, which are produced by machining or by extrusion. In this way rivets of large diameter or rivets used for low-stability building components can have closing heads which do not require the application of a great degree of force, or which might create the risk of damage to building components.

RIBE<sup>®</sup> semitubular rivets often have additional functions which contribute to cost reductions for our customers.





Rivets that are bored through completely are known as tubular rivets. These include highquality pipe rivets and extruded tubular rivets. RIBE<sup>®</sup> tubular rivets can be economically used for relatively low-stress connections. RIBE<sup>®</sup> tubular rivets have proved their reliability in many mobile jointing applications.



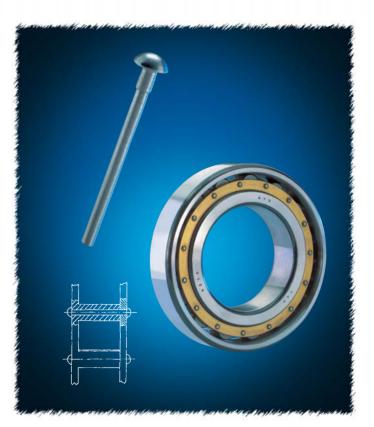




### **BALL BEARING RIVETS**

Ball bearing or roller bearing rivets are actually full rivets. They are used in the manufacture of the cages for high-quality ball bearings or precision roller bearings. RIBE<sup>®</sup> product knowhow and RIBE<sup>®</sup> quality guarantee problem-free, cost-effective cage manufacture, and ensure proper cage function throughout the life of the bearing.

RIBE<sup>®</sup> ball bearing rivets are developed for individual applications, and can be processed fully automatically.



## **CONTACT RIVETS**

Reliable, low-cost thermostats would be hardly conceivable without contact rivets.

RIBE<sup>®</sup> tubular and semitubular rivets with highquality surfaces ensure this monitoring function in many household appliances.

Contact rivets also form the proper connection during the assembly and installation of the thermostats.



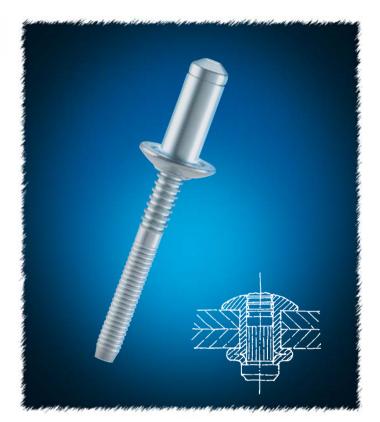
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## **RI***BULB*°

RIBULB<sup>®</sup> and ALUFORM<sup>®</sup> RIBULB<sup>®</sup> are highly stable blind rivets made in Germany. These blind rivets are used in the vehicle industry for highdemand applications where joints are only accessible from one side, together with many other applications.

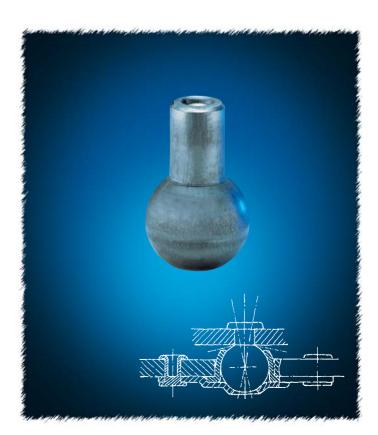
RIBULB<sup>®</sup> and ALUFORM<sup>®</sup> RIBULB<sup>®</sup> meet the highest stability requirements under both static and dynamic loads.

RIBE® FASTENER SYSTEMS guarantees not only high product quality. RIBE® also has the right business partners for the further processing of rivets.



## **SPECIAL RIVETS**

Special rivets are cold-formed parts, which depending on their function within the complete end-product, must have a special shape or special deformation properties during the jointing procedure. Many parts which would otherwise have to be machined can be replaced by lower-cost, special rivets.





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