



Rivet Technology

A wide range of blind rivets



“If two components are to be fastened permanently, then a FASTEKS® blind rivet may be the correct solution.”



CHARACTERISTICS

FASTEKS® blind rivets

Our comprehensive FASTEKS® blind rivet range of different rivet types, different combinations of materials, head shapes and diameters offers the appropriate rivet for your application.

FASTEKS® standard blind rivets

The Bossard FASTEKS® Standard blind rivet range currently contains different types with around 800 different blind rivets. Blind holes, non-circular drill holes or large tolerances in drill holes: for all these there is a blind rivet available.

Metal, plastic, wood, drywall or similar materials or material combinations can be fastened with FASTEKS® standard rivets.

A large number of material combinations (aluminum, steel, stainless steel, etc.) with different head shapes (flat head, countersunk head or large head) complete the range.

FASTEKS® high-strength blind rivets

For applications which need to withstand high loads and/or strong vibrations, you can rely on our FASTEKS® high-strength blind rivet range.

The breakstems are mechanically locked and remain an integral part of the rivet, so that loss or loosening of the mandrel can be ruled out, even with heavy vibrations.

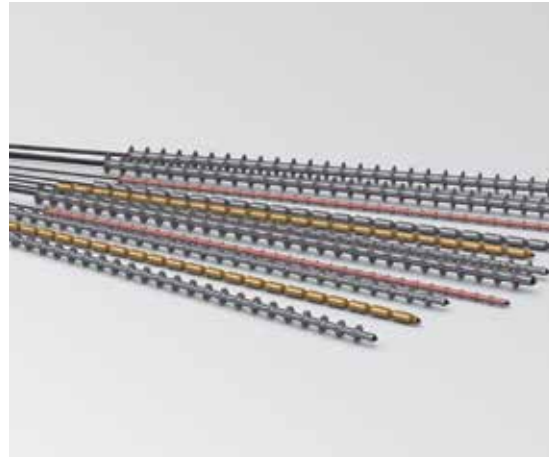
In these types the riveting mandrel snaps flush with the die head which causes higher shear- and tensile strengths to be achieved compared to standard blind rivets.



FASTEKS® speed rivet

The rivet range is rounded off with the FASTEKS® speed rivet. In this system up to 160 rivet sleeves can be raised and processed on a single riveting mandrel. Various rivet types for special applications, in various material combinations and head shapes, are also available.

Used properly, you can double at least your production rate via FASTEKS® speed rivets.



Speed rivets are preloaded on a one-way mandrel. This offers higher efficiency and process security and makes the FASTEKS® speed rivet unique.

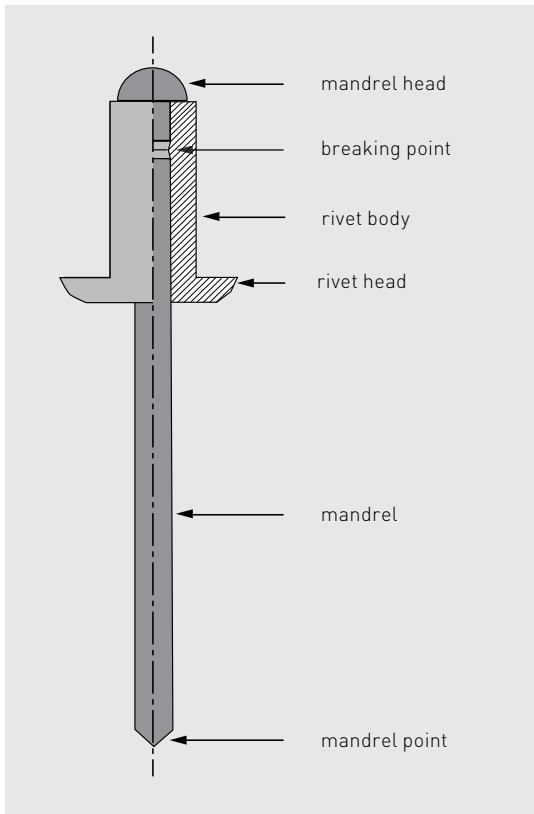
Benefits

FASTEKS® rivet technology

- Wide selection of products
 - various material pairings
 - different head shapes
 - various locking systems
- Easy assembly and working techniques (working tools)
- Quick and reliable working times
- Most varied material fastenings possible
- Permanent fastenings possible
- Uniformly and consistently high quality and performance (guaranteed by the approved Bossard test laboratories and documented quality controls)
- Secured and work-hardened breakstems (breakstem fasteners)
- Fastenings that are gentle on surfaces
- Application-specific solutions



“Even large components can be connected without surface damage.”



Definitions of blind rivet and breakstem

Selection process

To quickly determine the correct rivet for your fastening, the following points must be observed.

1. Grip range

A rivet has a defined working area. To be able to generate a secure fastening, it is important to know the exact material thickness of the workpiece to be processed.

2. Drill-/hole diameter

The various types of blind rivets are used in and with different drill holes. You will find a listing of all blind rivet types and the corresponding hole diameters and tolerances in the data sheets.

3. Material combination

Starting from the material of the workpiece to be processed and the area of use, the material combination of the blind rivets (sheath and mandrel) is established. At this point resistance to corrosion is primary.

4. Mechanical loads

For high shear strengths, tensile strengths or vibrations we recommend using FASTEKS® high-strength rivets.

RIVETING TOOLS

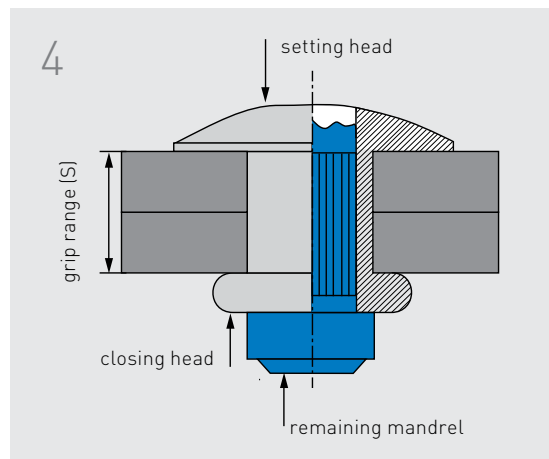
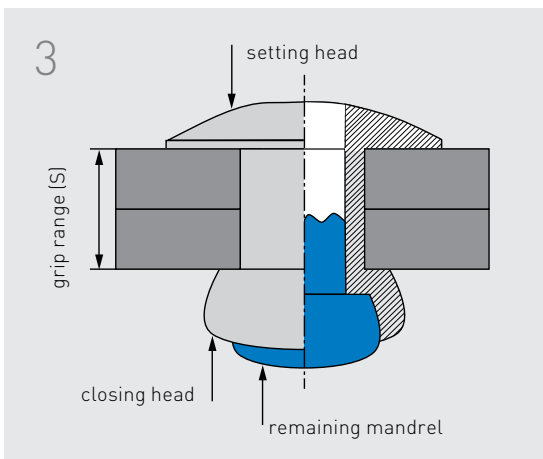
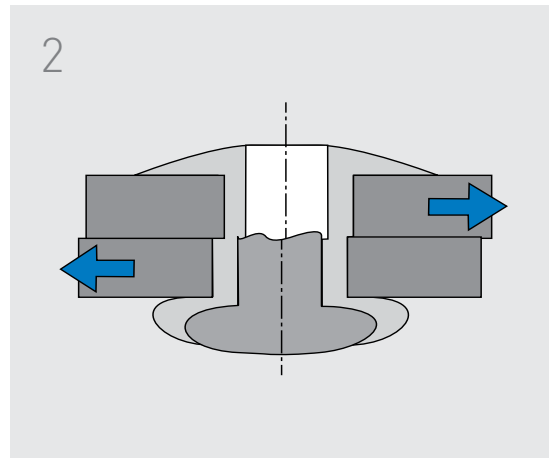
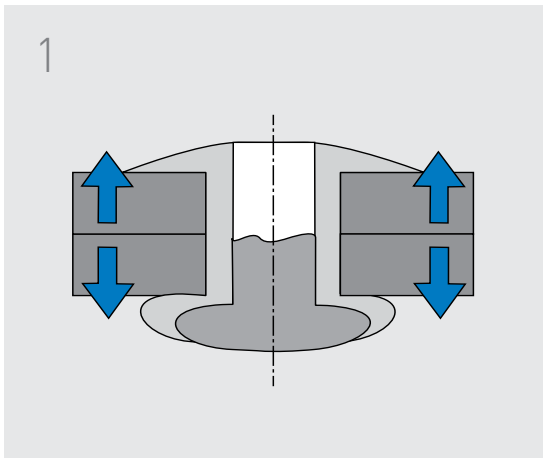
FASTEKS® blind rivets are easy to work with

Manual or fully automatic – the FASTEKS® blind rivets can be processed with all blind riveting tools normally used in the trade.

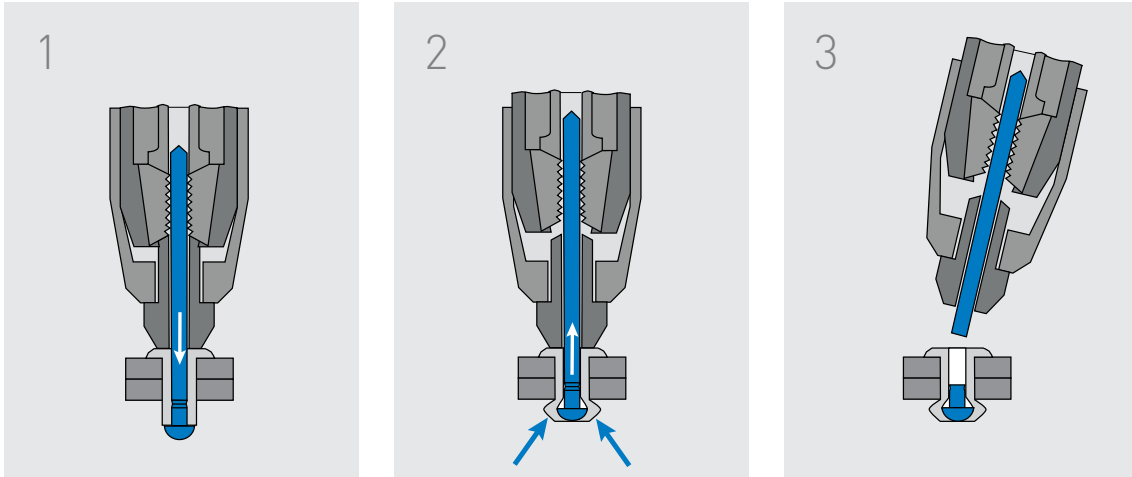
Types of tools

Basically the tool types differ only between breakstem rivets and speed rivets. Assembly tools are usually always interchangeable within these two rivet types. The nose piece must be chosen according to the assembly requirements or rivet type.





1. Tensile strength
2. High shear strength
3. Cross section of standard blind rivet breakstem after setting process
4. Cross section of high-strength blind rivet breakstem after setting process. After the setting process the breakstem is secured and fixed in the rivet sheath for its entire length (mandrel locking).



The operating principle of setting tools for rivets is always the same. The picture shows the assembly function of FASTEKS® breakstem rivets.

Setting process

Breakstem rivet

1. The rivet is inserted into the nose piece of the tool and placed into the hole of the work-piece.
2. Activation of the tool causes the jaws to grip the riveting mandrel and pull it back. This deforms the rivet sheath and forms the closing head.
3. The mandrel breaks off at the breaking point, and the breakstem is firmly fixed in the rivet sheath. The rivet is set.

Speed rivet

1. The preloaded mandrel with the rivets is inserted into the tool and placed into the workpiece (drill hole).
2. The mandrel is clamped by activating the tool. This pulls the rivet back through and forms the mechanical interlock.
3. The riveting mandrel is pulled through the rivet sheath and the rivet is set. The next rivet is automatically ready for processing.

FASTEKS® BLIND RIVETS

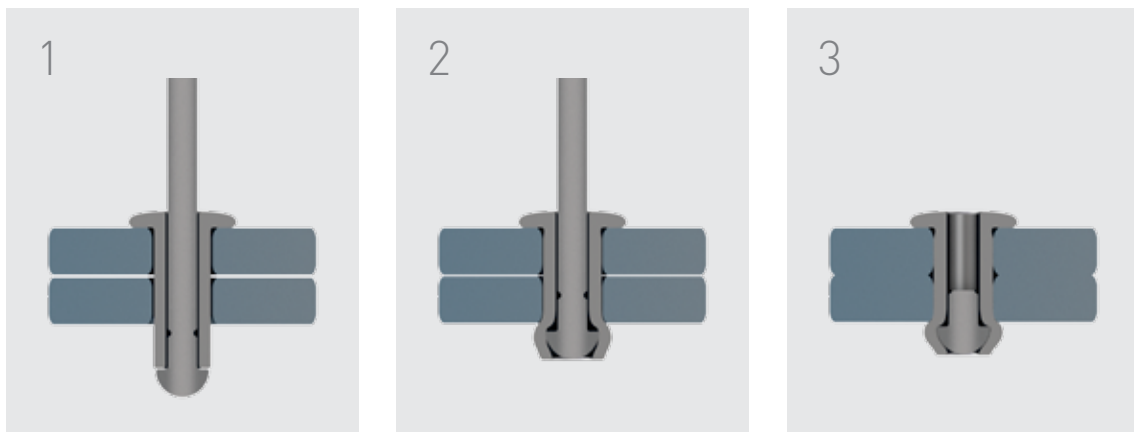
Standard blind rivets

The FASTEKS® standard rivet with its many material combinations and head shapes is the most commonly used blind rivet.

Characteristics

- Quick working times and easy to use
- Many material combinations
- Wide range of applications (economic solutions)

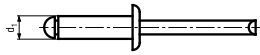
Setting process/operating principle



FASTEKS® Standard blind rivets

Dome head

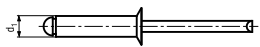
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Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21400	FSD-ALST	Aluminum	Steel	Ø 2.4-6.4	0.5-33 mm
BN 21400	FSD-ALST	Aluminum	Steel	Ø 2.4-6.4	0.5-33 mm
BN 21406	FSD-SSA2	St. st. A2	St. st. A2	Ø 3.0-6.4	1.0-24 mm
BN 21409	FSD-ALAL	Aluminum	Aluminum	Ø 3.0-4.8	2.0-24 mm
BN 21410	FSD-ALA2	Aluminum	St. st. A2	Ø 3.2-4.8	1.5-30 mm
BN 21412	FSD-CUST	Copper	Steel	Ø 3.0-4.8	1.5-24 mm
BN 21413	FSD-SSA4	St. st. A4	St. st. A4	Ø 3.0-6.4	1.5-24 mm

Countersunk head

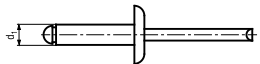
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Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21401	FSC-ALST	Aluminum	Steel	Ø 2.4-5.0	1.0-25 mm
BN 21404	FSC-STST	Steel	Steel	Ø 2.4-5.0	1.5-19.5 mm
BN 21407	FSC-SSA2	St. st. A2	St. st. A2	Ø 3.0-5.0	1.5-20 mm

Large head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21402	FSL-ALST	Aluminum	Steel	Ø 3.2-5.0	1.0-25 mm
BN 21405	FSL-STST	Steel	Steel	Ø 3.2-5.0	1.0-25 mm
BN 21408	FSL-SSA2	St. st. A2	St. st. A2	Ø 3.2-5.0	1.5-25 mm
BN 21411	FSL-ALA2	Aluminum	St. st. A2	Ø 3.0-4.8	1.5-30 mm

FASTEKS® BLIND RIVETS

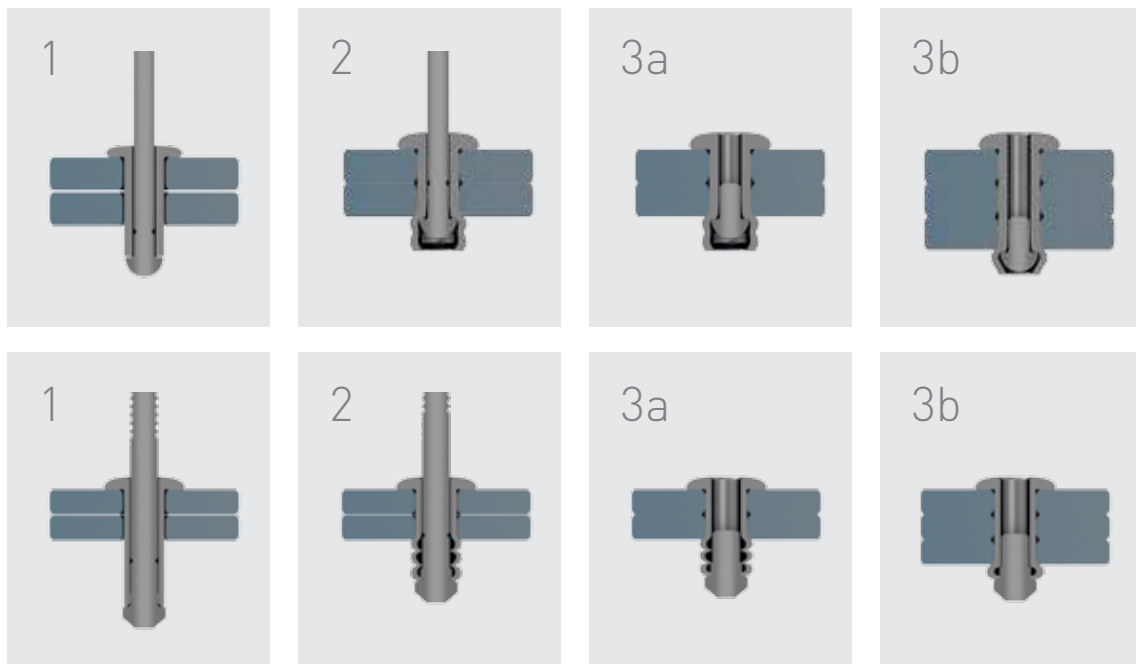
Multigrip rivets

The FASTEKS® Multigrip rivet has a large grip range and so up to three standard rivets can be replaced by just one FASTEKS® Multigrip. The breakstem is firmly and securely enclosed in the sheath.

Characteristics

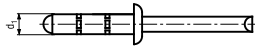
- Large clamping area
- Large closing head
- Good drill hole filling (can compensate for drill hole tolerances)
- Secured mandrel

Setting process/operating principle



FASTEKS® Multigrip rivets

Dome head



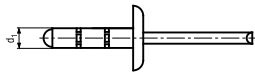
Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21414	FMD-ALST	Aluminum	Steel	Ø 3.2-4.8	1.0-35 mm
BN 21417	FMD-SLST	Steel	Steel	Ø 3.2-4.8	1.0-33 mm
BN 21420	FMD-SSA2	St. st. A2	St. st. A2	Ø 3.2-4.8	1.0-9 mm
BN 21421	FMD-ALA2	Aluminum	St. st. A2	Ø 3.2-4.8	1.5-25 mm

Countersunk head



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21415	FMC-ALST	Aluminum	Steel	Ø 3.2-4.8	1.5-25 mm
BN 21404	FSC-STST	Steel	Steel	Ø 4.8	2.4-12.7 mm

Large head



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21416	FML-ALST	Aluminum	Steel	Ø 3.2-4.8	1.0-21 mm
BN 21419	FML-STST	Steel	Steel	Ø 4.8	1.1-12.7 mm

FASTEKS® BLIND RIVETS

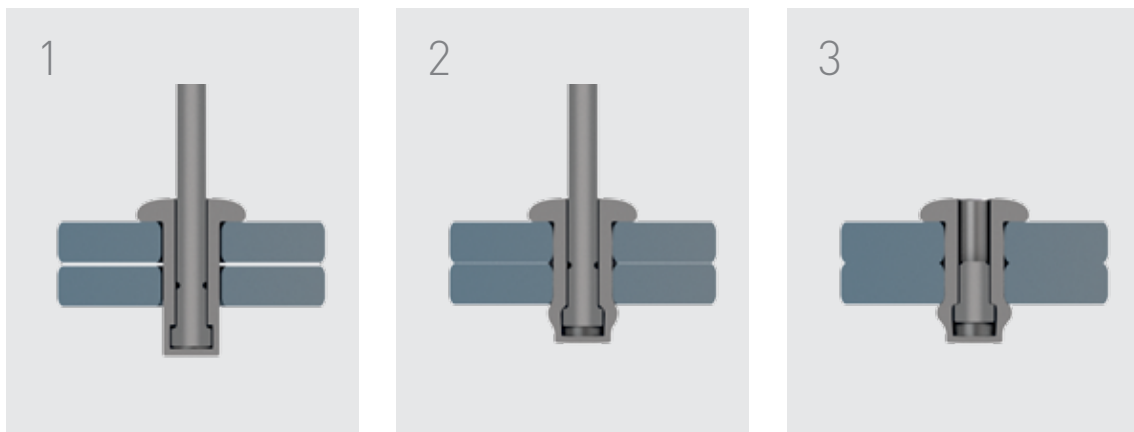
Closed End rivets

The FASTEKS® Closed End rivet creates air-, water- and dust-tight fastenings thanks to the closed rivets.

Characteristics

- Captive breakstem
- Air-, water- and dust-tight

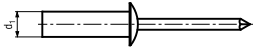
Setting process/operating principle



FASTEKS® Closed End rivets

Dome head

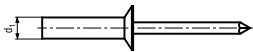
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Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21422	FCD-ALST	Aluminum	Steel	Ø 3.2-6.4	0.5-17.5 mm
BN 21425	FCD-STST	Steel	Steel	Ø 3.2-6.4	0.5-12.5 mm
BN 21426	FCD-SSA2	St. st. A2	St. st. C1	Ø 3.2-6.4	0.5-17 mm
BN 21428	FCD-ALA2	Aluminum	St. st. A2	Ø 3.2-4.8	0.5-20 mm
BN 21429	FCD-ALAL	Aluminum	Aluminum	Ø 3.2-4.8	0.5-13.5 mm
BN 21430	FCD-CUST	Copper	Steel	Ø 3.2-4.8	0.5-10 mm
BN 21431	FCD-CUA4	Copper	St. st. A2	Ø 3.2-4.8	0.5-10 mm

Countersunk head

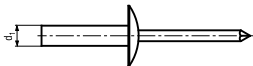
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Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21423	FCC-ALST	Aluminum	Steel	Ø 3.2-4.8	2.0-16 mm

Large head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21424	FCL-ALST	Aluminum	Steel	Ø 3.2-4.8	3.5-16 mm
BN 21427	FCL-SSA2	St. st. A2	St. st. C1	Ø 3.2-4.8	1.5-11 mm

FASTEKS® BLIND RIVETS

Peel rivets

Unique to FASTEKS® Peel rivet is the deformation during the setting process. When set the closing head is split in four parts and thus forms a large seating. This expanding closing head is ideal for fastening of relatively soft or porous components.

Characteristics

- Large (expanding) closing head
- For fastening of soft and porous materials (wood, hard fiber, plasterboard etc.)
- No breakstem in rivet sheath
- Compensation for drill hole tolerances
- High clamping strength even on soft materials

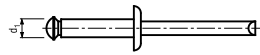
Setting process/operating principle



FASTEKS® Peel rivets

Dome head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21432	FPD-ALST	Aluminum	Steel	Ø 3.2-4.8	0.5-29 mm



FASTEKS® Peel rivet

FASTEKS® BLIND RIVETS

Grooved rivets

The FASTEKS® Grooved rivet is designed for processing in blind holes. The rivet sheath works itself in during processing, presses perfectly into the material and gives a reliable rivet fastening in soft metallic and non-metallic materials.

Characteristics

- For rivet fastenings in blind holes

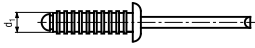
Setting process/operating principle



FASTEKS® Grooved rivets

Dome head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21433	FGD-ALST	Aluminum	Steel	Ø 3.2-4.8	-max. 25 mm



FASTEKS® Grooved rivet

FASTEKS® BLIND RIVETS

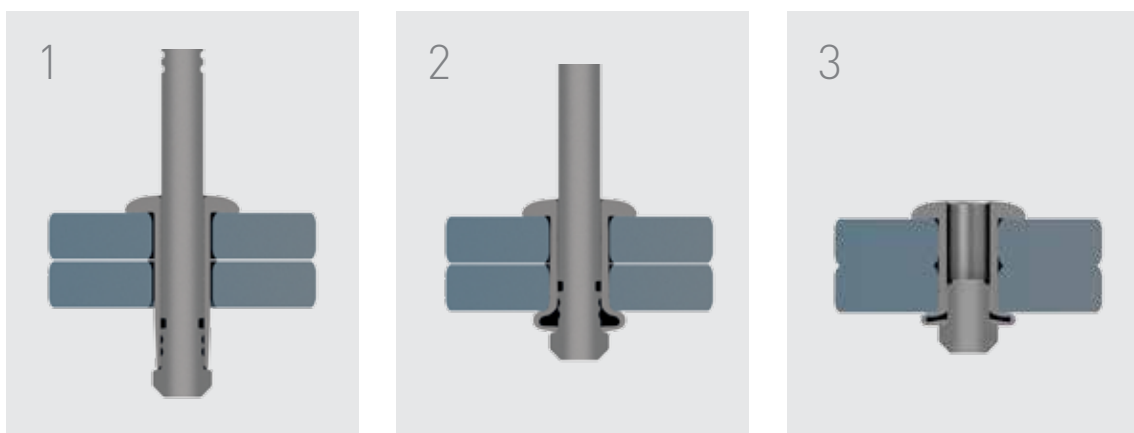
F-Bulb/F-Nox rivets

The FASTEKS® F-Bulb rivet marks a steel/steel material combination. The FASTEKS® F-Nox rivet marks a stainless steel (A2)/stainless steel (A2) material combination. Both blind rivets have a secured breakstem and form a large closing head.

Characteristics

- Large closing head and large bearing surface (ideal for thin sheet metal)
- Secured breakstem (strong resistance to vibration)
- Splash-water proof (with corresponding hole)
- Corrosion resistance (F-Nox)
- Compensates for drilling hole tolerances

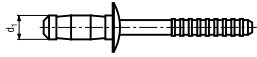
Setting process/operating principle



FASTEKS® F-Bulb rivets

Dome head

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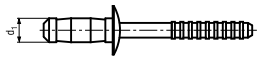


Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21434	FBUD-STST	Steel	Steel	Ø 3.2-4.8	1.0-8.5 mm

FASTEKS® F-Nox rivets

Dome head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21435	FND-SSA2	St. st. A2	St. st. A2	Ø 3.2-4.8	1.0-25 mm



FASTEKS® F-Nox rivet

FASTEKS® BLIND RIVETS

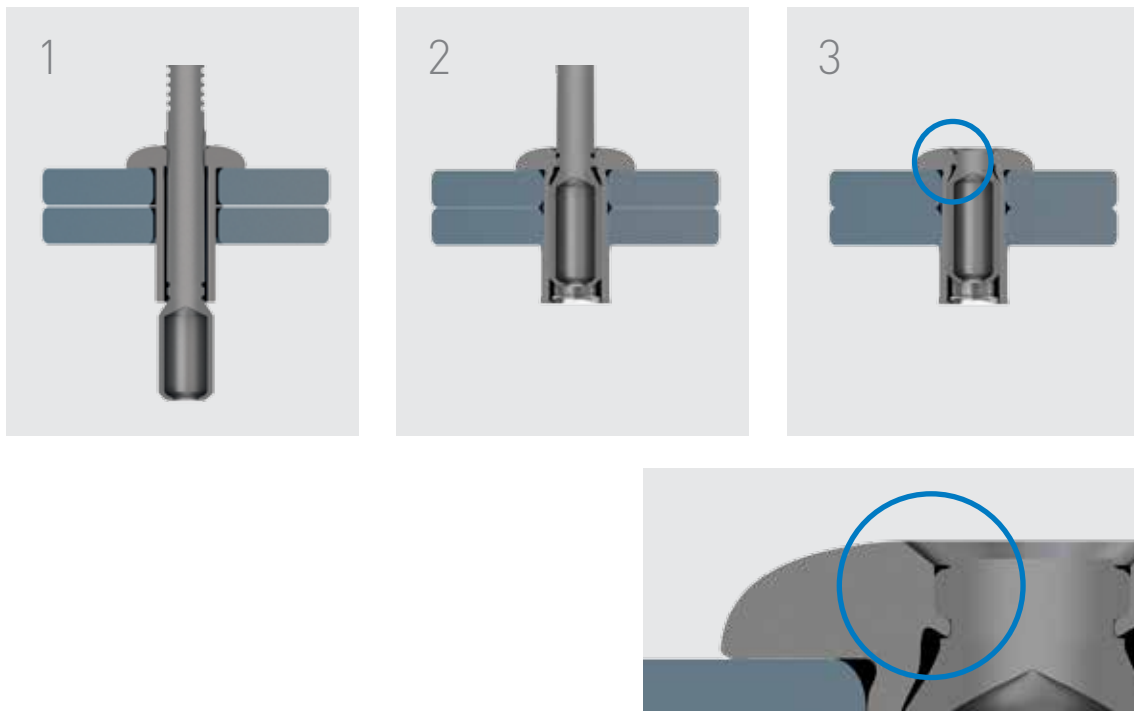
F-Lock rivets

The FASTEKS® F-Lock is designed so that the breakstem snaps flush on the rivet head and is mechanically locked in the rivet sheath.

Characteristics

- Flush riveting mandrel (very high shear and tensile strength)
- Mechanically locked breakstem (very high resistance to vibration)
- Large clamping area
- Splash-proof

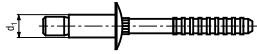
Setting process/operating principle



FASTEKS® F-Lock rivets

Dome head

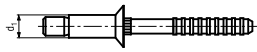
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Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21436	FLD-ALAL	Aluminum	Aluminum	Ø 4.8-6.4	1.58-15.87 mm
BN 21437	FLD-STST	Steel	Steel	Ø 4.8-6.4	3.17-12.07 mm

Countersunk head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21438	FLC-STST	Steel	Steel	Ø 4.8-6.4	3.17-12.07 mm



FASTEKS® F-Lock rivet

FASTEKS® BLIND RIVETS

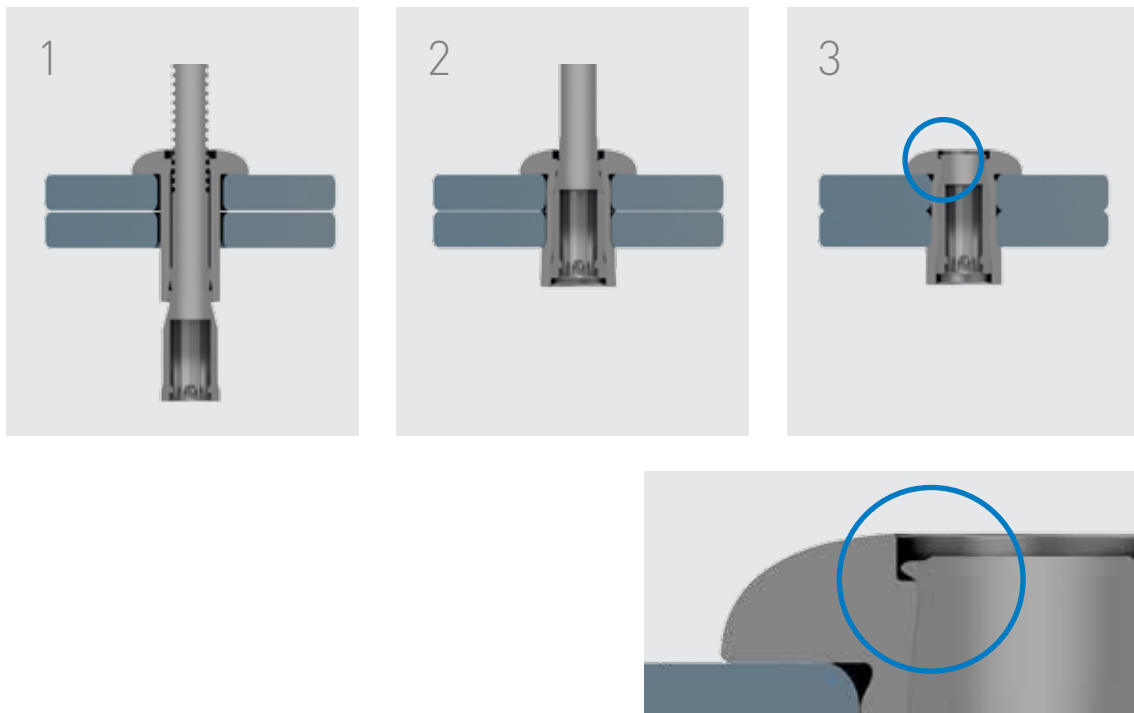
F-Bolt rivets

The FASTEKS® F-Bolt rivet is designed so that the breakstem snaps flush on the rivet head and is mechanically locked in the rivet sheath. The locking is visible on the rivet head and can therefore be checked easily.

Characteristics

- Flush riveting mandrel (very high shear and tensile strength)
- Mechanically locked breakstem (very high resistance to vibration)
- Large clamping area
- Splash-proof

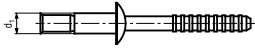
Setting process/operating principle



FASTEKS® F-Bolt rivets

Dome head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21439	FBOD-STST	Steel	Steel	Ø 4.8 - 6.4	1.63 - 15.87 mm
BN 21441	FBOD-SSA2	St. st. A2	St. st. A2	Ø 4.8 - 6.4	1.63 - 15.87 mm

Countersunk head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21440	FBOC-STST	Steel	Steel	Ø 4.8 - 6.4	3.17 - 12.07 mm



FASTEKS® F-Bolt rivets are processed with a special nose piece. The nose piece causes the mechanical locking of the riveting mandrel in the rivet sheath.

FASTEKS® BLIND RIVETS

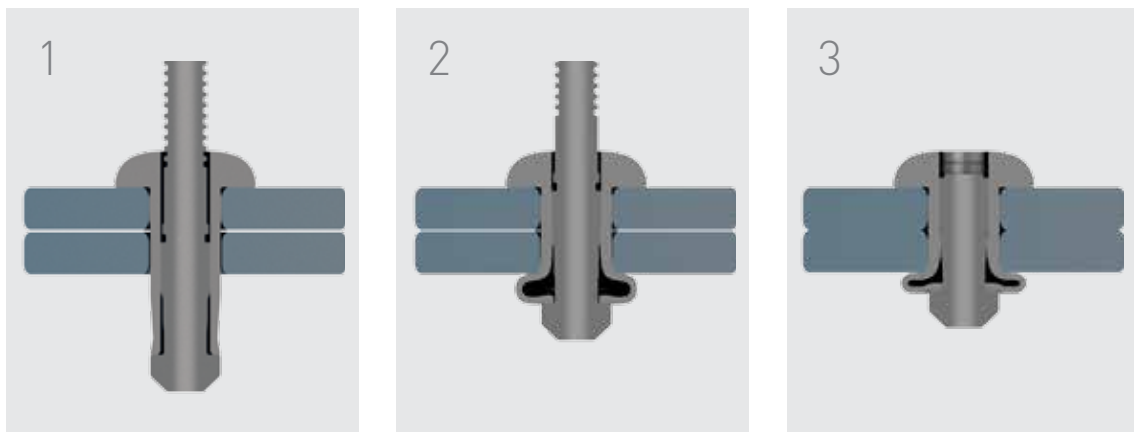
F-Hem rivets

The FASTEKS® F-Hem rivet forms a closing head with a large bearing surface and is therefore ideally suited for thin sheet metal.

Characteristics

- Flush riveting mandrel (very high shear and tensile strength)
- Mechanically locked breakstem (very high resistance to vibration)
- Large closing head (optimal for thin sheets)
- Compensates for drilling hole tolerances

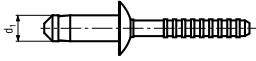
Setting process/operating principle



FASTEKS® F-Hem rivets

Dome head

fasteks



Order number	Short name	Material		d1 from/to	Grip range from/to
		Body	Mandrel		
BN 21442	FHD-STST	Steel	Steel	Ø 4.8-6.4	1.63-15.87 mm
BN 21443	FHD-SSA2	St. st. A2	St. st. A2	Ø 4.8-6.4	1.5-14.8 mm



FASTEKS® F-Hem rivet



“Our comprehensive range of rivets offers the right solution for your application.”

FASTEKS® SPEED RIVETS

Speed rivets

FASTEKS® speed rivets are preloaded on the riveting mandrel. This makes FASTEKS® speed rivets unique. The job of managing and raising speed rivets is allocated to the riveting mandrel. This way the safety of the process is always guaranteed (no determination of the appropriate mandrel and checking mandrel wear, thanks to single-use mandrel).

Characteristics

- Rapid processing (up to 70 rivets per minute)
- Cost-saving
- Especially weight-saving
- Variety of materials
- No breakstem (no waste)

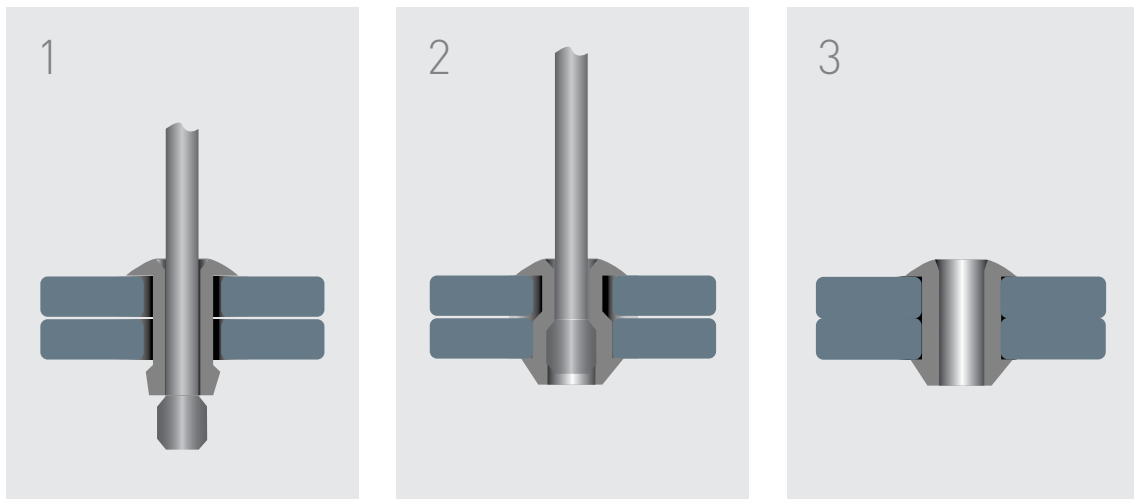


FASTEKS® SPEED RIVETS

Standard speed rivets

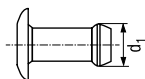
FASTEKS® standard speed rivets achieve a high clamping strength thanks to the formation of its closing head.

Setting process/operating principle

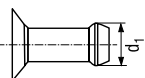


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Dome head



Countersunk head



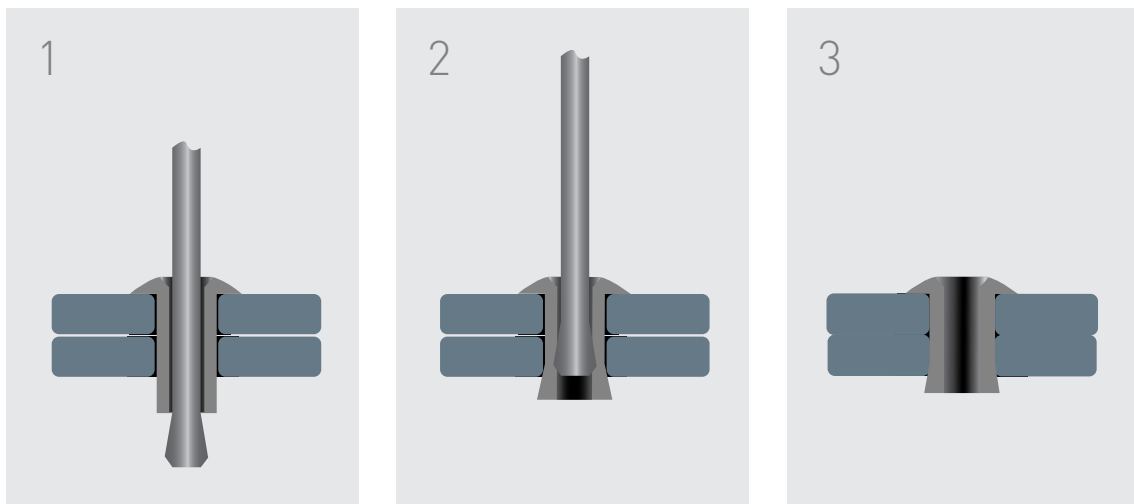
Type	Short name	Material		d1 from/to	Grip range from/to
Standard	Dome head	Aluminum	Steel	St. st. Ø 3.2-4.8 mm	1.1-10 mm
Standard	Countersunk head	Aluminum	Steel	Ø 3.2 mm	1.5-6.8 mm

FASTEKS® SPEED RIVETS

Multi speed rivets

FASTEKS® Multi speed rivets have a high grip range and a pronounced bearing stress.

Setting process/operating principle

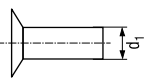


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Dome head



Countersunk head



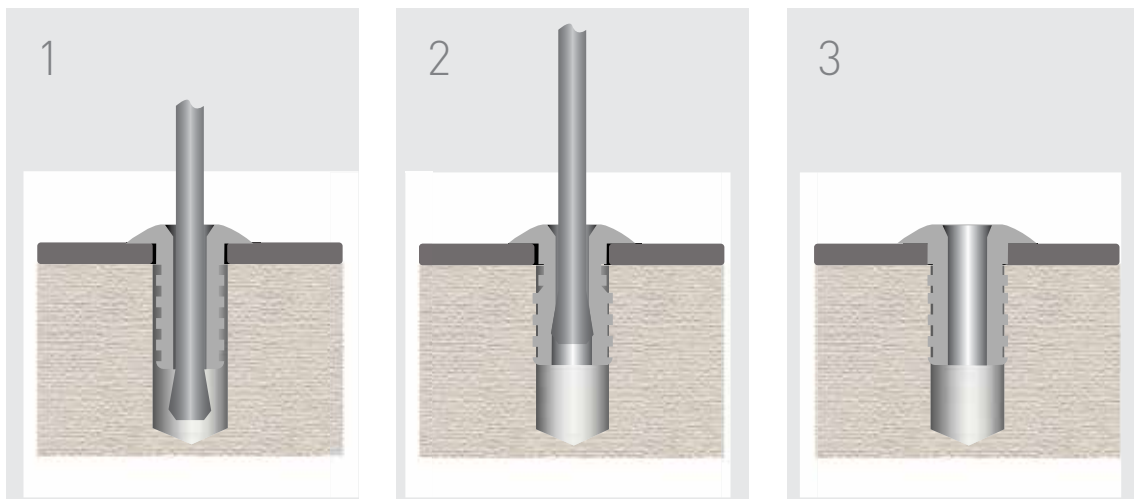
Type	Short name	Material	d1 from/to	Grip range from/to
Multi	Dome head	Aluminum	Steel St. st. Ø 1.9-4.8 mm	1.0-11 mm
Multi	Countersunk head	Aluminum	Steel Ø 3.0-4.8 mm	1.0-12 mm

FASTEKS® SPEED RIVETS

Grooved speed rivets

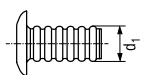
FASTEKS® grooved speed rivets have a solderable or solder-resistant coat and are therefore particularly suitable for electronic components.

Setting process/operating principle



fasteks

Dome head



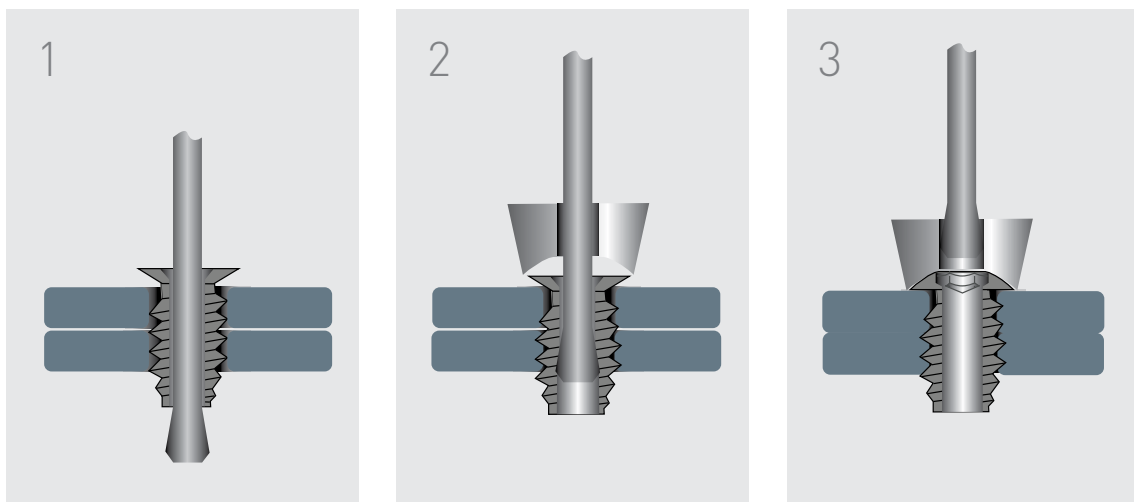
Type	Short name	Material	d1 from/to	Grip range from/to	
Multi	Dome head	Alu- minum	Brass	Ø 1.7-2.6 mm	1.1-9 mm

FASTEKS® SPEED RIVETS

Screw speed rivets

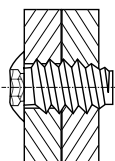
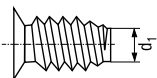
FASTEKS® screw speed rivets with boring thread can be unscrewed again after installation (counter-sunk head is transformed into flat head in the riveting process).

Setting process/operating principle



fasteks

Dome head after riveting process



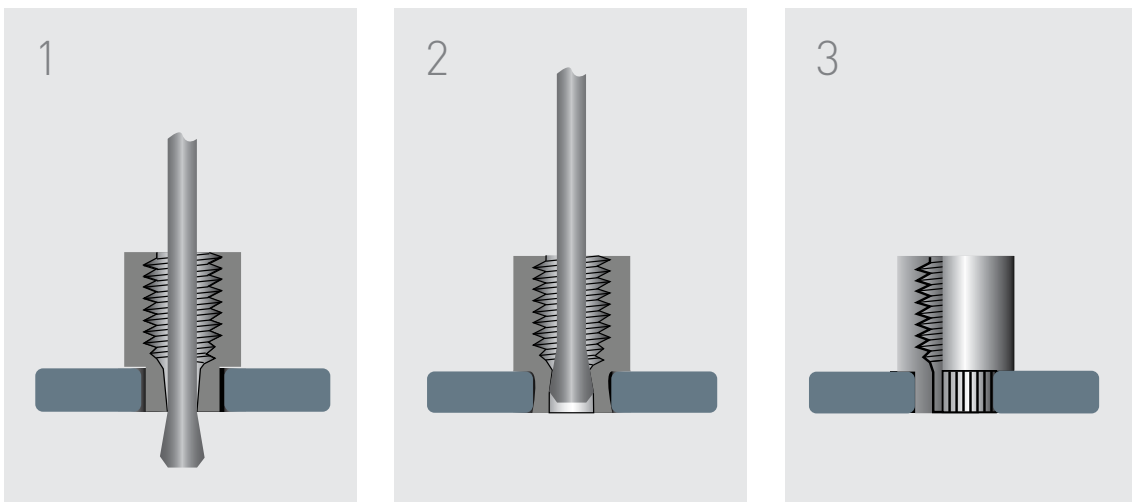
Type	Short name	Material	d1 from/to	Grip range from/to
Multi	Dome head	Steel	Ø 2.7-3.5 mm	1.6-7.8 mm

FASTEKS® SPEED RIVETS

Space speed rivets

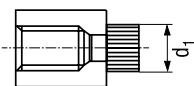
FASTEKS® space speed rivets can be used as a spacer on printed circuit boards (board thickness 0.8mm–2.4mm).

Setting process/operating principle



fasteks

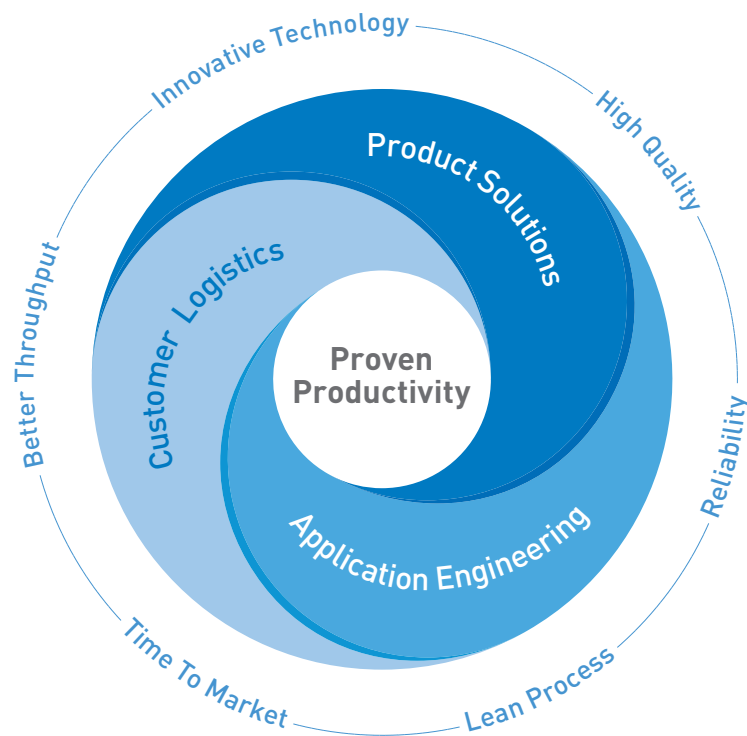
Spacer



Type	Short name	Material	d1 from/to	Grip range from/to
Space	Spacer	Brass	Ø 2.5–3.2 mm	0.8–2.4 mm

PROVEN PRODUCTIVITY – A PROMISE TO OUR CUSTOMERS

The strategy for success



From years of cooperation with our customers we know what achieves proven and sustainable impact. We have identified what it takes to strengthen the competitiveness of our customers. Therefore we support our customers in three strategic core areas.

Firstly, when finding optimal **product solutions**, that is in the evaluation and use of the best fastening part for the particular function intended in our customers' products.

Secondly, from the moment in which our customers begin to develop a new product, our **application engineering** delivers the smartest solutions for all possible fastening challenges.

And thirdly in the most streamlined **customer logistics**, that is in the reduction or even elimination of procurement costs along our customers' entire supply chain.

Understood as a promise to our customers, "Proven Productivity" contains two elements: Firstly, that it demonstrably works. And secondly, that it sustainably and measurably improves the productivity and competitiveness of our customers.

And this for us is a philosophy which motivates us every day to always be one step ahead.

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