TITGEMEYER

U-VAL

Fastening Technology / Threaded Inserts

TIBOLT®

Blind Rivet Studs

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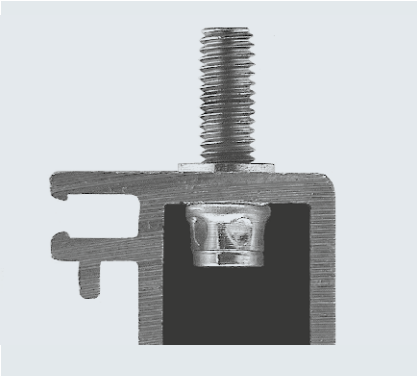
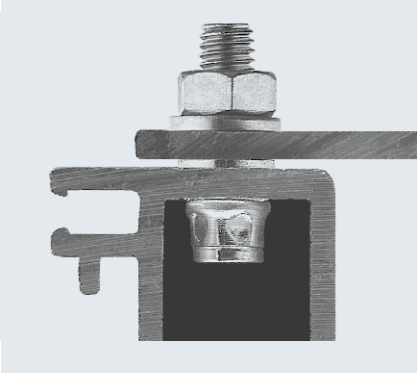
Contents

TIBOLT® blind rivet studs

TIBOLT® blind rivet studs are the alternative to weld studs or threaded self-clinching studs. The sleeve and stud are cold welded together. This welding process performs the double function of forming a twist-resistant join between the two components while also holding the upset on the blind end of the rivet. Without this, the body that forms during the rivet installation process would drag the material away from the stud head. The welding process ensures that the blind rivet studs offer absolute stability and load-bearing capacity. The term ‘absolute’ here means that the stud, and not the rivet connection, gives way when overloaded. Upon installation, blind rivet studs can therefore be subjected to the same loads as same-quality DIN studs.

The TIBOLT® is installed from one side. This is both rational and time-saving, especially for components that are difficult or impossible to access from the blind side. Highly practical: as a result of this strong rivet installation process, it is also possible to fasten further sheet panels to the component. By attaching commercially available nuts, the protruding thread on the blind rivet stud will support any other installed fasteners. Blind rivet studs are supplied in 8.8 mating screw proof load quality. Their installation using hand lever or hydropneumatic installation tools is extremely easy, fast, and material-friendly. Surface-finished components can also be installed without being damaged. The same tools can be used as for blind rivet nuts, with only the threaded mandrels needing to be replaced with internal threaded mandrels.





Benefits at a glance

- One-sided access
- No thermal action on the base material, therefore no deforming or discolouring as occurs with welding, for example
- Replaces weld bolts or threaded self-clinching studs
- Enables the component to be pre-attached to the base component before fastening

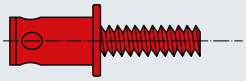
Easy, rational and time-saving installation

1. Prepare the drilled hole.
2. Screw the TIBOLT® into the internal threaded mandrel of the rivet installation tool.
3. Insert the TIBOLT® blind rivet stud into the drilled hole.
4. The rivet installation tool retracts the internal threaded mandrel and rivets the TIBOLT® axially to the component. Hold the rivet installation tool squarely to the component when performing the installation.
5. Spin off the internal threaded mandrel.
6. The TIBOLT® is now ready to be used to support additional fasteners. For best twist-proof results, the attached parts must rest very flush on the head of the TIBOLT® blind rivet stud.

Form of delivery

Head type:	Flat or countersunk head
Threads:	Threads M 4, M 5, M 6, M 8
Material Sleeve:	C4C steel
Material Stud:	1.5523 steel (property class 8.8)
Finish:	5 – 8 µm galvanised and passivated, Cr-6 free, RoHS-compliant

1.



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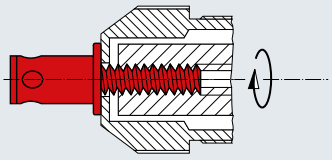

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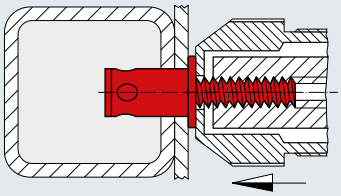

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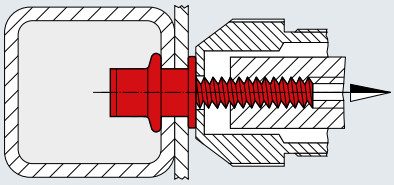

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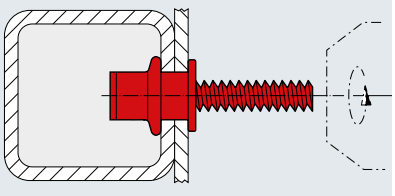

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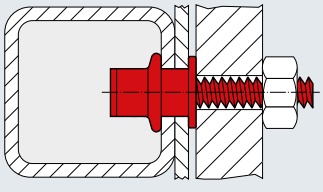
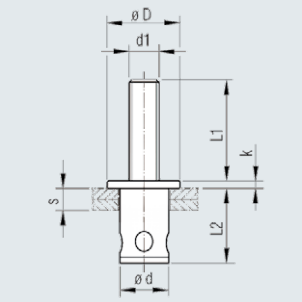


TIBOLT® blind rivet studs

Flat head

Material

Steel, galvanised



Thread size d1	Grip range s [mm]	Hole ø [mm]	Thread length L1* [mm]	Shank ø d max [mm]	Head ø D [mm]	Head height k [mm]	Shank length L2 [mm]	Article No.
M4	0.2 - 1.8	5.5	8.0	5.4	8.0	0.5	8.0	332 402 000
			15.0	5.4	8.0	0.5	8.0	332 405 000
M5	0.2 - 1.8	6.6	10.0	6.5	9.0	0.75	9.0	332 503 000
			15.0	6.5	9.0	0.75	9.0	332 505 000
	2.0 - 3.3	6.6	10.0	6.5	9.0	0.75	10.5	332 513 000
			15.0	6.5	9.0	0.75	10.5	332 515 000
M6	0.3 - 2.2	7.8	10.0	7.7	10.0	1.0	10.0	332 603 000
			15.0	7.7	10.0	1.0	10.0	332 605 000
			20.0	7.7	10.0	1.0	10.0	332 607 000
	2.5 - 3.8	7.8	10.0	7.7	10.0	1.0	11.5	332 613 000
			15.0	7.7	10.0	1.0	11.5	332 615 000
			20.0	7.7	10.0	1.0	11.5	332 617 000
	4.0 - 5.8	7.8	10.0	7.7	10.0	1.0	13.5	332 623 000
			12.0	7.7	10.0	1.0	13.5	332 624 000
			15.0	7.7	10.0	1.0	13.5	332 625 000
			20.0	7.7	10.0	1.0	13.5	332 627 000
M8	0.3 - 2.8	9.9	15.0	9.8	12.0	1.5	12.5	332 805 000
			20.0	9.8	12.0	1.5	12.5	332 807 000
			25.0	9.8	12.0	1.5	12.5	332 808 000
	3.0 - 4.8	9.9	15.0	9.8	12.0	1.5	15.0	332 815 000
			20.0	9.8	12.0	1.5	15.0	332 817 000
			25.0	9.8	12.0	1.5	15.0	332 819 000

* L1= Dimensions will vary depending on the grip range and tool settings.

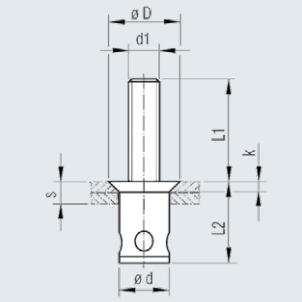
Further designs available on request.

TIBOLT® blind rivet studs

90° countersunk head

Material

Steel, galvanised



Thread size d1	Grip range s [mm]	Hole ø [mm]	Thread length L1* [mm]	Shank ø d max [mm]	Head ø D [mm]	Head height k [mm]	Shank length L2 [mm]	Article No.
M4	1.6 - 2.3	5.5	15.0	5.4	8.0	1.5	8.5	332 455 000
M5	1.5 - 2.8	6.6	10.0	6.5	9.0	1.4	10.0	332 553 000
			15.0	6.5	9.0	1.4	10.0	332 555 000
M6	1.5 - 3.2	7.8	10.0	7.7	10.0	1.3	11.0	332 653 000
			15.0	7.7	10.0	1.3	11.0	332 655 000
			20.0	7.7	10.0	1.3	11.0	332 657 000
M8	1.5 - 3.8	9.9	15.0	9.8	12.0	1.3	13.5	332 855 000
			20.0	9.8	12.0	1.3	13.5	332 857 000
	4.0 - 5.3	9.9	15.0	9.8	12.0	1.3	15.0	332 865 000
			20.0	9.8	12.0	1.3	15.0	332 867 000

* L1= Dimensions will vary depending on the grip range and tool settings

When installing the countersunk head version, the drilled hole should only be countersunk deep enough so that the head of the TIBOLT® blind rivet studs protrudes approx. 0.1 mm above the surface.

Further designs available on request.