

Anchor® - serrated rivet bushing ...

The Anchor rivet bushing is a threaded insert made of steel or rustproof material, brass or light alloy with a counter-bored and serrated shank.

Anchor is riveted into thin-walled moulded parts with pre-punched receiving holes. During this process, the riveted serrations of the shank cut into the side wall, creating an absolutely secure fastening.

The special shape of the shank and the countersinking at the bottom protect the thread from damage during installation. In almost all application cases, overload testing indicated that Anchor remains firmly seated even if the thread is completely overtightened.

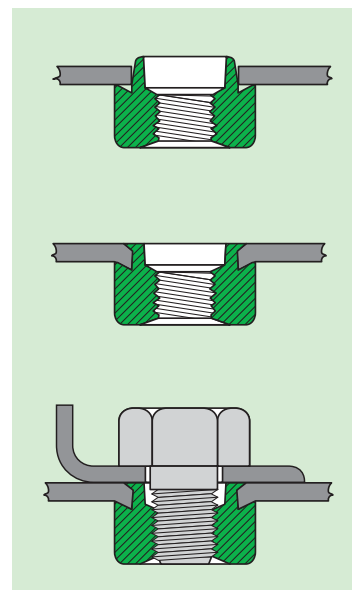


Fields of application

Anchor rivet bushings enjoy universal application, offering a wide variety of design possibilities: for hardwearing screw connections in the automotive industry, for reliable fixture of highly sensitive electronic parts etc.

Product features

- Anchor is torque-resistant and capable of loads applied from both sides.
- Anchor can be used in surface-treated, ready-plated parts, so eliminating the need for time-consuming cleaning of internal threads and reworking damage at the surface.
- When turning in the screw, it is impossible for the Anchor to be forced out of the hole. This saves incalculable time losses.
- The Anchor thread is clean, true to gauge and is wear-resistant. It has a precisely fitted centered seat without the need to use templates or other positioning devices.



Specifications

Works Standard sheets 701 to 758, page 7 - 9

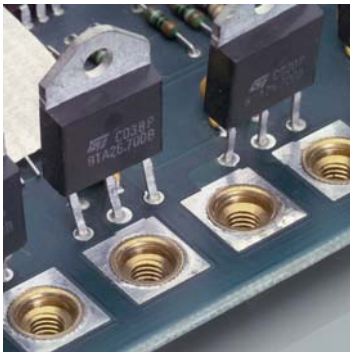
On request:

Special Anchor-S with screw lock TufLok in the internal thread. The captive plastic support serves as a safeguard against the screw working loose of its own accord.

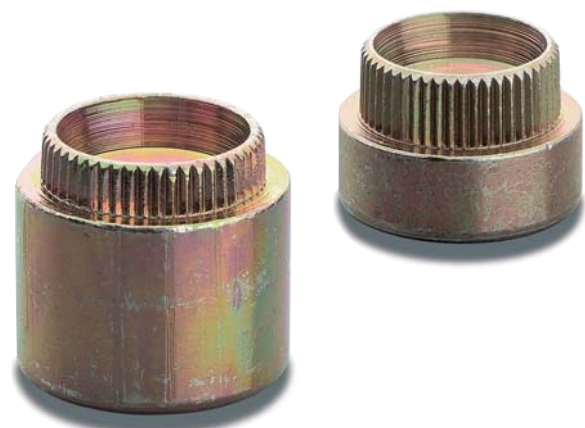
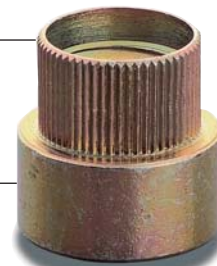
Also available:

Special Anchor-D with sealing agent precote 5 on the contact surface.





Special request	We recommend
Space and weight-saving design	Anchor-Mini with small outer dimensions (Works Standard 721 to 738)
Thread seal	Anchor-Blind with blind thread (Works Standard 741 to 758)
Distanced fixture	Anchor in special lengths
Support or bearing function	Anchor without internal thread (special version)
Flush finish to the surface of the metal	Processing using Anchor with tumble or radial rivetting machine, or use Anchor for the next smallest sheet metal thickness
Extremely high loads (torque / push-out forces) or seal between the Anchor and the sheet metal	Select a smaller receiving hole and fix Anchor with a hollow punch before rivetting. (Or in a single work process using a combined setting and rivetting tool).
If lower seating strength is sufficient, e.g. in plastic or soft metal panels	Simply press in Anchor without rivetting. In the case of circuit boards, for example, the shank can also be soldered.

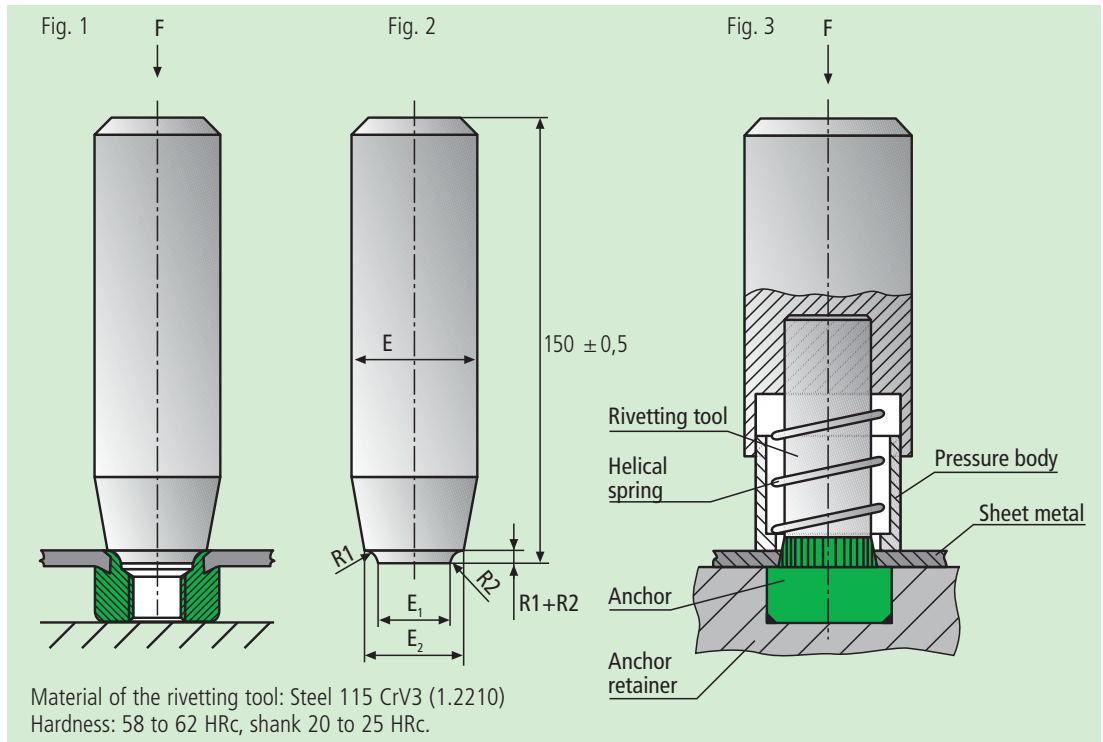


Anchor[®] installation ...

Installation

Punch or drill a hole, insert Anchor and rivet the shank with a simple rivetting tool (Fig. 1 + 2):

- manually
- using a pneumatic manual rivetting hammer
- using a simple press
- by inserting Anchor and rivetting using a tumble or radial riveting process
- automatic feed in follow-on tools
- with special high-performance installation devices for large-scale series. Output up to 50 parts per minute
- To avoid deformation of thin sheet metal components use a doubleacting rivetting tool (Fig. 3)



Rivetting pressure P

with mechanical rivetting
(Anchor made of steel)

M 2 / M 3	appr. 15 to 27 kN
M 4	20 to 30 kN
M 5	22 to 42 kN
M 6	30 to 54 kN
M 8	45 to 81 kN
M 10	65 to 97 kN
M 12 - M16	80 to 160 kN

Dimensions of the rivetting tools (Fig. 2):

	Article no. 401 ... for Anchor and Anchor-Blind					Article no 421 ... for Anchor-Mini				
	E1	R1	R2	E2	E	E1	R1	R2	E2	E
M 2	4,3	0,6	0,5	7,1	12	2,4	0,6	0,5	4,8	12
M 2,5/ M 3	4,3	0,6	0,5	7,1	12	3,2	0,6	0,5	5,5	12
M 3,5/ M 4	5,3	0,7	0,5	8,7	12	4,3	0,6	0,5	7,1	12
M 5	6,7	0,9	0,5	10,3	16	5,3	0,6	0,5	8,7	12
M 6	8,0	1,0	0,6	11,9	16	6,5	0,6	0,6	10,3	12
M 8	11,1	1,1	0,6	15,5	20	8,5	0,6	0,5	11,5	12
M 10	13,5	1,2	0,6	18,3	20	-	-	-	-	-
M 12 - M16	17,1	1,4	0,6	22,2	25	-	-	-	-	-



Rivet Bushing serrated

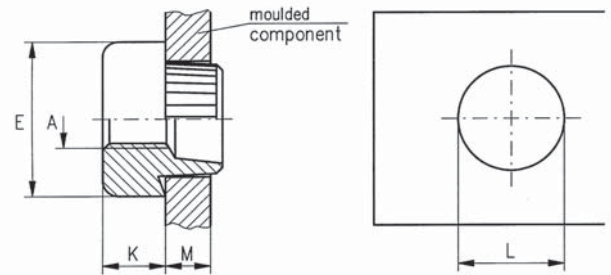
Anchor®
Works Standard
701 0 to 718 0

Application

Anchor is a rivet bushing for captive, torque-resistant screw connections capable of withstanding loads from both sides in thin-walled workpieces (0,5 to 5 mm thickness)

The Anchor is suitable for thin-walled moulded components made of

- steel
- alloy
- NF metals and
- plastic



Dimensions in mm

Article no. of the first group of digits	for sheet metal thickness M	Article no. of the second and third group of digits	Internal thread A	External diameter E	Nut height K	Recommended hole diameter L + 0,1
701	0,5 to 0,6 1)	... 000 020 ...	M 2	8,0	3,2	6,0
702	0,7 1)	... 000 025 ...	M 2,5	8,0	3,2	6,0
703	0,8 1)	... 000 030 ...	M 3	8,0	3,2	6,0
704	0,9 to 1,0 1)	... 000 035 ...	M 3,5	9,5	3,8	7,0
705	1,1 to 1,3 1)	... 000 040 ...	M 4	9,5	3,8	7,0
706	1,4 to 1,6 1)	... 000 050 ...	M 5	11,0	4,4	8,4
707	1,7 to 1,9 2)	... 000 060 ...	M 6	12,5	5,7	9,7
708	2,0 to 2,2 2)	... 000 080 ...	M 8	16,0	6,4	13,2
709	2,3 to 2,5 2)	... 000 100 ...	M 10	19,0	7,6	15,5
710	2,6 to 2,8 2)	... 000 120 ...	M 12	25,4	10,2	19,6
711	2,9 to 3,1 2)	... 000 140 ...	M 14	25,4	10,2	19,6
712	3,2 to 3,4 2)	... 000 160 ...	M 16	25,4	10,2	19,6
713	3,5 to 3,7 2)	<p>The first group of digits is applicable for conventional rivetting; by problems with the flush processing (high-strength steel sheet / stainless workpieces) we recommend using shank lengths for the next smallest sheet metal thickness!</p> <p>1) Shoulder 20° undercut 2) Surfaced shoulder</p>				
714	3,8 to 4,0 2)					
715	4,1 to 4,3 2)					
716	4,4 to 4,6 2)					
717	4,7 to 4,9 2)					
718	5,0 2)					

Exemple for finding the article number

Serrated rivet bushing Anchor with internal thread M5

Steel unhardened, unrefined for sheet thickness (mild steel)

Steel unhardened, unrefined for sheet thickness (high-strength or stainless steel)

2 mm: Anchor 708 000 050.100

2 mm: Anchor 707 000 050.100

Materials

Steel unhardened, unrefined

Steel unhardened, zinc plated, blue passivated

Steel unhardened, zinc plated, yellow chromated

Steel unhardened, zinc-nickel plated, transparent passivated

Stainless steel

Light alloy

Brass

Article no. (**fourth** group of digits) 100

Article no. (**fourth** group of digits) 110

Article no. (**fourth** group of digits) 120

Article no. (**fourth** group of digits) 143

Article no. (**fourth** group of digits) 500

Article no. (**fourth** group of digits) 700

Article no. (**fourth** group of digits) 800

Other materials (e.g. steel, strength class 8) and versions (e.g. nut height or shank lengths for deviating sheet metal thicknesses) on request.

Tolerances

ISO 2768-m

Thread

Internal thread A: as per ISO 6H