# The variants – thread inserts for self-tapping insertion QUICKSERT®



# Your advantages

- Universal use
- High-strength and torsion-resistant threads
- For brittle and ductile plastics such as unsaturated polyester resins (SMC, ZMC), polyurethane and glass-fibre reinforced thermoplastics
- Optimum installation characteristics

# The principle

The QUICKSERT® consists of a cylindrical basic body with internal thread and a special external thread. The profile of the external thread has an extremely small flank angle and expands asymmetrically toward the thread root. With the special geometry of the flank angles, the radial tension is minimised. The installation with low driving torques is therefore optimised. A high interference fit is achieved with an ideal distribution of load. The bottom part of the thread insert is provided with a cutting slot. For special requirements, we offer a version with flange. The QUICKSERT® is screwed in with a rotating spindle.

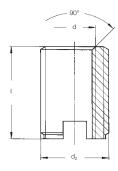




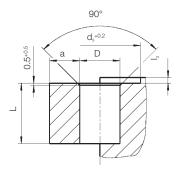
# **Technical data**

Material: **brass CuZn38Pb2** (compliant with EU 2000/53) / **brass CuZn39Pb3** or steel 1.0718 11SMnPb30 galvanised, chromated

Type 1434



# Mounting hole®



For installation tools and machines, please see pages 33–35

	Steel, unnardened	Brass					
d	item code	item code	1	$d_2$	D*①	L <sub>min.</sub>	a <sub>min.</sub>
М3	1434 103 0006	1434 503 0006	6.0	6.0	4.6-5.4	7.0	2.0
M 4	1434 104 0008	1434 504 0008	8.0	7.0	5.6-6.6	9.0	3.0
M 5	1434 105 0010	1434 505 0010	10.0	8.0	6.6-7.6	11.0	4.0
M 6	1434 106 0014	1434 506 0014	14.0	10.0	8.1-9.4	15.0	4.0
M 8	1434 108 0015	1434 508 0015	15.0	12.0	10.1 – 11.4	16.0	5.0
M 10 <sup>2</sup>	1434 110 0018	1434 510 0018	18.0	14.0	12.1-13.4	19.0	5.0
M 10°	1434 110 0018	1434 510 0018	18.0	14.0	12.1 – 13.4	19.0	5.0

Metric ISO thread according to DIN 13-6H. Technical changes reserved. All measures in mm.

\*See table on page 21

Other sizes and special designs on request.

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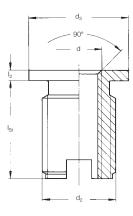
<sup>©</sup> Guideline values: depend on the moulding material, may have to be changed after installation tests.

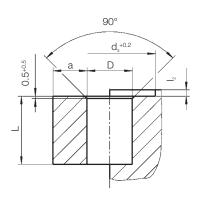
<sup>&</sup>lt;sup>2</sup> Minimum quantity on request.

# **Technical data**

Type 1433<sup>2</sup>

# Mounting hole





The flange version has a large contact surface and thus reduces the surface pressure.

#### Recommended mounting holes - diameter in mm - for QUICKSERT® in different materials®

	M 3	M 4	M 5	M 6	M 8	M 10
PE (soft), PP	4.6	5.6	6.6	8.1	10.1	12.1
PA 6, PA 6.6, PBT, PE (hard), PET, POM	4.8	5.8	6.8	8.3	10.3	12.3
ASA, SAN	5.0	6.0	7.0	8.5	10.5	12.5
ABS, PA 6 GF 30 %, PBT GF 30 %, PET GF 30 %, PS, PVC (hard)	5.2	6.2	7.2	8.7	10.7	12.7
PA 6.6 GF 30 %, PC, PC GF 30 %, PPE (GF 30 %), PPS (GF 30 %)	5.4	6.4	7.4	9.0	11.0	13.0
SMC, ZMC, BMT		6.6	7.6	9.4	11.4	13.4

Version with hexagon flange on request.

#### For installation tools and machines, please see pages 33-35

	Steel,	Brass									
d	unhardened	item code	l <sub>St</sub>	I <sub>Ms</sub>		$d_2$	d <sub>3</sub>	D*1	L <sub>min. St</sub>	L <sub>min. Ms</sub>	a <sub>min.</sub>
M 4	1433 104 0105	1433 504 0009	9.5	8.0	1.0	7.0	10.0	5.6-6.6	10.5	9.0	3.0
M 5	1433 105 0127	1433 505 0112	11.5	10.0	1.2	8.0	11.0	6.6-7.6	12.5	11.0	4.0
M 6	1433 106 0174	1433 506 0154	16.0	14.0	1.4	10.0	13.0	8.1-9.4	17.0	15.0	4.0
8 M	1433 108 0184	1433 508 0164	17.0	15.0	1.4	12.0	15.0	10.1-11.4	18.0	16.0	5.0

Metric ISO thread according to DIN 13-6H. Technical changes reserved. All measures in mm.

- <sup>®</sup> Guideline values: depend on the moulding material, may have to be changed after installation tests.
- ② Hardened version on request.
- \* See table above.

Other sizes and special designs on request.

Minimum quantity on request.

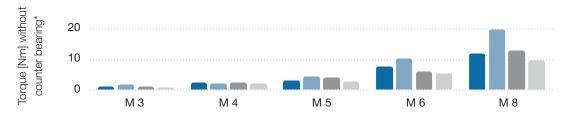
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# **Technical data**

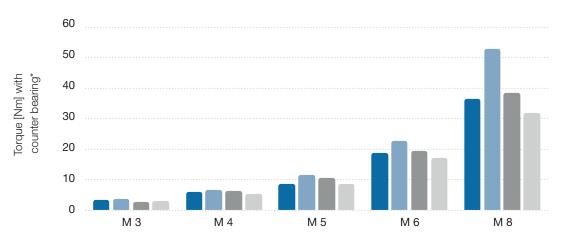
# Torque values for QUICKSERT® M 3 to M 8 tested in different materials



\*Guideline values from laboratory tests where the joint is subjected to overstress.

		M 3	M 4	M 5	M 6	M 8
ABS	MA [Nm]	1.3	2.5	3.2	7.7	12.1
■ PC	MA [Nm]	1.8	2.4	4.5	10.5	19.8
■ PA	MA [Nm]	1.2	2.6	4.1	6.1	13.2
PE/PP	MA [Nm]	1.1	2.3	2.8	5.5	9.9

All measures in mm.



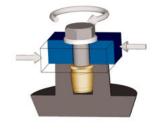
\*Guideline values from laboratory tests where the joint is subjected to overstress.

		M 3	M 4	M 5	M 6	M 8
ABS	MR [Nm]	3.3	6.1	8.8	18.7	36.3
■ PC	MR [Nm]	3.9	6.7	11.6	22.6	52.8
■ PA	MR [Nm]	2.8	6.2	10.5	19.3	38.5
PE/PP	MR [Nm]	3.0	5.5	8.6	17.1	31.9

All measures in mm.



Torque without counter bearing (MA[Nm])\*\*



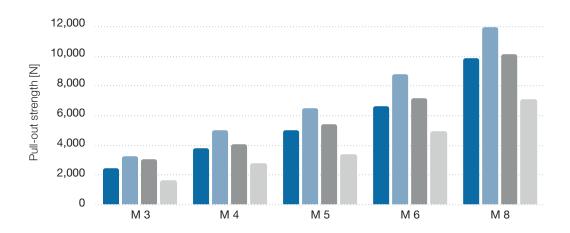
Torque with counter bearing (MR[Nm])\*\*\*
Through hole as per DIN EN 20273 (medium)

<sup>\*\*</sup>In the MA test, comparative values can be determined. The test is not recommended for real screw joints.

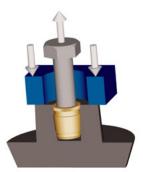
<sup>\*\*\*</sup>The values for MR are usually limited by the screw fracture. For the design with counter bearing, tightening torques for property class 8.8 as per VDI 2230 can be applied.

# **Technical data**

# Pull-out values for QUICKSERT® M 3 to M 8 tested in different materials



		M 3	M 4	M 5	M 6	M 8
ABS	FA [N]	2,430	3,780	5,040	6,660	9,900
■ PC	FA [N]	3,240	5,040	6,480	8,820	11,970
■ PA	FA [N]	3,060	4,050	5,400	7,200	10,170
PE/PP	FA [N]	1,620	2,790	3,420	4,950	7,110



Pull-out strength (FA[N])

# **Technical information**

The specified values are guideline values. We recommend an application-specific installation test. To be on the safe side, for fibre-reinforced plastics, the strengths of the non-reinforced material are to be assumed. Strength values for other thread inserts on request.