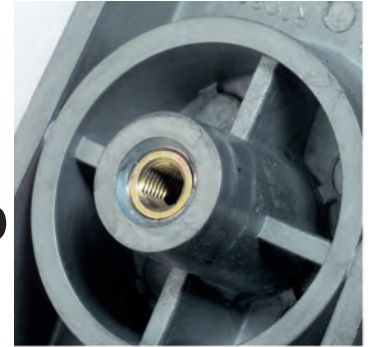




The Ensats® – pull-out resistance due to flange cover ...



Connections using threaded insert Ensats® permit substantially smaller dimensions and consequently material and weight-saving designs.

The illustration below (Fig. 2) shows a screw connection with different screw cross-sections. Despite the smaller

screw cross-section, a screw joint with an Ensats® is capable of withstanding higher axial forces than the screw joint with larger screw cross-section; because the force – both under static and dynamic load – in the Ensats® male thread is distributed evenly over the individual thread turns of the Ensats® male thread.

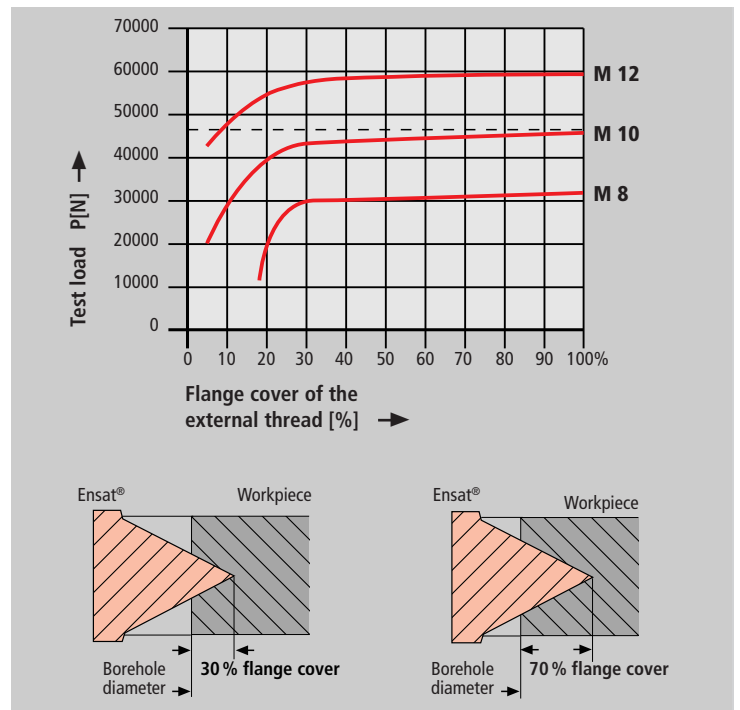


Fig. 3

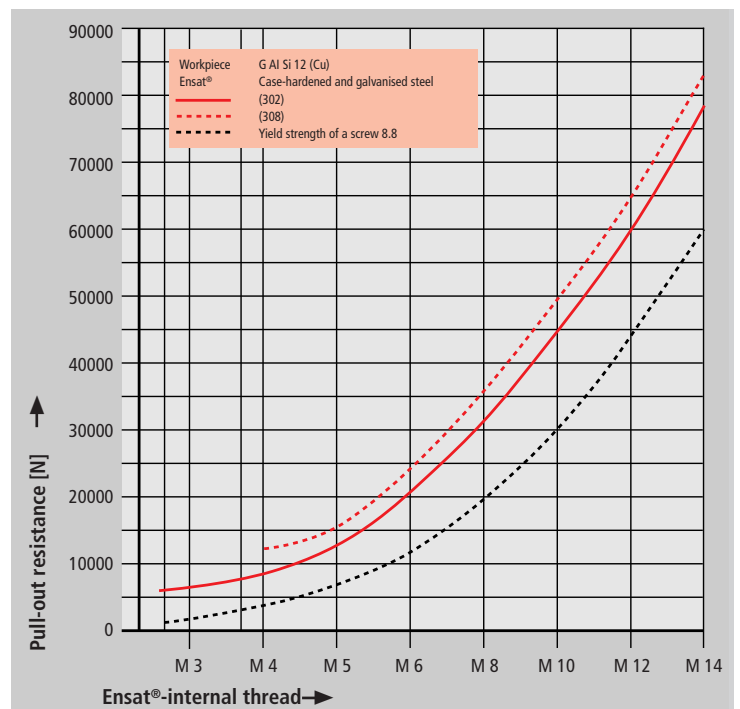
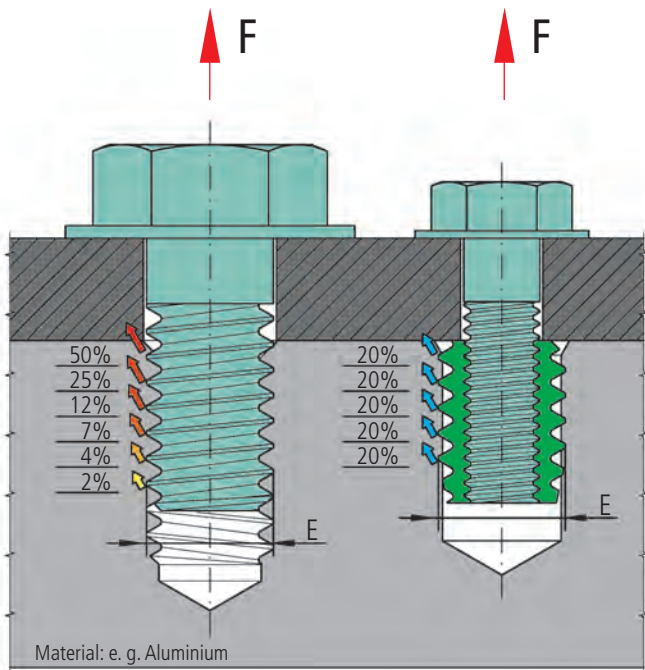


Fig. 4



E = Diameter cut thread = Outside diameter of the Ensats®

Fig. 2

Flange cover

In a workpiece made of a light alloy, the Ensats® 302 achieves almost maximum pull-out strength with only 30% flange cover (Fig. 3).

Pull-out strength

The Ensats® is capable of withstanding high loads. When used in light alloys, for example, a degree of pull-out strength is achieved which far exceeds the yield strength of the mating screw 8.8 (Fig. 4).



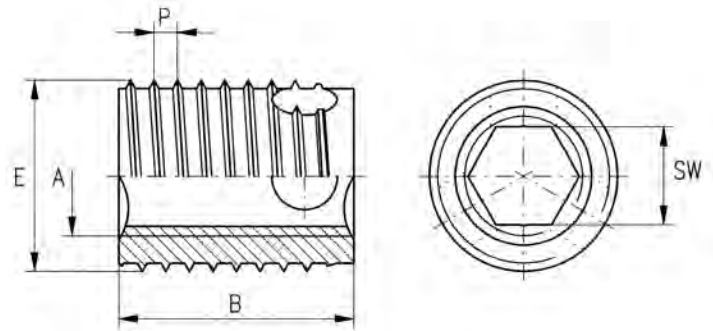
Application

Threaded insert Ensats®-SBI with cutting bores is a self-tapping fastener for the creation of wear-free, vibration resistant screw joints with high loading capacity in materials with higher shearing strength.

Hexagonal socket

The Ensats® is inserted via the hexagonal socket, permitting the achievement of short installation time.
Other benefits: More simple driving tools and machines which require only clockwise rotation.

The Ensats® can be extracted without problems before the recycling process.



Dimensions in mm

Article number	Internal thread	External thread Special thread		Length B	Hexagonal socket	Guideline values for receiving hole diameter	Minimum borehole depth for blind holes
	A	E	P		SW +0,1	L	T
307 200 040 ...	M 4	6,5	0,8	6	3,2	6,1 to 6,2	8
308 200 040 ...	M 4	6,5	0,8	8	3,2	6,1 to 6,2	10
307 200 050 ...	M 5	8	1	7	4,1	7,6 to 7,7	9
308 200 050 ...	M 5	8	1	10	4,1	7,6 to 7,7	13
307 200 060 ...	M 6	10	1,25	8	4,9	9,5 to 9,6	10
308 200 060 ...	M 6	10	1,25	12	4,9	9,5 to 9,6	15
307 200 080 ...	M 8	12	1,5	9	6,6	11,3 to 11,5	11
308 200 080 ...	M 8	12	1,5	14	6,6	11,3 to 11,5	17
307 200 100 ...	M 10	14	1,5	10	8,3	13,3 to 13,5	13
308 200 100 ...	M 10	14	1,5	18	8,3	13,3 to 13,5	22
307 200 120 ...	M 12	16	1,75	12	10,1	15,2 to 15,4	15
308 200 120 ...	M 12	16	1,75	22	10,1	15,2 to 15,4	26

Example for finding the article number

Self-tapping threaded insert with hexagonal socket Ensats®-SBI to Works Standard 307 2 with internal thread A = M5 made of case-hardened, zinc plated and blue passivated steel: Ensats®-SBI 307 200 050.110

Short design
Long design

Works Standard 307
Works Standard 308

Materials

Case-hardened steel, zinc plated, blue passivated
Case-hardened steel, zinc-nickel plated, transparent passivated
Stainless steel 1.4305 (M4 to M8)
Brass

Article no. (**fourth** group of digits) 110
Article no. (**fourth** group of digits) 143
Article no. (**fourth** group of digits) 500
Article no. (**fourth** group of digits) 800

Other materials, designs and finishes on request.

Tolerance

ISO 2768-m

Thread

Internal thread A: as per ISO 6H
External thread E: Special thread with flattened thread root, as per KKV standard