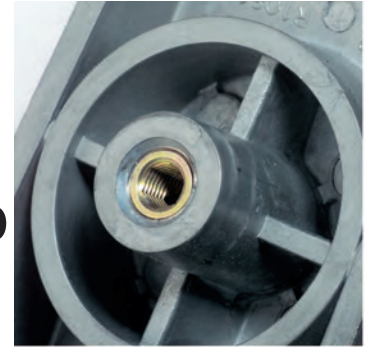




# The Ensats® – pull-out resistance due to flange cover ...



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.

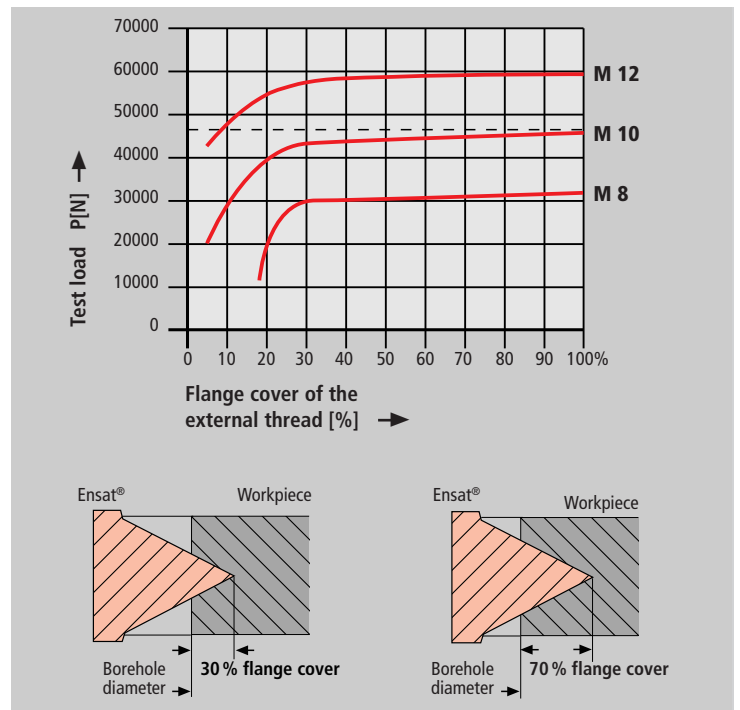


Fig. 3

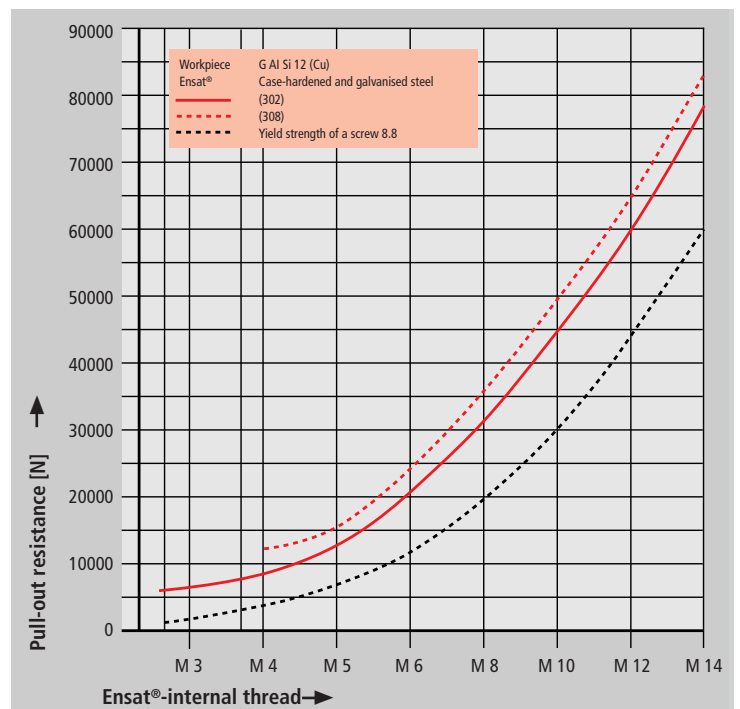
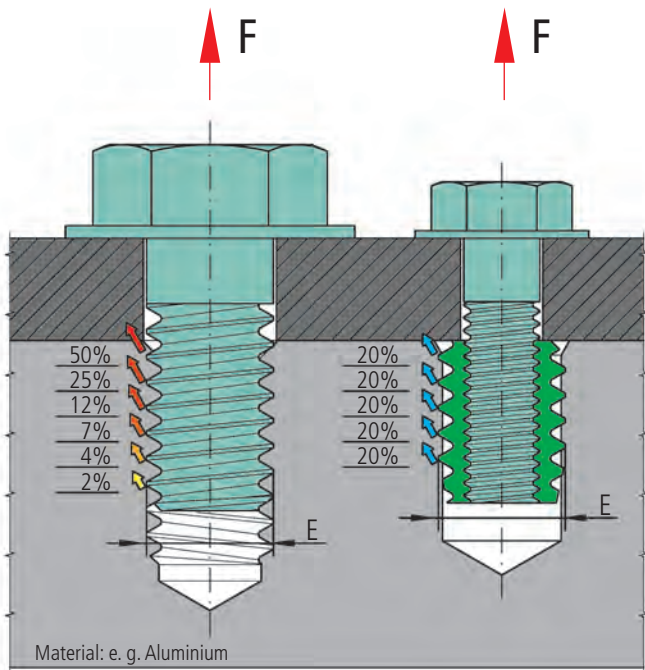


Fig. 4



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).





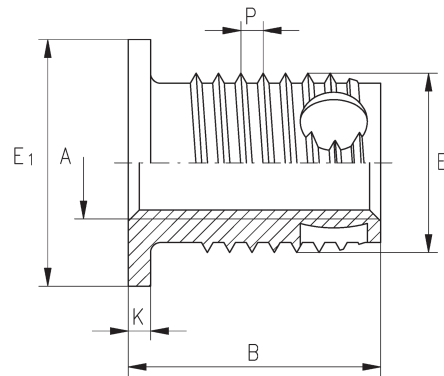
**Threaded insert**  
self-tapping

**Ensats®-SBSK**  
Works Standard  
337 1 and 338 1

**Application**

The Threaded insert Ensats®-SBS based on the part geometry of the threaded insert Ensats®-SBS.

The head serves as a support for electrical contacts when fastening several parts simultaneously; when stress is applied against the head, the pull-through force is significantly increased.



Dimensions in mm

Article number	Internal thread	External thread Special thread		Head diameter	Head height	Length	Borehole diameter	Minimum borehole depth for blind holes
	A	E	P	E <sub>1</sub>	K	B	L -0,1	T
337 100 050 ...	M 5	8	1	11	1	8	7,7	9
338 100 050 ...	M 5	8	1	11	1	11	7,7	13
337 100 060 ...	M 6	10	1,25	13	1,5	9,5	9,6	10
338 100 060 ...	M 6	10	1,25	13	1,5	13,5	9,6	15
337 100 080 ...	M 8	12	1,5	15	1,5	10,5	11,5	11
338 100 080 ...	M 8	12	1,5	15	1,5	15,5	11,5	17
337 100 100 ...	M 10	14	1,5	17	1,5	11,5	13,5	13
338 100 100 ...	M 10	14	1,5	17	1,5	19,5	13,5	22

**Example for finding the article number**

Self-tapping threaded insert Ensats®-SBSK to Works Standard 337 1 with internal thread A = M5 made of case-hardened, zinc plated and blue passivated steel: Ensats®-SBSK 337 100 050. 110

**Short design**  
**Long design**

Works Standard 337  
Works Standard 338

**Materials**

Case-hardened steel, zinc plated, blue passivated  
Case-hardened steel, zinc-nickel plated, transparent passivated  
Brass

Article no. (fourth group of digits) ... 110  
Article no. (fourth group of digits) ... 143  
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  
Internal thread UNC, UNF, Whitworth on request