

S-Lok® – threaded insert and stud ...

The S-Lok® is a threaded insert / stud with a graduated opposing herringbone knurl on the outside and a pilot end for problem-free insertion.

Its unique shape has been tailored to the requirements of the material and was developed especially for insertion into plastic components by means of ultrasonic vibration or heat transfer.

Well-known manufacturers of ultrasonic welding machines recommend S-Lok® due to the low energy requirement, the short insertion time and the problem-free production.

Field of application

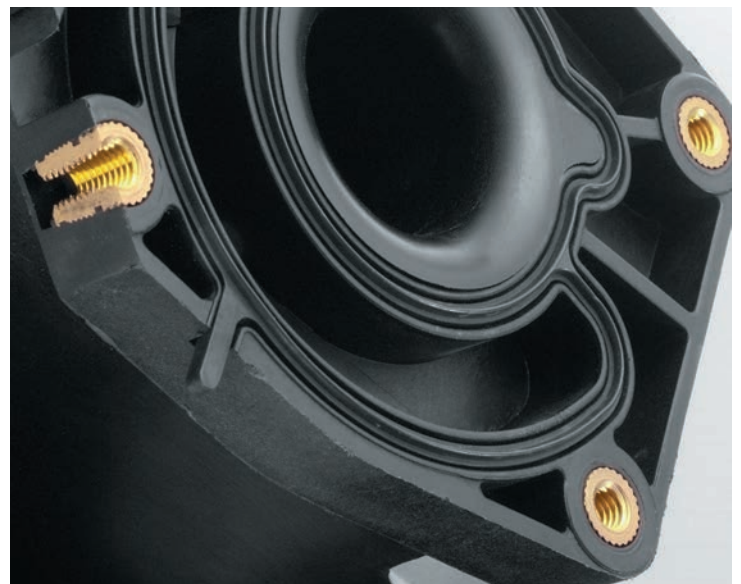
For all moulded parts made of thermoset plastics.

Product features

- Also suitable for thin-wall thicknesses, elimination of material tension.
- The firm seating is largely insensitive to borehole tolerances and material shrinkage.

Available versions:

- Standard length
- Shortened version
- Contact head for electrical contacts or simultaneous fastening of several parts.
- Stud with and without contact head



S-Lok® – Construction and installation ...

Design of the moulded component and receiving hole

Hole diameter (L , fig. 24) and wall thicknesses (W) are dependent on the material used for the formed part, the insertion method and the requirements imposed on pull-out resistance / torque safety. Please inquire or ascertain by testing. For guideline values, see the Works Standard sheets.

Countersinking (N) is recommended if the insert would not moulded in.

Countersinking diameter (N) = S-Lok®-outside diameter E .

Countersinking depth t :

M 2	~ 0,4 mm
M 2,5 / M 3,5	~ 0,5 mm
M 4 / M 5	~ 0,7 mm
M 6 / M 8 / M 10	~ 1,1 mm

Hole depth:

(T) \geq length of the S-Lok® + 1 mm.
(fig. 24).

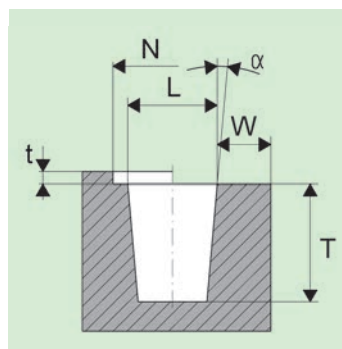


Fig. 24

Installation

Inserts are installed by means of ultrasonic or heat transfer. This causes the plastic to soften so that it flows into the knurl profile of the S-Lok®. On subsequent cooling, a firm seat is obtained which is capable of withstanding high loads.

The pull-out resistance is generally higher than is the case with moulded-in components, and depends on the plastic, the size of the receiving hole, the wall thickness, the edge distance and the correct setting of the installation equipment.

Installation machine

(fig. 22 and 23) on request.



Fig. 22

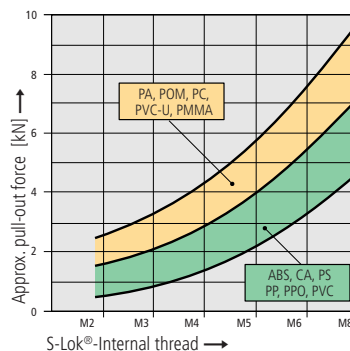


Fig. 25



Fig. 23



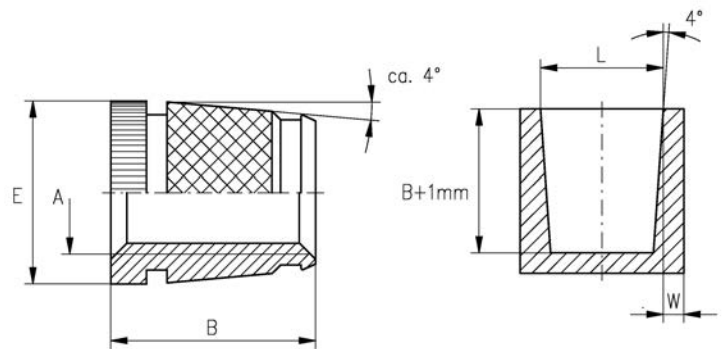
Threaded inserts
for heat or ultrasonic embedding

S-Lok®-KOH
Works Standard
853 2 / 854 2

Application

For the manufacture of wear and vibration-resistant screw fasteners with high loading capacity in plastic, preferably thermoset plastics. The inserts are pressed into pre-formed receiving holes with 4° demoulding incline during softening of the hole wall by means of heating or ultrasonic technology.

Animation



Dimensions in mm

Article number	Internal thread	External diameter	Length	Hole diameter (guideline values)	Minimum wall thickness	Article number short version	Length
	A	E	B	L +0,1	W		B
853 200 030.800	M 3	4,7	5,5	4,4	1,8	854 200 030. 800	5,0
853 200 035.800	M 3,5	5,5	6,0	5,2	1,8	854 200 035. 800	5,5
853 200 040.800	M 4	6,1	7,5	5,8	2,0	854 200 040. 800	6,0
853 200 050.800	M 5	7,3	9,0	6,9	2,5	854 200 050. 800	7,0
853 200 060.800	M 6	8,9	10,0	8,5	2,5	854 200 060. 800	9,0
853 200 080.800	M 8	11,3	12,0	10,9	3,0		

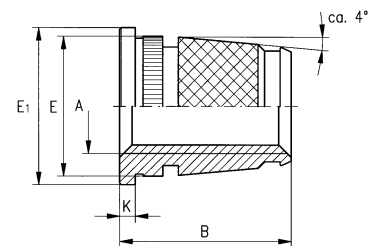
Example for finding the article number

Threaded insert S-Lok®-KOH to Works Standard 853 2 with demoulding incline 4°, internal thread M4, length 7,5 mm made of brass: S-Lok®-KOH 853 200 040.800



Threaded inserts
for heat or ultrasonic embedding

S-Lok®-KOHK
Works Standard
855 2



Dimensions in mm

Article number	Internal thread	External diameter (without head)	Head diameter	Head height	Length
	A	E	E ₁	K	B
855 200 030.800	M 3	4,7	6,4	0,6	6,1
855 200 035.800	M 3,5	5,5	7,0	0,8	6,8
855 200 040.800	M 4	6,1	8,0	0,8	8,3
855 200 050.800	M 5	7,3	8,5	1,0	10,0
855 200 060.800	M 6	8,9	10,0	1,0	11,0
855 200 080.800	M 8	11,3	12,5	1,3	13,3

For receiving hole diameter, see article no. 853 2.. ...

Materials

Brass

Article no. (fourth group of digits) 800

Other dimensions on request.

Tolerances

ISO 2768-m

Thread

Internal thread A: as per ISO 6H