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) ≥ length of the S-Lok® + 1 mm. (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 mouldedin 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

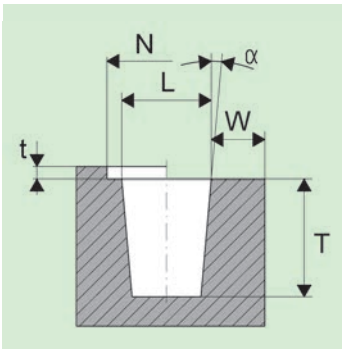


Fig. 24

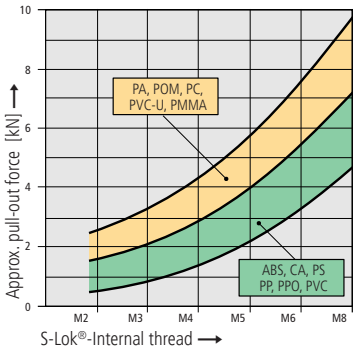


Fig. 25

Fig. 23

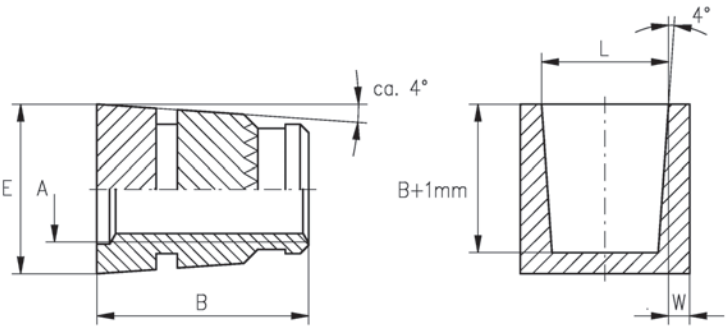
Kerb Konus

Threaded inserts
for heat or ultrasonic embedding

S-Lok®-KO
Works Standard
853 1 / 854 1

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 preformed receiving holes with 4° demoulding incline during softening of the hole wall by means of heating or ultrasonic technology.



Dimensions in mm

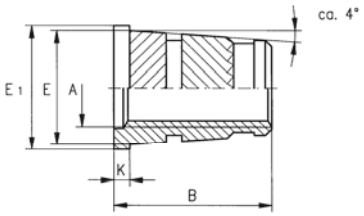
Article number	Internal thread A	External diameter E	Length B	Hole diameter (guideline values) L +0,1	Minimum wall thickness W	Article number short version	Length B
853 100 030.800	M 3	4,6	5,5	4,4	1,8	854 100 030. 800	5,0
853 100 035.800	M 3,5	5,4	6,0	5,2	1,8	854 100 035. 800	5,5
853 100 040.800	M 4	6,0	7,5	5,8	2,0	854 100 040. 800	6,0
853 100 050.800	M 5	7,2	9,0	6,9	2,5	854 100 050. 800	7,5
853 100 060.800	M 6	8,8	10,0	8,5	2,5	854 100 060. 800	9,0
853 100 080.800	M 8	11,2	12,0	10,9	3,0	854 100 080. 800	10,0

Example for finding the article number
Threaded insert S-Lok®-KO to Works Standard 853 1 with demoulding incline 4°, internal thread M4, length 7,5 mm made of brass: S-Lok®-KO 853 100 040.800

Kerb Konus

Threaded inserts
for heat or ultrasonic embedding

S-Lok®-KOK
Works Standard
855 1



Dimensions in mm

Article number	Internal thread A	External diameter (excluding head) E	Head diameter E_1	Head heigth K	Length B
855 100 030.800	M 3	4,6	6,4	0,6	6,1
855 100 035.800	M 3,5	5,4	7,2	0,8	6,8
855 100 040.800	M 4	6,0	8,0	0,8	8,3
855 100 050.800	M 5	7,2	9,0	1,0	10,0
855 100 060.800	M 6	8,8	10,0	1,3	11,3
855 100 080.800	M 8	11,2	12,5	1,3	13,3

For receiving hole diameter, see article no. 853 1.. … …

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