

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.

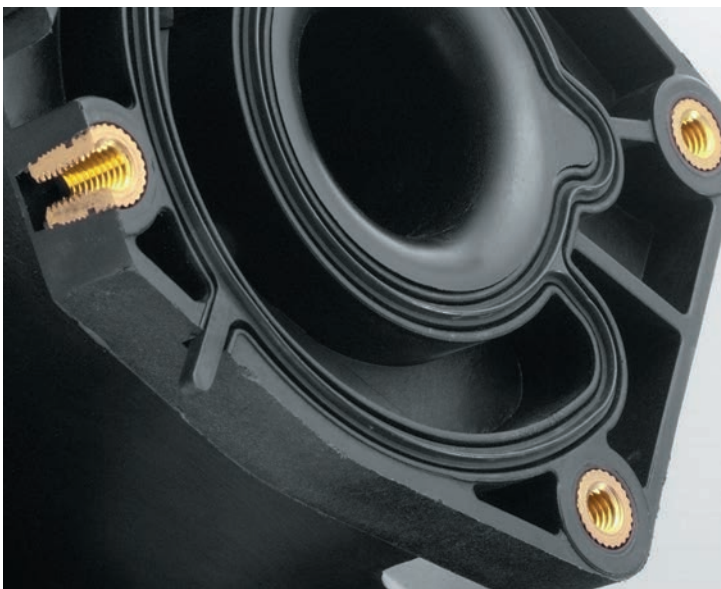
Well-known manufacturers of ultrasonic welding machines recommend S-Lok® due to the low energy requirement, the short insertion time and the problem-free production.

Product features

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

Field of application

For all moulded parts made of thermoset plastics.



Design of the moulded component and receiving hole

Hole diameter (L, fig. 23) 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.

If the component offers easy mould removal, cylindrical receiving holes are recommended. For conical receiving holes: $\alpha = 0,5^\circ$ to 4° (see Works Standard 853 0 / 1 and 855 0 / 1 also 853 2 and 855 2).

Countersinking (N) is recommended if embedding takes place within a taper of a $\alpha \leq 1^\circ 30'$ using heat.

Countersinking diameter = S-Lok®-outside diameter E.

Countersinking depth:	
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	~ 1,1 mm
M 10	~ 1,4 mm

Hole depth:
(T) \geq length of the S-Lok® + 1 mm.
(fig.23).

Available versions

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

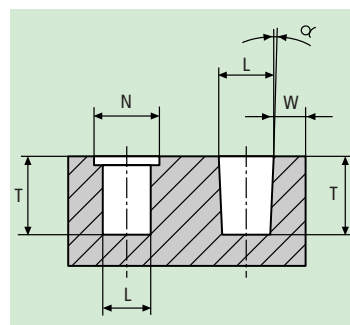


Fig. 23

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.24)
on request.

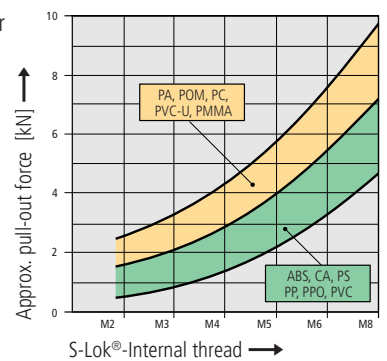


Fig. 22

All table values (fig. 22) apply only if the screw is inserted to at least 50% of its length in the threaded insert.



Fig. 24