

## 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).

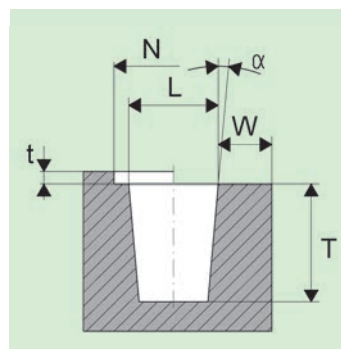


Fig. 24

## 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

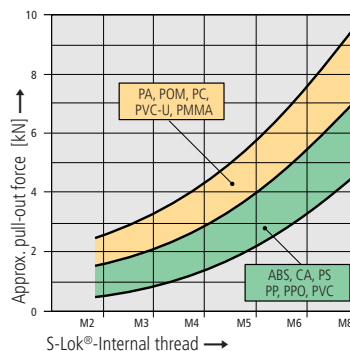


Fig. 25



Fig. 23

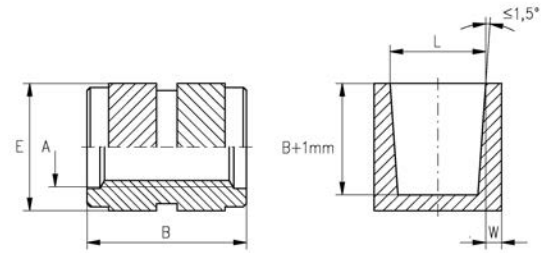


**Threaded inserts**  
for heat or ultrasonic embedding

**S-Lok®-RB**  
Works Standard  
864

**Application**

Easily sortable due to their symmetrical shape and usable on both sides, suitable for all applications in thermoset plastics.



Dimensions in mm

| Article number  | Internal thread | External diameter | Length | Hole diameter (guideline values) | Minimum wall thickness |
|-----------------|-----------------|-------------------|--------|----------------------------------|------------------------|
|                 | A               | E                 | B      | L + 0,1                          | W                      |
| 864 000 020.800 | M 2             | 3,6               | 4,0    | 3,2                              | 1,5                    |
| 864 000 025.800 | M 2,5           | 4,6               | 5,8    | 4,0                              | 1,8                    |
| 864 000 030.800 | M 3             | 4,6               | 5,8    | 4,0                              | 1,8                    |
| 864 000 035.800 | M 3,5           | 5,4               | 7,2    | 4,8                              | 2,2                    |
| 864 000 040.800 | M 4             | 6,3               | 8,2    | 5,6                              | 2,5                    |
| 864 000 050.800 | M 5             | 7,0               | 9,5    | 6,4                              | 3,0                    |
| 864 000 060.800 | M 6             | 8,6               | 12,7   | 8,0                              | 3,5                    |
| 864 000 080.800 | M 8             | 10,2              | 12,7   | 9,6                              | 4,5                    |
| 864 000 100.800 | M10             | 12,5              | 12,7   | 11,9                             | 5,5                    |

**Example for finding the article number**

Threaded insert S-Lok®-RB to Works Standard 864 0 with internal thread A = M4 made of brass: S-Lok®-RB 864 100 040.800

**Material**

Brass

Article no. (**fourth** group of digits) ... .. 800

**Other dimensions on request.**

**Tolerances**

ISO 2768-m

**Thread**

Internal thread A: as per ISO 6H