

## TYPE E

### Assembling information RAMPA®-Insert type E for HPL



The values in the table are valid exclusively for HPL materials and are applicable to the RAMPA®-Inserts listed therein.

#### RAMPA®-Insert | Type: E

Art. No.	Outer-Ø D (mm)	Length L (mm)	Inner thread-size d (mm)	Panel thickness	Pre-drill-Ø (mm)	Steel zinc-plated	Stainless steel 1.4305
008509001	9	4,8	M5	6	8,5	✓	
008605001	9	4,8	M6	6	8,5	✓	
00850903	9	4,8	M5	6	8,5		✓
00860503	9	4,8	M6	6	8,5		✓

#### Preparatory work:

- Outer-Ø D = 9mm
- t = 0,5mm
- Tolerance range  $t_{tol,1} = +0,15$

#### Example: RAMPA®-Insert | Type: E Art. No.: 008509001

- Standard pre-drill-Ø =  $D - t = d \rightarrow 9\text{mm} - 0,5\text{mm} = 8,5\text{mm}$
- Max. allowed-Ø =  $D - (t - t_{tol,1}) = d \rightarrow 9\text{mm} - (0,5\text{mm} - 0,15\text{mm}) = 8,65\text{mm}$

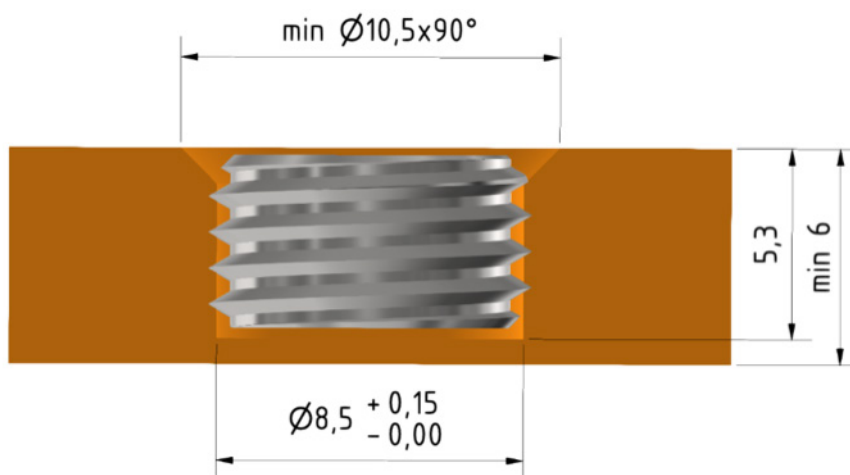


Figure 1

Always choose the smaller pre-drill-Ø. If there are problems during assembling, this can be adjusted in accordance with the tolerance range  $t_{tol,1}$  listed above.

The pre-drill depth should be  $t_{min} = L + 0,5\text{mm}$ .

Starting from the outside-Ø D, the countersink (s) must be carried out min.  $0,75 \times 45^\circ$ !

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**Example: RAMPA®-Insert | Type: E Art. No.: 008509001**

- Outer-Ø D = 9mm
- Counterbore-Ø (d<sub>1</sub>) = D + (2 x s) → 9mm + (2 x 0,75mm) = 10,5mm

Make sure that the pre-drilled hole is clean or free of chips.

Assembling: The **RAMPA®-Insert** must be completely screwed on up to the sleeve before starting the assembling process.

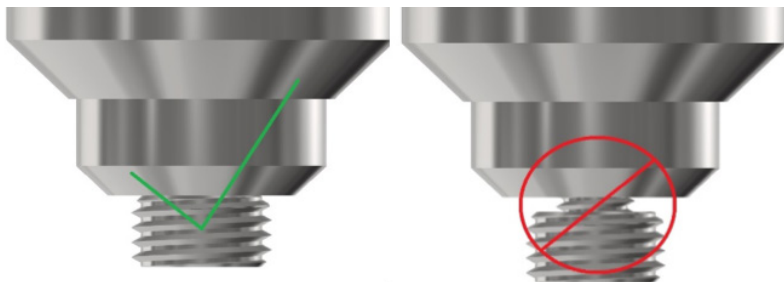


Figure 2

Ensure that the set screw of the driver isn't longer (Fig.3) than the **RAMPA®-Insert** itself.

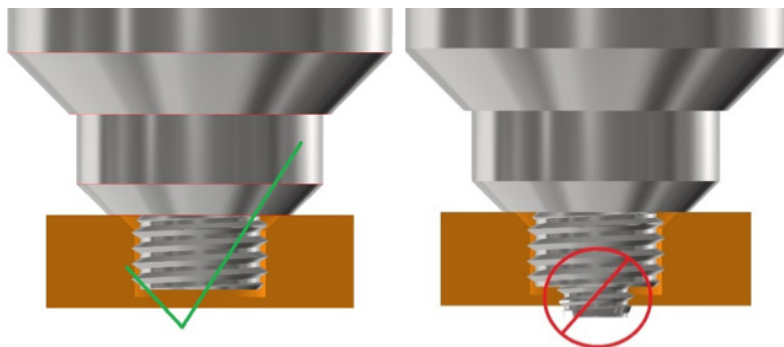


Figure 3

At the beginning of the assembling process, the **RAMPA®-Insert** must be applied into the pre-drilled hole with slight pressure to avoid bulging.

- Assembling-speed = max. 150min<sup>-1</sup>
- The switch-off range of the assembling torque is between 4Nm – 6Nm.  
The assembling torque depends on the HPL material type.  
The real value must be determined separately on the specific HPL material.

Excessive cut-off torque can cause damage to the internal thread or the HPL workpiece!