



## BaerCoil® Wire Thread Inserts - Determination of nominal length

### Screw property class

Tensile strength of mounting material	4.6	5.6	6.6	6.9	9.8	10.9	12.9	14.9
< 100 N/mm <sup>2</sup>	1,5 D	1,5 D	2,0 D	2,5 D	3,0 D			
100 - 150 N/mm <sup>2</sup>	1,5 D	1,5 D	2,0 D	2,0 D	2,5 D	2,5 D	2,5 D	3,0 D
150 - 200 N/mm <sup>2</sup>	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D	2,0 D	2,5 D	2,5 D
200 - 250 N/mm <sup>2</sup>	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D	2,5 D	2,5 D
250 - 300 N/mm <sup>2</sup>	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	2,0 D	2,0 D
300 - 350 N/mm <sup>2</sup>	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D	2,0 D
350 - 400 N/mm <sup>2</sup>	1,0 D	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D
> 400 N/mm <sup>2</sup>	1,0 D	1,0 D	1,0 D	1,0 D	1,0 D	1,5 D	1,5 D	1,5 D

Temperature limits for validity: aluminium alloys max. 300°C, magnesium alloys max. 100°C.  
 For design of screwed connections under thermal stress, the changes of temperature-department material parameters must be taken into account. Intermediate lengths are available, too.  
 For these guide values, the screw is the weaker joint member.  
 Lengths can be shorter than recommended nominal lengths if tests confirm this.

### Minimum wall thickness

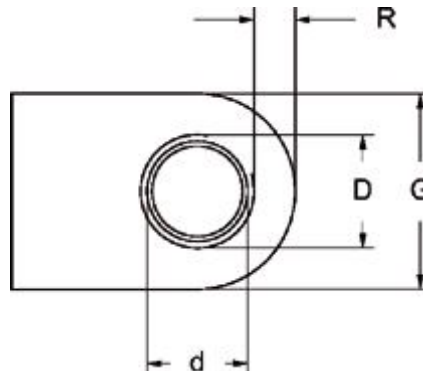
d = nominal diameter

D = outside diameter of holding thread

R = residual wall thickness

$R(\text{min}) = 0,375 \times D$

$G(\text{min}) = 1,75 \times D$



The minimum wall thickness mainly depends on individual operating data. These define material strength and length of thread engagement. The indicated guide value formulas apply to aluminium, cast and wrought alloys and the length of thread engagement of BaerCoil Wire Thread Insert of 1.5 D.