

Avseal[®] Blind Sealing Plug

Hole Spacing Calculation



Formula

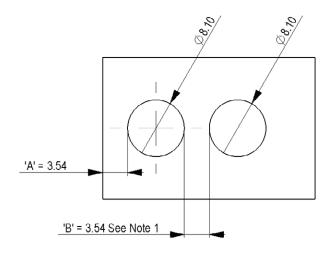
Spacing Factor = $12 \cdot x^{-0.6}$

Where x is the Tensile Strength (N/mm²) of the application material.

Minimum distance from edge and between holes = Spacing Factor · Hole Diameter

Example

Application Material MRI 153M at 20°C, Tensile Strength = 250 N/mm² Spacing Factor = $12 \cdot 250^{-0.6} = 0.4369$ Minimum distance from edge and between holes = $0.4369 \cdot 8.10$ mm = 3.54mm



Note 1

If the hole next to the hole with the Avseal[®] plug is going to be filled with another Avseal[®] plug then the 'B' = $2 \cdot 'B'$ in the above example 'B' would be 7.08 mm

Material	Tensile N/mm²	Hole Diameter mm	Spacing Factor	Distance from edge and between holes mm
MRI 153M (at 20°C)	250	4.8	0.4369	2.097
MRI 153M (at 20°C)	250	8.0	0.4369	3.495
ZE 41 T5	220	4.8	0.4717	2.264
ZE 41 T5	220	8.0	0.4717	3.774

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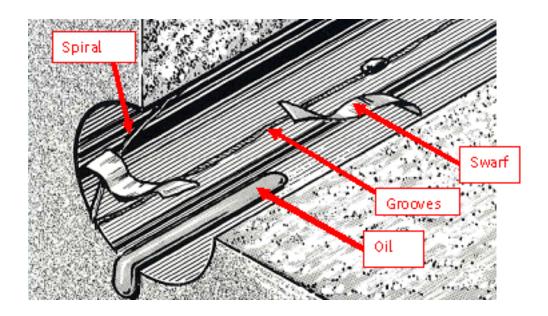


Avseal[®] Blind Sealing Plug Hole Condition

Hole condition prior to placing Avseal® sealing plug

For consistent performance, holes for Avseal® sealing plugs must comply with the following parameters:

- 1. Hole diameter limits must be taken from the current Avseal[®] sealing plug data sheet and where possible the recommended hole size should be used.
- 2. The presence of grease, oil, swarf or any surface marks such as grooves and spiral marks must be avoided. The picture below shows examples of incorrect hole preparation.





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Hole Surface Texture



Surface Texture Definition

R_a, Roughness average is the arithmetic mean deviation of roughness profile.

Surface Texture Limits

The hole must be prepared with a surface finish between $R_a 1.27 \mu m - 6.35 \mu m$ using a drill.

The drill or application must continue to rotate while exiting; this avoids drill return marks which will be continuous lines which can cause leak paths.

Surface Texture Equivalents

The table below should only be used for guidance.

R _a - µm	1.6	3.2	6.3	
R _a - µinch	63	125	250	
N-Grade	N7	N8	N9	
Process	Drilling (Average application)			



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