

# Avseal® II Blind Sealing Plug

## Hole Spacing Calculation



### Formula

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

Where x is the Tensile Strength (N/mm<sup>2</sup>) of the application material.

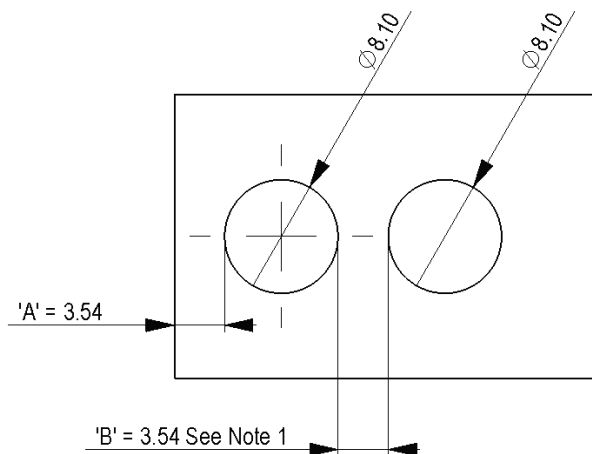
Minimum distance from edge and between holes = Spacing Factor · Hole Diameter

### Example

Application Material MRI 153M at 20°C, Tensile Strength = 250 N/mm<sup>2</sup>

$$\text{Spacing Factor} = 12 \cdot 250^{0.6} = 0.4369$$

$$\text{Minimum distance from edge and between holes} = 0.4369 \cdot 8.10 \text{ mm} = 3.54 \text{ mm}$$



#### Note 1

If the hole next to the hole with the Avseal® II plug is going to be filled with another Avseal® II plug then the 'B' = 2 · 'B' in the above example 'B' would be 7.08 mm

Material	Tensile N/mm <sup>2</sup>	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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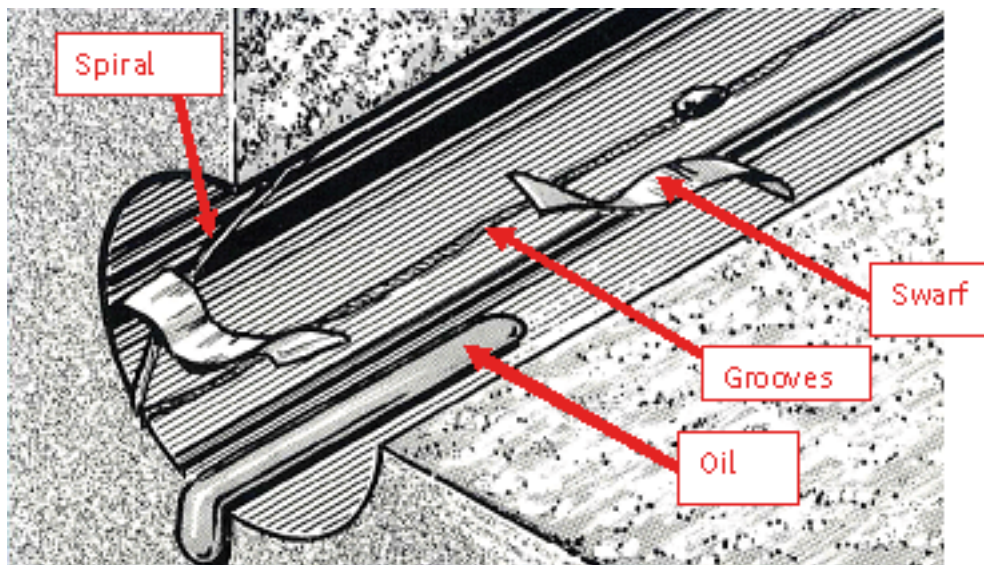
## Hole Condition



### Hole condition prior to placing Avseal® II sealing plug

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

1. Hole diameter limits must be taken from the current Avseal® II 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.

$R_a$ - $\mu$ m	1.6	3.2	6.3
$R_a$ - $\mu$ inch	63	125	250
N-Grade	N7	N8	N9
Process	Drilling (Average application)		



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