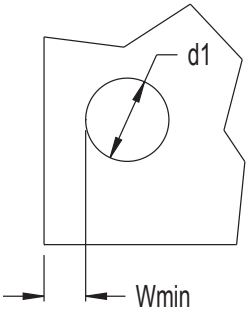
Design Guidelines

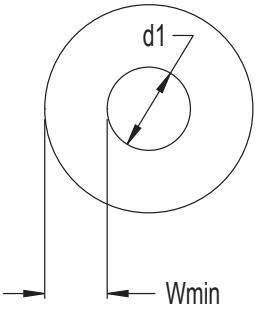
Minimum wall thickness and distance from an edge

The radial expansion of the EIS Sealing Plug causes the housing material around the plug to deform plastically. A proper minimum wall thickness, or distance from an edge is necessary to optimize the strength of the mechanical connection. The operating hydraulic pressure, thermal cycling, plug type and characteristics of the base metal must all be considered when determining these values. Please contact EIS for additional information.

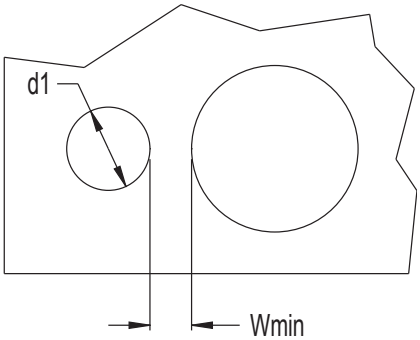
Distance to an external wall



Distance to an exterior wall



Wall thickness between bores



The guidelines for a minimum wall thickness or distance from an edge (Wmin) are expressed below. These minimum values produce only slight deformation on the exterior profile of less than 20µm. This does not affect the performance of the EIS Sealing Plug. Using Wmin values less than those recommended can cause overloading of the base material. This can adversely influence the function of the EIS Sealing Plug. Please contact EIS for additional information.

Wmin Guideline Values

EIS Sealing Plug Diameters: **d1 ≥ 4mm: Wmin = fmin * d1**
d1 < 4mm: Wmin = fmin * d1 + 0.5mm

	Base Metal						
	SAE 1144	SAE 10L15	ASTM A48 Cast iron	ASTM A356 Ductile iron	2024-T4	6061-T6	356-T6 Cast alum
EIS Series	**Factor fmin**						
EIS-11	.5	.6	1.0	.6	.6	1.0	1.0
EIS-31	.6	.8	1.0	.8	.8	1.0	1.0

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