

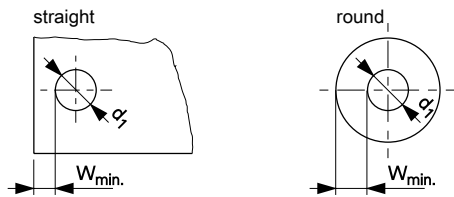
CONSTRUCTIONAL GUIDELINES, ASSEMBLY INSTRUCTIONS

WALL THICKNESSES / EDGE DISTANCES

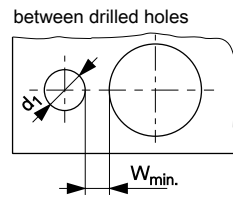
Drilling Holes

The Expander® Sealing Plug is anchored to the basic material by radial expansion of the sleeve. Depending on the basic materials' characteristics forces resulting from this type of anchorage as well as the hydraulic pressures and temperature loads will necessitate minimum wall thicknesses and edge distances.

Distance to outer profile



Wall Thickness



For standard values of minimum wall thicknesses and edge distances (W_{min}) refer to table.

Calculation of standard values

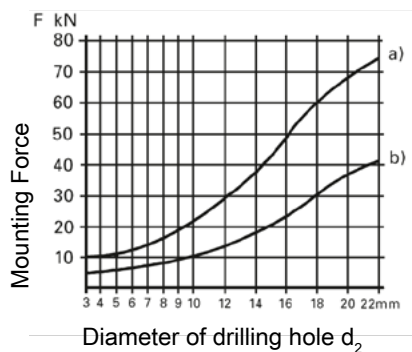
Diameter of the Expander® Sealing Plug: $d_1 \geq 4 \text{ mm: } W_{min} = f_{min} \times d_1$
 $d_1 < 4 \text{ mm: } W_{min} = f_{min} \times d_1 + 0,5$



Description	ETG -100 AISI 1144	C 15 Pb 1.0403	GG - 25 DIN 1691	GGG - 50 DIN 1693	AlCuMg ₂ 3.1354	AlMgSiPb 3.0615	G-AISI7Mg 3.2371
Tensile strength Rm N/mm ²	1000	560	250	500	480	340	300
Min. breaking elongation A5 / %	6	6	-	7	8	8	4
Average permanent elongation limit R _{p0.2} N/mm ²	865	300	-	320	380	300	250
Basic material				Factor f_{min.}			
Sleeve from stainless steel	0,6	0,8	1,0	0,8	0,8	1,0	1,0
Sleeve from steel	0,5	0,6	1,0	0,6	0,6	1,0	1,0
Type with pull-anchor	0,5	0,6	1,0	0,6	0,6	1,0	1,0

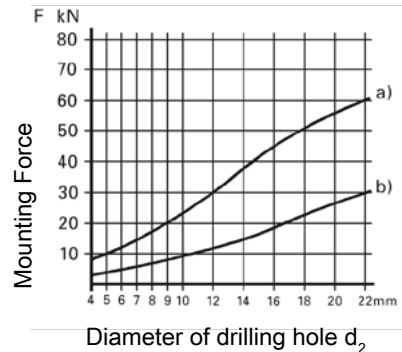
MOUNTING / ASSEMBLY FORCES

Expander® Sealing Plug sleeve from stainless steel Art. No. 22880.0053 to 22880.0072



Measured in steel having a tensile strength of Rm = 1000 N/mm². When using basic materials with lower tensile strengths values are lower.

Expander® Sealing Plug sleeve from steel Art. No. 22880.0004 to 22880.0022



a) Force at min. drilling tolerance
b) Force at max. drilling tolerance