

Butler Fasteners

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GROOVED PINS

Grooved Pins are solid pins with three swaged grooves at 120° pitch along all or part of their length. When the pin is driven into a drilled hole of suitable diameter, the material displaced by the grooving process is forced back, to partially close up the grooves and lock the pin into place.



Grooved pins offer several important advantages:

- They do not need a precision reamed hole
- They can have parallel grooves or tapered grooves
- They can be grooved on only part of the length.

MATERIALS

MILD STEEL

STAINLESS A2 (WS 1.4305)

STANDARDS

ISO standards were introduced in 1992 but in practise have not yet replaced the DIN standards. Technifast stocks DIN standards but ISO can be supplied to special order. The principal difference is that the DIN standards do not include the crowns in the nominal length (C Dimension on table) so that the pin measures longer overall. The ISO standards include the crowns in the nominal length. Grooved Pins are also referred to by GP numbers.

SIZE RANGE – GROOVED PINS

Nominal Diameter, Grooved Pins	1*	1.2*	1.5	2	2.5	3	4	5	6	8	10	12
Dimension 'C' (see note below)	0.14	0.16	0.2	0.25	0.3	0.4	0.5	0.6	0.8	1	1.2	1.6
Diameter over Grooves	1.05	1.25	1.6	2.15	2.65	3.20	4.25	5.25	6.30	8.30	10.35	12.35
Tolerance on Groove Diameter	+0.05, -0				±0.05				±0.1			
Recommended Hole Size	Max 1.025	1.225	1.525	2.025	2.525	3.025	4.075	5.075	6.075	8.090	10.090	12.110
	Min 1.000	1.200	1.500	2.000	2.500	3.000	4.000	5.000	6.000	8.000	10.000	12.000
Double Shear Strengths – tested to ISO 8749, kN (see also Page 37)												
	0.7	1.0	1.6	2.85	4.25	6.15	10.6	16.5	22.8	40.5	63.2	91
Lengths												
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65												
70												
75												
80												

HOLE SIZES:

The recommended hole sizes given in the table above are in accordance with the DIN standards. However to ensure a tight and secure fit the holes should be drilled to the bottom end of the recommended tolerance for pins with a short grooved length. This is especially important with tapered grooves (DIN 1472/DIN 1474) and elliptical grooves (DIN 1475).