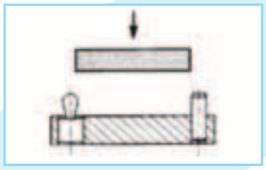
3281-90

FOR CLAMPING, POSITIONING AND HOLDING COMPONENTS

Wixroyd side thrust pins are an economical way to clamp, hold and position components – from low height PCB's to relatively large castings. Side thrust pins come in a variety of sizes.

AS EASY AS . . .

A)



- easy handling
- minimum mounting space
- easy and rapid changeover

B)

- immediately ready for use
- ideal for flat pieces

C)

- shortened clamping times
- well suited for NC/CNC production
- constant clamping pressure

NOTE

Simple to mount, easy to use and space saving. Available in aluminium body, knurled with compression spring or elastomer spring body.

PINS

Steel, Delrin, stainless steel.

COMPRESSION SPRING TYPE

Available in an aluminium body, and in various spring pressures (P) from 10 to 300N. Each pin size is usually available in 3 spring pressures (P).

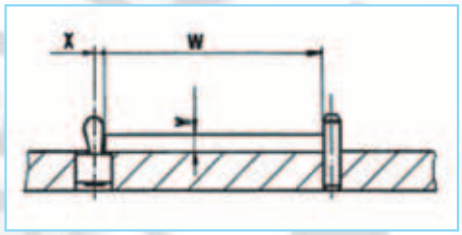
Spring Pressure	Spring Colour
Low	Stainless
Medium	Black
High	Blue

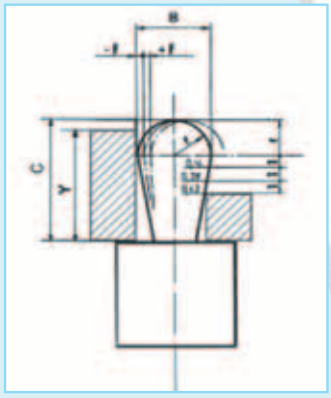
ELASTOMER SPRING TYPE

Available in elastomer body and in various spring pressures (P) from 10 to 160N.

CALCULATING FORMULAE FOR PIN LOCATION & POSITIONING

W	Workpiece (± tolerance)
F-	Prestressing
F+	Stress (range of spring tolerance)
F	[(F-) + (F+)] Nett of prestress and stress
T	Tolerance





FOR WORKPIECES HIGHER THAN C-r:

Nos. 3287

$$X = \frac{B}{2} - (F-) - \frac{(F+)}{2}$$

Nos. 3281 to 3285

$$X = \frac{B}{2} - (F-)$$

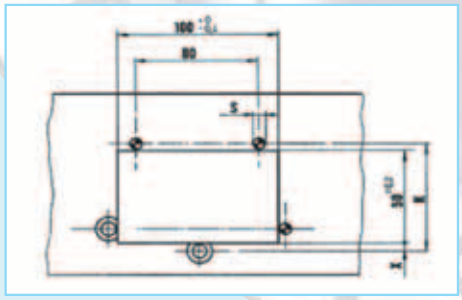
FOR WORKPIECES LOWER THAN C-r:

Please refer to part tables for dimension X or use the following formula:

$$X = \frac{B}{2} - (F-) - [(C\text{-}r\text{-}Y) \times 0{,}123]$$

FORMULAE FOR CO-ORDINATES:

$$K = W - \frac{T}{2} + X + \frac{S}{2}$$



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Wixroyd Side-Thrust Pins

3281-90

FACTORS TO CONSIDER IN PIN SELECTION

a) pin size ø
b) pin material
c) sealing
d) pin force (see relevant part data table)

a) Pin size ø

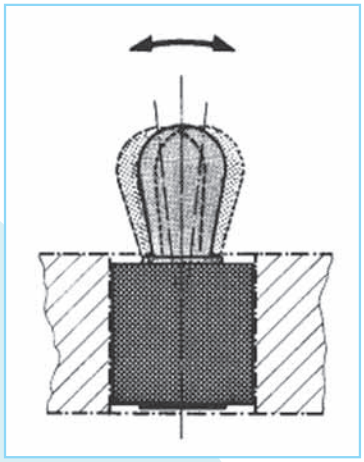
	Application
3 mm	Circuit boards, thin metals.
4 mm	Electronics, measuring equipment, small precise parts.
5 mm	Drilling jigs, sheet metal, measuring devices, welding fixtures.
6 mm	Fixtures for light machine parts and castings.
8 mm	Fixtures for medium machine parts and castings.
10 mm	Fixtures for heavy machine parts and castings.

b) Pin Material

Plastic pins for sensitive parts.
Steel pins for other parts.
Stainless steel pins in corrosive environments.

c) Sealing

Use side thrust pins with seal		Use side thrust pins without seal	
Milling Drilling Reaming Broaching Honing Engraving Grinding	Machining	Glueing Welding Hard soldering	Prior to Machining
		Gripping Inserting Fitting	Final Mounting
Washing Polishing Painting Sand Blasting	After Machining	Measuring Controlling Loading	Quality Assurance
		Soft soldering Checking	Processing of circuit boards



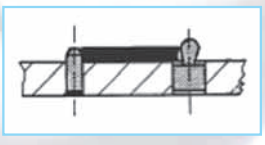
Industrial Uses

Side thrust pins find applications in the following industries:
- Automotive
- Aviation
- Electronics
- Computing
- Plastics
- Medical
- Precision Engineering
- Tool Manufacturing, and many more

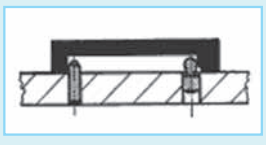
d) Pinforce - guide only

Positioning applications 30-60N
Clamping applications 90-150N

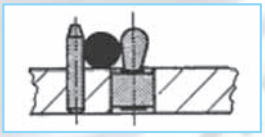
TYPICAL APPLICATIONS



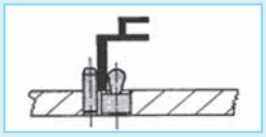
Positioning and clamping even extremely flat parts (e.g. metal sheets and printed circuit boards).



Space saving positioning and clamping from the inside to the outside.



Positioning and clamping round metal using the deep drawing effect.



Positioning and clamping different profiles when welding. Material expansions which may be caused by heat development will be compensated for by the flexibility of the Side-Thrust pin.

DELIVERING A RANGE OF ENDLESS POSSIBILITIES

POSITIONING ELEMENTS