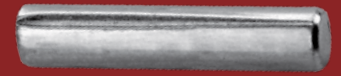




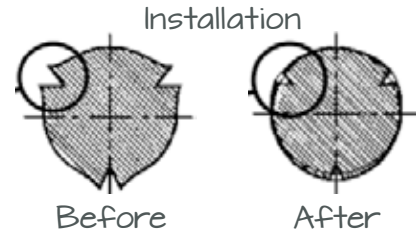
# BROAD SELECTION GROOVE PINS



Grooved Pins are not grooved, but actually fluted. During the manufacturing process, the "grooves" are formed by swaging the pins to displace the material. No material is actually removed to make the "groove." Upon installation, the displaced material compresses into the hole and provides a radial force. This creates a locking action that does not permanently deform either the pin or the base material.



*Pins Catalog: Imperial pages 128-147 & Metric pages 222-256*



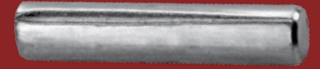
Imperial	
<p><b>Type A</b></p> <p>*CS: ZC, ZY *SS: 300, 316, 416 *A: ZC, ZY, O</p> <p>Contain three full-length tapered grooves. Popular in applications requiring a strong locking effect and ease of assembly. Used in place of taper pins, rivets, set screws, and keys.</p>	
<p><b>Type A3</b></p> <p>*CS: ZC *SS: 300 *A: ZC, O</p> <p>Contain three full-length parallel grooves with a short pilot. Recommended for applications that require maximum locking effect, where severe vibration and/or shock loading are present.</p>	
<p><b>Type B</b></p> <p>*CS: ZC *SS: 300 *A: O</p> <p>Contain three half-length tapered grooves. Commonly used as a hinge or pivot pin. The grooved end is the locking portion, while the other end serves as handle. Also works in dowel applications.</p>	
<p><b>Type D</b></p> <p>*CS: ZC *SS: 300 *A:</p> <p>Contain three half-length reverse taper grooves. Provides maximum holding power. Permit easy insertion into blind holes.</p>	
<p><b>Type E</b></p> <p>*CS: ZC, ZY *SS: 300, 316 *A: ZC, ZY, O</p> <p>Contain three half-length parallel grooves located equidistant from each end. Common application includes T-handle on valves and tools.</p>	
<p><b>Type G</b></p> <p>*CS: ZC *SS: *A:</p> <p>Contain three half-length parallel grooves with a pilot on the opposite end. Permits versatile use in blind or through holes as a spring anchor pin.</p>	
<p><b>Type U</b></p> <p>*CS: ZC, ZY *SS: 300 *A: O</p> <p>Contain three full-length parallel grooves with a pilot on both ends. Ideal for hopper or automatic feeding.</p>	
<p><b>Type C</b></p> <p>*CS: ZC, ZY *SS: 300, 316 *A: ZC, O</p> <p>Contain three quarter-length parallel grooves. Widely used in hinge applications. The long lead eases insertion.</p>	
<p><b>Type H</b></p> <p>*CS: ZC *SS: 300 *A: O</p> <p>Contain three half-length parallel grooves, but do not have a pilot. When pressed in place, grooved portion locks in one part, while other end is free to serve as a locator or hinge.</p>	

Metric	
<p><b>DIN 1471</b></p> <p>*CS: O *SS: 300</p> <p>Contain three full-length tapered grooves. Ideal for applications requiring a superior locking effect. Used in place of taper pins, rivets, set screws, nuts, and lugs.</p>	
<p><b>DIN 1470</b></p> <p>*CS: O *SS:</p> <p>Contain three full-length parallel grooves with a short pilot. Ideal for applications requiring superior locking effect and ease of assembly.</p>	
<p><b>DIN 1472</b></p> <p>*CS: O *SS:</p> <p>Contain three half-length tapered grooves. "Smooth" end commonly used as a hinge, pivot, or stop. Ideal for applications requiring a superior locking effect and ease of assembly.</p>	
<p><b>DIN 1474</b></p> <p>*CS: O *SS:</p> <p>Contain three half-length reverse taper grooves. International version specifically designed as a lever, stop, or roller pivot.</p>	
<p><b>DIN 1475</b></p> <p>*CS: O *SS:</p> <p>Contain three half-length centered parallel grooves and two smooth ends. The ends make the pin work well as a shaft for rollers or cross bar handle.</p>	
<p><b>DIN 1469</b></p> <p>*CS: O *SS: 300</p> <p>Contain three half-length parallel grooves with an annual groove at the opposite end. Annual groove works as a spring anchor in a blind hole.</p>	
<p><b>DIN 1473</b></p> <p>*CS: O *SS:</p> <p>Contain three full-length parallel grooves, similar to the DIN 1470, except the chamfer end. Superior locking effect and ease of assembly.</p>	

*Certain pins contain "pilots," which are the non-fluted portion of the pin, which are smaller in diameter than the grooved portion. The pilot end allows for ease in installation.*

*Carbon Steel (CS)			*Stainless Steel (SS)		*Alloy (A)
Zinc Clear (ZC)			300 Series (300)		Zinc Clear (ZC)
Zinc Yellow (ZY)			316 SS (316)		Zinc Yellow (ZY)
Plain/Oiled (O)			416 SS (416)		Plain/Oiled (O)

\*Some sizes are provided by other suppliers



Other common references for groove pins.

Technical Drawing	Type	Alt. Type	Drive-Lok	ANSI
	<b>Type A</b>	Type 1	A	ANSI – A
	<b>Type A3</b>	Type 3	A3	ANSI – C <i>(not a Drive-Lok C)</i>
	<b>Type B</b>	Type 2	B	ANSI – B
	<b>Type D</b>	Type 4	D	ANSI – O
	<b>Type E</b>	Type 5	E	ANSI – E
	<b>Type G</b>	Type 67	G	ANSI – G
	<b>Type U</b>	Type 3H	U	ANSI – F
	<b>Type C</b>	Type 24	C	n/a
	<b>Type H</b>	Type 2A	H	ANSI – H

\*Some sizes are provided by other suppliers