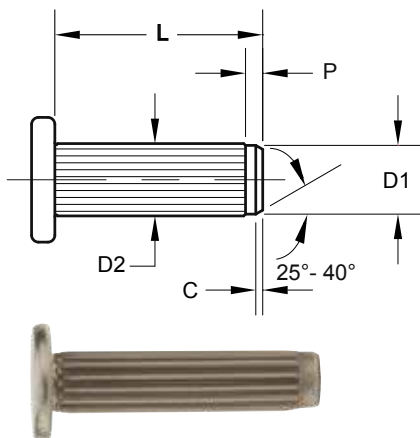
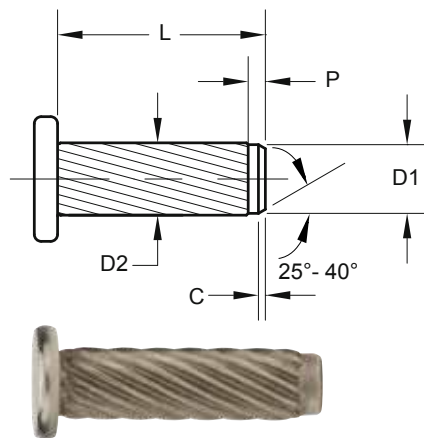


SPIROL® HEADED KNURLED PINS

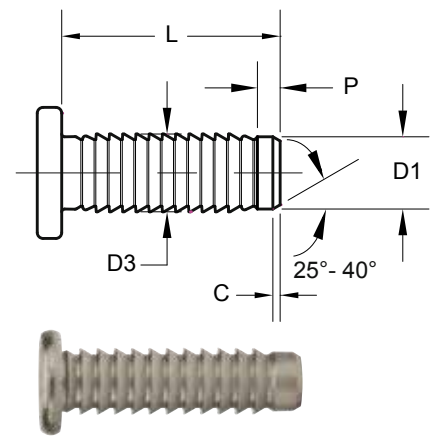
Straight Knurl Series FH200



Helical Knurl Series FH300



Barbed Series FH400



DIMENSIONAL DATA

Nominal Diameter ➤	INCH SPECIFICATIONS							METRIC SPECIFICATIONS						
		5/64 .078	3/32 .094	1/8 .125	5/32 .156	3/16 .187	1/4 .250		2	2.5	3	4	5	6
Pilot Diameter "D1"	Min.	.0761	.0917	.1230	.1542	.1855	.2480	Min.	1.95	2.45	2.95	3.95	4.95	5.95
	Max.	.0781	.0937	.1250	.1562	.1875	.2500	Max.	2.00	2.50	3.00	4.00	5.00	6.00
Diameter "D2"	Min.	.084	.099	.131	.163	.195	.256	Min.	2.20	2.70	3.25	4.25	5.25	6.25
	Max.	.088	.103	.136	.168	.200	.262	Max.	2.30	2.80	3.35	4.35	5.35	6.35
Diameter "D3"	Min.	.092	.107	.139	.170	.201	.264	Min.	2.36	2.86	3.36	4.36	5.36	6.36
	Max.	.097	.112	.144	.175	.206	.269	Max.	2.46	2.96	3.46	4.46	5.46	6.46
Head Diameter	Min.	.132	.156	.209	.263	.312	.425	Min.	3.30	4.20	4.95	6.75	8.50	10.20
	Max.	.142	.172	.229	.283	.338	.451	Max.	3.70	4.60	5.45	7.25	9.10	10.80
Head Thickness	Min.	.022	.028	.036	.048	.060	.077	Min.	0.55	0.70	0.90	1.20	1.50	1.90
	Max.	.030	.036	.048	.060	.073	.090	Max.	0.75	0.90	1.20	1.50	1.80	2.20
Chamfer "C"	Ref.	.005	.008	.008	.010	.015	.015	Ref.	0.15	0.2	0.2	0.3	0.4	0.4
Pilot Length "P"	Ref.	.026	.031	.039	.046	.062	.078	Ref.	0.6	0.8	1	1.2	1.5	2
Recommended Hole	Min.	.078	.094	.125	.156	.188	.250	Min.	2.00	2.50	3.00	4.00	5.00	6.00
	Max.	.080	.096	.127	.159	.191	.253	Max.	2.06	2.56	3.06	4.08	5.08	6.08
Length "L"	.250	*						6	*					
	.312	*						8	*					
	.375	*						10	*					
	.500			Length Tolerance ± .010				12			Length Tolerance ± 0.25			
	.625							16						
	.750							20						
	1.000							24						

* Denotes sizes only available in FH300 and FH400.

Notes:

- Recommended hole sizes are given for average conditions. Actual required hole size is dependent on length engagement and hardness of host material.
- Other diameters, lengths and alternative knurl locations available on request.
- Series FH200, FH300 and FH400 are available to order with round heads.

Part Number Code

TO ORDER: SLDP (Nominal Diameter)x(Length)(Material)(Finish)(Pin Series Number)

EXAMPLE: SLDP .250 x .625 FK FH300

SPIROL®

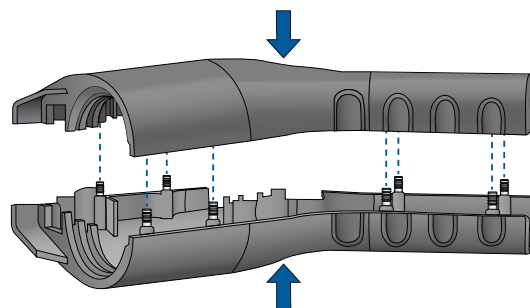
PRESS-N-LOK™ PINS FOR PLASTICS

SPIROL® Series BP100 Press-N-Lok™ Pins

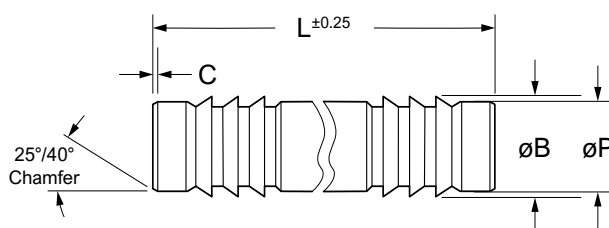
Press-N-Lok™ Pins were designed to permanently retain two plastic components to each other. The raised barbs are angled backwards on the pin, opposite the direction of insertion. Press-N-Lok™ Pins are installed in two stages: First, press the pins into one half of the plastic housing. Next, align the other half of the housing with the exposed pins and press into place. During installation, the plastic will backfill into the area around the barbs resulting in maximum resistance to axial force. Make assembly simple and quick; just Press-N-Lok™!

Advantages

- Permanent / tamper resistant
- Simple & clean installation
- Lightweight & **lead free**
- Corrosion resistant
- Quicker assembly time and lower assembly equipment costs compared to screws and adhesives
- Hidden within the final assembly



Application Example:
Press-N-Lok™ Pins in an Electric Vehicle Charging Handle



DIMENSIONAL DATA — METRIC

Nominal Diameter	Pilot Diameter "P"		Barb Diameter "B"		Barb Count (per side)	Chamfer Length "C"	Pin Length "L"	Recommended Hole Size	
	Min.	Max.	Min.	Max.				#	Min.
2	1.90	2.00	2.25	2.40	2	0.15	8	2.00	2.10
							12		
							16		
3	2.90	3.00	3.25	3.40	3	0.20	12	3.00	3.10
							18		
							24		
4	3.90	4.00	4.25	4.40	4	0.30	16	4.00	4.10
							24		
							32		
STANDARD MATERIAL A Aluminum									
STANDARD FINISH K Plain									

- Other lengths available upon request
- Available to order in nickel stainless steel

To Order: SLDP (Pin Size)x(Length)(Material)(Finish)(Series)
Example: SLDP 3 x 12 AK BP100

Contact SPIROL for Design Assistance!
www.SPIROL.com/technical-support



STANDARD MATERIALS

Low Carbon Steel (F)

Low carbon steel is one of the most versatile materials available. This material is readily available, and is the most economical of the standard Solid Pin materials in the absence of any plating or coating. Low carbon Solid Pins have a dry to the touch rust preventative. Additional coatings and finishes can be applied to carbon steel to improve corrosion resistance, however for some applications, it may be more appropriate and cost beneficial to specify stainless steel when a high level of corrosion resistance is required.

Austenitic (Nickel) Stainless Steel (D)

Austenitic stainless steel provides excellent corrosion protection against normal environmental conditions. It withstands fresh water and atmospheric marine conditions very well, and is suitable for many other industrial conditions including acidic environments. All austenitic stainless Solid Pins are passivated.

STANDARD FINISHES

Plain/Oiled (K)

This finish is a thin coating of dry-to-the touch oil that provides corrosion resistance during storage and shipping. Since this lubricating oil is suspended in a carrier which evaporates over time, the pins are dry-to-the-touch and conducive for automatic feeding and assembly.

Passivated (P)

Passivation of stainless steel Solid Pins is a process whereby surface contaminants such as embedded tool steel and other free iron particles are removed. The sole purpose of passivation is to remove embedded iron; not to clean the part. While all stainless steel Solid Pins are passivated as a standard, there are some critical applications that absolutely require passivation such as medical devices, components used in the food or drug industry, fuel system applications, and any application requiring a clean environment.

Available only for stainless steel.

MATERIALS		FINISHES
TYPE	GRADE	
F - Low Carbon Steel	UNS G10220 / C20C (1.0411)	K - Plain, oiled
D - Stainless Steel, Austenitic (Nickel)	UNS S30500 / X4CrNi18-12	P - Passivated

SPECIAL MATERIALS

SPIROL has extensive experience with special materials required for unique circumstances such as:

Alloy Steel (W)

Alloy steel is used for applications requiring higher shear strength than our standard materials provide, or when additional hardness is required to ensure that the pin is harder than the host material into which the pin is being installed.

Aluminium (A)

Aluminium is lightweight, lead free, and has sufficient strength for most plastic applications. Aluminium is less than half the weight of steel, and does not require any supplemental coatings or platings to provide the necessary corrosion protection in most environments.

Other materials and finishes are available to order depending on the application requirements.

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Coiled Spring Pins



Slotted Spring Pins



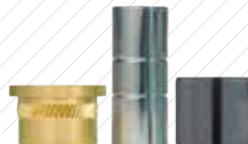
Solid Pins



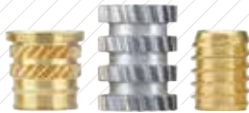
Alignment Dowels / Bushings



Spacers & Rolled Tubular Components



Compression Limiters



Threaded Inserts for Plastics



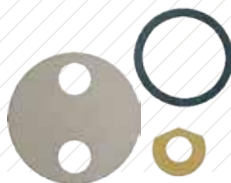
Railroad Nuts



Disc Springs



Precision Shims & Thin Metal Stampings



Precision Washers



Parts Feeding Technology



Pin Installation Technology



Insert Installation Technology



Compression Limiter Installation Technology

Please refer to www.SPIROL.co.uk for current specifications and standard product offerings.

SPIROL offers complimentary Application Engineering support! We will assist on new designs as well as help resolve issues, and recommend cost savings on existing designs. Let us help by visiting **Application Engineering Services** on SPIROL.co.uk.

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