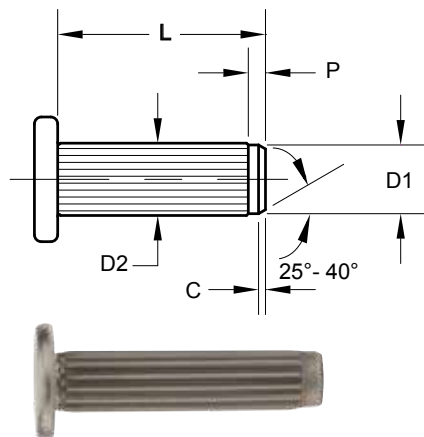
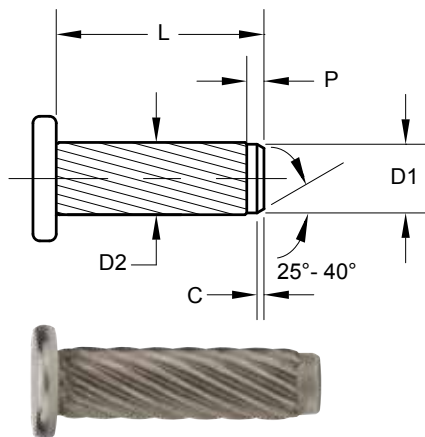


SPIROL[®] HEADED KNURLED PINS

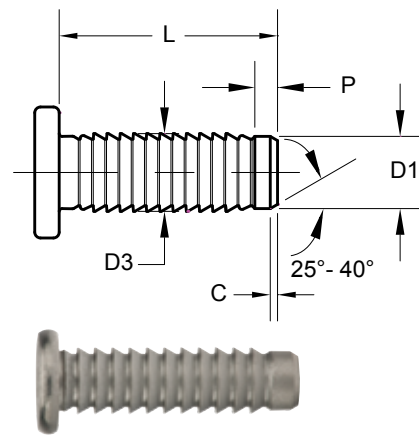
Straight Knurl Series FH200



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 | * | | Length Tolerance | | | | 10 | * | | Length Tolerance | | | |
| | .500 | | | ± .010 | | | | 12 | | | ± 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 MATERIALS AND FINISHES

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.

Aluminum (A)

Aluminum is lightweight, lead free, and has sufficient strength for most plastic applications. Aluminum 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.

SPIROL®

Innovative fastening solutions.
Lower assembly costs.



Technical Centers

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

SPIROL Application Engineers will review your application needs and work with you to recommend the optimum solution. One way to start the process is to visit our **Optimal Application Engineering** portal at **SPIROL.com**.

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