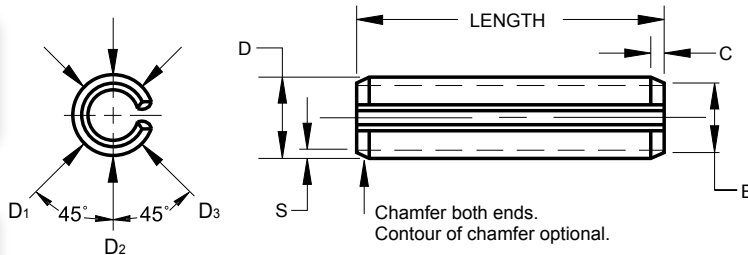


STANDARD INCH

PIN MATERIALS AND HARDNESS

| | | |
|----------|-----------------------------|---------------|
| B | High Carbon Steel | HV 458-560 |
| C | Martensitic Stainless Steel | HV 423-544 |
| D | Austenitic Stainless Steel | Work Hardened |



PIN FINISHES

| | |
|----------|------------------------|
| K | Plain |
| T | Mechanical Zinc Plated |

Plain carbon steel pins have a protective oil finish.

INCH SPECIFICATIONS

| NOMINAL DIAMETER | ➤ | .062 | .078 | .094 | .125 | .156 | .187 | .250 | .312 | .375 | .500 | |
|----------------------------|--------------------------|------|------|------|-------|-------|-------|-------|-------|--------|--------|--------|
| | | 1/16 | 5/64 | 3/32 | 1/8 | 5/32 | 3/16 | 1/4 | 5/16 | 3/8 | 1/2 | |
| DIAMETER ØD | MAX. ¹ | .069 | .086 | .103 | .135 | .167 | .199 | .264 | .330 | .395 | .524 | |
| | MIN. ² | .066 | .083 | .099 | .131 | .162 | .194 | .258 | .321 | .385 | .513 | |
| CHAMFER DIAMETER B | MAX. | .059 | .075 | .091 | .122 | .151 | .182 | .245 | .306 | .368 | .485 | |
| CHAMFER LENGTH C | MAX. | .028 | .032 | .038 | .044 | .048 | .055 | .065 | .080 | .095 | .110 | |
| | MIN. | .007 | .008 | .008 | .008 | .010 | .011 | .012 | .014 | .016 | .025 | |
| WALL THICKNESS S | NOMINAL | .012 | .018 | .022 | .028 | .032 | .040 | .048 | .062 | .077 | .094 | |
| RECOMMENDED HOLE SIZE | MAX. | .065 | .081 | .097 | .129 | .160 | .192 | .256 | .318 | .382 | .510 | |
| | MIN. | .062 | .078 | .094 | .125 | .156 | .187 | .250 | .312 | .375 | .500 | |
| MIN. DOUBLE SHEAR STRENGTH | CARBON & MARTENSITIC SST | LBS. | 430 | 800 | 1,150 | 1,875 | 2,750 | 4,150 | 7,050 | 10,800 | 16,300 | 27,100 |
| | | KN. | 1.91 | 3.56 | 5.12 | 8.34 | 12.23 | 18.46 | 31.36 | 48.04 | 72.51 | 120.55 |
| | AUSTENITIC SST | LBS. | 250 | 460 | 670 | 1,090 | 1,600 | 2,425 | 4,100 | 6,300 | 9,500 | 15,800 |
| | | KN. | 1.11 | 2.05 | 2.98 | 4.85 | 7.12 | 10.79 | 18.24 | 28.02 | 42.26 | 70.28 |

¹Maximum diameter measured with go-ring gage. ²Minimum diameter is the average of D1, D2 and D3.

STANDARD INCH SIZES

| NOMINAL DIAMETER | ➤ | .062 | .078 | .094 | .125 | .156 | .187 | .250 | .312 | .375 | .500 |
|------------------|-------------|------|------|------|------|------|------|------|------|------|------|
| | | 1/16 | 5/64 | 3/32 | 1/8 | 5/32 | 3/16 | 1/4 | 5/16 | 3/8 | 1/2 |
| LENGTH | .187 3/16 | | | | | | | | | | |
| | .250 1/4 | | | | | | | | | | |
| | .312 5/16 | | | | | | | | | | |
| | .375 3/8 | | | | | | | | | | |
| | .437 7/16 | | | | | | | | | | |
| | .500 1/2 | | | | | | | | | | |
| | .562 9/16 | | | | | | | | | | |
| | .625 5/8 | | | | | | | | | | |
| | .687 11/16 | | | | | | | | | | |
| | .750 3/4 | | | | | | | | | | |
| | .812 13/16 | | | | | | | | | | |
| | .875 7/8 | | | | | | | | | | |
| | .937 15/16 | | | | | | | | | | |
| | 1.000 1 | | | | | | | | | | |
| | 1.125 1-1/8 | | | | | | | | | | |
| | 1.250 1-1/4 | | | | | | | | | | |
| | 1.375 1-3/8 | | | | | | | | | | |
| | 1.500 1-1/2 | | | | | | | | | | |
| | 1.625 1-5/8 | | | | | | | | | | |
| | 1.750 1-3/4 | | | | | | | | | | |
| 1.875 1-7/8 | | | | | | | | | | | |
| 2.000 2 | | | | | | | | | | | |
| 2.250 2-1/4 | | | | | | | | | | | |
| 2.500 2-1/2 | | | | | | | | | | | |
| 2.750 2-3/4 | | | | | | | | | | | |
| 3.000 3 | | | | | | | | | | | |

| Straightness Gauge Specifications ³ | | |
|--|----------------|---|
| Nominal Pin Length | Gage Length | Gage Hole Diameter = Maximum Pin Diameter Plus: |
| Up to 1" | 1.000" ± .005" | .007" |
| 1" - 2" | 2.000" ± .005" | .010" |
| Over 2" | 3.000" ± .005" | .013" |

| Nominal Pin Length | Length Tolerance |
|---------------------|------------------|
| Up to 1" incl. | ± .015 |
| Over 1" to 2" incl. | ± .020 |
| Over 2" to 3" incl. | ± .025 |
| Over 3" to 4" incl. | ± .030 |
| Over 4" | ± .035 |

Available in high carbon and stainless steel (all) Only available in high carbon

³ The straightness over the length of the pins shall be such that the pin will pass freely through a ring gage of the length and diameter specified. All dimensions apply prior to plating • Other sizes and materials available to order • Produced in accordance with ASME B18.8.2



**Innovative fastening solutions.
Lower assembly costs.**



Technical Centers

Americas

SPIROL International Corporation
30 Rock Avenue
Danielson, Connecticut 06239 U.S.A.
Tel. +1 860 774 8571
Fax. +1 860 774 2048

SPIROL Shim Division
321 Remington Road
Stow, Ohio 44224 U.S.A.
Tel. +1 330 920 3655
Fax. +1 330 920 3659

SPIROL Canada
3103 St. Etienne Boulevard
Windsor, Ontario N8W 5B1 Canada
Tel. +1 519 974 3334
Fax. +1 519 974 6550

SPIROL Mexico
Avenida Avante #250
Parque Industrial Avante Apodaca
Apodaca, N.L. 66607 Mexico
Tel. +52 81 8385 4390
Fax. +52 81 8385 4391

SPIROL Brazil
Rua Mafalda Barnabé Soliane, 134
Comercial Vitória Martini, Distrito Industrial
CEP 13347-610, Indaiatuba, SP, Brazil
Tel. +55 19 3936 2701
Fax. +55 19 3936 7121

Europe

SPIROL France
Cité de l'Automobile ZAC Croix Blandin
18 Rue Léna Bernstein
51100 Reims, France
Tel. +33 3 26 36 31 42
Fax. +33 3 26 09 19 76

SPIROL United Kingdom
17 Princewood Road
Corby, Northants
NN17 4ET United Kingdom
Tel. +44 1536 444800
Fax. +44 1536 203415

SPIROL Germany
Ottostr. 4
80333 Munich, Germany
Tel. +49 89 4 111 905 71
Fax. +49 89 4 111 905 72

SPIROL Spain
08940 Cornellà de Llobregat
Barcelona, Spain
Tel. +34 93 669 31 78
Fax. +34 93 193 25 43

SPIROL Czech Republic
Sokola Tümy 743/16
Ostrava-Mariánské Hory 70900
Czech Republic
Tel/Fax. +420 417 537 979

SPIROL Poland
ul. Solec 38 lok. 10
00-394, Warszawa, Poland
Tel. +48 510 039 345

Asia Pacific

SPIROL Asia Headquarters
1st Floor, Building 22, Plot D9, District D
No. 122 HeDan Road
Wai Gao Qiao Free Trade Zone
Shanghai, China 200131
Tel. +86 21 5046 1451
Fax. +86 21 5046 1540

SPIROL Korea
160-5 Seokchon-Dong
Songpa-gu, Seoul, 138-844, Korea
Tel. +86 (0) 21 5046-1451
Fax. +86 (0) 21 5046-1540

e-mail: info@spirol.com

SPIROL.com

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**.