

SPIROL[®] SLOTTED PIN SPECIFICATIONS

STANDARD METRIC

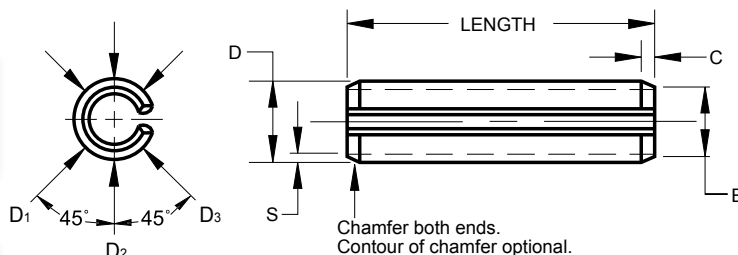
PIN MATERIALS AND HARDNESS

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.



METRIC SPECIFICATIONS

NOMINAL DIAMETER		1.5	2	2.5	3	4	5	6	8	10	12
DIAMETER ØD	MAX. ¹	1.66	2.19	2.72	3.25	4.30	5.33	6.36	8.45	10.51	12.55
	MIN. ²	1.58	2.10	2.62	3.14	4.16	5.17	6.18	8.22	10.25	12.28
CHAMFER DIAMETER B	MAX.	1.4	1.9	2.4	2.9	3.9	4.8	5.8	7.8	9.7	11.7
CHAMFER LENGTH C	MAX.	0.7	0.8	0.9	1.0	1.2	1.4	1.6	2.0	2.4	2.8
	MIN.	0.15	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6
WALL THICKNESS S	NOMINAL	0.35	0.45	0.55	0.65	0.8	1.0	1.2	1.6	2.0	2.5
RECOMMENDED HOLE SIZE	MAX.	1.56	2.07	2.58	3.10	4.12	5.12	6.12	8.15	10.15	12.18
	MIN.	1.50	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00	12.00
MIN. DOUBLE SHEAR STRENGTH, kN	CARBON & MARTENSITIC SST	1.8	3.5	5.5	7.8	12.3	19.6	28.5	48.8	79.1	104.1
	AUSTENITIC SST	1.0	2.0	3.2	4.5	7.2	11.4	16.6	28.4	46.1	60.7

¹ Maximum diameter measured with go-ring gage.

² Minimum diameter is the average of D1, D2 and D3.

STANDARD SIZES

NOMINAL DIAMETER		➤		1.5	2	2.5	3	4	5	6	8	10	12
LENGTH	5												
	6												
	8												
	10												
	12												
	14												
	16												
	18												
	20												
	22												
	24												
	26												
	28												
	30												
	32												
	35												
	40												
	45												
	50												
	55												
	60												
	65												
	70												
	75												
	80												

Straightness Gauge Specifications³

Nominal Pin Length

Gage Length

Gage Hole Diameter = Maximum Pin Diameter Plus:

MIN.

MAX.

Up to 24mm incl.

24mm – 50mm

Over 50mm

25mm ± 0.15mm

50mm ± 0.15mm

75mm ± 0.15mm

0.20mm

0.40mm

0.60mm

0.22mm

0.43mm

0.64mm

Nominal Pin Length

Length Tolerance

Up to 24mm incl.

Over 24mm to 50mm incl.

Over 50mm to 75mm incl.

Over 75mm

± 0.40mm

± 0.50mm

± 0.60mm

± 0.75mm

Available in high carbon and stainless steel (all)

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 B18.8.4M TYPE B

STANDARD INCH

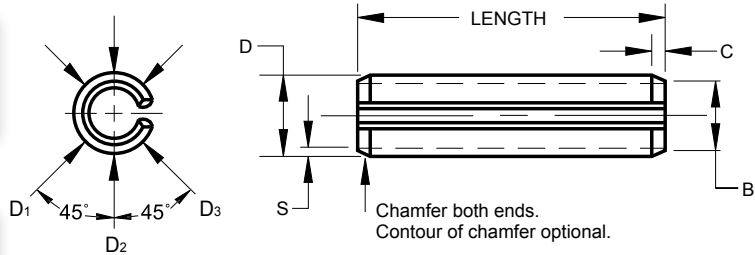
PIN MATERIALS AND HARDNESS

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 1/16	.078 5/64	.094 3/32	.125 1/8	.156 5/32	.187 3/16	.250 1/4	.312 5/16	.375 3/8	.500 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
		KN.	1.91	3.56	5.12	8.34	12.23	18.46	31.36	48.04	72.51
	AUSTENITIC SST	LBS.	250	460	670	1,090	1,600	2,425	4,100	6,300	9,500
		KN.	1.11	2.05	2.98	4.85	7.12	10.79	18.24	28.02	42.26

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

STANDARD INCH SIZES

NOMINAL DIAMETER		.062 1/16	.078 5/64	.094 3/32	.125 1/8	.156 5/32	.187 3/16	.250 1/4	.312 5/16	.375 3/8	.500 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"							

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

ISO 8752

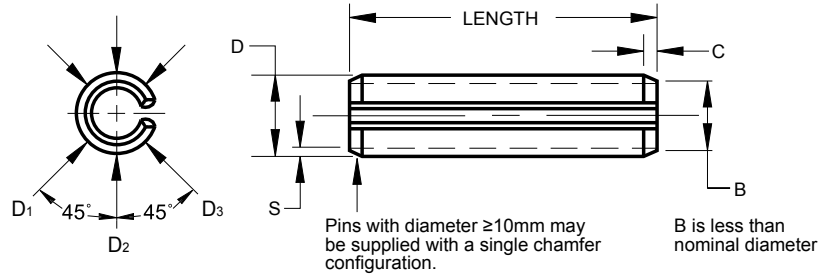
PIN MATERIALS AND HARDNESS

B	High Carbon Steel	HV 420-520
D	Austenitic Stainless Steel	Work Hardened

PIN FINISHES

K Plain

Plain carbon steel pins have a protective oil finish.



METRIC SPECIFICATIONS

NOMINAL DIAMETER ➤		1.5	2	2.5	3	3.5	4	5	6	8	10	12
DIAMETER ØD	MAX. ¹	1.8	2.4	2.9	3.5	4.0	4.6	5.6	6.7	8.8	10.8	12.8
	MIN. ²	1.7	2.3	2.8	3.3	3.8	4.4	5.4	6.4	8.5	10.5	12.5
CHAMFER LENGTH C	MAX.	0.45	0.55	0.60	0.70	0.80	0.85	1.10	1.40	2.00	2.40	2.40
	MIN.	0.25	0.35	0.40	0.50	0.60	0.65	0.90	1.20	1.60	2.00	2.00
WALL THICKNESS S	NOMINAL	0.3	0.4	0.5	0.6	0.75	0.8	1.0	1.2	1.5	2.0	2.5
	RECOMMENDED	1.60	2.10	2.60	3.10	3.62	4.12	5.12	6.12	8.15	10.15	12.18
HOLE SIZE	MIN.	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	8.00	10.00	12.00
MIN. DOUBLE SHEAR STRENGTH HIGH CARBON STEEL, kN ³		1.58	2.82	4.38	6.32	9.06	11.24	17.54	26.04	42.76	70.16	104.1

¹ Maximum diameter measured with go-ring gage.

² Minimum diameter is the average of D1, D2 and D3.

³ Shear strength for austenitic stainless steel is not specified.

STANDARD SIZES

NOMINAL DIAMETER ➤		1.5	2	2.5	3	3.5	4	5	6	8	10	12
LENGTH	5											
	6											
	8											
	10											
	12											
	14											
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	55											
	60											
	65											
	70											
	75											
	80											

Nominal Pin Length	Length Tolerance
Length Tolerance - ISO 8752	
4mm to 10mm	± 0.25mm
12mm to 50mm	± 0.50mm
55mm to 100mm	± 0.75mm
Length Tolerance - DIN 1481 (Ref)	
4mm to 10mm	+ 0.5mm
12mm to 50mm	+ 1.0mm
55mm to 100mm	+ 1.5mm

	Only available in high carbon and austenitic stainless steel
	Only available in high carbon



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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