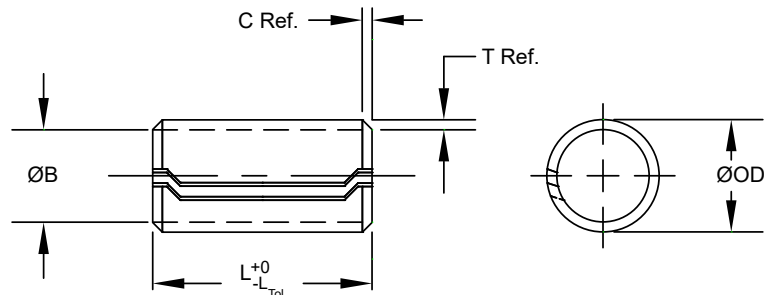




Dowel Bushings are used to locate components in conjunction with bolts which pass through the inside of the Dowel after it has been installed. Separate holes for locating pins are eliminated. The hardened Dowels also absorb shear loads, isolating the bolts from these forces.

Series DB100



MATERIAL

B High Carbon Steel

FINISH

K Plain, Oiled

DIMENSIONAL DATA

Metric									
Nominal Bolt Diameter	Min. ØID Installed ¹	ØOD		Wall Thickness T	Chamfer		Recommended Ø Hole Size		Min. Single Shear (kN) ²
		Min.	Max.		C Length	ØB Max.	Min.	Max.	
6	6.08	7.92	8.18	0.70	1.40	7.50	7.67	7.80	10.9
8	8.10	10.35	10.61	0.90	1.40	9.85	10.10	10.23	18.7
10	10.10	12.75	13.01	1.10	1.40	12.20	12.50	12.63	28.4
12	12.10	15.50	15.76	1.45	1.80	14.85	15.25	15.38	45.4
16	16.10	20.25	20.51	1.80	1.80	19.50	20.00	20.13	74.6

Inch										
Nominal Bolt Diameter	Min. ØID Installed ¹	ØOD		Wall Thickness T	Chamfer		Recommended Ø Hole Size		Min. Single Shear (lbs.) ²	
		Min.	Max.		C Length	ØB Max.	Min.	Max.		
.250	1/4	.252	.325	.335	.028	.050	.308	.315	.320	2,500
.312	5/16	.315	.401	.411	.035	.050	.381	.391	.396	4,000
.375	3/8	.378	.479	.489	.042	.050	.457	.469	.474	5,750
.500	1/2	.506	.640	.650	.057	.060	.615	.630	.635	10,500

Metric						
Nominal Bolt Diameter	Length					
	12	15	20	25	30	35
6						
8						
10			LENGTH TOLERANCE + 0.0mm - 1.0mm			
12						
16						

Inch				
Nominal Bolt Diameter	Length			
	.500 1/2	.750 3/4	1.000 1	1.250 1-1/4
.250	1/4			
.312	5/16		LENGTH TOLERANCE +.000" -.030"	
.375	3/8			
.500	1/2			

¹ When installed in recommended hole.

² Single shear minimum, tested in accordance with ISO 8749 and ASME B18.8.2 Appendix B.

Testing can only be performed on Dowels greater than two diameters in length.

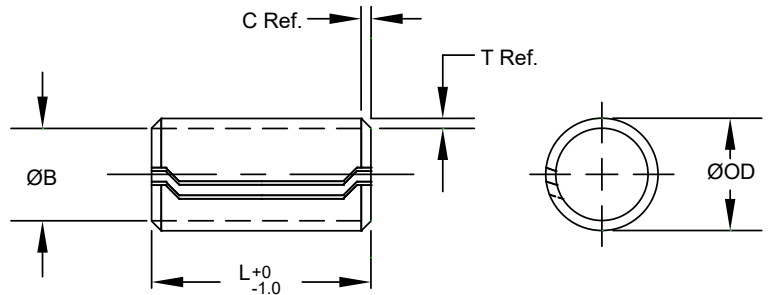
- On special order plated parts, all dimensions apply prior to plating.
- Special lengths and sizes available upon request.

To Order: BUSH, Nominal Dowel Size x Length, Material, Finish, Series
Example: BUSH 10 x 25 BK DB100



Spring Dowels are used to accurately locate components with respect to each other. They are formed around arbors to assure roundness. It is recommended that one half the hole tolerance be used for the fixed location of the Dowel and one half for the hole in the mating part.

Series SD200



MATERIAL

B High Carbon Steel

FINISH

K Plain, Oiled

DIMENSIONAL DATA

Metric								
Nominal Dowel Diameter	ØOD		Wall Thickness T	Chamfer		Recommended Ø Hole Size		Min. Single Shear (kN) ¹
	Min.	Max.		C Length	ØB Max.	Min.	Max.	
6	6.25	6.50	0.55	1.00	5.85	6.00	6.13	6.6
8	8.25	8.50	0.70	1.40	7.80	8.00	8.13	11.5
10	10.25	10.50	0.90	1.40	9.75	10.00	10.13	18.5
12	12.25	12.50	1.10	1.40	11.70	12.00	12.13	27.1

Metric					
Nominal Dowel Diameter	Length				
	12	15	20	25	30
6					
8					
10					
12					

¹ Single shear minimum, tested in accordance with ISO 8749. Testing can only be performed on Dowels greater than two diameters in length.

- On special order plated parts, all dimensions apply prior to plating.
- Special lengths and sizes available upon request.
- Inch sizes available upon request.

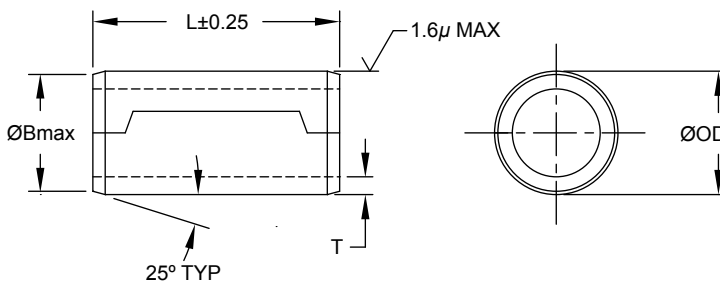
To Order: BUSH, Nominal Dowel Size x Length, Material, Finish, Series
Example: BUSH 8 x 20 BK SD200

SPIROL®

GROUND HOLLOW DOWELS

Design-in SPIROL's Series GD100 Ground Hollow Dowels for Precision Alignment and Substantial Cost Savings.

SPIROL Ground Hollow Dowels are designed to be direct replacements for standard Ground Solid Dowels per ISO 8734. They are used where centerline tolerancing and precision alignment are required.



- Precision ground outside diameters maintain critical alignment within 20µm.
- A 1.6µm surface finish and well-defined chamfers prevent shaving or scraping during installation.
- The roll-formed design yields substantial cost savings over Solid Dowels.
- The hollow feature offers weight savings over Solid Dowels and clearance for bolts, fluids, or gases.

TECHNICAL SPECIFICATIONS

STANDARD MATERIAL	STANDARD FINISH
F Low Carbon Steel	K Plain, Oiled

NOMINAL DIAMETER	ØOD (m6)		WALL THICKNESS T	ØB MAX.	RECOMMENDED Ø HOLE SIZE ¹ (M7)		RECOMMENDED Ø HOLE SIZE ² (H7)	
	MIN.	MAX.			MIN.	MAX.	MIN.	MAX.
6	6.004	6.012	0.9	5.80	5.988	6.000	6.000	6.012
8	8.006	8.015	1.2	7.80	7.985	8.000	8.000	8.015
10	10.006	10.015	1.6	9.75	9.985	10.000	10.000	10.015
12	12.007	12.018	1.8	11.75	11.982	12.000	12.000	12.018
16	16.007	16.018	2.2	15.70	15.982	16.000	16.000	16.018

NOMINAL DIAMETER	LENGTH							
	6	8	10	12	15	20	25	30
6								
8								
10								
12								
16								

- Maximum recommended interference fit for primary retention of Dowel.
 - Recommended transitional fit in mating component.
- All dimensions in millimeters.
 - T refers to strip thickness prior to forming & grinding.
 - Refer to ISO 286 for dimensional and fit specifications.
 - Special lengths and sizes available upon request.

To Order: GHDL, Nominal Dowel Size x Length, Material, Finish, Series
Example: GHDL 8 x 15 FK GD100

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Coiled Spring Pins



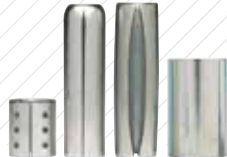
Slotted Spring Pins



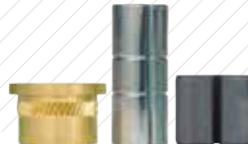
Solid Pins



Alignment Dowels /
Bushings



Spacers & Rolled
Tubular Components



Compression
Limiters



Threaded Inserts
for Plastics



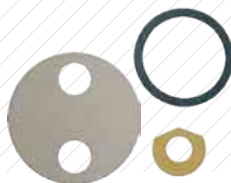
Railroad Nuts



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.