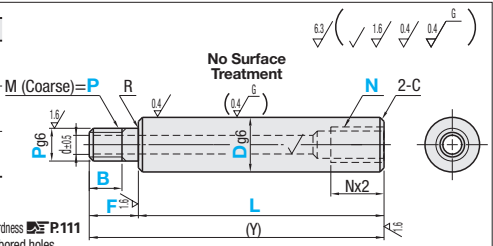


# Shafts

## One End Threaded, One End Tapped Hollow



Type	Material	Hardness	Surface Treatment
SPJD	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P: P.112 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5μ or More  Low Temp. Black Chrome Plating
PSPJD			
RSPJD			



- Features of Low Temp. Black Chrome Plating P: P.128
- Circular L standard tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P: P.111
- Low temp. black chrome plating is not applied to the inside of hollow shafts, taps, bored holes and lateral holes, and may rust.
- Shaft End Machined Area (Effective Thread Length + Approx. 10mm) Annealing may lower hardness.

About Hollow Shaft Wall Thickness Deviations See P: P.111

Part Number Type	Dg6	1mm Increment			P Selection	M (Coarse) Selection	d	(Y) Max.	R	C
		L	F	B						
SPJD	6	25~598	2 ≤ F ≤ Px5	B ≤ F-2 (When P ≤ 6)	6	3	2	600	0.5 or Less	
	8	25~798		8	4 5	3				
	10	25~798		8 10	5 6	4				
	12	25~998		10 12	8 T1 (RC1/8)	6				
13	25~998	12		10 T1 (RC1/8)	7					
16	25~1198	16		12 T2 (RC1/4)	10					
PSPJD	20	25~1198		B ≤ F-3 (When P = 8, 10)	10 12	10 T1 (RC1/8)	7	1000	0.3 or Less	
	25	25~1198		B ≤ F-5 (When P ≥ 12)	20	16 T3 (RC3/8)	14	1200		
	30	25~1498		B=0 (W/o Threads)	24 30	20	17			
RSPJD (D ≤ 30, L ≤ 500)	35	25~1498		B=0 (W/o Threads)	30	24	19	1500	1.0 or Less	
	40	25~1498		B=0 (W/o Threads)	30	24 30	20			
									0.5 or Less	

- When D=P, specify F=B as B dimensions. However, L and F dimensions have manufacturing priority and B dimension of the product will be F - (Pitchx2).
- Thread machining will not be applied when B=0 is specified.
- Overall length L requires Nx3L.

Ordering Example: Part Number - L - F - B - P - N  
SPJD20 - 277 - F12 - B12 - P20 - N16

Part Number - L - F - B - P - N - (DKC, LKC, SC...etc.)  
SPJD30 - 250 - F40 - B30 - P24 - N20 - DKC

Low Temp. Black Chrome Plating Additional Charge	D	Additional Price					
		Min. L-50	L51-100	L101-150	L151-200	L201-300	L301-400
6							
8							
10							
12							
13							
16							
20							
25							
30							

For Low Temp. Black Chrome Plated Shafts, please add Low Temp. Black Chrome Plating Additional Charge above to the non-plated shafts Unit Price below.

Features of Low Temp. Black Chrome Plating P: P.128

Alterations	Revision O.D. Tolerance (Precision Grade)	Alteration to L dimension tolerance	Wrench Flats	Wrench Flats at Two Locations																																																																																								
Code	DKC	LKC	SC	WSC																																																																																								
Spec.	O.D. tolerance is altered to h5. (Ordering Code) DKC <table border="1"> <tr><th>D</th><th>h5 Tolerance</th></tr> <tr><td>6</td><td>0</td></tr> <tr><td>8</td><td>-0.005</td></tr> <tr><td>10</td><td>0</td></tr> <tr><td>12</td><td>-0.006</td></tr> <tr><td>13</td><td>0</td></tr> <tr><td>16</td><td>-0.008</td></tr> <tr><td>20</td><td>0</td></tr> <tr><td>25</td><td>-0.009</td></tr> <tr><td>30</td><td>0</td></tr> <tr><td>40</td><td>-0.011</td></tr> </table>	D	h5 Tolerance	6	0	8	-0.005	10	0	12	-0.006	13	0	16	-0.008	20	0	25	-0.009	30	0	40	-0.011	Changes L tolerance. (Ordering Code) LKC <ul style="list-style-type: none"> <li>L &lt; 200 → L ± 0.03</li> <li>200 &lt; L &lt; 500 → L ± 0.05</li> <li>L ≥ 500 → L ± 0.1</li> </ul>	Adds wrench flats. (Ordering Code) SC5 <ul style="list-style-type: none"> <li>SC = 1mm increment</li> <li>SC + Z1 ≤ L</li> <li>SC ≥ 0</li> <li>When D ≤ 25, SC + Z1 ≤ L - Nx2</li> </ul> <table border="1"> <tr><th>D</th><th>W</th><th>#1</th></tr> <tr><td>6</td><td>5</td><td></td></tr> <tr><td>8</td><td>7</td><td>8</td></tr> <tr><td>10</td><td>8</td><td></td></tr> <tr><td>13</td><td>11</td><td></td></tr> <tr><td>16</td><td>14</td><td>10</td></tr> <tr><td>20</td><td>17</td><td></td></tr> <tr><td>25</td><td>22</td><td></td></tr> <tr><td>30</td><td>27</td><td>15</td></tr> <tr><td>35</td><td>30</td><td></td></tr> <tr><td>40</td><td>36</td><td>20</td></tr> </table>	D	W	#1	6	5		8	7	8	10	8		13	11		16	14	10	20	17		25	22		30	27	15	35	30		40	36	20	Adds Wrench Flats at two locations. (Ordering Code) WSC12-X8 <ul style="list-style-type: none"> <li>WSC = X + Z1 × 2 &lt; L</li> <li>WSC ≥ 0</li> <li>When D ≤ 25, X = Nx2</li> <li>When D ≥ 30, X = 0</li> <li>Orientation between two wrench flats is not coplanar.</li> </ul> <table border="1"> <tr><th>D</th><th>W</th><th>#1</th></tr> <tr><td>6</td><td>5</td><td></td></tr> <tr><td>8</td><td>7</td><td>8</td></tr> <tr><td>10</td><td>8</td><td></td></tr> <tr><td>12</td><td>10</td><td></td></tr> <tr><td>13</td><td>11</td><td></td></tr> <tr><td>16</td><td>14</td><td>10</td></tr> <tr><td>20</td><td>17</td><td></td></tr> <tr><td>30</td><td>27</td><td>15</td></tr> <tr><td>35</td><td>30</td><td></td></tr> <tr><td>40</td><td>36</td><td>20</td></tr> </table>	D	W	#1	6	5		8	7	8	10	8		12	10		13	11		16	14	10	20	17		30	27	15	35	30		40	36	20
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Alterations may lower hardness. See P: P.112

Part Number Type	D	Unit Price											
		Min. L-50	L51-100	L101-150	L151-200	L201-300	L301-400	L401-500	L501-600	L601-800	L801-1000	L1001-1200	L1201-1498
SPJD	6												
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	10												
	12												
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