

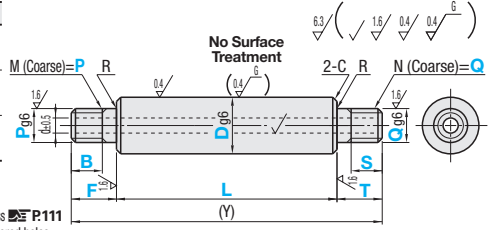
Shafts

Both Ends Threaded Hollow



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

- Features of Low Temp. Black Chrome Plating P.128
- Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness 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.111

Part Number Type	1mm Increment				P, Q Selection	d	(Y) Max.	R	C
	Dg6	L	F, T	B, S					
SPJM	6	25-596	2≤F≤Px5 2≤T≤Qx5	B=F-2 (When P<6) B=F-3 (When P=8, 10) B=F-5 (When P≥12) B=0 (W/o Threads) S=T-2 (When Q≤6) S=T-3 (When Q=8, 10) S=T-5 (When Q≥12) S=0 (W/o Threads)	6	2	600	0.3 or Less	0.5 or Less
	8	25-796			8	3	800		
	10	25-796			8 10	4	1000		
	12	25-996			10 12	6	1200		
13	25-996	12			7				
16	25-1196	16			10				
PSPJM	20	25-1196			20	14			
	25	25-1196			24	16			
	30	25-1496			24 30	17			
	35	25-1496			30	19			
RSPJM (D≤30, L≤500)	40	25-1496			30	20			
								1500	0.5 or Less

- When D=P, or D=Q, specify F=B (T=S) as B (S) dimensions. However, L, F, and T dimensions have manufacturing priority and B (S) dimension of the product will be F (T)-(Pitchx2).
- Thread machining will not be applied to B=0 or S=0. B, S≥Pitch x3 is required.

Part Number - L - F - B - P - T - S - Q
SPJM20 - 400 - F20 - B20 - P20 - T20 - S20 - Q20

Part Number - L - F - B - P - T - S - Q - (DKC, LKC-etc.)
SPJM30 - 300 - F40 - B30 - P24 - T50 - S40 - Q24 - DKC

Low Temp. Black Chrome Plating Additional Charge	D	Additional Price						
		Min. L - 50	L51-100	L101-150	L151-200	L201-300	L301-400	L401-500
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.128

Alterations	Revise 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	Changes L tolerance. (Ordering Code) LKC	Adds wrench flats. (Ordering Code) SC5	Adds Wrench Flats at two locations. (Ordering Code) WSC12-X8																																																																																									
	<table border="1"> <thead> <tr> <th>D</th> <th>h5 Tolerance</th> </tr> </thead> <tbody> <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>-0.008</td></tr> <tr><td>16</td><td>0</td></tr> <tr><td>20</td><td>-0.009</td></tr> <tr><td>30</td><td>0</td></tr> <tr><td>40</td><td>-0.011</td></tr> </tbody> </table> <p>Not applicable to Low Temp. Black Chrome Plated Shafts.</p>	D	h5 Tolerance	6	0	8	-0.005	10	0	12	-0.008	16	0	20	-0.009	30	0	40	-0.011	<p>⚠ L<200→ L±0.03 200≤L<500 → L±0.05 L≥500→ L±0.1</p> <p>⚠ Not applicable when D-P(Q)≤2</p> <p>⚠ L dimensions can be specified in 0.1mm increment for LKC.</p>	<p>⚠ SC=1mm Increment ⚠ SC+ℓ1≤L SC≥0</p> <table border="1"> <thead> <tr> <th>D</th> <th>W</th> <th>ℓ1</th> </tr> </thead> <tbody> <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>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> </tbody> </table>	D	W	ℓ1	6	5		8	7	8	10	8		12	10		13	11		16	14	10	20	17		25	22		30	27	15	35	30		40	36	20	<p>⚠ WSC, X=1mm Increment ⚠ WSC+X+ℓ1x2<L WSC≥0 X≥0</p> <p>⚠ Orientation between two wrench flats is not coplanar.</p> <table border="1"> <thead> <tr> <th>D</th> <th>W</th> <th>ℓ1</th> </tr> </thead> <tbody> <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>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> </tbody> </table>	D	W	ℓ1	6	5		8	7	8	10	8		12	10		13	11		16	14	10	20	17		25	22		30	27	15	35	30		40	36
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		Min. L - 50	L51-100	L101-150	L151-200	L201-300	L301-400	L401-500	L501-600	L601-800	L801-1000	L1001-1200	L1201-1496
SPJM RSPJM Price on right + Price in the table above	6												
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