



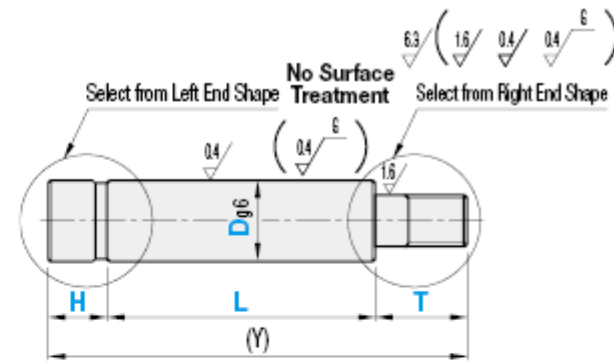
## Precision Linear Shaft with Configurable Shaft Ends (MISUMI)



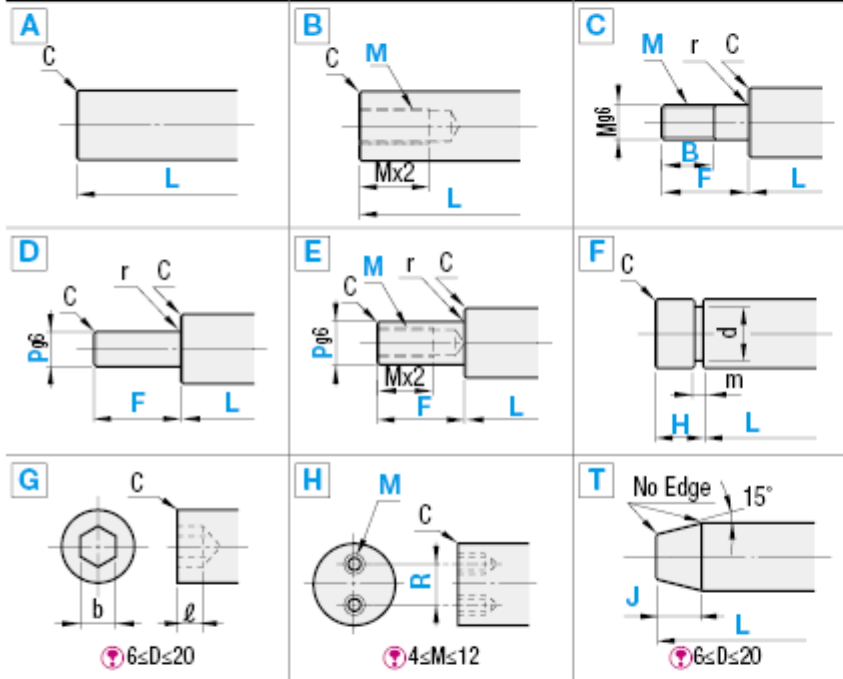
Part Number **FSSFJCB-D12-L93.5-F12-M5-B10-N5-SC30**

20220317112532

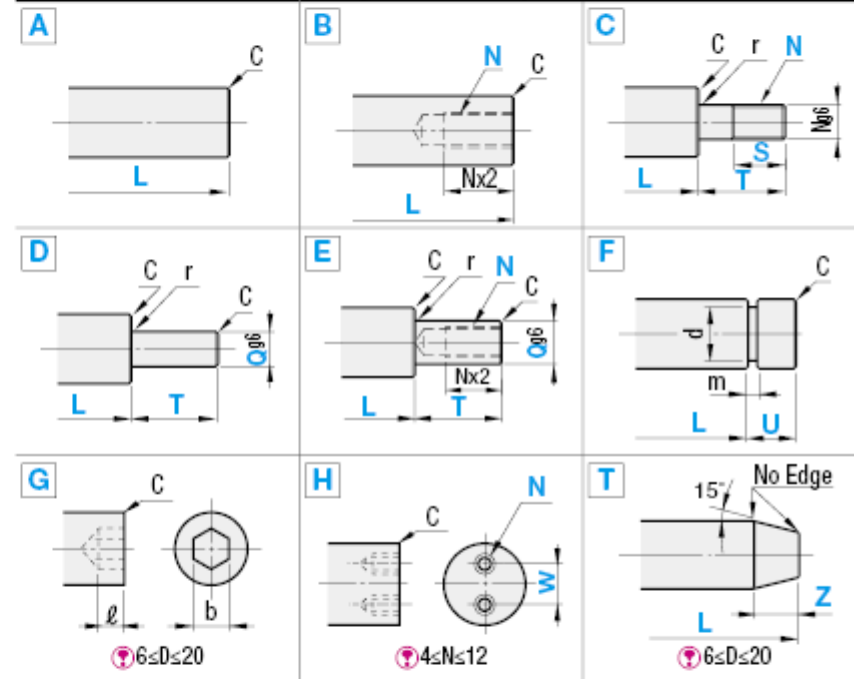
<b>Basic Shape</b>	Straight	<b>End Shape (Left)</b>	Threaded
<b>End Shape (Right)</b>	Tapped	<b>Shaft End Perpendicularity</b>	Perpendicularity (0.2)
<b>Material</b>	[Stainless Steel] SUS440C(13Cr) Stainless Steel Equivalent	<b>Heat Treated</b>	Induction Hardened
<b>Surface Finish</b>	None	<b>Shaft Fits Tolerance</b>	g6
<b>Shaft Dia. D(mm)</b>	12	<b>Length L(mm)</b>	93.5
<b>Hardness</b>	Induction Hardened (56HRC~)	<b>B(mm)</b>	10
<b>Change to Fine Threads [MMC] (mm)</b>	-	<b>Change to Fine Threads [MMS] (mm)</b>	-
<b>Coarse Thread [M](mm)</b>	5	<b>Thread (Super-Fine) [PMC] in place of M(mm)</b>	-
<b>F(mm)</b>	12	<b>Thread (Fine) [PMS] in place of M(mm)</b>	-
<b>H(mm)</b>	-	<b>J(mm)</b>	-
<b>Thread (Fine) [QMS] in place of N(mm)</b>	-	<b>Thread (Super-Fine) [QMC] in place of N(mm)</b>	-
<b>Q(mm)</b>	-	<b>R(mm)</b>	-
<b>S(mm)</b>	-	<b>T(mm)</b>	-
<b>P(mm)</b>	-	<b>Thread (Super-Fine) [PMC](mm)</b>	-
<b>U(mm)</b>	-	<b>W(mm)</b>	-
<b>Z(mm)</b>	-	<b>Thread (Coarse) [N](mm)</b>	5
<b>Add Wrench Flats at One Location [SC](mm)</b>	30	-	-



### Left End Shape



### Right End Shape



### Machining Conditions

**A** No alteration condition for Shape

<p><b>B</b></p> <ul style="list-style-type: none"> <li>When M3 ~ 8 <math>M(N) \leq D-3</math></li> <li>When M10 or 12 <math>M(N) \leq D-4</math></li> <li>When M16, 20 or 24 <math>M(N) \leq D-5</math></li> <li>When M30 <math>M(N) \leq D-6</math></li> <li><math>L \geq M(N) \times 4</math></li> </ul>	<p><b>C</b></p> <table border="1"> <thead> <tr> <th>D</th> <th>r</th> </tr> </thead> <tbody> <tr> <td>6~30</td> <td>0.3 or Less</td> </tr> <tr> <td>31~50</td> <td>0.5 or Less</td> </tr> </tbody> </table> <p>Specify M(N) dimensions.  <b>B</b>, <math>S \geq \text{Pitch} \times 3</math> is required.</p>	D	r	6~30	0.3 or Less	31~50	0.5 or Less	<p><b>D</b></p> <table border="1"> <thead> <tr> <th>D</th> <th>r</th> </tr> </thead> <tbody> <tr> <td>6~30</td> <td>0.3 or Less</td> </tr> <tr> <td>31~50</td> <td>0.5 or Less</td> </tr> </tbody> </table>	D	r	6~30	0.3 or Less	31~50	0.5 or Less	<p><b>E</b></p> <table border="1"> <thead> <tr> <th>D</th> <th>r</th> <th>P(Q)</th> </tr> </thead> <tbody> <tr> <td>6~30</td> <td>0.3 or Less</td> <td><math>P(Q) \geq M(N)+3</math></td> </tr> <tr> <td>31~50</td> <td>0.5 or Less</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>When M3 ~ 8 <math>M(N) \leq P(Q)-3</math></li> <li>When M10 or 12 <math>M(N) \leq P(Q)-4</math></li> <li>When M16, 20 or 24 <math>M(N) \leq P(Q)-5</math></li> <li>When M30 <math>M(N) \leq P(Q)-6</math></li> </ul>	D	r	P(Q)	6~30	0.3 or Less	$P(Q) \geq M(N)+3$	31~50	0.5 or Less	
D	r																							
6~30	0.3 or Less																							
31~50	0.5 or Less																							
D	r																							
6~30	0.3 or Less																							
31~50	0.5 or Less																							
D	r	P(Q)																						
6~30	0.3 or Less	$P(Q) \geq M(N)+3$																						
31~50	0.5 or Less																							
<p><b>F</b></p> <p>D dimensions 31 and 38 can not be specified.</p>	<p><b>G</b></p> <table border="1"> <thead> <tr> <th>D</th> <th>b</th> <th>Max. Chamfer Depth, <math>\ell</math></th> </tr> </thead> <tbody> <tr> <td>6, 7</td> <td>2.5</td> <td>3.5</td> </tr> <tr> <td>8, 9</td> <td>3</td> <td>4.5</td> </tr> <tr> <td>10</td> <td>4</td> <td>6</td> </tr> <tr> <td>12~15</td> <td>5</td> <td>7.5</td> </tr> <tr> <td>16~19</td> <td>6</td> <td>9</td> </tr> <tr> <td>20</td> <td>8</td> <td>12</td> </tr> </tbody> </table>	D	b	Max. Chamfer Depth, $\ell$	6, 7	2.5	3.5	8, 9	3	4.5	10	4	6	12~15	5	7.5	16~19	6	9	20	8	12	<p><b>H</b></p> <p><math>D \geq 16</math>  <math>D \geq M+4+R</math>  <math>D \geq N+4+W</math>  <math>R \geq M+3</math>  <math>W \geq N+3</math></p> <p>Tap Depth  <math>M \times 2</math>  <math>N \times 2</math></p>	<p><b>T</b></p> <p><math>D-J(Z) \tan 15^\circ \times 2 \geq 2</math>  (Tip diameter <math>\emptyset 2</math> or More)  <ul style="list-style-type: none"> <li>L requires <math>L-J(Z) \geq 20</math>.</li> <li>When both ends are in T shape, <math>L-(J+Z) \geq 20</math> is required.</li> </ul> </p>
D	b	Max. Chamfer Depth, $\ell$																						
6, 7	2.5	3.5																						
8, 9	3	4.5																						
10	4	6																						
12~15	5	7.5																						
16~19	6	9																						
20	8	12																						


⚠ When only one end requires alteration, select Shape A for the opposite end.


⚠ G and H will not be symmetrical when applied to both ends of the shaft.

⚠ When D=P or D=N is selected for shaft shape C, B(S) needs to be specified as F=B(T=S).

However, L, F, and T dimensions have manufacturing priority and B(S) dimension will be F(T)-(Pitch x2).



**Alterations**  For details, please see Alteration Overview **See below**

**Alterations**  Applicable to LKC, SC, WSC, PMC, PMS, QMC and QMS only.

Copyright © MISUMI Corporation All Rights Reserved.