



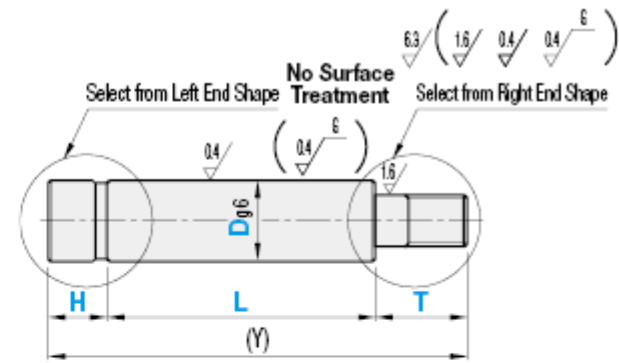
Precision Linear Shaft with Configurable Shaft Ends (MISUMI)



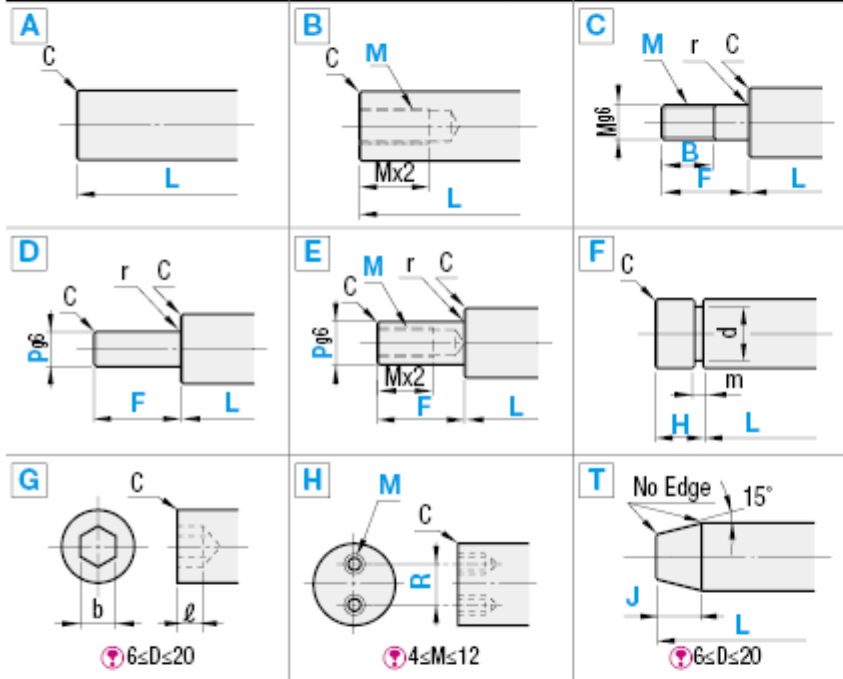
Part Number **FSSFJCB-D12-L193.5-F12-M5-B10-N5-SC30**

20220317112436

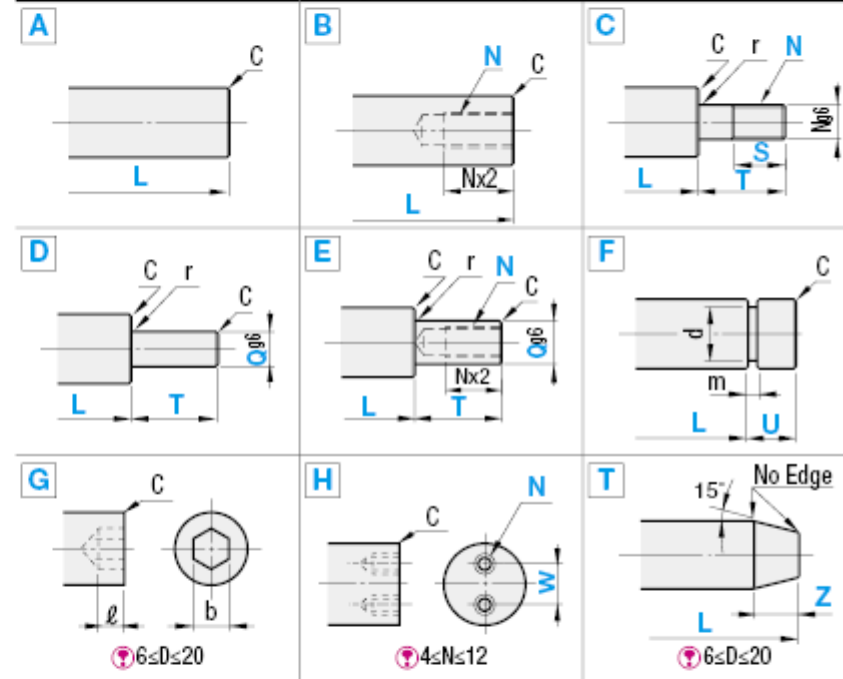
| | | | |
|--|--|--|------------------------|
| Basic Shape | Straight | End Shape (Left) | Threaded |
| End Shape (Right) | Tapped | Shaft End Perpendicularity | Perpendicularity (0.2) |
| Material | [Stainless Steel] SUS440C(13Cr) Stainless Steel Equivalent | Heat Treated | Induction Hardened |
| Surface Finish | None | Shaft Fits Tolerance | g6 |
| Shaft Dia. D(mm) | 12 | Length L(mm) | 193.5 |
| Hardness | Induction Hardened (56HRC~) | B(mm) | 10 |
| Change to Fine Threads [MMC] (mm) | - | Change to Fine Threads [MMS] (mm) | - |
| Coarse Thread [M](mm) | 5 | Thread (Super-Fine) [PMC] in place of M(mm) | - |
| F(mm) | 12 | Thread (Fine) [PMS] in place of M(mm) | - |
| H(mm) | - | J(mm) | - |
| Thread (Fine) [QMS] in place of N(mm) | - | Thread (Super-Fine) [QMC] in place of N(mm) | - |
| Q(mm) | - | R(mm) | - |
| S(mm) | - | T(mm) | - |
| P(mm) | - | Thread (Super-Fine) [PMC](mm) | - |
| U(mm) | - | W(mm) | - |
| Z(mm) | - | Thread (Coarse) [N](mm) | 5 |
| Add Wrench Flats at One Location [SC](mm) | 30 | - | - |



Left End Shape



Right End Shape



Machining Conditions

A No alteration condition for Shape

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

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

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