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)	393.5
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	-	-

Select from Left End Shape — No Surface Treatment — Select from Right End Shape

$6.3/ \left(1.6/ \quad 0.4/ \quad 0.4/ \quad \overset{g}{\nabla} \right)$

$0.4/ \quad \left(0.4/ \quad \overset{g}{\nabla} \right)$ 1.6/

D g6

H   L   T

(Y)

Left End Shape

A	B	C
C, L	C, M, Mx2, L	M, r, C, Mg6, B, F, L

D	E	F
C, r, C, Pg6, F, L	C, M, r, C, Pg6, Mx2, F, L	C, d, m, H, L

G	H	T
C, b, ℓ ⓣ6≤D≤20	M, C, R, ℓ ⓣ4≤M≤12	No Edge, 15°, J, L ⓣ6≤D≤20

Right End Shape

A	B	C
C, L	N, C, Nx2, L	C, r, N, Ng6, L, S, T

D	E	F
C, r, C, Qg6, L, T	C, r, N, C, Qg6, Nx2, L, T	d, C, m, L, U

G	H	T
C, ℓ, b ⓣ6≤D≤20	C, N, W ⓣ4≤N≤12	15°, No Edge, L, Z ⓣ6≤D≤20
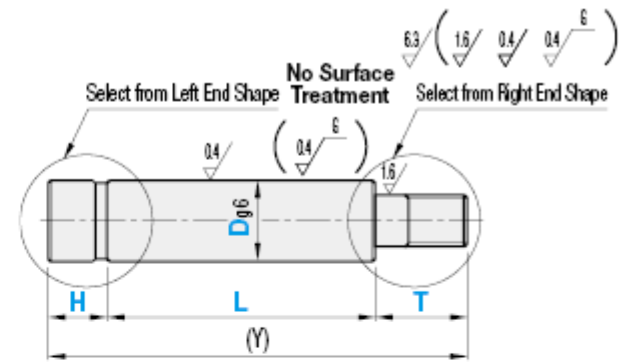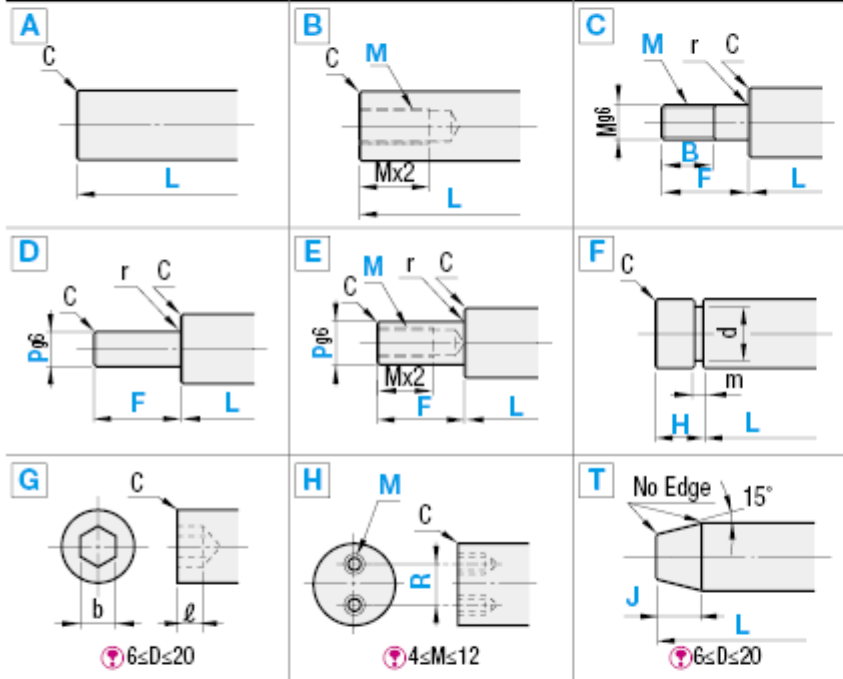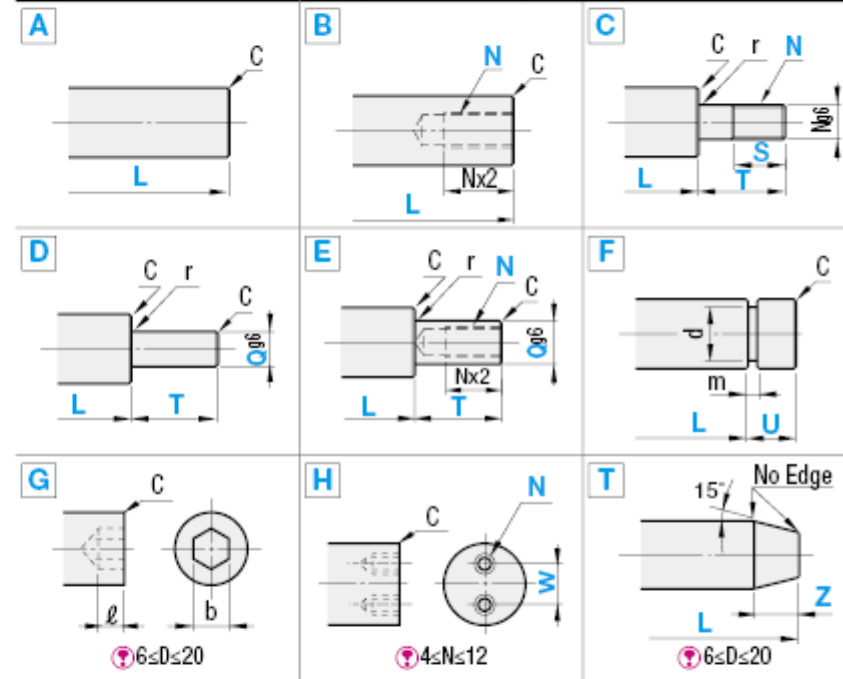
■ Machining Conditions   ⓣ A No alteration condition for Shape

B
- When M3 ~ 8   M(N)≤D-3
- When M10 or 12   M(N)≤D-4
- When M16, 20 or 24   M(N)≤D-5
- When M30   M(N)≤D-6

L≥M(N)x4

C

D	r
6~30	0.3 or Less
31~50	0.5 or Less

Specify M(N) dimensions.
ⓣB, S≥Pitchx3 is required.

D

D	r
6~30	0.3 or Less
31~50	0.5 or Less

E

D	r	
6~30	0.3 or Less	P(Q)≥M(N)+3
31~50	0.5 or Less	

- When M3 ~ 8   M(N)≤P(Q)-3
- When M10 or 12   M(N)≤P(Q)-4
- When M16, 20 or 24   M(N)≤P(Q)-5
- When M30   M(N)≤P(Q)-6

F

D dimensions 31 and 38 can not be specified.

G

D	b	Hex Socket 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

H

D≥16
D≥M+4+R
D≥N+4+W   Tap Depth
R≥M+3   Mx2
W≥N+3   Nx2

T

D-J(Z)tan15°x2≥2
(Tip diameter Ø2 or More)
- L requires L-J(Z)≥20.
- When both ends are in T shape,
  L-(J+Z)≥20 is required.

When only one end requires alteration, select Shape A for the opposite end.   When D=P or D=N is selected for shaft shape C, B(S) needs to be specified as F=B(T=S).

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