

Shafts

One End 2-Tapped Holes Type

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RoHS 10

ⓘ Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10 mm), P.199

ⓘ Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P.198.

Type				D Tol.	Material	Hardness	Surface Treatment
Solid Type	Tapped Type	Stepped and Tapped Type	Threaded Type				
SFDJ	SFDT	SFDG	SFDN	g6	52100 Bearing Steel Equivalent	Effective Hardened Depth of Induction Hardened P.199	—
SSFJ	SSFD	SSFJG	SSFJN		SUS440C (13Cr) Stainless Steel Equivalent		
PSFJ	PSFD	PSFJG	PSFJN		52100 Bearing Steel Equivalent	52100 Bearing Steel Equivalent 58 HRC min.	

Solid Type
SFDJ

No Surface Treatment on Machined Features

Stepped and Tapped Type
SFDG

No Surface Treatment on Machined Features

Tapped Type
SFDT

No Surface Treatment on Machined Features

Threaded Type
SFDN

No Surface Treatment on Machined Features

Solid Type, Tapped Type, Stepped and Tapped Type

Part Number		1 mm Increments				M (Tapped)	M (Stepped and Tapped)	W 1 mm Increment	N	(Y) Max.	R	C	
Type	D	L (Solid - Tapped)	L (Stepped and Tapped)	F	P								
Solid Type SFDJ SSFJ PSFJ	15	25-750	25-750	2 ≤ F ≤ P × 4	6-13	4 5 6 8 10	3 4 5 6 8 10	D-W-N ≥ 4	4 5 6 8 10	0.3 or Less	0.5 or Less		
		16	30-800			25-800	6-14					4 5 6 8 10	3 4 5 6 8 10
		18	30-900			25-900	8-16					4 5 6 8 10 12	4 5 6 8 10 12
		20	30-1000			25-1000	8-17					4 5 6 8 10 12	4 5 6 8 10 12
		25	35-1200			25-1198	8-22					4 5 6 8 10 12 16	4 5 6 8 10 12 16
		30	35-1500			25-1498	9-27					6 8 10 12 16 20	5 6 8 10 12 16 20 24
		35	35-1500			25-1498	9-32					8 10 12 16 20 24	5 6 8 10 12 16 20 24
		40	50-1500			25-1498	11-37					10 12 16 20 24 30	6 8 10 12 16 20 24 30
		50	50-1500			25-1498	11-47					12 16 20 24 30	6 8 10 12 16 20 24 30

Tapped Type ⓘ Not applicable when Mx2.5+4+Nx2.5+4 ≤ L Stepped and Tapped Type ⓘ P ≥ M+3 ⓘ Not applicable when Mx2.5+4+Nx2.5+4 ≤ L

Threaded Type

Part Number		1 mm Increments				P	W 1 mm Increments	N	(Y) Max.	R	C	Coarse Thread Dimensions		Coarse Thread Dimensions			
Type	D	L	F	B (Threaded)	M							Pitch	M	Pitch			
Threaded Type SFDN SSFJN PSFJN	15	25-750	2 ≤ F ≤ P × 5	(When P=5 and 6) B ≤ F-2 (When P=8, 10) B ≤ F-3 (When P=12) B ≤ F-5 ⓘ B ≥ Pitch × 3	5 6 8 10 12	D-W-N ≥ 4	4 5 6 8 10 12	0.3 or Less	0.5 or Less	1.0 or Less	0.5 or Less	1.0 or Less	3	0.5	12	1.75	
		*16			25-800								5 6 8 10 12	4	0.7	16	2.0
		18			25-900								5 6 8 10 12 16	5	0.8	20	2.5
		*20			25-1000								6 8 10 12 16	6	1.0	24	3.0
		25			25-1198								8 10 12 16 20 24	8	1.25	30	3.5
		*30			25-1498								8 10 12 16 20 24	10	1.5		
		35			25-1498								10 12 16 20 24 30	12			
		40			25-1498								12 16 20 24 30	16			

ⓘ D > P

Shafts

One End 2-Tapped Holes Type, continued

Part Number Example

Part Number	L	F	B	P	M	W	N
SFDJ20	- 75					- W10	- N4
SFDT20	- 525				M8	- W7	- N4
SFDG20	- 400	- F25		- P16	- M10	- W12	- N4
SFDN20	- 500	- F30	- B20	- P16		- W8	- N4

Part Number Alterations

Part Number	L	F	B	P (PMC / PSC)	M (MSC)	W	N	(LKC / MSC / PMC / PMS)
SFDN30	- 250	- F40	- B30	- PMC10		- W10	- N4	- LKC

Alterations	Alteration to L Dimension Tolerance	Change to Fine Tapped Thread	Change to Fine Thread																																																																																																		
	Code	LKC	MSC	PMC / PMS																																																																																																	
Spec.	<p>Changes L Tolerance.</p> <p>Ordering Code: LKC</p> <ul style="list-style-type: none"> ⓘ L < 200 → L ± 0.03 ⓘ 200 ≤ L < 500 → L ± 0.05 ⓘ L ≥ 500 → L ± 0.1 ⓘ L dimensions can be specified in 0.1 mm increments for LKC. ⓘ Not applicable when D-P ≤ 2. 	<p>Changes tapped threads to fine tapped threads shown in the table below.</p> <p>Ordering Code: MSC14</p> <ul style="list-style-type: none"> ⓘ Applicable to Tapped Type ⓘ Specify M dimensions with MSC. ⓘ M dimension is equal to MSC. ⓘ Not applicable to Stepped and Tapped. <table border="1"> <tr> <th>D</th> <th colspan="3">MSC</th> </tr> <tr> <td>15 / 16</td> <td>8</td> <td>10</td> <td></td> </tr> <tr> <td>18</td> <td>8</td> <td>10</td> <td>12</td> </tr> <tr> <td>20</td> <td>8</td> <td>10</td> <td>12 14</td> </tr> <tr> <td>25-35</td> <td>8</td> <td>10</td> <td>12 14 18</td> </tr> <tr> <td>40</td> <td></td> <td>10</td> <td>12 14 18</td> </tr> <tr> <td>50</td> <td></td> <td></td> <td>12 14 18</td> </tr> <tr> <td>Pitch</td> <td>1.0</td> <td>1.25</td> <td>1.5</td> </tr> </table>	D	MSC			15 / 16	8	10		18	8	10	12	20	8	10	12 14	25-35	8	10	12 14 18	40		10	12 14 18	50			12 14 18	Pitch	1.0	1.25	1.5	<p>Changes the threads to fine threads shown in the table below.</p> <p>(PMC → Applicable to bearing nut fine thread pitches) (PMS → Applicable to cylinder fine thread pitches)</p> <p>Ordering Code: PMC17</p> <ul style="list-style-type: none"> ⓘ Applicable to Threaded Type only ⓘ Specify P dimensions with PMC (PMS). ⓘ P dimension is equal to that of PMC (PMS). <table border="1"> <tr> <th>D</th> <th colspan="3">PMC</th> <th colspan="2">PMS</th> </tr> <tr> <td>15</td> <td>5</td> <td>6</td> <td>8</td> <td>10</td> <td>12</td> </tr> <tr> <td>16</td> <td>5</td> <td>6</td> <td>8</td> <td>10</td> <td>12 15</td> </tr> <tr> <td>18</td> <td>5</td> <td>6</td> <td>8</td> <td>10</td> <td>12 15 17</td> </tr> <tr> <td>20</td> <td>6</td> <td>8</td> <td>10</td> <td>12 15 17</td> <td></td> </tr> <tr> <td>25</td> <td></td> <td>8</td> <td>10</td> <td>12 15 17 20</td> <td></td> </tr> <tr> <td>30</td> <td></td> <td>8</td> <td>10</td> <td>12 15 17 20 25</td> <td></td> </tr> <tr> <td>35</td> <td></td> <td>10</td> <td>12 15 17 20</td> <td>25 30</td> <td></td> </tr> <tr> <td>40</td> <td></td> <td></td> <td>12 15 17 20</td> <td>25 30</td> <td></td> </tr> <tr> <td>50</td> <td></td> <td></td> <td>15 17 20</td> <td>25 30</td> <td></td> </tr> <tr> <td>Pitch</td> <td>0.5</td> <td>0.75</td> <td>1.0</td> <td>1.25</td> <td>1.5</td> </tr> </table>	D	PMC			PMS		15	5	6	8	10	12	16	5	6	8	10	12 15	18	5	6	8	10	12 15 17	20	6	8	10	12 15 17		25		8	10	12 15 17 20		30		8	10	12 15 17 20 25		35		10	12 15 17 20	25 30		40			12 15 17 20	25 30		50			15 17 20	25 30		Pitch	0.5	0.75	1.0	1.25	1.5
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