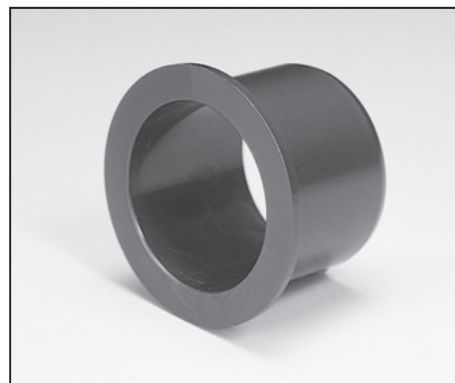


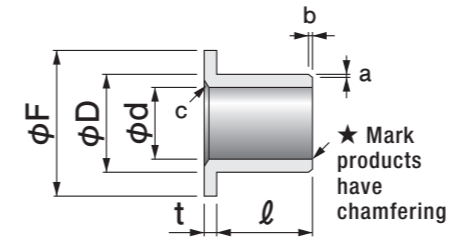
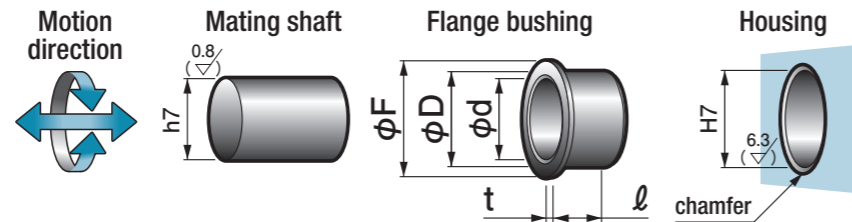
# 80F Oiles 80 Flange Bushings



Specify Part No. by required I.D. and length.  
(e.g.) I.D. is 15mm and length is 10mm.

**80F - 1510**

**Part No.**



a b: Chamfering for O.D.

φd	2	~35	~50
a	0.3	0.3	0.5
b	(Note)	1	2

(mm)

(Note) ℓ2mm:0.3, ℓ3/4mm:0.5

c: Chamfering for I.D.

φd	~10	~35	~40	~50
c	R0.3	R0.4	R0.6	R0.8

(mm)

- The Oiles 80 bushings are injection-molded.
- The inner diameter tolerances are the values after pressing into a ring gauge of  $\phi D \pm 0.002$ .
- A stopper is needed at the temperature of 0°C or less, since the bushing is dislocated due to thermal shrinkage.

I.D.		O.D.		Flange			Length ℓ Tolerance $0_{-0.3}$							
φd	Tolerance	φD	Tolerance	φF	t	Tolerance	2	3	4	5	6	7	8	10
2	+0.065 +0.015	4	+0.107 +0.032	6	1	0 -0.10	<b>0202</b>	<b>0203</b>	<b>0204</b>					
3	+0.080 +0.030	5	+0.107 +0.032	8	1	0 -0.10		<b>0303</b>	<b>0304</b>	<b>0305</b>	<b>0306</b>			
4	+0.095 +0.045	6	+0.107 +0.032	9	1	0 -0.10		<b>0403</b>	<b>0404</b>	<b>0405</b>	<b>0406</b>			
5	+0.095 +0.045	7	+0.157 +0.045	10	1	0 -0.10		<b>0503</b>	<b>0504</b>	<b>0505</b>	<b>0506</b>	<b>0507</b>		
6	+0.095 +0.045	8	+0.157 +0.045	12	1	0 -0.10		<b>0603</b>		<b>0605</b>	<b>0606</b>		<b>0608</b>	<b>0610</b>
7	+0.095 +0.045	9	+0.157 +0.045	13	1	0 -0.10		<b>0703</b>		<b>0705</b>		<b>0707</b>		<b>0710</b>
8	+0.120 +0.060	10	+0.157 +0.045	15	1	0 -0.10		<b>0803</b>		<b>0805</b>	<b>0806</b>		<b>0808</b>	<b>0810</b>
9	+0.120 +0.060	11	+0.193 +0.058	16	1	0 -0.10		<b>0903</b>		<b>0905</b>	<b>0906</b>			<b>0910</b>
10	+0.120 +0.060	12	+0.193 +0.058	18	1	0 -0.10		<b>1003</b>		<b>1005</b>	<b>1006</b>		<b>1008</b>	<b>1010</b>
12	+0.120 +0.060	14	+0.193 +0.058	20	1	0 -0.10					<b>1206</b>		<b>1208</b>	<b>1210</b>
14	+0.120 +0.060	16	+0.193 +0.058	22	1	0 -0.10								<b>1410</b>
15	+0.120 +0.060	17	+0.193 +0.058	23	1	0 -0.10								<b>1510</b>
16	+0.120 +0.060	18	+0.193 +0.058	24	1	0 -0.10								<b>1610</b>
18	+0.120 +0.060	20	+0.221 +0.071	26	1	0 -0.10								<b>1810</b>
20	+0.145 +0.075	23	+0.221 +0.071	31	1.5	0 -0.15								<b>2010</b>
22	+0.145 +0.075	25	+0.231 +0.081	33	1.5	0 -0.15								<b>2210</b>
25	+0.170 +0.090	28	+0.231 +0.081	36	1.5	0 -0.15								<b>2510</b>
30	+0.170 +0.090	34	+0.290 +0.095	42	2	0 -0.15								<b>3010</b>
32	+0.215 +0.115	36	+0.290 +0.095	46	2	0 -0.15								
35	+0.215 +0.115	39	+0.290 +0.095	49	2	0 -0.15								<b>3510★</b>
38	+0.215 +0.115	42	+0.340 +0.115	52	2	0 -0.15								
40	+0.215 +0.115	44	+0.340 +0.115	54	2	0 -0.15								
45	+0.235 +0.135	50	+0.340 +0.115	60	2.5	0 -0.15								
50	+0.235 +0.135	55	+0.430 +0.130	65	2.5	0 -0.15								

Length ℓ Tolerance $0_{-0.5}$							I.D.
12	15	20	25	30	40	50	φd
							2
							3
							4
							5
							6
							7
<b>0812</b>	<b>0815</b>						8
<b>0912</b>	<b>0915</b>						9
<b>1012</b>	<b>1015</b>	<b>1020</b>					10
<b>1212</b>	<b>1215</b>	<b>1220</b>					12
<b>1412</b>	<b>1415</b>	<b>1420</b>					14
<b>1512</b>	<b>1515</b>	<b>1520</b>	<b>1525</b>	<b>1530</b>			15
<b>1612</b>	<b>1615</b>	<b>1620</b>	<b>1625</b>	<b>1630</b>			16
<b>1812</b>	<b>1815</b>	<b>1820</b>	<b>1825</b>	<b>1830</b>			18
<b>2012</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>			20
	<b>2215</b>	<b>2220</b>	<b>2225</b>	<b>2230</b>			22
<b>2512</b>	<b>2515</b>	<b>2520</b>	<b>2525</b>	<b>2530</b>			25
<b>3012</b>		<b>3020</b>	<b>3025</b>	<b>3030</b>	<b>3040</b>		30
		<b>3220★</b>	<b>3225★</b>	<b>3230★</b>	<b>3240★</b>		32
<b>3512★</b>		<b>3520</b>	<b>3525★</b>	<b>3530</b>	<b>3540</b>		35
		<b>3820</b>		<b>3830</b>	<b>3840</b>		38
<b>4012</b>		<b>4020</b>	<b>4025</b>	<b>4030</b>	<b>4040</b>	<b>4050</b>	40
		<b>4520</b>	<b>4525</b>	<b>4530</b>	<b>4540</b>	<b>4550</b>	45
		<b>5020</b>		<b>5030</b>	<b>5040</b>	<b>5050</b>	50