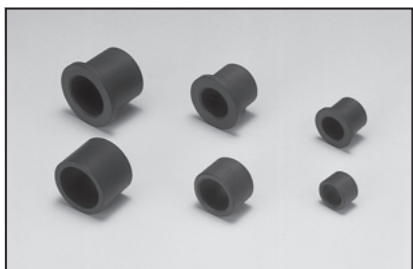


Oiles Glitron F PTFE bearings with fillers



Feature

- Serviceable without the need for lubrication completely.
- Features low static coefficient of friction when starting and causes no stick slips in operation.
- Features wear resistance and maintains low coefficient of friction under high-speed conditions.
- Applicable to wide temperature ranges from low to high temperatures.
- Has superior chemical resistance.
- Soft metal (such as aluminum) may be used as mating shafts.
- Has superior cutting and machining characteristics.
- Standard products and materials for machining are available in various sizes.

Service range

Lubrication condition	Dry
Service temperature range °C	-200~+200
Allowable max. pressure P N/mm ² {kgf/cm ² }	7.0 {71}
Allowable max. velocity V m/s {m/min}	1.65 {99}
Allowable max. PV value N/mm ² ·m/s {kgf/cm ² ·m/min}	1.00 {612}

Mechanical properties

Specific gravity	ASTM D 792	—	2.25
Tensile strength	ASTM D 638	N/mm ² {kgf/cm ² }	13.1 {134}
Tensile elongation at break	ASTM D 638	%	150
Compressive stress	ASTM D 695	N/mm ² {kgf/cm ² }	1% deformation
			10% deformation
Hardness	ASTM D 785	HRR	25
Co-efficient of linear expansion	ASTM D 696	×10 ⁻⁵ °C ⁻¹	9~11
Deflection temperature under load 0.45 MPa	ASTM D 648	°C	254
Deflection temperature under load 1.82 MPa	ASTM D 648	°C	96
Melting point	DSC	°C	327
Volume resistivity	ASTM D 257	Ωm {Ω·cm}	3.04 (3.04×10 ²)
Surface resistivity	ASTM D 257	Ω	8.35×10 ²

※The values shown above are typical values, not the standard values.

Lathe turning

		carbide tool (JIS)	
Cutting tool	Relief angle	5~10°	
	Rake angle	10~20°	
	Nose radius (mm)	0.20~0.40	
Condition	Speed (m/min)	100~250	
	Cut depth (mm)	0.10~0.50	
	Feed (mm/rev)	0.05~0.20	

Attention should be paid to dimensional variances due to thermal expansion, chucking, and bend of the material.

※Contact us for grinding and milling information.

Machining accuracy (bushing)

I.D.	O.D.	Length
class 8 to 9	class 7 to 8	class 9 to 10

Classes here are in JIS standard.

This product demonstrates satisfactory performance at the slide surface roughness of Rz6.3 to 12.5μm.

Dimensions may change due to thermal expansion, chucking pressure, moisture absorption deformation, etc. High accuracy is ensured if the product is installed on the housing and then ground.

Test data

Journal rotation test

<Testing conditions>

Bearing dimension : φ10×φ14×ℓ 10

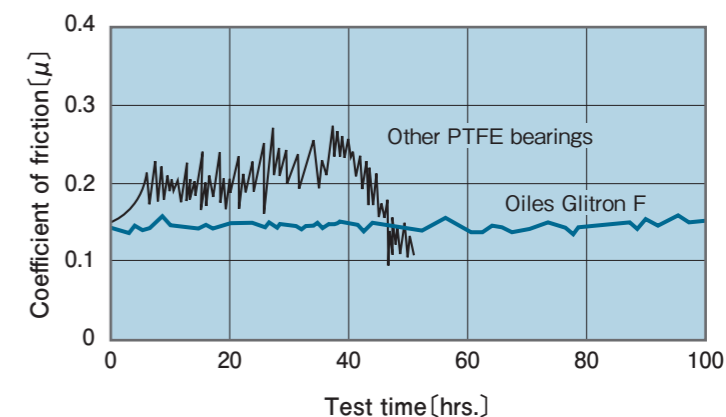
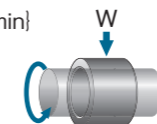
Mating material : SUS303
(surface roughness Rz1.2μm)

Pressure : 1.96N/mm²{20.0kgf/cm²}

Velocity : 0.500m/s {30.0m/min}

Test time : 100hrs.

Lubrication : dry



Journal rotation test

<Testing conditions>

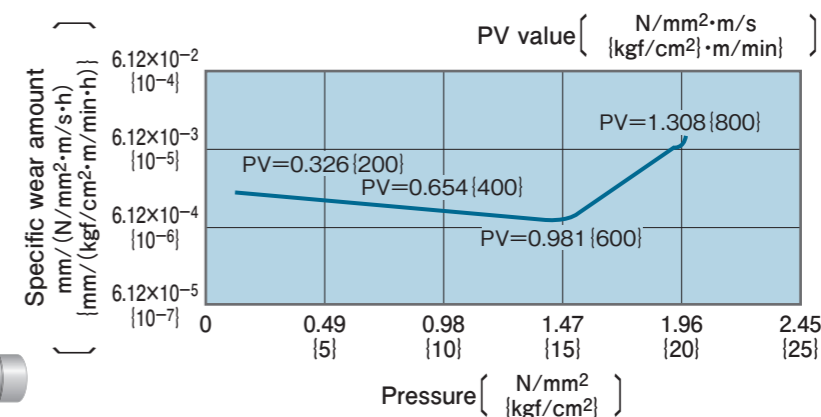
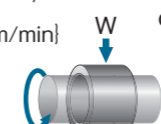
Bearing dimension : φ10×φ14×ℓ 10

Mating material : SUS303
(surface roughness Rz1.2μm)

Pressure : 0.49 to 1.96N/mm²
{5.0 to 20.0kgf/cm²}

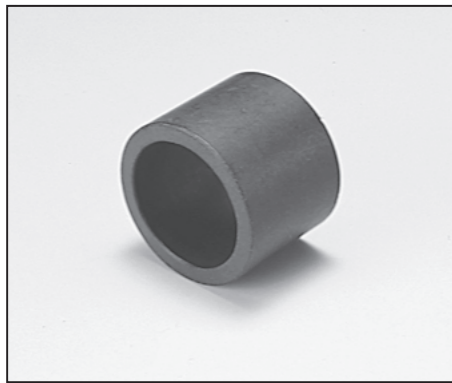
Velocity : 0.667m/s {40.0m/min}

Lubrication : dry



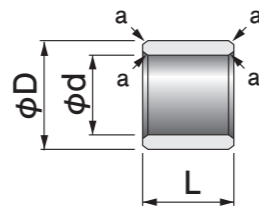
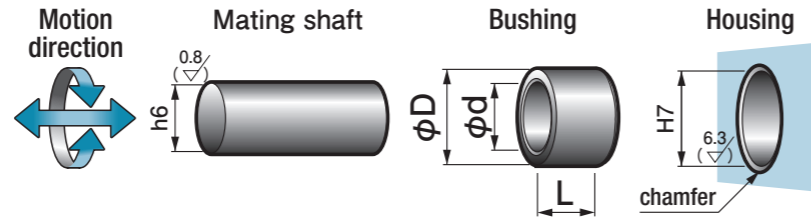
77B

Oiles Glitron F Bushings



Specify Part No. by required I.D. and length.
(e.g.) I.D. is 9mm and length is 10mm.

77B - 0910
Part No.



a: Chamfering (mm)

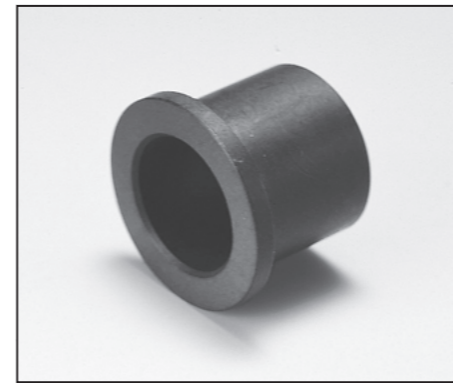
φd	~6	~18	~50
a	C0.3	C0.5	C0.8

I.D.		O.D.		Length L											Tolerance $_{-0.25}^0$	I.D. tolerance after press fitting (reference)
φd	Tolerance	φD	Tolerance	3	5	6	8	10	15	20	25	30	40	50		
3	+0.183 +0.133	6	+0.09 +0.04	0303	0305											+0.124 +0.074
4	+0.183 +0.133	7	+0.09 +0.04		0405	0406	0408									+0.126 +0.076
5	+0.183 +0.133	8	+0.09 +0.04		0505	0506	0508	0510								+0.126 +0.076
6	+0.186 +0.136	9	+0.09 +0.04		0605	0606	0608	0610								+0.129 +0.079
7	+0.198 +0.148	11	+0.10 +0.05				0708									+0.132 +0.082
8	+0.202 +0.152	12	+0.10 +0.05				0808	0810	0815							+0.136 +0.086
9	+0.205 +0.155	13	+0.10 +0.05					0910								+0.139 +0.089
10	+0.215 +0.165	14	+0.10 +0.05				1008	1010	1015							+0.149 +0.099
12	+0.218 +0.168	16	+0.10 +0.05					1210	1215	1220						+0.152 +0.102
15	+0.240 +0.170	21	+0.10 +0.05					1510	1515	1520						+0.176 +0.106
16	+0.240 +0.170	22	+0.10 +0.05					1615	1620	1625						+0.176 +0.106
17	+0.250 +0.180	23	+0.10 +0.05					1715								+0.186 +0.116
18	+0.250 +0.180	24	+0.10 +0.05					1815	1820							+0.186 +0.116
20	+0.310 +0.190	26	+0.11 +0.06					2015	2020	2025	2030					+0.236 +0.116
25	+0.310 +0.190	31	+0.11 +0.06						2520	2525	2530					+0.238 +0.118
30	+0.310 +0.190	36	+0.11 +0.06						3020	3025	3030					+0.238 +0.118
40	+0.340 +0.200	48	+0.11 +0.06									4030	4040			+0.268 +0.128
50	+0.350 +0.210	60	+0.11 +0.06										5040	5050		+0.280 +0.140

▲ The dimensional tolerances are the values measured at +25°C.

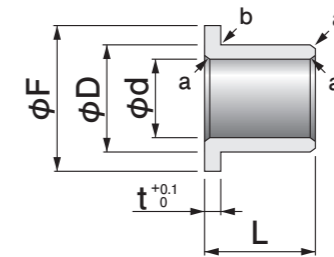
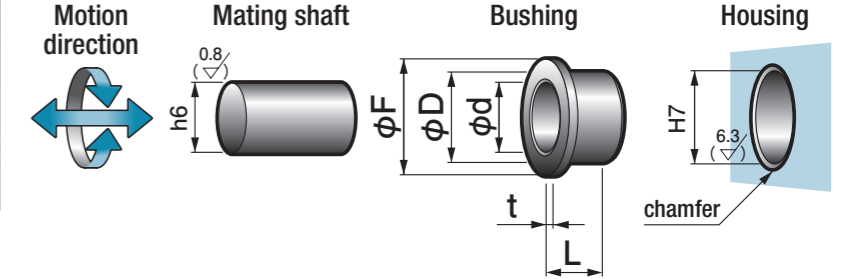
77F

Oiles Glitron F Flange Bushings



Specify Part No. by required I.D. and length.
(e.g.) I.D. is 9mm and length is 10mm.

77F - 0910
Part No.



a: Chamfering (mm)

φd	~6	~18	~50
a	C0.3	C0.5	C0.8
b	R0.2		

I.D.		O.D.		Flange		Length L											Tolerance $_{-0.25}^0$	I.D. tolerance after press fitting (reference)
φd	Tolerance	φD	Tolerance	φF	t	5	6	8	10	15	20	25	30	40	50			
3	+0.183 +0.133	6	+0.09 +0.04	9	1.5	0305											+0.124 +0.074	
4	+0.183 +0.133	7	+0.09 +0.04	9	1.5			0406	0408								+0.126 +0.076	
5	+0.183 +0.133	8	+0.09 +0.04	11	1.5			0506	0508	0510							+0.126 +0.076	
6	+0.186 +0.136	9	+0.09 +0.04	12	1.5			0606	0608	0610							+0.129 +0.079	
7	+0.198 +0.148	11	+0.10 +0.05	15	2.0					0710							+0.132 +0.082	
8	+0.202 +0.152	12	+0.10 +0.05	16	2.0			0806	0808	0810	0815						+0.136 +0.086	
9	+0.205 +0.155	13	+0.10 +0.05	17	2.0					0910							+0.139 +0.089	
10	+0.215 +0.165	14	+0.10 +0.05	18	2.0					1008	1010	1015					+0.149 +0.099	
12	+0.218 +0.168	16	+0.10 +0.05	20	2.0					1210	1215	1220					+0.152 +0.102	
15	+0.240 +0.170	21	+0.10 +0.05	27	3.0					1510	1515	1520					+0.176 +0.106	
16	+0.240 +0.170	22	+0.10 +0.05	28	3.0					1610	1615	1620	1625				+0.176 +0.106	
17	+0.250 +0.180	23	+0.10 +0.05	29	3.0							1720					+0.186 +0.116	
18	+0.250 +0.180	24	+0.10 +0.05	30	3.0							1815	1820				+0.186 +0.116	
20	+0.310 +0.190	26	+0.11 +0.06	32	3.0					2015	2020	2025					+0.236 +0.116	
25	+0.310 +0.190	31	+0.11 +0.06	37	3.0							2520	2525	2530			+0.238 +0.118	
30	+0.310 +0.190	36	+0.11 +0.06	42	3.0							3020		3030			+0.238 +0.118	
40	+0.340 +0.200	48	+0.11 +0.06	56	4.0								4030	4040			+0.268 +0.128	
50	+0.350 +0.210	60	+0.11 +0.06	70	5.0									5040	5050		+0.280 +0.140	

▲ The dimensional tolerances are the values measured at +25°C.

77M Oiles Glitron F Bar Stock



Specify Part No. by required diameter.
(e.g.) Diameter is 28.8mm.

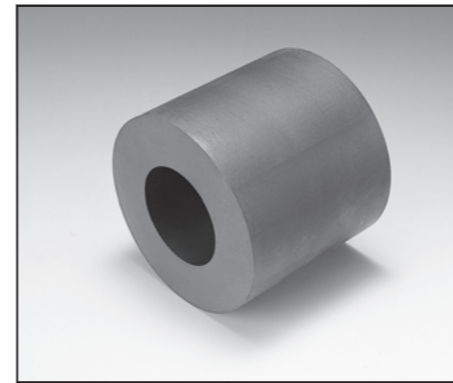
77M - 28
Part No.



Part No.	Diameter		Length L
	φD	Tolerance	
77M-5	5	+1.5 +0.5	500
77M-7	7	+1.0 +0.3	500
77M-9	9.6	+2.0 0	500
77M-12	12.5	+2.0 0	500
77M-14	14.4	+2.0 0	500
77M-16	16.3	+2.0 0	500
77M-19	19.2	+2.0 0	500
77M-24	24	+2.0 0	500
77M-28	28.8	+2.0 0	500

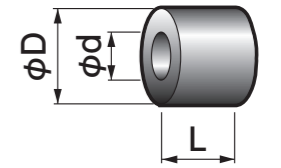
Part No.	Diameter		Length L
	φD	Tolerance	
77M-33	33.6	+2.0 0	500
77M-38	38.4	+4.0 0	500
77M-49	49	+4.0 0	100
77M-58	58	+2.0 0	100
77M-68	68	+2.0 0	100
77M-82	82	+2.0 -0.5	100
77M-88	88	+2.0 0	100
77M-98	98	+2.0 0	100

77S Oiles Glitron F Bushings



Specify Part No. by required I.D. and O.D.
(e.g.) I.D. is 68mm and O.D. is 117mm.

77S - 68117
Part No.



Part No.	I.D.		O.D.		Length L
	φd	Tolerance	φD	Tolerance	
77S-1120	11	0 -1.0	20	+2.0 0	500
77S-1933	19	0 -1.0	33	+2.0 0	500
77S-1940	19	0 -1.0	40	+2.0 0	500

(Thick type)

Part No.	I.D.		O.D.		Length L
	φd	Tolerance	φD	Tolerance	
77S-58118	58	+1.0 0	118	+2 0	100
77S-68117	68	0 -1.0	117	+2 0	100
77S-78156	78	+1.0 0	156	+2 0	100

77SH Oiles Glitron F Skiving Sheet

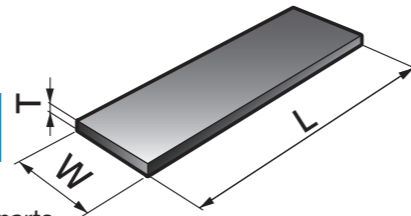


Specify Part No. by required width and thickness. **Custom-made product**
(e.g.) Wide is 100mm, thickness is 0.3mm, and length is 3m.

77SH - 1000310
Part No.

Skiving sheet with adhesion tape is available

Applications
Washers, slide tape, other machinery parts

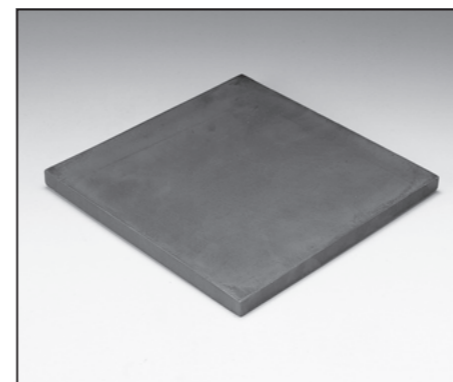


Part No.	Width		Thickness		Max. length L (m)
	W	Tolerance	T	Tolerance	
77SH-500210	50	+5 0	0.2	±0.05	10
77SH-1000310	100	+5 0	0.3	±0.05	10
77SH-150055	150	+5 0	0.5	±0.05	5
77SH-200085	200	+5 0	0.8	±0.05	5
77SH-200105	200	+5 0	1.0	±0.1	5

Part No.	Width		Thickness		Max. length L (m)
	W	Tolerance	T	Tolerance	
77SH-50121	50	+5 0	1.2	±0.1	1
77SH-100151	100	+5 0	1.5	±0.1	1
77SH-100201	100	+5 0	2.0	±0.1	1

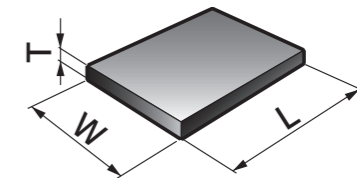
※Unit: 1m

77P Oiles Glitron F Plate Material



Specify Part No. by required width and thickness.
(e.g.) Wide is 200mm and thickness is 6mm.

77P - 2006
Part No.



Part No.	Width		Thickness		Length L
	W	Tolerance	T	Tolerance	
77P-2006	200	+10.0 0	6	+2.0 0	200
77P-2011	200	+10.0 0	11	+2.0 0	200