



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coated except for portions given secondary operation

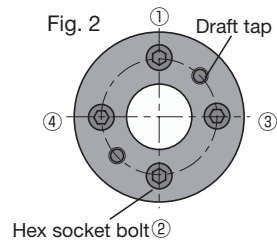
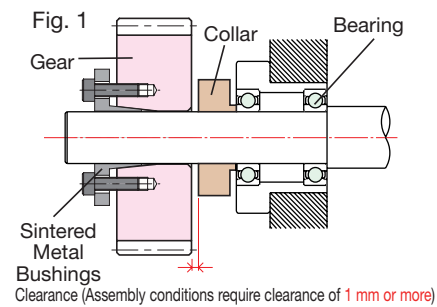
* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435

Features of F Series

- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

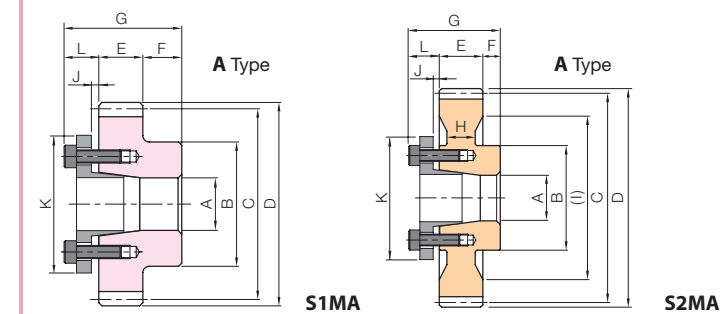


* For the backlash of each product, please refer to the dimension table of the original product.

Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.

F Series



To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A	* The product shapes of F Series items are identified by background color.															
	Catalog Number	10	12	14	15	16	17	18	19	20	22	25	28	30	32	35
SS1.5-26 F Bore A	S1MA															
SS1.5-27 F Bore A	S1MA															
SS1.5-28 F Bore A	S1MA	S1MA														
SS1.5-29 F Bore A	S1MA	S1MA														
SS1.5-30 F Bore A	S1MA	S1MA														
SS1.5-32 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA											
SS1.5-34 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA										
SS1.5-35 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA									
SS1.5-36 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA								
SS1.5-38 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-40 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-42 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-44 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-45 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-46 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-48 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-50 F Bore A		S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-52 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-54 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-55 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-56 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-58 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-60 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA							
SS1.5-62 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA						
SS1.5-64 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-65 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-66 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-68 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-70 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-72 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA					
SS1.5-75 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-76 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-80 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-84 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-85 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-88 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-90 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-95 F Bore A					S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS1.5-100 F Bore A					S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA		
SS1.5-120 F Bore A					S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	S2MA
SS1.5-150 F Bore A										S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA
Ref. slipping torque N·m	18	23	37	39	42	45	48	49	97	110	124	141	149	163	173	
Ref. thrust load kN	3.59	3.76	5.21	5.1	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	
Sintered Metal Bushings	L	10														
	K	29	31	36	37	38	39	40	42	46	47	51	53	56	58	61
Clearance	J	2								3						
Total Length	G	35					37							39		
Hex socket bolt	Qty	3								4						
	Size	M4×12					M4×15							M5×18		
	Tightening torque N·m						3.9							7.8		
Bushing weight (g)		20	22	38	40	41	43	45	49	71	71	81	84	93	97	106



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coated except for portions given secondary operation

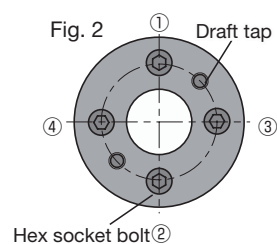
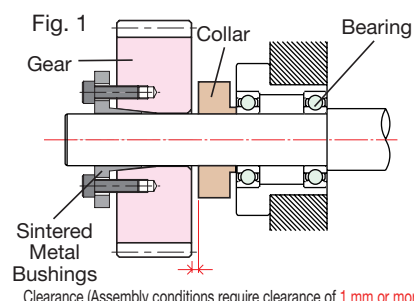
* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435

Features of F Series

- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
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- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
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- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.



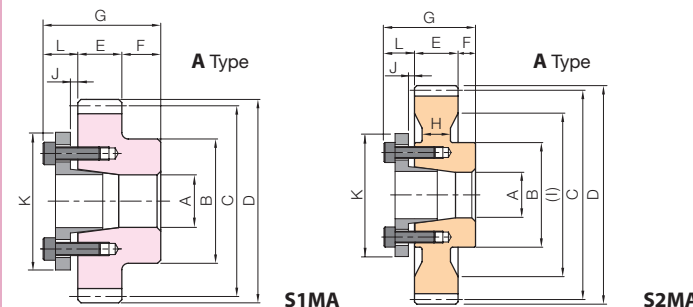
Catalog Number	No. of teeth	Hub dia. B	Pitch dia. C	Outside dia. D	Face width E	Hub width F	Web thickness (H)	Web O.D. (I)	Allowable torque (N·m)	
									Bending strength	Surface durability
SS2-23	23	37	46	50					56.3	3.86
SS2-24	24	38	48	52					59.8	4.24
SS2-25	25	40	50	54					63.3	4.64
SS2-26	26	42	52	56					66.8	5.04
SS2-27	27	45	54	58					70.4	5.45
SS2-28	28	45	56	60					73.9	5.89
SS2-29	29	47	58	62					77.5	6.33
SS2-30	30	50	60	64					81.1	6.80
SS2-32	32	50	64	68					88.4	7.78
SS2-34	34	50	68	72					95.7	8.84
SS2-35	35	52	70	74					99.3	9.39
SS2-36	36	55	72	76					103	9.96
SS2-38	38	55	76	80					111	11.2
SS2-40	40	55	80	84					118	12.5
SS2-42	42	55	84	88					125	13.8
SS2-44	44	55	88	92					133	15.2
SS2-45	45	55	90	94					137	16.0
SS2-46	46	55	92	96					140	16.7
SS2-48	48	55	96	100					148	18.3
SS2-50	50	55	100	104					156	19.9
SS2-52	52	55	104	108					163	21.7
SS2-54	54	55	108	112	20	10			171	23.4
SS2-55	55	55	110	114					175	24.4
SS2-56	56	55	112	116					179	25.3
SS2-58	58	60	116	120					186	27.3
SS2-60	60	60	120	124					194	29.3
SS2-62	62	60	124	128					202	31.5
SS2-64	64	60	128	132					209	33.7
SS2-65	65	60	130	134					213	34.8
SS2-66	66	60	132	136					217	36.0
SS2-68	68	60	136	140					225	38.4
SS2-70	70	60	140	144					232	40.8
SS2-72	72	60	144	148					240	43.3
SS2-75	75	60	150	154					252	47.3
SS2-76	76	60	152	156					256	48.6
SS2-80	80	60	160	164			12	136	271	54.3
SS2-84	84	70	168	172				140	287	60.2
SS2-85	85	70	170	174				146	291	61.7
SS2-88	88	70	176	180				150	302	66.5
SS2-90	90	70	180	184				156	310	69.7
SS2-95	95	70	190	194				166	330	78.2
SS2-100	100	70	200	204				176	291	72.7
SS2-120	120	90	240	244				210	357	108

* For the backlash of each product, please refer to the dimension table of the original product.

Removal Method and Precautions

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- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
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F Series



To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A	* The product shapes of F Series items are identified by background color.															
	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	
Ref. slipping torque N·m	23	37	39	42	45	48	49	97	110	124	141	149	163	173	725	
Ref. thrust load kN	3.76	5.21	5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3	
Sintered Metal Bushings	L	10			12						14				19	
Clearance	J	2						3								
Total Length	G	40			42						44				49	
Hex socket bolt	Qty	3						4							6	
Tightening torque N·m	Size	M4×12			M4×15						M5×18				M6×25	
Bushing weight (g)		22	38	40	41	43	45	49	71	71	81	84	93	97	106	237



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coated except for portions given secondary operation

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* Bushing material: S45C, screw material: SCM435

Features of F Series

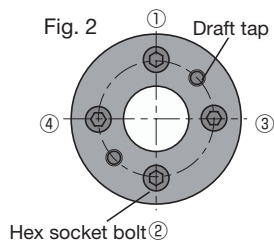
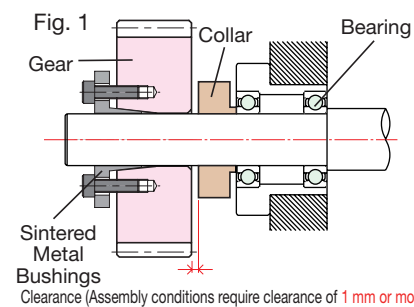
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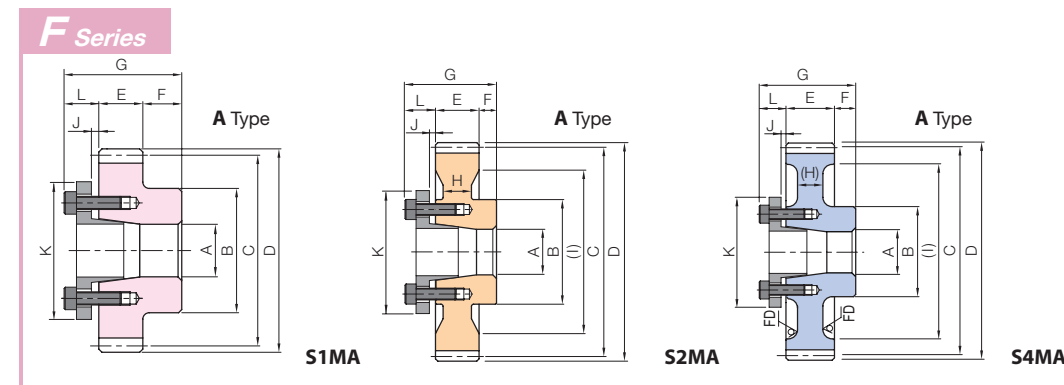
Catalog Number	No. of teeth	Hub dia.		Pitch dia.	Outside dia.	Face width	Hub width	Web thickness	Web O.D.	Allowable torque (N·m)		
		B	C							Bending strength	Surface durability	
SS2.5-22	22	44	55	60						103	6.99	
SS2.5-23	23	46	57.5	62.5						110	7.71	
SS2.5-24	24	48	60	65						117	8.47	
SS2.5-25	25	50	62.5	67.5						124	9.26	
SS2.5-26	26	55	65	70						130	10.1	
SS2.5-27	27	60	67.5	72.5						137	10.9	
SS2.5-28	28	60	70	75						144	11.7	
SS2.5-29	29	62	72.5	77.5						151	12.6	
SS2.5-30	30	65	75	80						159	13.6	
SS2.5-32	32	70	80	85						173	15.6	
SS2.5-34	34	70	85	90						187	17.7	
SS2.5-35	35	70	87.5	92.5						194	18.8	
SS2.5-36	36	70	90	95						201	20.0	
SS2.5-38	38	70	95	100						216	22.4	
SS2.5-40	40	70	100	105						230	24.9	
SS2.5-42	42	70	105	110						245	27.6	
SS2.5-44	44	70	110	115						260	30.5	
SS2.5-45	45	70	112.5	117.5						267	31.9	
SS2.5-46	46	70	115	120						274	33.5	
SS2.5-48	48	70	120	125						289	36.7	
SS2.5-50	50	70	125	130						304	40.0	
SS2.5-52	52	70	130	135						319	43.5	
SS2.5-54	54	70	135	140						334	47.2	
SS2.5-55	55	70	137.5	142.5						341	49.1	
SS2.5-56	56	70	140	145						349	51.0	
SS2.5-58	58	70	145	150						364	55.0	
SS2.5-60	60	70	150	155				(10)	(127)	379	59.1	
SS2.5-62	62	80	155	160						130	394	63.4
SS2.5-64	64	80	160	165						131	409	67.8
SS2.5-65	65	80	162.5	167.5						134	416	70.1
SS2.5-66	66	80	165	170						140	424	72.4
SS2.5-68	68	80	170	175						140	439	77.2
SS2.5-70	70	80	175	180				15		146	454	82.1
SS2.5-72	72	80	180	185						151	469	87.1
SS2.5-75	75	80	187.5	192.5						159	492	95.0
SS2.5-76	76	80	190	195						160	499	97.7
SS2.5-80	80	80	200	205						(177)	441	90.9
SS2.5-90	90	90	225	230						(202)	505	117

* For the backlash of each product, please refer to the dimension table of the original product.



Removal Method and Precautions

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SS2.5-22 F Bore A	S1MA	S1MA													
SS2.5-23 F Bore A	S1MA	S1MA	S1MA	S1MA											
SS2.5-24 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA										
SS2.5-25 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA									
SS2.5-26 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA									
SS2.5-27 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA									
SS2.5-28 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA									
SS2.5-29 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA							
SS2.5-30 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA						
SS2.5-32 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-34 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-35 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-36 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-38 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-40 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-42 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-44 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-45 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-46 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-48 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-50 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-52 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-54 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-55 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-56 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-58 F Bore A							S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS2.5-60 F Bore A									S4MA	S4MA	S4MA	S4MA	S4MA	S4MA	
SS2.5-62 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-64 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-65 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-66 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-68 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-70 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-72 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-75 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-76 F Bore A									S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS2.5-80 F Bore A									S4MA	S4MA	S4MA	S4MA	S4MA	S4MA	
SS2.5-90 F Bore A									S4MA	S4MA	S4MA	S4MA	S4MA	S4MA	
Bore A	15	16	17	18	19	20	22	25	28	30	32	35	40		
Ref. slipping torque N·m	39	42	45	48	49	97	110	124	141	149	163	173	725		
Ref. thrust load kN	5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3		
Sintered Metal	L	12						14						19	
Bushings	K	37	38	39	40	42	46	47	51	53	56	58	61	71	
Clearance	J	3													
Total Length	G	49						51						56	
With hex socket Bolt	Qty	4						4						6	
	Size	M4×15						M5×18						M6×25	
	Tightening torque N·m	3.9						7.8						13.7	
Bushing weight (g)		40	41	43	45	49	71	71	81	84	93	97	106	237	



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	(less than 194HB)
Surface treatment	Black oxide coated except for portions given secondary operation

* The precision grade of F Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435

Features of F Series

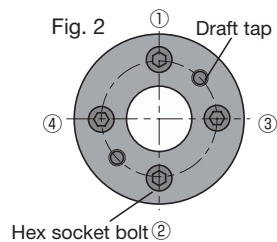
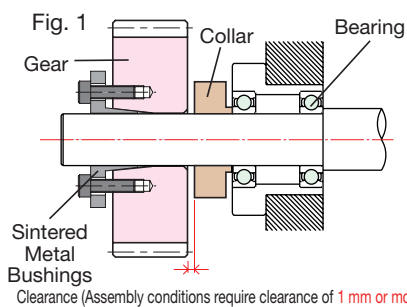
- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears

Mounting Method and Precautions

- ① Shaft diameter recommended tolerance is h7. The limit is h8, but we recommend h6 when minimizing runout. Use 1.6a as reference for the surface roughness of the shaft diameter.
- ② Wipe away any debris, dirt or oil on the shaft surface and hole of the fastened section with thinner or the like, and lightly apply hydraulic oil #68. Do not apply molybdenum-based oil or oil with additives, as this may cause reduced fastening torque or slippage.
- ③ Pass completely through the shaft while pressing the bushing flange against the gear before tightening. Removal will not be possible, so be sure to leave a clearance of 1mm or more on the gear rear surface side. (Fig.1)
- ④ Use a torque wrench to fasten bolts on opposite sides when tightening. First tighten at 1/4 of the regulated torque, then at 1/2 of the regulated torque, before finally tightening up to the regulated torque. Do not tighten without passing through the shaft, or fasten the bolts after insertion on the draft tap side. (Fig.2)
- ⑤ If the shaft has a keyway, the fastened section contact area is reduced and the transmission rate is decreased by 15 to 20%.

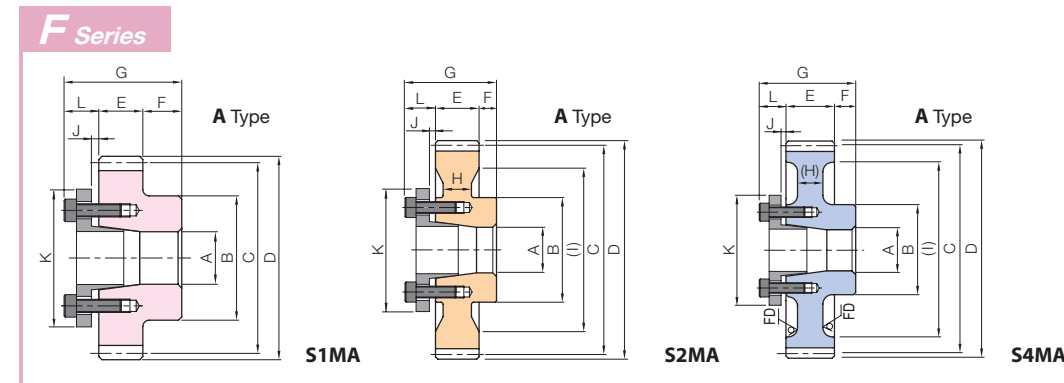
Catalog Number	No. of teeth	Hub dia. B	Pitch dia. C	Outside dia. D	Face width E	Hub width F	Web thickness (H)	Web O.D. (I)	Allowable torque (N·m)	
									Bending strength	Surface durability
SS3-19	19	45	57	63					144	8.88
SS3-20	20	50	60	66					155	9.95
SS3-21	21	52	63	69					167	11.1
SS3-22	22	54	66	72					178	12.3
SS3-23	23	56	69	75					190	13.6
SS3-24	24	58	72	78					202	14.9
SS3-25	25	60	75	81					214	16.3
SS3-26	26	65	78	84					226	17.7
SS3-27	27	65	81	87					237	19.2
SS3-28	28	70	84	90					250	20.7
SS3-29	29	70	87	93					262	22.3
SS3-30	30	75	90	96					274	24.0
SS3-32	32	75	96	102					298	27.4
SS3-34	34	80	102	108					323	31.2
SS3-35	35	80	105	111					335	33.1
SS3-36	36	80	108	114					348	35.2
SS3-38	38	80	114	120					373	39.4
SS3-40	40	80	120	126					398	44.0
SS3-42	42	80	126	132					423	48.9
SS3-44	44	80	132	138					449	54.0
SS3-45	45	80	135	141					461	56.6
SS3-46	46	80	138	144					474	59.4
SS3-48	48	80	144	150					500	65.0
SS3-50	50	80	150	156					(10) (123) 525	70.9
SS3-52	52	80	156	162					126	77.1
SS3-54	54	80	162	168					132	83.6
SS3-55	55	80	165	171					131	86.9
SS3-56	56	80	168	174					134	90.3
SS3-58	58	80	174	180					144	97.3
SS3-60	60	80	180	186					(10) (153) 654	105
SS3-62	62	80	186	192					150	112
SS3-64	64	80	192	198					158	119.9
SS3-65	65	80	195	201					161	123
SS3-66	66	90	198	204					160	121
SS3-68	68	90	204	210					170	131
SS3-70	70	90	210	216					176	139
SS3-72	72	90	216	222					182	147
SS3-75	75	90	225	231					190	155
SS3-76	76	90	228	234					190	155
SS3-80	80	90	240	246					(10) (213) 763	162

* For the backlash of each product, please refer to the dimension table of the original product.



Removal Method and Precautions

- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces will be roughened, compromising tightening strength, if the bolts are reused. Consequently, we recommend using new bolts of the same size.



To order F Series products, please specify: **Catalog Number + F + BORE + A.**

Bore A	* The product shapes of F Series items are identified by background color.													
	15	16	17	18	19	20	22	25	28	30	32	35	40	
Catalog Number	15	16	17	18	19	20	22	25	28	30	32	35	40	
SS3-19 F Bore A	S1MA													
SS3-20 F Bore A	S1MA	S1MA	S1MA	S1MA										
SS3-21 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA									
SS3-22 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA								
SS3-23 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA									
SS3-24 F Bore A	S1MA	S1MA	S1MA	S1MA	S1MA									
SS3-25 F Bore A						S1MA	S1MA							
SS3-26 F Bore A						S1MA	S1MA	S1MA						
SS3-27 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA				
SS3-28 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS3-29 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS3-30 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS3-32 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA		
SS3-34 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-35 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-36 F Bore A						S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-38 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-40 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-42 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-44 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-45 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-46 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-48 F Bore A								S1MA	S1MA	S1MA	S1MA	S1MA	S1MA	
SS3-50 F Bore A								S4MA	S4MA	S4MA	S4MA	S4MA	S4MA	
SS3-52 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-54 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-55 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-56 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-58 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-60 F Bore A								S4MA	S4MA	S4MA	S4MA	S4MA	S4MA	
SS3-62 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-64 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-65 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-66 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-68 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-70 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-72 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-75 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-76 F Bore A								S2MA	S2MA	S2MA	S2MA	S2MA	S2MA	
SS3-80 F Bore A										S4MA	S4MA	S4MA	S4MA	
Bore A	15	16	17	18	19	20	22	25	28	30	32	35	40	
Ref. slipping torque N·m	39	42	45	48	49	97	110	124	141	149	163	173	725	
Ref. thrust load kN	5.10	5.17	5.23	5.28	5.12	9.68	9.98	9.90	10.0	9.89	10.1	9.88	12.3	
Sintered Metal Bushings	L	12					14					19		
Clearance J	K	37	38	39	40	42	46	47	51	53	56	58	61	71
Total Length G		57					59					64		
With hex socket Bolt	Qty	4					4					6		
Bushing weight (g)	Size	M4×15					M5×18					M6×25		
	Tightening torque N·m	3.9					7.8					13.7		