

Specifications	
Precision grade	JIS grade N7 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	Gear teeth induction hardened
Tooth hardness	50 to 60HRC
Surface treatment	Black oxide coated except for teeth and 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

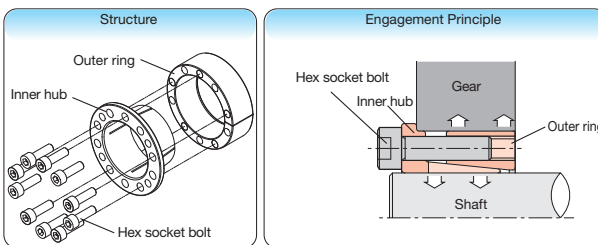
### Features of F Series

- 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.

### Structure and Engagement Principles

The structure consists of an outer ring and inner ring with split grooves in the tapered part, and hexagon socket head cap screws that convert the force into tightening strength.

In principle, the tightening strength of hexagon socket head cap screws spreads the outer and inner rings by taper engagement, and the gear and shaft become fastened by surface pressure.

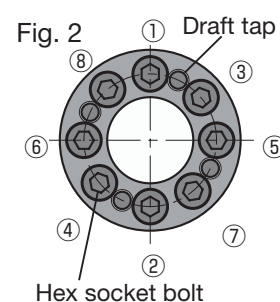
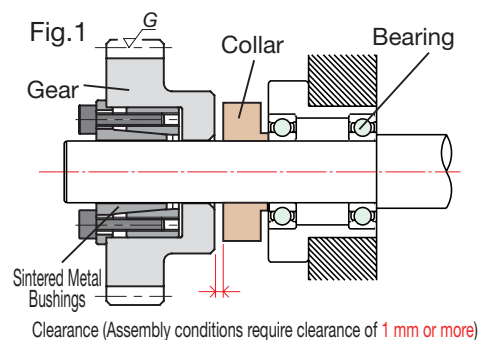


Catalog Number	No. of teeth	Hub dia.		Pitch dia.		Outside dia.		Face width		Hub width		Allowable torque (N·m)	
		B	C	D	E	F	G	H	I	J	K	L	M
SSG2-25	25	40	50	54	20	16						52.7	27.0
SSG2-26	26	42	52	56								55.7	29.3
SSG2-27	27	44	54	58								58.6	31.7
SSG2-28	28	45	56	60								61.6	34.2
SSG2-29	29	48	58	62								64.6	36.8
SSG2-30	30	50	60	64								67.6	39.5
SSG2-32	32	50	64	68								73.7	45.2
SSG2-34	34	50	68	72								79.8	51.3
SSG2-35	35	50	70	74								82.8	54.5
SSG2-36	36	50	72	76								85.9	57.8
SSG2-38	38	50	76	80	20	16						92.1	64.8
SSG2-40	40	60	80	84								98.3	72.1
SSG2-42	42	60	84	88								105	79.9
SSG2-44	44	60	88	92								111	88.1
SSG2-45	45	60	90	94								114	92.3
SSG2-48	48	60	96	100								114	97.6
SSG2-50	50	60	100	104								120	106
SSG2-55	55	60	110	114								134	130
SSG2-56	56	60	112	116								137	135
SSG2-60	60	65	120	124								149	156
SSG2-64	64	65	128	132	20	16						161	179
SSG2-70	70	70	140	144								179	216
SSG2-75	75	70	150	154								194	249
SSG2-80	80	80	160	164								194	265
SSG2-90	90	80	180	184								222	338
SSG2-100	100	80	200	204								250	421

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

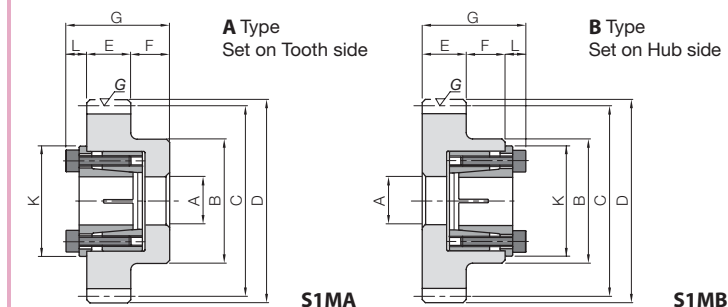
### Mounting Method and Precautions

- 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%.



### Removal Method and Precautions

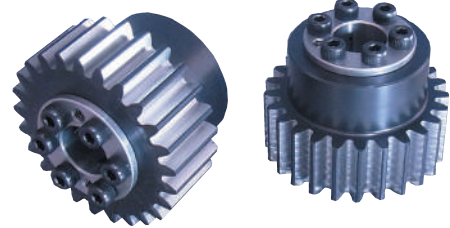
- ① Turn off the power source (supply), check that no load is applied to the gear, and confirm that there is no danger due to falling, etc.
- ② Insert removed bolts into all draft taps, and gradually and evenly tighten each bolt in diagonal order until removal is complete.
- ③ The washer and thread surfaces 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 + Type.**

A Type Only  
A/B Types

Bore A		* The product shapes of F Series items are identified by background color.															
Catalog Number		15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
SSG2-25 F Bore Type	S1MA/S1MB	S1MA	S1MA														
SSG2-26 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA												
SSG2-27 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA												
SSG2-28 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA												
SSG2-29 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB												
SSG2-30 F Bore Type				S1MA/S1MB	S1MA/S1MB												
SSG2-32 F Bore Type				S1MA/S1MB	S1MA/S1MB	S1MA											
SSG2-34 F Bore Type				S1MA/S1MB	S1MA/S1MB	S1MA											
SSG2-35 F Bore Type				S1MA/S1MB	S1MA/S1MB	S1MA											
SSG2-36 F Bore Type				S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA									
SSG2-38 F Bore Type				S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA									
SSG2-40 F Bore Type						S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA						
SSG2-42 F Bore Type						S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA						
SSG2-44 F Bore Type						S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA						
SSG2-45 F Bore Type						S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA						
SSG2-48 F Bore Type						S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA						
SSG2-50 F Bore Type								S1MA	S1MA	S1MA	S1MA						
SSG2-55 F Bore Type								S1MA	S1MA	S1MA	S1MA						
SSG2-56 F Bore Type								S1MA	S1MA	S1MA	S1MA						
SSG2-60 F Bore Type								S1MA	S1MA	S1MA	S1MA	S1MA					
SSG2-64 F Bore Type								S1MA	S1MA	S1MA	S1MA	S1MA					
SSG2-70 F Bore Type								S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA				
SSG2-75 F Bore Type								S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA			
SSG2-80 F Bore Type								S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA		
SSG2-90 F Bore Type								S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA	
SSG2-100 F Bore Type								S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA	
Bore A		15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
Ref. slipping torque N·m		70	75	110	115	120	220	290	350	380	410	440	720	810	1200	1500	
Ref. thrust load kN		9.46	9.46	12.6	12.6	12.6	21.6	26	27.2	27	27	27	41.1	40.2	52.9	56.3	
Sintered Metal Bushings	L			6.5				8			8.5			10		10.5	
Total Length	K	31.5	33	33.5	34.5	35.5	42	44	47	50	52	54	62	67	72	77	
	G			42.5				44			44.5			46		46.5	
Hex socket bolt	Qty	6					8				10		8	10	14		
	Size			M4×15						M5×18				M6×20			
	Tightening torque N·m			3.9						8.8				15.7			
Bushing weight (g)		66	75	75	80	81	144	165	188	195	208	219	325	380	435	485	



Specifications	
Precision grade	JIS grade N7 (JIS B1702-1: 1999)*
Gear teeth	Standard full depth
Pressure angle	20°
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\* Bushing material: S45C, screw material: SCM435

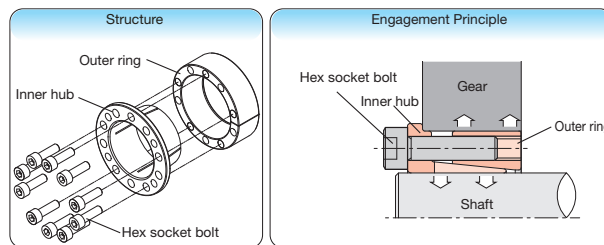
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- No rattling of shaft and gear when fastening
- Freely positionable mounting for easy meshing of teeth
- Easily mounted and removed for repeated use
- The bushing slips when overloaded to reduce damage to the gears.

### Structure and Engagement Principles

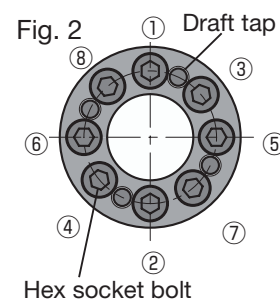
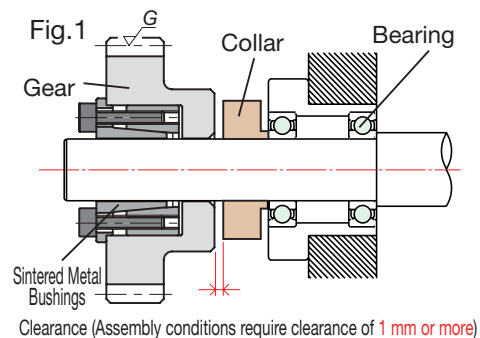
The structure consists of an outer ring and inner ring with split grooves in the tapered part, and hexagon socket head cap screws that convert the force into tightening strength.

In principle, the tightening strength of hexagon socket head cap screws spreads the outer and inner rings by taper engagement, and the gear and shaft become fastened by surface pressure.



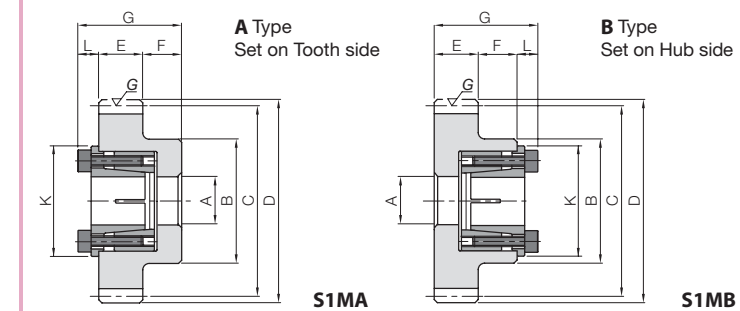
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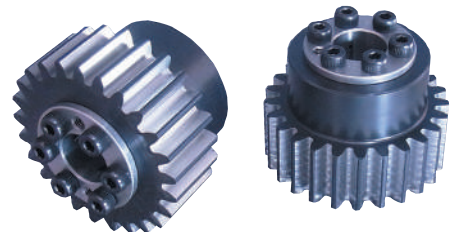


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A Type Only  
A/B Types

Bore A		* The product shapes of F Series items are identified by background color.									
Catalog Number		20	22	25	28	30	32	35	40	45	50
SSG2.5-30 F Bore Type	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA						
SSG2.5-32 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB					
SSG2.5-34 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB				
SSG2.5-35 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB			
SSG2.5-36 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB			
SSG2.5-38 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA			
SSG2.5-40 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG2.5-42 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG2.5-44 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG2.5-45 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	
SSG2.5-48 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	
SSG2.5-50 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG2.5-55 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG2.5-56 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG2.5-60 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG2.5-70 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG2.5-75 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA
SSG2.5-80 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA
Bore A		20	22	25	28	30	32	35	40	45	50
Ref. slipping torque N·m		220	290	350	380	410	440	720	810	1200	1500
Ref. thrust load kN		21.6	26	27.2	27	27	27	41.1	40.2	52.9	56.3
Sintered Metal	L		8			8.5			10		10.5
Bushings	K	42	44	47	50	52	54	62	67	72	77
Total Length	G		51			51.5			53		53.5
Hex socket bolt	Qty		8			10		8	10		14
	Size		M5×18				M6×20				
	Tightening torque N·m		8.8				15.7				
Bushing weight (g)		144	165	188	195	208	219	325	380	435	485





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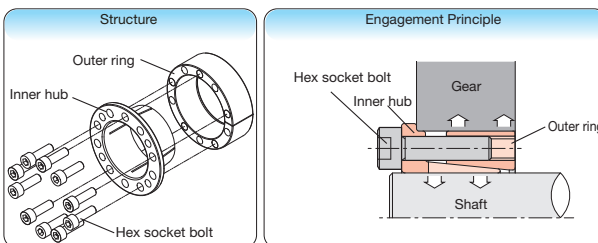
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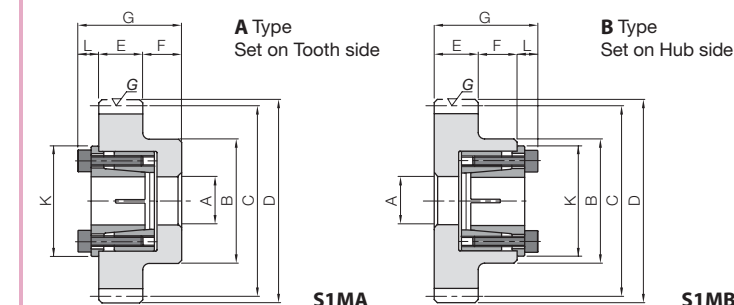
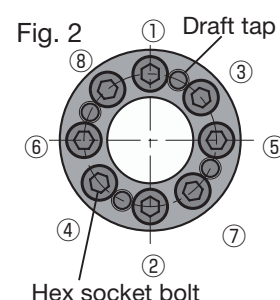
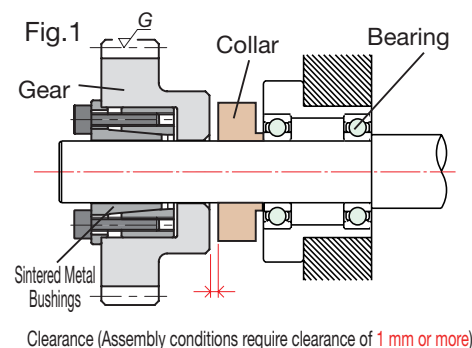


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SSG3-26 F Bore Type	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA				
SSG3-27 F Bore Type	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA	S1MA				
SSG3-28 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB				
SSG3-29 F Bore Type	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB				
SSG3-30 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB				
SSG3-32 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA			
SSG3-34 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG3-35 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG3-36 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA		
SSG3-38 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	
SSG3-40 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG3-42 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG3-44 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG3-45 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG3-48 F Bore Type			S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA
SSG3-50 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA	S1MA	S1MA
SSG3-55 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
SSG3-56 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
SSG3-60 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
SSG3-70 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
SSG3-75 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
SSG3-80 F Bore Type					S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA/S1MB	S1MA	S1MA	S1MA
Bore A		20	22	25	28	30	32	35	40	45	50
Ref. slipping torque N·m		220	290	350	380	410	440	720	810	1200	1500
Ref. thrust load kN		21.6	26	27.2	27	27	27	41.1	40.2	52.9	56.3
Sintered Metal	L	8		8.5		10		10.5		10.5	
Bushings	K	42	44	47	50	52	54	62	67	72	77
Total Length	G	58		58.5		60		60.5		60.5	
Hex socket bolt	Qty	8		10		8		10		14	
	Size	M5×18		M5×18		M6×20		M6×20		M6×20	
	Tightening torque N·m	8.8		8.8		15.7		15.7		15.7	
Bushing weight (g)		144	165	188	195	208	219	325	380	435	485