



Specifications	
Precision grade	JIS grade N7 (JIS B1702-1: 1999)*
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 E Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Delivered with this marking.

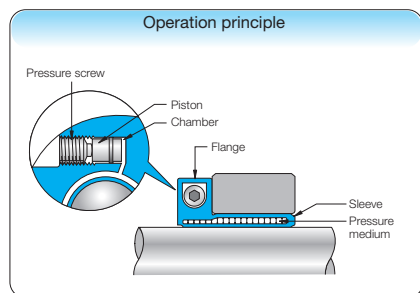
Please see Page 16 for more details.

Features of E Series

- Can be easily installed with one bolt (shortens work time)
- Concentricity 0.02mm
- Zero backlash between the gear and shaft
- No decrease in shaft strength due to fretting wear (worn or seized shaft)
- No need to machine keyways on the shaft, reducing the number of parts such as keyway materials and set screws
- Does not take up mounting space and easy to position and match the phase
- Finished by the manufacturer in 2 working days (excluding the day ordered)

Operation principle of ETP-E Plus

The pressure medium enclosed in the chamber is pressurized due to the tightening of the pressure screw and moves into the sleeve. The pressure of this pressure medium causes the sleeve to receive pressure from the inside, which causes the shaft side sleeve to contract, the hub side sleeve to expand, allowing the shaft and hub to be fastened via the sleeve.



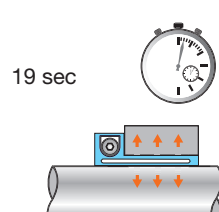
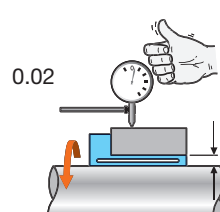
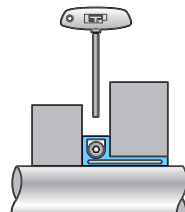
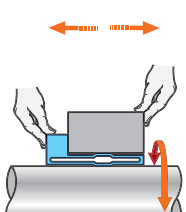
Effects of ETP-E Plus

Easy and accurate positioning

Helps save space

High concentricity

Secure and speedy installation

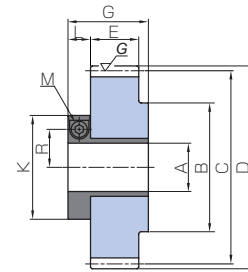


To order E Series products, please specify: **Catalog Number + E + BORE.**

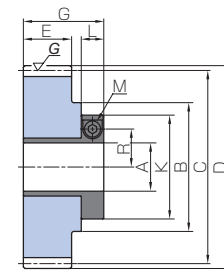
Bore A	* The product shapes of E Series items are identified by background color.			
Catalog Number	15	19	20	22
SSG1.5-22 E Bore	S1EA/S1EB			
SSG1.5-23 E Bore	S1EA/S1EB			
SSG1.5-24 E Bore	S1EA/S1EB			
SSG1.5-25 E Bore	S1EA/S1EB			
SSG1.5-26 E Bore	S1EA/S1EB	S1EA/S1EB		
SSG1.5-27 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG1.5-28 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG1.5-29 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG1.5-30 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-32 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-34 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-35 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-36 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-38 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-40 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-42 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-44 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-45 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-48 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-50 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-55 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-56 E Bore	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-60 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-64 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-70 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-75 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-80 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-90 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG1.5-100 E Bore		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
Bore A	15	19	20	22
K	50	55	56	61
G	37	39	41	43
R	15.1	17.4	18	19.3
L	14			
Screw M	1-M10			
Recommended fastening torque of screw M (N·m)	7			
ETP allowable fastening torque (N·m)	46	85	110	130
ETP allowable thrust force N	5100	7300	9100	9600
ETP allowable radial load N	500	1000	1000	1200
Bushing weight (kg)	0.16	0.2	0.21	0.25

* Allowable torque is the value when the thrust force is 0, and allowable thrust force is when the torque is 0.
* Allowable torque and allowable thrust force are the values at 20°C.
* Tolerance of the target shaft diameter is h7 (g6, h6).

E Series



S1EA



S1EB





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 E Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Delivered with this marking.

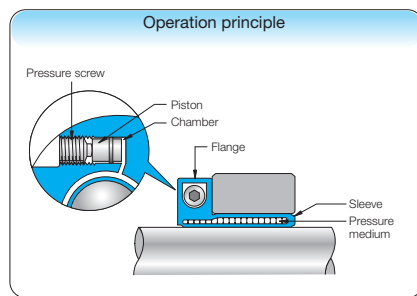
Please see Page 16 for more details.

Features of E Series

- Can be easily installed with one bolt (shortens work time)
- Concentricity 0.02mm
- Zero backlash between the gear and shaft
- No decrease in shaft strength due to fretting wear (worn or seized shaft)
- No need to machine keyways on the shaft, reducing the number of parts such as keyway materials and set screws
- Does not take up mounting space and easy to position and match the phase
- Finished by the manufacturer in 2 working days (excluding the day ordered)

Operation principle of ETP-E Plus

The pressure medium enclosed in the chamber is pressurized due to the tightening of the pressure screw and moves into the sleeve. The pressure of this pressure medium causes the sleeve to receive pressure from the inside, which causes the shaft side sleeve to contract, the hub side sleeve to expand, allowing the shaft and hub to be fastened via the sleeve.



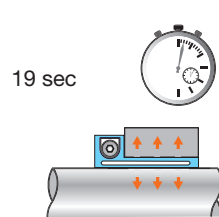
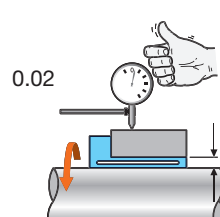
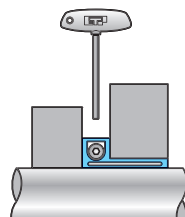
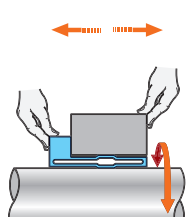
Effects of ETP-E Plus

Easy and accurate positioning

Helps save space

High concentricity

Secure and speedy installation



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

Bore A		* The product shapes of E Series items are identified by background color.							
Catalog Number		15	19	20	22	24	25	28	30
SSG2-18 E BORE	S1EA/S1EB								
SSG2-19 E BORE	S1EA/S1EB								
SSG2-20 E BORE	S1EA/S1EB								
SSG2-21 E BORE	S1EA/S1EB	S1EA/S1EB							
SSG2-22 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB						
SSG2-23 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB						
SSG2-24 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB					
SSG2-25 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB				
SSG2-26 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB			
SSG2-27 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB		
SSG2-28 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG2-29 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG2-30 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-32 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-34 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-35 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-36 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-38 E BORE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-40 E BORE		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-42 E BORE		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-44 E BORE		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-45 E BORE		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-48 E BORE		S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-50 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-55 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-56 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-60 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-64 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-70 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-75 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-80 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-90 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2-100 E BORE					S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
Bore A		15	19	20	22	24	25	28	30
K		50	55	56	61	63	63	70	71
G		37	39	41	43	44	46	48	50
R		15.1	17.4	18	19.3	20.3	20.8	22.6	23.6
L		14							
Screw M		1-M10							
Recommended fastening torque of screw M (N·m)		7							
ETP allowable fastening torque (N·m)		46	85	110	130	190	230	280	380
ETP allowable thrust force N		5100	7300	9100	9600	13000	15000	16000	21000
ETP allowable radial load N		500	1000	1000	1200	1400	1500	1800	2000
Bushing weight (kg)		0.16	0.2	0.21	0.25	0.26	0.27	0.33	0.35

* Allowable torque is the value when the thrust force is 0, and allowable thrust force is when the torque is 0.

* Allowable torque and allowable thrust force are the values at 20°C.

* Tolerance of the target shaft diameter is h7 (g6, h6).



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 E Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Delivered with this marking.

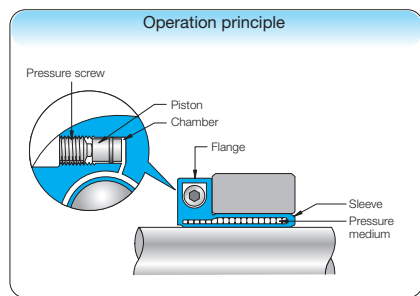
Please see Page 16 for more details.

Features of E Series

- Can be easily installed with one bolt (shortens work time)
- Concentricity 0.02mm
- Zero backlash between the gear and shaft
- No decrease in shaft strength due to fretting wear (worn or seized shaft)
- No need to machine keyways on the shaft, reducing the number of parts such as keyway materials and set screws
- Does not take up mounting space and easy to position and match the phase
- Finished by the manufacturer in 2 working days (excluding the day ordered)

Operation principle of ETP-E Plus

The pressure medium enclosed in the chamber is pressurized due to the tightening of the pressure screw and moves into the sleeve. The pressure of this pressure medium causes the sleeve to receive pressure from the inside, which causes the shaft side sleeve to contract, the hub side sleeve to expand, allowing the shaft and hub to be fastened via the sleeve.



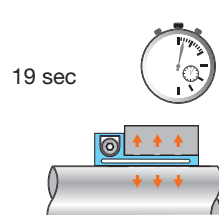
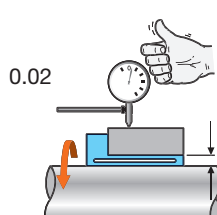
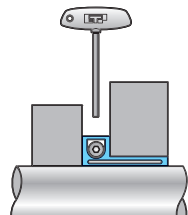
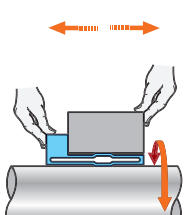
Effects of ETP-E Plus

Easy and accurate positioning

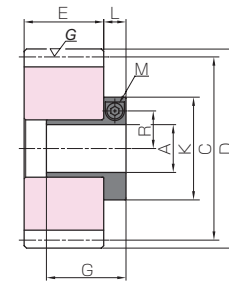
Helps save space

High concentricity

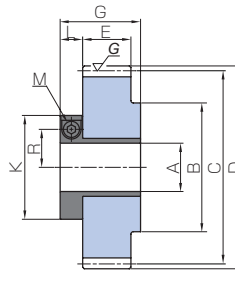
Secure and speedy installation



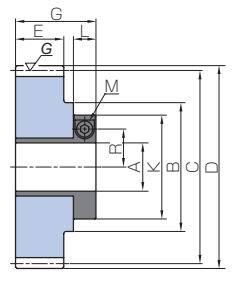
E Series



S5E



S1EA



S1EB

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

Bore A		* The product shapes of E Series items are identified by background color.									
Catalog Number		15	19	20	22	24	25	28	30	32	35
SSG2.5-16 E Bore	* S5E										
SSG2.5-17 E Bore	S5E										
SSG2.5-18 E Bore	* S5E										
SSG2.5-19 E Bore	S5E	S5E	S1EA/S1EB								
SSG2.5-20 E Bore	* S5E	* S5E	S1EA/S1EB								
SSG2.5-21 E Bore	S5E	S5E	S1EA/S1EB	S1EA/S1EB							
SSG2.5-22 E Bore	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB					
SSG2.5-23 E Bore	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB				
SSG2.5-24 E Bore	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB			
SSG2.5-25 E Bore		* S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB		
SSG2.5-26 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG2.5-27 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG2.5-28 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-29 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-30 E Bore		* S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-32 E Bore		* S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
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SSG2.5-35 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-36 E Bore		* S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-38 E Bore		S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-40 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-42 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-44 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-45 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-48 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-50 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-55 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-56 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-60 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-70 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-75 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG2.5-80 E Bore				S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
Bore A		15	19	20	22	24	25	28	30	32	35
K	50	55	56	61	63	63	63	70	71	78	86
G	37	39	41	43	44	46	46	48	50	52	55
R	15.1	17.4	18	19.3	20.3	20.8	20.8	22.6	23.6	24.8	26.4
L	14										
Screw M	1-M10										
Recommended fastening torque of screw M (N·m)	7										
ETP allowable fastening torque (N·m)	46	85	110	130	190	230	280	380	440	640	
ETP allowable thrust force N	5100	7300	9100	9600	13000	15000	16000	21000	22000	30000	
ETP allowable radial load N	500	1000	1000	1200	1400	1500	1800	2000	2200	2500	
Bushing weight (kg)	0.16	0.2	0.21	0.25	0.26	0.27	0.33	0.35	0.41	0.47	

* Allowable torque is the value when the thrust force is 0, and allowable thrust force is when the torque is 0.

* Allowable torque and allowable thrust force are the values at 20°C.

* Tolerance of the target shaft diameter is h7 (g6, h6).

*** is an SSAG product that's given secondary operations.



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 E Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Delivered with this marking.

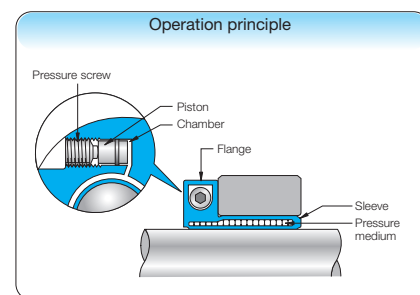
Please see Page 16 for more details.

Features of E Series

- Can be easily installed with one bolt (shortens work time)
- Concentricity 0.02mm
- Zero backlash between the gear and shaft
- No decrease in shaft strength due to fretting wear (worn or seized shaft)
- No need to machine keyways on the shaft, reducing the number of parts such as keyway materials and set screws
- Does not take up mounting space and easy to position and match the phase
- Finished by the manufacturer in 2 working days (excluding the day ordered)

Operation principle of ETP-E Plus

The pressure medium enclosed in the chamber is pressurized due to the tightening of the pressure screw and moves into the sleeve. The pressure of this pressure medium causes the sleeve to receive pressure from the inside, which causes the shaft side sleeve to contract, the hub side sleeve to expand, allowing the shaft and hub to be fastened via the sleeve.



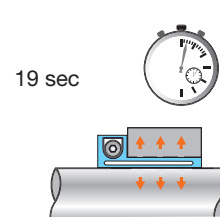
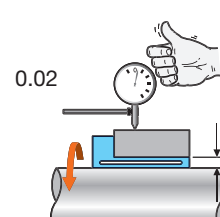
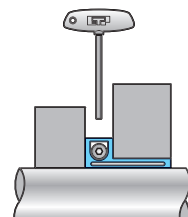
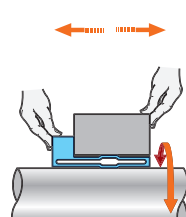
Effects of ETP-E Plus

Easy and accurate positioning

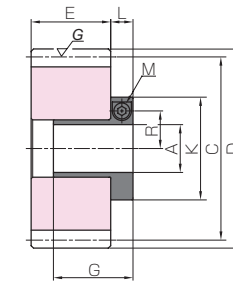
Helps save space

High concentricity

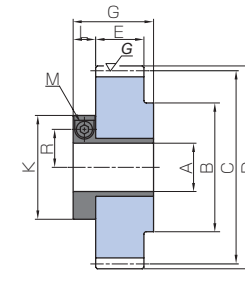
Secure and speedy installation



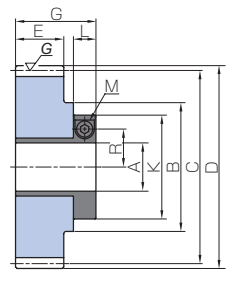
E Series



SSE



S1EA



S1EB

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

Bore A		* The product shapes of E Series items are identified by background color.												
Catalog Number		15	19	20	22	24	25	28	30	32	35	38	40	42
SSG3-15 E BORE	* SSE													
SSG3-16 E BORE	* SSE													
SSG3-17 E BORE	SSE	SSE	SSE											
SSG3-18 E BORE	* SSE	* SSE	* SSE	* SSE										
SSG3-19 E BORE	SSE	SSE	SSE	SSE	SSE									
SSG3-20 E BORE		* SSE	* SSE	* SSE	* SSE	S1EA/S1EB								
SSG3-21 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB							
SSG3-22 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB						
SSG3-23 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB					
SSG3-24 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB					
SSG3-25 E BORE		* SSE	* SSE	* SSE	* SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB				
SSG3-26 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB			
SSG3-27 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB		
SSG3-28 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG3-29 E BORE		SSE	SSE	SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-30 E BORE					* SSE	* SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-32 E BORE					* SSE	* SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-34 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-35 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-36 E BORE					* SSE	* SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-38 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-40 E BORE					* SSE	* SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-42 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-44 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-45 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-48 E BORE					SSE	SSE	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-50 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-55 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-56 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-60 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-70 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-75 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
SSG3-80 E BORE							S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB
Bore A		15	19	20	22	24	25	28	30	32	35	38	40	42
K		50	55	56	61	63	63	70	71	78	86	92.5	94	96.5
G		37	39	41	43	44	46	48	50	52	55	67	70	70
R		15.1	17.4	18	19.3	20.3	20.8	22.6	23.6	24.8	26.4	31	32	33.2
L		14										20		
Screw M		1-M10										1-M16		
Recommended fastening torque of screw M (N·m)		7										24		
ETP allowable fastening torque (N·m)		46	85	110	130	190	230	280	380	440	640	890	1100	1100
ETP allowable thrust force N		5100	7300	9100	9600	13000	15000	16000	21000	22000	30000	38000	45000	43000
ETP allowable radial load N		500	1000	1000	1200	1400	1500	1800	2000	2200	2500	2800	3000	3200
Bushing weight (kg)		0.16	0.2	0.21	0.25	0.26	0.27	0.33	0.35	0.41	0.47	0.83	0.88	0.95

* Allowable torque is the value when the thrust force is 0, and allowable thrust force is when the torque is 0.

* Allowable torque and allowable thrust force are the values at 20°C.

* Tolerance of the target shaft diameter is h7 (g6, h6).

** is an SSAG product that's given secondary operations.



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 E Series products is equivalent to the value shown in the table.
* Bushing material: S45C, screw material: SCM435



Delivered with this marking.

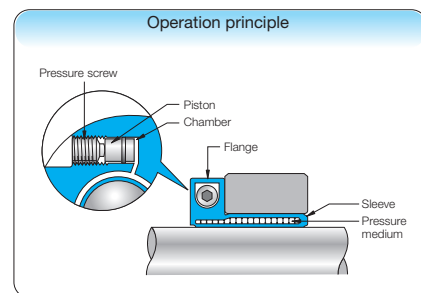
Please see Page 16 for more details.

Features of E Series

- Can be easily installed with one bolt (shortens work time)
- Concentricity 0.02mm
- Zero backlash between the gear and shaft
- No decrease in shaft strength due to fretting wear (worn or seized shaft)
- No need to machine keyways on the shaft, reducing the number of parts such as keyway materials and set screws
- Does not take up mounting space and easy to position and match the phase
- Finished by the manufacturer in 2 working days (excluding the day ordered)

Operation principle of ETP-E Plus

The pressure medium enclosed in the chamber is pressurized due to the tightening of the pressure screw and moves into the sleeve. The pressure of this pressure medium causes the sleeve to receive pressure from the inside, which causes the shaft side sleeve to contract, the hub side sleeve to expand, allowing the shaft and hub to be fastened via the sleeve.



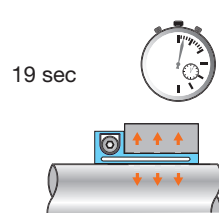
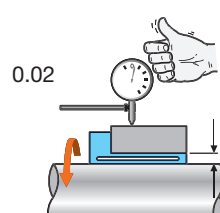
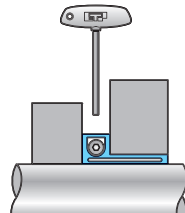
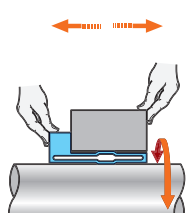
Effects of ETP-E Plus

Easy and accurate positioning

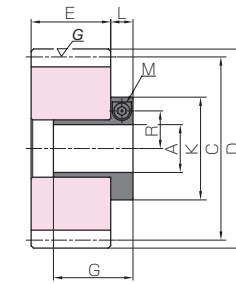
Helps save space

High concentricity

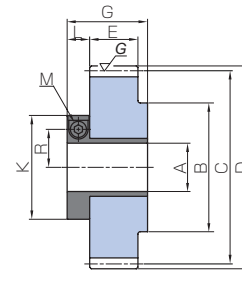
Secure and speedy installation



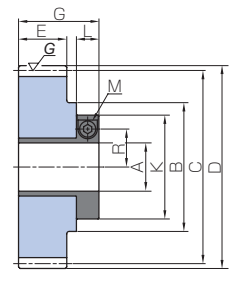
E Series



S5E



S1EA



S1EB

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

Bore A		* The product shapes of E Series items are identified by background color.																	
Catalog Number	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	70	80	
SSG4-15 E BORE	*S5E	*S5E																	
SSG4-16 E BORE	*S5E	*S5E	*S5E	*S5E															
SSG4-18 E BORE	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E													
SSG4-20 E BORE	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB											
SSG4-22 E BORE	S5E	S5E	S5E	S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB									
SSG4-24 E BORE	S5E	S5E	S5E	S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB							
SSG4-25 E BORE	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB					
SSG4-28 E BORE	S5E	S5E	S5E	S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-30 E BORE	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-32 E BORE		*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-35 E BORE		S5E	S5E	S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-36 E BORE		*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-40 E BORE		*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-42 E BORE		S5E	S5E	S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-44 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-45 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-48 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-50 E BORE				*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-55 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-56 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG4-60 E BORE				S5E	S5E	S5E	S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG5-20 E BORE					*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E								
SSG5-25 E BORE					*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG5-30 E BORE					*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
SSG6-20 E BORE								*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E					
SSG6-25 E BORE								*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB		
SSG6-30 E BORE								*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	*S5E	S1EA/S1EB	S1EA/S1EB	S1EA/S1EB	
Bore A	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	70	80	
K	56	61	63	63	70	71	78	86	92.5	94	96.5	101	104	106	116	123.5	150	160	
G	41	43	44	46	48	50	52	55	67	70	70	72	73	74	79	83	101	110	
R	18	19.3	20.3	20.8	22.6	23.6	24.8	26.4	31	32	33.2	34.8	36.8	37.5	40.5	43.3	50.8	56.3	
L	14				20				24										
Screw M	1-M10				1-M16				1-M20										
Recommended fastening torque of screw M (N·m)	7				24				40										
ETP allowable fastening torque (N·m)	110	130	190	230	280	380	440	640	890	1100	1100	1400	1700	1900	2400	3300	5600	8700	
ETP allowable thrust force N	9100	9600	13000	15000	16000	21000	22000	30000	38000	45000	43000	51000	57000	63000	71000	90000	130000	180000	
ETP allowable radial load N	1000	1200	1400	1500	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000	5300	6400	7500	
Bushing weight (kg)	0.21	0.25	0.26	0.27	0.33	0.35	0.41	0.47	0.83	0.88	0.95	1.03	1.09	1.18	1.46	1.79	2.93	3.58	

* Allowable torque is the value when the thrust force is 0, and allowable thrust force is when the torque is 0.

* Allowable torque and allowable thrust force are the values at 20°C.

* Tolerance of the target shaft diameter is h7 (g6, h6).

*** is an SSAG product that's given secondary operations.