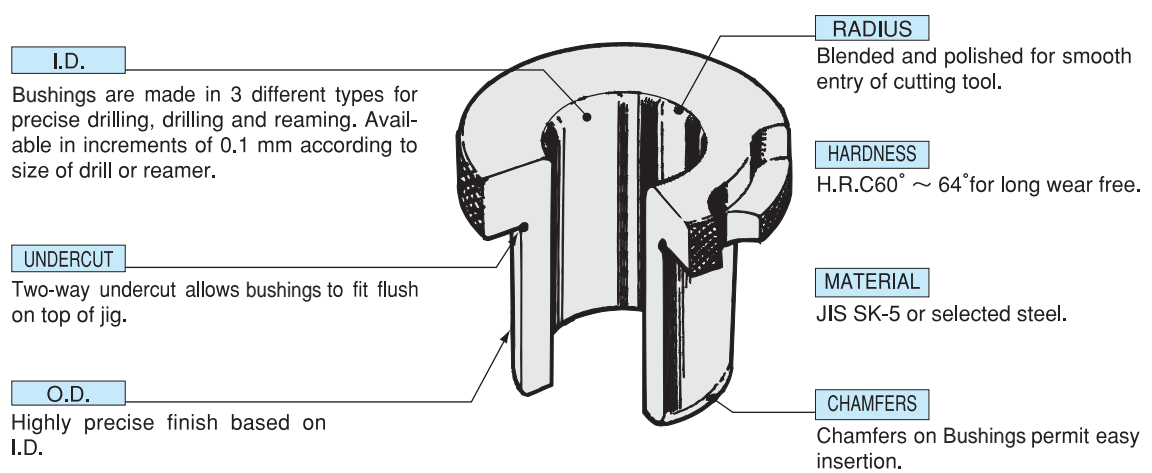


Drill Jig Bushing



Type	PRESS FIT BUSHING		RENEWABLE BUSHING
Designation	HEADLESS Type A	HEADED Type B	ROUND Type C
Tool applied			
Shape and sequence of fitting-in			
Sectional view			<p>Bushings that have the same O.D. are interchangeable with each other.</p>

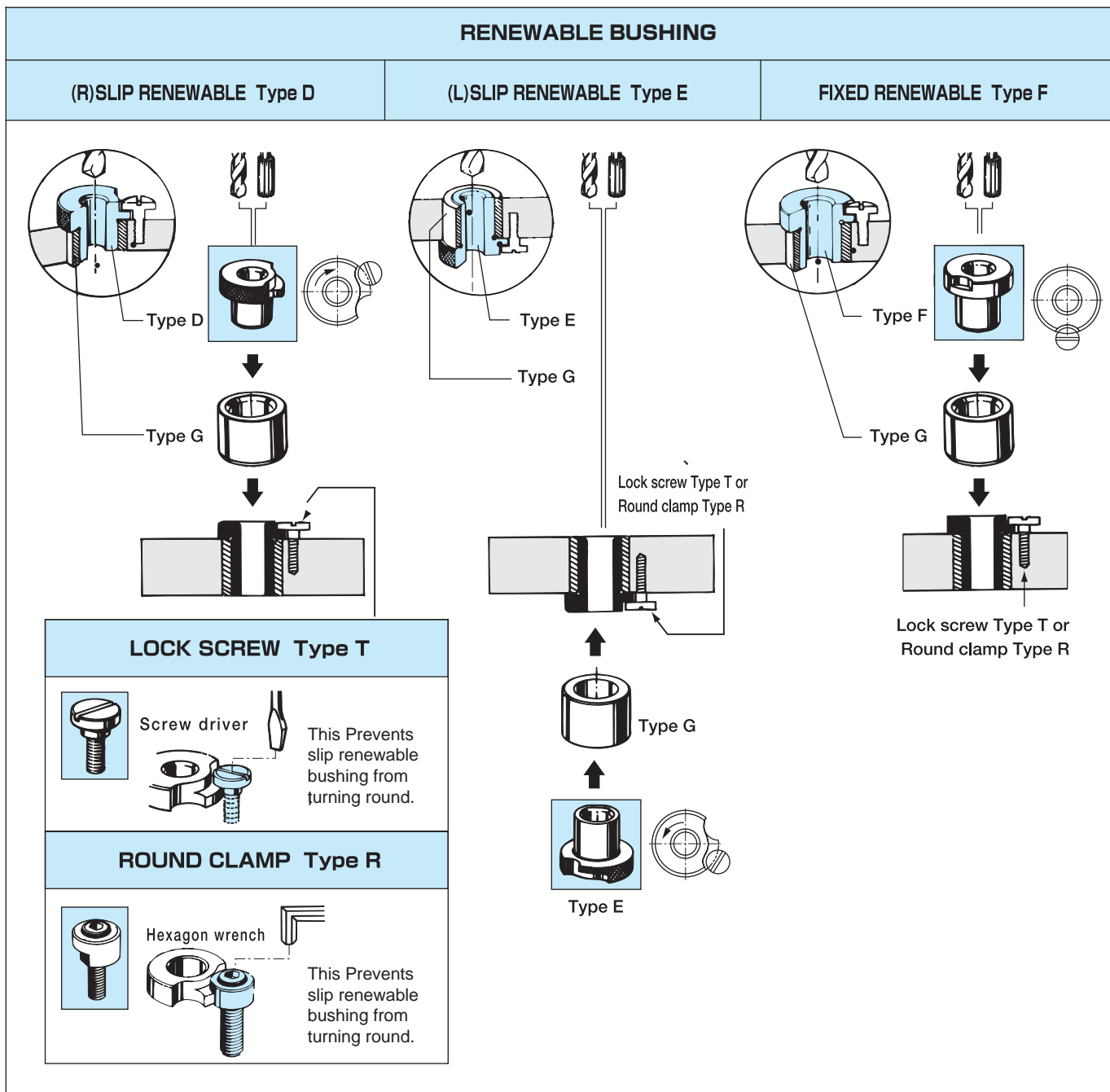
HOW TO INSTALL A JIG BUSHING	
PRESS FIT BUSHING Type A, B, G	RENEWABLE BUSHING Type C, D, E, F
<p>How to press-fit</p> <p>Press the bushing correctly into the bush plate.</p>	<p>Renewable bushing can be inserted by hand.</p>

LINER BUSHING Type G

This Guides the renewable bushing for smoother insertion or replacement.

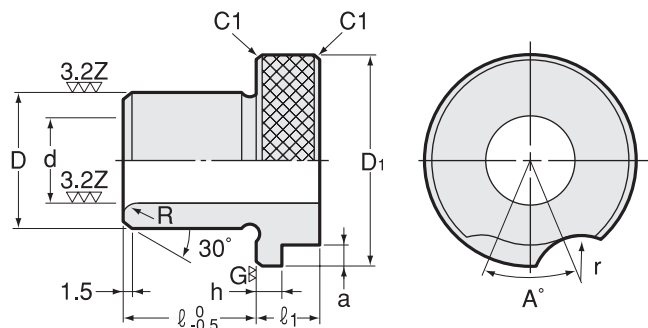
Name	Press fit bushing		Renewable bushing				Headless liner bushing	Lock screw	Round clamp
	Headless	Headed	Round	Right slip	Left slip	Fixed			
Shape									
Higher accuracy	SA	SB	SC	SD	SE	SF	G	T	R
Standard accuracy	A	B	C	D	E	F			
Reaming	—	BR	CR	DR	ER	FR			

S...for higher accuracy R...for reaming

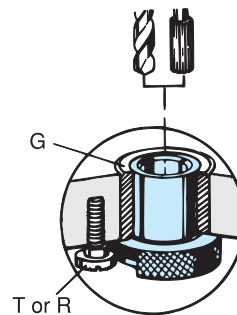


Type E

Left Slip Renewable Bushing Type E



Example



※ 1. Bushing with I.D. size smaller than 3.0mm uses 30 degree chamfered radius (R).

Application

Left slip renewable bushing can be frequently used in the following cases.

1. Same products are made in quantity for long period.
2. Hole size differs from one workpiece to another.
3. Drilling requires two or more different drills, or reaming is necessary after being drilled.

Tolerance of I.D.

d	1.6 ~ 3.0	3.1 ~ 6.0	6.1 ~ 10.0	10.1 ~ 18.0	18.1 ~ 30.0	30.1 ~ 42.0
SE (G6)	+0.008 +0.002	+0.012 +0.004	+0.014 +0.005	+0.017 +0.006	+0.020 +0.007	+0.025 +0.009
E	+0.025 +0.002	+0.030 +0.004	+0.036 +0.005	+0.043 +0.006	+0.052 +0.007	+0.062 +0.009
ER	+0.014 +0.008	+0.020 +0.012	+0.024 +0.015	+0.029 +0.018	+0.034 +0.021	+0.041 +0.025

Concentric runout (T.I.R.) of O.D. to I.D.

d	1.6 ~ 18.0	18.1 ~ 42.0
SE/ER	0.005 or less	0.008 or less
E	0.012 or less	0.020 or less

1. Left slip renewable bushing must be used in combination with headless liner bushing (Type G).
2. O.D.(D) of left slip renewable bushing must coincide with I.D.(d) of headless liner bushing.
3. Bushing is held in place by a lock screw or a round clamp fitted into a milled recess in the head of bushing.

SE.....For higher accuracy
 E.....For standard accuracy
 ER.....For reaming

d	D (m5)	D1	ℓ 1	h	a	R	A °	r	Lock screw Round clamp	Grade	ℓ						
											12	16	20	25	30	35	45
1.6 ~ 2.0	8 +0.012 +0.006	16	8	3.5	3	※ 1	60	7	T-5 R-5	SE	○						
										E	○						
2.1 ~ 3.0	8 +0.012 +0.006	16	8	3.5	3	※ 1	60	7	T-5 R-5	SE	○						
										E	○						
3.1 ~ 4.0	8 +0.012 +0.006	16	8	3.5	3	1	60	7	T-5 R-5	SE	○	○					
										E	○	○					
4.1 ~ 6.0	10 +0.012 +0.006	19	8	3.5	3	1	60	7	T-5 R-5	SE	○	○					
										E	○	○					
6.1 ~ 8.0	12 +0.015 +0.007	22	8	3.5	3	2	60	7	T-5 R-5	SE		○	○				
										E		○	○				
8.1 ~ 10.0	15 +0.015 +0.007	26	9	3.5	3	2	60	7	T-5 R-5	SE		○	○				
										E		○	○				
10.1 ~ 12.0	18 +0.015 +0.007	30	9	3.5	3	2	45	7	T-5 R-5	SE			○	○			
										E			○	○			
12.1 ~ 15.0	22 +0.017 +0.008	35	12	5	4	2	45	9	T-6 R-6	SE			○	○			
										E			○	○			
15.1 ~ 18.0	26 +0.017 +0.008	40	12	5	4	2	45	9	T-6 R-6	SE				○	○		
										E				○	○		
18.1 ~ 22.0	30 +0.017 +0.008	47	12	5	4	3	40	9	T-6 R-6	SE				○	○		
										E				○	○		
22.1 ~ 26.0	35 +0.020 +0.009	55	15	6	5	3	40	10	T-8 R-8	SE					○	○	
										E					○	○	
26.1 ~ 30.0	42 +0.020 +0.009	62	15	6	5	3	35	10	T-8 R-8	SE					○	○	
										E					○	○	
30.1 ~ 35.0	48 +0.020 +0.009	69	15	6	5	4	35	10	T-8 R-8	SE						○	○
										E						○	○
35.1 ~ 42.0	55 +0.024 +0.011	77	15	6	5	4	35	10	T-8 R-8	SE						○	○
										E						○	○

List prices of type ER are identical to those of type SE.

Ordering Example

SE - 6.0 × 12
 d ℓ

Code

0000 052 060 12
 Code
 E:051
 SE:052
 ER:053
 d ℓ

BT

CAT

AHO

HSK-A/E/F/C

HSK-T

UTS

Specialized Machine

Related Equipment

Bushing & Chamfering Drill

Drill Jig Bushing

Chamfering Cutter Series

Chamfering Series