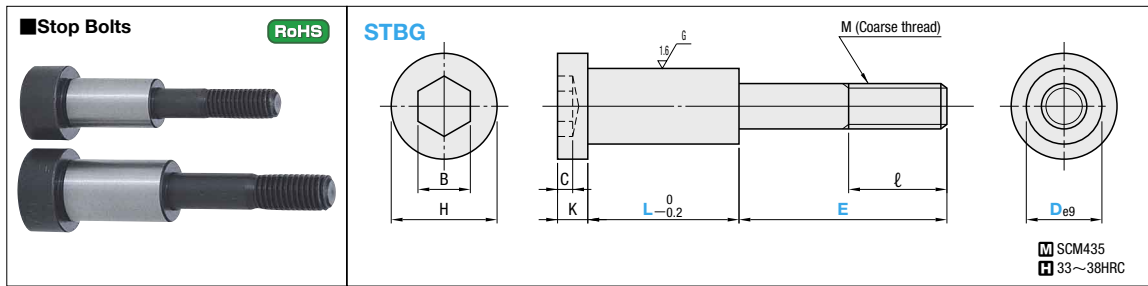


# STOP BOLTS / URETHANE WASHERS

ⓘ Non JIS material definition is listed on P.1351 - 1352



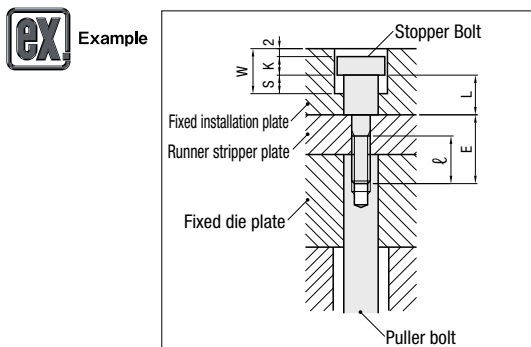
C	K	H	B	M	l	Part Number Type	D	L	E					U/Price 1~9			
									10	15	20	25	30		35	40	50
4	8	16	6	6	17	STBG	10	10	19	24							
								15	19	24	29						
								20	19	24	29	34					
4	8	18	8	8	20		13	10	22	27							
								15	22	27	32	37					
								20	22	27	32	37	42				
7	13	24	10	10	23		16	25	27	32	37	42					
								30	27	32	37	42	47				
								35	27	32	37	42	47				
9	13	27	14	12	26		20	10	30	35							
								15	30	35	40						
								20	30	35	40	45					
10	18	33	17	16	32		25	25	30	35	40	45	50				
								30	35	40	45	50	55				
								35	35	40	45	50	55				
10	18	40	17	20	38	30	15	38	43								
							20	38	43	48							
							25	38	43	48	53						
10	18	40	17	20	38	30	30	48	53	58							
							35	48	53	58							
							45	48	53	58							
10	18	40	17	20	38	30	15	44	49								
							20	49	54	59							
							25	49	54	59							
10	18	40	17	20	38	30	30	49	54	59	64						
							35	49	54	59	64	69					
							40	49	54	59	64	69					
10	18	40	17	20	38	30	25	55	60	65							
							30	55	60	65	70						
							35	55	60	65	70	80					
10	18	40	17	20	38	30	40	60	65	70	80						
							45	60	65	70	80						
							50	60	65	70	80						

Quotation

Order Part Number **STBG16** - L **20** - E **30**

Price **Quotation**

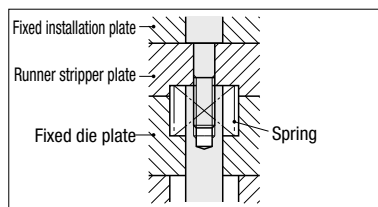
Days to Ship **Quotation**



• Shaft diameters D for stopper bolts STBG and puller bolts PBTN (P.1013) are identical and can be used in combination.  
When using a D20 stopper bolt, use it together with a D20 puller bolt.

• The stopper bolts are designed to sink 2mm from the surface of fixed installation plates listed in the right table.  
Therefore, the relationship between the counterbore depth (W) and stroke (S) is:  
 $W = S + (\text{Stopper bolt's head thickness } K) + 2$

$$L = (\text{Fixed installation plate thickness}) - (\text{Stopper bolt's head thickness } K + 2)$$



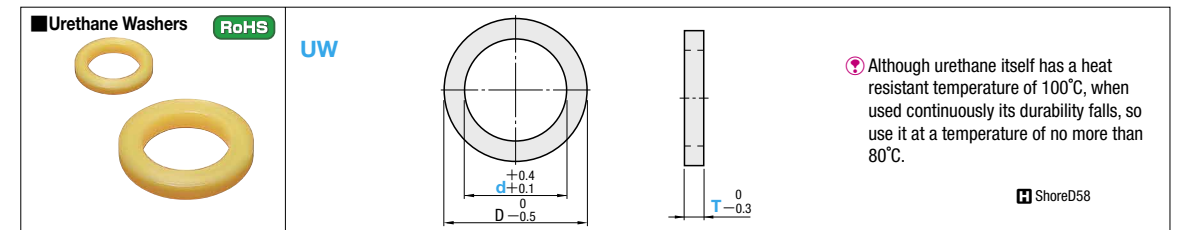
• When a runner stripper plate thickness in the following table is used, screw length  $l$  for the stopper bolt is designed to fit into the puller bolt in a length of 1.5 times longer than the screw diameter.  
In this state, the stopper bolt's thread has an 8mm part not fit into the puller bolt so that a counterbore can be created on the runner stripper plate to house a spring.

$$E = (\text{Stopper bolt M diameter}) \times 1.5 + (\text{Runner stripper thickness})$$

## Stopper Bolt Selections

• Using the table below, select the appropriate stopper bolt size in accordance with the thickness of the fixed installation plate and runner stripper plate to be used.

Stopper bolts D	Fixed installation plate thickness L	Runner stripper plate thickness E							
		10	15	20	25	30	35	40	50
10	20	10	19	24	—	—	—	—	—
	25	15	19	24	29	—	—	—	—
	30	20	19	24	29	34	—	—	—
13	20	10	22	27	—	—	—	—	—
	25	15	22	27	32	37	—	—	—
	30	20	22	27	32	37	42	—	—
16	25	10	—	27	32	37	42	—	—
	30	15	—	27	32	37	42	47	—
	35	20	—	27	32	37	42	47	—
20	25	10	—	30	35	—	—	—	—
	30	15	—	30	35	40	45	—	—
	35	20	—	30	35	40	45	50	—
25	30	10	—	30	35	40	45	50	—
	35	15	—	30	35	40	45	50	55
	40	20	—	30	35	40	45	50	55
30	45	10	—	35	40	45	50	55	—
	50	15	—	35	40	45	50	55	—
	55	20	—	35	40	45	50	55	—



ⓘ Although urethane itself has a heat resistant temperature of 100°C, when used continuously its durability falls, so use it at a temperature of no more than 80°C.

D	d	Part Number Type	d	T	U/Price for 1~19	
					T1.5	T3
16	10	UW	10	1.5 3		
18	13		13			
24	16		16			
27	20		20			

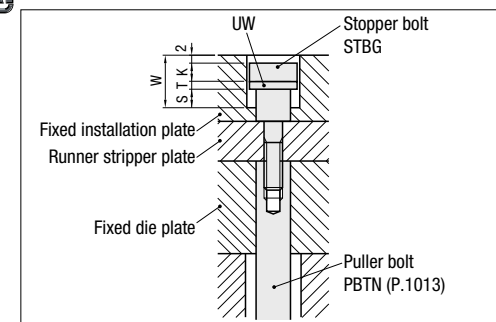
Urethane hardness characteristics comparison (comparison with Shore A95)			
Characteristic	Unit	ShoreD58	ShoreA95
Tensile strength	MPa	47.8	39.2
Elongation	%	440	400
Tensile Breakage Strength	kgf/cm	153	107
Impact Resilience	%	53	40
Compression set	%	39	45
Heat resistant temperature	°C	100	80

Order Part Number **UW10** - T **1.5**

Days to Ship **Quotation**

Price **Quotation**

Example Use for soundproofing when the mold is being opened.



• When using a urethane washer on the stopper bolt, be careful of the forming dimension of the counterbore depth (W) for securing the stroke (S).

• The dimension of the stopper bolt is set so that the head is recessed 2 mm below the mounting plate. (See "Stopper Bolt STBG" on P.1011.)  
When using a urethane washer, the relationship between the counterbore depth (W) and the stroke (S) is  $W = S + \text{urethane washer thickness } T + \text{stopper bolt head thickness } K + 2$ .