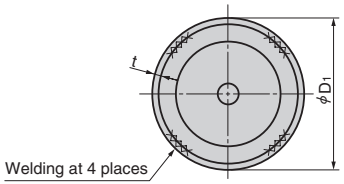
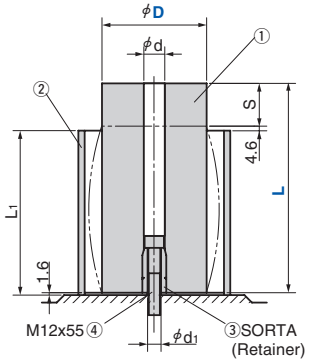
CAD FILE

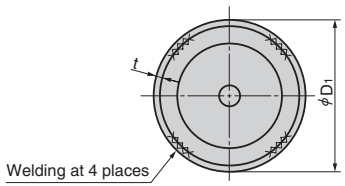
Retainers are fixed to urethane.

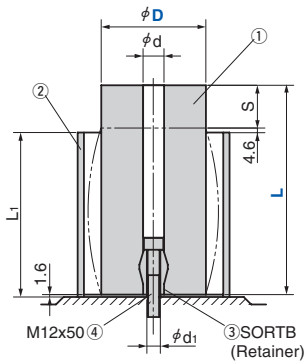
USPHA



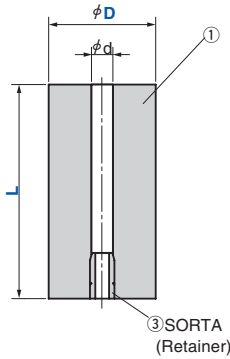


USPHB

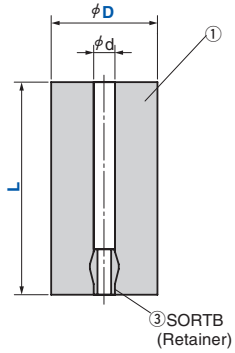




USA
USAT (①③SORTA)

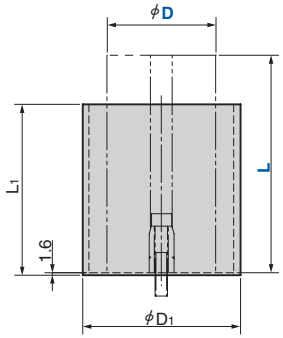


USA
USATB (①③SORTB)



〈Material〉 Polyester type

USPH (②)



〈Material〉 Pipe

Catalog No.	D	L	Safety Color	①Urethane Spring					②Urethane Storage Pipe			
				D	L	d	S	S = Lx20% F (kN)	D1	L1	d1	t
USPHA USPHB USPH*1	70	110	R (Red)	70	110	22	22	22.0	89.1	85	13	2.8
		140			140		28			109		
	90	110		90	110	22	22	35.0	114.3	85		3.2
		140			140		28			109		
		200	Y (Yellow)		200		40			157		
	100	140		100	140		28	42.5		109		
	110	140		110	140		28	53.9	139.8	109		3.6
		200			200		40			157		

Order

Catalog No.	D	–	L	–	Safety Color
USPHA	90	–	200	–	R
USPH	70	–	110	–	R

*1 USPH110-140 are common standard with USPH100-140. When ordering USPH110-140, please instruct USPH100-140.

Catalog No.	D	L	d
USA USAT USATB	70	110	22
		140	
	90	110	
		140	
		200	
	100	140	
	110	140	
		200	

Order

Catalog No.	D	–	L
USA	70	–	140
USATB	90	–	200

Refer to page 1151 for storage methods. Refer to page 1191 for retainer.

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Urethane Spring [Overview]

Pressure Source Components

Urethane spring USA and USX for press tools use polyester based cast urethane elastomer which is heat resistant. It is excellent in repeated compression. It also has high impact resilience, impact resistance, weather resistance, and load resistance. It is the optimum product for pad pressure source of press tools.

■Features

・Since material is hard and elastic, it is excellent in impact resistance and shows a strong performance as a spring.

Material Characteristics		Performance Values
Material		Polyester Based
Hardness		Shore A90°
		HRS45°
Color		Navy blue
Tensile Strength		59 MPa
Modulus	100%	7.53 MPa
	300%	15.2 MPa
Elongation		510%
Tensile Strength		109 N/mm
Impact Resistance		28%

■Range of Application

	Deflection Rate Limit for Operation	SPM Limit for Operation	Ambient Temperature Limit for Operation
USA	25%	50SPM	50℃
USX	30%	40SPM	

Specification limit SPM varies depending on the deflection ratio. Please contact our sales representatives for details.

■Storage

・In order to protect against ultraviolet rays, store away from direct sunlight.
・Deterioration is faster under conditions of high temperature or humidity.
We recommend putting a desiccant in the container and storing in as cool a location as possible.

For use under high temperature and humidity conditions, we recommend URESTORO (P.1171), which has excellent hydrolysis performance.

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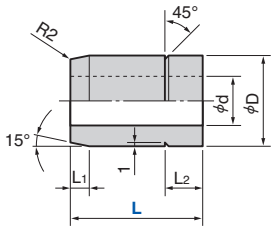
Retainer, Spacer

Pressure Source Components

SORTA



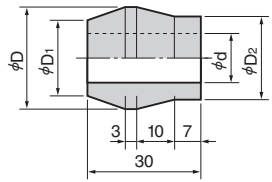
〈Material〉 SS400 or S25C

Catalog No.	Nominal	L	D	d	L_1	L_2	Applicable Rubber Spring, Urethane Spring	
							Outer Diameter	Length
SORTA		10	16	9	2	3	30, 40	～40
	14	20			3	7	30～63	50～63
		30						60～125
	20		22	13	5	10	60～	60～120
	22	35	24				70～100	60～200

Order

Catalog No.	Nominal	—	L
SORTA	20	—	30

SORTB



〈Material〉 SS400 or S25C

Catalog No.	Nominal	D	D_1	D_2	d	Outer Diameter	
SORTB	14	19	13	14	9	50	63
	22	27	20	22	13	80	100

When installing SORTB, set the straight part to the fixed surface side.

Order

Catalog No.	Nominal
SORTB	14

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