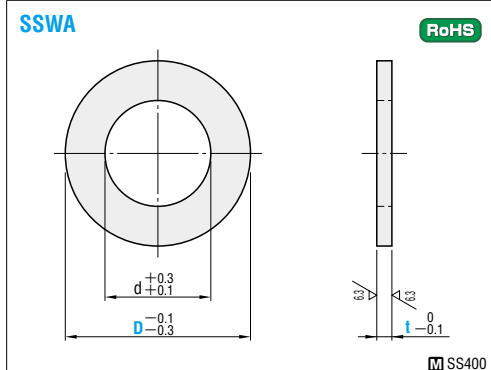
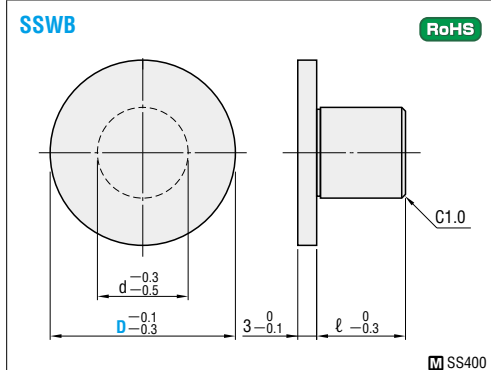


WASHERS FOR COIL SPRINGS

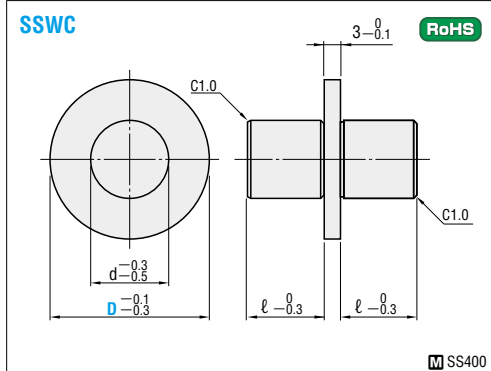
SPRING UNIT FLANGES



d	Spring diameter	Catalog No.		t	Base unit price 1~19 pieces				
		Type	D		t=1.0	t=2.0	t=3.0	t=4.0	t=5.0
3.0	6	SSWA	5	1.0					
5.0	8		7						
6.0	10		9						
7.0	12		11.5						
8.0	14		13						
9.0	16		15						
10.0	18		17						
12.0	20		19						
12.0	22		21						
14.5	25		24						
15.0	27		26						
17.0	30		29						
20.0	35		34						
23.0	40		39						



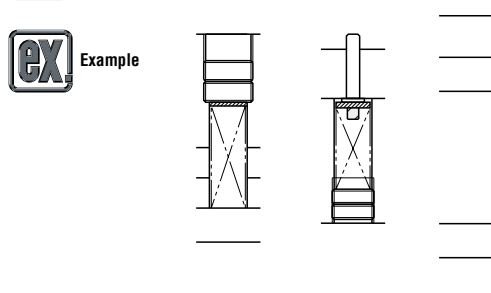
d	l	Spring diameter	Catalog No.		Base unit price 1~19 pieces
			Type	D	
3.5	4.0	8	SSWB	7	Quotation
4.5	5.0	10		9	
5.5	6.0	12		11	
6.5	7.0	14		13	
7.5	8.0	16		15	
8.5	9.0	18		17	
9.5	10.0	20		19	
10.5	11.0	22		21	
12.0	12.0	25		24	
13.0	13.0	27		26	
14.5	15.0	30		29	
17.0	17.0	35		34	
19.5	20.0	40		39	



d	l	Spring diameter	Catalog No.		Base unit price 1~19 pieces
			Type	D	
3.5	4.0	8	SSWC	7	Quotation
4.5	5.0	10		9	
5.5	6.0	12		11	
6.5	7.0	14		13	
7.5	8.0	16		15	
8.5	9.0	18		17	
9.5	10.0	20		19	
10.5	11.0	22		21	
12.0	12.0	25		24	
13.0	13.0	27		26	
14.5	15.0	30		29	
17.0	17.0	35		34	
19.5	20.0	40		39	

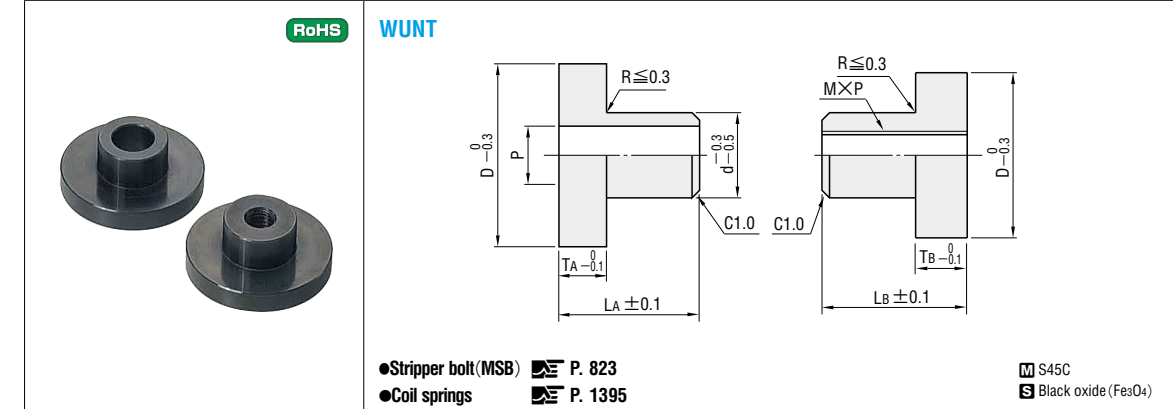
Order **Catalog No.** — t
SSWA 15 — 2.0
SSWC 9

Price **Quotation**



Days to Ship **Quotation**

d	l	Spring diameter	Catalog No.		Base unit price 1~19 pieces
			Type	D	
3.5	4.0	8	SSWB	7	Quotation
4.5	5.0	10		9	
5.5	6.0	12		11	
6.5	7.0	14		13	
7.5	8.0	16		15	
8.5	9.0	18		17	
9.5	10.0	20		19	
10.5	11.0	22		21	
12.0	12.0	25		24	
13.0	13.0	27		26	
14.5	15.0	30		29	
17.0	17.0	35		34	
19.5	20.0	40		39	



Spring dia. D	Bolt	P	M×P	TA·TB	LA	LB	D	d	Catalog No.		Base unit price 1~9 pieces
									Type	No.	
25	MSB8	8	6×1.0	5	10	10	26	11.5	WUNT	25	Quotation
27										27	
30	MSB10	10	8×1.25	5	11	11	31	14		30	
										30-13	
										35	
35	MSB12	12	8×1.25	5	13	13	36	16.5		35	
										40	

The catalog Nos. were changed (for selection of the spring diameter and LB length) due to the addition of WUNT30-13.
Cannot be used for SWC. (Not suitable for the spring inner diameter.)

Order **Catalog No.**
WUNT 25

Days to Ship **Quotation**

Price **Quotation**

Alterations **Catalog No.** — (LAC·LBC·TAC·TBC)
WUNT 35 — LAC7

Alteration	Code	Spec.	1Code
	LAC	LA dimension change 0.1mm increments 1.5 + TA ≤ LAC < LA When combined with TAC: 1.5 + TAC ≤ LAC < LA - TAC	Quotation
	LBC	LB dimension change 0.1mm increments 1.5 + TB ≤ LBC < LB When combined with TBC: 1.5 + TBC ≤ LBC < LB - TBC	
	TAC	Head thickness change 0.1mm increments 3 ≤ TAC < TA LA dimension is shortened by (TA - TAC). When combined with LAC, LAC dimension remains as specified.	
	TBC	Head thickness change 0.1mm increments 3 ≤ TBC < TB LB dimension is shortened by (TB - TBC). When combined with LBC, LB dimension remains as specified.	

Some alterations may result in the removal of the surface treatment at the alteration location.

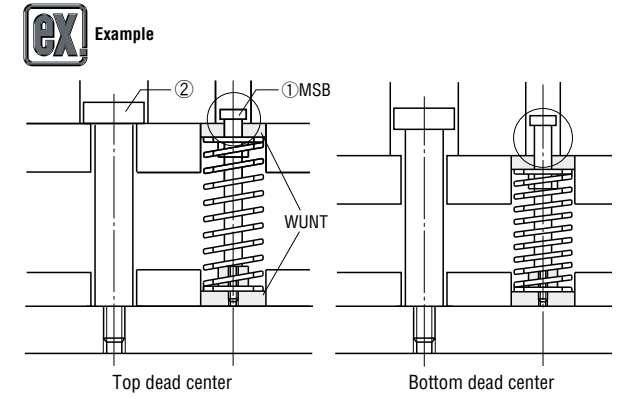
- Features**
- An initial load can be applied to the spring.
 - The spring can be deflected beforehand, reducing the trouble involved in die assembly and adjustment.

- Notes for use**
- Unit example



The coil spring and stripper bolt are sold separately.

- Adjust the height of stripper bolt ② so that the head of stripper bolt ① does not contact the flange when mounted in the die. (Refer to the figure below.)
- Create a bolt relief hole as shown in the figure below.






PLATES FOR GAS SPRINGS WITH LINKED SYSTEM

— VERTICAL SETTING TYPE —

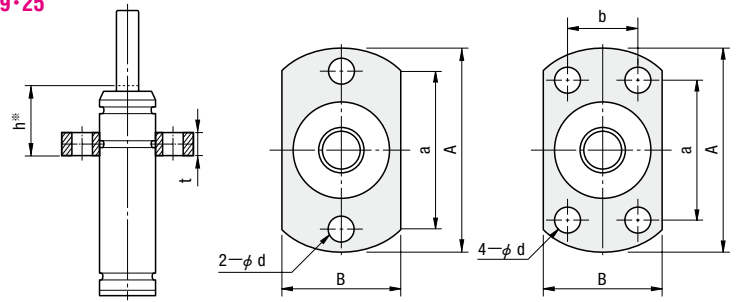


NAME PLATE FOR GAS SPRING

RoHS




FCC
FC19-25



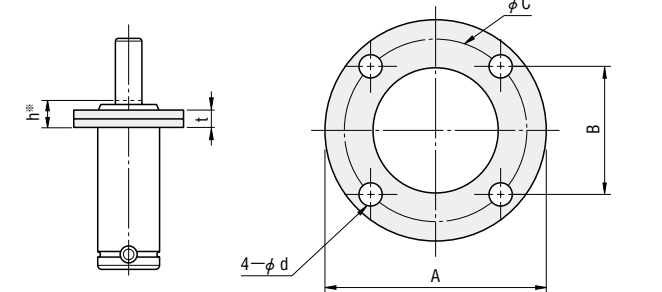
Equivalent to S45C
Black oxide (Fe3O4)

※h dimension : e dimension of adaptable gas spring + $\frac{1}{2}$

RoHS



FC32-38-45-50-63-75-95-120-150-195
FCB



Equivalent to S45C
Black oxide (Fe3O4)

※h dimension : e dimension of adaptable gas spring + $\frac{1}{2}$

A	a	B	d	t	Catalog No.	Adaptable gas spring						Recommended bolts(×2)
						GSV	GST	GSH	GSK	GSSC	GSU	
34	24	21	6.6	9	FCC	12	—	—	—	—	50	CB 6—18
37	27	24	6.6	9		15	—	—	—	—	70	CB 6—18
44	32	25	6.6	9		19	170	—	—	—	90	CB 6—18
50	38	30	6.6	9		25	320	—	—	—	400	200

A	a	B	b	C	d	t	Catalog No.	Adaptable gas spring						Recommended bolts(×4)				
								GSV	GST	GSH	GSK	GSSC	GSU					
44	30	25	12	—	6.6	9	FC	19	170	—	—	—	—	90	CB 6—18			
50	34	30	18	—	6.6	9		25	320	—	—	—	400	200	CB 6—18			
60	—	35	—	49.5	6.6	9		32	350	350	—	150	750	300	—	CB 6—18		
68		40		56.6	6.6	9		38	500	500	—	250	1000	—	—	CB 6—18		
86		50		70.7	9	13		45	750	750	—	500	—	—	—	CB 8—25		
95		56.5		79.9	9	13		50	1000	1000	1000	750	—	—	—	—	CB 8—25	
122	—	73.5	—	104	11	16		63	1500	1500	1500	—	—	—	—	CB10—35		
122		73.5		104	11	16		75	2400	2400	2400	1500	—	—	—	—	CB10—35	
150		92		130.1	13.5	18		95	4200	4200	4200	3000	—	—	—	—	CB12—40	
175		109.5		154.9	13.5	21		120	6600	6600	6600	5000	12000	—	—	—	CB12—40	
220		138		195.1	17.5	27		150	9500	9500	—	7500	18500	—	—	—	CB16—55	
290		170		240.4	17.5	27		195	20000	—	—	10000	—	—	—	—	—	CB16—55

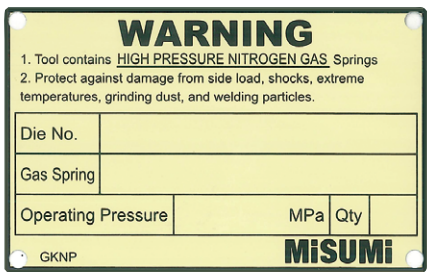
A	B	C	d	t	Catalog No.	Adaptable gas spring		Recommended bolts(×4)
						GSSC		
95	56.5	79.9	9.0	13	FCB	50	1800	CB 8—30
122	73.5	103.9	11.0	16		63	3000	CB10—35
122	73.5	103.9	11.0	16		75	4700	CB10—35
150	92.0	130.1	13.5	18		95	7500	CB12—40

Order **Catalog No.**
FC38
FCB63

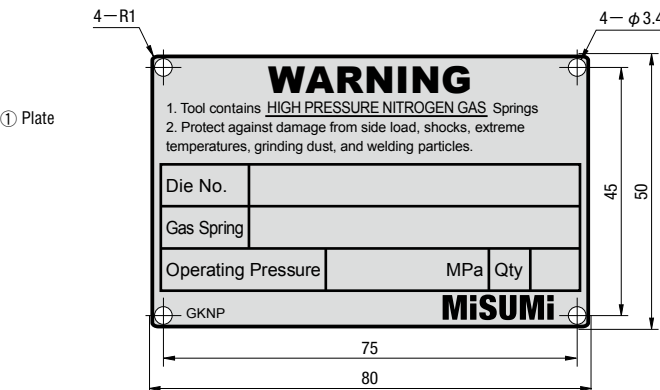
Days to Ship **Quotation**

Price **Quotation**

RoHS



GKNPS (①+②)
GKNP (① only)



① Plate

② Mounting bolts CB3-6 ×4

A1050P
Plate thickness 0.5mm
S baking finish

Order **Catalog No.**
GKNPS

Days to Ship **Quotation**


Price **Quotation**

- Features**
- Please help us maintain and manage the mold.
 - You can write using a permanent marker or an oil-based ball point pen.
 - You can engrave on the product with a chisel as it is made out of Aluminum.

- Precautions**
- Heat resistance of the surface coating is up to 150°C.

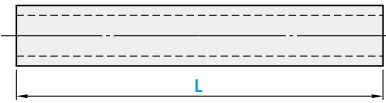
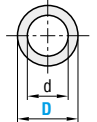
GAS SPRINGS

URETHANES FOR HEAVY LOAD



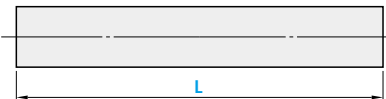
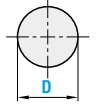
RoHS

LA

D	D _T	d _T
8		
10		
15		
20	±0.2	
25		
30		
40		
50	±0.3	±0.2
60		
80	±0.4	
100		

C

Product guide P.1501 Shore A90

d	Catalog No.		Catalog No.		Base unit price 1 ~ 19 pieces
	Type	D—L	Type	D—L	
—	—	—	C	8—200	Quotation
—	—	—	C	10—200	
7	LA	15—200	C	15—200	
8.5	LA	20—200	C	20—200	
11	LA	25—200	C	25—200	
14	LA	30—500	C	30—500	
	LA	40—500	C	40—500	
	LA	50—500	C	50—500	
22	LA	60—500	C	60—500	
	LA	80—500	C	80—500	
	LA	100—500	C	100—500	

Order **Catalog No.**
LA 60—500

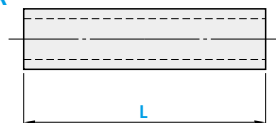
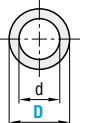
Days to Ship **Quotation**

Price **Quotation**

Configurable full length type

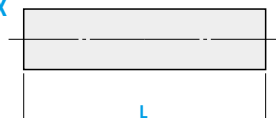
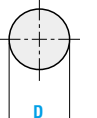
RoHS

AX

D	D _T	d _T	L _T
8			
10			
15			
20	±0.2		±0.3
25			
30			
40			
50	±0.3	±0.2	
60			±0.5
80	±0.4		
100			

CX

Product guide P.1501 Shore A90

d	Catalog No.	D	L 1mm increments	Base unit price 1 ~ 19 pieces							
				L10~20	L21~40	L41~60	L61~80	L81~100	L101~150	L151~200	
—	CX	8	10 ~ 200								
—		10									
7		15									
8.5	20										
11	25										
14	AX	30									
	CX	40									
		50									
22		60									
		80									
		100									

Order **Catalog No.** **D** — **L**
AX 20 — 45


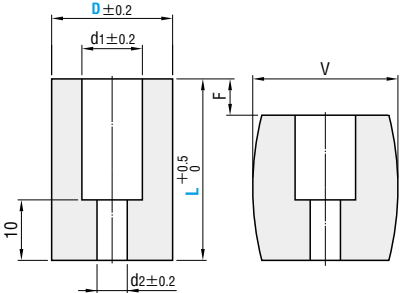
Days to Ship **Quotation**

Price **Quotation**

URETHANES WITH COUNTERBORE

RoHS

AZ (Standard type)

Product guide P.1501 Shore A90

F=L×10%		F=L×15%		F=L×20%		D	d ₁	d ₂	M	L	Catalog No. Type D—L	Base unit price 1 ~ 19 pieces
F mm	Load N (kgf)	F mm	Load N (kgf)	F mm	Load N (kgf)							
2.5		3.7		5.0		20	11	7	M6	25	AZ 20—25	
3.0	883	4.5	1079	6.0	1275	24				30	30	
3.5	(90)	5.2	(110)	7.0	(130)					35	35	
4.0		6.0		8.0						40	40	
2.5		3.7		5.0		25	11	7	M6	25	AZ 25—25	
3.0	1177	4.5	1569	6.0	1765	29	25	11	7	30	30	
3.5	(120)	5.2	(160)	7.0	(180)					35	35	
4.0		6.0		8.0						40	40	
3.0		4.5		6.0		30	30	14	9	30	AZ 30—30	
3.5	2550	5.2	3040	7.0	3530	35				35	35	
4.0	(260)	6.0	(310)	8.0	(360)					40	40	
3.0		4.5		6.0		40	40	18	11	30	AZ 40—30	
3.5	4119	5.2	5099	7.0	5884	46				35	35	
4.0	(420)	6.0	(520)	8.0	(600)					40	40	

●Load (kgf) = Load (N) × 0.101972


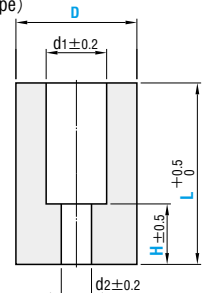
Order **Catalog No.**
AZ 20—30

Days to Ship **Quotation**

Price **Quotation**

RoHS

AZX (Configurable full length type)

D	D _T
25	±0.2
30	
40	
50	±0.3
60	
80	±0.4
100	

Product guide P.1501 Shore A90

Catalog No. Type	D	L 1mm increments	M	H 1mm increments	M	d ₁	d ₂
AZX	25	20 ~ 80	M 6	5 ≤ H < L	M 6	11	7
	30		M 8		M 8	14	9
	40						
	50	25 ~ 150	M 10		M 10	18	11
	60		M 12		M 12	20	14
	80						
	100	25 ~ 200	M 12	M 16	M 16	26	18

Order **Catalog No.** — **L** — **M** — **H**
AZX 25 — 42 — M6 — 15

Days to Ship **Quotation**

Price **Quotation**

URETHANE SPRINGS

URETHANE SHEETS

URETHANE DIE PADS

UT

RoHS

T	±
1 ~ 4	±0.3
5 ~ 10	±0.4
15 ~ 25	±0.5
30 ~ 50	±1

Product guide P.1501 Shore A90

A	B	T	Catalog No.		Base unit price 1 ~ 9 pieces
			Type	T - A	
300	300	5	UT	5 - 300	Quotation
		6		6 - 300	
		8		8 - 300	
		10		10 - 300	
		15		15 - 300	
		20		20 - 300	
		25		25 - 300	
500	500	30	UT	30 - 300	
		1		1 - 500	
		2		2 - 500	
		3		3 - 500	
		4		4 - 500	
		5		5 - 500	
		6		6 - 500	
		8		8 - 500	
		10		10 - 500	
		15		15 - 500	
20		20 - 500			
25		25 - 500			
30		30 - 500			
50		50 - 500			

Order Catalog No. UT 8-500

Days to Ship Quotation

Price Quotation

UD

RoHS

Product guide P.1501 Shore A90

A	B	L	±	Catalog No.		Base unit price 1 ~ 9 pieces
				Type	A - L	
25	25	50	±1	UD	25 - 50	Quotation
		100			100	
		300			300	
		500	+5		500	
		1000	0		1000	
50	50	50	±1	UD	50 - 50	
		100			100	
		300			300	
		500	+5		500	
		1000	0		1000	
75	50	50	±1	UD	75 - 50	
		100			100	
		300			300	
		500	+5		500	
		1000	0		1000	

Order Catalog No. UD 75-1000

Days to Ship Quotation

Price Quotation

UTH (Configurable size type)

RoHS

T	±
1 ~ 4	±0.3
5 ~ 10	±0.4
15 ~ 25	±0.5
30 ~ 50	±1

Product guide P.1501 Shore A90

Catalog No.	1mm increments	
	Type	T
UTH	1	
	2	
	3	
	4	20 ~ 500
	5	20 ~ 500
	6	
	8	

Catalog No.	1mm increments	
	Type	T
UTH	10	
	15	
	20	
	25	20 ~ 500
	30	20 ~ 500
	50	

Order Catalog No. UTH 8 - 351 - 200

Days to Ship Quotation

Price Quotation

UDH (Configurable full length type)

RoHS

L	±
25 ~ 200	+1
201 ~ 500	+2
501 ~ 1000	+3

Product guide P.1501 Shore A90

A	B	Catalog No. Type A	L		Base unit price 1 ~ 9 pieces
			1mm increments	L	
25	25	UDH 25	25 ~ 50	Quotation	
			51 ~ 100		
			101 ~ 300		
			301 ~ 500		
			501 ~ 800		
50	50	UDH 50	801 ~ 1000		
			25 ~ 50		
			51 ~ 100		
			101 ~ 300		
			301 ~ 500		
75	50	UDH 75	501 ~ 800		
			801 ~ 1000		
			25 ~ 50		
			51 ~ 100		
			101 ~ 300		

Order Catalog No. UDH 50 - 355

Days to Ship Quotation

Price Quotation

URETHANE SPRINGS