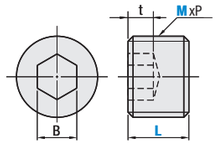
Screw Plugs

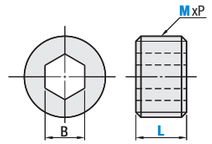
Screw Plugs

RoHS 10

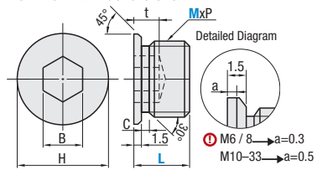
MSW
MSWS Short Type



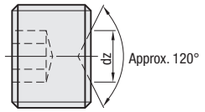
MSWA Through Hole Type
MSWAS Through Hole / Short



MSWZ With Washer Type
MSWZS With Washer / Short



MSW: Dimple Shape and Dimension



Part Number	dz max.
MSW3	1.4
MSW4	2.0
MSW5	2.5

Type	Material	Hardness	Surface Treatment
MSW	4137 Alloy Steel (M2.5–10) 1045 Carbon Steel Equivalent (M12–45)	34–43 HRC min.	Black Anodize (JIS B 0207 Class 2)
MSWS Short Type	1045 Carbon Steel Equivalent		
MSWA Through Hole Type			
MSWAS Through Hole / Short			
MSWZ With Washer Type		33–38 HRC min.	
MSWZS With Washer / Short			

Standard Type

M x P		L	B	t	Part Number Type	Part Number M
2.5	0.45	3	1.3	1.2	MSW	2.5
3	0.5	3	1.5			3*
4	0.7	4	2	1.5		4*
5	0.8	5	2.5	2		5*
6	1.0	6	3	3.5		6
8	1.25	8	4	5		8
10	1.5	10	5	6		10
12	1.5 Fine Thread		6	5.5		12
14						14
16			8			16
18			10			18
20						20
22			12			22
24		12	14	6		24
25						25
26						26
27						27
28						28
30						30
33						33
36			17			36
38						38
40		18		10		40
42						42
45						45

*The tip of MSW3 / 4 / 5 is a cup point.

M x P		L	B	Part Number Type	Part Number M
8	1.25	8	4	MSWA Through Hole	8
10	1.5	10	5		10
12	1.5 Fine Thread		6		12
14					14
16			8		16
18			10		18
20		12			20
22			12		22
24			14		24
25					25
26					26
27					27
28					28
30			17		30
33					33

M x P		L	B	h	t	C	Part Number Type	Part Number M
6	1.0	8	3	9	5	2.5	MSWZ With Washer	6
8	1.25	10	4	11				8
10	1.5	12	5	13				10
12	1.5 Fine Thread		6	15				12
14				17				14
16			8	19				16
18			10	21				18
20		15		23				20
22			12	25				22
24			14	27				24
25				28				25
26				29				26
27				30				27
28				31				28
30			17	33				30
33				36				33

Short Type

M x P		L	B	t	Part Number Type	Part Number M-L
8	1.25	6	4	3	MSWS Short	8-6
10	1.5		5			10-6
12	1.5 Fine Thread		6			12-6
14						14-6
16			8			16-6
18			10			18-6
20		8		4		20-8
22			12			22-8
24			14			24-8
25						25-8
26						26-8
27						27-8
28						28-8
30			17			30-8
33						33-8

M x P		L	B	Part Number Type	Part Number M-L
8	1.25	6	4	MSWAS Through Hole/ Short	8-6
10	1.5		5		10-6
12	1.5 Fine Thread		6		12-6
14					14-6
16			8		16-6
18			10		18-6
20		8			20-8
22			12		22-8
24			14		24-8
25					25-8
26					26-8
27					27-8
28					28-8
30			17		30-8
33					33-8

M x P		L	B	h	t	C	Part Number Type	Part Number M-L
10	1.5	10	5	13	4	2.0	MSWZS With Washer/ Short	10-10
12	1.5 Fine Thread		6	15				12-10
14				17				14-10
16			8	19				16-10
18			10	21				18-10
20				23				20-10
22			12	25				22-10
24			14	27				24-10
25				28				25-10
26				29				26-10
27				30				27-10
28				31				28-10
30		12	17	33	5			30-12
33				36				33-12

Short Type has shorter L dimension and fewer threads, compared with the standard type (MSW / MSWA / MSWZ). Before use, check the load applied to the screw plug and the material of the plate to be tapped.

Part Number Example

Part Number
MSW18
MSWS18 - 6

There's more on the web: misumiusa.com

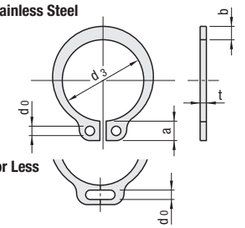
Retaining Rings

External C-Rings / E-Rings

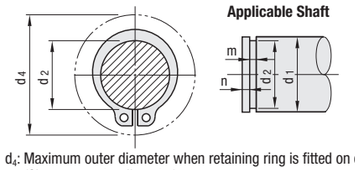
Retaining Rings – External C-Ring

RoHS 10

STWN
STWS Stainless Steel



Applicable Shaft



d_4: Maximum outer diameter when retaining ring is fitted on d_1 (Clearance outer diameter)

Type	Material	Hardness
STWN	Spring Steel	44–53 HRC min.
STWS	304 Stainless Steel-CSP	36–44 HRC min.

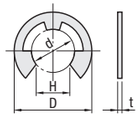
Part Number Type	No.	Retaining Ring d_3	Tolerance	t	Tolerance	b (Approx.)	a (Approx.)	d_0 (Min.)	Reference d_4	Applicable Shaft (Reference) d_1	d_2	Tolerance	m	Tolerance	n (Min.)
STWN	3	2.7	+0.04 -0.15	0.25	±0.025	0.5	1.7	0.7	7	3	2.85	0 -0.04	0.35	+0.10 0	0.3
	4	3.7		0.4	±0.03	0.9	2.2	0.8	9	4	3.8		0.5		
	5	4.7		0.6	±0.04	1.1	2.4		10.5	5	4.8		0.7		
	6	5.6	+0.06 -0.2	0.7		1.3	2.8	1	12	6	5.7		0.8		0.5
	7	6.5		0.8		1.4	3		14	7	6.7	0 -0.06	0.9		
	8	7.4				1.6	3		15	8	7.6				0.6
STWS Stainless Steel	4	3.6	±0.1	0.25	±0.03	0.7	1.4	0.7	9	4	3.7	±0.06	0.3	+0.10 0	1.0
	5	4.5		0.4	±0.04				10.5	5	4.7		0.45		1.5
	6	5.5				0.8	2.0		12	6	5.7				
	7	6.3		0.65		0.9		1	14	7	6.5		0.7		
	8	7.1				1.0	2.2		15	8	7.4				
STWN	10	9.3	±0.15	1	±0.05	1.8	3	1.2	17	10	9.6	0 -0.09	1.15	+0.14 0	1.5
	11	10.2				2	3.1		18	11	10.5	0 -0.11			
	12	11.1	±0.18			2.1	3.2	1.5	19	12	11.5				
	13	12					3.3		20	13	12.4				
	14	12.9					3.4		22	14	13.4				
	15	13.8				2.2	3.5	1.7	23	15	14.3				
	16	14.7					3.6		24	16	15.2				
	17	15.7					3.7		25	17	16.2				
	18	16.5		1.2	±0.06	2.6	3.8	2	26	18	17		1.35		
	19	17.5							27	19	18				
	20	18.5	±0.2			2.7	3.9		28	20	19	0 -0.21			
STWS Stainless Steel	21	19.5					4		30	21	20				
	22	20.5					4.1		31	22	21				
	23	21.4				2.9	4.5		32.5	23	22				
	24	22.2				3.1	4.2		33	24	22.9				
	25	23.2					4.3		34	25	23.9				
	26	24.2					4.4		35	26	24.9				
	28	25.9		1.5			4.6		38	28	26.6		1.65		
	29	26.9				3.5	4.7		39	29	27.6				
	30	27.9					4.8		40	30	28.6				
	32	29.6					5	2.5	43	32	30.3	0 -0.25			
	35	32.2	±0.25			4	5.4		46	35	33				
	40	37	±0.4	1.75	±0.07	4.5	5.8		53	40	38		1.9		2
	45	41.5				4.8	6.3		58	45	42.5				
	50	45.8		2		5	6.7		64	50	47		2.2		
	52	47.8					6.8		66	52	49				
	60	55.8	±0.45	2.5	±0.08	5.5	7.2		75	60	57	0 -0.3	2.7		2.5
	80	74.5				7.4	8.2		97	80	76.5				

Cost-saving box package is available when large quantity is required.

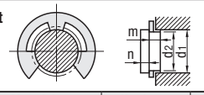
Retaining Rings – E-Ring

RoHS 10

NETW
NETWS Stainless Steel



Applicable Shaft



Type	Material	Hardness	Surface Treatment
NETW	Spring Steel	44–53 HRC min.	Trivalent Chromate Plating
NETWS	304 Stainless Steel-CSP	37–46 HRC min.	—

Part Number Type	No.	Retaining Ring d	Tolerance	D	Tolerance	H	Tolerance	t	Tolerance	Applicable Shaft (Reference) d_1 Class More than	d_1 Class or Less	d_2	Tolerance	m	Tolerance	n (Min.)
NETW	1.2	1.2	0 -0.09	3	±0.1	1	0 -0.25	0.3	±0.025	1.4	2	1.2	+0.06 0	0.4	+0.05 0	0.6
	1.5	1.5		4	±0.2	1.3		0.4	±0.03	2	2.5	1.5		0.5		0.8
	2	2		5		1.7				2.5	3.2	2				1
	2.5	2.5		6		2.1				3.2	4	2.5				
	3	3		7		2.6		0.6	±0.04	4	5	3		0.7		1.2
NETWS Stainless Steel	4	4	0 -0.12	9		3.5	0 -0.30			5	7	4	+0.075 0		+0.1 0	
	5	5		11		4.3				6	8	5				1.2
	6	6		12		5.2				7	9	6				
	7	7	0 -0.15	14		6.1	0 -0.35	0.8		8	11	7	+0.09 0	0.9		1.5
	8	8		16		6.9				9	12	8				1.8
	9	9		18		7.8				10	14	9				2

Part Number Example

Part Number
STWS6
NETW9

Check out misumiusa.com for the most current pricing and lead time.