

# Retaining Rings - C Type (External) / E Type

# Retaining Rings - C Type (Internal) / Retaining Ring Pliers

When large quantities are needed, box package sales is more economical. P.273

**Retaining Rings - C Type (External)**

**STWN**  
**STWS** (Stainless Steel)

**Applicable Shaft**

d4: Maximum O.D. when retaining ring is fitted on d1. (Clearance O.D.)

Type	Material	Hardness
STWN	Spring Steel	44-53HRC
STWS	SUS304-CSP	36-44HRC

**Retaining Rings - C Type (Internal)**

**RTWN**  
**RTWS** (Stainless Steel)

**Applicable Hole**

d4: Minimum circumferential diameter when a retaining ring is fitted inside d1. (Clearance I.D.)

Type	Material	Hardness
RTWN	Spring Steel	44-53HRC
RTWS	SUS304-CSP	36-44HRC

Part Number	Retaining Ring										Applicable Shaft (Reference)						STWN			STWS				
	Type	No.	d3	Tolerance	t	Tolerance	b	a	do	d4	d1	d2	Tolerance	m	Tolerance	n	(Min.)	1-49	50-199	200-1000	1-49	50-199	200-500	
STWN	3	2.7	+0.04	0.25	±0.025	0.5	1.7	0.7	7	3	2.85	0	0.35											
	4	3.7	-0.15	0.4	±0.03	0.9	2.2	0.8	9	4	3.8	0	0.5											
	5	4.7		0.6		1.1	2.4		10.5	5	4.8	-0.04	0.7	+0.10	0	0.3								
	6	5.6	+0.06	0.7	±0.04	1.3	2.8		12	6	5.7	0	0.8											
	7	6.5	-0.2	0.8		1.4	3	1	14	7	6.7	0	0.9											
	8	7.4		0.8		1.6	3		15	8	7.6	-0.06	0.9											
	4	3.6		0.25	±0.03	0.7	1.4		9	4	3.7		0.3											
	5	4.5		0.4		0.7	1.4		10.5	5	4.7		0.45	+0.10	0	0.5								
STWS (Stainless Steel)	6	5.5	±0.1	0.4	±0.04	0.8	2.0		12	6	5.7	±0.06	0.45											
	7	6.3		0.9		2.0		14	7	6.5		0.7												
	8	7.1		0.65		1.0	2.2	1	15	8	7.4		0.7											
	10	9.3	±0.15	1.8		3			17	10	9.6	-0.09	1.15											
	11	10.2		2	3.1	1.2			18	11	10.5		1.35											
	12	11.1		2.1	3.2	1.5			19	12	11.5		1.5											
	13	12		3.3					20	13	12.4		1.15											
	14	12.9		3.4					22	14	13.4		1.15											
STWN	15	13.8	±0.18	2.2	3.5	1.7			23	15	14.3	0	1.15											
	16	14.7		3.6					24	16	15.2	-0.11	1.15											
	17	15.7		3.7					25	17	16.2		1.15											
	18	16.5		2.6	3.8				26	18	17		1.15											
	19	17.5		3.8					27	19	18		1.15											
	20	18.5		3.9					28	20	19		1.15											
	21	19.5		2.7	4				30	21	20		1.15											
	22	20.5		4.1					31	22	21		1.15											
	23	21.4		2.9	4.5				32.5	23	22		1.15											
	24	22.2		4.2					33	24	22.9	0	1.15											
	STWS (Stainless Steel)	25	23.2	±0.2	3.1	4.3	2			34	25	23.9	-0.21	1.15										
		26	24.2		4.4					35	26	24.9		1.15										
28		25.9		4.6					38	28	26.6		1.15											
29		26.9		4.7					39	29	27.6		1.15											
30		27.9		3.5	4.8				40	30	28.6		1.15											
32		29.6		5					43	32	30.3		1.15											
35		32.2	±0.25	4	5.4				46	35	33		1.15											
40		37		4.5	5.8				53	40	38	0	1.15											
45	41.5	±0.4	4.8	6.3				58	45	42.5	-0.25	1.15												
50	45.8		5	6.7				64	50	47		1.15												
52	47.8		6.8					66	52	49		1.15												
60	55.8	±0.45	5.5	7.2				75	60	57	0	1.15												
80	74.5		2.5	±0.08	7.4	8.2		97	80	76.5	-0.3	1.15												

Part Number	Retaining Ring										Applicable Bore (Reference)						RTWN			RTWS				
	Type	No.	ds	Tolerance	t	Tolerance	b	a	do	d4	d1	d2	Tolerance	m	Tolerance	n	(Min.)	1-49	50-199	200-1000	1-49	50-199	200-1000	
RTWN RTWS (Stainless Steel)	10	10.7		1.5	2.8	1.2			4	10	10.4		1.15											
	11	11.8	±0.18	3				1.5	5	12	12.5		1.15											
	12	13		1.7	3.1				6	13	13.6		1.15											
	13	14.1		3.6					7	14	14.6		1.15											
	14	15.1		3.6					8	15	15.7		1.15											
	15	16.2		3.6					9	16	16.8		1.15											
	16	17.3		3.7					10	17	17.8		1.15											
	17	18.3		3.8					11	18	18.9		1.15											
	19	20.5		4					12	20	21		1.15											
	20	21.5		4.1					12	21	22		1.15											
	21	22.5	±0.2	4.1					13	22	23		1.15											
	22	23.5		4.3					15	24	25.2		1.15											
	24	25.9		4.4					16	25	26.2		1.15											
	25	26.9		4.4					16	26	27.2		1.15											
	26	27.9		4.6					18	28	29.4		1.15											
	28	30.1	±0.06	4.7					20	30	31.4		1.15											
	30	32.1		5.2					21	32	33.7		1.15											
	32	34.4	±0.25	5.2					24	35	37		1.15											
	35	37.8		5.2					26	37	39		1.15											
	37	39.8		5.2					28	40	42.5		1.15											
	40	43.5	±0.4	5.7					30	42	44.5		1.15											
	42	45.5		5.8					33	45	47.5		1.15											
	45	48.5		5.9					34	47	49.5		1.15											
	47	50.5		6.1					39	52	55		1.15											
	52	56.2	±0.07	6.5					41	55	58		1.15											
	55	59.2		6.5					46	60	63		1.15											
	60	64.2	±0.45	6.8					48	62	65		1.15											
	62	66.2		6.9					53	68	71		1.15											
	68	72.5		6	7.4				57	72	75		1.15											
	72	76.5		6.6	7.4				64	80	83.5		1.15											
80	85.5	±0.55	7	8								1.15												

For orders larger than indicated quantity, please check with WOS.

Ordering Example  
Part Number  
RTWN10  
RTWS20

**Retaining Rings - E Type**