

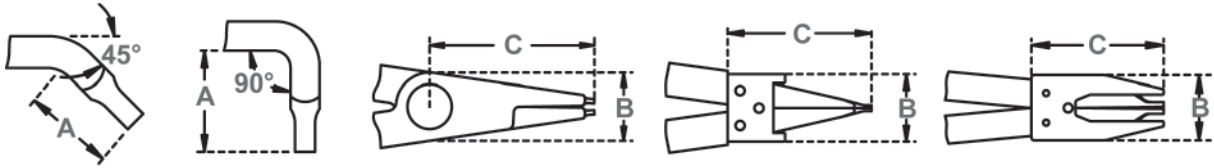
Standard Pliers

Standard Retaining Ring Pliers - Inch & Metric

Standard Retaining Ring Pliers are made of high carbon, heat treated steel and produced to exacting QC specifications. They feature stop and return springs for problem-free installation/removal of retaining rings. This eliminates overspreading of external retaining rings, and speeds the assembly/removal of internal retaining rings by orienting plier to exact location of lug holes. Most retaining ring pliers have exclusive air-cushioned handles.

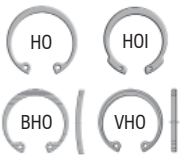


Inch Plier Dimensions



Internal Inch

For use with the following inch retaining rings:



INTERNAL STANDARD PLIERS								GENERAL DIMENSIONS (inches)						
Ring Series/Size Range				ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION				
HO-BHO-VHO		HOI								Clearance		Length Std. Tip	Width	
FROM	THRU	FROM	THRU	B	C									
-25	-31	-62	-	RPS-100	RPS-104	RPS-109	.15	.025	9/32	7/8	1-7/8	5-1/2	1-7/8	
-37	-56	-75	-100	RP-100	RP-104	RP-109	.15	.038	9/32	7/8	1-7/8	5-1/2	1-7/8	
-62	-102	-106	-137	RPL-100	RPL-104	RPL-109	.15	.047	9/32	7/8	1-7/8	5-1/2	1-7/8	
-106	-175	-143	-200	RP-300	RP-304	RP-309	.17	.070	11/32	7/8	2-1/8	6-7/16	2-1/4	
-181	-300	-206	-300	RP-500	RP-504	RP-509	.62	.090	7/16	1-1/8	2-3/4	9	2-1/4	

External Inch

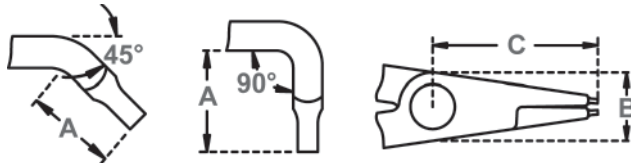
For use with the following inch retaining rings:



EXTERNAL STANDARD PLIERS										GENERAL DIMENSIONS (inches)							
Ring Series/Size Range								ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION			
SH-BSH-VSH		SHI		SHR		SHF								Clearance		Length Std. Tip	Width
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU	B	C								
-12	-	-	-	-	-	-	-	RP-12	RP-2124	RP-2129	.05	.023	7/32	1/2	1-1/8	5-5/16	1-1/2
-15	-	-	-	-	-	-	-	RP-15	RP-2154	RP-2159	.05	.023	7/32	1/2	1-1/8	5-5/17	1-1/2
-18	-23	-	-	-	-	-	-	RP-18	RP-2184	RP-2189	.05	.023	7/32	1/2	1-1/8	5-5/18	1-1/2
-25	-66	-50	-78	-39	-47	-	-	RP-200	RP-204	RP-209	.15	.038	9/32	1	2	5-1/2	2-1/2
-68	-87	-81	-100	-50	-66	-	-	RPL-200	RPL-204	RPL-209	.15	.047	9/32	1	2	5-1/2	2-1/2
-93	-143	-106	-200	-	-	-	-	RP-400	RP-404	RP-409	.19	.070	11/32	1	2-3/8	7	2-7/8
-150	-350	-215	-334	-	-	-	-	RP-600	RP-604	RP-609	.44	.115	7/16	1-1/4	3-1/16	9-1/8	4-1/4
-	-	-	-	-75	-98	-31	-75	RPA-2	RPA-245	RPA-290	.22	.070	9/16	1	2	7-1/4	2-1/2

External pliers RP-12, RP-15 & RP-18 are available in the standard version with shielded tips. The 45° and 90° versions are unshielded. Both are equipped with fixed stops to prevent overspreading of the external retaining rings during installation or removal.

Metric Plier Dimensions



Please wear protective eyewear while installing and removing retaining rings.

Internal Metric

For use with the following metric retaining rings:



METRIC INTERNAL PLIERS (All Dimensions in mm)						FULLY COMPRESSED (TIPS BUTTING) CONDITION					
Ring Series/Size Range		ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight Kg	Tip Dia.	Tip Length A	Tip Clearance		Overall Length Straight Tip	Max Width Across Handle
DHO (DIN 472), DHT (DIN 984)								B	C		
FROM	THRU										
-8	-9	RPI-0	RPI-045	RPI-090	0.07	0.9	8	19	48	140	45
-10	-17	RPI-1	RPI-145	RPI-190	0.07	1.3	8	19	48	140	45
-18	-30	RPI-2	RPI-245	RPI-290	0.1	1.8	10	25	55	165	60
-31	-83	RPI-3	RPI-345	RPI-390	0.23	2.3	14	30	70	230	65
-85	-100	RPI-4	RPI-445	RPI-490	0.42	3.2	20	45	70	300	55

External Metric

For use with the following metric retaining rings:



METRIC EXTERNAL PLIERS (All Dimensions in mm)						FREE (UNEXPANDED) CONDITION					
Ring Series/Size Range		ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight Kg	Tip Dia.	Tip Length A	Tip Clearance		Overall Length Straight	Max Width Across Handle
DSH (DIN 471), DST (DIN 983)								B	C		
FROM	THRU										
-3	-9	RPA-0	RPA-045	RPA-090	0.07	0.9	8	22	38	140	75
-10	-17	RPA-1	RPA-145	RPA-190	0.07	1.3	8	22	38	140	75
-18	-30	RPA-2	RPA-245	RPA-290	0.1	1.8	14	25	50	185	100
-31	-82	RPA-3	RPA-345	RPA-390	0.23	2.3	14	30	75	230	105
-85	-100	RPA-4	RPA-445	RPA-490	0.46	3.2	20	45	80	300	175



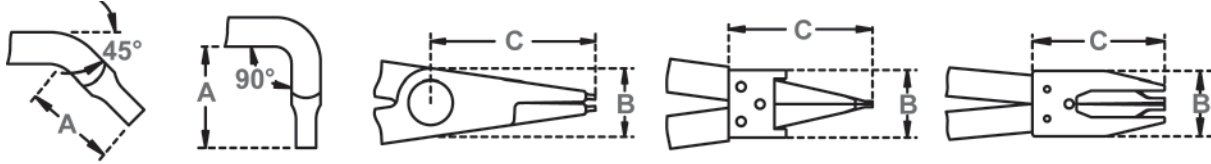
Ratchet & Grip Ring Pliers



Ratchet Retaining Ring Pliers

Assemble large retaining rings up to 10" in diameter with ease and comfort using Ratchet Pliers. Spring loaded mechanisms compress or expand large rings through gradual "steps." Plier locks at the desired size without continued pressure on the handles.

(Note: Ratchet Pliers do not include plier tips, which must be purchased separately.)

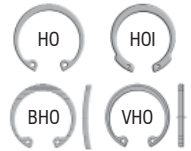


RATCHET PLIERS INTERNAL**										GENERAL DIMENSIONS (inches)						
Ring Series/Size Range				PLIERS W/OUT TIPS	STD. TIPS	45° TIPS	90° TIPS	TIP COLOR CODE	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION				
HO	BHO	VHO	HOI									Clearance		Length Std. Tip		
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU	B	C	B	C	Tip	Width			
-181	-237	-206	-250	RP-27R	RP-5021R	RP-5023R	RP-5024R	GOLD	.70	.093	15/32	1-3/8	3-13/32	10-5/8	3	
-244	-300	-262	-300	RP-27R	RP-5005R	RP-5007R	RP-5008R	BLACK	.70	.108	15/32	1-3/8	3-13/32	10-5/8	3	
-306	-400	-315	-400	RP-27R	RP-5009R	RP-5012R	RP-5013R	SILVER	.70	.120	15/32	1-3/8	3-13/32	10-5/8	3	
-306	-600	-315	-400	RP-900	RP-7801R	RP-7845R	RP-7890R	BLACK	1.9	.120	1/2	1-3/4	3-1/2	16	3-7/8	
-625	-1000	-	-	RP-1100	RP-71001R	RP-71451R	RP-71901R	BLACK	5.0	.150	1-5/32	1-3/4	4-5/16	28	6-1/2	

**PLIERS AND PLIER TIPS MUST BE ORDERED TOGETHER TO BE USABLE. TIPS ARE INTERCHANGEABLE FOR INTERNAL AND EXTERNAL USE.

Internal

For use with the following retaining rings:

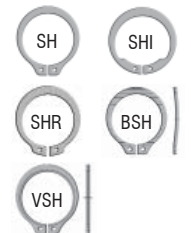


RATCHET PLIERS EXTERNAL**										GENERAL DIMENSIONS (inches)							
Ring Series/Size Range				PLIERS W/OUT TIPS	STD. TIPS	45° TIPS	90° TIPS	TIP COLOR CODE	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION					
SH	BSH	VSH	SHI									SHR	Clearance		Length Std. Tip		
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU	B	C	B	C	Tip	Width				
-	-	-	-	-106	-137	RP-28R	RP-5021R	RP-5023R	RP-5024R	GOLD	.70	.093	15/32	1-3/8	3-3/8	10-5/8	4-11/32
-150	-375	-215	-325	-	-	RP-28R	RP-5009R	RP-5012R	RP-5013R	SILVER	.70	.120	15/32	1-3/8	3-3/8	10-5/8	4-11/32
-	-	-	-	-150	-175	RP-1000	RP-8002R	RP-8452R	RP-8902R	BLACK	1.9	.108	5/8	2-1/2	3-5/8	14-1/2	13
-354	-650	-350	-393	-193	-200	RP-1000	RP-7801R	RP-7845R	RP-7890R	BLACK	1.9	.120	5/8	2-1/2	3-5/8	14-1/2	13
-675	-950	-	-	-	-	RP-1200	RP-68001R	RP-68451R	RP-68901R	BLACK	2.2	.170	1-5/32	2-1/2	4-7/8	18-1/4	14

**PLIERS AND PLIER TIPS MUST BE ORDERED TOGETHER TO BE USABLE. TIPS ARE INTERCHANGEABLE FOR INTERNAL AND EXTERNAL USE.

External

For use with the following retaining rings:



Grip Ring Retaining Ring Pliers

Grip Ring Pliers are designed for SHF & DSF external (shaft) friction rings. The pliers are made of forged Chrome Vanadium steel with non-slip solid tips, and the handles have a non-slip plastic coating.

Please wear protective eyewear while installing and removing retaining rings.

HEAVY DUTY PLIERS - EXTERNAL (Inch & Metric)				
Ring Series/Size Range				ROTOR CLIP PLIERS
SHF (in.)		DSF (mm)		
FROM	THRU	FROM	THRU	
-6	-9	-1.5	-4	RPN-G0
-12	-15	-4	-7	RPN-G1
-18	-25	-5	-13	RPN-G2
-31	-75	-14	-18	RPN-G3

External

For use with the following retaining rings:

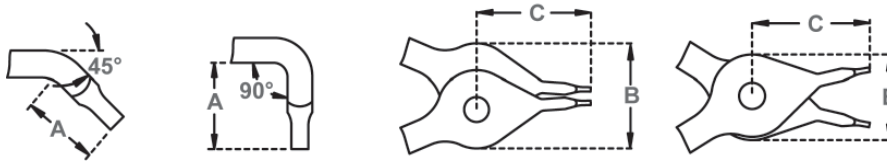




Convertible & Heavy-Duty Pliers

Convertible Retaining Ring Pliers

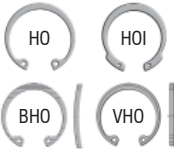
Convert quickly and easily from internal to external pliers and back again. This two-in-one capability is cost effective and ideal for handling a variety of applications with a minimum number of tools. Simply move the screw to the other hole and tighten with finger pressure to convert quickly to an internal/external plier.



Please wear protective eyewear while installing and removing retaining rings.

Internal

For use with the following retaining rings:



CONVERTIBLE PLIERS, INTERNAL RING SERIES									GENERAL DIMENSIONS (inches)					
Ring Series/Size Range				ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION				
HO-BHO-VHO		HOI								Clearance		Length Std. Tip		Width
FROM	THRU	FROM	THRU				B	C						
-37	-43	-75	-100	RP-120	RP-124	RP-129	.19	.038	9/32	1-3/16	1-5/8	5-5/8	1-3/4	
-45	-102	-106	-137	RP-320	RP-324	RP-329	.19	.047	9/32	1-3/16	1-5/8	5-5/8	1-3/4	
-106	-175	-143	-200	RP-340	RP-344	RP-349	.45	.070	11/32	1-7/16	1-7/8	7-7/8	3-5/16	
-181	-206	-206	-212	RP-560	RP-564	RP-569	.55	.090	5/8	1-3/4	3	9-1/4	4-1/2	

External

For use with the following retaining rings:



CONVERTIBLE PLIERS, EXTERNAL RING SERIES									GENERAL DIMENSIONS (inches)								
Ring Series/Size Range								ROTOR CLIP PLIERS	45° TIP PLIERS	90° TIP PLIERS	Weight lbs.	Tip Dia.	Tip Length A	CLOSED POSITION			
SH-BSH-VSH		SHI		SHR		SHF								Clearance		Length	
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU			B	C						
-25	-60	-50	-78	-39	-47	-12	-25	RP-120	RP-124	RP-129	.19	.038	9/32	1-3/8	1-5/8	5-5/8	2-9/16
-68	-87	-81	-100	-50	-66	-31	-37	RP-320	RP-324	RP-329	.19	.047	9/32	1-3/8	1-5/8	5-5/8	2-9/16
-93	-143	-106	-200	-75	-98	-43	-75	RP-340	RP-344	RP-349	.45	.070	11/32	1-11/16	1-7/8	7-7/8	3-15/16
-150	-200	-	-	-	-	-	-	RP-560	RP-564	RP-569	.55	.090	5/8	1-7/8	3	9-1/4	4-1/2

Heavy-Duty Retaining Ring Pliers

Heavy-Duty Retaining Ring Pliers are designed to perform with excessive use - up to 10 times longer than standard retaining ring pliers. The pliers are made of forged Chrome Vanadium steel, and the handles have a non-slip plastic coating. They feature inserted tips of high density drawn spring wire and a precise, smooth operating screw joint. Large contact faces on the tips helps to eliminate distortion of the ring, and the slim head style allows for use in confined areas.



Internal

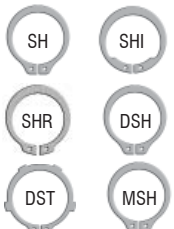
For use with the following retaining rings:



HEAVY DUTY PLIERS - INTERNAL (Inch & Metric)											ROTOR CLIP PLIERS	90° CLIP PLIERS	TIP DIAMETER
Ring Series/Size Range													
HO		HOI		DHO (DIN 472)		DHT (DIN 984)		MHO (ANSI Metric)					
(in.)		(in.)		(mm)		(mm)		(mm)				(mm)	
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU				
-37	-56	-75	-100	-8	-13	-	-	-8	-15	RPN-J0	RPN-J01	0.9	
-62	-102	-106	-137	-12	-25	-16	-25	-15	-26	RPN-J1	RPN-J11	1.2	
-106	-175	-143	-200	-19	-60	-19	-60	-27	-60	RPN-J2	RPN-J21	1.8	
-181	-300	-206	-300	-40	-100	-40	-100	-62	-100	RPN-J3	RPN-J31	2.3	

External

For use with the following retaining rings:



HEAVY DUTY PLIERS - EXTERNAL (Inch & Metric)											ROTOR CLIP PLIERS	90° CLIP PLIERS	TIP DIAMETER
Ring Series/Size Range													
SH		SHI		SHR		DSH (DIN 471) DST (DIN 983)		MSH (ANSI Metric)					
(in.)		(in.)		(in.)		(mm)		(mm)				(mm)	
FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU	FROM	THRU				
-25	-66	-50	-78	-39	-47	-3	-10	-4	-12	RPN-A0	RPN-A01	0.9	
-68	-87	-81	-100	-50	-66	-10	-25	-13	-23	RPN-A1	RPN-A11	1.2	
-93	-143	-106	-220	-75	-98	-19	-60	-24	-36	RPN-A2	RPN-A21	1.8	
-150	-350	-215	-350	-	-	-40	-100	-38	-90	RPN-A3	RPN-A31	2.3	