



## One Tool Does it All!

*Martin's* patented retaining ring pliers are capable of servicing both and external retaining rings. *Martin's* pliers offer superior performance with unique features:

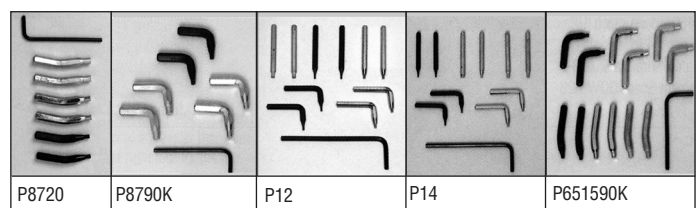
- Flexible internal and external design for quick and easy conversion, as well as unequalled performance.
- Precision broached pliers jaws (patented) providing greater accuracy, stability, and control of retaining rings by tip angle adjustability and positive tip alignment.
- A complete set of replaceable tips held in place with alloy steel set screws provides for each Martin plier to be used for a wide variety of ring sizes & locations.

These unique features and the superior performance of *Martin's* pliers have made them the standard excellence for retaining ring service tools.

Snap Ring Pliers					
Part Number	Description	Internal	External	Weight Ea. Lbs.	Std. Pkg. Qty.
P1421	Quick Switch Retaining Ring Pliers - Includes 5 pairs of color-coded interchangeable tips and Allen wrench in handy pouch. Tip sizes: Straight- .023", .036", .047" (0.6mm, 0.9mm, 1.2mm) Bent 90° - .036", .047" (0.9mm, 1.2mm)	1/4" - 1" 7mm - 26mm	1/8" - 1" 3mm - 26mm	0.3	6
P1434	Quick Switch Retaining Ring Pliers - Includes 5 pairs of color-coded interchangeable tips and Allen wrench in handy pouch. Tip sizes: Straight- .036", .047", .070" (0.9mm, 1.2mm, 1.8mm) Bent 90° - .036", .047" (0.9mm, 1.2mm)	3/8" - 2" 10mm - 51mm	1/4" - 2" 7mm - 51mm	0.6	6
P75	Retaining Ring Pliers - Includes 6 pairs of color-coded interchangeable tips and Allen wrench in handy pouch. Tip sizes: Bent 15° - .090", .108", .120" (2.3mm, 2.7mm, 3.0mm) Bent 90° - .090", .108", .120" (2.3mm, 2.7mm, 3.0mm).	1 1/16" - 4" 46mm - 102mm	1 1/2" - 4" 32mm - 102mm	1.18	6
P87	Retaining Ring Pliers - Includes 6 pairs of color-coded interchangeable tips and Allen wrench in handy pouch. Tip sizes: Bent 20° - .120", .150", .180" (3.0mm, 3.8mm, 4.6mm) Bent 90° - .120", .150", .180" (3.0mm, 2.8mm, 4.6mm).	3/8" - 2" 90mm - 175mm	1/4" - 2" 90mm - 175mm	3.05	6
Snap Ring Plier Sets					
PL1450K	2 Piece Snap Ring Plier Set w/ Molded Foam Tray Includes P1421 & P1434			0.0	1
PL1465K	3 Piece Snap Ring Plier Set w/ Plastic Box Includes P1421, P1434 & P75			0.0	1



Tip Kits			
Part No.	Description	Wt. Ea. Lbs.	Std. Pkg. Qty.
P12K	Tip Kit for P1221 & P1421		
P14K	Tip Kit for P1234 & PP1434		
P651590K	Tip Kit for P65 & P75		
P8720K	Tip Kit 20° for P87		
P8790K	Tip Kit 90° for P87		










# Gasket Scrapers Ret Rings



*Martin's* patented two composite ergonomically designed handle provides maximum comfort and secure grip. Capped end in direct contact with the shaft allows the user to strike the tool without handle damage. Blade extends throughout the handle. Hardened and tempered the entire length for maximum durability  
Set contains 1/2" x 10"; 3/4" x 10"; 1" x 10"; 1-1/2" x 10".

- Cleaning gasket material, adhesives and all general scraping in automotive and engineering applications.
- Used for scraping carbon from cylinder heads, pistons and other metal surfaces.

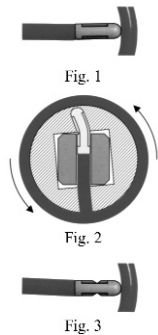
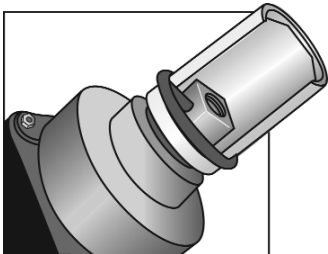
<b>GS4K</b>	Gasket Scraper Set 4 Pc. Heavy Duty Gasket Scraper Set Set		Wt. 2.5 lb.
GS50	1/2" x 10" Long Gasket Scraper	<ul style="list-style-type: none"> <li>• USA Alloy Steel</li> <li>• Heavy Duty 3/88 Shank</li> </ul>	
GS75	3/4" x 10" Long Gasket Scraper		
GS100	1" x 10" Long Gasket Scraper		
GS150	1-1/2" x 10" Long Gasket Scraper		

Part No.		Size	Weight	Std. Pkg. Qty.
GS50		1/2" x 10"	.57	6
GS75		3/4" x 10"	.57	6
GS100		1" x 10"	.58	6
GS150		1-1/2" x 10"	.59	6

## RET RING™ with Resin Crush Gauge

The new RET RING was designed with a New Resin CRUSH GAUGE on the resin pin, (Fig. 1) to indicate when a socket is excessively worn and should be replaced. This will alert the user when the socket is worn and unsafe to use.

The CRUSH GAUGE is on the rotational edge of the Resin insert and will show the mismatch of alignment holes (Fig. 2) occurring due to worn square drive surfaces and socket. If the CRUSH GAUGE shows compression on it's raised ridge to the flat surface of the Resin insert, (Fig. 3) it will warn the operator to replace the socket.




The resin insert is made from a high modulus material which allows the resin material to compress up to 50% of its original diameter while maintaining its tensile strength and holding ability without breaking. A steel insert would not allow any relative movement of the socket and tool anvil alignment holes before failure of the pin occurred.

Tool operators should be instructed to remove unsafe worn sockets from use.

Replacement of worn sockets is not only necessary for safe operations, but also to maintain maximum torque transmission from the impact tool to the socket. A worn and sloppy socket can cause losses of torque applied to the nut up to 50% or more.

There was no method with the steel insert to determine when sockets with excessive wear should not be used.

	Ret Rings									
	Inside Diameter	Drive	Wt. Ea. Lbs.	Part No.	Std. Pkg. Qty.	Inside Diameter	Drive	Wt. Ea. Lbs.	Part No.	Std. Pkg. Qty.
	1/4	3/4	1/2	M10005S	6	2 1/2	1	1/2	M10015S	6
	1 1/16	3/4	1/2	M10032S	6	2 1/4	1	1/2	M10016S	6
	1 1/8	3/4	1/2	M10034S	6	2 1/2	1	1/2	M10017S	6
	1 3/8	3/4	1/2	M18708S	6	2 3/8	1 1/2	1/2	M10019S	6
	2	3/4	1/2	M18710S	6	2 7/8	1 1/2	1/2	M10020S	6
	2 1/8	3/4	1/2	M18715S	6	3	1 1/2	1/2	M10021S	6
	2 1/4	3/4	1/2	M18716S	6	3 3/8	1 1/2	1/2	M10025S	6
	1 3/4	1	1/2	M10008S	6	3 7/8	1 1/2	1/2	M10030S	6
	2	1	1/2	M10010S	6	4 3/8	1 1/2	1/2	M10035S	6