

LARGE & EXTRA-LARGE RATCHETING PLIERS

FOR SAFE & EASY CONTROL OF 3" TO 10" RINGS

- Ratchet Lock mechanism for safe and easy control of large, heavy rings.
- Spring return.
- 0°, 45° and 90° offsets in .120", .150" and .170" tip diameters.
- Precision-ground tips mount directly to pliers for maximum stability.

LARGE PLIERS

For replacement tips, see page 68

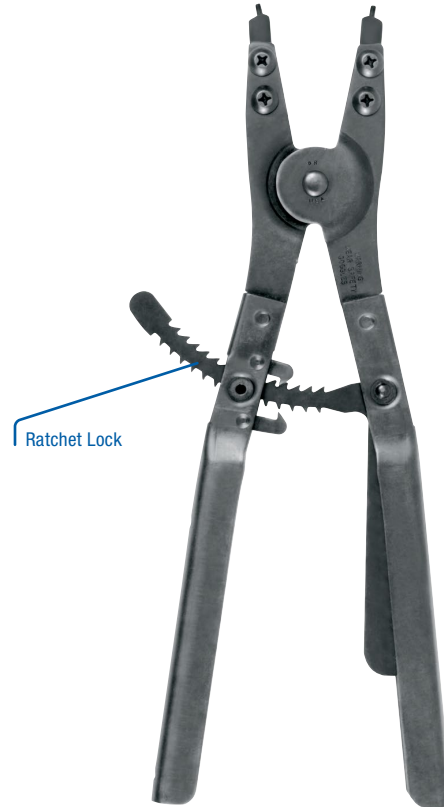
PART NO.	TIP DIA. (in.)	TIP ANGLE	TYPE		NOM. LENGTH (in.)
			Int. (Housing)	Ext. (Shaft)	
IR-120H	.120	0°	•		16
IR-12045H	.120	45°	•		16
IR-12090H	.120	90°	•		16
IR-120S	.120	0°		•	16
IR-12045S	.120	45°		•	16
IR-12090S	.120	90°		•	16

EXTRA-LARGE PLIERS

For replacement tips, see page 68

For shaft/bore diameter and ring series reference, see page 72

PART NO.	TIP DIA. (in.)	TIP ANGLE	TYPE		NOM. LENGTH (in.)
			Int. (Housing)	Ext. (Shaft)	
IR-150H	.150	0°	•		29
IR-15045H	.150	45°	•		29
IR-15090H	.150	90°	•		29
IR-170S	.170	0°		•	19
IR-17045S	.170	45°		•	19
IR-17090S	.170	90°		•	19



1. Loosen ring first with punch or similar tool to remove bond from rust and accumulated dirt.
2. Use largest tip pliers that will fit in holes of ring.
3. Push tips as far into ring holes as possible before squeezing handles.
4. Use minimal pressure needed to remove or install ring.
5. Never use your pliers for anything other than installing and removing retaining rings.



IR-120H



IR-120S



IR-150H



IR-170S

REPLACEABLE TIPS & TIP KITS

REPLACEABLE TIPS & TIP KITS

- Our proprietary manufacturing process results in a proven method of creating strong, long-lasting replaceable tips for Imperial® pliers.
- Precision-ground and hardened.
- Color-coded by size.
- Kits of common sizes are available.



Straight 0



45°



90°



IR-50H INTERNAL



IR-50S EXTERNAL

REPLACEABLE TIPS FOR IR-44H AND IR-44S

PART NO.	DESCRIPTION	TIP DIA. (in.)	COLOR	TIP ANGLE	MILBAR REF #
IR-380T	1 Pair	.038	Black	0°	4435R
IR-3845T	1 Pair	.038	Black	45°	4436R
IR-3890T	1 Pair	.038	Black	90°	4437R
IR-470T	1 Pair	.047	Silver	0°	4445R
IR-4715T	1 Pair	.047	Silver	15°	4448R
IR-4745T	1 Pair	.047	Silver	45°	4446R
IR-4790T	1 Pair	.047	Silver	90°	4447R
IR-700T	1 Pair	.070	Gold	0°	4463R
IR-8TK	Tip Kit, 8 Pair 1 pair each: .038" 0°, 45°, 90°; .047" 0°, 45°, 90°; .070" 0°, 15°				4496R
IR-184TK	Tip Kit, 8 Pair SAE/Metric 1 pair each: .038" 0°, 15°, 45°; .047" 0°, 15°, 90°; .070" 15°; .093" 0°				45R08
IR-182TK	Tip Kit, 4 Pair 1 pair each: .038" 90°; .047" 0°, 45°; .070" 0°				4481R
IR-183TK	Tip Kit, 8 Pair 2 pairs each: .038" 90°; .047" 0°, 45°; .070" 0°				4482R

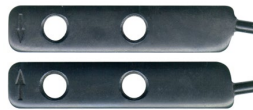
REPLACEABLE TIPS FOR IR-50H AND IR-50S

(Both pliers use same tip)

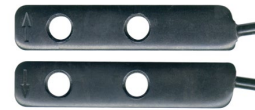
PART NO.	DESCRIPTION	TIP DIA. (in.)	COLOR	TIP ANGLE	MILBAR REF #
IR-593T	1 Pair	.093	Gold	0°	5021R
IR-9345T	1 Pair	.093	Gold	45°	5023R
IR-9390T	1 Pair	.093	Gold	90°	5024R
IR-1080T	1 Pair	.108	Black	0°	5005R
IR-10815T	1 Pair	.108	Black	15°	5006R
IR-10845T	1 Pair	.108	Black	45°	5007R
IR-10890T	1 Pair	.108	Black	90°	5008R
IR-5120T	1 Pair	.120	Silver	0°	5009R
IR-51215T	1 Pair	.120	Silver	15°	5011R
IR-51245T	1 Pair	.120	Silver	45°	5012R
IR-51290T	1 Pair	.120	Silver	90°	5013R
IR-LHS	1 Pair Horseshoe Lock Ring w/ screws				5036R
IR-5108TK	Tip Kit, 4 Pair w/ screws 1 pair each: .108" 0°, 15°, 45°, 90°				5002R
IR-5120TK	Tip Kit, 4 Pair w/ screws 1 pair each: .120" 0°, 15°, 45°, 90°				5003R
IR-5004TK	Tip Kit, 4 Pair w/ screws 1 pair each: .108" 15°, 45°; .120" 45°, 90°				5004R

REPLACEABLE TIPS FOR IR-120H, IR-120S, IR-150H AND IR-170S

PART NO.	DESCRIPTION	TIP DIA. (in.)	TIP ANGLE	MILBAR REF #
FOR MODEL IR-120H AND IR-120S PLIERS (both pliers use same tips)				
IR-120T	1 Pair w/ screws	.120	0°	7801R
IR-124T	1 Pair w/ screws	.120	45°	7845R
IR-129T	1 Pair w/ screws	.120	90°	7890R
FOR MODEL IR-150H PLIERS				
IR-150T	1 Pair w/ screws	.150	0°	71001R
IR-154T	1 Pair w/ screws	.150	45°	71451R
IR-159T	1 Pair w/ screws	.150	90°	71901R
FOR MODEL IR-170S PLIERS				
IR-170T	1 Pair w/ screws	.170	0°	68001R
IR-174T	1 Pair w/ screws	.170	45°	68451R
IR-179T	1 Pair w/ screws	.170	90°	68901R



IR-120H INTERNAL



IR-120S EXTERNAL



IR-150H INTERNAL



IR-170S EXTERNAL

RETAINING RING PLIERS REFERENCE GUIDE

PART NO.	DESCRIPTION	TIP DIA. (in.)	TIP ANGLE	RING TYPE		TIP STYLE		GRIPS	SPRING	STOP	RATCHET LOCK	MILBAR® REF#
				Int. (Housing)	Ext. (Shaft)	FIXED	REPLACE.					
CONVERTIBLE PLIERS												
IR-3818C	CAM-LOCK™ Convertible	.038	18°	•	•	•	•	•	•			120418R
IR-3890C	CAM-LOCK™ Convertible	.038	90°	•	•	•	•	•	•			120490R
IR-4718C	CAM-LOCK™ Convertible	.047	18°	•	•	•	•	•	•			320418R
IR-4790C	CAM-LOCK™ Convertible	.047	90°	•	•	•	•	•	•			320490R
IR-7018C	CAM-LOCK™ Convertible	.070	18°	•	•	•	•	•	•			340418R
IR-7090C	CAM-LOCK™ Convertible	.070	90°	•	•	•	•	•	•			340490R
IR-4CK	4-pc. CAM-LOCK™ Kit w/Storage Tray	.038, .070	18°, 90°	•	•	•	•	•	•			4304R
IR-6CK	6-pc. CAM-LOCK™ Kit w/Storage Case	.038, .047, .070	18°, 90°	•	•	•	•	•	•			4306R
IR-38Q	Qtr-Turn® Convertible	.038	0°	•	•	•	•	•	•			1202R
IR-3845Q	Qtr-Turn® Convertible	.038	45°	•	•	•	•	•	•			120245R
IR-3890Q	Qtr-Turn® Convertible	.038	90°	•	•	•	•	•	•			120290R
IR-47Q	Qtr-Turn® Convertible	.047	0°	•	•	•	•	•	•			3202R
IR-4745Q	Qtr-Turn® Convertible	.047	45°	•	•	•	•	•	•			320245R
IR-4790Q	Qtr-Turn® Convertible	.047	90°	•	•	•	•	•	•			320290R
IR-70Q	Qtr-Turn® Convertible	.070	0°	•	•	•	•	•	•			3402R
IR-7045Q	Qtr-Turn® Convertible	.070	45°	•	•	•	•	•	•			340245R
IR-7090Q	Qtr-Turn® Convertible	.070	90°	•	•	•	•	•	•			340290R
IR-90Q	Qtr-Turn® Convertible	.090	0°	•	•	•	•	•	•			5602R
IR-9045Q	Qtr-Turn® Convertible	.090	45°	•	•	•	•	•	•			560245R
IR-9090Q	Qtr-Turn® Convertible	.090	90°	•	•	•	•	•	•			560290R
IR-12QK	Qtr-Turn® 12-Pc. Kit (1 ea size) w/Storage Case.	.038, .047, .070, .090	0°, 45°, 90°	•	•	•	•	•	•			1225R
IR-6QK	Qtr-Turn® 6-Pc. Kit w/Storage Case	.038, .047, .070	0°, 90°	•	•	•	•	•	•			625R
IR-38	Standard Convertible (NSN 5120-00-089-0874)	.038	0°	•	•	•	•	•	•			12R
IR-3845	Standard Convertible (NSN 5120-00-930-9186)	.038	45°	•	•	•	•	•	•			1245R
IR-3890	Standard Convertible	.038	90°	•	•	•	•	•	•			1290R
IR-47	Standard Convertible	.047	0°	•	•	•	•	•	•			32R
IR-4745	Standard Convertible	.047	45°	•	•	•	•	•	•			3245R
IR-4790	Standard Convertible	.047	90°	•	•	•	•	•	•			3290R
IR-70	Standard Convertible	.070	0°	•	•	•	•	•	•			34R
IR-7045	Standard Convertible	.070	45°	•	•	•	•	•	•			3445R
IR-7090	Standard Convertible	.070	90°	•	•	•	•	•	•			3490R
IR-90	Standard Convertible	.090	0°	•	•	•	•	•	•			56R
IR-9045	Standard Convertible	.090	45°	•	•	•	•	•	•			5645R
IR-9090	Standard Convertible	.090	90°	•	•	•	•	•	•			5690R
IR-12K	12-Pc. Professional Std. Conv. Kit w/Storage Case	.038, .047, .070, .090	0°, 45°, 90°	•	•	•	•	•	•			43R
IR-045K	6-Pc. Std. Conv. Kit w/Custom Molded Storage Case	.038, .047, .070	0°, 45°	•	•	•	•	•	•			4645R
IR-090K	6-Pc. Std. Conv. Kit w/Custom Molded Storage Case	.038, .047, .070	0°, 90°	•	•	•	•	•	•			4690R
IR-47700K	2-Pc. Std. Conv. Kit in Plastic Case	.047, .070	0°	•	•	•	•	•	•			42R
IR-477045K	2-Pc. Std. Conv. Kit in Plastic Case	.047, .070	45°	•	•	•	•	•	•			4245R
IR-477090K	2-Pc. Std. Conv. Kit in Plastic Case	.047, .070	90°	•	•	•	•	•	•			4290R
IR-6CKCASE	Custom Molded Storage Case for 6-Pc. CAM-LOCK™ Kit											4601R
IR-12KCASE	Custom Molded Storage Case for 12-Pc. Standard Kit											4301R
IR-12QKCASE	Custom Molded Storage Case for 12-Pc. Qtr-Turn® Kit											4301R
IR-6QKCASE	Custom Molded Storage Case for 6-Pc. Qtr-Turn® Kit											4601R
IR-6KCASE	Custom Molded Storage Case for 6-Pc. Standard Kit											4601R
REPLACEABLE TIP PLIERS												
IR-120S	Large, Ratchet Lock	.120	0°	•	•	•	•	•	•			8R
IR-120H	Large, Ratchet Lock	.120	0°	•	•	•	•	•	•			7R
IR-12045S	Large, Ratchet Lock	.120	45°	•	•	•	•	•	•			845R
IR-12045H	Large, Ratchet Lock	.120	45°	•	•	•	•	•	•			745R
IR-12090S	Large, Ratchet Lock	.120	90°	•	•	•	•	•	•			890R
IR-12090H	Large, Ratchet Lock	.120	90°	•	•	•	•	•	•			790R
IR-150H	Extra Large, Ratchet Lock	.150	0°	•	•	•	•	•	•			71R
IR-15045H	Extra Large, Ratchet Lock	.150	45°	•	•	•	•	•	•			7145R
IR-15090H	Extra Large, Ratchet Lock	.150	90°	•	•	•	•	•	•			7190R
IR-170S	Extra Large, Ratchet Lock	.170	0°	•	•	•	•	•	•			68R
IR-17045S	Extra Large, Ratchet Lock	.170	45°	•	•	•	•	•	•			6845R
IR-17090S	Extra Large, Ratchet Lock	.170	90°	•	•	•	•	•	•			6890R
IR-44S	External Pliers, Replaceable Tip	.038, .047, .070	0°, 45°, 90°	•	•	•	•	•	•			4460R
IR-44H	Internal Pliers, Replaceable Tip	.038, .047, .070	0°, 45°, 90°	•	•	•	•	•	•			4450R
IR-44K	Replaceable Tip Retaining Ring Pliers, Kit (2 pr. pliers, tip kit)	.038, .047, .070	0°, 15°, 45°, 90°	•	•	•	•	•	•			4440R
IR-44MK	SAE & Metric Kit, Hang Card (2 pr. pliers, tip kit)	.038, .047, .070, .093	0°, 15°, 45°, 90°	•	•	•	•	•	•			44R
IR-50S	Heavy Duty External Pliers			•	•	•	•	•	•			28R08
IR-50H	Heavy Duty Internal Pliers			•	•	•	•	•	•			27R08
IR-50K	Heavy Duty Retaining Ring Pliers (2 pr. pliers, tip kit & storage case)	.108, .120	0°, 15°, 45°, 90°	•	•	•	•	•	•			50R
INDUSTRIAL PLIERS												
IR-230S	Mini Industrial, Shielded (NSN 5120-00-595-9550)	.023	0°	•	•	•	•	•	•			0012R
IR-0015R	Mini Industrial, Shielded (NSN 5120-00-595-9548)	.023	0°	•	•	•	•	•	•			0015R
IR-0018R	Mini Industrial, Shielded (NSN 5120-00-288-9711)	.023	0°	•	•	•	•	•	•			0018R
IR-2124R	Mini Industrial (NSN 5120-00-892-4890)	.023	45°	•	•	•	•	•	•			2124R
IR-2154R	Mini Industrial	.023	45°	•	•	•	•	•	•			2154R

SHAFT/BORE DIAMETER & RING SERIES REFERENCE

FIXED TIP PLIERS																	
	PLIERS PART NO. / TIP ANGLE			TIP SIZE (in.)	SHAFT DIAMETER (in.)	HOUSING/BORE DIAMETER (in.)	RETAINING RING MFG / RING SERIES										
	0°	45°	90°				ROTOR CLIP®	TRUARC®	DASH NO.								
MINI	IR-230S	IR-2124R	IR-2129R	.023	.125		SH, BSH, VSH	5100, 5101, 5102	-12								
	IR-0015R	IR-2154R	IR-2159R		.156				-15								
	IR-0018R	IR-2184R	IR-2189R		.188 to .236				-18 thru -31								
	R-250H	IR-2545H	IR-2590H	.025		.250 to .312	HO, BHO, VHO	N5000, N5001, N5002	-25 thru -31								
INDUSTRIAL	IR-380H	IR-3845H	IR-3890H	.038		.375 to 1.023	HO, BHO, VHO	N5000, N5001, N5002	-37 thru -102								
	IR-380S	IR-3845S	IR-3890S	.038	.250 to .875		SH, BSH, VSH	5100, 5101, 5102	-25 thru -87								
					.500 to 1.0				SHI	5108	-50 thru -100						
					.125 to .250				SHF	5555	-12 thru -25						
	IR-470H	IR-4745H		.047		.625 - 1.023		HO, BHO	N5000, N5001	-62 thru -102							
						1 - 1.023				VHO	N5002	-100 thru -102					
						1.062 - 1.375				HOI	5008	-106 thru -137					
	IR-470S	IR-4745S	IR-4790S	.047		.687 - .875		SH, BSH	5100, 5101	-68 thru -87							
						.812 - 1				SHI	5108	-81 thru 100					
										SHF	5555	-.31, -.37					
	IR-700H	IR-7045H	IR-7090H	.070		1.062 to 1.750		HO, BHO, VHO	N5000, N5001, N5002	-106 thru -175							
						1.437 to 2.000				HOI	5008	-143 thru -200					
	IR-700S	IR-7045S	IR-7090S	.070		.938 to 1.438		SH, BSH, VSH	5100, 5101, 5102	-93 thru -143							
						1.062 to 2.000				SHI	5108	-106 thru -200					
.312 to .625						SHF				5555	-31 thru -62						
IR-900H	IR-9045H	IR-9090H	.090		1.812 to 3.500		HO, VHO	N5000, N5002	-181 thru -350								
					2 to 3				HOI	5008	-200 thru -300						
IR-1150S		IR-11590S	.115		1.500 to 3.500		SH, BSH, VSH	5100, 5101, 5102	-150 thru -350								
					2.125 to 3.25				SHI	5108	-215 thru -325						
					.750				SHF	5555	-75						
UTILITY	IR-250HU	IR-2545HU	IR-2590HU	.025		.250 to .312	HO, BHO, VHO	N5000, N5001, N5002	-25 thru -31								
	IR-380HU	IR-3845HU	IR-3890HU	.038		.375 to 1.023	HO, BHO, VHO	N5000, N5001, N5002	-37 thru -102								
						.750 to 1.375			HOI	5008	-75 thru -137						
									SH, BSH, VSH	5100, 5101, 5102	-25 thru -87						
	IR-380SU	IR-3845SU	IR-3890SU	.038		.250 to .875		SHI	5108	-50 thru -100							
						.500 to 1.0				SHF	5555	-12 thru -25					
						.125 to .250											
	IR-470HU	IR-4745HU	IR-4790HU	.047		.625 - 1.023		HO, BHO	N5000, N5001	-62 thru -102							
						1 - 1.023				VHO	N5002	-100 thru -102					
						1.062 - 1.375				HOI	5008	-106 thru -137					
	IR-470SU	IR-4745SU	IR-4790SU	.047		.687 - .875		SH, BSH	5100, 5101	-68 thru -87							
						.812 - 1				SHI	5108	-81 thru 100					
						.312, .375				SHF	5555	-.31, -.37					
	IR-700HU	IR-7045HU	IR-7090HU	.070		1.062 to 1.750		HO, BHO, VHO	N5000, N5001, N5002	-106 thru -175							
1.437 to 2.000						HOI				5008	-143 thru -200						
IR-700SU	IR-7045SU	IR-7090SU	.070		.938 to 1.438		SH, BSH, VSH	5100, 5101, 5102	-93 thru -143								
					1.062 to 2.000				SHI	5108	-106 thru -200						
					.312 to .625				SHF	5555	-37 thru -62						
IR-90HU		IR-9090HU	.090		1.812 to 3.500		HO, VHO	N5000, N5002	-181 thru -350								
					2 to 3				HOI	5008	-200 thru -300						
IR-1150SU	IR-11545SU		.115		1.500 to 3.500		SH, BSH, VSH	5100, 5101, 5102	-150 thru -350								
					2.125 to 3.25				SHI	5108	-215 thru -325						
					.750				SHF	5555	-75						
REPLACEABLE TIP PLIERS																	
SMALL	IR-44K KIT	IR-44H				.375 to 1.750	HO, BHO, VHO	N5000, N5001, N5002	-37 thru -175								
						.750 to 2			HOI	5008	-75 thru -200						
HEAVY DUTY	IR-50K KIT	IR-50H		.108		2.438 to 3.125	HO, VHO	N5000, N5002	-244 thru -312								
						2.625 to 3			HOI	5008	-262 thru -300						
						3.156 to 4.250			HO, VHO	N5000, N5002	-315 thru -425						
						3.156 to 4			HOI	5008	-315 thru -400						
EXTRA LARGE	IR-120H	IR-12045H	IR-12090H	.120			SH	5100	-150 thru -350								
									IR-120S	IR-12045S	IR-12090S	.120			BSH	5101	-150 thru -175
															SHI	5108	-215 thru -350
									IR-150H	IR-15045H	IR-15090H	.150				SH	5100
SHI	5108	-350 thru -393															
LARGE	IR-170S	IR-17045S	IR-17090S	.170		6.750 to 9.500	SH, VSH	5100, 5102	-675 thru -950								

*Rotor Clip® and Truarc® are registered trademarks of Rotor Clip Company, Inc