

AIR CONDITIONING,
REFRIGERATION,
HVAC/R
SERVICE TOOLS
AND EQUIPMENT



Mastercool[®] Inc.
"World Class Quality"



For over 30 years Mastercool has been supplying professional quality air conditioning service tools and equipment. As one of the fastest growing companies in this market, our primary goal is to drive New Product Innovation and Technologies to make the every day work of the HVAC/R technician easier!

With our never-ending focus on innovation and new technology, Mastercool has been awarded many patents worldwide. Our products are currently being distributed in over 76 countries and growing everyday!



Corporate Office Manufacturing and USA Warehouse



European Sales Office and Warehouse



4-Way Digital Manifold + Data Logger	4	Hand-Held Diagnostic Tools	36
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- Record and store up to 24 hours of data and up to 15 jobs
- Large Easy to Read LCD
- Displays Pressures, Saturated, Actual, Superheat and Subcool Temperatures
- Over 60 Refrigerants
- Clamp-on Thermocouple Connector displays Actual Temperature and Automatically Calculates Superheat or Subcool Temperature
- Vacuum Sensor Cable displays Deep Vacuum
- Ball valve design includes 3/8" bore through the block for increased flow

MASTERCool'S 4-WAY DIGITAL MANIFOLD RECORDING FUNCTION:

- Records and stores data directly into the manifold memory
- Records up to 24 hours of data or 15 jobs before having to download
- Downloads data at a rate 115 kb per second (24 hrs of data = approx. 15 min of download time)
- Uses Mastercool's Data Logger Application to easily view data

MASTERCool DATA LOGGER APPLICATION

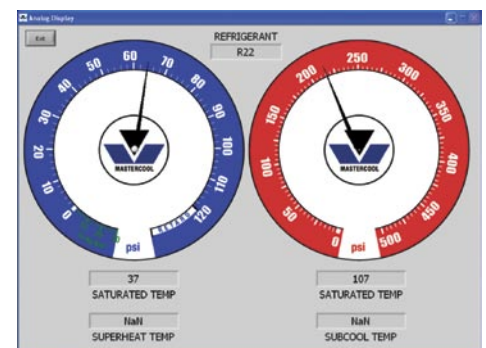
- Display data in "real time" using a USB connection, computer and software
- Platform: Windows 2000, XP and Windows Vista
- Log Customer Name, Date and Technician's Name
- Recorder/Cursor Function Features
 - (1) Recorder TIME command. Record in intervals of 5, 15 min, 1, 4, 8 and 24 hrs.
 - (2) Recorder ON/OFF command.
 - (3) ZOOM: NORMAL, 5X or 10X. Use the zoom option to view specific data points of interest.
 - (4) The Time-Line measures the selected recording time. Moving the cursor along the timeline easily displays specific plot points.
- The Data Logger program uses the Units information (Kg/cm², BAR, MPa, PSI, °C, and °F) contained in each data bit on the manifold and displays these units on the screen.
- Display Function Features
 - (1) Display ALL command. This enables all parameters of the Digital Manifold to be displayed simultaneously. As the line functions propagate across the screen, the "real-time" data will also be displayed digitally.
 - (2) Monitor specific functions of interest. The Data Logger continues to record all the functions in the background, regardless of how many individual functions are being displayed.
 - (3) Display DEEP VACUUM ONLY command. This enables only the deep vacuum readings to be displayed on the screen.
 - (4) View ANALOG GAUGES function enables the user to represent the Digital Manifold data in the form of high and low pressure analog gauges.



TEMPERATURE/PRESSURE SCREEN



VACUUM SCREEN



ANALOG GAUGE SCREEN

SPECIFICATIONS:

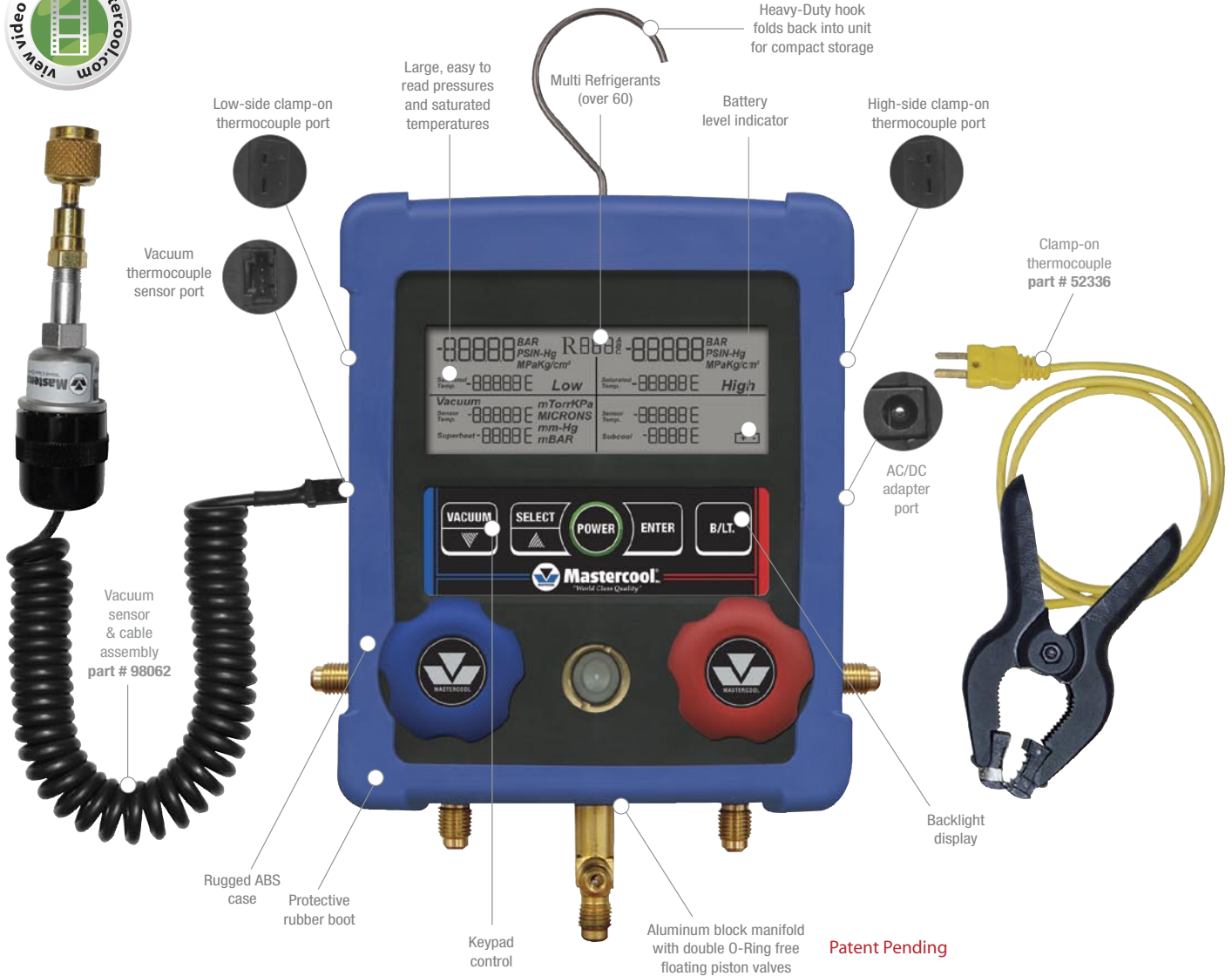
- Class 1.0 standard gauge reading
- Pressure Display: PSI, INHg, Bar, MPa, Kg/cm²
- Temperature Display: °F or °C
- Deep Vacuum Display: Micron, mBar, KPa, Pa, Torr, mTorr, mmHg
- Sensing Resolution: 1 psi (.07 Bar, .007 MPa, .07 Kg/cm²)
- Sensing Accuracy: ±1 psi or 1% of reading (whichever is greater)
- Working Pressure: 0 to 750 psi (52 Bar, 5 MPa, 52 Kg/cm²) (does not display 0-5 psi)
- Proof Pressure: 1000 psi (70 Bar, 7 MPa, 70 Kg/cm²) (Tolerable pressure without internal damage)
- Refrigerant Temperature Range: -40 to 200°F (-40 to 93°C)
- Operating Temperature: 32 to 122°F (0 to 45°C)
- Temperature Accuracy: ±1°F (±0.5°C) between 32 to 160°F (0 to 71°C)
- Storage Temperature: 10 to 120°F (-12 to 49°C)
- Connections: 1/4" M-Flare
- Power: 9V DC battery with optional AC/DC adapter
- Battery Life: 30-36 hours pressure and temperature mode only (continuous use)
25-30 hours vacuum or backlight mode (continuous use)
- Auto-Off: 15 min. with disabling capability



Mastercool[®]
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2-WAY DIGITAL MANIFOLD

Mastercool introduces the most advanced and user friendly Digital Manifold on the market today! This manifold offers a large easy to read LCD that displays Pressures, Saturated Temperatures, Actual Temperatures, Superheat and Subcooling temperatures for over 60 refrigerants. When used with the clamp-on thermocouple connector it will display the actual temperature and automatically calculate the superheat or subcool temperature. When the vacuum sensor cable is attached to the manifold it will display deep vacuum. To insure lasting performance and durability the manifold case is constructed of ABS material and protected by a rugged rubber boot. The technician now has a fully functional manifold with the intelligence to quickly access and deliver the accurate information needed to do the job right!



SPECIFICATIONS:

- Pressure Display: PSI, INHg, Bar, MPa, Kg/cm²
- Temperature Display: °F or °C
- Deep Vacuum Display: Micron, mBar, KPa, mmHg, Pa, Torr, mTorr
- Sensing Resolution: 1 psi (.07 Bar, .007 MPa, .07 Kg/cm²)
- Sensing Accuracy: ±1 psi or 1% of reading (whichever is greater)
- Working Pressure: 0 to 750 psi (52 Bar, 5 MPa, 52 Kg/cm²)
- Proof Pressure: 1000 psi (70 Bar, 7 MPa, 70 Kg/cm²) (Tolerable pressure without internal damage)
- Refrigerant Temperature Range: -40 to 200°F (-40 to 93°C)
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- Connections: 1/4" M-Flare
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- Battery Life: 30-36 hours pressure and temperature mode only (continuous use)
25-30 hours vacuum and backlight mode (continuous use)
- Auto-Off: 15 min. with disabling capability

All the Information you Need,
in the **PALM OF YOUR HAND!**



SUPERHEAT & SUBCOOL CALCULATIONS



78 PSI	R 11	290 PSI
Saturated Temp. 19 IF	Low	Saturated Temp. 137F
Sensor Temp. 49F		
Superheat 14 IF		

Clamp-on thermocouple provides fast and accurate superheat and subcool readings.



Includes 63 Refrigerants: R11, R12, R13, R21, R22, R23, R32, R113, R114, R115, R116, R123, R124, R125, R134, R134a, R141B, R142B, R143, R143A, R152A, R176, R218, R290, R401A, R401B, R401C, R402A, R402B, R403A, R403B, R404A, R405A, R406A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R410B, R411A, R411B, R412A, R413A, R414A, R414B, R417A (ISCEON M059), R422A (ISCEON M079), R422D (ISCEON M029), R427A (FX100), R501, R502, R503, R504, R507A, R508B, R509A, R600, R600A, R601, R601A

PRECISE VACUUM READINGS



Vacuum	120 MICRONS
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Vacuum thermocouple sensor provides accurate vacuum reading.

Model #	Digital Manifold	Hoses	Vacuum Sensor & Cable (98062)	Clamp-On Thermocouple (52336)
99103-A	✓	NA	NA	NA
99103-A-2	✓	NA	NA	✓ (2)
99661-A	✓*	3-60" standard hoses	✓	✓
99661-AR	✓*	3-60" manual shut-off valve hoses	✓	✓
99663-R	✓*	3-60" standard hoses	NA	✓
99663-AR	✓*	3-60" manual shut-off valve hoses	NA	✓
99772-A	✓*	3-72" standard hoses	✓	✓
99772-AR	✓*	3-72" manual shut-off valve hoses	✓	✓
99773-R	✓*	3-72" standard hoses	NA	✓
99773-AR	✓*	3-72" manual shut-off valve hoses	NA	✓

* includes blow molded plastic box

OPTIONAL ACCESSORIES FOR 2-WAY & 4-WAY DIGITAL MANIFOLDS

Part #	Description
52336	Clamp-on Thermocouple (extends 3 ft)
52337	Clamp-on Thermocouple (extends 10 ft)
90411	1/4 x 5/16 R410A Ball Valve Adapter
98062	Vacuum Sensor and Cable Assembly (extends 6.5 ft)
99332	1/8 NPT x 1/4-FL Flare Swivel Adapter
99333	1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee
99334-110	110V AC/DC Adapter
99334-220	220V AC/DC Adapter (schuko plug)



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ALUMINUM 3/8" BORE 4-WAY BALL VALVE MANIFOLD GAUGE SETS WITH HOSES



96361

4-WAY MANIFOLDS WITH GAUGES ONLY

96203	R410A, R22, & R404A (2 1/2" Gauges)
96303	R410A, R22, & R404A (3 1/8" Gauges)
95103	R12, R22 & R502 (3 1/8" Gauges)
96503	R404A, R407A, R507A & R134a (3 1/8") Gauges

3/8" SAE REPLACEMENT BLACK HOSE

94136	Without Ball Valve (36")
94160	Without Ball Valve (60")
94172	Without Ball Valve (72")
94236	With Ball Valve (36")
94260	With Ball Valve (60")
94272	With Ball Valve (72")



Exclusive 3/8" Ball Valve Design

- Full 3/8" bore all the way through the block increases flow over the standard block designs.
- Ball valve rotates 90° between two teflon washers requiring little effort to turn, even under pressure.
- Opens and closes quickly with only a quarter turn.
- Visual knob position quickly indicates if valves are opened or closed.
- Gauges offered in a wide variety of selections.
- Color Coordinated Gauges for multi-refrigerant recognition.
- Includes three 1/4" SAE B-R-Y nylon barrier ball valve hoses with manual shut-off valves and one 3/8" SAE Black Vacuum Hose in plastic box.



86772-PB

R410A, R22 & R404A

HOSE LENGTH	2 1/2" GAUGES (PSI/°F)	3 1/8" GAUGES (PSI/°F)
36"	96236	96336
60"	96261	96361 POPULAR
72"	96272	96372

	R12, R22 & R502	R404A, R407C, R507A & R134a
HOSE LENGTH	3 1/8" GAUGES (PSI/°F)	3 1/8" GAUGES (PSI/BAR/°F)
36"	96436	96536
60"	96461	96561
72"	96472	96572

* All gauges above are available with shock resistant gauge protectors – to order, add -G after the Part#

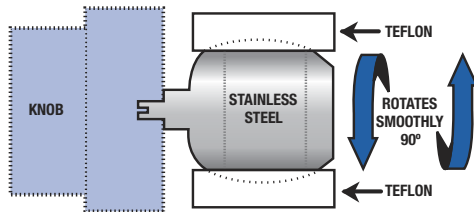
REPLACEMENT GAUGES

2 1/2" Gauge Sets	
57501	R410A, R22, & R404A (PSI-°F) Low-Side (2 1/2")
57803	R410A, R22, & R404A (PSI-°F) High-Side (2 1/2")
3 1/8" Gauge Sets	
58501	R410A, R22, & R404A (PSI-°F) Low-Side (3 1/8")
58803	R410A, R22, & R404A (PSI-°F) High-Side (3 1/8")
91250	R12, R22 & R502 (PSI-°F) Low-Side (3 1/8")
91500	R12, R22 & R502 (PSI-°F) High-Side (3 1/8")
54350	R404A, R407A, R507A & R134a (PSI-°F) Low-Side (3 1/8")
54500	R404A, R407A, R507A & R134a (PSI-°F) High-Side (3 1/8")

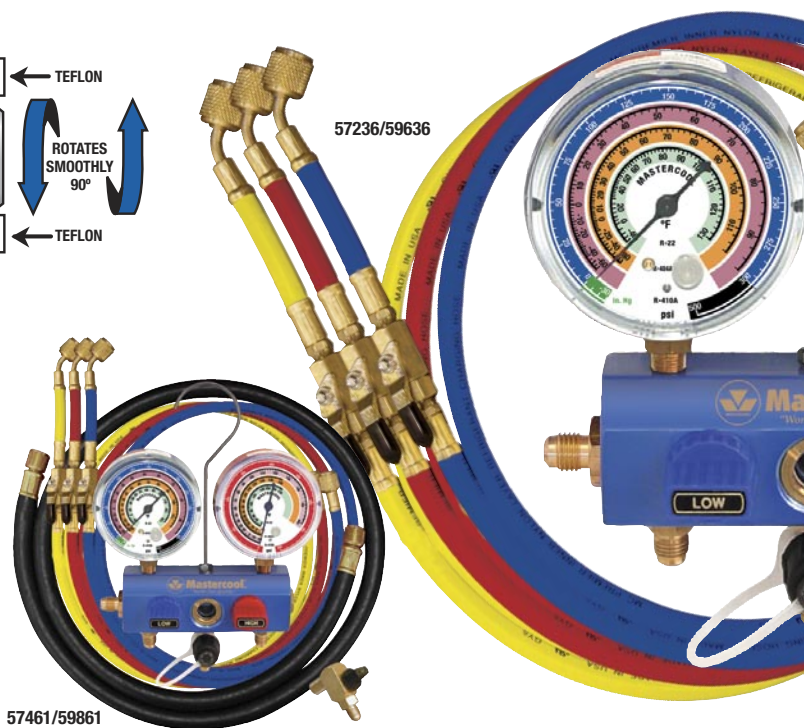
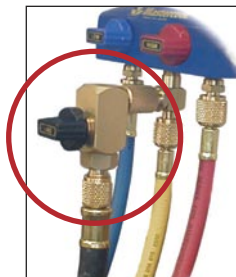
ALUMINUM 3/8" BORE 2-3 WAY BALL VALVE MANIFOLD GAUGE SETS WITH HOSES

Exclusive 3/8" Ball Valve Design

- Full 3/8" bore all the way through the block increases flow over the standard block designs.
- Ball valve rotates 90° between two teflon washers requiring little effort to turn, even under pressure.
- Opens and closes quickly with only a quarter turn.
- Visual knob position quickly indicates if valves are opened or closed.
- Gauges offered in a wide variety of selections.
- Color Coordinated Gauges for multi-refrigerant recognition.
- Includes nylon barrier ball valve hoses with manual shut-off valves in a plastic box.



* Optional 3/8" hose with special 90° 3/8" swivel ball valve for vacuum line makes 2-Way into 3-Way full control gauge set.



R410A, R22 & R404A BALL VALVE MANIFOLD SET W/ STANDARD 2 1/2" GAUGES

Hose Length	2-Way 3/8" Ball Valve Manifold w/ (3) 1/4" SAE Ball Valve Hoses with Manual Shut-Off Valves	3-Way 3/8" Ball Valve Manifold w/ (3) 1/4" SAE Ball Valve Hoses with Manual Shut-Off Valves, (1) 3/8" SAE Vacuum Hose & 90° Swivel Vacuum Ball Valve
36"	57236	57436
60"	57261	57461
72"	57272	57472

R410A, R22 & R404A BALL VALVE MANIFOLD SET W/ LARGE 3 1/8" GAUGES

Hose Length	2-Way 3/8" Ball Valve Manifold w/ (3) 1/4" SAE Hoses with Manual Ball Valves	3-Way 3/8" Ball Valve Manifold w/ (3) 1/4" SAE Hoses w/Manual Ball Valves, (1) 3/8" SAE Vacuum Hose & 90° Swivel Vacuum Ball Valve
36"	59636	59836
60"	59661	59861
72"	59672	59872

POPULAR

BALL VALVE MANIFOLD WITH GAUGES ONLY

58103	R410A, R22 & R404A (2 1/2" Gauges)
58203	R410A, R22 & R404A (3 1/8" Gauges)

REPLACEMENT PARTS

90530	Ball Valve Only (3/8" FML x 3/8" FFL 90°)
98225	Ball Valve Repair Kit
89772-PB	Plastic Carrying Case

REPLACEMENT GAUGES

57501	R410A, R22, & R404A (PSI-°F) Low-Side (2 1/2")
57803	R410A, R22, & R404A (PSI-°F) High-Side (2 1/2")
58501	R410A, R22, & R404A (PSI-°F) Low-Side (3 1/8")
58803	R410A, R22, & R404A (PSI-°F) High-Side (3 1/8")



89772-PB



90530



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2-WAY ALUMINUM MANIFOLD GAUGE SETS



ALUMINUM R12, R22 & R502 2-WAY MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS

Hose connections are 1/4" SAE. Gauges are 2 1/2" in PSI & °F.

HOSE LENGTH (SET OF 3)	STANDARD HOSES STANDARD FITTINGS	STANDARD HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES MANUAL BALL VALVES
36"	93636	95636	96636	97636	92636
60"	93661	95661	96661	97661	92661
72"	93772	95772	96772	97772	92772

ALUMINUM R404A, R407C, R507A & R134a 2-WAY COMMERCIAL MANIFOLD GAUGE SETS W/HOSES PACKAGED IN CLAMSHELLS

Hose connections are 1/4" SAE. Gauges are 3 1/8" in PSI, BAR & °F.

HOSE LENGTH (SET OF 3)	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES BALL VALVE
36"	54136	54236	54336
60"	54161	54261	54361
72"	54172	54272	54372

ALUMINUM R22, R404A & R410A 2-WAY MANIFOLD GAUGE SETS W/HOSES PACKAGED IN CLAMSHELLS

Gauges are 3 1/8" Designed for High Pressure R410A with Readings in PSI, °F.

HOSE LENGTH (SET OF 3)	R410A HOSES STANDARD 1/4" SAE FITTINGS	R410A HOSES BALL VALVE CONTROL STANDARD 1/4" SAE FITTINGS
36"	57136	57336
60"	57161	57361
72"	57172	57372

2-WAY ALUMINUM MANIFOLDS WITH GAUGES ONLY

93103	R12, R22 & R502 (2 1/2") 1/4" MFL
54103	R404A, R407C, R507A & R134a (3 1/8") 1/4" MFL
57103	R22, R404A & R410A (3 1/8") 1/4" MFL



REPLACEMENT GAUGES

93350	R12, R22 & R502 (PSI, °F) Low-Side (2 1/2")
93500	R12, R22 & R502 (PSI, °F) High-Side (2 1/2")
54350	R404A, R407C, R507A & R134a (PSI, °F) Low-Side (3 1/8")
54500	R404A, R407C, R507A & R134a (PSI, °F) High-Side (3 1/8")
58501	R410A, R22 & R404A (PSI, °F) Low-Side (3 1/8")
58803	R410A, R22 & R404A (PSI, °F) High-Side (3 1/8")



BRASS R12, R22 & R502 2-WAY MANIFOLD GAUGE SETS WITH HOSES PACKAGED IN CLAMSHELLS

Hose connections are 1/4" SAE. Gauges are 2 1/2" in PSI & °F.

HOSE LENGTH (SET OF 3)	STANDARD HOSES STANDARD FITTINGS	STANDARD HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES MANUAL BALL VALVES
36"	33636	35636	36636	37636	32636
60"	33661 POPULAR	35661	36661	37661	32661
72"	33772	35772	36772	37772	32772

BRASS R404A, R407C, R507A & R134a 2-WAY COMMERCIAL MANIFOLD GAUGE SETS W/HOSES PACKAGED IN CLAMSHELLS

Hose connections are 1/4" SAE. Gauges are 3 1/8" in PSI, BAR & °F.

HOSE LENGTH (SET OF 3)	NYLON BARRIER HOSES STANDARD FITTINGS	NYLON BARRIER HOSES AUTO SHUT-OFF VALVES	NYLON BARRIER HOSES BALL VALVE
36"	56136	56236	56336
60"	56161 POPULAR	56261	56361
72"	56172	56272	56372

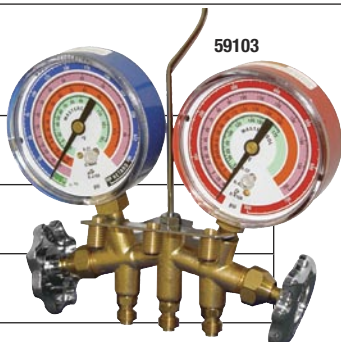
BRASS R22, R404A & R410A 2-WAY MANIFOLD GAUGE SETS W/HOSES PACKAGED IN CLAMSHELLS

Gauges are 3 1/8" Designed for High Pressure R410A with Readings in PSI, °F.

HOSE LENGTH (SET OF 3)	R410A HOSES STANDARD 1/4" SAE FITTINGS	R410A HOSES BALL VALVE CONTROL STANDARD 1/4" SAE FITTINGS
36"	59136	59236
60"	59161 POPULAR	59261
72"	59172	59272

2-WAY BRASS MANIFOLDS WITH GAUGES ONLY

33103	R12, R22 & R502 (2 1/2") 1/4" MFL
56103	R404A, R407C, R507A & R134a (3 1/8") 1/4" MFL
59103	R22, R404A & R410A (3 1/8") 1/4" MFL



REPLACEMENT GAUGES

93350	R12, R22, & R502 (PSI, °F) Low-Side (2 1/2")
93500	R12, R22, & R502 (PSI, °F) High-Side (2 1/2")
54350	R404A, R407C, R507A & R134a (PSI, °F) Low-Side (3 1/8")
54500	R404A, R407C, R507A & R134a (PSI, °F) High-Side (3 1/8")
58501	R410A, R22 & R404A (PSI, °F) Low-Side (3 1/8")
58803	R410A, R22 & R404A (PSI, °F) High-Side (3 1/8")



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SINGLE VALVE MANIFOLDS & REPLACEMENT GAUGES



1/4" SINGLE VALVE MANIFOLD – BALL VALVE (packaged in a clamshell)

Single Valve Manifold	Gauge class-diameter	Unit	Refrigerant scales	Gauge p/n (LP)
92103-93-1/4	1.6 - 2 1/2"	PSI/°F	R12, R22 & R502	93350
92103-57-1/4		PSI/°F	R410A, R22 & R404A	57501
92103-54-1/4	1.6 - 3 1/8"	PSI/°F	R404A, R407C, R507A & R134a	54350
92103-58-1/4		PSI/°F	R410A, R22 & R404A	58501

5/16" SINGLE VALVE MANIFOLD – BALL VALVE (packaged in a clamshell)

Single Valve Manifold	Gauge class-diameter	Unit	Refrigerant scales	Gauge p/n (LP)
92103-93-5/16	1.6 - 2 1/2"	PSI/°F	R12, R22 & R502	93350
92103-57-5/16		PSI/°F	R410A, R22 & R404A	57501
92103-54-5/16	1.6 - 3 1/8"	PSI/°F	R404A, R407C, R507A & R134a	54350
92103-58-5/16		PSI/°F	R410A, R22 & R404A	58501

* Manifolds assembled with gauge guards, add a -G

REPLACEMENT GAUGES



57501



57803



93500



93350

2 1/2" GAUGE MODELS

MODEL#	COMPOUND (Low Side)	MODEL#	PRESSURE (High Side)	REFRIGERANT
93350	PSI/°F	93500	PSI/°F	R12, R22, R502
57501	PSI/°F	57803	PSI/°F	R410A, R22 & R404A



54350



54500



58501



58803

3 1/8" GAUGE MODELS

MODEL#	COMPOUND (Low Side)	MODEL#	PRESSURE (High Side)	REFRIGERANT
54350	PSI/°F	54500	PSI/°F	R404A, R407C, R507A & R134a
58501	PSI/°F	58803	PSI/°F	R410A, R22 & R404A

Mastercool offers one of the most extensive lines of high quality replacement gauges. Our wide variety of gauge scales are available in different sizes and styles. All of our gauges are designed with the **ANTI-FLUTTER** feature that reduces needle fluctuation and increases reading accuracy.



85200 DELUXE A/C SERVICE REPAIR KIT

Replacement gaskets, depressors, o-rings and nylon guides for charging hoses and adapters. Consists of:

- 42010** 1/4" Gasket (10 pcs)
- 42014** 1/4" Depressor (10 pcs)
- 80034** O-ring for 82834 (10 pcs)
- 80034-1** High side nylon guide (5 pcs)
- 80134** O-ring for 82934 (10 pcs)
- 82010** Gasket for R134a Hose (10 pcs)
- 82336** Gasket for 82335 (10 pcs)
- 83341** O-ring for R134a Hose (10 pcs)
- 90336** Gasket for R12 shut-off valve (10 pcs)



92207 REFRIGERATION GASKET, DEPRESSOR ASSORTMENT KIT

Consists of:

- 42010** 1/4" Gasket (6 pcs)
- 42016** Screw Type Depressor (3 pcs)
- 85511** 3/8" Hose Gasket (1 pc)

REPLACEMENT KNOBS

4-Way Manifolds

58211	Blue Knob	58213	Yellow Knob
58214	Black Knob	58212	Red Knob

2-Way Manifolds

85211	Blue Knob	85211-R	Blue Knob
85212	Red Knob	85212-R	Red Knob
93211	Black Knob	93211-R	Black Knob



REPLACEMENT LENSES

- 85253-E** Replacement Lens for 2 1/2" gauge
- 98251-E** Replacement Lens for 3 1/8" gauge



Mastercool gauge protectors are built to cushion shock due to rough handling. The unique ribbing deadens bumps and deflects shocks. Snug fitting. Color coded. All Mastercool manifold gauge sets are available with gauge protectors installed. To order, simply place a "-G" after any gauge set number.

GAUGE PROTECTORS

COLOR	2 1/2" GAUGE
BLUE	93253-E
RED	93503-E
SET	93553-E
COLOR	3 1/8" GAUGE
BLUE	91503-EE
RED	91253-EE
SET	91553-EE



93553-E



91553-EE

PARTS FOR 2-WAY BRASS MANIFOLD

- 34215** O-rings for Brass Manifolds
- 34216** Seal & Seat Assembly for Brass Manifolds

PARTS FOR 2-WAY ALUMINUM MANIFOLDS

- 85215** O-Rings for Al. Manifold (4 pcs)
- 85216** Seal & Seat Assembly (2 pcs)

PARTS FOR 4 WAY BALL VALVE MANIFOLDS

- 95102-R-KIT** O-Ring Repair Kit for 4 Way Ball Valve Manifold

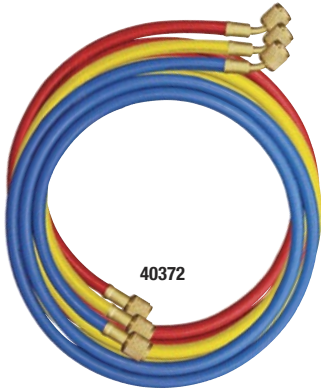


Mastercool[®]
"World Class Quality"

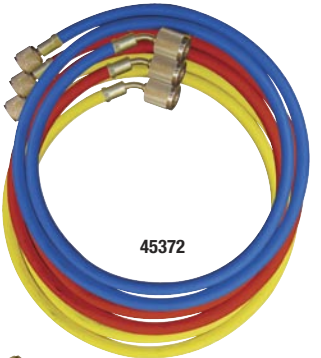
Mastercool uses only **(GRADE 5 HOSE)** with a selection of Standard and Nylon Barrier for high pressure applications. Knurled brass nuts make finger tightening easy. **Crimped with 8 segment dies for secure fit and maximum durability.** Hoses are available in sets and a variety of lengths to meet all EPA, SAE and UL requirements for containment of refrigerant.



- Sets include one blue, one red and one yellow hose

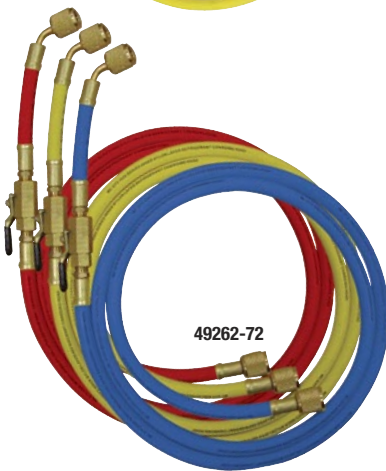


STANDARD & HIGH PRESSURE HOSES W/STANDARD FITTINGS (1/4" SAE)									
R12, R22, R502					R22, R410A				
Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI					Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI				
HOSE LENGTH	36"	60"	72"	96"	HOSE LENGTH	36"	60"	72"	96"
Blue 1/4"	41361	41601	41721	41961	Blue 1/4"	47361	47601	47721	47961
Yellow 1/4"	41362	41602	41722	41962	Yellow 1/4"	47362	47602	47722	47962
Red 1/4"	41363	41603	41723	41963	Red 1/4"	47363	47603	47723	47963
Black 1/4"	N/A	N/A	N/A	N/A	Black 1/4"	47364	47604	47724	47964
Sets 1/4"	40336	40360	40372	40396	Sets* 1/4"	47336	47360	47372	47396
Black 3/8"	N/A	N/A	N/A	N/A	Black 3/8"	48364	48604	48724	48964



STANDARD & HIGH PRESSURE HOSES W/AUTOMATIC SHUT-OFF VALVE FITTINGS (1/4" SAE)									
R12, R22, R502					R22, R410A				
Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI					Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI				
HOSE LENGTH	36"	60"	72"	96"	HOSE LENGTH	36"	60"	72"	96"
Blue 1/4"	45361	45601	45721	45961	Blue 1/4"	46361	46601	46721	46961
Yellow 1/4"	45362	45602	45722	45962	Yellow 1/4"	46362	46602	46722	46962
Red 1/4"	45363	45603	45723	45963	Red 1/4"	46363	46603	46723	46963
Black 1/4"	N/A	N/A	N/A	N/A	Black 1/4"	46364	46604	46724	46964
Sets 1/4"	45336	45360	45372	45396	Sets* 1/4"	46336	46360	46372	46396

Auto shut-off valves automatically retain refrigerant in the service hose when they are removed from the system, meet EPA, SAE and UL standards for containment of refrigerant.



STANDARD & HIGH PRESSURE HOSES W/MANUAL SHUT-OFF VALVE FITTINGS (1/4" SAE)			
R12, R22, R502			
Standard Hoses, Working pressure 750 PSI, Burst 3000 PSI			
HOSE LENGTH	36"	60"	72"
Blue 1/4"	90263-36	90263-60	90263-72
Yellow 1/4"	90264-36	90264-60	90264-72
Red 1/4"	90265-36	90265-60	90265-72
Sets 1/4"	90262-36	90262-60	90262-72
R22, R410A			
Nylon Barrier Hoses, Working Pressure 800 PSI, Burst 4000 PSI			
HOSE LENGTH	36"	60"	72"
Blue 1/4"	49263-36	49263-60	49263-72
Yellow 1/4"	49264-36	49264-60	49264-72
Red 1/4"	49265-36	49265-60	49265-72
Sets 1/4"	49262-36	49262-60	49262-72
Red 1/4 x 5/16"	49265-36-JT	49265-60-JT	49265-72-JT
Blue 1/4 x 5/16"	49263-36-JT	49263-60-JT	49263-72-JT
Sets Red/Blue 1/4 x 5/16", Yellow 1/4 x 1/4"	49262-36-JT	49262-60-JT	49262-72-JT



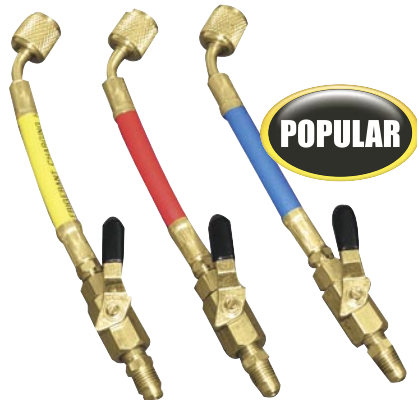
3/8" SAE REPLACEMENT BLACK HOSE			
HOSE LENGTH	36"	60"	72"
Without Ball Valve	94136	94160	94172
With Ball Valve	94236	94260	94272

Mastercool manufactures a complete line of shut-off valves for containment of refrigerant. EPA requires shut-off valves within 12 inches of the charging hose ends to prevent unnecessary venting of refrigerant. Using shut-off valves is much safer than allowing refrigerant to blow out during service.

90262-R 45° MANUAL SHUT-OFF VALVE SET

Ball valve design with flexible hose controls refrigerant with a quarter turn of the valve handle. Meets SAE, EPA and UL requirements for containment of refrigerant. One hand operation. Screws onto charging hose end. 45° Manual Shut-Off Valve Set Includes:

- 90263-R** Blue 1/4" x 1/4"
- 90264-R** Yellow 1/4" x 1/4"
- 90265-R** Red 1/4" x 1/4"



MANUAL SHUT-OFF BALL VALVES

For custom application, Mastercool offers swivel ball valves without the hoses. This valve may be used to add shut-off valves to recycling equipment, manifold sets, flushing equipment, etc.

- 90430** 1/4 FL-F x 1/4 FL-M Swivel Ball Valve (less hose)



QUICK DISCONNECT
No Loss of Refrigerant

AUTOMATIC SHUT-OFF VALVES

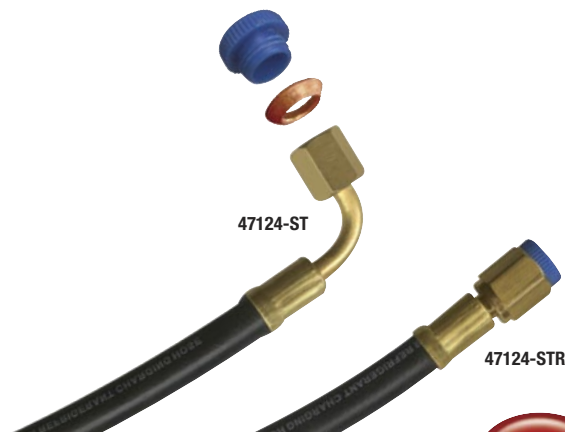
Valve simply screws onto hose end. Available in straight and 90° models. Meets SAE, EPA and UL requirements for containment of refrigerant.

- 90333-R** 90° 1/4 FL-M x 1/4 FL-F
- 90335-R** Straight 1/4 FL-M x 1/4 FL-F
- 90333-UV** 90° 1/4" FFL x 13mm
- 90337** Straight 1/4 FL-M x 3/16 FL-F

CONTROL VALVE

Ideal for use on charged systems. Eliminates refrigerant, oil or dye from spraying during connections. Brass body with 1/4" FFL swivel coupler.

- 90328** 1/4" FFL x 1/4" MFL



PRESSURE CONTROL HOSES

NEW!

Replaces regular copper capillary tubing and eliminates capillary failure due to work hardening from vibration.

- 1/4" operates to 600 psi (42 bar) and 200°F (93°C)
- Operational temperature: -20° to 200°F (-29° to 93°C)

Hex Style Fittings with 1/4" SAE Thread

HOSE LENGTH	STRAIGHT X STRAIGHT	STRAIGHT X 90°
12"	47124-STR	47124-ST
18"	47184-STR	47184-ST
24"	47244-STR	47244-ST
36"	47364-STR	47364-ST
48"	47484-STR	47484-ST
60"	47604-STR	47604-ST

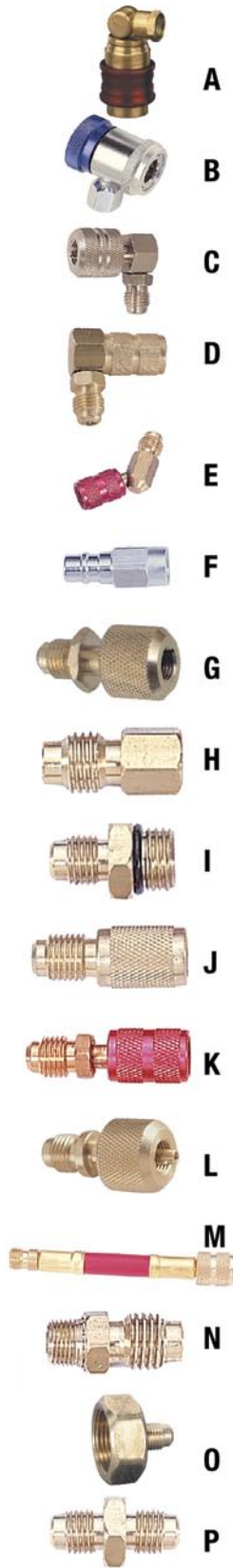





SERVICE HOSE REPLACEMENT PARTS

1/4" FITTING	SPRING TYPE		SCREW TYPE	
	GASKET	DEPRESSOR	GASKET	DEPRESSOR
CHARGING HOSES	42010-10	42014-10	42010-10	42016-10
SHUT-OFF VALVE	90336-10	N/A	N/A	N/A
85511-10	3/8" GASKET for 85510 (can tap valve)			
48010	3/8" GASKET for 3/8" Hose			



Mastercool®
"World Class Quality"



90° ADAPTERS	REPLACEMENT	GASKET/O-RING	DEPRESSOR
A) 82214	R134a E-Z Snap Coupler (High Side)	80034	-
A) 82224	R134a E-Z Snap Coupler (Low Side)	80134	-
B) 82834	R134a Compact Manual Coupler (High Side)	80034	-
B) 82934	R134a Compact Manual Coupler (Low Side)	80134	-
C) 90333-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
D) 90314*	1/4" MFL x 1/4" FFL w/ Valve Core	42010	42014
D) 90354*	1/4" MFL x 3/16" FFL (High Side) GM 1976 & Later	90369	90368
45° ADAPTERS			
E) 90924	1/4" MFL x 1/4" FFL	42010	42014
E) 90927*	1/4" MFL x 3/16" FFL (High Side)	90369	90368
STRAIGHT ADAPTERS			
F) 82272*	R134a 1/2" ACME-F x 13mm Low Side	85511	-
G) 82335	R134a Shut-Off Valve 1/2" ACME-M x 1/2" ACME-F	90330/90336	-
G) 90335-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90330/90336	-
G) 90337	Shut-Off Valve 1/4" MFL x 3/16" FFL	90330/90331	-
H) 82634*	1/4" FFL x 1/2" ACME-M	80234	-
I) 82734	14mm x 1/4" MFL	83341	-
J) 90358*	1/4" MFL x 3/16" FFL (High Side)	42010	42014
K) 90274	1/4" MFL x 1/4" FFL Swivel	42010	42014
K) 90332**	1/4" MFL x 1/4" FFL Anti-Blow Back Fitting	42010	42014
K) 90357	1/4" MFL x 3/16" FFL (High Side) Swivel	90369	90368
K) 91084*	1/4" MFL x 3/16" FFL (High Side) Swivel Adapter GM 1976 & Later, Ford 1981 & Later	90369	90368
L) 90338*	GM 1991 & Later Service Adapter	90339	-
O) 90637	3/4" NPSF x 1/4" MFL Refrigeration Tank Adapter	90638	-
P) 90633	1/4" MFL x 1/4" MFL Union	-	-
P) 82633	1/2" ACME-M x 1/2" ACME-M Union	-	-
90413 STRAIGHT ADAPTER FITTING			
Convert 1/4 to 5/16 SAE (1/2-20 UNF) swivel female nut with depressor			
FLEX ADAPTERS			
M) 90355*	1/4" MFL x 3/16" FFL (High Side) GM 1976 & Later, Ford 1981 & Later	90369	90368
M) 90356*	1/4" MFL x 1/4" FFL	42010	42014
90410 FLEX ADAPTER FITTING		90411 FLEX ADAPTER WITH BALL VALVE	
Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A		Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A	
			
ACCESS SERVICE VALVES			
N) 90296*	1/4" MFL x 1/8" MPT	-	-
N) 90298	3/16" MFL x 1/8" MPT	-	-
N) 80296*	1/2" ACME-M x 1/8" MPT	-	-
*Includes Access Valve Core (0377-001)			
**Includes check Valve Core (0332-002)			



91496 VALVE CORE REMOVER/INSTALLER W/ACCESS PORT

Temporary removal of service valve core eliminates the restriction it creates and provides full flow of refrigerant and vacuum during recovery, evacuation and recharge. You will save valuable service time.



91290

91290 UNIVERSAL VALVE CORE REMOVER

Double ended for easy replacement of Standard and GM R12 Large Bore Valve Cores.



90376

90376 VALVE CORE REMOVER W/VALVE CORES FOR R12

Quickly removes valve cores. Storage area includes six replacement access valve cores.

90377 Replacement Standard Valve Cores for 90376 (6 pcs of 0377-001)



91499 SUPERHEAT DETERMINATION SET

Special valve core remover/installer adapter allows replacement of damaged or faulty service valve cores without recharging the system. Valve replacement no longer requires time consuming refrigerant recovery. Calculation of superheat with excellent accuracy by reading refrigerant temperature and pressure from the same location in the system.



91490 VALVE CORE REMOVER/INSTALLER

Sturdy ball valve design controls refrigerant flow with 1/4 turn of the valve lever. Lever position also gives visual indication of whether valve is opened or closed.

1490-002 STANDARD VALVE CORE SHAFT ONLY

(Can be used w/ 91490/91491 body)

91490-K REPLACEMENT TIP & PIN for 91490, 91496 & 91499

91498 UNIVERSAL VALVE CORE REMOVER/INSTALLER KIT (for High Pressure Refrigerants) (410A)

Newly designed with patented locking mechanism, the 91498 is the only valve core remover kit that has a safety nut allowing the technician to freely access the valve core without fighting high pressures. Packaged in a blow molded carrying case, this kit also offers 1/2"-20 UNF and 1/4" flare fittings for all refrigerant applications.

PATENT# 6,253,436





MANUAL COUPLERS

Patented manual couplers adjust easily to R134a service ports with varying dimensions. All metal construction for extra durability. Patented, spring loaded depressor will not damage service valves. Can be removed from service ports regardless of knob position without losing refrigerant. Meets SAE, UL and EPA requirements for containment of refrigerant. Color coded. **PATENT# 5,370,359**

82834	High-Side Manual R134a 14mm-F x 16mm Quick Coupler
82934	Low-Side Manual R134a 14mm-F x 13mm Quick Coupler
82834-E	High-Side Manual R134a 1/4" FL-M x 16mm Quick Coupler
82934-E	Low-Side Manual R134a 1/4" FL-M x 13mm Quick Coupler
82834-3/8	High-Side Manual R134a 3/8" FL-M x 16mm Quick Coupler
82934-3/8	Low-Side Manual R134a 3/8" FL-M x 13mm Quick Coupler
82834-J*	High-Side Manual R134a M12 x 1.75 x 16mm Quick Coupler
82934-J*	Low-Side Manual R134a M10 x 1.5 x 13mm Quick Coupler
80034	O-ring for 16mm Quick Coupler (10 pcs)
80134	O-ring for 13mm Quick Coupler (10 pcs)

E-Z SNAP™ COUPLERS

This unique patented design easily snaps on and off the A/C systems service ports under any pressure. The E-Z Snap™ automatically adjusts to various service port dimensions allowing fast and immediate access into the A/C system. The swivel feature enables the user to easily access all service ports, even in the tightest quarters. Meets SAE, UL, and EPA requirements for containment of refrigerant. **PATENT# 5,244,010**

82214	High-Side E-Z Snap R134a 14 mm-F x 16mm Quick Coupler
82224	Low-Side E-Z Snap R134a 14mm-F x 13mm Quick Coupler
82214-E	High-Side E-Z Snap R134a 1/4" FL-M x 16mm Quick Coupler
82224-E	Low-Side E-Z Snap R134a 1/4" FL-M x 13mm Quick Coupler
82214-3/8	High-Side E-Z Snap R134a 3/8" FL-M x 16mm Quick Coupler
82224-3/8	Low-Side E-Z Snap R134a 3/8" FL-M x 13mm Quick Coupler
82214-J*	High-Side E-Z Snap R134a M12 x 1.75 x 16mm Quick Coupler
82224-J*	Low-Side E-Z Snap R134a M10 x 1.5 x 13mm Quick Coupler
80034	O-ring for 16mm Quick Coupler (10 pcs)
80134	O-ring for 13mm Quick Coupler (10 pcs)



ECONOMY COUPLERS

Specially designed to work in the tightest quarters. Attaches to your existing R12 hoses and snaps easily to A/C service ports.

66434-R	High Side R134a 1/4" FL-M x 16mm Economy Coupler
66534-R	Low Side R134a 1/4" FL-M x 13mm Economy Coupler
60034-10	O-ring for 66434 (10 pcs)
60134-10	O-ring for 66534 (10 pcs)

MALE x MALE CONNECTORS

PART#	DESCRIPTION
82734	14mm-M x 1/4" FL-M (7/16-20") Connector
82735	14mm-M x M10 x 1.5-M Connector
82736	14mm-M x M12 x 1.75-M Connector
82738	14mm-M x 3/8" FL-M Connector
83341	O-Ring for 82733, 82734, 82735 and 82736
80234	O-Ring for 82634, 82634-M, 90364 and 90365

FEMALE x MALE CONNECTORS

PART#	DESCRIPTION
82635	1/2" ACME-F x 1/4" FL (7/16-20")-M R134a Adapter Coupler
82733	14mm-F x 1/2" ACME-M Connector
90364	1/4" (7/16-20")-F x M10 x 1.5-M Adapter
90363	5/16" (1/2-20 UNF)-F x 1/4" FL-M Connector
82634*	1/4" FL-F (7/16-20") x 1/2" ACME-M Connector
82634-M	1/4" FL-F (7/16-20") x 1/2" ACME-M R134a Connector



85530 3-IN-1 SIDE MOUNT CAN TAP VALVE

This unique design covers 2 7/8" (R134a), 2 1/2" and 2" (OIL) charge cans. Includes 1/2" ACME-M and 1/4" FL-M ports. Internal safety check valve prevents system back flow.



90925 CONDENSER FIN COMB

Cleans and straightens condenser and evaporator fins. Six sided head for 8, 9, 10, 12, 14 and 15 fins per inch applications.



90935 ALUM BOND

Aluminum Repair Kit (6.5 oz package)

A two-component epoxy formula highly concentrated with carefully selected pure aluminum particles, modified curing agents and special high quality additives to provide maximum strength, durability and ease of application. Alumbond is aluminum filled epoxy specially formulated for repairing condenser coils, tanks, valves, pumps, castings, water jackets, radiators, etc., where non-rusting, non-magnetic aluminum finish is desired.



PHYSICAL PROPERTIES:

- Hardness (Shore, ASTM D 1706): 83D
- Coefficient of Thermal Expansion: 40 x 10-6 cm/cm/°C
- Compression Strength (ASTM D 695): 8600 psi (59 M Pa)
- Tensile Strength (ASTM D 638): 3500 psi (24 M Pa)
- Maximum Line Pressure (after 5 hours application time): 650 psi



80011 HEAVY DUTY RATCHET HOSE CUTTER

Ratcheted action makes this cutter extremely easy to operate resulting in quick, clean cuts. Cutting blade is made of special alloy, heat treated steel for long life. Cuts all rubber hoses and PVC pipe up to 1/2" O.D. (Not recommended for PVC200)

80111 Replacement blade for 80011

80013 AUTOMOTIVE REFRIGERANT HOSE CUTTER

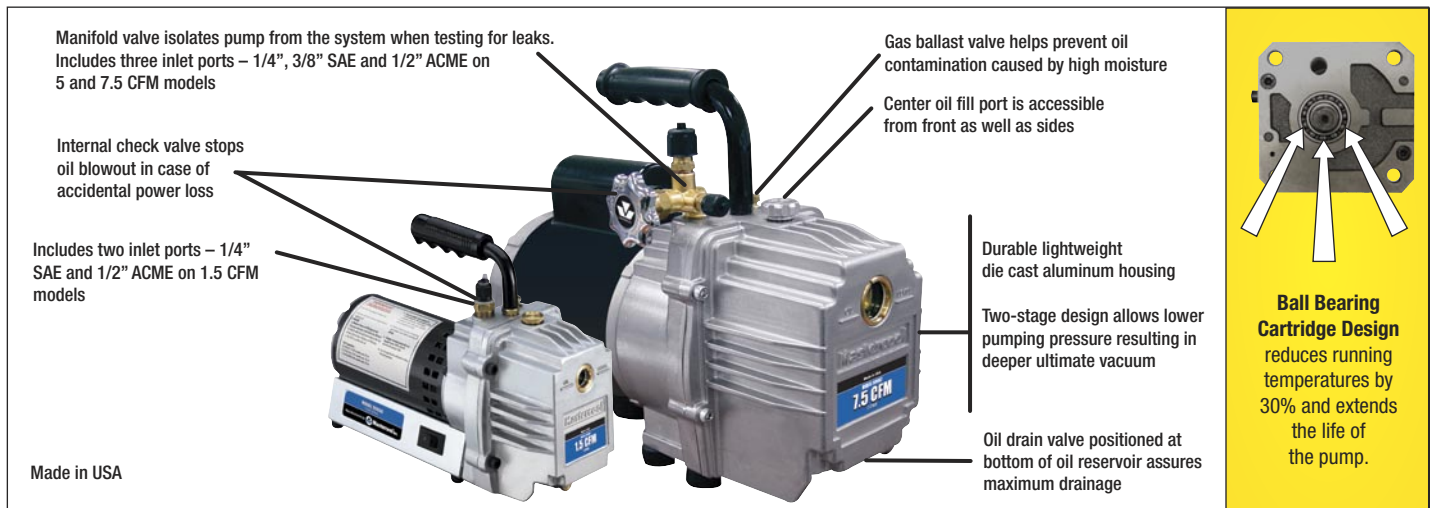
Makes quick, clean cuts. Cuts rubber automotive refrigerant hoses up to 1 1/2" O.D.

80113 Replacement blade for 80013



VACUUM PUMPS

A good quality vacuum pump is an integral tool for complete A/C service. Mastercool vacuum pumps are durable and time tested. They stand up to the most grueling conditions and will provide years of reliable service. Mastercool offers a complete selection of pumps. Regardless of your service requirements, Mastercool has a model for your application.



REPLACEMENT CARTRIDGE

1.5 CFM	
OIL CAPACITY	10 oz
REPL. CARTRIDGE	90160-R
5 CFM	
OIL CAPACITY	18 oz
REPL. CARTRIDGE	90165-R
SEAL SERVICE KIT	90062-11-SEAL
7.5 CFM	
OIL CAPACITY	24 oz
REPL. CARTRIDGE	90167-R
SEAL SERVICE KIT	90062-11-SEAL

90060 1.5 CFM VACUUM PUMP (TWO STAGE)

This lightweight and easy to store vacuum pump (12lbs) is ideal for less than 3lb capacity evacuation. The inlet ports include 1/4" FL and 1/2" ACME (for automotive R134a systems.)

Model #	NO OF STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	PUMP MOTOR	PUMP SPEED	ELECTRICAL SPECS	SHIPPING WEIGHT
90060	2	1.5 CFM	25 MICRONS	1/6 HP	3450 RPM	110V / 60HZ	12 lbs

90065 5 CFM VACUUM PUMP (TWO STAGE)

This model is an excellent choice for small to medium sized systems (2.5 lb to 10 lb charge capacity). This two stage pump features a manifold valve to isolate it from the system and three inlet ports: 1/4" flare, 3/8" flare and 1/2" ACME (for automotive R134a systems).

Model #	NO OF STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	PUMP MOTOR	PUMP SPEED	ELECTRICAL SPECS	SHIPPING WEIGHT
90065	2	5 CFM	25 MICRONS	1/3 HP	1725 RPM	110V / 60HZ	32 lbs

90067 7.5 CFM VACUUM PUMP (TWO STAGE)

This model is the choice for medium sized and larger systems (5 lb and above charge capacity). The 1/2 horsepower motor makes cold condition start up quick and easy. This two stage pump features a manifold valve to isolate it from the system and three inlet ports: 1/4" flare, 3/8" flare and 1/2" ACME (for automotive R134a systems).

Model #	NO OF STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	PUMP MOTOR	PUMP SPEED	ELECTRICAL SPECS	SHIPPING WEIGHT
90067	2	7.5 CFM	25 MICRONS	1/2 HP	1725 RPM	110V / 60HZ	34 lbs



VACUUM PUMP OIL

PART#	DESCRIPTION
90010-6	Case of Six (10 oz bottles)
90018-6	Case of Six (18 oz bottles)
90024-6	Case of Six (24 oz bottles)
90032-6	Case of Six (32 oz bottles)
90128-4	Case of Four (1 gallon bottles)

ECONOMY SERIES

- High volume fan provides cool air to motor and pump
- Vapor discharge/oil fill port, easily removable, contains internal check valve to prevent escape of liquid oil
- Non-slip cushion handle
- Includes T-fitting with 1/4" flare and 1/2" ACME ports
- Cooling fins to keep temperature cooler during extended motor operation
- Manifold valve isolates pump from the system testing for leaks. Includes 3 inlet ports, 1/4", 3/8" SAE and 1/2" ACME.
- Gas ballast valve helps prevent oil contamination caused by high moisture (90066-2V-110 & 90070-2V-110)



MODEL #	NO OF STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	PUMP MOTOR	PUMP SPEED	ELECTRICAL SPECS	SHIPPING WEIGHT
90059-R	1	1.5 CFM	100 MICRONS	1/6 HP	3450 RPM	110V / 60HZ	16 lbs
90062-A	1	3 CFM	75 MICRONS	1/4 HP	1720 RPM	110V / 60HZ	17 lbs
90066-A	1	6 CFM	75 MICRONS	1/4 HP	1720 RPM	110V / 60HZ	22 lbs

Model 90070-2V-110
No. of Stages 2
Free Air Displacement 10 CFM
Ultimate Vacuum 12 Microns
Motor 1/2 HP
Pump Speed 3440 RPM
Electrical Specs 110/220V
 50/60 HZ
Shipping Weight 33 lbs



90070-2V-110

Model 90066-2V-110
No. of Stages 2
Free Air Displacement 6 CFM
Ultimate Vacuum 15 Microns
Motor 1/3 HP
Pump Speed 3440 RPM
Electrical Specs 110/220V
 50/60 HZ
Shipping Weight 24.6 lbs



90066-2V-110



Mastercool[®]
 "World Class Quality"

98061 DIGITAL VACUUM GAUGE

packaged in blow molded case

98061-C DIGITAL VACUUM GAUGE

packaged in clam shell

As a professional technician the assurance of a deep vacuum on a system is imperative. The main problem with many small handheld units is their inaccuracy and durability. Although the thermocouple sensor has been proven to be much more accurate and durable than the thermistor type, the problem has been the inconvenience of a cumbersome tabletop unit. Mastercool is introducing a hand held unit using thermocouple technology. This vacuum gauge has been designed with the technician's field environment in mind, allowing for self-calibration and a sensor that will not be damaged by small mists of oil. The Mastercool unit allows for a target vacuum range to be programmed with a light sensor indicator. Now you have the freedom to continue with your other work and come back to the system once you see the indicator light signaling your target vacuum.



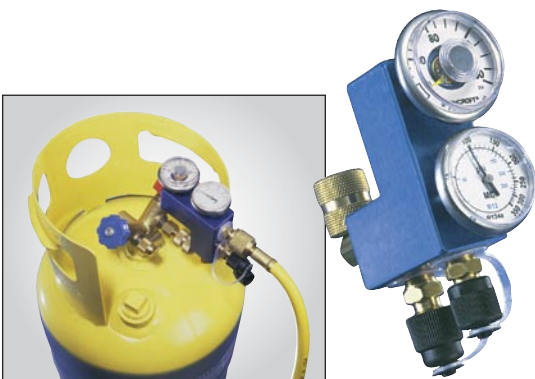
SPECIFICATIONS:

- Response Time: 250 mSec.
- Sensor Cable: Spiral cable extended to 6.5 feet (2.6 meter)
- Sensor: Thermocouple sensor
- Connection Fitting: 1/4" FL-F adapter
- Operating Temperature: 32 to 120°F (0 to 45°C)
- Power: 9V DC battery (AC/DC Adapter optional)
- Battery Life: 36 hours
- Low Battery Indicator: Special ICON on LCD
- Vacuum Units: Micron, Torr, mTorr, mmHg, mBar, Pa
- Range: 20,000 to 1 micron
- Accuracy Range*:
 - ATM - 1000 Microns : $\pm 5\%$ of reading
 - 1000 - 100 Microns : $\pm 3\%$ of reading
 - 100 - 1 Micron : $\pm 1.5\%$ of reading

* Unit accuracy refers to sensor specifications and based on optimal laboratory conditions. Field operations may greatly deviate from these levels.

Optional Accessories

- | | |
|---------------------|------------------------------------|
| 98061-SENSOR | Replacement Sensor |
| 99333 | 1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee |
| 99334-110 | 110V AC/DC Adapter |
| 99334-220 | 220V AC/DC Adapter |



98100 AIR CONTENT ANALYZER

When an A/C system leaks, refrigerant is lost and air enters the system. Your refrigerant recycler cannot tell the difference between refrigerant and air - it recycles both from partially filled systems. You end up with an unknown quantity of efficiency robbing air in your supply tank. Excess actual pressure in your supply tank, indicates the pressure of air also called "non-condensable gases" or NCG's. When you release the excess pressure, you are releasing air. The result is purer refrigerant, which will work more efficiently.

The Mastercool Air Content Analyzer is more accurate than most automatic purging systems. It can be left on your supply tank for regular monitoring or it can be removed to check all your tanks.

30 LB. AND 50 LB. DOT-APPROVED RECOVERY CYLINDERS

Features:

- Powder coated cylinder for high gloss, durable finish
- Pre-charged cylinder provides a clean, dry interior
- 3/4" NPT opening accepts 80% fill float switch shut-off device
- Collar design for ease of handling
- Reusable and conforms to DOT-4BA400 specs and ARI guidelines
- Storage and transport of recovered refrigerant gases
- Y-valve for liquid/vapor
- AUS Approved and TC Canadian Approved
- 1/4" opening for air purge valve
- Valve & Float Switch UL Listed



	30 lb.						50 lb.						
Model	62010 without float switch	62011 with float switch	62012 with float switch & NCG Port	64010 without float switch	67010 with float switch	67011 with float switch	63010 without float switch	65010 with float switch	66010 without float switch	66011 with float switch	66012 with float switch & NCG Port	63010-AUS without float switch (Australian standard)	
Connection	1/4" FL-M (7/16-20)			1/2" ACME			1/4" FL-M (7/16-20)			1/2" ACME			1/2" ACME
Size (w x h)	9.125" x 17.52"			9.125" x 17.52"		9.125" x 17.52"	12.25" x 18.78"			12.25" x 18.78"			12.25" x 18.78"
Tare Weight	17.99 LB			17.99 LB		17.99 LB	28.71 LB			28.71 LB			28.71 LB
Standard Spec.	DOT - 4BA400			DOT - 4BA400		DOT - 4BA400	DOT - 4BA400			DOT - 4BA400			DOT - 4BA400
Nominal Water Capacity	>26.2 LB / 11.9 L			>26.2 LB / 11.9 L		>26.2 LB / 11.9 L	>47.7 LB / 21.6 L			>47.7 LB / 21.6 L			>47.7 LB / 21.6 L
Service Pressure	400 PSI / 2.7 MPa			400 PSI / 2.7 MPa		400 PSI / 2.7 MPa	400 PSI / 2.7 MPa			400 PSI / 2.7 MPa			400 PSI / 2.7 MPa
Tank Test Pressure	800 PSI / 5.5 MPa			800 PSI / 5.5 MPa		800 PSI / 5.5 MPa	800 PSI / 5.5 MPa			800 PSI / 5.5 MPa			800 PSI / 5.5 MPa
Relief Valve Pressure	600 PSI / 4.1 MPa			600 PSI / 4.1 MPa		600 PSI / 4.1 MPa	600 PSI / 4.1 MPa			600 PSI / 4.1 MPa			600 PSI / 4.1 MPa
Air Tightness Test Pressure	400 PSI / 2.7 MPa			400 PSI / 2.7 MPa		400 PSI / 2.7 MPa	400 PSI / 2.7 MPa			400 PSI / 2.7 MPa			400 PSI / 2.7 MPa
Body Material	HP295			HP295		HP295	HP325 or HP345			HP325 or HP345			HP325 or HP345
Color	yellow/gray			blue		yellow/blue	yellow/gray			yellow/gray			white



Mastercool®
"World Class Quality"

NEW!

98310 WIRELESS REFRIGERANT CHARGING SCALE
98315 WIRELESS REFRIGERANT CHARGING SCALE WITH SOLENOID

98315 with solenoid



FEATURES

- Wireless unit prevents unwanted tangles in wires
- Easily store the remote in the body of the platform
- Keypad provides synchronization and zeroing
- Extremely accurate weight sensor
- Magnet on remote allows easy placement on fixtures
- Battery life symbol for platform and remote constantly displayed on LCD
- Wireless signal strength indicator conveniently displays on remote

FUNCTIONS:

CHARGE PROGRAMMING:

Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing ample time to turn off refrigerant supply.

PAUSE/CHARGE (98315 model only):

This feature allows user to stop and continue charging.

TANK CAPACITY PROGRAMMING:

EMPTY/FULL tank feature allows user to know the amount of refrigerant in the tank at any time.

REPEAT (98315 model only):

Allows user to charge previously stored amount.

SPECIFICATIONS:

- Capacity: 243 lbs (110 kg)
- Accuracy: $[\pm 0.01 \text{ lb} / \pm 0.005 \text{ kg}]$ or 0.1% of reading whichever is greater
- Resolution: 0.02 lb / 0.01 kg
- Automatic Shut-Off: After 3 hours
- Operating Temperature: 32°F to 120°F (0°C to 49°C)
- Battery Life: approximately 20 hours
- 31cm Platform
- Accepts all US & EU standard cylinders



NEW!

98209 ELECTRONIC CHARGING SCALE

- Slim Design for Easy Storage
 - Two Keys for Easy Operation
 - Unit Change (grams & ounces)
 - One Touch Tare Weighing Function
 - Auto Zero and Auto Off
- Automatically turns off its power if the scale is not used within 2 minutes

SPECIFICATIONS:

- Capacity: 5000 g / 176 oz
- Sensitivity: 1 g / .035 oz
- Dimension: 140 (w) x 185 (l) x 35 (h) mm
- Platform Size: 120 mm
- Power Source: 2 x AAA 1.5v battery



ELECTRONIC TANK HEATER BLANKET

The Mastercool Refrigerant Tank Heater Blanket speeds up recharging time.

- Assures total discharge of refrigerant from 30 lb and 50 lb tanks. Heats tanks to 125°F resulting in maximum pressure of 185 psi for R134a and 170 psi for R12.
- Quick working 300W heater element
- An excellent complement to all Mastercool Refrigerant Scales

- 98250** 110V
- 98250-220** 220V

98210-A ACCU-CHARGE II

Mastercool's ACCU-CHARGE II is the most advanced electronic refrigerant scale in the market today. Constructed with a rugged aluminum cast body, the ACCU-CHARGE II now offers programming capabilities.

FUNCTIONS:

CHARGE PROGRAMMING:

Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing user ample time to turn off refrigerant supply.

TANK CAPACITY PROGRAMMING:

Allows user to know the amount of refrigerant that is left in the tank at any time.

REPEAT:

Allows user to charge previously stored amount.

SPECIFICATIONS:

- Capacity: 110 kg (240 lbs)
- Accuracy: ± 0.01 kg } or 0.1% of reading
 ± 0.16 oz } (whichever is greater)
 ± 0.01 lb }
- Resolution: 0.01 kg / 0.02 lb
- 3 hrs Auto Off Function
- Operating Temperature is 0 to 49°C (32 to 120°F)
- Battery Life (approximately 40 hrs)
- Works w/110 or 220V Transformer (part no. 99334-110 or 99334-220)
- 22 x 22 cm (9 x 9") Platform



98211-A ACCU-CHARGE III CERTIFIED REFRIGERANT SCALE (OIML & CE Approved, Legal for Trade)



FUNCTIONS:

CHARGE PROGRAMMING:

Allows user to program desired quantities. Before charge is complete, an alarm will sound allowing user ample time to turn off refrigerant supply.

PAUSE/CHARGE:

(Using the 98230 Charging Solenoid Module)

TANK CAPACITY PROGRAMMING:

Allows user to know the amount of refrigerant that is left in the tank at any time.

REPEAT:

Allows user to charge previously stored amount.

SPECIFICATIONS:

- Complies with European (OIML) Standards
- Accuracy: ± 50 g
- 3 hrs AUTO OFF Function
- Battery Life (approximately 40 hrs)
- Capacity: 50 kg
- Resolution: 0.05 kg
- Operating Temperature is 0 to 49°C (32 to 120°F)
- 22 x 22cm (9 x 9") Platform



98230 CHARGING SOLENOID MODULE

The 98230 Charging Solenoid Module turns the 98210-A ACCU-CHARGE II & 98211-A ACCU-CHARGE III into Automatic Programmable Scales!

This module allows the user to control the exact amount of refrigerant transferring to and from the A/C System. The compact design is battery powered (9V), lightweight, portable and works with all types of refrigerant. 98230 includes a short hose for tank connection, USB cord and 1/4" FL - 1/2" ACME adapters.



NITROGEN PRESSURE REGULATORS

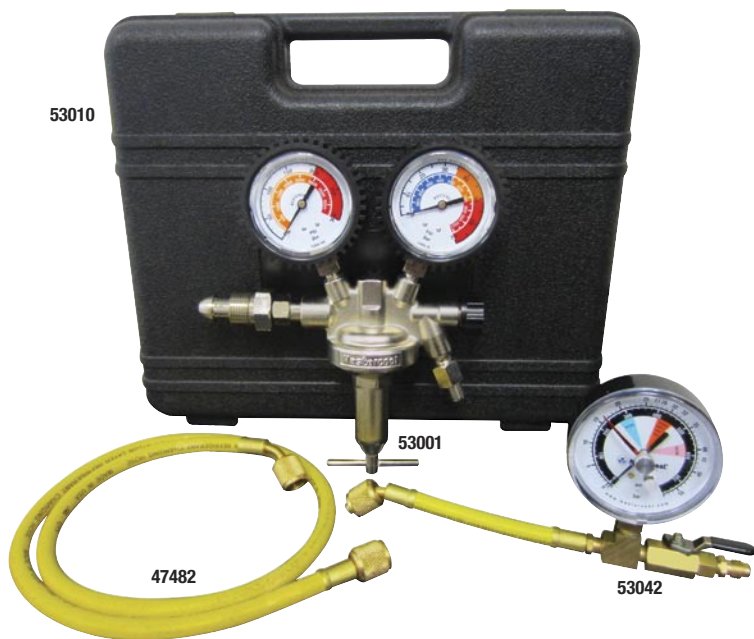
Mastercool's new nitrogen regulator is specifically designed to meet the specifications of HVAC/R and automotive A/C systems. This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

- 1/4" SAE flare outlet port, with control valve, to keep pressure on the regulator at all times
- T-Handle for ease of pressure adjustment
- 2 1/2" gauges with guards
- High pressure gauge 4400 psig (300 bar)
- Low pressure gauge 1000 psig (70 bar)
- Kits come with leak testing gauge and charging hose, packaged in a blow molded case



NEW!

 Directive 97/23/EC



53001 NITROGEN PRESSURE REGULATOR

- CGA580 (US) Standard
- 1/4 FL-M outlet connection

53010 PRESSURE TESTING REGULATOR KIT

- 53001 Nitrogen Pressure Regulator
 - CGA580 (US) Standard
 - 1/4 FL-M outlet connection
- 48" Yellow Charging Hose (47482)
- Leak Testing Adapter (53042)
- Blow molded case (53000-PB)

OPTIONAL ACCESSORIES

PART #	DESCRIPTION
66434-R	High Side Standard R134a 1/4" FL-M x 13mm Economy Coupler
82834	High Side Manual R134a 14mm-F x 16mm Coupler
90413	R410a Straight Adapter 1/4" FL-M x 5/16" Swivel-F
53042	Leak Testing Adapter
53000-42	Leak Testing Gauge
53000-70	Low Pressure Regulator Gauge
53000-300	High Pressure Regulator Gauge
47482	48" Yellow Charging Hose
93254-E	Black Gauge Guard
53000-W	Teflon Washer



69HVAC ULTIMA ID™ HVAC REFRIGERANT IDENTIFIER 69HVAC-P ULTIMA ID™ HVAC REFRIGERANT IDENTIFIER WITH PRINTER

Introducing the Ultimate in Refrigerant Identification! The Ultima ID Refrigerant Identifier is the most advanced A/C service tool on the market. Smarter and faster than any refrigerant identifier you've ever used, its compact size and light weight makes testing easier.

Avoid costly cross contamination!

- Contractors can accurately determine the type of refrigerant they are recovering.
- Wholesalers can quickly check contractors' refrigerant and prevent contamination to their bulk reclaim supply.
- Reclaimers can easily pre-screen incoming refrigerant prior to the costly GC process and catch problem refrigerant before it causes damage.

Comes with complete kit:

- 1/4" Flare sample hose
- 110/220VAC Power Adapter
- Identifier and accessories housed in a rugged portable case

SPECIFICATIONS:

- Refrigerant: R12, R134a, R22, and HC
- Weight: 8.0 lbs.
- Power requirements: 110/220 VAC via included adapter
 - 12-15V DC optional battery pack (Internal)
- Output: Digital display and LEDs
 - Optional built-in printer
- Display: 128 x 64 Pixel Graphing
- Resolution: 0.1%
- Operating humidity: 0-95% RH non-condensing
- Operating temperature: 40°F to 130°F



69HVAC-PRO ULTIMA ID™ PRO HVAC REFRIGERANT IDENTIFIER

Diagnostic refrigerant analyzer for multiple HVAC and refrigeration applications

The Ultima ID Pro HVAC/R Refrigerant Analyzer enables fast, accurate testing of refrigerant, reducing the need for costly and time-consuming gas chromatography. Improved accuracy and the ability to test for a wide variety of refrigerants make this an essential tool for pre-screening refrigerant prior to consolidation and reclamation.

FEATURES:

- Oil contamination resistant
- Fast test results
- Internal thermal printer
- Greater accuracy in less time
- Wide refrigerant range
- Refrigerant composition breakdown
- Remote software updates for new refrigerants

SPECIFICATIONS:

- Refrigerant: R22, R134a, R404A, R407C, R410A, Hydrocarbons and many more
- Weight: Less than 10 Lbs.
- Accuracy: +/- 2% of indicated gasses or better
- Power Requirements: 12 VDC @ 2A via 110/220 VAC Adapter
- Approvals: CE, UL and CUL
- User Interface: Graphic display, soft keys, built in printer
- Sample Gas Extraction: Pressure from cylinder or system
- Temperature Range: 50 to 110°F
- Response Time: Less than 3 minutes
- Humidity: 0-95% RH non-condensing
- Test Sample Size: 5g per test
- Test Pressure: 50psi - 500psi



69HVAC-PR

Printer roll for 69HVAC-P & 69HVAC-PRO



Mastercool®
"World Class Quality"

TWIN TURBO

REFRIGERANT RECOVERY MACHINE

Mastercool introduces its newest addition to the recovery machine lineup. Taking the reliability of the 69000 series machines, Mastercool has enhanced those features to allow for maximum recovery capacity while at the same time decreasing size and weight. The design of the new double piston compressor and cooling by the largest fan and condenser in the market makes the new 69300 series the most complete solution to your recovery needs!

69300 115V - 60 HZ
69300-220 220V - 50/60 HZ



Features & Benefits:

- Revolutionary double piston oil-less compressor
- Safety high pressure switch
- Simple internal structure for field service
- Largest volume recovery rate in market
- For use with all refrigerants including R410A
- Injection molded high density polyethylene case for maximum durability
- Front cover has bumper guards built in to reduce damage to the control knobs

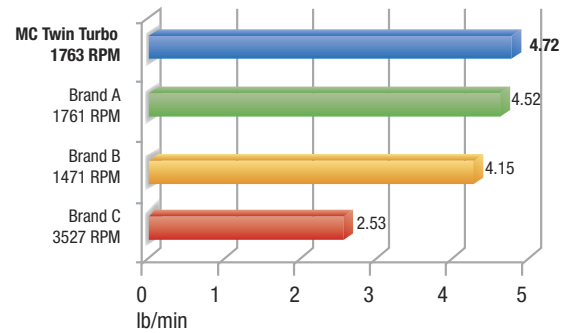
Specifications:

- 1/2 HP Oil Less Compressor
- Recovery Rate:

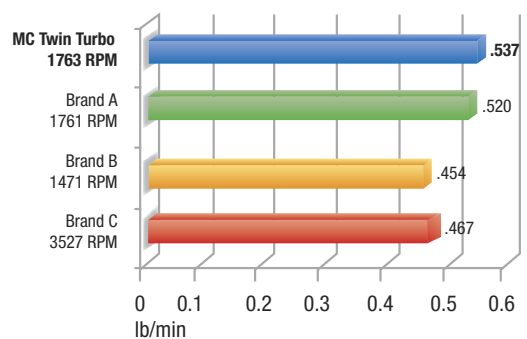
R134a	R22	R410A
• Direct vapor up to .537 lb/min	• Direct vapor up to .63 lb/min	• Direct vapor up to .70 lb/min
• Direct liquid up to 4.72 lb/min	• Direct liquid up to 7.56 lb/min	• Direct liquid up to 7.7 lb/min
• Push pull up to 11.68 lb/min	• Push pull up to 18.3 lb/min	• Push pull up to 20.2 lb/min

- Operating Temperature: 32 to 122°F
- Weight: 28.3 lbs
- Dimensions: 18" (l) x 10" (w) x 14" (h)
- Case Material is HDPE (High Density Polyethylene)
- Compatible Refrigerants: All CFC, HCFC and HFC's

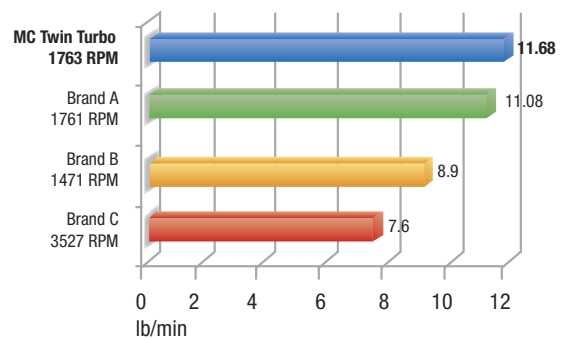
Liquid Recovery (Out) lb/min
 • Temperature: 79 to 82°F / Refrigerant: R134a



Vapor Recovery (Out) lb/min
 • Temperature: 79 to 82°F / Refrigerant: R134a



Push Pull lb/min
 • Temperature: 79 to 82°F / Refrigerant: R134a



3 pole female float switch cable

69370
 TWIN TURBO Refrigerant Recovery Machine with a 6' 3 pole female float switch cable

REFRIGERANT RECOVERY SYSTEM

These recovery systems are compact, lightweight and work with all refrigerants. They're ideal for commercial, residential or industrial appliance applications.

Our recovery systems offer a state-of-the-art 1/2 HP oil-less compressor with a built-in high volume cooling fan. This innovative design delivers maximum cooling efficiency which keeps the compressor working at high capacities in even the hottest climates. The compressor is also protected by an automatic low pressure cut-off switch that shuts off the unit once the recovery is complete. This AUTO SHUT-OFF feature eliminates the risk of compressor failure and reduces the user's need to monitor the entire recovery system.

All of our recovery systems offer our color-coded gauges with pressure readings in PSI, BAR and MPa. Our stainless steel ball valve designed manifold, controls the flow smoothly and quickly with only a 1/4 turn. With all of this protected by a reinforced hard plastic case, Mastercool's recovery systems will meet all your refrigerant recovery needs.

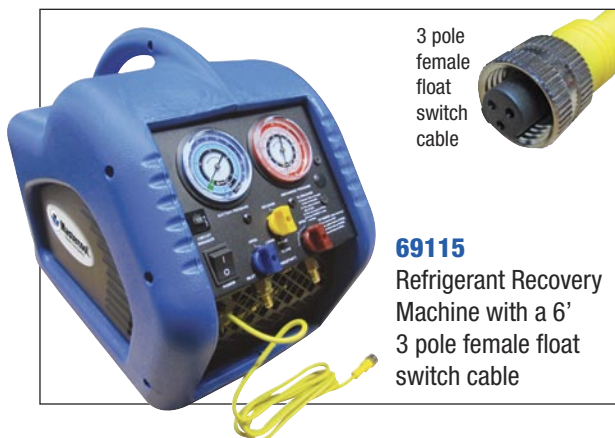
69000	115V – 60Hz
69000-220	220V – 50/60Hz

FEATURES:

- High performance oil-less compressor
- High volume cooling fan design
- Automatic low pressure Cut-Off Switch
- Liquid compatible head-valve system
- Safety high pressure Cut-Off Switch
- Fully reinforced hard plastic casing
- Made in USA

SPECIFICATIONS:

- 1/2 HP oil-less compressor
- Recovery Rate:
 - direct vapor up to .44 lb/min
 - direct liquid up to 2.6 lb/min
 - push-pull up to 11.9 lb/min
- Operating Temp. Range: 32 to 122°F (0 to 50°C)
- Weight: 38 lbs (16 kg)
- Dimensions: 17" (l) x 10" (w) x 12" (h)
- Refrigerants: CFC's, HCFC's, HFC's



3 pole female float switch cable

69115
Refrigerant Recovery Machine with a 6' 3 pole female float switch cable

69500 RECOVERYMATE

Turn any Recovery Machine into a Portable Recycler by adding the RECOVERYMATE!

SPECIFICATIONS:

- Lightweight and easy to carry
- 4-Way Ball Valve Manifold controls the flow smoothly and quickly with only 1/4 turn
- Large capacity oil separator
- High Performance Dryer eliminates moisture from recovered refrigerant
- Extra large sight glass monitors refrigerant flow and changes color when a dryer change is necessary
- Rugged carrying case can stand on its own or be mounted on a wall or bench
- Length: 15" (38 cm)
- Width: 4" (10 cm)
- Height: 17" (43 cm)
- Weight: 12.25 lbs (5.5 kg)



Mastercool®
"World Class Quality"

PORTABLE ELECTRONIC CHARGING STATIONS

A lightweight, durable, steel frame cart that contains all the necessary tools to quickly and conveniently charge the A/C system. No need for different sized charging cylinders with Mastercool's rugged die cast electronic scale. Simply place the refrigerant cylinder on the scale and charge.

FEATURES:

- A rugged, lightweight steel cart with wheels and convenient storage pocket for scale and hoses allows this portable charging station to be taken almost anywhere
- 240 lb capacity scale with long lasting 9V battery (60 hrs)
- Deep micron, rotary vane vacuum pumps.
- Extruded aluminum manifold with long lasting valve design

2 STAGE PORTABLE ELECTRONIC CHARGING STATION

- Large 3 1/8" gauges make it easy to read the pressure and temperature scales
- Deep micron, rotary vane vacuum pumps
Available in 1.5, 5 and 7.5 CFM
- Includes set of 72" hoses

VACUUM PUMP	1.5 CFM 110V	5 CFM 110V	7.5 CFM 110V
MANIFOLD			
2 Way Alum Block	91580	91585	91587
4 Way Alum Block	91581	91586	91588



SINGLE STAGE PORTABLE ELECTRONIC CHARGING STATION

- 2 1/2" gauges
- Deep micron, rotary vane vacuum pumps.
Available in 1.5, 3 and 6 CFM



91580-A	91580-B	91585-B
R134a 2-way Manifold	R134a 2-way Manifold	R134a 2-way Manifold
1.5 CFM Single Stage Vacuum Pump	3 CFM Single Stage Vacuum Pump	6 CFM Single Stage Vacuum Pump
Electronic Charging Scale	Electronic Charging Scale	Electronic Charging Scale
Manual Couplers	Manual Couplers	Manual Couplers
Set of Hoses	Set of Hoses	Set of Hoses



53515 MACH IV FLEXIBLE UV LIGHT

The Mach IV flexible UV light has **4 TRUE UV LEDS** delivering a brilliant fluorescent glow. **PATENT NO. 6,647,761**

- Gets into tight areas easily
- Rugged ergonomic grip
- Includes UV enhancing safety glasses

53518-UV RECHARGEABLE UV FLASHLIGHT

- Twist the handle to zoom the UV light in or out
- AAA battery holder provides backup power to flashlight
- Includes safety glasses



UV FLASHLIGHTS

- Aluminum body with Type III anodized finish
- Easy grip texture
- 25,000 hour bulb life
- 3 AAA batteries
- Operates for 22 hours under normal work conditions

53512-UV MINI UV FLASHLIGHT

- 12 LED Bulb UV Illumination
- Includes safety glasses



53517-UV COMPACT UV FLASHLIGHT

- 17 LED Bulb UV Illumination
- Includes safety glasses



ULTRAVIOLET DYES

used with 53223 Injector

CONCENTRATED (2 oz Replaceable Cartridge)

53825 Universal Dye Cartridge
Ester (POE) Oil Base

ULTRAVIOLET DYES

used with 53123, 53322, 92376 Injectors

STANDARD (1/4 oz Pack)

92699 Universal Standard Dye
Six 1/4 oz Packs (6 pcs)

STANDARD (8 oz Bottle)

92708 Universal Standard Dye
8 oz Ester (POE) Oil Base

STANDARD (32 oz Bottle)

92732 Universal Standard Dye
32 oz Ester (POE) Oil Base

CONCENTRATED (2 oz Bottle)

53625 Universal Dye - Ester (POE) Oil Base



53223 "CARTRIDGE TYPE" UNIVERSAL DYE/OIL INJECTOR

Replaceable Cartridge with 2 ounces of Universal Dye that is compatible with R12/22/502 and R134a Systems. The injector hose comes complete with R134a Coupler (Auto A/C Systems) and Auto Shut-off Valve Adapter for 1/4" FL Systems.



included



53123 REFILLABLE UNIVERSAL DYE/OIL INJECTOR

Refillable Universal Dye/Oil Injector with 2 oz Bottle of Concentrated A/C Dye that is compatible with R12/22/502 and R134a Systems. The injector hose comes complete with R134a Coupler (Auto A/C Systems) and Auto Shut-off Valve Adapter for 1/4" FL Systems.



included

53123-A without Concentrated A/C Dye



53322 REFILLABLE UNIVERSAL DYE INJECTOR

Refillable Universal Dye Injector with 1/4" Auto Shut-Off Valve Connection & 2 oz Bottle of Concentrated A/C Dye.



included

53322-A without Concentrated A/C Dye



92376 ON-LINE DYE INJECTOR

Refillable On-Line Dye Injector with 1/4" Auto Shut-Off Valve Connection.



ACCESSORIES

53314 DYE REMOVER - 4oz (120ml)

53315 SERVICE LABELS - 25 per pack, bright yellow label indicating that the system has been charged with UV Dye

92398 UV ENHANCING SAFETY GLASSES - This is a must for protection against ultraviolet light during leak detection.



Mastercool[®]
"World Class Quality"

55100 ELECTRONIC LEAK DETECTOR

The 55100 offers an accurate and reliable solution to Electronic Leak Detection.

FEATURES:

- 3 levels of sensitivity (5 levels of detection)
- Visual leak level indicator
- Detects leaks as small as 1/10 oz per year
- Includes a custom molded carrying case
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Meets and exceeds SAE J1627



55300

55400 COMPLETE ELECTRONIC & UV LEAK DETECTION KIT

This kit offers the "INSPECTOR" along with our UV Dye Injection System. Our "refillable" dye injector is fast and easy to use. Just twist the handle to inject the appropriate amount of dye.



55400

REPLACEMENT DYES for 55300

53825 Universal Dye Cartridge
- Ester (POE) Oil Base (2 oz)

REPLACEMENT DYES for 55400

53625 Universal Dye

- Ester (POE) Oil Base (2 oz)

92708 R12/22/502 Universal Standard Dye

- Ester (POE) Oil Base (8 oz)

92732 R12/22/502 Universal Standard Dye

- Ester (POE) Oil Base (32 oz)



53825

92708

53625

92732

55200 "INSPECTOR" 2 IN 1 ELECTRONIC/UV LEAK DETECTOR



POPULAR



This revolutionary patented design allows the user to perform Electronic and UV Leak Detection all with one tool. The "INSPECTOR" offers six levels of sensitivity (15 levels of detection) with a tri-colored LED indicator. This allows the "INSPECTOR" to pin-point leaks as small as 1/10 oz (3gr) per year. The ultra bright UV light is built into the end of the probe allowing easy access into tight areas. Incorporating both electronic and UV technology into one unit insures that even the toughest leaks can be found. **Patent #6,647,761**

FEATURES:

- Ultra bright UV/Blue LED light
- UV enhancing safety glasses
- 6 levels of sensitivity (15 levels of detection)
- Tricolored visual leak level indicator
- Mute function
- Detects leaks as small as 1/10 oz (3gr) per year
- Includes a custom molded carrying case
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Meets and exceeds SAE J1627

53515-B LED Bulb for 55200

55100-SEN Replacement Sensor
for 55100 & 55200

55500 ELECTRONIC LEAK DETECTOR W/HEATED SENSOR AND 110V BATTERY CHARGER

Mastercool offers the next generation in Electronic Leak Detection! The HEATED SENSOR technology delivers fast and accurate results while eliminating non-refrigerant false alarms. **Patent #6,647,761**

SPECIFICATIONS:

- Operating Temp: 32 to 125°F (0 to 52°C)
- Power Supply: 2 C-Size 1.5 V Ni-MH Battery
- Battery Life: 8 hrs per cycle (1000 cycles)
- Warm-Up Time: 25 Seconds
- Probe/Core Length: 15" (381 mm)
- Dimension: 7 x 7" (178 x 178mm)
- Weight: 1.10 lbs (.49 kg)
- Ultimate Sensitivity: 1/10 oz (3gr) per year

FEATURES:

- Six sensitivity levels
- Automatic warm up
- Reset function
- Dual-colored visual LED leak size display
- Blue UV LED light
- Rechargeable Ni-MH battery
- Low battery indicator
- High volume pump
- Meets and exceeds SAE J1627
- Made in USA
- Detects all refrigerants (CFC's, HCFC's, HFC's)

53515-B LED Bulb for 55500
55500-SEN Replacement Sensor

**55750 COMBUSTIBLE GAS LEAK DETECTOR W/110V BATTERY CHARGER**

Mastercool introduces its new hand-held combustible gas leak detectors. Offering the most advanced sensor technology with a state-of-the-art microprocessor, these units detect leaks fast and accurately. The flexible 15" probe has a bright LED light built into the tip for easy viewing in hard to reach locations. The membrane switch panel offers easy one touch control and operation. Each of the six levels of sensitivity has an audible alarm and visual indicator to identify leak activity. These units include the newest rechargeable Ni-MH battery (nearly double the power of existing Ni-Cad batteries) and come in a custom molded case. **Patent #6,647,761**

DETECTS: Acetone, Acetylene, Ammonia, Benzene, Butane, Butanol, Chlorine, Ethane, Ethanol, Gasoline, Hexane, Hydrogen, Hydrogen Sulfide, Isobutane, Methane (natural gas), Methanol, Methyl Acetate, Methyl Chloride, Methyl Ether, Naptha, N-Butane, Pentane, Propane, Propanol, Sulfur Dioxide and Trichloroethane.

SPECIFICATIONS:

- Operating Temp: 32 to 125°F (0 to 52°C)
- Power Supply: 2 C-Size 1.5 V Ni-MH Battery
- Battery Life: 8 hrs per cycle (1000 cycles)
- Warm-Up Time: 25 seconds
- Probe/Core Length: 15" (381mm)
- Dimension: 7 x 7" (178 x 178mm)
- Weight: 1.10 lbs (.49 kg)
- Ultimate Sensitivity: 50 – 1000 ppm

FEATURES:

- Audible leak alarm & visual leak size indicator
- Custom molded carrying case
- Rechargeable Ni-MH battery
- Low battery indicator
- Automatic warm up
- Reset function
- Six sensitivity levels
- Bright LED light



Mastercool[®]
"World Class Quality"

52224-A INFRARED THERMOMETER W/LASER

The 52224-A offers laser targeting accuracy, enhanced backlit LCD Display and an expanded temperature range. The compact design is simple to use and easy to store.

Temperature Range: -58°F to 932°F (-50°C to 500°C)

Field of View: 12 : 1

52224-C INFRARED THERMOMETER WITH DUAL LASER

Features both infrared and dual laser technologies.

Temperature Range: -76 to 1022°F (-60 to 550°C)

Field Of View: 12 : 1



52225-A DUAL TEMP PLUS INFRARED THERMOMETER

Features both infrared and contact thermometer technologies. Includes programmable HI/LO alarms and Lock Mode to capture temperature readings. The contact function offers a built-in K type jack and wire thermocouple.

Non-Contact Temperature Range: -76 to 1400°F (-60 to 760°C)

Field of View: 30 : 1

52225-B ULTRA TEMP DUAL LASER THERMOMETER

Features both infrared and contact thermometer technologies. Includes programmable HI/LO alarms, and Lock Mode to capture temperature readings. The built-in K type jack offers optional contact functions. Illuminates working area with built-in LED light.

Non-Contact Temperature Range: -76 to 1832°F (-60 to 1000°C)

Field of View: 50 : 1



SPECIFICATIONS:

Model #	52224-A	52224-C	52225-A	52225-B
Non-Contact Temperature Range:	-58 to 932°F (-50 to 500°C)	-76 to 1022°F (-60 to 550°C)	-76 to 1400°F (-60 to 760°C)	-76 to 1832°F (-60 to 1000°C)
Thermocouple Temperature Range:				-83 to 1999°F (-64 to 1400°C)
Field of View:	12 : 1		30 : 1	50 : 1
Display Illumination:	Backlit LCD Color Display		Backlit LCD display	
Target Indicator:	Single Laser Spot	Dual Laser Spot	Single Laser Spot	Dual Laser Spot
Emissivity:	0.98	0.95	0.10 (10E) to 1.0 (100E)	
Resolution:	0.5°F / 0.5°C		0.1°F / 0.1°C	
Modes:	MIN, MAX, DIFF & AVG			
Accuracy:	±2°C (4°F) or ±2% of reading			
Response Time:	0.5 seconds		1 second	
Power Off:	Automatic after 15 seconds			
Battery Life:	Approximately 180 hours			
Included Accessories:	2 AAA batteries, instruction manual, plastic molded carrying case		2 AAA batteries, 1m thermocouple probe, instruction manual, plastic molded carrying case	
Optional Accessories:			3m Wire Thermocouple Probe, Piercing Penetration Probe, Surface Probe, Air Probe	
			1m, 3m Wire Thermocouple Probes, Piercing Penetration Probe, Surface Probe, Air Probe, Removable Magnetic Base	

All thermometers include pocket holder and clip.

POCKET ANALOG DESIGNS

Item#	Dial Size	Temperature Scale
52220	1"	0 to 220°F
52161	1 3/8"	-40 to 160°F
91120	1 3/4"	0 to 220°F

POCKET DIGITAL DESIGN

Item#	Dial Size	Temperature Scale
52223-A	1"	-58 to 302°F

Battery operated (1.5V, life of 5000 hours), (on/off and auto shut-off after 10 minutes)



52226 DUAL TEMP INFRARED/PROBE THERMOMETER

The 52226 Dual Temp Thermometer offers both infrared and contact probe technologies.

- Infrared Temp Range: -67 to 428°F (-55 to 220°C)
- Probe Temp Range: -67 to 626°F (-55 to 330°C)
- Field of View Ratio 1 : 1
- Adjustable Emissivity
- Lock Mode for hands free scanning
- Minimum/Maximum capture mode
- Contact Probe locks safely on the side of the unit

52227 POCKET INFRARED THERMOMETER

The 52227 Pocket Infrared Thermometer offers accurate non-contact temperature measurement in a compact and easy to use size.

- Temp Range: -67 to 428°F (-55 to 220°C)
- Field of View Ratio 1 : 1
- Adjustable Emissivity
- Backlit LCD Display
- Minimum/Maximum capture mode



52228 DIGITAL DIFFERENTIAL THERMOMETER

The 52228 Digital Differential Thermometer provides instant measurements of TWO points. (T1, T2) and T1 - T2.

- Max Hold Function
- Data Hold Function
- Temperature in °F or °C
- AUX Output Jacks
- T1 - T2 Differential
- Temp. Range: -50 to 1999°F (-50 to 1300°C)
- Type K Thermocouple Input
- Resolution: 1°F (1°C)
- Includes two 3 ft (1m) Thermocouple Probes



52229 HANDHELD WATERPROOF DIGITAL THERMOMETER

- Measuring Range: -58 to 572°F / -50 to 300°C
- Wide Measurement Range
- Maximum/Minimum temperature memory
- Celsius and Fahrenheit exchange
- Data hold function
- High/Low temperature alarm setting
- Key tone for operation confirmation
- Stainless steel probe
- Foldaway stand



OPTIONAL THERMOCOUPLE PROBES

52331 WIRE PROBE - 3 FT (1M)

52332 WIRE PROBE - 10 FT (3M)

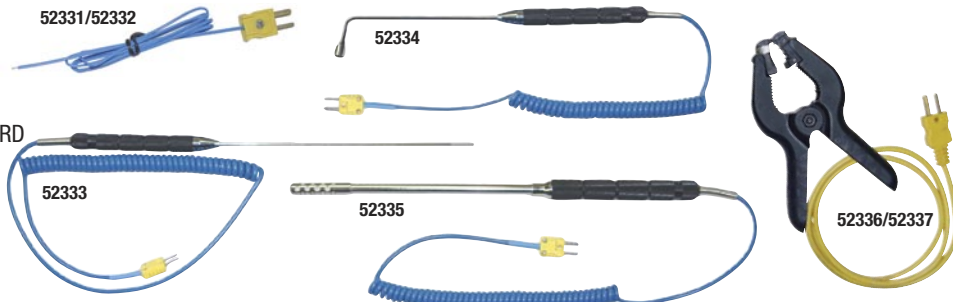
52333 PIERCING PENETRATION PROBE W/COIL CORD

52334 SURFACE PROBE W/COIL CORD

52335 AIR PROBE W/COIL CORD

52336 CLAMP-ON PROBE - 3 FT (1M)

52337 CLAMP-ON PROBE - 10 FT (3M)



Mastercool®
"World Class Quality"

Complete A/C System Diagnostic Tool

Mastercool's new A/C System Analyzer is an all-in one tool that not only calculates critical information for the air conditioning system but also diagnoses basic system problems. The LCD display leads the technician through basic tests making service quicker and less complicated. The A/C System Analyzer is able to calculate: Actual Superheat, Subcool, Target Superheat, Temperature Split, Dry Bulb, Wet Bulb, Relative Humidity, Dew Point, Air Velocity and Air Flow Volume.

The A/C System Analyzer easily guides the technician in determining if the refrigerant charge is correct. No calculations or charts are needed. Easily save test results under a customer and technician name and even download the data for future reference.

NEW!



52251



52270



52280

ACCESSORY SPECIFICATIONS:

ROUND VANE (52253):

- Temp. Range/Resolution/Accuracy:**
- 20 to 60°C (-4 to 140°F)
 - 0.1°C (32°F)
 - ±0.6°C (33°F) (-20 to 50°C (-4 to 122°F)), ±1.2°C (34°F) at other range
- Humidity Range/Resolution/Accuracy:**
- 0.1% to 99.9% RH
 - 0.1% RH
 - ±3% RH (at 25°C (77°F), 10 to 90% RH), ±5% RH at other range
- Windspeed Range/Resolution/Accuracy:**
- 0.6 to 32 m/s
 - 0.1 m/s
 - ±2% of full scale

ANTENNA TYPE METER (52254):

- Temp. Range/Resolution/Accuracy:**
- 20 to 60°C (-4 to 140°F)
 - 0.1°C (32°F)
 - ±0.6°C (33°F) (-20 to 50°C (-4 to 122°F)), ±1.2°C (34°F) at other range
- Humidity Range/Resolution/Accuracy:**
- 0.1% to 99.9% RH
 - 0.1% RH
 - ±3% RH (at 25°C (77°F), 10 to 90% RH), ±5% RH at other range
- Windspeed Range/Resolution/Accuracy:**
- 0.5 to 25 m/s
 - 0.1 m/s
 - ±(2% of reading +0.3 m/s)

PRESSURE TRANSDUCER (52252):

- Operating Pressure Range: 0-750 psi (0-52 bar)
- 1/4 FL Swivel nut connection
- Accuracy: ±0.5, ±1% F.S.
- Operating Temperature: -40 to 100°C (-40 to 212°F)
- Certification: CE, Explosion-proof D
- EMC: EN50081-1/-2; EMS: EN50082-2

CLAMP-ON THERMOCOUPLE (52336):

- Temp. Range/Resolution**
- 200 to 1370°C (-328 to 2498°F)
 - 0.1°C (32°F)



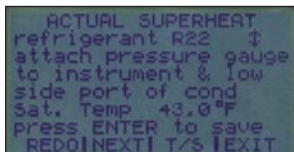
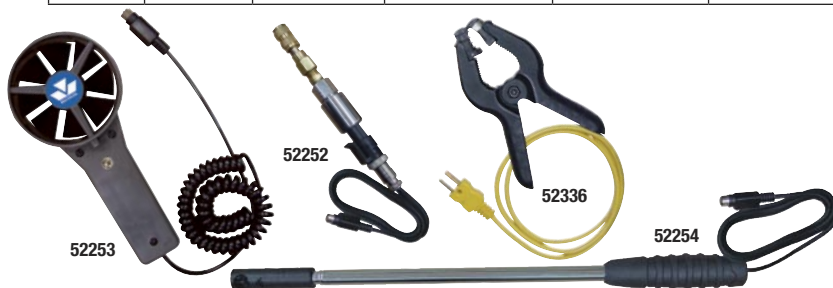
FEATURES:

- Calculates actual superheat and subcool temperatures for the following refrigerants: R22, R114, R123, R124, R134a, R141, R142, R401A, R401B, R404A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R414A, R414B, R417A, R507A
- Provides all the functions of a high-end anemometer: airflow volume, air velocity, dry bulb temperature, wet bulb temperature, relative humidity and dew point
- Save results and download in Excel format for future use
- Optional Pressure Transducer for direct system readings
- Optional Antenna Type Meter for any hard to reach locations

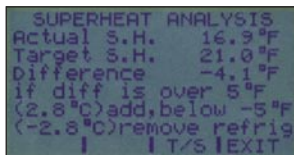
SPECIFICATIONS:

- Operating Temperature: 0 to 50°C (32 to 122°F), humidity <80%
- Storage Temperature: -20 to 50°C (-4 to 122°F), humidity <90%
- Dimensions with boot: 191mm x 93mm x 41mm
- Weight: (meter w/ batteries & round vane) 500g
- Temperature Display: °F and °C
- Pressure Display: PSI and Bar
- Backlit LCD Display
- Low battery indicator
- K-type thermocouple connection
- USB connection
- 6 AA batteries

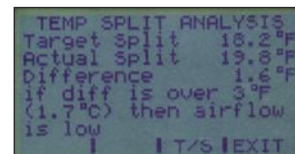
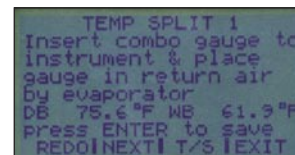
Part #	52251 System Analyzer	52253 Round Vane	52254 Antenna Type Meter (extends to 37")	52336 3 Ft. Clamp-on Thermocouple	52252 Pressure Transducer
SYSTEM ANALYZER KITS in a blow molded plastic box					
52255	✓	✓	-	✓	-
52260	✓	-	✓	✓	-
52270	✓	✓	-	✓	✓
52280	✓	-	✓	✓	✓



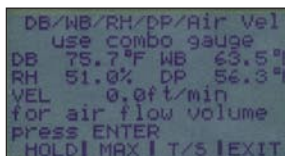
Pressure transducer and thermocouple will measure saturated temperature and actual temperature, to calculate actual superheat and subcool temperature.



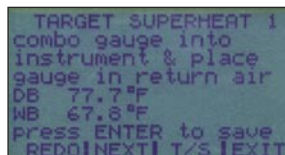
System will compare target and actual superheat.



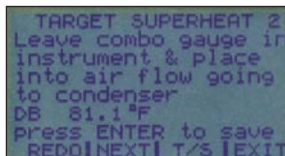
Just two measurements with the probe will give the target temperature split and actual temperature split across the evaporator and compare the two.



Probe will measure dry bulb, wet bulb, relative humidity, dew point, air velocity and air volume.



Get target superheat temperature by following screen instructions for two simple measurements with the probe.



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"World Class Quality"



52246 COMPACT SUBCOOL/SUPERHEAT CALCULATOR

ACHIEVE SUBCOOL OR SUPERHEAT READINGS IN 3 EASY STEPS...

- 1.) Enter refrigerant
- 2.) Enter pressure from gauges
- 3.) Clamp thermocouple on proper tube

FEATURES:

- Pre-programmed with 24 popular refrigerants
- Clamp-on K-Type thermocouple included to achieve accurate temperature measurement
- View bubble and dew temperature for corresponding pressure on large LCD display
- Easily select superheat or subcool temperature with a touch of a button
- Easily look up saturated temperature using the pressure from any gauge set
- Hold function keeps data on the LCD even when thermocouple is disconnected

SPECIFICATIONS:

- 24 Refrigerants (R22, R114, R123, R124, R134, R134a, R141B, R142B, R401A, R401B, R404A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R414A, R414B, R417A, R507A)
- °F or °C Temperature
- Displays Bubble, Saturated and Dew Point Temperatures
- Pressure displays in Kg/cm², MPa, Bar, PSI (0-600 PSI)

52236 AIRFLOW + PSYCHROMETER

Reads Humidity, Air Temp., Dew Point, Wet Bulb, Air Velocity, Air Volume & BTU.

The sensor is built into the remote fan and is protected by a rotating cap.

FEATURES

- Auto-off with disabling capability
- Large backlit LCD display
- Metric & inch unit selection
- Fast response & accurate reading
- Tripod mountable for extended use
- Dew Point & wet bulb
- Microprocessor circuitry
- 4 AAA batteries
- Professional remote vane
- Low battery indicator

SPECIFICATIONS:

- *Temperature:* -4 to 140°F (-20 to 60°C)
Accuracy: ±1°F (±0.6°C)
- *Relative Humidity:* 0 to 100% RH
Accuracy: ±3% at 10 to 90% RH (cal. temp.) ±5% at other range
- *Dew Point:* -90 to 158°F (-68 to 70°C)
- *Wet Bulb Temperature:* -7.6 to 158°F (-22 to 70°C)
- *Air Velocity:* 0.3 to 35 m/s (1 to 114 ft/s)
- *Air Volume:* 0 to 99999 m³/s (0 to 99999 cfm)



52237 DATA LOGGER CD & USB CABLE

for use with 52236

AirFlow + Psychrometer



52230 PEN TYPE HYGROMETER

- Rotating cap to protect sensor
- Temperature and humidity in °F or °C
- Data hold to capture readings
- LCD digital display
- Max/Min record function
- Auto-off function

SPECIFICATIONS:

Size: 6.8" x 1.6" x 0.6"
 Sensor: Electronic Capacitance Polymer Film
 Temp. Range: -4 to 140°F (-20 to 60°C)
 RH Range: 0 to 100%
 Accuracy: ±3% from 10 to 95% RH at 77°F (25°C) / ±1% from other RH range
 Resolution: 0.1°F / 0.1°C / 0.1%
 Storage Temp.: 14 to 140°F (-10 to 60°C) / Storage RH%: <95%
 Battery: (1) CR2032 (Lithium Coin Cell) / Battery Life: 100 hrs.

52233 DIGITAL PSYCHROMETER

- Rotating cap to protect sensor
- LCD digital display
- Low battery indicator
- Max/Min record function
- Auto Power Off with disabling capability
- External temp. probe (optional)
- Data hold to capture readings
- Fast response, accurate reading
- Microprocessor circuitry for reliability

SPECIFICATIONS:

Temp. Range: -4 to 122°F (-20 to 50°C)
 RH% Range: 0 to 100% RH
 Wet Bulb Range: -6.88 to 122°F (-21.6 to 50.0°C)
 Dew Point Range: -109.7 to 122°F (-78.7 to 50.0°C)
 Ext Temp. Range: -4 to 158°F (-20 to 70°C)
 Accuracy: RH% 3% at 77°F (25°C)/Temp: 1°F (0.6°C)
 Response Time: 60 seconds
 Pocket Size: 0.9" (h) x 1.9" (w) x 7.0" (l)
 Power: (2) 1.5V AAA battery



52231 PROBE
probe for 52233

52733 SALT SOLUTION BOTTLE 33% (dark brown bottle)

52775 SALT SOLUTION BOTTLE 75% (blue bottle)
for calibrating 52230 Pen Type Hygrometer and 52233 Digital Psychrometer



52238 DIGITAL SOUND LEVEL METER

- Automatic or manual ranging
- 4 measurement ranges from 40 to 130 dB
- 0.1dB resolution
- Select fast or slow response times
- Select A or C weighting
- Maximum hold function
- Record maximum or minimum measurements
- Jacks provide AC analog output

52240 PROFESSIONAL HVAC/R CLAMP METER

- Multi-Function: Frequency count, diode check and alarm
- Current: (AC) 20 MA - 600A
- Voltage: AC 200 mv - 750V / DC 1V-1000V
- Auto Power OFF
- Frequency: 10Hz - 2KHZ
- Ohms: (Resistance) 200m ohm-20K ohm
- Peak data hold
- Unit and sign display



Mastercool®
"World Class Quality"

HYDRA-SWAGE

Fabricates and Expands Copper, Aluminum and Soft Steel Tubing Using Hydraulic Power

71600 (7 HEAD KIT) Consists of Expander Heads 3/8, 1/2, 5/8, 3/4, 7/8, 1 and 1 1/8", Hydra-Swage 71601, Adapter and Inner-Outer Reamer

71650 (10 HEAD KIT) Consists of Expander Heads 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 3/8, 1 5/8, and 2 1/8", Hydra-Swage 71601, Adapter and Inner-Outer Reamer.

PATENT# 6,619,099



71600



71650



PART#	DESCRIPTION	TUBE O.D.
71601	Hydra-Swage	
71601-D	Adapter for 71601	
71685	Inner - Outer Reamer	
71600-PB	Molded Box for 71600, 71600-M & 71650	
71600-03	Expander Head	3/8"
71600-04	Expander Head	1/2"
71600-05	Expander Head	5/8"
71600-06	Expander Head	3/4"
71600-07	Expander Head	7/8"
71600-08	Expander Head	1"
71600-09	Expander Head	1 1/8"



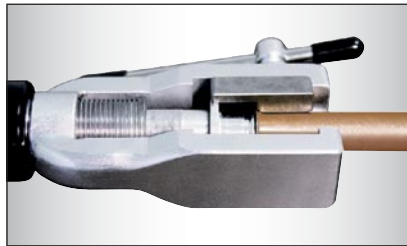
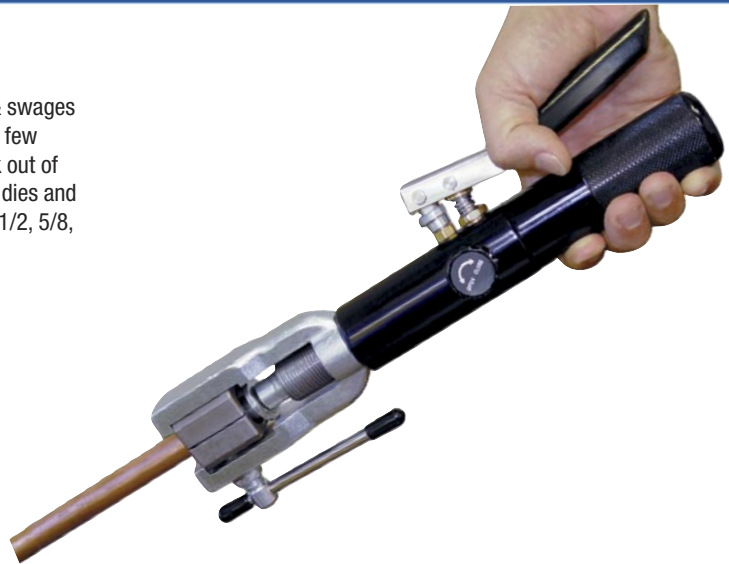
71600-11	Expander Head	1 3/8"
71600-13	Expander Head	1 5/8"

71700 HYDRAULIC FLARING & SWAGING TOOL

This kit features a hand-held hydraulic press that accurately flares & swages copper tubing. Once the die and adapter are secured in the fixture, a few pumps of the handle and you're done! This tool really takes the work out of swaging and flaring, especially on larger tube sizes. The kit includes dies and adapters for flaring and swaging copper tubing sizes 1/4, 5/16, 3/8, 1/2, 5/8, 3/4 and 7/8." Comes in custom molded carrying case.

PATENT# 5,782,128

PART NO.	DESCRIPTION
71700-A	Flaring & Swaging Pump
71700-B	Yoke Assembly
71700-PB	Plastic Molded Box
71700-01	45° Flaring Cone
71700-04	1/4" Swaging Adapter
71700-05	5/16" Swaging Adapter
71700-06	3/8" Swaging Adapter
71700-08	1/2" Swaging Adapter
71700-10	5/8" Swaging Adapter
71700-12	3/4" Swaging Adapter
71700-14	7/8" Swaging Adapter
71700-104	1/4" Die Set
71700-105	5/16" Die Set
71700-106	3/8" Die Set
71700-108	1/2" Die Set
71700-110	5/8" Die Set
71700-112	3/4" Die Set
71700-114	7/8" Die Set
71685	Inner-Outer Reamer
70087	Steel Brush Thread Cleaner



The copper tube is secured in the holding fixture by the forming dies. The hydraulic pump pushes in the forming adapter to fabricate the flare or swage.

This cut-away photo shows the forming process.



Mastercool[®]
"World Class Quality"

BALL BEARING CUTTERS

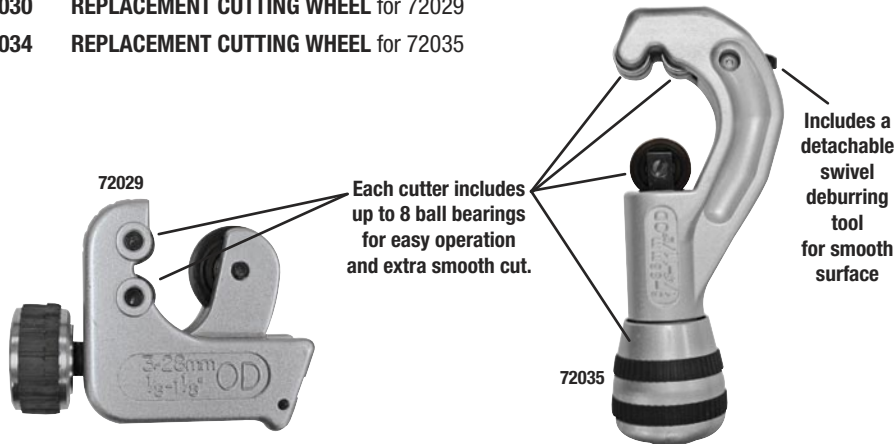
Mastercool's EZ Tube Cutters offer the latest "Reduced Friction" technology! Our reduced friction design incorporates ball bearings into the cutter wheel, tube rollers and a control knob. Reducing the resistance in these high friction areas allows the cutter to roll fast and easy as it slices through the tube. The "Reduced Friction" design is sure to save time and reduce fatigue!

72029 "REDUCED FRICTION" TUBE CUTTER for 1/8 to 1 1/8" (3-28mm)

72035 "REDUCED FRICTION" TUBE CUTTER for 1/4 to 1 1/2" (6-38mm)

72030 REPLACEMENT CUTTING WHEEL for 72029

72034 REPLACEMENT CUTTING WHEEL for 72035



TUBE CUTTERS

MASTERCool tube cutters are lightweight yet durable. Carbide steel cutting wheels work with hard and soft copper, aluminum, brass, thin wall steel and stainless steel. All cutters feature rollers with flare cut-off grooves to salvage as much old tubing material as possible.



70027

70027 MINI TUBE CUTTER for 1/8 to 5/8" (3-16mm) O.D. Tubing (1/8 to 1/2" Nominal)

Heavy duty mini cutter designed to work in tight quarters. Excellent for limited working space. Highly polished, chrome plating is corrosion resistant. Carbide wheel cuts hard and soft copper, aluminum, brass, thin wall steel and stainless steel.



70029

70029 MIdI TUBE CUTTER for 3/8 to 1 1/8" (4-28mm) O.D. Tubing (1/4 to 1" Nominal)

Triple chrome plated. Larger knob than 70027 mini tube cutter for easier tightening. Larger cutting wheel cuts faster. Carbide wheel cuts hard and soft copper, aluminum, brass, thin wall steel and stainless steel.



70033

70033 HEAVY DUTY TUBE CUTTER

for 1/8 to 1 1/8" (4-28mm) O.D. Tubing (1/4 to 1" Nominal)

70035 HEAVY DUTY TUBE CUTTER

for 1/4 to 1 5/8" (6-40mm) (1/4 to 1 1/2" Nominal)

Sliding, ratcheted cutters are ideal for oversize tubing. Carbide cutting wheel cuts hard and soft copper, aluminum, brass, thin wall steel and stainless steel. PVC wheel cuts plastic tubing and pipe including PVC and ABS.



70037

70037 SLIDING RATCHET TUBE CUTTER

for 1/4 to 2 5/8" (6-67mm) O.D. Tubing (1/4 to 2 3/4" Nominal), Triple Chrome Plated

70038 SLIDING RATCHET TUBE CUTTER

for 1/4 to 3 1/2" (6-89mm) O.D. Tubing (1/4 to 1 1/2" Nominal)



70090 TUBE CUTTER KIT

contains:

- 70027 Mini Tube Cutter for 1/8" to 5/8" O.D. Tubing (1/8" to 1/2" Nominal)
- 70029 Midi Tube Cutter for 3/8" to 1 1/8" O.D. Tubing (1/4" to 1" Nominal)
- 70033 Heavy Duty Tube Cutter for 1/8" to 1 1/8" O.D. Tubing (1/4" to 1" Nominal)

70090-A TUBE CUTTER KIT

contains:

- 70027 Mini Tube Cutter for 1/8" to 5/8" O.D. Tubing (1/8" to 1/2" Nominal)
- 70029 Midi Tube Cutter for 3/8" to 1 1/8" O.D. Tubing (1/4" to 1" Nominal)
- 70033 Heavy Duty Tube Cutter for 1/8" to 1 1/8" O.D. Tubing (1/4" to 1" Nominal)
- 70037 Heavy Duty Tube Cutter for 1/4" to 2 5/8" O.D. Tubing (1/4" to 2 3/4" Nominal)

RATCHET STYLE TUBE CUTTER

When you don't have swing room, ratchet action allows cutting all the way around the tubing easy.

- 70030** (1/4 to 7/8" O.D. Tubing)
- 70031** (5/16 to 1 1/8" O.D. Tubing)

70025 CAPILLARY TUBE CUTTER

Cuts all sizes of capillary tubes without collapsing the tube.

80021 PLUMBERS TYPE MINI CUTTER

Designed for applications with limited working space. Cuts soft copper, aluminum and thin wall steel tubing. Tube Cutter for 1/8 to 7/8" (4-22mm) O.D. Tubing. (1/8 to 3/4" nom.)

- 80121** Spare Cutting Wheel for 80021



REPLACEMENT CUTTER WHEELS

- 70028** Replacement Cutting Wheels for 70027 (10 pcs).
- 70034** Replacement Cutting Wheels for 70029, 70030, 70031, 70033, 70035 and 70037 (10 pcs + 1 holding screw).
- 70128** Carbide Cutting Wheel & Screw Set for 70027 includes: 2 Spare Cutting Wheels and 1 Holding Screw.
- 70134** Carbide Cutting Wheel and Screw Set for 70029, 70035, and 70037. Includes: 2 Spare Cutting Wheels and 1 Holding Screw.
- 70138** Replacement Cutting Wheel for 70038 (1 per pkg.) Cut Hard and Soft Copper, Aluminum, Brass, Thin Wall Steel and Stainless Steel.
- 70237** PVC Cutting Wheel for 70037. Cuts PVC and ABS.
- 70238** Oversize PVC Cutting Wheel for 70038. Wheel is 1 5/8" Diameter. Cuts PVC and ABS.

TUBE CONSTRICTOR WHEEL

- 70233** Used with 70033 or 70035.



ECENTRIC FLARING TOOLS & KITS

45° Eccentric Flaring Tool offered in metric and inch sizes.

Only Eccentric Flaring Tool on the Market to Cover up to 7/8"

3/8" access drive allows for use with impact wrench



70059

NEW!

Railing allows yoke to smoothly travel while keeping the flaring tool and bar aligned

70059
Flares 6 sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8" O.D. Tubing.

70060
Kit includes:
70059 Eccentric Flaring Tool,
71685 Inner-Outer Reamer,
70033 Heavy Duty Tube Cutter for (1/8" – 1 1/8") 4 to 28mm.



70060

NEW!

70057 Flares 6 Sizes: 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. Tubing.



70058 Kit includes: **70057** Eccentric Flaring Tool, **71685** Inner-Outer Reamer, **70033** Heavy Duty Tube Cutter for (1/8 – 1 1/8") 4 to 28mm. O.D. Tubing (1/4 to 1" Nominal).



70052 SLIDING DIE-BLOCK 45° FLARING TOOL

Uniquely designed flaring cone flares and burnishes in one easy operation. Slide-on yoke is simple to use. Hardened multi-size flaring bar speeds flaring time. Flares and burnishes 6 sizes: 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.



70051 STANDARD 45° FLARING TOOL

Durable forged steel slip-on yoke. Flaring bar is hardened, highly polished and nickel chrome plated. Auto centering yoke features bearing driven hardened cone for easy flaring. Flares 7 sizes: 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D. tubing.



70056 LARGE CAPACITY 45° FLARING TOOL

Flares large tube sizes. Hard chrome plated, swivel flaring cone makes flaring quick and easy. Flaring bar is hardened and nickel chrome plated. Flares 4 sizes: 5/8", 3/4", 7/8" and 1 1/8" O.D. tubing.





70091

70091 45° FLARING & CUTTING TOOL SET

45° Flaring & Cutting Tool Set includes:

70033 Heavy Duty Tube Cutter for 1/8" to 1 1/8"

70051 Standard 45° Flaring Tool flares 7 sizes: 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D. tubing.



70092

70092 45° FLARING, DOUBLE FLARING & CUTTING TOOL SET

The 70092 Tool Set includes a heavy duty tube cutter for 1/8 to 1 1/8" tubing, standard 45° flaring tool flares 7 sizes: 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 and 5/8" O.D. tubing and 5 double flaring adapters for 3/16, 1/4, 5/16, 3/8 and 1/2" O.D.

70093 45° SLIDING DIE-BLOCK FLARING & CUTTING TOOL SET

Includes heavy duty tube cutter (70033) and sliding die-block flaring tool (70052.) Uniquely designed flaring cone flares and burnishes in one easy operation. Slide-on yoke is simple to use. Hardened multi-size flaring bar speeds flaring time.

45° Sliding Die-Block Flaring & Cutting Tool Set includes:

70052 45° Flaring Tool flares and burnishes 6 sizes: 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.

70033 Heavy Duty Tube Cutter for 1/8" to 1 1/8" O.D. tubing.

70094 WIDE RANGE 45° FLARING & CUTTING TOOL SET

Includes heavy duty tube cutter (70033) and wide range flaring tool (70054) with rugged forged steel slip-on yoke. Flaring bars are hardened, highly polished and nickel chrome plated.

Wide Range 45° Flaring & Cutting Tool Set includes:

70054 Flaring Tool flares 9 sizes: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4"

70033 Heavy Duty Tube Cutter for 1/8" to 1 1/8" O.D. tubing.

70082 Ratchet Wrench for 1/4", 3/8", 3/16" and 5/16" O.D. tubing.



70093



70094



70053 45° FLARING & SWAGING TOOL SET

Durable forged steel slip-on yoke. Bars are chrome plated, hardened steel. Swages in close quarters where punch style cannot be used. Includes custom molded plastic box.

45° Flaring & Swaging Tool Set includes:

Two Flaring Bars covering 9 sizes: 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8 and 3/4" O.D. Tubing.

Five Swaging Adapters covering 7 sizes: 3/16, 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. Tubing.



70069-A 4-IN-1 LEVER STYLE TUBE BENDER

Complete 180° bend all metal multi-purpose tube bender for 3/16, 1/4, 5/16 and 3/8" O.D. Tubing.



SPRING STYLE TUBE BENDERS

Economical and effective tools for bending soft copper or aluminum tubing without kinks. Special nickel plated, spring steel is flared on one end for quick tube insertion. Each tool bends one size.

MODEL#	SIZE	LENGTH
70071	1/4"	10"
70072	5/16"	10"
70073	3/8"	10"
70074	1/2"	12"
70075	5/8"	14"
70077	3/4"	14"

LEVER STYLE TUBE BENDERS

Open side design slips over tube at any point. Makes smooth short radius bends up to 180° with minimum effort. Calibrated to show angle of bend. Easy 90° start requires much less effort to make fast and accurate bends. Each tool bends one size.



MODEL #	OUTSIDE DIAMETER OF TUBING	NOMINAL SIZE	RADIUS TO CENTER OF TUBE
70061	1/4"	1/8"	9/16"
70062	5/16"	-	11/16"
70063	3/8"	1/4"	15/16"
70064	1/2"	3/8"	1 1/2"
70065*	5/8"	1/2"	2 1/4"
70066*	3/4"	5/8"	3"
70067*	7/8"	3/4"	3"

70070 "Ratchet Style" TUBE BENDER KIT

- Hand-operated ratchet design bends tubes easily. Bends 5 sizes: 3/8, 1/2, 5/8, 3/4 and 7/8" O.D. soft tubing
- Includes heavy duty tube cutter for 1/8 – 1 1/8" O.D. tubing
- Includes inner-outer reamer for 3/16 – 1 1/2" O.D. tubing
- Comes in custom molded case



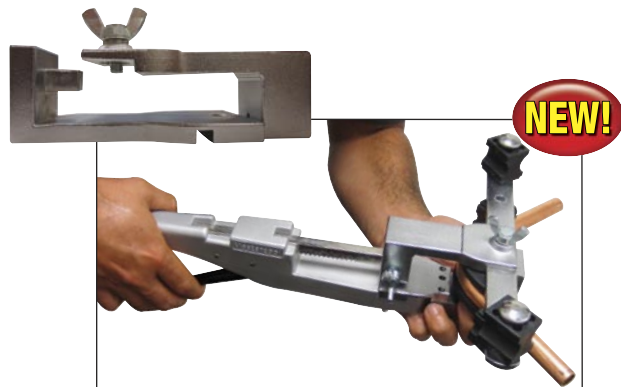
70080 "Ratchet Style" TUBE BENDER KIT

Same as 70070 less 70033 Cutter & 70085 Reamer. Bends 6 sizes: 3/8, 1/2, 5/8, 3/4, 7/8 and 1 1/8" O.D. soft tubing.

**BENDS
6 SIZES**

70070-RD REVERSE DIRECTION BENDING ADAPTER

Bends: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" O.D. tubing



70076 SPRING STYLE TUBE BENDER SET

Set of 5 spring benders for 1/4, 5/16, 3/8, 1/2 and 5/8" O.D. tubing.



PUNCH-TYPE SWAGING TOOLS

Enlarge one end of copper tubing to accept piece of original size tubing then solder together like a fitting. Tools are heat treated for durability.



70040
All-In-One Swaging Punch. Nickel-Chrome finish. Swages 1/4, 5/16, 3/8, 1/2 and 5/8”.

70048
Set of 5 Swaging Punches for 1/4, 5/16, 3/8, 1/2 and 5/8” O.D.

70049
Flaring Bar and Set of 5 Punches for 1/4, 5/16, 3/8, 1/2 and 5/8” O.D. all in case.



INNER-OUTER REAMERS

70085
Designed to remove inner and outer burrs before flaring. Reamer has heavy duty outer shell with steel blades. Capacity 3/16” to 1 1/2” O.D. Tubing.

71685
Designed to remove inner burrs easily. Includes one spare tungsten blade for long use.

71686-2
Two spare blades for 71685 (2 pcs.)



70088 1/4” TUBE PIERCING PLIER

70088-TIP Replacement Tip for 70088



70083 PINCH-OFF PLIER

Specially designed for the refrigeration industry. Pinches off and locks on copper tubing. Size: Throat 7”, Depth 1”, Jaw thickness 1/4”



RATCHET WRENCHES

70081
Steel forged wrench with reversible ratchet. 9/16”, 1/2” hex, 1/4” and 3/16” square.

70082
Compact chrome plated wrench specially designed for use in hard to reach places. 1/4, 3/8, 3/16 and 5/16” square ratchet.

MODEL#	SIZE	LENGTH	MODEL#	SIZE	LENGTH
70041	1/4”	1/8”	70045	5/8”	1/2”
70042	5/16”	—	70046	3/4”	5/8”
70043	3/8”	1/4”	70047	7/8”	3/4”
70044	1/2”	3/8”	—	—	—



70078 TORQUE WRENCH

Ensures accurate tightness of fittings, especially R410A. Kit in a blow molded case includes sizes: 17, 22, 24, 26, 27 and 29mm.

Optional Wrench Sizes Available:

- 70078-19** 19mm
- 70078-25** 25mm
- 70078-28** 28mm
- 70078-32** 32mm



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TUBING TOOL SELECTION CHART

		TYPES OF TUBING											
		COPPER							STEEL		STAINLESS		
		Annealed (Soft) Gen. Purpose	Type K		Type L		Annealed Aluminum (Soft)	Annealed Brass (Soft)	S.A.E. 1010 (Soft)	Brazed-Bundy GM	Annealed Soft	1/8 Hard	Titanium
Type of Tool	Size Range Tube O.D.		Soft	Hard	Soft	Soft							
Tube Cutters													
70027	1/8 - 5/8"	*	*	*	*	*	*	*	*	*	*	*	*
70029	3/8 - 1 1/8"	*	*	*	*	*	*	*	*	*	*	*	*
70033	1/8 - 1 1/8"	*	*	*	*	*	*	*	*	*	*	*	*
70035	1/4 - 1 5/8"	*	*	*	*	*	*	*	*	*	*	*	*
70039	3/8 - 2 5/8"	*	*	*	*	*	*	*	*	*	*	*	*
72029	1/8 - 1 1/8"	*	*	*	*	*	*	*	*	*	*	*	*
72035	1/4 - 1 1/2"	*	*	*	*	*	*	*	*	*	*	*	*
45° Flaring & Expanding Tools													
70051	3/16 - 5/8"	*	*				+	*	*				
70052	3/16 - 5/8"	*	*				+	*	*				
70053	1/8 - 3/4"	*	*				+	*	*				
70054	1/8 - 3/4"	*	*				+	*	*				
70056	5/8 - 1 1/8"	*	*				+	*	*				
71600	3/8 - 1 1/8"	*	*				+	*	*				
71650	3/8 - 2 1/8"	*	*				+	*	*				
71700	1/4 - 7/8"	*	*				+	*	*				
45° Double Flaring Tool													
70092	3/16 - 1/2"	*			*			*	*		*		
Reaming and Deburring Tools													
70085	3/16 - 1 1/2"	*	*	*	*	*	*	*	*				
71685		*	*	*	*	*	*	*	*				
Bending Tools													
70061-70069	1/4 - 7/8"	*	*		*			*	*	*	*	*	
70071 - 70077	1/4 - 3/4"	*	*		*			*	*	*	*	*	
70070	3/8 - 7/8"	*	*		*			*	*	*	*	*	
70080	3/8 - 1 1/8"	*	*		*			*	*	*	*	*	
Tube Constrictor													
70233	1/8 - 1 5/8"	*	*		*			*	*				
Swaging Tools													
70040 - 70049	1/4 - 7/8"	+	+		+			+	+				

+ Tubing should be torch annealed before flaring.



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