CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

MASTERCOOL

DISTRIBUTING AIR CONDITIONING, REFRIGERATION,
SERVICE TOOLS & EQUIPMENT WORLDWIDE

2023
English

For 40 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!

MASTERCOOL LOCATIONS:

Corporate Office,
Manufacturing and USA Warehouse
1 Aspen Drive, Randolph, NJ 07869
USA

European Sales Office and Warehouse
Zone Waas 2334
Laagstraat 19
9140 Temse, Belgium

Brazil Sales Office and Warehouse
Rua Inácio Luis da Costa, 908 Pq. São Domingos
05112-010 - São Paolo - SP - Brasil

Australian Sales Office
3 Tozer Street
Port Macquarie, NSW 2444
Australia

Corporate Office
Manufacturing and USA Warehouse

European Sales Office and Warehouse

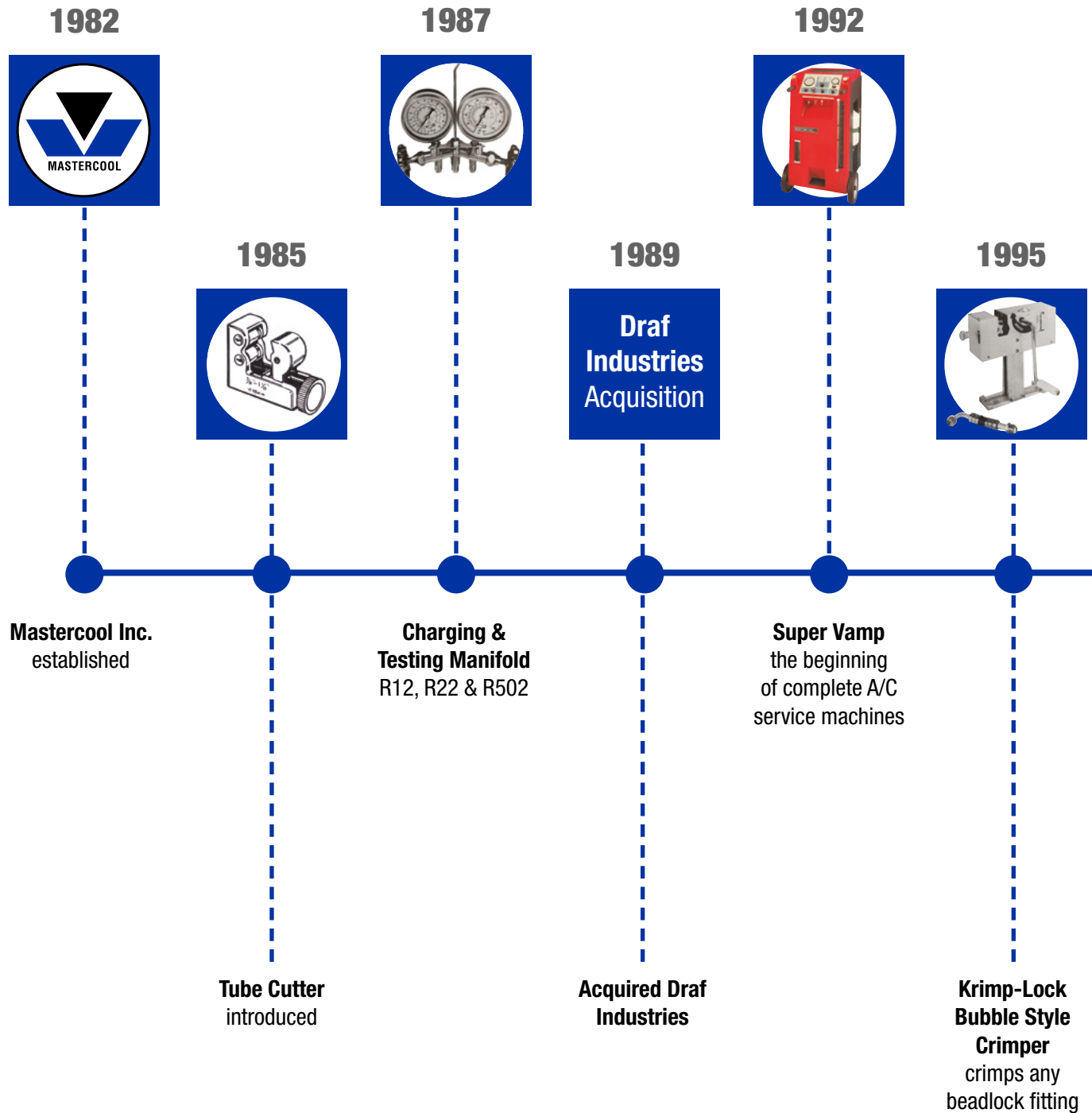Brazil Sales Office and Warehouse

Australian Sales Office

MASTERCOOL INC. a world leader in supplying professional air conditioning, service tools and equipment is celebrating 40 years since its inception in 1982.

Headquartered in the northeast United States, Mastercool was established with the objective of supplying superior quality products to automotive and HVAC technicians. Mastercool's name has become synonymous with "World Class Quality" and uniquely innovative product design.

Formed as a family owned and operated company, in Randolph, New Jersey, Mastercool has now expanded with offices featuring full inventory and staff in Belgium, Brazil and Australia and distribution to over 76 countries.

The flexibility and support of a privately owned mid-sized company has allowed Mastercool to manufacture all of its products with the highest quality components and management systems. All products are checked and tested directly at our headquarters in

1982

1987

1992

1985

1989

Draf Industries Acquisition

1995

Mastercool Inc.
established

Charging & Testing Manifold
R12, R22 & R502

Super Vamp
the beginning of complete A/C service machines

Tube Cutter
introduced

Acquired Draf Industries

Krimp-Lock Bubble Style Crimper
crimps any beadlock fitting

Randolph, New Jersey, USA.

The past few years have been specifically noteworthy with the addition of our Arctic Commander line of recovery/recycle/recharge machines completely designed and assembled in the United States as well as the addition of a line of smart tools utilizing Bluetooth® wireless technology in coordination with our Mastercool Connect app. Adding to our wide range of products by focusing on new technology has always been a primary goal while driving product innovations to make the every day work of the technician easier.

We would like to thank all of our partners and distributors for their continued support as we celebrate Mastercool's past and look forward to the exciting future ahead.

2002

2003

2014

2016

2017

2020

Hydraulic Tool Line introduced

Mastercool's Belgium Office & Warehouse established

Mastercool's Brazil Office & Warehouse established

Mastercool's Australian Office established

Arctic Commander line of R/R/R machines created

Line of **Smart Tools with Bluetooth® Technology** launched

CONTENTS

MASTERCOOL PRODUCTS ARE
MADE/ASSEMBLED IN THE USA

Mastercool manufactures all of its products with the highest quality components and management systems. All products are checked and tested directly at Mastercool headquarters in Randolph, New Jersey, USA.

Our products comply in every respect with the requirements set forth by SAE and EPA Standards as well as ARI Standard 740-98, EU Directives and PROP 65 guidelines.
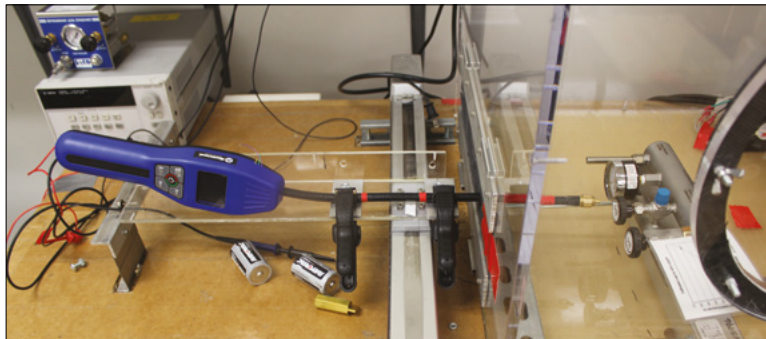
⚠ All of our products comply with current PROP 65 guidelines, for more information please visit www.mastercool.com

MANIFOLDS

JOIN THE SPARTAN REVOLUTION AND MOVE WITH US INTO THE FUTURE OF A/C DIAGNOSTICS AND SERVICE

4.3" Color LCD
provides easy to read
diagnostic information

Responsive Touchscreen
enables navigation with a quick tap
of the finger

Bluetooth® Wireless Technology allows
information to be viewed on compatible
hand-held smart devices via the
Mastercool Connect app

Analog Dashboard

Digital Dashboard

Units Dashboard

FEATURES:
- CLASS 1.0 GAUGE provides accurate, high quality readings
- 4.3" COLOR TOUCHSCREEN to navigate with a touch of the finger
- PREMIUM BUILT-IN VACUUM SENSOR with a resolution down to 1 micron
- DISPLAYS PRESSURE, VACUUM, TEMPERATURE and will automatically calculate superheat and subcool temperatures
- OVER 60 pre-programmed refrigerants included (see www.mastercool.com for complete list)
- BLUETOOTH® WIRELESS TECHNOLOGY provides communication with the Mastercool Connect app to allow for full mobility as activity can be easily viewed on all compatible hand-held devices
- LOW BATTERY INDICATOR on the LCD shows when battery needs charging
- RECORD AND STORE UP TO 36 HOURS OF DATA to the manifold memory
- OPTIONAL PREMIUM TEMPERATURE CLAMP with K-type connector
- AUTO-OFF AFTER 30 MINUTES of inactivity helps to conserve battery life
- PRESSURE LEAK TEST FUNCTION displays delta for both vacuum and positive pressure measurements
- EASILY SWITCH BETWEEN DIGITAL AND ANALOG depictions of pressure and temperature
- SIMPLE CALIBRATION for ultimate utility

SPECIFICATIONS:
- Gauge: class 1.0
- Pressure display: psi, bar, MPa, kg/cm^2
- 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/cm^2)
- Sensing accuracy: ±1 psi or 1% of reading (whichever is greater)
- Working pressure: 0 to 725 psi (50 bar, 5 MPa, 52 kg/cm^2)
- Proof pressure: 1000 psi (70 bar, 7 MPa, 70 kg/cm^2) (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) (non-condensing)
- Vacuum sensor: range 20,000 to 1 micron
- Connections: 1/4" m-flare and 3/8" m-fl (vacuum hose connection (4 way only))
- Power: lithium-ion rechargeable battery (USB type C connector supplied)
- Battery life: 30-36 hours normal use (25-30 hours with bluetooth enabled)
- Auto-off: after 30 minutes, sleep mode 4 minutes

Specifications for Bluetooth® Wireless Technology:
- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5

99923-CPORT
USB TYPE C CABLE

HEAVY-DUTY HOOK
folds back into the unit for compact storage

52036
ERGONOMIC CLAMP-ON K TYPE PROBE
3 ft (1 m)

USB TYPE C
CONNECTOR PORT
enables charging of
the li-ion battery

LOW SIDE CLAMP-ON
THERMOCOUPLE PORT
allows the unit to display
actual temperature and
automatically calculate
superheat or subcool
temperature

HIGH SIDE
CLAMP-ON
THERMOCOUPLE PORT

4.3" COLOR
TOUCHSCREEN LCD
provides easy navigation
with a touch of the finger

LARGE COLOR KNOBS
open and close quickly
and easily

RUGGED ABS CASE
for lasting performance
and durability

PROTECTIVE RUBBER BOOT
safeguards the unit

MASTERCOOL CONNECT APP
Simply download the free Mastercool Connect app to begin receiving and analyzing data from any nearby Mastercool Spartan Smart Manifold.

Download on the **App Store**

GET IT ON **Google Play**

Use the Spartan Smart Manifold and the Mastercool Connect App to:
- Provide all of the manifold's data remotely. Sit back in a comfortable location and watch the system's performance.
- Leak test for both pressure and vacuum. Check on the test's progress while performing other tasks away from the unit.
- Datalog the system's performance for up to 36 hours. Save all of the values of the system's performance throughout the day and overnight without having to manually record them. The app gives you a way to download the information from the manifold and forward the file to your favorite spreadsheet program for analysis.
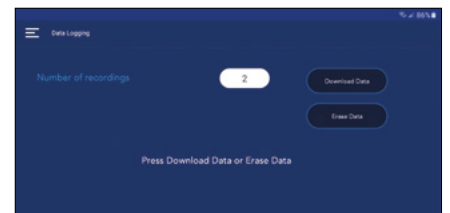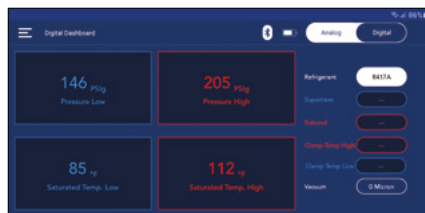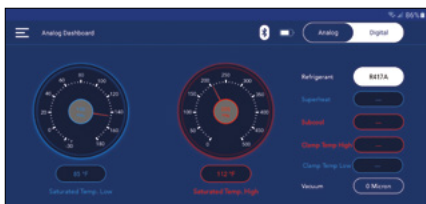
SPARTAN SMART MANIFOLD with Bluetooth® Wireless Technology

Mastercool's SPARTAN series smart manifold with Bluetooth® wireless technology is equipped with a 4.3" color touchscreen LCD, allowing the user to navigate through all of the screens and options with a quick tap of their finger. Now with a built-in premium vacuum sensor and an accuracy down to 1 micron, there is no need for additional equipment to properly diagnose and service your A/C system.

SPARTAN 2 WAY SMART MANIFOLD

	HOSES	TEMPERATURE CLAMP	BLACK VACUUM HOSE	USB TYPE C CONNECTOR	STRAIGHT ADAPTER FITTING (90413)
99923-BT*	-	-	-	1	-
99923-BT-2*	-	2	-	1	-
High Pressure Hoses with Standard Fittings					
99926-BT**	60"	1	-	1	-
99926-BT-2**	60"	2	-	1	-
99927-BT**	72"	1	-	1	-
99927-BT-2**	72"	2	-	1	-
99926-BT-EU**		1	-	1	2
99927-BT-EU**	72"	1	-	1	2
High Pressure Hoses with Ball Valves At The End					
99926-BT-2BVE**	60"	2	-	1	2

99923-BT-2

99926-BT-2

SPARTAN 4 WAY SMART MANIFOLD

	HOSES	TEMPERATURE CLAMP	BLACK VACUUM HOSE	USB TYPE C CONNECTOR	STRAIGHT ADAPTER FITTING (90413)
99943-BT*	-	-	-	1	-
99943-BT-2 *	-	2	-	1	-
High Pressure Hoses with Standard Fittings					
99946-BT**	60"	1	1	1	-
99946-BT-2**	60"	2	1	1	
99947-BT**	72"	1	1	1	-
99947-BT-2**	72"	2	1	1	-
99946-BT-EU**	60"	1	1	1	2
99947-BT-EU**	72"	1	1	1	2
High Pressure Hoses with Ball Valves At The End					
99946-BT-2BVE**	60"	2	1	1	2

* packaged in a cardboard box / ** packaged in a blow molded plastic case

99946-BT-2

OPTIONAL ACCESSORIES

52036	Ergonomic Clamp-on K Type Probe – 3 ft (1 m)
52108	Ergonomic Clamp-on K Type Probe – 10 ft (3 m)
99923-CPORT	USB Type C Cable
90413	R410A Straight Adapter 1/4" FL-M x 5/16" Swivel-F
99332	1/8" NPT x 1/4"-FL Swivel Adapter
90411	1/4" x 5/16" Flex Adapter with Ball Valve
99333	1/4" FL-M x 1/4" FL-M x 1/4" FL-F Tee
99923-PB	Plastic Molded Case

52036
90413
99923-CPORT
99333
90411
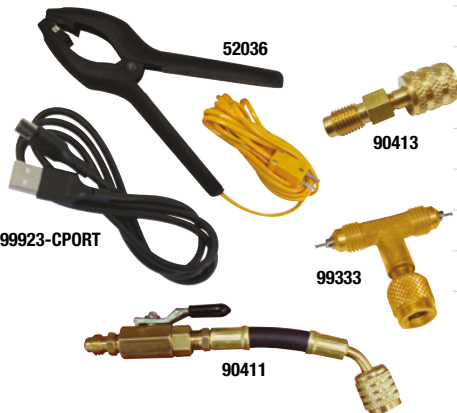
Black Series Mini-fold COMPACT 2-WAY ALUMINUM MANIFOLD

NEW   R32 COMPATIBLE   CE

COMPACT MANIFOLD, WITH FRONT MOUNTED HOSE HOLDERS, ALLOWS FOR PRECISE CALCULATIONS IN THE PALM OF YOUR HAND

Mastercool's Black Series Mini-fold compact 2-way digital manifold gauge set effortlessly performs pressure and temperature calculations and displays them on a large blue back-lit LCD display. Constructed of the finest materials and machined with precision to the highest quality standards, this compact manifold provides automatic shut-off, units conversion, over range alarm, max and min values and refrigerants selection providing for a powerful tool for the hard-working technician.

Large, blue back-lit LCD

Easy grip knobs

Rubber gauge guards

Large chrome rimmed sight glass

Front mounted, chrome fittings

94661
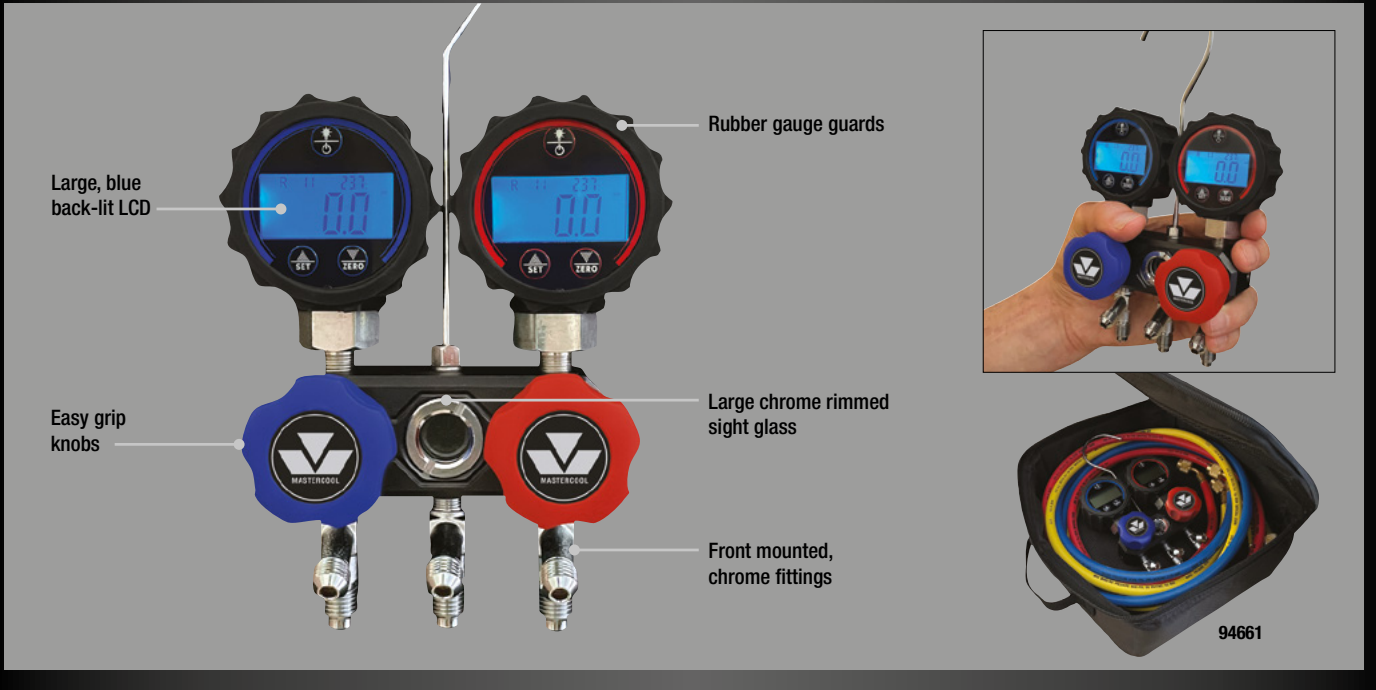
FEATURES:

- Compact black anodized aluminum block with matte chrome fittings offer an extremely portable solution to fit the needs of every busy technician
- Easily perform pressure/temperature calculations for up to 91 different refrigerants including R134a, R410a and R22 refrigerants
- Unit conversion between MPa, kPa, bar, psi, kg/m2, inHg
- Large 4-digit "blue" back-lit LCD display provides vibrant readings in even the darkest of environments
- Displays alarm indication when over range, celcius or fahrenheit designation and low battery warning directly on the LCD screen
- Large sight glass for quick visual refrigerant checks
- Easy to grip knobs

INCLUDED REFRIGERANTS:

R11, R113, R114, R115, R116, R12, R123, R1234yf, R1234ze, R124, R125, R13, R134a, R14, R141B, R142B, R413A, R152A, R161, R170, R21, R218, R22, R23, R290, R32, R401A, R401B, R401C, R402A, R402B, R403A, R403B, R404A, R406A, R407A, R407B, R407C, R407D, R407E, R407F, R408A, R409A, R409B, R41, R410A, R410B, R412A, R413A, R414A, R414B, R415B, R416A, R417A, R419A, R420A, R421A, R421B, R422A, R422B, R422C, R422D, R423A, R427A, R437A, R441A, R442A, R443A, R444A, R448A, R449A, R449B, R450A, R452A, R455A, R50, R500, R502, R503, R504, R507A, R508A, R508B, R509A, R513A, R600, R600a, R601, R601a, R740, R744

SPECIFICATIONS:

- Pressure range:
  Low pressure range: -14.5 – 500 psi (-0.1 – 3.4 MPa)
  High pressure range: -14.5 – 800 psi (-0.1 – 5.5 MPa)
- Resolution: 0.5 psi
- Accuracy: +/-0.5% FS
- Measurement units: MPA, kPa, bar, psi, kg/cm2, inHg
- Temperature units: ˚C/˚F
- Over range alarm: display -OL-
- Operating temperature: -10˚C to 60˚C
- Battery: CR2450
- Battery life: approximately 6 months
- Sampling rate: 1 second
- Low battery indication: icon on LCD
- Display: 30 mm x 17 mm LCD
- Blue back-light: auto-off after 6 seconds

- 1/4" SAE flare fittings
- Front facing hose holder
- Packaged in a zippered carry case

Compact Manifold with gauges only	94103
Compact Manifold with 3-150 cm high pressure hoses	94661
Compact Manifold with 3-150 cm high pressure hoses with ball valves	94261
Compact Manifold with 3-150 cm high pressure hoses with in-line ball valve (red and blue 1/4" x 5/16", yellow 1/4" x 1/4")	94261-JT

* Manifolds assembled with ball valves at the end of hoses, add a -E

HV🏠C

3/8" BORE 4-WAY BALL VALVE MANIFOLD

96261-MRB

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Mastercool is the leading manufacturer of professional quality A/C manifold gauge sets. Our manifold gauge sets are constructed of the finest materials and machined with precision to the highest quality standards. At Mastercool, every manifold we build is built to last.

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

• Full 3/8" bore through the block increases flow considerably, providing faster charging & recovery
• 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
• Knob position shows whether valves are open or closed (Vertical = OPEN, Horizontal = CLOSED)

COMPARE

Traditional 1/4" Bore

Mastercool's 3/8" Bore

(Side Cut-Away View) Competitor's Manifold Block w/1/4" bore

(Side Cut-Away View) Mastercool's Manifold Block w/3/8" bore all the way through the block

Mastercool's Aluminum 4-Way Manifolds feature PREMIER SERIES BALL VALVE DESIGN

KNOB

STAINLESS STEEL

TEFLON

TEFLON

ROTATES SMOOTHLY 90°

All fittings 1/4" SAE, tee with branch 3/8"
Assemblies packed in custom molded plastic carrying case, p/n 86772-PB

Gauge class – diameter			
Units	Bar/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R134a, R404A, R407C, R22, R507A	R410A, R407C, R22	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	MBH - MBL	EBH - EBL	EBRL - EBRH
Manifold body only	95102	95102	95102
Manifold with gauges only	96203-MB	96203-EB	96203-EBR
Manifold (as above) with 3-150 cm ball valve hoses (p/n 49262-60) + 1 - 150 cm black 3/8" hose (p/n 94160)	96261-MB	96261-EB	96261-EBR
Manifold (as above) with 3-180 cm ball valve hoses (p/n 49262-72) + 1 - 180 cm black 3/8" hose (p/n 94172)	96272-MB	96272-EB	96272-EBR

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E

OPTIONAL 1/4 X 5/16" ADAPTERS
For all manifolds ending in -E, -EB and -EB1 add the suffix

90410   90411   90413   90433
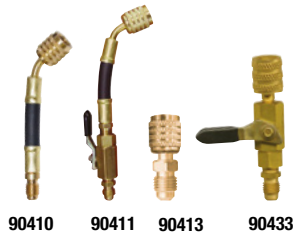
-410 to include **2 pieces of 90410** flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include **2 pieces of 90411** flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include **2 pieces of 90413** straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include **2 pieces of 90433** adapter with fittings to convert 1/4 to 5/16 SAE

4-WAY BALL VALVE MANIFOLD FOR AUTOMOTIVE A/C

86972-MRB

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Mastercool is the leading manufacturer of professional quality A/C manifold gauge sets. Our manifold gauge sets are constructed of the finest materials and machined with precision to the highest quality standards. At Mastercool, every manifold we build is built to last.

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

• Full 3/8" bore through the block increases flow considerably, providing faster charging & recovery
• 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
• Knob position shows whether valves are open or closed (Vertical = OPEN, Horizontal = CLOSED)

COMPARE

Traditional 1/4" Bore | Mastercool's 3/8" Bore

(Side Cut-Away View) Competitor's Manifold Block w/1/4" bore | (Side Cut-Away View) Mastercool's Manifold Block w/3/8" bore all the way through the block

Mastercool's Aluminum 4-Way Manifolds feature PREMIER SERIES BALL VALVE DESIGN

KNOB | STAINLESS STEEL | TEFLON | ROTATES SMOOTHLY 90° | TEFLON

All fittings 1/4" SAE, blind connections for automotive quick couplers.
Assemblies packed in custom molded carrying case, inclusive quick couplers (p/n 82834-E and 82934-E)

Gauge class – diameter	1.6 - 80 mm	
Units	Bar/°C	Bar/PSI/°C
Refrigerant scales	R134a, R404A, R407C, R507A, R22	R134a, R22, R12, R404A
Gauge p/n (HP/LP)	MBH - MBL	MRBH - MRBL
Manifold body only, 1/4"	**86102-1/4**	**86102-1/4**
Manifold with gauges only	**86103-MB**	**86103-MRB**
Manifold with 3-180 cm 1/4" hoses (p/n 40372) + (1) 180 cm black 1/4" hose (p/n 47724) - No quick couplers	**86572-MB**	**86572-MRB**
Manifold with 3-180 cm 1/4" hoses (p/n 40372) + (1) 180 cm black 1/4" hose (p/n 47724) - Manual quick couplers	**86972-MB**	**86972-MRB**
Manifold with 3-250 cm 1/4" hoses (p/n 40396) + (1) 250 cm black 1/4" hose (p/n 47964) - No quick couplers	**86596-MB**	**86596-MRB**
Manifold with 3-250 cm 1/4" hoses (p/n 40396) + (1) 250 cm black 1/4" hose (p/n 47964) - Manual quick couplers	**86996-MB**	**86996-MRB**

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E

2-WAY SIGHT GLASS MANIFOLD – BALL VALVES

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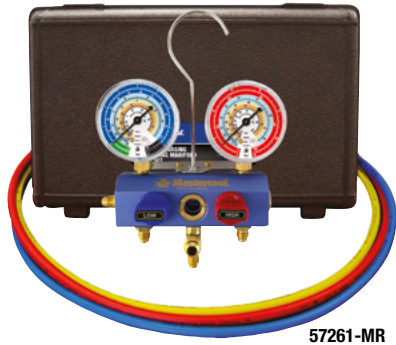
57261-MR

90530

Optional 90° 3/8" swivel ball valve (**90530**) for 3/8" vacuum, makes 2-valve into 3-valve full control 4-way manifold

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

• Full 3/8" bore all the way through the block increases flow considerably providing faster charging and time savings
• 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
• Knob position shows whether valves are open or closed
• Includes nylon barrier GY5 hoses with manual ball valves
• Assemblies packed in plastic carrying case. Plastic carrying case, p/n 58102-PBR

COMPARE

Traditional 1/4" Bore

(Side Cut-Away View) Manifold Block w/1/4" bore

Mastercool's 3/8" Bore

(Side Cut-Away View) Mastercool's Manifold Block w/3/8" bore all the way through the block
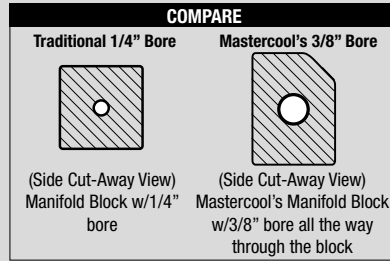
Mastercool's Aluminum 2-Way Manifolds feature PREMIER SERIES BALL VALVE DESIGN

KNOB STAINLESS STEEL ← TEFLON ROTATES SMOOTHLY 90° ← TEFLON
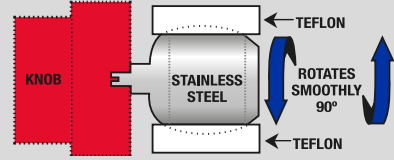
1.6 GAUGE CLASS - 63 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507, R404A, R22	R134a, R22, R12, R404A	R134, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE	nylon barrier with in-line ball valve		
Manifold with gauges 2 x 1/4" fittings + central tee 1/4" SAE with branch 3/8"	58103-E	58103-MR	58103-M
Manifold with 3-90 cm ball valve hoses	57236-E	57236-MR	57236-M
Manifold with 3-150 cm ball valve hoses	57261-E	57261-MR	57261-M
Manifold with 3-180 cm ball valve hoses	57272-E	57272-MR	57272-M
R410A manifold with 3-150 cm nylon barrier with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	57261-E-JT	-	-

1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134, R404A, R407C, R22, R507A	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	EBH - EBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE	nylon barrier with in-line ball valve		
Manifold with gauges 2 x 1/4" fittings + central tee 1/4" SAE with branch 3/8"	58103-EB	58103-MB	58103-EBR
Manifold with 3-90 cm ball valve hoses	57236-EB	57236-MB	57236-EBR
Manifold with 3-150 cm ball valve hoses	57261-EB	57261-MB	57261-EBR
Manifold with 3-180 cm ball valve hoses	57272-EB	57272-MB	57272-EBR
R410A manifold with 3-150 cm nylon barrier with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	57261-EB-JT	-	-

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E

OPTIONAL 1/4 X 5/16" ADAPTERS
For all manifolds ending in -E, -EB and -EB1 add the suffix

90410 90411 90413 90433

-410 to include **2 pieces of 90410** flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include **2 pieces of 90411** flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include **2 pieces of 90413** straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include **2 pieces of 90433** adapter with fittings to convert 1/4 to 5/16 SAE
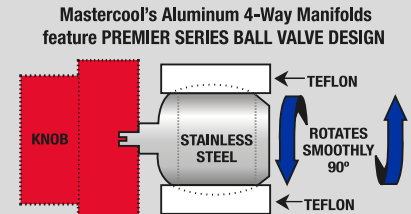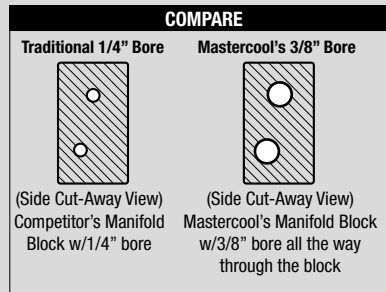
2-WAY ALUMINUM MANIFOLD – PISTON VALVES

93636-MR

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks

KNOB

Mastercool's
2-Way Manifolds
feature
FREE FLOATING PISTON VALVE DESIGN

1.6 GAUGE CLASS - 63 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507A, R404A, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE	standard		
Manifold with gauges, fittings + central tee 1/4" SAE	93103-E	93103-MR	93103-M
Manifold with 3-90 cm hoses	93636-E	93636-MR	93636-M
Manifold with 3-150 cm hoses	93661-E	93661-MR	93661-M
Manifold with 3-150 cm ball valve hoses	92661-E	92661-MR	92661-M
Manifold with 3-180 cm hoses	93772-E	93772-MR	93772-M
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-E-JT	-	-

1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	EBH - EBL	MRBH - MRBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE	standard			
Manifold with gauges, fittings + central tee 1/4" SAE	93103-EB	93103-MRB	93103-MB	93103-EBR
Manifold with 3-90 cm hoses	93636-EB	93636-MRB	93636-MB	93636-EBR
Manifold with 3-150 cm hoses	93661-EB	93661-MRB	93661-MB	93661-EBR
Manifold with 3-150 cm ball valve hoses	92661-EB	92661-MRB	92661-MB	92661-EBR
Manifold with 3-180 cm hoses	93772-EB	93772-MRB	93772-MB	93772-EBR
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-EB-JT	-	-	-

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E
* For packaging please see page 20

OPTIONAL 1/4 X 5/16" ADAPTERS
For all manifolds ending in -E, -EB and -EB1 add the suffix

90410 90411 90413 90433
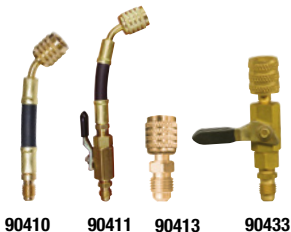
-410 to include **2 pieces of 90410** flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include **2 pieces of 90411** flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include **2 pieces of 90413** straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include **2 pieces of 90433** adapter with fittings to convert 1/4 to 5/16 SAE

2-WAY BRASS MANIFOLD – PISTON VALVES
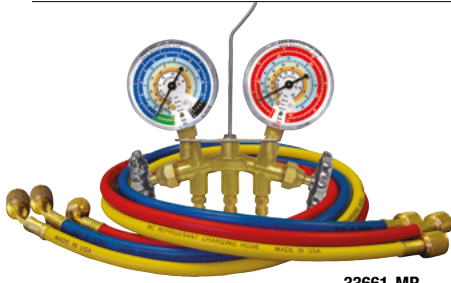
33661-MR

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks

KNOB

Mastercool's
2-Way Manifolds
feature
**FREE FLOATING PISTON
VALVE DESIGN**

1.6 GAUGE CLASS - 63 MM DIAMETER

Unit	Bar/PSI/°C	Bar/PSI/°C	Bar/°C
Refrigerant scales	R410A, R507A, R404A, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A
Gauge p/n (HP/LP)	EH - EL	MRH - MRL	MH - ML
Hoses 1/4" SAE		standard	
Manifold with gauges, 3 x 1/4" SAE fittings	33103-E	33103-MR	33103-M
Manifold with 3-90 cm hoses	33636-E	33636-MR	33636-M
Manifold with 3-150 cm hoses	33661-E	33661-MR	33661-M
Manifold with 3-150 cm ball valve hoses	32661-E	32661-MR	32661-M
Manifold with 3-180 cm hoses	33772-E	33772-MR	33772-M
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	33661-E-JT	-	-

1.6 GAUGE CLASS - 80 MM DIAMETER

Unit	Bar/PSI/°C	Bar/PSI/°C	Bar/°C	Bar/°C
Refrigerant scales	R410A, R407C, R22	R134a, R22, R12, R404A	R134a, R404A, R407C, R22, R507A	R22, R422A, R427A, R422D, R417A
Gauge p/n (HP/LP)	EBH - EBL	MRBH - MRBL	MBH - MBL	EBRL - EBRH
Hoses 1/4" SAE		standard		
Manifold with gauges, 3 x 1/4" SAE fittings	33103-EB	33103-MRB	33103-MB	33103-EBR
Manifold with 3-90 cm hoses	33636-EB	33636-MRB	33636-MB	33636-EBR
Manifold with 3-150 cm hoses	33661-EB	33661-MRB	33661-MB	33661-EBR
Manifold with 3-150 cm ball valve hoses	32661-EB	32661-MRB	32661-MB	32661-EBR
Manifold with 3-180 cm hoses	33772-EB	33772-MRB	33772-MB	33772-EBR
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	32661-EB-JT	-	-	-

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E
* For packaging please see page 20

OPTIONAL 1/4 X 5/16" ADAPTERS
For all manifolds ending in -E, -EB and -EB1 add the suffix
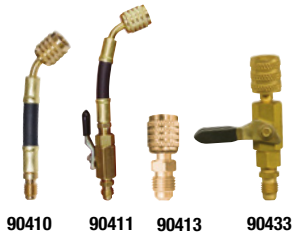
90410   90411   90413   90433

-410 to include **2 pieces of 90410** flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include **2 pieces of 90411** flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include **2 pieces of 90413** straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include **2 pieces of 90433** adapter with fittings to convert 1/4 to 5/16 SAE
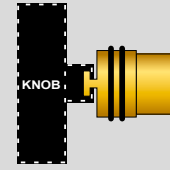
2-WAY PISTON VALVE MANIFOLD FOR AUTOMOTIVE A/C - R134a

89772-M
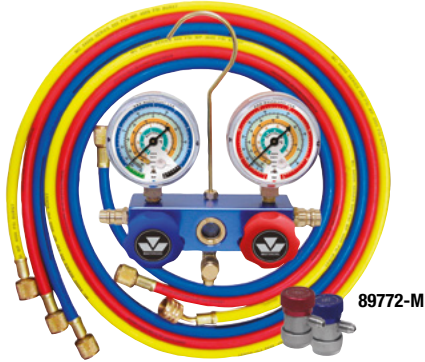
CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

- Free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks
- Solid extruded aluminum body
- Extra access port for vacuum line
- Silicone dampened gauges smooth out needle movement
- Gauges can be easily re-calibrated in the field to maintain accuracy
- Extra large sight glass for visual refrigerant check
- Large easy-to-grip knobs

| Gauge class – diameter	1.6 - 63 mm	1.6 - 80 mm	
Units	Bar/°C	Bar/°C	Bar/PSI/°C
Refrigerant scales	R134a, R404A, R407C, R22, R507A	R134a, R404A, R407C, R22, R507A	R134a, R22, R12, R404A
Gauge p/n (HP/LP)	MH - ML	MBH - MBL	MRBH - MRBL
Manifold body only (1/4" SAE)	**85102-1/4**	**85102-1/4**	**85102-1/4**
Manifold with gauges only (1/4" SAE)	**85103-M**	**85103-MB**	**85103-MRB**
Manifold (as above) with 3-180 cm hoses, 1/4" SAE (p/n 40372) w/quick couplers (p/n 82834-E & 82934-E)	**89772-M**	**89772-MB**	**89772-MRB**
Manifold (as above) with 3-250 cm hoses, 1/4" SAE (p/n 40396) w/quick couplers (p/n 82834-E & 82934-E)	**89996-M**	**89996-MB**	**89996-MRB**

2-WAY PISTON VALVE MANIFOLD FOR AUTOMOTIVE A/C - R1234yf

83272

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

- Anti-flutter gauges smooth out needle movement
- Easy to read temperature scales on gauge face
- Easy to recalibrate gauges to insure accuracy
- Extra large sight glass for visual checks of refrigerant
- Easy grip front-facing knobs
- Piston type free-floating valves reduce o-ring wear
- Manifold block assembled with (3) 12 mm-F fittings per SAE J2888
- Red & blue nylon barrier hoses with 12 mm-M fittings on both sides meets SAE J2888, EPA, SAE & UL standards
- Yellow hose 12 mm fitting on one side and 1/2 x 16 ACME LH on the other meets SAE J2888
- R1234yf high and low side couplers with extended disconnect protection sleeve meets SAE J639 & J2888

Gauge class – diameter	1.6 - 80 mm
Unit	Bar/PSI
Refrigerant scales	R1234yf
Gauge p/n (HP/LP)	87500-87350
Manifold with gauges, 3 x 12 mm-F fittings	**83102**
Manifold with 3-180 cm hoses and R1234yf couplers packaged in a clam shell	**83272**

83634-M   VACUUM PUMP ADAPTER FITTING

1/4 FL-F x 1/2 ACME LH male vacuum pump adapter fitting for R1234yf systems

2-WAY ALUMINUM MANIFOLD – PISTON VALVES – CLASS 1.0 GAUGES
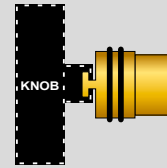

93661-EB1

93661-MRB1

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
- Double o-ring allows for a much better seal resulting in less leaks

1.0 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C	Bar/PSI/°C	Bar/PSI/°C
Refrigerant scales	R22 R407C R32 R410A	R22 R404A R407F R134a	R455A R448A R449A R452A
Gauge p/n (HP/LP)	EBH1 EBL1	MRBH1 MRBL1	MNBH1 MNBL1
Hoses 1/4" SAE	standard		
Manifold with gauges, fittings + central tee 1/4" SAE	93103-EB1	93103-MRB1	93103-MNB1
Manifold with 3-90 cm hoses	93636-EB1	93636-MRB1	93636-MNB1
Manifold with 3-150 cm hoses	93661-EB1	93661-MRB1	93661-MNB1
Manifold with 3-150 cm ball valve hoses	92661-EB1	92661-MRB1	92661-MNB1
Manifold with 3-180 cm hoses	93772-EB1	93772-MRB1	93772-MNB1
R410 manifold with 3-150 cm standard with in-line ball valve - red and blue 1/4" x 5/16", yellow 1/4" x 1/4" hoses	92661-EB1-JT	-	-

* Manifolds assembled with teflon gasket hoses, add a –T
* Manifolds assembled with ball valves at the end of hoses, add a -E
* For packaging please see below

OPTIONAL 1/4 X 5/16" ADAPTERS
For all manifolds ending in -E, -EB and -EB1 add the suffix
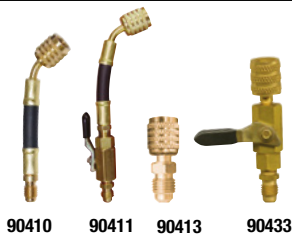
90410   90411   90413   90433

-410 to include **2 pieces of 90410** flex adapters to convert 1/4 SAE hose into 5/16 SAE

-411 to include **2 pieces of 90411** flex adapters with ball valve to convert 1/4 SAE hose into 5/16 SAE

-413 to include **2 pieces of 90413** straight adapter fittings to convert 1/4 to 5/16 SAE

-433 to include **2 pieces of 90433** adapter with fittings to convert 1/4 to 5/16 SAE

*Packaging Note

clamshell   cardboard box   58102-PBR

- All piston valve 2-way manifold gauge sets are packaged in a clamshell

- European standard packaging - cardboard box

- For plastic carrying case, please order Part# 58102-PBR

2-WAY ALUMINUM MANIFOLD – PISTON VALVES – ISOBUTANE GAUGES

93661-RB
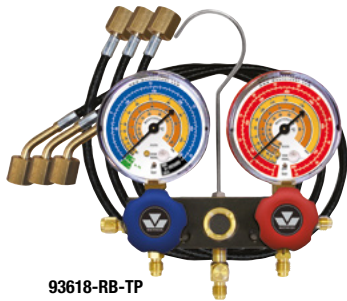
93618-RB-TP

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

1.6 GAUGE CLASS - 80 MM DIAMETER

Units	Bar/PSI/°C
Refrigerant scales	R1270, R290, R600a
Gauge p/n (HP/LP)	RBH - RBL
Manifold with gauges, fittings + central tee 1/4" SAE	**93103-RB**
Manifold with 3-90 cm 1/4" SAE standard hoses	**93636-RB**
Manifold with 3-150 cm 1/4" SAE standard hoses	**93661-RB**
Manifold with 3-150 cm 1/4" SAE standard hoses with ball valves	**92661-RB**
Manifold with 3-180 cm 1/4" SAE standard hoses	**93772-RB**
Manifold with 3-45 cm thermoplastic capillary hoses with straight x 45° fittings with depressor for maximum precision on small capacity systems	**93618-RB-TP**
Manifold with 3-60 cm thermoplastic capillary hoses with straight x 45° fittings with depressor for maximum precision on small capacity systems	**93624-RB-TP**

* Manifolds assembled with teflon gasket hoses, add a –T (standard hoses only)
* Manifolds assembled with standard ball valves at the end of hoses, add a -E (standard hoses only)
* For packaging please see page 20

2-WAY PISTON VALVE MANIFOLD FOR CO2 (R744)
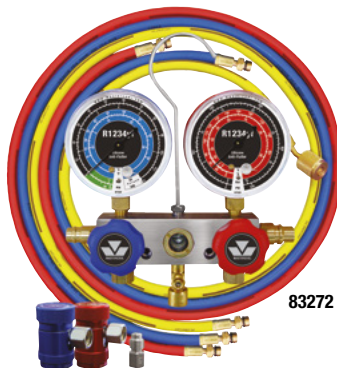
CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

• Our free floating piston valve results in less wear and tear in comparison to market standard twisting piston valves
• Double o-ring allows for a much better seal resulting in less leaks
• Oil filled, class 1.0, 70 mm gauges
• Low side gauge max pressure of 10 MPA (1400 PSI), high side gauge max pressure of 16 MPA (2400 PSI)
• E-Z to read pressure scales on gauge face
• Solid extruded aluminum body
• Large easy-to-grip-knobs
• 1/4" SAE
• Steel braided hoses for CO2 with 200 bar working pressure and 800 bar burst
• Assemblies packed in plastic carrying case
• Plastic carrying case, p/n 58102-PBR

Gauge class – diameter	1.0 - 70 mm
Units	PSI/MPa
Refrigerant scales	R744
Gauge p/n (HP/LP)	55102-2400 55102-1400
Manifold with oil filled gauges only (1/4" SAE)	**55103**
Manifold (as above) with 3-150 cm braided hoses	**55661**

3/8" BORE 4-WAY BALL VALVE MANIFOLD - R410A & R32
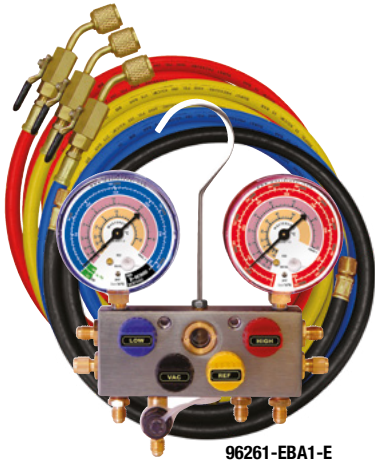
NEW **HVAC**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Includes a set of R32/R410A nylon barrier hoses with manual ball valves at the end (red/blue 1/4 x 5/16", yellow 1/4 x /1/4") and one 3/8" SAE black vacuum hose
- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER	
Units	Bar/PSI/°C
Refrigerant scales	R32, R410A
Gauge p/n (HP/LP)	EBAL1 - EBAH1
Manifold with gauges	**96203-EBA1**
Manifold with 3-90 cm hoses	**96236-EBA1-JT-E**
Manifold with 3-150 cm hoses	**96261-EBA1-JT-E**

96261-EBA1-E

3/8" BORE 2-3-WAY BALL VALVE MANIFOLD - R410A & R32
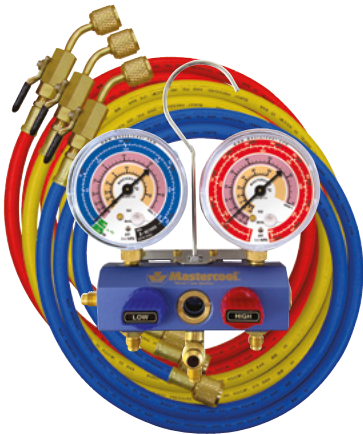
NEW **HVAC**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Includes a set of R32/R410A nylon barrier hoses with manual ball valves at the end (red/blue 1/4 x 5/16", yellow 1/4 x /1/4")
- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER	
Units	Bar/PSI/°C
Refrigerant scales	R32, R410A
Gauge p/n (HP/LP)	EBAL1 - EBAH1
Manifold with gauges	**58103-EBA1**
Manifold with 3-90 cm hoses	**57236-EBA1-JT-E**
Manifold with 3-150 cm hoses	**57261-EBA1-JT-E**
Manifold with 3-180 cm hoses	**57272-EBA1-JT-E**

57261-EBA1-E

2-WAY PISTON VALVE MANIFOLD - R410A & R32
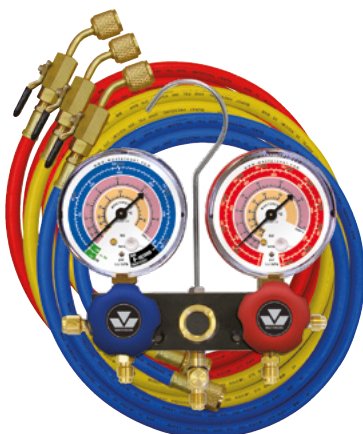
NEW **HVAC**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

All Mastercool Gauges are Color Coordinated for Easy Refrigerant Recognition.

- Packaged in a plastic case

1.0 GAUGE CLASS - 80 MM DIAMETER		
Units	Bar/PSI/°C	
Refrigerant scales	R32, R410A	
Gauge p/n (HP/LP)	EBAL1 - EBAH1	
Manifold with gauges	**93103-EBA1**	
Hoses	nylon barrier R32/R410 hoses	nylon barrier R32/R410 hoses with ball valves (red/blue 1/4 x 5/16", yellow 1/4 x /1/4")
Manifold with 3-90 cm hoses	**93636-EBA1**	**92636-EBA1-JT-E**
Manifold with 3-150 cm hoses	**93661-EBA1**	**92661-EBA1-JT-E**
Manifold with 3-180 cm hoses	**93772-EBA1**	**92772-EBA1-JT-E**

92661-EBA1-E

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

1/4" SINGLE VALVE MANIFOLD – BALL VALVE

92103-MRL

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST
(packaged in a clamshell)

Single Valve Manifold	Gauge Class Diameter	Unit	Refrigerant Scales	Gauge p/n (HP/LP)
92103-EL	1.6 63 mm	Bar/PSI/°C	R410A, R507A, R404A, R22	EL
92103-MRL		Bar/PSI/°C	R134a, R22, R12, R404A	MRL
92103-ML		Bar/°C	R134a, R404A, R407C, R22, R507A	ML
92103-EBL	1.6 80 mm	Bar/PSI/°C	R410A, R407C, R22	EBL
92103-MRBL		Bar/PSI/°C	R134a, R22, R12, R404A	MRBL
92103-MBL		Bar/°C	R134a, R404A, R407C, R22, R507A	MBL
92103-EBRL		Bar/°C	R22, R422A, R427A, R422D, R417A	EBRL
92103-RB		Bar/PSI/°C	R1270, R290, R600a	RBL
92103-MRB1	1.0 80 mm	Bar/PSI/°C	R22, R404A, R407F, R134a	MRBL1
92103-EB1		Bar/PSI/°C	R22, R407C, R32, R410A	EBL1
NEW 92103-EBAL1		Bar/kPA/PSI/°C	R410A, R32	EBAL1
NEW 92103-EBAH1		Bar/kPA/PSI/°C	R410A, R32	EBAH1

* Manifolds assembled with gauge guards, add a -G

5/16" SINGLE VALVE MANIFOLD – BALL VALVE

92103-EBL-5/16

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST
(packaged in a clamshell)

Single Valve Manifold	Gauge Class Diameter	Unit	Refrigerant Scales	Gauge p/n (HP/LP)
92103-EL-5/16	1.6 63 mm	Bar/PSI/°C	R410A, R507A, R404A, R22	EL
92103-MRL-5/16		Bar/PSI/°C	R134a, R22, R12, R404A	MRL
92103-ML-5/16		Bar/°C	R134a, R404A, R407C, R22, R507A	ML
92103-EBL-5/16	1.6 80 mm	Bar/PSI/°C	R410A, R407C, R22	EBL
92103-MRBL-5/16		Bar/PSI/°C	R134a, R22, R12, R404A	MRBL
92103-MBL-5/16		Bar/°C	R134a, R404A, R407C, R22, R507A	MBL
92103-EBRL-5/16		Bar/°C	R22, R422A, R427A, R422D, R417A	EBRL
92103-RB-5/16		Bar/PSI/°C	R1270, R290, R600a	RBL
92103-MRB1-5/16	1.0 80 mm	Bar/PSI/°C	R22, R404A, R407F, R134a	MRBL1
92103-EB1-5/16		Bar/PSI/°C	R22, R407C, R32, R410A	EBL1
NEW 92103-EBAL1-5/16		Bar/kPA/PSI/°C	R410A, R32	EBAL1
NEW 92103-EBAH1-5/16		Bar/kPA/PSI/°C	R410A, R32	EBAH1
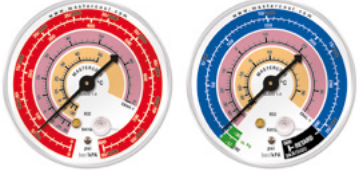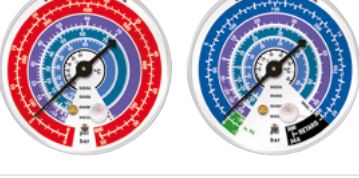
* Manifolds assembled with gauge guards, add a -G

CLASS 1.6 REPLACEMENT GAUGES

		High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
		MH	ML	63 mm	Bar/°C	R134a R404A R407C R22 R507A
		MRH	MRL	63 mm	Bar/PSI/°C	R134a R22 R404A R12
		EH	EL	63 mm	Bar/PSI/°C	R410A R404A R507A R22
		MBH	MBL	80 mm	Bar/°C	R134a R404A R407C R22 R507A
		MRBH	MRBL	80 mm	Bar/PSI/°C	R134a R22 R404A R12
		EBH	EBL	80 mm	Bar/PSI/°C	R410A R407C R22
		EBRH	EBRL	80 mm	Bar/°C	R22 R422A R427A R422D R417A
		RBH	RBL	80 mm	Bar/PSI/°C	R1270 R290 R600a
		87500	87350	80 mm	Bar/PSI/°F/°C	R1234yf

CLASS 1.0 REPLACEMENT GAUGES

	High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
	EBH1	EBL1	80 mm	Bar/PSI/°C	R22 R407C R32 R410A
	EBAH1	EBAL1	80 mm	Bar/kPA/PSI/°C	R32 R410A
	MRBH1	MRBL1	80 mm	Bar/kPA/PSI/°C	R22 R404A R407F R134a
	MNBH1	MNBL1	80 mm	Bar/PSI/°C	R455A R448A R449A R452A
	MBRKH1	MBRKL1	80 mm	kg/cm²/PSI/°C	R407C R404A R22 R134a

CLASS 1.0 REPLACEMENT GAUGE FOR CO2

Oil filled				
High pressure p/n	Low pressure p/n	Gauge diameter	Units	Refrigerant scales
55102-2400	55102-1400	70 mm	PSI/MPa	R744

63 MM GAUGE PROTECTORS

93553-E

93253-E	63 mm Blue Gauge Protector
93503-E	63 mm Red Gauge Protector
93553-E	63 mm Set (Red & Blue)

80 MM GAUGE PROTECTORS

91553-EE

91253-EE	80 mm Red Gauge Protector
91503-EE	80 mm Blue Gauge Protector
91553-EE	80 mm Set (Red & Blue)

LENS

98251-E

85253-E	63 mm (2 1/2") Lens
98251-E	80 mm (3 1/8") Lens

4-WAY MANIFOLD REPLACEMENT KNOBS

58211 / 58212

58213 / 58214

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

2-WAY MANIFOLD REPLACEMENT KNOBS

85212-R / 85211-R

85212 / 85211

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

PARTS FOR PISTON MANIFOLDS

85215

85216

85215	O-rings (4 pcs)
85216	Seal & Seat Assembly (2 pcs)

PARTS FOR 2-3 AND 4 WAY BALL VALVE MANIFOLDS

95102-R-KIT	O-ring Repair Kit for 2-3 and 4 Way Ball Valve Manifold

CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

40 MASTERCOOL

HOSES, ADAPTERS & ACCESSORIES

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
• Hoses assembled with teflon gaskets, add a -T to the p/n
• For special length hoses, please inquire

STANDARD & HIGH PRESSURE HOSES WITH STANDARD FITTINGS (1/4" SAE)
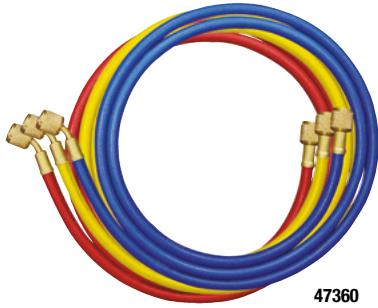
Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR						
HOSE LENGTH	**90 cm**	**150 cm**	**180 cm**	**250 cm**	**3 m**	**5 m**
Blue 1/4" x 1/4"	41361	41601	41721	41961	41961-120	41961-200
Yellow 1/4" x 1/4"	41362	41602	41722	41962	41962-120	41962-200
Red 1/4" x 1/4"	41363	41603	41723	41963	41963-120	41963-200
SETS 1/4" x 1/4"	40336	40360	40372	40396	40396-120	40396-200
Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR						
Blue 1/4" x 1/4"	47361	47601	47721	47961	47961-120	47961-200
Yellow 1/4" x 1/4"	47362	47602	47722	47962	47962-120	47962-200
Red 1/4" x 1/4"	47363	47603	47723	47963	47963-120	47963-200
Black 1/4" x 1/4"	47364	47604	47724	47964	N/A	N/A
SETS 1/4" x 1/4"	47336	47360	47372	47396	47396-120	47396-200
Black 1/4" hose with (3/8" x 3/8" fitting)	48364	48604	48724	48964	N/A	N/A

47360

R410A HOSES

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR		
HOSE LENGTH	**90 cm**	**150 cm**
Blue 5/16" SAE x 5/16" SAE	49361-J	49601-J
Yellow 5/16" SAE x 5/16" SAE	49362-J	49602-J
Red 5/16" SAE x 5/16" SAE	49363-J	49603-J
SETS 5/16" SAE x 5/16" SAE	49336-J	49360-J
Blue 1/4" x 5/16"	-	96411
Red 1/4" x 5/16"	-	96413
SETS Blue/Red 1/4" x 5/16" and Yellow 1/4" x 1/4"	49336-JT	49360-JT

49360-J

R134a HOSES WITH 1/2" ACME-F AND 14 MM-M AUTO A/C FITTINGS
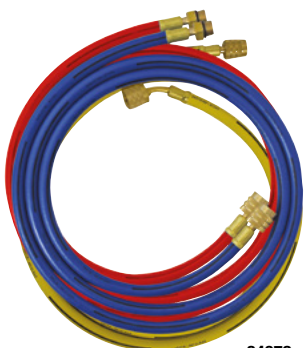
Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR				
HOSE LENGTH	**90 cm**	**150 cm**	**180 cm**	**240 cm**
Blue 14 mm-M x 1/2" ACME-F	84361	84601	84721	84961
Yellow with Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84362	84602	84722	84962
Red 14 mm-M x 1/2" ACME-F	84363	84603	84723	84963
Black 1/2" ACME-F x 1/2" ACME-F	84364	84604	84724	84964
Yellow without Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84365	84605	84725	84965
SETS Blue/Red 14 mm-M x 1/2" ACME-F and Yellow with Shut-off Valve 1/2" ACME-F x 1/2" ACME-F	84336	84360	84372	84396

84372

Mastercool R134a charging hoses meet SAE J2196 specifications and are UL tested.

R1234yf HOSES (Meets J2888, EPA, SAE & UL Standards)
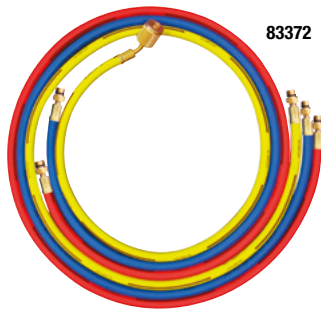
83372

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR	
HOSE LENGTH	**180 cm**
Blue 12 mm-M x 12 mm-M	**83721**
Yellow 12 mm fitting x 1/2 x 16 ACME LH	**83722**
Red 12 mm-M x 12 mm-M	**83723**
SET Blue/Red 12 mm-M x 12 mm-M and Yellow 12 mm fitting x 1/2 x 16 ACME LH	**83372**

STANDARD & HIGH PRESSURE HOSES WITH AUTOMATIC SHUT-OFF VALVE FITTINGS (1/4" SAE)
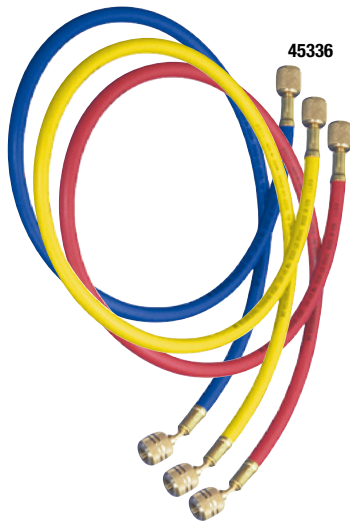
45336

Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR				
HOSE LENGTH	**90 cm**	**150 cm**	**180 cm**	**250 cm**
Blue 1/4" x 1/4"	**45361**	**45601**	**45721**	**45961**
Yellow 1/4" x 1/4"	**45362**	**45602**	**45722**	**45962**
Red 1/4" x 1/4"	**45363**	**45603**	**45723**	**45963**
Black 1/4" x 1/4"	**N/A**	**N/A**	**N/A**	**N/A**
SETS 1/4" x 1/4"	**45336**	**45360**	**45372**	**45396**
Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR				
Blue 1/4" x 1/4"	**46361**	**46601**	**46721**	**46961**
Yellow 1/4" x 1/4"	**46362**	**46602**	**46722**	**46962**
Red 1/4" x 1/4"	**46363**	**46603**	**46723**	**46963**
Black 1/4" x 1/4"	**46364**	**46604**	**46724**	**46964**
SETS 1/4" x 1/4"	**46336**	**46360**	**46372**	**46396**

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

STANDARD & HIGH PRESSURE HOSES WITH MANUAL SHUT-OFF VALVE FITTINGS (1/4" SAE)
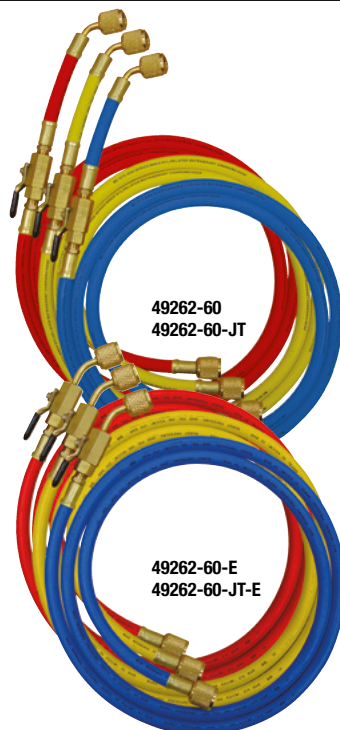
49262-60
49262-60-JT

49262-60-E
49262-60-JT-E

Standard Hoses, Working Pressure 41 BAR, Burst 210 BAR			
HOSE LENGTH	**90 cm**	**150 cm**	**180 cm**
Blue 1/4" x 1/4"	**90263-36**	**90263-60**	**90263-72**
Yellow 1/4" x 1/4"	**90264-36**	**90264-60**	**90264-72**
Red 1/4" x 1/4"	**90265-36**	**90265-60**	**90265-72**
SETS 1/4" x 1/4"	**90262-36**	**90262-60**	**90262-72**
Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR			
Blue 1/4" x 1/4"	**49263-36**	**49263-60**	**49263-72**
Yellow 1/4" x 1/4"	**49264-36**	**49264-60**	**49264-72**
Red 1/4" x 1/4"	**49265-36**	**49265-60**	**49265-72**
SETS 1/4" x 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**

Add a -E for ball valve at the end hoses

3/8" SAE REPLACEMENT BLACK HOSE
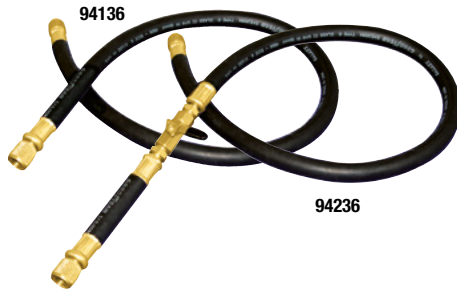
94136

94236

- Knurled brass nuts make finger tightening easy
- Crimped with 8 segment dies for secure fit and maximum durability
- 3/8" hose diameter with 3/8" x 3/8" fittings, inline ball valve

Nylon Barrier Hoses, Working Pressure 56 BAR, Burst 280 BAR

HOSE LENGTH	90 cm	150 cm	180 cm
Black 3/8" x 3/8"	94136	94160	94172
Black 3/8" x 3/8" with manual shut-off valve fittings	94236	94260	94272

STEEL BRAIDED HOSES FOR CO2

- Outer diameter of stainless steel rope: 0.18 mm braided by 4 wires
- Section:
  PTFE tube: 7 mm x 5 mm / sandwich: 0.5 mm
- Outside diameter 9 mm
- Thread 7/16-20UNF
- Working pressure 200 BAR
- Burst 800 BAR

HOSE LENGTH	150 cm
Steel braided hose for CO2	55601
SET of 3 steel braided hoses for CO2	55360

PRESSURE CONTROL HOSES

47124-ST

47124-STR
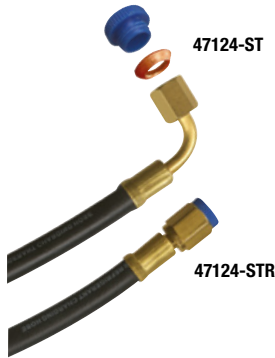
Replaces regular copper capillary tubing and eliminates capillary failure due to work hardening from vibration.

- 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" SAE		1/2" ACME		14 mm-M O-RING	3/8" GASKET	UNF 1/2 - 20"	
	GASKET	DEPRESSOR	GASKET	DEPRESSOR			GASKET	DEPRESSOR
Charging Hoses	42010-10 / 42010-T-10 (Teflon)	42014-10 / 42016-10 (Screw-Type)	82010-10	42014-10	83341-10	48010-10	82010-10	42016-10
Shut-Off Valve	90336-10	N/A	90336-10	N/A	N/A	N/A	N/A	N/A

- Provides a quick and easy connection to components like pressure switches, gauges, oil return circuits and oil leveling in air conditioning and refrigeration systems
- No need for brazing, flaring or bending
- Essential noise reduction and vibration absorption
- Excellent impermeability

SPECIFICATIONS:
- EN 1736 and ISO 13971 - Class 2
- Inner diameter 2 mm
- Outer diameter 5.9 mm
- Tolerances 0.1 mm
- Bending radius 10 mm

- Max allowable pressure 60 bar (870 psi)
- Working temperature 248˚F (120˚C)
- Min/max allowable temperature -40 to 266˚F (-40 to 130˚C)
- Weight 25 g/m

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X 45˚ FITTINGS WITH DEPRESSOR
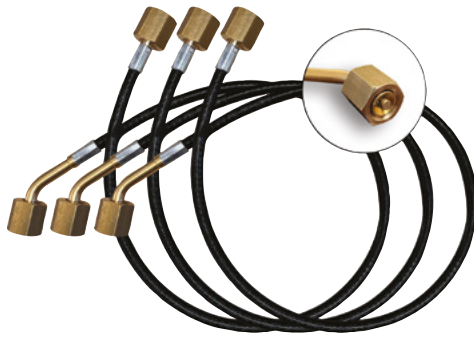
- 2 mm thermoplastic capillary hose for maximum precision on small capacity systems

44318	Set of 3-18" (450 mm) capillary hoses with straight x 45˚ fittings with depressor
44324	Set of 3-24" (600 mm) capillary hoses with straight x 45˚ fittings with depressor
44184-S45	18" (450 mm) capillary hose with straight x 45˚ fittings with depressor
44244-S45	24" (600 mm) capillary hose with straight x 45˚ fittings with depressor

44184-S45

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X STRAIGHT FITTING
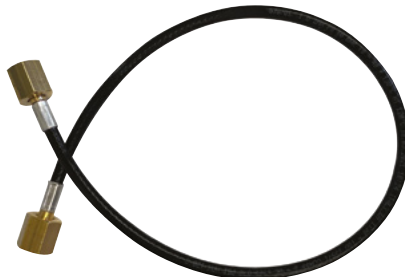
- 2 mm thermoplastic capillary hose

44124-STR	12" (30 cm) capillary hose assembly with straight x straight fittings
44184-STR	18" (45 cm) capillary hose assembly with straight x straight fittings
44244-STR	24" (60 cm) capillary hose assembly with straight x straight fittings
44484-STR	48" (120 cm) capillary hose assembly with straight x straight fittings
44604-STR	60" (150 cm) capillary hose assembly with straight x straight fittings

44184-STR

THERMOPLASTIC CAPILLARY TUBE ASSEMBLIES - STRAIGHT X 90˚ FITTING

- 2 mm thermoplastic capillary hose

44124-ST	12" (30 cm) capillary hose assembly with straight x 90˚ fittings
44184-ST	18" (45 cm) capillary hose assembly with straight x 90˚ fittings
44244-ST	24" (60 cm) capillary hose assembly with straight x 90˚ fittings
44484-ST	48" (120 cm) capillary hose assembly with straight x 90˚ fittings
44604-ST	60" (150 cm) capillary hose assembly with straight x 90˚ fittings

44184-ST

2MM THERMOPLASTIC CAPILLARY HOSE

44004-1000	2 mm thermoplastic capillary hose, roll of 1000 inches (25 meters)
44004-2000	2 mm thermoplastic capillary hose, roll of 2000 inches (50 meters)

CRIMP FITTINGS FOR 2 MM CAPILLARY HOSE

NEW

42112-50

42112-50	Straight Crimp Fitting with Hex Nut packaged in a box of 50 pieces • Straight female fitting 1/4" SAE • Short nut 16 mm • Thread SAE J513 - 7/16" 20 UNF
42112-90-10	90˚ Crimp Fitting with Hex Nut packaged in a box of 10 pieces • 90˚ female fitting 1/4" SAE • Short nut 16 mm • Thread SAE J513 - 7/16" 20 UNF
91391-10	Tee Fitting packaged in a box of 10 pieces
42112-45-10	45˚ Crimp Fitting with Hex Nut packaged in a box of 10 pieces • 45˚ female fitting 1/4" SAE • Short nut 16 mm • Thread SAE J513 - 7/16" 20 UNF
42044-10	Depressor packaged in a bag of 10
69000-001I-10	1/4" Copper Gasket packaged in a bag of 10

42112-90-10

91391-10

42112-45-10

42044-10   69000-001I-10

71551   MANUAL CRIMPER

NEW

Manual hose crimper for 2 mm capillary hose

80013   CAPILLARY TUBE CUTTER

Capillary tube cutter for 2 mm capillary hose

44425   CAPILLARY TUBE KIT

NEW

All the components necessary to crimp your own capillary hoses housed in Mastercool's nylon backpack.

Kit consists of:
• 50 meters thermoplastic capillary hose (44004-2000)
• Manual crimper (71551)
• Capillary tube cutter (80013)
• Straight crimp fitting with hex nut (50 pieces) (42112-50)
• Depressor (10 pieces) (42044-10)

AUTOMATIC SHUT-OFF VALVES

90333-R   90335-R

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

<< QUICK DISCONNECT : NO LOSS OF REFRIGERANT >>

90333-R	90° 1/4 x 1/4"
90333-UV	90° 1/4" FFL x 13 mm
90335-R	Straight 1/4 x 1/4"

MANUAL SHUT-OFF BALL VALVES

90430   90433

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 x 1/4" Swivel Ball Valve
90433	1/4 x 5/16" Swivel Ball Valve

CONTROL VALVE

90328   90328-5/16

Ideal for use on charged systems. Eliminates refrigerant, oil or dye from spraying during connections.

90328	1/4" FFL x 1/4" MFL
90328-5/16	5/16" FFL x 5/16" MFL

CONNECTORS

MALE x MALE CONNECTORS

82734   82735   82736   82738   83734

82734	14 mm-M x 1/4" FL-M (7/16-20") Connector
82735	14 mm-M x M10 x 1.5-M Connector
82736	14 mm-M x M12 x 1.75-M Connector
82738	14 mm-M x 3/8" FL-M Connector
83734	**NEW** 12mm-m x 1/4" FL-M R1234yf Connector
83341	O-Ring for 82733, 82734, 82735 and 82736
80234	O-Ring for 82634, 82634-M, 90364 and 90365

FEMALE x MALE CONNECTORS

82635   82733   90364   90363

82634   83633   83735   90366

82635	1/2" ACME-F x 1/4" FL (7/16-20")-M R134a Adapter Coupler
82733	14 mm-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 R134a Connector
82634-M	1/4" FL-F (7/16-20") x 1/2" ACME-M R134a Connector without check valve
83633	**NEW** 1/2" ACME-M x 1/2" ACME-F LH Connector
83735	**NEW** 12mm-M x 14mm-F R1234yf Adapter
90366	1/4" SAE FL-F x 5/16" FL-Male

90° ADAPTERS
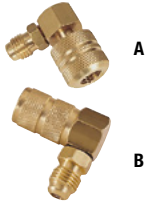
		REPLACEMENT	GASKET/O-RING	DEPRESSOR
A	90333-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
B	90314*	1/4" MFL x 1/4" FFL	42010	42014
B	90340*	1/4" MFL x 1/8" FFL (High Side) Ford 1977-1980	90341	90368
B	90354*	1/4" MFL x 3/16" FFL (High Side) GM 1976 & Later	90369	90368

45° ADAPTERS

		REPLACEMENT	GASKET/O-RING	DEPRESSOR
C	90924	1/4" MFL x 1/4" FFL	42010	42014
C	90927*	1/4" MFL x 3/16" FFL (High-Side)	90369	90368

STRAIGHT ADAPTERS

		REPLACEMENT	GASKET/O-RING	DEPRESSOR
D	82272*	R134a 1/2" ACME-F x 13 mm R134a (Low-Side)	85511	-
E	82335	R134a Shut-Off Valve 1/2" ACME-M x 1/2" ACME-F	90336	-
E	90335-R	Shut-Off Valve 1/4" MFL x 1/4" FFL	90336	-
F	82634*	1/4" FFL x 1/2" ACME-M	90331	-
F	82634-M	1/4" FFL x 1/2" ACME-M without Core Valve	90331	-
G	82734	14 mm-M x 1/4" MFL	83341	-
H	90358*	1/4" MFL x 3/16" FFL (High-Side)	42010	42014
I	90274	1/4" MFL x 1/4" FFL Swivel	42010	42014
I	90332**	1/4" MFL x 1/4" FFL Anti-Blowback Fitting	42010	42014
I	90357	1/4" MFL x 3/16" FFL (High-Side) Swivel	90369	90368
I	91084*	1/4" MFL x 3/16" FFL (High-Side) Swivel Adapter GM 1976 & Later, Ford 1981 & Later	90369	90368
J	90338*	GM 1991 & Later Service Adapter	90339	-
K	90633	1/4" MFL x 1/4" MFL Union	-	-
K	82633	1/2" ACME-M x 1/2" ACME-M Union	-	-
L	90413	Convert 1/4 To 5/16 SAE (1/2-20 UNF) Swivel Female Nut with Depressor	-	-
M	83634-M	1/4 FL-F x 1/2 ACME LH-M Fitting for R1234yf Systems without Check Valve	90331	-

90416   SWIVEL/ANGLE ADAPTER FITTING

R410A/R32 1/4" SAE x 5/16 SAE (1/2" - 20 UNF) swivel/angle adapter fitting

FLEX ADAPTERS

		REPLACEMENT	GASKET/O-RING	DEPRESSOR
N	90355*	1/4" MFL x 3/16" FFL (High-Side) GM 1976 & Later, Ford 1981 & Later	90369	90368
N	90356*	1/4" MFL x 1/4" FFL	42010	42014
N	90373*	1/4" MFL x 1/8" FFL (High-Side) Ford 1977-1980	90341	90368

90410   FLEX ADAPTER

Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A.

90411   FLEX ADAPTER WITH BALL VALVE

Convert 1/4 SAE hose into 5/16 SAE, 1/2-20 UNF swivel connection for R410A.

ACCESS SERVICE TOOLS

		REPLACEMENT	GASKET/O-RING	DEPRESSOR
0	90296*	1/4" MFL x 1/8" NPT	-	-
0	80296*	1/2" ACME-M x 1/8" NPT	-	-

* Includes Access Valve Core (0377-001) – (90-110 PSI Opening)
** Includes Check Valve Core (0332-002) – (8-12 PSI Opening)

RETROFIT ADAPTERS

82357   GM HIGH FLOW ADAPTER WITH VALVE CORE & SERVICE PORT CAPS

GM High Flow Adapter

INDIVIDUAL TERMINATION (BLOCK OFF) CAPS
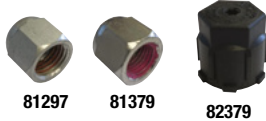
81297	1/4 (7/16"- 20) Aluminum
81379	3/16 (3/8"- 24) Aluminum
82297	Universal Blue Cap
82379	Universal Black Cap

81297   81379   82379

STRAIGHT ADAPTERS WITH VALVE CORE & SERVICE PORT CAPS

82274	Low Side, 1/4 (7/16"- 20) x 13 mm
82332	High Side, 1/4 (7/16"- 20) x 16 mm
82358	High Side, 3/16 (3/8"- 24) x 16 mm

82274   82332   82358

90° ADAPTERS WITH VALVE CORE & SERVICE PORT CAPS

82275	Low Side, 1/4 (7/16"- 20) x 13 mm
82354	High Side, 3/16 (3/8"- 24) x 16 mm

82275   82354

91207 CHARGING AND DEPRESSOR ASSORTMENT

Replacement gaskets, o-rings and depressors for charging hoses and adapters.

Consists of:

42010	1/4" Gasket (3 pcs)	
42014	1/4" Depressor (3 pcs)	
90368	3/16" Depressor (3 pcs)	
90369	3/16" Gasket (3 pcs)	
90341	1/8" O-Ring (3 pcs)	

91334 CHARGING ADAPTER REPAIR KIT

55 piece assortment of replacement gaskets, o-rings and depressors for charging hoses and adapters.

Consists of:

42010	1/4" Gasket (10 pcs)
42014	1/4" Depressor (10 pcs)
90368	3/16" Depressor (10 pcs)
90369	3/16" Gasket (10 pcs)
90341	1/8" O-Ring (10 pcs)
92107	Quick Disconnect Gasket (5 pcs)

91334-A R12/R134a CHARGING HOSE REPLACEMENT PARTS ASSORTMENT

Consists of:

42010	1/4" FL Gasket (10 pcs)
42014	1/4" FL Depressor (5 pcs)
42016	Screw Type Depressor (5 pcs)
90336	Gasket for 90335 (5 pcs)
82010	Black Gasket for R134a Hose (10 pcs)
83341	O-Ring for R134a Hose (5 pcs)
80034-2	Black O-Ring for High Side (5 pcs)
80134-2	Black O-Ring for Low Side (5 pcs)

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)
80134-1	Low Side Nylon Guide (5 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 90335 Shut-off Valve (10 pcs)

91335   MASTER A/C CHARGING ADAPTER REPAIR KIT
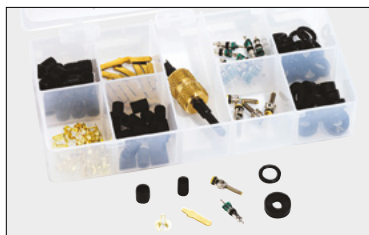
126 piece assortment of replacement gaskets, o-rings and depressors for charging hoses and adapters. Also includes valve core removal tool and replacement valve cores.

Consists of:

42010	1/4" Gasket (20 pcs)
42014	1/4" Depressor (20 pcs)
90368	3/16" Depressor (20 pcs)
90369	3/16" Gasket (20 pcs)
90341	1/8" O-Ring (20 pcs)
92107	Quick Disconnect Gasket (10 pcs)
0377-001	Refrigeration Valve Core (10 pcs)
90378	GM Large Bore Valve Core (5 pcs)
91290	Universal Valve Core Remover (1 pc)

91336   FORD SPRING LOCK REPLACEMENT O-RING AND GARTER SPRING ASSORTMENT

Compatible with R12 and R134a systems.

Consists of:

1336-006	#6 O-Ring (10 pcs)
1336-008	#8 O-Ring (10 pcs)
1336-010	#10 O-Ring (10 pcs)
1336-012	#12 O-Ring (10 pcs)
1336-016	#6 Garter Spring (5 pcs)
1336-018	#8 Garter Spring (5 pcs)
1336-110	#10 Garter Spring (5 pcs)
1336-112	#12 Garter Spring (5 pcs)

91337   R12/R134a VALVE CORE REPAIR KIT
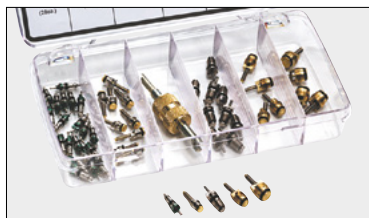
Replacement valve cores for valve core removers & installers.

Consists of:

0377-001	Access Valve Core (20 pcs)
0378-001	Valve Core (10 pcs)
0531-001	R134a JRA High/Low Import Valve Core (10 pcs)
0768-001	R134a Domestic High Flow Valve Core M8 (5 pcs)
0769-001	R134a Domestic High Flow Valve Core M10 (5 pcs)
81290	R12/R134a Valve Core Remover/Installer (1 pc)

91339   AUTOMOTIVE R12 & R134a O-RING ASSORTMENT (270 PIECE HNBR)

Consists of:

91339-01	7/32" x 1/16" (5.29 x 1.78 mm) (20 pcs)	**91339-10**	11 x 2 mm (15 pcs)
91339-02	1/4" x 1/16" (6.07 x 1.78 mm) (20 pcs)	**91339-11**	12 x 2 mm (15 pcs)
91339-03	6.8 x 1.9 mm (20 pcs)	**91339-12**	13.9 x 1.8 mm (10 pcs)
91339-04	5/16" x 1/16" (7.65 x 1.78 mm) (20 pcs)	**91339-13**	9/16" x 3/32" (13.95 x 2.62 mm) (10 pcs)
91339-05	7.8 x 1.9 mm (20 pcs)	**91339-14**	14 x 2 mm (10 pcs)
91339-06	8 x 2 mm (20 pcs)	**91339-15**	15 x 2 (10 pcs)
91339-07	8.8 x 1.9 mm (20 pcs)	**91339-16**	17 x 2 (10 pcs)
91339-08	7/16" x 1/16" (10.82 x 1.78 mm) (15 pcs)	**91339-17**	11/16" x 1/16" (17.17 x 1.78 mm) (10 pcs)
91339-09	7/16" x 3/32" (10.77 x 2.62 mm) (15 pcs)	**91339-18**	11/16" x 1/8" (17.04 x 3.53 mm) (10 pcs)

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. **PATENT# 5,370,359**

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

82834   82934

82834-E   82934-E

SAFETY-LOCK MANUAL COUPLERS

Mastercool's safety-lock manual couplers are designed for use on all R134a systems. This unique design allows the technician to work on the system without the worry of accidentally disconnecting the hose regardless of movement. Once the coupler is connected to the system, the safety-lock sleeve slides into place guaranteeing that the coupler cannot be taken off without unscrewing the manual valve. Meets all SAE, UL and EPA requirements for containment of refrigerant.
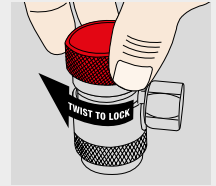
82834-SL   82934-SL

82834-SL	High Side Manual R134a Safety Lock Coupler 14 mm-F x 16 mm
82934-SL	Low Side Manual R134a Safety Lock Coupler 14 mm-F x 13 mm
82834-SL-E	High Side Manual R134a Safety Lock Coupler 1/4" FL-M x 16 mm
82934-SL-E	Low Side Manual R134a Safety Lock Coupler 1/4" FL-M x 13 mm
82834-SL-3/8	High Side Manual R134a Safety Lock Coupler 3/8" FL-M x 16 mm
82934-SL-3/8	Low Side Manual R134a Safety Lock Coupler 3/8" FL-M x 13 mm
82834-SL-J	High Side Manual R134a Safety Lock Coupler M12 x 1.75 x 16 mm
82934-SL-J	Low Side Manual R134a Safety Lock Coupler M10 x 1.5 x 13 mm
80034	O-Ring for 16 mm Quick Coupler (10 pcs)
80134	O-Ring for 13 mm 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   82224

82214-E   82224-E

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

ECONOMY COUPLERS
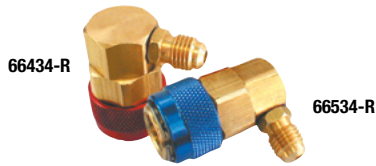
66434-R

66534-R

Specially designed to work in the tightest quarters. Attaches to your existing 1/4" flare hoses and snaps easily to A/C service ports.

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

R1234yf COUPLERS

83834

83934

67434

67534

• Meets SAE J639 & J2888
• Allows recovery of entire refrigerant, including the space between the coupler and fitting

83834	High Side R1234yf 12 mm-F x 17 mm Coupler with Extended Disconnect Protection Sleeve
83934	Low Side R1234yf 12 mm-F x 14 mm Coupler with Extended Disconnect Protection Sleeve
67434	High Side R1234yf 12 mm-F x 17 mm Quick Coupler
67534	Low Side R1234yf 12 mm-F x 14 mm Quick Coupler

R134a EXTRA LONG COUPLERS

82836

82836-E

Extra long high side R134a coupler used on BMW E60 (2003-2009 5 series), Volvo and Renault models. This extra long high side coupler can easily reach the service port.

82836	High Side Extra Long 14 mm-F x 16 mm
82836-E	High Side Extra Long 1/4" SAE-M x 16 mm

NEW

83736-K   DELUXE R134A/R1234YF CONVERSION KIT

Easily convert any R134a manifold gauge set to a R1234yf manifold gauge set.

Consists of:

83834	High Side R1234yf 12 mm-F x 17 mm Coupler
83934	Low Side R1234yf 12 mm-F x 14 mm Coupler
83633	1/2" ACME-M x 1/2" ACME-F LH Thread Adapter
83735	12mm-M x 14mm-F R1234yf Adapters (2 pieces)

58490 UNIVERSAL R12/R134a MASTER KIT
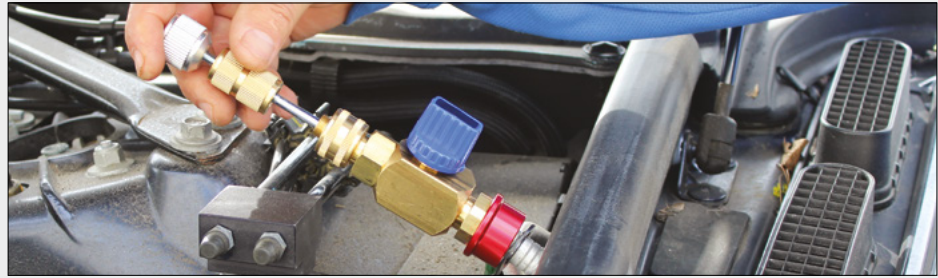
Mastercool's valve core remover/installer has a built-in ball valve to retain charge and allow access to the A/C system. Excellent for replacing valve cores without discharging the system, speeding recovery and recharging large systems. Its heavy-duty design for R134a and R12 systems allows the user to change valve cores while under pressure without any refrigerant loss. **Patent # 6253436.**

- Designed for use of servicing valve cores in R134a and R12 systems
- Universal valve core remover/installer for standard, JRA, Eaton and GM large bore valve cores
- Access and change valve cores while the A/C system is still filled with refrigerant
- Stainless steel ball valve design and patented thread remover lets the user block off the system while changing the valves cores, allowing for no refrigerant loss

This kit consists of valve assembly, R134a high side 16mm connector, R134a low side 13mm connector, 1/4" FL swivel connector, standard valve core remover/installer assembly, GM large bore valve core remover/installer assembly, JRA R134a valve core remover/installer assembly, Eaton R134a low side valve core remover/installer assembly, Eaton R134a high side valve core remover/installer assembly, adapter 1/4"-M x 3/16"-F high side GM/Ford, adapter 1/4"-M x 1/8"-F high side Ford.

58490-YF UNIVERSAL R1234yf MASTER KIT

The perfect tool for replacing damaged valve cores with R1234yf refrigerant in the system without losing the systems charge.

- Attaches to R1234yf service ports to quickly and easily remove and replace valve cores without the loss of refrigerant
- Ball Valve design with stainless steel ball provides smooth movement and durability
- Kit covers 17 mm and 14 mm high and low side service ports

Kit includes: valve assembly, high side 17 mm connector, low side 14 mm connector, standard valve core shaft, GM large bore valve core shaft, eaton R134a/R1234yf high side valve core shaft

VALVE CORE REMOVERS

81290

91290

81290	R134a Universal Large Bore Remover Used on R12/R134a standard and JRA/EATON large bore R134a valve cores.
91290	Universal Valve Core Remover Double ended for easy replacement of standard and GM R12 large bore valve cores.

81490 R134a VALVE CORE REMOVER AND INSTALLER

- For 13 mm and 16 mm high and low service port standard type valve
- Built-in ball valve retains charge and allows access to A/C system
- Excellent for replacing valve cores without discharging the system and for speeding recovery and recharging large systems

90376   VALVE CORE REMOVER WITH 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)

91490   STANDARD 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.

91496	Valve Core Remover/Installer with 1/4" MFL Side Port

91498   UNIVERSAL VALVE CORE REMOVER/INSTALLER KIT

(for High Pressure Refrigerants) (410A) 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**

SERVICE TOOLS & ACCESSORIES

91390   R12 SERVICE PORT THREAD REPAIR TOOL

Recuts stripped R12 service port threads. All-in-one design for 1/8", 3/16" and 1/4" service ports. An excellent retrofit tool - it will ensure that the R134a retrofit adapters will fit securely.

R134a OCTAGON SERVICE PORT SOCKETS

98134	R134a Low Side Octagon Socket
98234	R134a High Side Octagon Socket

93000   SPRING LOCK COUPLING TOOL SET

Four sizes 3/8" (#6), 1/2" (#8), 5/8" (#10) and 3/4" (#12) used on Fords and Chryslers. Durable spring loaded design for long life and reliable fit.

Set includes:

93098	3/8" (#6) Red	93100	5/8" (#10) Black
93099	1/2" (#8) Blue	93101	3/4" (#12) Beige

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 1/2" (38 mm) 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

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.

CAN TAP VALVES
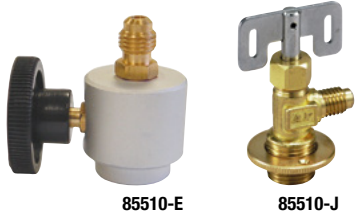
85510-E   85510-J

85510-YF   **85512-YF**

85510-E	1/4" SAE Can Tap Valve - Screw-On Model (European Standard)
85510-J	R134a Can Tap Valve - Screw-On Model (Japanese Standard) M14-F x M10-FL-M
85510-YF	R1234yf 1/2" Acme-LH Thread Piercing Design Can Tap Valve • Exclusive "full grip" valve knob • All metal construction provides durability • Gasket assures leak proof operation • Built-in safety check • Meets SAE J2844
85512-YF	R1234yf 1/2" Acme-LH Thread Self-Sealing Design Can Tap Valve • Exclusive "full grip" valve knob • All metal construction provides durability • Gasket assures leak proof operation • Built-in safety check • Meets SAE J2844
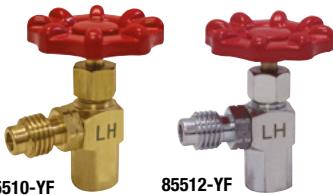
YF COMPATIBLE

YF COMPATIBLE

MEASURE & TEST INSTRUMENTS

CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

MASTERCOOL

THE COMPLETE A/C DIAGNOSTIC TOOL

52251

Mastercool's 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.

FEATURES:
- Calculates actual superheat and subcool temperatures for the following refrigerants: R22, R114, R123, R124, R134, 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 93 mm x 41 mm
- Weight: (meter w/ batteries & round vane) 500 g
- Temperature display: °F and °C
- Pressure display: PSI and Bar
- Back-lit LCD display
- Low battery indicator
- K-type thermocouple connection
- USB connection
- 6 AA batteries

Please add the suffix below to the part number for the corresponding languages
-ES : English and Spanish
-EI : English and Italian

52270

52280

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	✓	-	✓	✓	✓

52253   ROUND VANE

Temp. Range/Resolution/Accuracy:
- -20 to 60˚C (-4 to 140˚F)
- 0.1˚C (0.2˚F)
- ±0.6˚C (1.1˚F) (-20 to 50˚C (-4 to 122˚F)),
  ±1.2˚C (2.2˚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
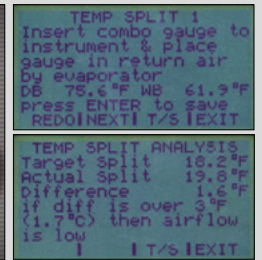
Just two measurements with the probe will give the target temperature split and actual temperature split across the evaporator and compare the two.

52254   ANTENNA TYPE METER

Temp. Range/Resolution/Accuracy:
- -20 to 60˚C (-4 to 140˚F)
- 0.1˚C (0.2˚F)
- ±0.6˚C (1.1˚F) (-20 to 50˚C (-4 to 122˚F)),
  ±1.2˚C (2.2˚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)

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.
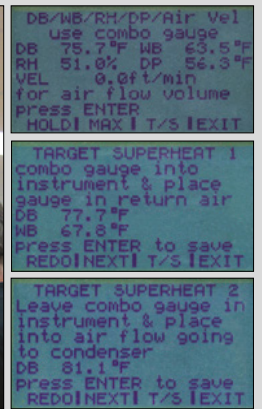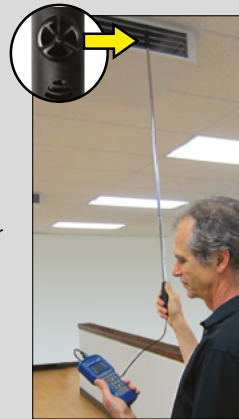
52252   PRESSURE TRANSDUCER

- 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

52336   CLAMP-ON THERMOCOUPLE (extends 3 ft (1 M))

Temp. Range/Resolution
- -40 to 121˚C (-40 to 250˚F)
- 0.1˚C (0.2˚F)
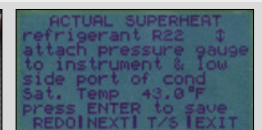
Pressure transducer and thermocouple will measure saturated temperature and actual temperature, to calculate actual superheat and subcool temperature.
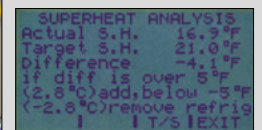
System will compare target and actual superheat.

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" (17 x 4 x 1.5 cm)
- Sensor: electronic capacitance polymer film
- Temperature 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 temperature: 14 to 140˚F (-10 to 60˚C) / Storage RH%: <95%
- Battery: (1) CR2032 (lithium coin cell)
- Battery life: 100 hours

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 temperature probe (optional)
- Data hold to capture readings
- Fast response, accurate reading
- Microprocessor circuitry for reliability

SPECIFICATIONS:
- Temperature 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)
- External temperature range: -4 to 158˚F (-20 to 70˚C)
- Accuracy: RH% 3% at 77˚F (25˚C) / Temperature: 1˚F (0.6˚C)
- Response time: 60 seconds
- Pocket size: 0.9" (h) x 1.9" (w) x 7.0" (l) (2 x 5 x 18 cm)
- Power: (2) 1.5V AAA battery

52231 Probe for 52233

52236 AIRFLOW+PSYCHROMETER

Reads humidity, air temperature, 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 back-lit 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

52238   DIGITAL SOUND LEVEL METER

- Automatic or manual ranging
- Four measurement ranges from 40 to 130 dB
- 0.1dB resolution
- ±1.5 dB accuracy
- 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

43705   REFRACTOMETER (˚F)

- Offers a quick and easy way to test the freezing point of coolant/anti-freeze
- Compatible with ethylene or propylene glycol
- Measures battery acid specific gravity
- Automatic temperature compensation
- Large, easy to read graphics and high contrast lens
- Adjustable focus viewfinder
- Strong, metal body structure
- Includes storage case, fluid dropper and calibration screw driver
- Not for use with OAT coolants or DEF
- Fahrenheit temperature scale (celsius conversion chart supplied)

52224-A   INFRARED THERMOMETER WITH LASER

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

SPECIFICATIONS:
• Non-contact temperature range: -50 to 550°C (-58 to 1022°F)
• Field of view: 12 : 1
• Display illumination: back-lit lcd color display
• Target indicator: circular laser
• Emissivity: 0.95
• Resolution: 0.1°F / 0.1°C
• Accuracy: ±2°C (4°F) or ±2% of reading
• Response time: 0.5 Seconds
• Power off: automatic after 15 seconds
• Battery life: approximately 14 hours
• Included accessories: 2 aaa batteries, instruction manual, plastic molded case

52224-CC   INFRARED THERMOMETER WITH CIRCULAR LASER

Features both infrared and circular laser technologies.

SPECIFICATIONS:
• Non-contact temperature range: -60 to 760°C (-76 to 1400°F)
• Field of view: 12 : 1
• Display illumination: back-lit lcd color display
• Target indicator: circular laser
• Emissivity: 0.95
• Resolution: 0.1°F / 0.1°C
• Accuracy: ±2°C (4°F) or ±2% of reading
• Response time: 1 second
• Power off: automatic after 15 seconds
• Battery life: approximately 14 hours
• Included accessories: 2 aaa batteries, instruction manual, plastic molded carrying case

52224-D   MULTI-LASER INFRARED THERMOMETER

The multi-laser infrared thermometer safely monitors hot, hazardous, or hard to reach materials without contamination or damage to the surface. Simply point at target, pull the trigger, and read the temperature.

SPECIFICATIONS:
• Measurement range: -60 to 760°C (-76 to 1400°F)
• Operating range: 0 to 50°C (32 to 122°F)
• Field of view: 12 : 1
• Display illumination: back-lit lcd color display
• Target indicator: eight laser
• Emissivity: 0.95 Default - adjustable 0.1 To 1 step .01
• Resolution: 0.1°C/0.1°F at -76 to 999.9(°C/°F), otherwise 1°C/1°F
• Modes: E, MAX, MIN, DIF and AVG
• Accuracy, (tobj=15-35°C, tamb=25°C): ±1.0°C (1.8°F)
  Accuracy, (tamb=23 ±3°C): 0 to 760°C: ±2% of reading or 2°C (4°F)
  whichever is greater -60 to 0°C ±(2°C+0.05/ degree)
• Battery life: 7 hours continuous use (alkaline, with laser and back-light)
• Included accessories: 2 aaa batteries, instruction manual, plastic molded case

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.

SPECIFICATIONS:

• Non-contact temperature range: -60 to 760°C (-76 to 1400°F)

• Thermocouple temperature range: -64 to 1400°C (-83 to 1999°F)

• Field of view: 30 : 1

• Display illumination: back-lit lcd display

• Target indicator: single laser spot

• Emissivity: 0.10 (10E) to 1.0 (100E)

• Resolution: 0.1°F / 0.1°C

• Modes: MIN, MAX, DIFF & AVG

• Accuracy: ±2°C (4°F) or ±2% of reading

• Response time: 1 second

• Power off: automatic after 15 seconds

• Battery life: approximately 14 hours

• Included accessories: 2 aaa batteries, 1m thermocouple probe, instruction manual, plastic molded case

• Optional accessories: 3 m wire thermocouple probe, piercing penetration probe, surface probe, air probe

3 ft. (1m) Wire
Thermocouple Included

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.

SPECIFICATIONS:

• Non-contact temperature range: -60 to 1000°C (-76 to 1832°F)

• Thermocouple temperature range: -64 to 1400°C (-83 to 1999°F)

• Field of view: 50 : 1

• Display illumination: back-lit lcd display

• Target indicator: dual laser spot

• Emissivity: 0.95

• Resolution: 0.1°F / 0.1°C

• Modes: MIN, MAX, DIFF & AVG

• Accuracy: ±2°C (4°F) or ±2% of reading

• Response time: 1 second

• Power off: automatic after 15 seconds

• Battery life: approximately 14 hours

• Included accessories: 2 aaa batteries, instruction manual, plastic molded case

• Optional accessories: 1 m, 3 m wire thermocouple probes, piercing penetration probe, surface probe, air probe

Optional Wire
Thermocouple

52234-BT   DIGITAL THERMOMETER/HYGROMETER with Bluetooth® Wireless Technology

NEW CE

Mastercool's Digital Thermometer/Hygrometer with Bluetooth® Wireless Technology works with our Mastercool Connect app to remotely provide dry bulb temperature, wet bulb temperature and relative humidity. Integrated into this unit is a high-performance ceramic antenna which offers maximum Bluetooth® wireless technology range. This digital thermometer/hygrometer will allow for varying the refrigerant charge in a system and seeing in real time how the supply parameters change.

The convenient clip, can easily be attached to a vent louver or register to see results more accurately. The mode key switches between dry bulb, wet bulb and relative humidity while the ˚C/˚F key toggles between fahrenheit and celcius for easy to read calculations.

SPECIFICATIONS:
- Relative humidity (tamb=73±9˚F (23±5˚C)): 1~99%, accuracy: ±3% from 20~80%, otherwise ±5%
- Dry bulb temperature (DBT): -4 - 150˚F (-20 - 65˚C), accuracy: ±4.5°F (±2.5˚C)
- Wet bulb temperature (WBT): -4 - 150˚F (-20 - 65˚C), accuracy: ±4.5°F (±2.5˚C)
- Battery life: 40 hours continuous use, battery shelf life 8 months
- Battery: one CR2032 lithium cell battery
- Dimensions: 2.2 x 2.1 x 1.7" (54.9 x 52.6 x 43 mm)
- Weight: 1.2 oz (35 g)
- Specifications for Bluetooth® wireless technology:
  - 260' (80m) maximum line-of-sight range
  - Bluetooth® 4.2 and 5

DOWNLOAD OUR APP

Download on the App Store

GET IT ON Google Play

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52325   THERMAL IMAGING WITH VISIBLE CAMERA
with carry case, micro SD card, CD, USB cord, batteries and instructions

LCD COLOR SCREEN

- Fully automatic
- Focus free
- Superior measurement/accuracy
- Micro SD card storage
- Reporting software included

SPECIFICATIONS:
- Thermal image resolution: 32 x 31 pixels
- Visual image resolution: 640 x 480
- Measurement range: -4 to 662°F (-20 to 350°C)
- Accuracy (tamb=20 to 26˚C): ±2% of reading, or 4˚F (2˚C) whichever is greater
- Thermal sensitivity: 0.1°F (0.1°C)
- Frame rate: 9 Hz
- Field of view: 40 x 40 deg
- Emissivity range: 0.95 default – adjustable 0.1 to 1 step 0.1
- Focus: focus free
- LCD size: 2.8" (71 mm)
- LCD: color
- Image storage: stores up to 25,000 images, BMP format (typical 8G micro SD card)
- Memory type: micro SD card
- Sensor filter: 8 to 14 um
- Interface: USB
- Battery type: 3.6V li-ion rechargeable battery
- Battery life (with back-lit): 3 hours continuous use
- Dimensions: 3.73 x 2.91 x 9.20 inch

VISIBLE CAMERA:
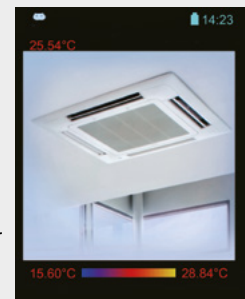
Visual
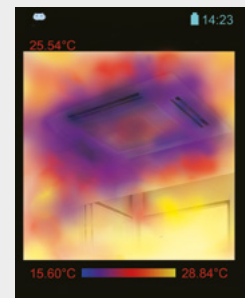
Fusion

52226   DUAL TEMP INFRARED/PROBE THERMOMETER

The 52226 dual temp thermometer offers both infrared and contact probe technologies.

• Infrared temperature range: -67 to 428˚F (-55 to 220˚C)
• Probe temperature 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.

• Temperature range: -67 to 428˚F (-55 to 220˚C)
• Field of view ratio 1 : 1
• Adjustable emissivity
• Back-lit 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
• Temperature range: -50 to 1300˚C
• Type K thermocouple input
• Resolution: 1˚F (1˚C)
• Includes two 3 ft (1m) thermocouple probes

52229   HAND-HELD 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

POCKET ANALOG DESIGNS

52220-C

52161

91120

All thermometers include pocket holder and clip.

Item#	Dial Size	Temperature Scale
52220-C	25 mm	-10 to 100˚C
52161	35 mm	-40 to 70˚C (-40 to 160˚F)
91120	44.5 mm	0 to 220˚F

POCKET DIGITAL DESIGN

52223-A

All thermometers include pocket holder and clip.
Battery operated, (on/off and auto shut-off after 10 minutes)

• ±1˚C accuracy
• 0.1˚C resolution

Item#	Dial Size	Temperature Scale
52223-A	25 mm	-50 to 150°C (-58 to 302°F)

OPTIONAL THERMOCOUPLE PROBES

52331/52332

52333

52334

52335

52336

52036/52108
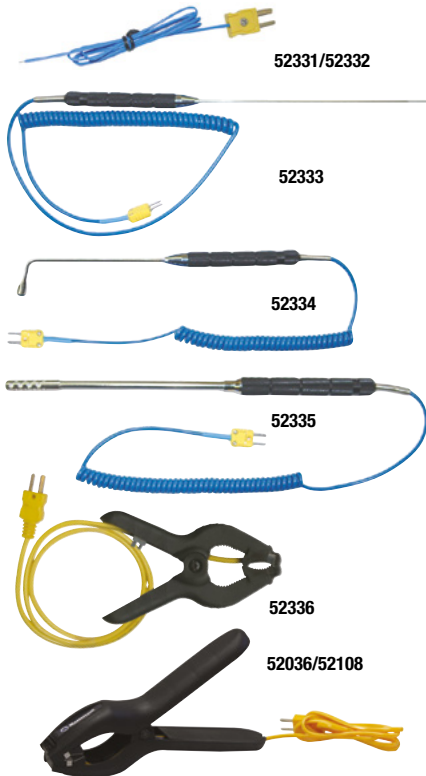
52331	Wire Probe - 3 ft (1 m)
52332	Wire Probe - 10 ft (3 m)
52333	Piercing Penetration Probe with Coil Cord
52334	Surface Probe with Coil Cord
52335	Air Probe with Coil Cord
52336	Clamp-On Probe - 3 ft (1 m)

52036 **NEW**
Ergonomic Clamp-on K Type Probe (3 ft (1 m))
Mastercool's ergonomic clamp-on K type probe features a spring-loaded jaw for secure grip on pipes up to 1 5/8". The sturdy, hands-free design makes this the ideal tool for superheat/subcooling temperature measurement. This probe can used on any unit with a type K thermocouple input.

• Maximum clamp size: 1 5/8"
• Response time: 3 seconds
• Temperature range: -40 to 250˚F (-40 to 121˚C)
• Resolution: 0.2˚F (0.1˚C)

52108 **NEW**
Ergonomic Clamp-on K Type Probe (10 ft (3 m))
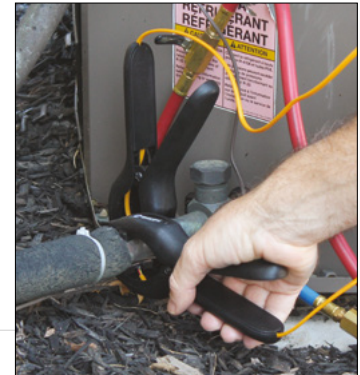
VACUUM PUMPS

2 STAGE ELITE BALL BEARING DESIGN 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.
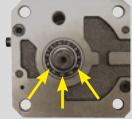
BALL BEARING CARTRIDGE DESIGN
reduces running temperatures by 30% and extends the life of the pump.

Manifold valve isolates pump from the system when testing for leaks. Includes three inlet ports – 1/4", 3/8" SAE and 1/2" ACME on 5 and 7.5 CFM models

Gas ballast valve helps prevent oil contamination caused by high moisture

Center oil fill port is accessible from front as well as sides

Durable lightweight die cast aluminum housing

Two-stage design allows lower pumping pressure resulting in deeper ultimate vacuum

Internal check valve stops oil blowout in case of accidental power loss

Oil drain valve positioned at bottom of oil reservoir assures maximum drainage
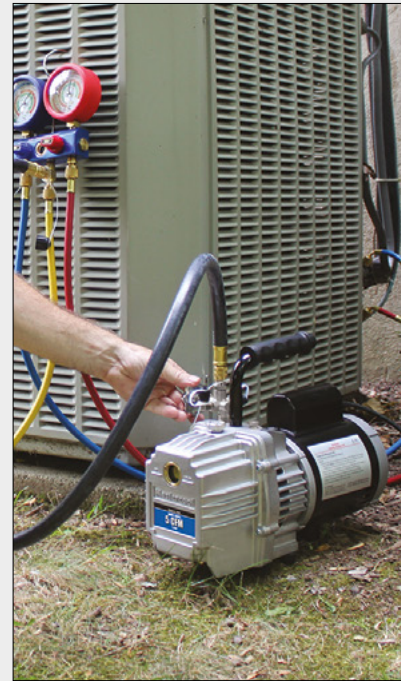
119 LIT/MIN - 142 LIT/MIN - 5 CFM VACUUM PUMP

*Japanese Standard

| MODEL	90065-220	90065	90065-J*
NO. OF STAGES		2	
FREE AIR DISPLACEMENT	119 lit/min 142 lit/min	5 CFM	119 lit/min 142 lit/min
ULTIMATE VACUUM		25 Microns	
MOTOR		1/3 HP	
PUMP SPEED		1425 RPM 1725 RPM	
ELECTRICAL SPECS	220 V / 50 HZ 220 V / 60 HZ	110 V / 60 HZ	100 V / 50/60 HZ
WEIGHT		13.2 kg (29 lbs)	
DIMENSIONS IN CM		37 x 15.5 x 27.5 x 24	

178 LIT/MIN - 213 LIT/MIN - 7 CFM VACUUM PUMP

*Japanese Standard

MODEL	90067-220	90067	90067-J*
NO. OF STAGES		2	
FREE AIR DISPLACEMENT	178 lit/min 213 lit/min	7.5 CFM	178 lit/min 213 lit/min
ULTIMATE VACUUM		25 Microns	
MOTOR		1/2 HP	
PUMP SPEED		1425 RPM 1725 RPM	
ELECTRICAL SPECS	220 V / 50 HZ 220 V / 60 HZ	110 V / 60 HZ	100 V / 50/60 HZ
WEIGHT		16.0 kg (35.5 lbs)	
DIMENSIONS IN CM		41 x 15.5 x 27.5 x 24	

2 STAGE *Black Series* VACUUM PUMPS

NEW CE

Mastercool's "*Black Series*" vacuum pumps are durable and time tested to stand up to the most grueling conditions and will provide years of reliable service. This vacuum pump provides the power and mobility necessary for a wide variety of applications.

- Refined cartridge machining process creates an improved surface finish extending the longevity of the pump life
- Expanded internal oil path creates less friction and ultimately less heat
- Upgraded seals insure maximum vacuum
- U.S. designed and tested

Easy grip handle

Easily removable vapor discharge/ oil fill port

Large oil level sight glass with max/min oil level indicator

Easily accessible oil drain valve

Thermally protected motor with on/off rocker switch

Manifold valve isolates pump from the system when testing for leaks. Includes 3 inlet ports, 1/4", 3/8" SAE and 1/2" ACME

High volume fan provides cool air to motor and pump

Cooling fins keep temperature cooler during extended motor operation

Large, light weight reinforced base for stable positioning

MODEL	STAGES	FREE AIR DISPLACEMENT	ULTIMATE VACUUM	MOTOR	PUMP SPEED	ELECTRICAL SPECS	POWER	WEIGHT	DIMENSIONS IN CM
90063-2V-110-BL	2	3 CFM	15 Microns	1/3 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	7.25 kg (16 lbs)	27 x 15 x 25
90063-2V-220-BL	2	85 lit/min (60Hz), 70 lit/min (50Hz)	15 Microns	1/3 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	7.25 kg (16 lbs)	27 x 15 x 25
90066-2V-110-BL	2	6 CFM	15 Microns	1/2 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	11.4 kg (25 lbs)	37.9 x 16.7 x 27.5
90066-2V-220-BL	2	170 lit/min (60Hz), 142 lit/min (50Hz)	15 Microns	1/2 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	11.4 kg (25 lbs)	37.9 x 16.7 x 27.5
90068-2V-110-BL	2	8 CFM	15 Microns	3/4 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	15.65 kg (34.5 lbs)	38 x 18 x 27
90068-2V-220-BL	2	227 lit/min (60Hz), 198 lit/min (50Hz)	15 Microns	3/4 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	15.65 kg (34.5 lbs)	38 x 18 x 27
90612-2V-110-BL	2	12 CFM	15 Microns	1 HP	1720 RPM	110/220 V, 50/60 HZ	110 V Cable (US)	16 kg (35.5 lbs)	39 x 18 x 27
90612-2V-220-BL	2	340 lit/min (60Hz), 283 lit/min (50Hz)	15 Microns	1 HP	1440 RPM	110/220 V, 50/60 HZ	220 V Cable (Schuko)	16 kg (35 lbs)	39 x 18 x 27

2 STAGE VACUUM PUMPS WITH SOLENOID VALVE

ELITE BALL BEARING DESIGN WITH SOLENOID VALVE

CE

MODEL	90065-220-SV	90067-220-SV
NO. OF STAGES	2	
FREE AIR DISPLACEMENT	119 lit/min, 142 lit/min	178 lit/min, 213 lit/min
ULTIMATE VACUUM	25 Microns	
MOTOR	1/3 HP	1/2 HP
PUMP SPEED	1425 RPM , 1725 RPM	
ELECTRICAL SPECS	220 V, 50/60 HZ	
POWER CORD	220 V Cable (Schuko)	
WEIGHT	13.6 kg (30 lbs)	17 kg (36.5 lbs)

Black Series WITH SOLENOID VALVE

NEW CE

MODEL	90063-2V-220SVBL	90066-2V-220SVBL	90068-2V-220SVBL	90612-2V-220SVBL
NO. OF STAGES	2			
FREE AIR DISPLACEMENT	85 lit/min (60Hz), 70 lit/min (50Hz)	170 lit/min (60Hz), 142 lit/min (50Hz)	227 lit/min (60Hz), 198 lit/min (50Hz)	340 lit/min (60Hz), 283 lit/min (50Hz)
ULTIMATE VACUUM	15 Microns			
MOTOR	1/3 HP	1/2 HP	3/4 HP	1 HP
PUMP SPEED	1440 RPM			
ELECTRICAL SPECS	220 V, 50/60 HZ			
POWER CORD	220 V Cable (Schuko)			
WEIGHT	8 kg (17.6 lbs)	12.15 kg (26.8 lbs)	16.4 kg (36.15 lbs)	16.75 kg (40 lbs)

90066-SV-220   UNIVERSAL SOLENOID VALVE AND GAUGE ASSEMBLY

Mastercool's universal solenoid valve and gauge assembly can be assembled on any vacuum pump for protection of pump and systems with full control by solenoid valve. Gauge assembly will also allow for vacuum leak test.

• 3/8 NPT vacuum connection port
• 1/4" flare hose connection port
*Note: some internal wiring assembly necessary

90066-SV-G   Replacement Gauge For Universal Solenoid Valve And Gauge Assembly

* PLEASE NOTE: The micron readings on all vacuum pumps represent optimal laboratory conditions. Field conditions may vary from these readings.

All vacuum pumps are available with either a UK or Australian cable, please add a: **AUS** for an Australian cable, **UK** for a UK cable

2 STAGE *Black Series* SPARK FREE VACUUM PUMP

170 LIT/MIN - 142 LIT/MIN 2 STAGE VACUUM PUMP <<SPARK FREE>>

NEW CE

◆Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants◆	
MODEL	90066-220-BLSF
NO. OF STAGES	2
FREE AIR DISPLACEMENT	170 lit/min (60Hz), 142 lit/min (50Hz)
ULTIMATE VACUUM	15 Microns
MOTOR	1/2 HP
PUMP SPEED	1440 RPM
ELECTRICAL SPECS	220 V, 50/60 HZ
POWER CORD	220 V Cable (Schuko)
WEIGHT	11.22 kg (24.75 lbs)
DIMENSIONS IN CM	37.9 x 16.7 x 27.5

SINGLE STAGE *Black Series* VACUUM PUMPS

51 LIT/MIN - 42 LIT/MIN / 1.8 CFM SINGLE STAGE VACUUM PUMP

NEW CE

MODEL	90059-220-BL	90059-BL
NO. OF STAGES	1	
FREE AIR DISPLACEMENT	51 lit/min, 42 lit/min	1.8 CFM
ULTIMATE VACUUM	80 Microns	
MOTOR	1/4 HP	
PUMP SPEED	1440 RPM	1720 RPM
ELECTRICAL SPECS	220 V, 50/60 HZ	110/120 V, 60 HZ
WEIGHT	6.35 kg (14 lbs)	
DIMENSIONS IN CM	30 x 15 x 26	

SERVICE INFORMATION

	OIL CAPACITY	REPLACEMENT CARTRIDGE	SEAL SERVICE KIT
90065, 90065-220	531 ml / 18 oz	90165-R	90062-11-SEAL
90067, 90067-220	708 ml / 24 oz	90167-R	90062-11-SEAL
90063-2V-110-BL, 90063-2V-220-BL	250 ml / 8.5 oz	-	-
90066-2V-110-BL, 90066-2V-220-BL	440 ml / 15 oz	90166-B	-
90068-2V-110-BL, 90068-2V-220-BL	570 ml / 19 oz	90168-B	-
90612-2V-110-BL, 90612-2V-220-BL	536 ml / 18 oz	90112-B	-
90059-BL, 90059-220-BL	342 ml / 12 oz	-	-
90066-220-BLSF	440 ml / 15 oz	90166-B	-

VACUUM PUMP OIL

90010-6	(Six) - 295 ml / 10 oz bottles (90063-2V-BL)
90016-6	(Six) - 450 ml / 16 oz bottles (90059-BL)
90018-6	(Six) - 531 ml / 18 oz bottles (90065, 90066-2V-BL, 90612-2V-BL, 90066-220-BLSF)
90024-6	(Six) - 708 ml / 24 oz bottles (90067, 90068-2V-BL)
90032-6	(Six) - 946 ml / 32 oz bottles
90128-4	(Four) - 3.7 liter / 1 gallon bottles

18 VOLT CORDLESS, 1.5 CFM, 2 STAGE VACUUM PUMP

NEW

90058-A

- Sure-grip handle, ergonomically designed for superior comfort and portability
- Reinforced base provides extreme shock resistance
- Air cooled motor design allows for operation under high temperature conditions
- Pump runs with extremely high ultimate vacuum and low noise
- Accessible oil drain port & sight glass make both oil maintenance and accuracy easy
- Built-in device eliminates oil mist and an oil-gas separator at the air exhaust outlet prevents oil contamination in the air exhaust

SPECIFICATIONS:
- No. of stages: 2
- Free air displacement: 1.5 CFM
- Motor: DC 18V, 90 W
- Ultimate vacuum: 15 microns/3 Pa
- Oil capacity: 3.5 oz.
- Dimensions without battery: 9.9 x 3.7 x 6.1"
- Net weight: 7.9 lb

Rechargeable Battery
- Li-ion 18 V 5.0 Ah

Battery Charger
- Input: 100-240 V, 50-60 Hz, 73 W
- Output: 18V/14.4V 3A

* Mastercool does not recommend this pump be used with any other battery

90058-CH

90058-BAT-5A

90058-SL-MC

90058-5A	Complete Kit Includes: • 18 V cordless vacuum pump, 1/4" SAE port • Mastercool designed rechargeable battery • Mastercool adapter sleeve • Standard battery charger, 110V standard US cable • 3.5 oz of oil
90058-5A-EU	Complete Kit Includes: • 18 V cordless vacuum pump, 1/4" SAE port • Mastercool designed rechargeable battery • Mastercool adapter sleeve • Standard battery charger with 220V schuko cable • 3.5 oz of oil
90058-A	18 V Cordless Vacuum Pump, 1/4" SAE Port and 3.5 oz of Oil (without battery and adapter sleeve)
90058-BAT-KT-5A	Mastercool Rechargeable Battery and Adapter Sleeve
90058-BAT-5A	Mastercool Rechargeable Battery
90058-CH	Mastercool Battery Charger, 110V Standard Us Cable
90058-CH-E	Mastercool Battery Charger, 220V Schuko Cable
90058-CH-AUS	Mastercool Battery Charger, 220V Australia Cable
90058-CH-BR	Mastercool Battery Charger, 220V Brazil Cable
90058-SL-MC	Adapter Sleeve to allow for use with Mastercool batteries

98063-BT   DIGITAL VACUUM GAUGE WITH BLUETOOTH® WIRELESS TECHNOLOGY

Mastercool introduces its new compact hand-held digital vacuum gauge with Bluetooth® wireless technology which combines the most advanced features to provide quick and accurate responses every time. Utilizing a state-of-the-art glass beaded thermistor and temperature compensation, Mastercool is offering the latest technology to the HVAC/R technician.

Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

FEATURES:
- Sintered bronze inlet filter to protect the sensor
- 5-digit LCD screen features an ultra-vibrant blue back-light allowing for easy readability
- Chemical resistant sensor for ease of cleaning
- Low battery icon displayed on the LCD indicates that the batteries are low and need to be replaced
- Calibration can be performed while in the field environment
- Audio and visual alarm when vacuum goes below a user adjustable set point
- Bluetooth® wireless technology provides communication to hand-held smart devices through the Mastercool Connect app

SPECIFICATIONS:
- Sensor: glass bead thermistor with temperature compensation
- Connection fitting: 1/4 SAE F-FL with stem depressor
- Operating temperature: 32 to 120˚F (0 to 45˚C)
- Vacuum units: Micron, Torr, mTorr, mmHg, mBar, Pa
- Range: 20,000 to 1 micron
- Accuracy: ±10% of reading (from 10,000 to 100 microns)
- Proof pressure: 450 psi
- Auto-off: automatic after 10 minutes, blue back-light after 3 minutes
- Power: 2 AA batteries included
- Battery life: 100+ continuous hours (depending on back-light use)
- Weight: 0.3 lb (0.13 kg) without batteries
  0.5 lb (0.23 kg) with batteries
- Dimensions: 1.9" x 6.3" x 1.4" (50 mm x 160 mm x 36 mm)

Specifications for Bluetooth® wireless technology:
- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5

DOWNLOAD OUR APP

Packaged in a zippered carry case

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Optional Accessories

99333   1/4 FL-M x 1/4 FL-M x 1/4 FL-F Tee

DIGITAL VACUUM GAUGE

As a professional technician the assurance of a deep vacuum on a system is imperative. The main problem with many small hand-held 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's hand held unit uses 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" flare female 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: ±10% of reading
    1000 - 100 microns: ±7% of reading,
    100 - 1 micron: ±5% of reading

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

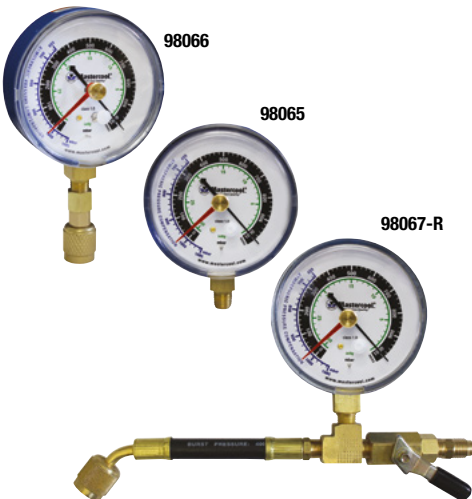|	
98061	Digital Vacuum Gauge packaged in a blow molded case
98061-C	Digital Vacuum Gauge packaged in a clamshell

Optional Accessories

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

NEW

ANALOG VACUUM GAUGE

Mastercool's hand-held analog vacuum, class 1.0, gauge is designed with the highest quality to provide accurate readings every time. This bourdon tube type analog vacuum gauge is used for determining system vacuum.

- Large, 80 mm gauge makes it easier and more accurate to read than smaller gauges
- Indicator needle, to mark pressure for testing, provides a backup in case you forget to write the pressure down. You can see if the pressure has changed with a quick glance
- Barometric pressure compensation allows for the most accurate reading regardless of altitude or local weather conditions

SPECIFICATIONS:
- Gauge size: 80 mm
- Units: inhg 30-0 and mbar 0-1000
- Atmospheric pressure compensation: 1065-655 mbar
- Accuracy: EU Class 1, ASME Grade 1A

98066

98065

98067-R

98065	Analog Vacuum Gauge with 1/8" NPT Male Thread Fitting Allows for mounting directly to manifold block
98066	Analog Vacuum Gauge with 1/4" Flare Female Swivel Nut Connection Allows for direct attachment to system or vacuum pump
98067-R	Analog Vacuum Gauge with Control Valve 1/4" Flare Female X 1/4" Flare Male Allows for attachment to all connections and isolated leak testing

CHARGING &
RECOVERY
EQUIPMENT

98210-BL *Black Series* ELECTRONIC CHARGING SCALE WITH BLUETOOTH® WIRELESS TECHNOLOGY

NEW CE

THE ULTIMATE DEVICE FOR CHARGING AND RECOVERING OF REFRIGERANT

Mastercool's electronic charging scale with Bluetooth® wireless technology features an extra-large LCD display for easy reading from any angle and features three display modes (kgs, lbs, oz). With a high capacity of up to 243 lbs (110 kgs) it is easily one of the best on the market. Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

Platform level eye to easily make sure unit is placed on a level surface

Rugged platform for easy weighing of refrigerant tanks

Compact control panel features a large back-lit LCD screen and keypad

Long flexible coil allows user to easily place control panel in an array of convenient positions

SPECIFICATIONS:
- 243 lbs (110 kg capacity)
- Accuracy: ≤±0.05% of reading
- Resolution: 0.05 lb / 0.5 oz / 0.01 kg
- Automatic Shut-off: After 3 hrs
- Operating Temperature: 32 to 120˚F (0 to 49˚C)
- Battery Life: Approximately 40 hrs
- 9" x 9" (22 cm x 22 cm) platform

Specifications for Bluetooth® wireless technology:
- 260' (80m) maximum line-of-sight range
- Bluetooth® 4.2 and 5

DOWNLOAD OUR APP

Download on the **App Store** | GET IT ON **Google Play**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Durable and Portable
Strong aluminum base with a rugged, non-slip platform provides extra durability while working in any environment. The included compact and heavy-duty carrying case allows for easy portability to any job site.

Manufactured for Performance
The large 9 x 9" platform provides for easy weighing of refrigerant tanks with an accuracy of ≤±0.05% of reading.

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 (Using the 98230 Charging Solenoid Module): 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: Allows user to charge previously stored amount

98211-B *Black Series* CERTIFIED ELECTRONIC CHARGING SCALE WITH BLUETOOTH® WIRELESS TECHNOLOGY

NEW CE **OIML**

OIML & CE Approved, Legal for Trade. Included in this package will be the capability to download our free Mastercool Connect app. This will allow for full mobility as activity can be easily viewed on all compatible hand-held smart devices.

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 (Using the 98230 Charging Solenoid Module): 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: Allows user to charge previously stored amount

SPECIFICATIONS:
- Accuracy class: III
- Maximum capacity: 55 kg / 110 kg
- Minimum capacity: 400 g
- Verification scale interval: e = 20 g / 50 g
- Actual scale interval: d = 20 g / 50 g
- Maximum number of scale intervals: n = 2750 / 2200
- Weighing range (s): multiple interval
- Temperature range: 0˚C / +40˚C
- Power supply voltage: 9 V battery; 9 V AC/DC plug in power supply
- Automatic Shut Off: 3 hours
- Battery Life: approximately 40 hours
- Platform: 22 x 22 cm (9 x 9")

WIRELESS REFRIGERANT CHARGING SCALE

98315 with solenoid

When remote is out of range the unit will automatically pause. This pause mechanism allows unit to restart when remote is back in range.

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

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: ≤±0.05% of reading
- Resolution: 0.05 lb / 0.5 oz / 0.01 kg
- 3 hrs auto off function
- Operating temperature: 32˚F to 120˚F (0˚C to 49˚C)
- Battery life: approximately 20 hours
- 31 cm platform
- Accepts all US & EU standard cylinders

REMOTE RANGE:
100 FEET (30 M),
LINE OF SIGHT

98310	Wireless Refrigerant Charging Scale
98315	Wireless Refrigerant Charging Scale with Solenoid

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
- Quick working 300W heater element
- An excellent complement to all Mastercool refrigerant scales

98250	110 V
98250-220	220 V

98230   CHARGING SOLENOID MODULE

The 98230 Charging Solenoid Module turns the 98210-BL ACCU-CHARGE II & 98211-B 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. The 98230 with 1/4" x 1/4" fittings includes a short hose for tank connection, USB cord and 1/4" FL - 1/2" ACME adapters.

98209   ELECTRONIC CHARGING SCALE

$C \epsilon$

- Slim design for easy storage
- Two keys for easy operation
- Unit change (grams & ounces)
- One touch tare weighing function
- Auto zero and auto off (after 3 hours)

SPECIFICATIONS:
- Capacity: 176 oz / 5000 g
- Sensitivity: 0.035 oz / 1 g
- Dimensions: 140 (w) x 185 (l) x 35 (h) mm
- Platform size: 120 mm
- Power source: 2 x AAA 1.5v battery

HIGH PRECISION CHARGING SCALE

NEW $C \epsilon$

Mastercool's high precision charging scale accurately measures small cans of refrigerant for charging systems that need a precise charge. Small cans of refrigerant attach directly to the scale for ease of use.

- 7/16"-28 hex cylinder adapter included for easy attachment of refrigerant cylinder to scale
- Specially designed for R600a and R290
- 36" thermoplastic capillary hose with 1/4" swivel female fittings
- Built-in check valve will hold any remaining refrigerant within the 36" capillary hose
- Slim design for easy storage
- Two button keypad for easy operation
- Large LCD display accurately shows units in grams or ounces
- One touch tare weighing function
- Auto zero

SPECIFICATIONS:
- Capacity: 176 ounces (5000 grams)
- Resolution: 0.035 ounces (1 gram)
- Accuracy: $\leq \pm 6$ g
- Dimensions: 5.5 (w) x 7.3 (l) x 1.6 (h) inches (140 (w) x 185 (l) x 40 (h) mm)
- Power source: 3 x AA 1.5V battery
- Auto-off: after 3 hours of inactivity
- Fitting: 1/4" SAE-M flare fitting with check valve

98201-A	High Precision Charging Scale packaged in a Mastercool labeled cardboard box
98202-A	High Precision Charging Scale with storage for a 14 oz. refrigerant cylinder (sold separately) packaged in a custom molded plastic case
98202-A-600	High Precision Charging Scale packaged in a custom molded plastic case with a can of R600a refrigerant (14.8 oz (420 g))
98202-A-290	High Precision Charging Scale packaged in a custom molded plastic case with a can of R290 refrigerant (13 oz (370 g))
91050-600-12	R600a Refrigerant Cylinder (box of 12) 14.8 oz (420 g) can of R600a refrigerant
91050-290-12	R290 Refrigerant Cylinder (box of 12) 13 oz (370 g) can of R290 refrigerant

91050-290-12

- Y-valve for liquid/vapour TPED approved
- Single valve for vapour TPED approved
- Raised collar for ease of handling and protection
- Tanks conform to PED and ADR regulations
- CE and TÜV approved
- Used for storage and transport of refrigerant gases

6 LITER REFRIGERANT/RECOVERY CYLINDERS

61009-EUGRN-1/4   **61009-EUGRN**

61009-EUGRY   **61010-EUGRN**

- Size (w x h): 185 mm x 338 mm
- Tare weight: 5.18 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 6 l
- Tank test pressure: 48 bar

- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Service pressure: 32 bar

	SINGLE VALVE (available from US factory)	
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	NA	**61009-EUGRY**
Model (green tank)	**61009-EUGRN-1/4**	**61009-EUGRN**
	DOUBLE VALVE	
Model (green tank)	**61010-EUGRN**	NA

12.5 LITER REFRIGERANT/RECOVERY CYLINDERS

62009-EUGRY-1/4   **62009-EUGRN-1/4**   **62010-EUGRY**

62010-EUGRN   **62009-EUGRY**   **62009-EUGRN**
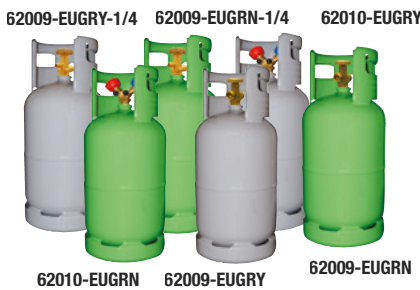
- Size (w x h): 228 mm x 516 mm
- Tare weight: 8 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 12.5 l
- Tank test pressure: 48 bar

- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Service pressure: 32 bar

	SINGLE VALVE (available from US factory)	
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	**62009-EUGRY-1/4**	**62009-EUGRY**
Model (green tank)	**62009-EUGRN-1/4**	**62009-EUGRN**
	DOUBLE VALVE	
Model (grey tank)	**62010-EUGRY**	NA
Model (green tank)	**62010-EUGRN**	NA

27.2 LITER REFRIGERANT/RECOVERY CYLINDERS

63009-EUGRN-1/4   **63009-EUGRY-1/4**   **63010-EUGRN**

63010-EUGRY   **63009-EUGRN**   **63009-EUGRY**
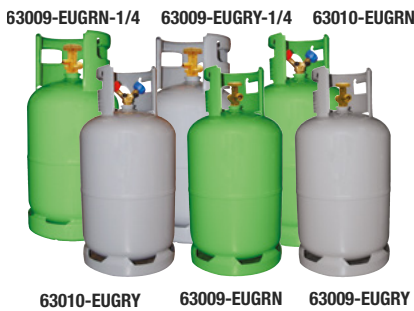
- Size (w x h): 298 mm x 613 mm
- Tare weight: 15.7 Kg
- Standard specification: ADR/RID2009, EN13322-1N D TUV 1
- Nominal water capacity: 27.2 l
- Service pressure: 32 bar

- Air tightness test pressure: 32 bar
- Bursting pressure: >108 bar
- Bursting volumetric expansion rate: >20%
- Body material: HP295
- Tank test pressure: 48 bar

	SINGLE VALVE (available from US factory)	
Connection	1/4" FL-M (7/16-20)	W21.8-14.M
Model (grey tank)	**63009-EUGRY-1/4**	**63009-EUGRY**
Model (green tank)	**63009-EUGRN-1/4**	**63009-EUGRN**
	DOUBLE VALVE	
Model (grey tank)	**63010-EUGRY**	NA
Model (green tank)	**63010-EUGRN**	NA

TANK ADAPTERS

90639   **90637**

90639	W21.8-14 x 1/4" FL (EU Standard)	**90640**	Gasket for 90639
90637	3/4-16 x 1/4" FL (US Standard)	**90638**	Gasket for 90637

DOT-APPROVED RECOVERY CYLINDERS

- 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
- Reusable and conforms to DOT-4BA400 specs and ARI guidelines
- Collar design for ease of handling
- Storage and transport of recovered refrigerant gases
- Y-valve for liquid/vapor
- AUS Approved and TC Canadian Approved

30 LB. DOT-APPROVED RECOVERY CYLINDERS
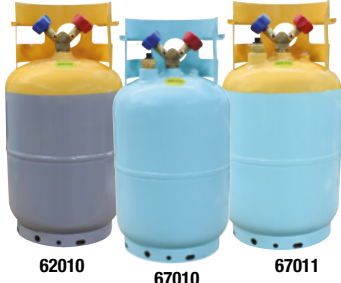
- Size (w x h): 9.125" x 17.52"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 17.99 LB
- Body material: HP295
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >26.2 LB / 11.9 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: 400 PSI / 2.7 MPa

Connection	1/4" FL-M (7/16-20)			1/2" ACME		
Model	**62010** without float switch	**62011** with float switch	**62012** with float switch & 1/4" SAE Port	**64010** without float switch	**67010** with float switch	**67011** with float switch
Color	yellow/gray			blue		yellow/blue

62010 67010 67011

50 LB. DOT-APPROVED RECOVERY CYLINDERS

- Size (w x h): 12.25" x 18.78"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 28.71 LB
- Body material: HP325 or HP345
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >47.7 LB / 21.6 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: 400 PSI / 2.7 MPa

Connection	1/4" FL-M (7/16-20)			1/2" ACME	
Model	**63010** without float switch	**65010** with float switch	**66012** with float switch & NCG Port	**66010** without float switch	**66011** with float switch
Color	yellow/gray				

63010 66010 66012

100 LB. DOT-APPROVED RECOVERY CYLINDERS

- Size (w x h): 11.25" x 31.81"
- Standard spec.: DOT - 4BW400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 50.5 LB
- Body material: HP325
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >92.5 LB / 41.9 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: >87 PSI / 0.6 MPa

Connection	1/4" FL-M (7/16-20)
Model	**68010** without float switch
Color	yellow/gray

68010

ENVIRO TANK (REFILLABLE CYLINDER)
30 LB. REFILLABLE CYLINDER

- Size (w x h): 8.39" x 20"
- Standard spec.: DOT - 4BA400
- Service pressure: 400 PSI / 2.7 MPa
- Tare weight: 19.9 LB
- Body material: HP295
- Relief valve pressure: 600 PSI / 4.1 MPa
- Nominal water capacity: >30 LB / 13.6 L
- Tank test pressure: 800 PSI / 5.5 MPa
- Air tightness test pressure: >87 PSI / 0.6 MPa

Connection	1/4" FL-M (7/16-20)
Model	**62020-WX**
Color	white

62020-WX

ARCTIC COMMANDER

Mastercool's ARCTIC COMMANDER line of R/R/R machines are equipped with all the latest technology. All models come standard with an 8" command center. The graphic user interface (GUI) will enable navigation through all functions and features with the greatest of ease. There is no longer a need to read any external instructions or paper manuals, simply sit back, watch and learn how to use your machines. All machines are also equipped with Wi-Fi capabilities; allowing for real-time, interactive communication and troubleshooting.

SPECIFICATIONS:
- Design certified:
  R1234yf - SAE J2843
  R134a - SAE J2788
- Voltage: 110 V / 60 Hz or 220 V / 50/60 Hz
- Scale resolution: .02 lb (10 g)
- Working temperature range: 50/120˚F (10/49˚C)
- Compressor: hermetically sealed, 12cc, high pressure
- Recovery speed: 95% at 70 to 75˚F (21 to 24˚C) <30 minutes
- Recovery cylinder: 30 lb (12.5 liters), refillable
- Charge accuracy: ±0.5 oz. at 70 to 75˚F (±15 g at 21 to 24˚C)
- Filter system:
  R1234yf - 1 filter for cleaning and water removal
  R134a - 2 filters for cleaning and water removal
- Hoses: 96" (250 cm)
- Pressure gauges: class 1
- Cylinder temperature sensor: integrated
- Cylinder heater: standard equipment
- Dimensions (mm): 1150 (h) x 600 (w) x 770 (d)

WI-FI
Wi-Fi capability allows for real time, interactive communication and troubleshooting

COMPACT DESIGN
The machine's compact design makes it easy to maneuver and requires minimal shop space

COOLING FAN
Dedicated PC board cooling fan keeps the PC board consistently cool

8" COLOR TABLET WITH TOUCH SCREEN FEATURES:

Home Screen
allows for quick touch selection of options
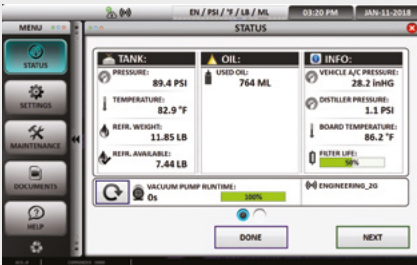
Status Screen
for quick reference of resources

Settings Screen
allows the user to select a default language, units, temperature, volume and weight measurement
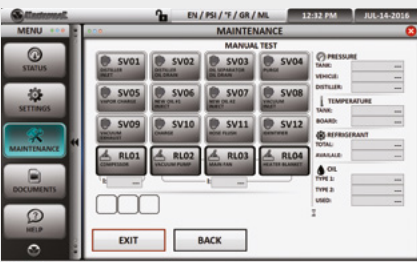
Maintenance Screen
offered only to authorized service technicians allowing for quick and easy diagnosis

Multi-colored LED status bar

Large access door for easy maintenance

Hinged front panel for easy PC board access

External hole for viewing of vacuum pump site glass oil levels

3 or 6 CFM vacuum pump

Solid filled, durable wheels

Locking, durable casters

4" analog gauges

8" color command center with touch screen

Easy to access USB port

Coupler storage

Large, easy to use control valves

Distiller and oil separator allowing for quicker oil draining

Sealed bellow designed oil bottles

Load cells for each oil bottle allowing for accurate volume reading

Advanced, suspension scale platform design to extend load cell life

	COMMANDER4000-E	COMMANDER3000-E	COMMANDER2000-E	COMMANDER1000-E
	COMMANDER4000 (110V) **COMMANDER4000-E** (220V) **R1234yf**	**COMMANDER3000** (110V) **COMMANDER3000-E** (220V) **R134a HYBRID**	**COMMANDER2000** (110V) **COMMANDER2000-E** (220V) **R134a FULLY AUTOMATIC**	**COMMANDER1000** (110V) **COMMANDER1000-E** (220V) **R134a MANUAL**
8" Color Touch Screen	X	X	X	X
Automatic and Manual Procedures	X	X	X	Manual procedures only
Refrigerant Database	X	X	X	Optional
Automatic Vacuum Leak Test: Programmable	X	X	X	X
Auto Oil Discharge	X	X	X	X
Auto and Manual Air Purge	X	X	X	X
Auto Filter and Full Tank Alarm	X	X	X	X
Low Refrigerant Alarm	X	X	X	X
Auto Oil Injection	COMMANDER4000-E only	COMMANDER3000-E only	X	NA
Thermal Printer with E-Printing Capability	X	X	Optional	Optional
Hose Flushing	X	X	NA	NA
Vehicle A/C System Flushing	Optional	Optional	NA	NA
Tank Heater	X	X	X	X
Vacuum Pump	6 CFM	6 CFM	6 CFM	3 CFM
Refrigerant Identifier	X	NA	NA	NA
On-board Instructions	X	X	X	X
Multiple Languages	X	X	X	X
On-board Unit Conversion Calculator	X	X	X	X
Cabinet Designed for Increased Air Flow	X	X	X	X
Large Analog Gauges	X	X	X	X
Hard Wired Power Cord	X	X	X	X
Hose Coupler Storage	X	X	X	X
Solid Durable Wheels with Locking Casters	X	X	X	X
Multi-colored LED Status Bar	X	X	X	NA
Wi-Fi Capable	X	X	X	X

For R1234yf machines without a refrigerant identifier, use COMMANDER4000-E-X (220V model)
NEW UNIVERSAL R/R/R MACHINE OPTION: COMMANDER4000-EX-U please see https://www.mastercool.com/product/commander4000-ex-u for more information

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All Commander Machines are available with the following cables, please add:

-E for 220V schuko   **-E-AUS** for Australia   **-E-UK** for UK   **-E-BR** for Brazil

COMMANDER CONSUMABLES

Mastercool uses only the highest quality oils and dies with their products. In order to keep your warranty valid, please use Mastercool oils and dies at all times. For the Commander line of machines, Mastercool recommends the following consumables:

COMPRESSOR OILS

Maximum protection with excellent thermal & oxidative stability. Moisture tolerant. OEM approved.

92709-65-8	PAG 65 Oil (8 oz (236 ml) bottle)
92709-65-32	PAG 65 Oil (32 oz (1 L) bottle)
92709-100-8	PAG 100 Oil (8 oz (236 ml) bottle)
92709-100-32	PAG 100 Oil (32 oz (1 L) bottle)
92709-150-8	PAG 150 Oil (8 oz (236 ml) bottle)
92709-150-32	PAG 150 Oil (32 oz (1 L) bottle)

92709-65-8   92709-65-32

ZEROL® HD46 R1234yf MOBILE AIR CONDITIONING COMPRESSOR LUBRICANT

YF COMPATIBLE

• Optimized miscibility in HFO refrigerant R1234yf
• Superior lubricity
• Exceptional viscosity index (VI)
• Good high temperature and chemical stability
• Low hygroscopicity (tendency to absorb moisture)
• Formulating expertise
• Excellent electrical resistivity properties for electrically driven systems

92709-YF-8	8 fl. oz (236 ml) Bottle
92709-YF-32	32 fl. oz (946 ml) Bottle

92709-YF-8   92709-YF-32

ULTRAVIOLET A/C DYES

HYBRID COMPATIBLE *YF COMPATIBLE*

92708	Standard Universal Dye 8 oz (240 ml) Bottle - 32 Applications
92732	Standard Universal Dye 32 oz (1 L) Bottle - 128 Applications
53625	Concentrated Universal Dye 2 oz (60 ml) Bottle - 25 Applications

92708   92732   53625

COMMANDER REPLACEMENT FILTERS

Change the filter-drier when notified by the machine to assure adequate moisture and contaminant removal as well as prevent lockout.

COMD2-FLTRPK	2 Filter Pack for COMMANDER1000, COMMANDER2000, COMMANDER3000. Has a 175 lb filtering capacity
COMD1-FLTRPK	1 Filter for COMMANDER4000, COMMANDER4000-E, COMMANDER3000-E, COMMANDER2000-E, COMMANDER1000-E. Has a 350 lb filtering capacity

COMD2-FLTRPK

A/C SYSTEM FLUSH HOSE ASSEMBLY
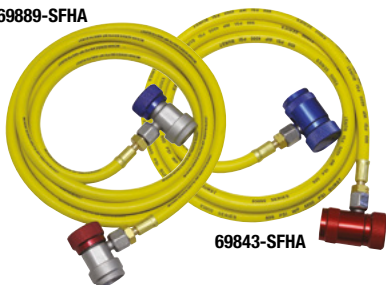
69889-SFHA

69889-SFHA	R134a A/C System Flush Hose Assembly includes high and low side couplers (82834, 82934) and 8 foot yellow hose
69843-SFHA	R1234yf A/C System Flush Hose Assembly includes high and low side couplers (83834, 83934) and 8 foot yellow hose

69843-SFHA

TwinTurbo
REFRIGERANT RECOVERY MACHINE

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
- Compatible refrigerants: All CFC, HCFC, and HFC's

SPECIFICATIONS:
- 1/2 hp oil less compressor
- Recovery rate:

R134a
- Direct vapor up to 14 kg/hr
- Direct liquid up to 130 kg/hr
- Push pull up to 318 kg/hr

R22
- Direct vapor up to 17 kg/hr
- Direct liquid up to 206 kg/hr
- Push pull up to 498 kg/hr

- Operating temperature: 0 to 50°C / 32 to 122°F
- Weight: 12.8 kg / 28.3 lbs
- Dimensions: 457 mm (l) x 254 mm (w) x 356 mm (h) (18" (l) x 10" (w) x 14" (h))
- Case material is HDPE (high density polyethylene)

Vapor Recovery (In) kg/hr
• Temperature: 79 to 82°F / Refrigerant: R22
- MC Twin Turbo 1763 RPM: 17
- Brand A 1761 RPM: 16
- Brand B 1471 RPM: 13
- Brand C 3527 RPM: 14

Liquid Recovery (In) kg/hr
• Temperature: 79 to 82°F / Refrigerant: R22
- MC Twin Turbo 1763 RPM: 206
- Brand A 1761 RPM: 194
- Brand B 1471 RPM: 177
- Brand C 3527 RPM: 117

Push Pull kg/hr
• Temperature: 79 to 82°F / Refrigerant: R22
- MC Twin Turbo 1763 RPM: 498
- Brand A 1761 RPM: 486
- Brand B 1471 RPM: 432
- Brand C 3527 RPM: 366

All twin turbo recovery machines are available with either a UK or Australian cable, please add a: **-AUS** for an Australian cable / **-UK** for a UK cable

THE TWIN TURBO SERIES IS THE MOST COMPLETE SOLUTION TO YOUR RECOVERY NEEDS!

TWIN TURBO REFRIGERANT RECOVERY MACHINE

Mastercool's addition to the recovery machine lineup takes the reliability of the 69000 series machines and enhances those features to allow for maximum recovery capacity while at the same time decreasing size and weight. The design of the double piston compressor and cooling by the largest fan and condenser in the market makes the 69300 series the most complete solution to your recovery needs!

◆Approved for all Air Conditioning Refrigerants including A2L Mildly Flammable Refrigerants◆

69300	115 V - 60 Hz
69300-220	220 V - 50/60 Hz
69300-220-EU	220 V - 50/60 Hz includes a manual restart button per EU standards

69300-220

TWIN TURBO REFRIGERANT RECOVERY MACHINE

This unit offers all the same functions and features as the 69300. In addition it has an oil separation module, filter dryer and sight glass.

69350	115 V - 60 Hz
69350-220	220 V - 50/60 Hz
69350-220-EU	220 V - 50/60 Hz includes a manual restart button per EU standards
69500-DR	Replacement Filter Dryer

69350-220

MOBILE RECOVERY MACHINE

🔥 **COMPATIBLE WITH COMBUSTIBLE GASES**

◆Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants◆

69390	115 V - 60 Hz **FOR MOBILE A/C SYSTEMS DESIGNED FOR R1234yf** This unit offers all the same functions and features as the 69300. In addition: • Meets all requirements of SAE J2851 • 60" R1234yf blue hose and low side (1/4 FL-M x 13 mm) coupler • 60" yellow transfer hose Comes equipped with overfill protection switch cutting off at 80% tank capacity (Recovery tanks must have floats using 3 pin Brad Harris plug)
69390-220	220 V - 50/60 Hz (same as above)
69395-220	HVAC Combustible Gas Recovery Machine (220 V - 50/60 Hz) comes as pictured less hoses and couplers with 1/4" flare fittings

69390-220

mini TWINTURBO
REFRIGERANT RECOVERY MACHINE

COMPATIBLE WITH COMBUSTIBLE GASES

◆Approved for all Air Conditioning Refrigerants including A2L and A3 Flammable Refrigerants◆

Mastercool's "Mini Twin" all in one recovery machine is equipped with the same high quality twin piston compressor as the Twin Turbo series and has been designed to work in all applications. Whether you find yourself up a ladder, in a crawl space or just not looking forward to lugging around a heavy piece of equipment, this is the right machine for you. Best of all, this machine has been constructed with the safest spark free component allowing for use with all combustible gases.

SPECIFICATIONS:
- 1/2 HP motor
- Operating temperature: 0 to 50°C (32 to 122°F)
- Compatible with all CFC, HCFC, HFC's, and combustible gases
- Weight: 11 kg (24 lbs)
- Dimensions: 300 mm (l) x 200 mm (w) x 270 mm (h) (11.8" (l) x 7.9" (w) x 10.6" (h))

69400	115 V - 60 Hz
69400-220	220 V - 50/60 Hz

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: 38 cm (15")
- Width: 10 cm (4")
- Height: 43 cm (17")
- Weight: 5.5 kg (12.25 lbs)
- Includes 60" nylon barrier hoses ((2) blue, (2) red, (1) yellow and (1) black)

REFRIGERANT RECOVERY SYSTEM

CE RWTUV GS

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.

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

SPECIFICATIONS:
• 1/2 HP oil-less compressor
• Recovery rate:
  Direct vapor up to 12 kg/h
  Direct liquid up to 71 kg/h
  Push-pull up to 326 kg/h
• Operating temperature range: 0 to 50°C (32 to 122°F)
• Weight: 16 kg (38 lbs)
• Dimensions: 432 mm (l) x 254 mm (w) x 305 mm (h) (17" (l) x 10" (w) x 12" (h))
• Refrigerants: CFC's, HCFC's, HFC's

69000	115 V - 60 Hz
69000-220	220 V - 50/60 Hz
69000-220-TUV	220 V - 50 Hz certified to TUV/GS and E35-421
69000-J	100 V - 50 Hz (Japanese Standard)

69200-220   COMPLETE A/C RECOVERY SYSTEM

CE

This unit offers all the same functions and features as the reliable 69000 recovery machine. In addition, Mastercool has strategically placed an oil separation module inside the unit that will dispense used oil effortlessly. Together with its filter dryer and sight glass this unit allows for the technician to actually clean the used refrigerant and potentially re-use.

69500-DR	Replacement Filter Dryer

PORTABLE ELECTRONIC CHARGING STATION

91585-220

A lightweight, durable, steel frame cart that contains all the necessary tools to quickly and conveniently charge the A/C system.

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
- Dimensions: 26" x 17" x 13" (66 cm x 43 cm x 33 cm)
- Extruded aluminum manifold with long lasting valve design
- Large 80 mm gauges make it easy to read the pressure and temperature scales
- Rugged die cast 109 kg (240 lb) capacity electronic scale with long lasting 9V battery (60 hrs)
- Deep micron, rotary vane vacuum pumps. Available in 119 lit/min and 178 lit/min.
- Includes set of 180 cm (72") hoses

ALSO AVAILABLE:
- Refrigerant tank heater blanket #98250 and #98250-220
* R134a automotive service couplers not included

Vacuum Pump	5 CFM	119 lit/min (50 Hz) 142 lit/min (60 Hz)	7.5 CFM	178 lit/min (50 Hz) 213 lit/min (60 Hz)
Voltage	110 V	220 V	110 V	220 V
2 Way Aluminum Block	**91585**	**91585-220**	**91587**	**91587-220**
4 Way Aluminum Block	**91586**	**91586-220**	**91588**	**91588-220**

DUAL VOLTAGE PORTABLE CHARGING STATION

Vacuum Pump	90063-2V-220-B	90066-2V-220-B
Voltage	110/220 V	110/220 V
2 Way Aluminum Block	**91583-2V-220**	**91585-2V-220**
4 Way Aluminum Block	**91584-2V-220**	**91586-2V-220**

91586-RBSF-2VB-220   SPARK FREE DUAL VOLTAGE PORTABLE CHARGING STATION

NEW

- 4-way aluminum manifold with large 80mm gauges includes R1270, R290 and R600a temperature scale, BAR/PSI/°C and 1.6 gauge class
- Blue, red, yellow and black ball valve hoses
- 6 CFM, 2 stage spark free vacuum pump (90066-220-BSF) with ultimate vacuum of 15 microns and 1/2 hp
- High precision charging scale (98201) with hex cylinder adapter for easy attachment of refrigerant cylinder to scale
- Analog vacuum gauge with 1/4" flare female swivel nut connection (98066) allows for direct attachment to system or vacuum pump

91586-RBSF-2VB-220

MOBILE ELECTRONIC CHARGING STATION

Keeping the same ideals in mind as the portable electronic charging station, the mobile unit is directed towards the garage technician. With an enlarged carry cart and larger wheels, this unit can get around the shop with the greatest of ease!
- Dimensions: 45" x 18" x 16.5" (114 cm x 46 cm x 42 cm)

Vacuum Pump	5 CFM	119 lit/min	7.5 CFM	178 lit/min
Voltage	110 V	220 V	110 V	220 V
2 Way Aluminum Block	**91685**	**91685-220**	**91687**	**91687-220**
4 Way Aluminum Block	**91686**	**91686-220**	**91688**	**91688-220**

DUAL VOLTAGE MOBILE CHARGING STATION

Vacuum Pump	90063-2V-220-B	90066-2V-220-B
Voltage	110/220 V	110/220 V
2 Way Aluminum Block	**91683-2V-220**	**91685-2V-220**
4 Way Aluminum Block	**91684-2V-220**	**91686-2V-220**

91680

All charging stations are available with either a UK or Australian cable, please add a: **-AUS** for an Australian cable / **-UK** for a UK cable

69134-A   REFRIGERANT IDENTIFIER FOR R134a

This refrigerant identifier helps confirm the presence and quality of R134a refrigerant in vehicle air conditioning systems.

SPECIFICATIONS:
- Weight: 0.8 kg
- Refrigerant detected: R134a (tetraflouroethane)
- Accuracy: PASS/FAIL - 95% Pure R134a
- Power requirements: 12 VDC
- User interface: membrane type with visual indicators and function key
- Calibration method: manual pump aspirator
- Storage temperature: -10˚ to 50˚C
- Operating temperature: 10 to 45˚C
- Minimum input pressure: 1.38 Bar (20 Psig), maximum input pressure: 20.70 Bar (300 Psig)
- Construction material: molded ABS housing/molded rubber sleeve

691234YF-MINI   MINI ID REFRIGERANT IDENTIFIER FOR R1234yf

The 691234YF-MINI helps verify the presence and quality of R1234yf refrigerant in vehicle air conditioning systems, to avoid potential damage from refrigerant contamination. The MINI ID delivers fast and accurate refrigerant analysis in a self-contained, compact, and extremely portable package. It automatically provides step-by-step indication of the gas sampling process.

SPECIFICATIONS:
- Weight: 0.8 kg
- Refrigerant detected: R1234yf (tetrafluoropropene)
- Accuracy: PASS/FAIL - 95% Pure R1234yf
- Power requirements: 12 VDC
- Approvals: UL, CE, RoHS compliant
- User interface: membrane type with visual indicators and function key
- Calibration method: manual pump aspirator
- Storage temperature: -10˚ to 50˚C
- Operating temperature: 10˚C to 45˚C
- Construction material: molded ABS
- Housing/molded rubber sleeve

69LEGEND-HFC   LEGEND SERIES™ HFC REFRIGERANT ANALYZER

DIAGNOSTIC REFRIGERANT ANALYZER FOR MULTIPLE HVAC AND REFRIGERATION APPLICATIONS

Clean air calibration is all you need to analyze your refrigerant in less than 2 minutes. No matter the application, the Legend HFC Refrigerant Analyzer is capable of measuring vapor or liquid refrigerant to confirm purity while detecting the presence of other harmful refrigerants or air.

- Only mobile device to provide a high level of accuracy for measured refrigerants
- Accurate results within minutes
- Accuracy of ±1% of single component refrigerants
- Blend analysis for measured R400 series refrigerants
- Vapor or liquid sampling
- Store test data on external USB drive
- Internal thermal printer
- Remote software updates for new refrigerants
- Supports 10 languages for global operations
- Low flow indications to alarm user if flow restrictor becomes clogged

SPECIFICATIONS:
- Weight: less than 10 lbs.
- Accuracy: ±1% of indicated gasses or better
- Power requirements: 12 VDC @ 2A via 110/220 VAC, 50 – 60 Hz 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 – 120°F (10 – 49°C)
- Humidity: 0 – 95% RH non-condensing
- Test sample size: 5 g per test
- Test pressure: 30 psig – 500 psig
- Identified refrigerants: R12, R1234yf, R408A, R409A, R417A, R421A, R421B, R422A, R422B, R422C, R427A, hydrocarbons
- Analyzed refrigerants: R22, R32, R134a, R404A, R407C, R410A, hydrocarbons (HC) and air

LEGEND SERIES™ R1234yf & R134a REFRIGERANT ANALYZER

With the introduction of the new HFO-1234yf refrigerant to the automotive market, vehicle manufacturers world-wide have developed new standards for vehicle A/C service. Included in these standards is the requirement to verify the purity of the refrigerant prior to recovery of the refrigerant in the system. The Legend™ is a worldwide ready tool to meet the service needs of HFO-1234yf equipped vehicles. It is certified to the SAE J2912 standard and connects directly to SAE J2843 and J3030 AC service machines that have an external analyzer USB port.

- Quickly and accurately determines refrigerant purity
- Displays percentage purity of R1234yf, R134a, R12, R22 and hydrocarbons
- Displays % air in pure R1234yf & R134a
- Capable of testing R12 with optional R12 hose accessory
- Easily prints test results with optional printer
- Uses standard 2.25" (57 mm) thermal paper
- Improved oil resistance with the user replaceable oil restrictor

SPECIFICATIONS:
- Refrigerants measured: R1234yf, R134a, R12
- Contaminants measured: R22, hydrocarbons, unknown
- Accuracy: exceeds the requirements of SAE J2912
- Refrigerant % displayed: R1234yf, R134a, R22, R12, HC, unknown, air
- Ambient operating temperature range: 10°C to 49°C
- Power: 12VDC @ 1.5 amps
- Communication protocols: USB 2.0, Bluetooth 2.0
- User interface: 5" color LCD with soft keys
- Ten languages: ENG, FRE, GER, ITA, POR, SPA, CHI, JAP, KOR, RUS
- Approvals: CE, UL, SAE J2912

FEATURES:
- Suitable for R134a, R1234yf & R12 vehicles
- Large color display
- Internal lithium battery
- Ergonomic design
- Optional built-in printer
- Optional Bluetooth® communication

Comes complete with:
R1234yf & R134a refrigerant identifier
R1234yf and R134a low side service couplers
R1234yf and R134a cylinder adapters
(2) R1234yf sample hoses
(2) R134a sample hoses
Charging adapter
Custom case

69LEGEND	Legend Series™ R1234yf & R134a Refrigerant Analyzer without Bluetooth® / without printer
69LEGEND-P	Legend Series™ R1234yf & R134a Refrigerant Analyzer without Bluetooth® / with printer
69LEGEND-BT	Legend Series™ R1234yf & R134a Refrigerant Analyzer with Bluetooth® / without printer
69LEGEND-BTP	Legend Series™ R1234yf & R134a Refrigerant Analyzer with Bluetooth® / with printer

VISUAL INSPECTION SIGHT GLASS

SAVE TIME BY EASILY DETERMINING IF THE A/C SYSTEM NEEDS TO BE FLUSHED

The condition of the refrigerant in your A/C system is an important factor in the proper operation of all components and overall cooling efficiency. The only way to actually see the condition of the refrigerant in your vehicle's A/C system is with the use of the Mastercool visual inspection sight glass.

This unit can be used with a standard vacuum pump or with the vacuum function on your R/R/R machine. Easy to follow instructions will guide you through the use of either option.

- Allows user to visually inspect the refrigerant in any R134a or R1234yf system and identify excess dye, oil or debris
- Allows the user to extract a small portion of the refrigerant for actual visual inspection
- Leak free, ball valve controlled and will allow the refrigerant extracted for the visual inspection to be deposited back into the system

53376 R134a Visual Inspection Sight Glass
with R134a Quick Couplers

Kit Includes:
- Refrigerant Oil Visual Inspection Sight Glass
- Low side, 1/4" (7/16"-20) x 13 mm Retrofit Adapter
- 60" Blue R134a Charging Hose
- 60" Red R134a Charging Hose
- High Side R134a 14 mm-F x 16 mm Quick Coupler
- Low Side R134a 14 mm-F x 13 mm Quick Coupler

53376-YF R1234yf Visual Inspection Sight Glass
with R1234yf Quick Couplers

Kit Includes:
- Refrigerant Oil Visual Inspection Sight Glass
- 1/4 fl-f x 17 mm-m R1234yf Adapter with Valve Core
- 60" Blue R1234yf Charging Hose
- 60" Red R1234yf Charging Hose
- High Side R1234yf 12 mm-F x 17 mm Quick Coupler
- Low Side R1234yf 12 mm-F x 14 mm Quick Coupler

53377 R134a Visual Inspection Sight Glass
with R134a Manual Couplers

Kit Includes:
- Refrigerant Oil Visual Inspection Sight Glass
- Low side, 1/4" (7/16"-20) x 13 mm Retrofit Adapter
- 60" Blue R134a Charging Hose
- 60" Red R134a Charging Hose
- High Side R134a 14 mm-F x 16 mm Manual Coupler
- Low Side R134a 14 mm-F x 13 mm Manual Coupler

53377-YF R1234yf Visual Inspection Sight Glass
with R1234yf Manual Couplers

Kit Includes:
- Refrigerant Oil Visual Inspection Sight Glass
- 1/4 fl-f x 17 mm-m R1234yf Adapter with Valve Core
- 60" Blue R1234yf Charging Hose
- 60" Red R1234yf Charging Hose
- High Side R1234yf 12 mm-F x 17 mm Manual Coupler
- Low Side R1234yf 12 mm-F x 14 mm Manual Coupler

CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

MASTERCOOL

LEAK DETECTION

LEAK DETECTOR OVERVIEW

Model	55800	55975	56100	56200	55600	55745
Refrigerants	Detects all refrigerants (CFC's, HCFC's, HFC's and blends), combustible gases, hydrogen	Detects combustible gases, hydrogen	Detects all refrigerants (CFC's, HCFC's, HFC's and blends)	Detects all refrigerants (CFC's, HCFC's, HFC's and blends)	Detects all halogenated refrigerants (HFC's, HCFC's, CFC's, PFC's, HFO's)	R744
Sensor Life	2000 hours	2000 hours	20 hours	20 hours	10 years	40,000 hours
Power	2 "D" batteries	2 "C" batteries	2 "C" batteries	2 "C" batteries	3.78V 3000mAh lithium battery	3.78V 3000mAh lithium battery

THE ONLY LEAK DETECTOR YOU WILL EVER NEED

LCD Display

Keypad

Intella Sense
REFRIGERANT LEAK DETECTOR

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Detects: Combustible Gases, Hydrogen, Refrigerants: All CFC's, HCFC's & HFC's and blends

<< MEETS AND EXCEEDS J2791 (R134A), J2913 (R1234YF) AND EN 14624 >>

The 55800 leak detector employs a metal oxide gas sensor for the detection of chlorofluorocarbon gases and blends. This tin oxide sensor is characterized by high sensitivity and a fast response, upon detecting the presence of extremely small levels of chlorofluorocarbon gases. Integrated into the design is a powerful microprocessor that automatically selects the best operating conditions for the sensor, to ensure optimum performance. The optimum sensor performance is maintained and monitored throughout the life of the sensor.

SPECIFICATIONS:
- SENSITIVITY (*based on optimal laboratory conditions):
  - HIGH ≥ 0.15 oz/yr (4.25 g/yr), MEDIUM ≥ 0.25 oz/yr (7 g/yr), LOW ≥ 0.5 oz/yr (14 g/yr)
- PROBE:
  - Intelligent tip design that senses the condition of the environment, to eliminate the potential of false alarms
  - Flexible 16" probe for difficult to reach locations
- DISPLAY:
  - Progressive LCD with vertical bars corresponding to the magnitude of the detected leak
  - Visual indication of the selected sensitivity range
- REFRIGERANTS: Detects all refrigerants (CFC's, HCFC's, & HFC's) Unit has been tested and approved to work with R1234yf as well as R32 and R410a
- SENSOR LIFE: 2000 hours
- OPERATING TEMPERATURE RANGE: 0 to 140˚F
- POWER: Two (2) D batteries
- BATTERY LIFE: 60 hours continuous use
- WEIGHT: 1 lb. 8 oz

"SUPER SENSITIVE FUNCTION" allows the unit further sensitizing beyond the standard settings for locating small leaks with gases such as R1234yf and R407C

LCD FEATURES:
Wait mode, ready mode, INT mode, low battery indication, high-medium-low sensitivity range, signal level bars, error signals

KEYPAD FUNCTIONS:
On/off, volume/mute, HML sensitivity, hold and peak

55800	Intella Sense Refrigerant Leak Detector packaged in a blow molded case with 2 "D" batteries, leak test vial and replacement filters
55800-FILTER	3 Replacement Filters
55800-VL	Leak Test Vial

IntellaSense
55850 REFRIGERANT LEAK DETECTOR **KIT**

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Intella-Sense Refrigerant Leak Detector Kit includes:
• Intella-Sense Refrigerant Leak Detector
• Mini UV light (53513-UV)
• UV safety glasses (92398)
• 2 "D" batteries
• Replacement filters (55800-FILTER)
• Leak test vial (55800-VL)
• Blow molded case (55800-PB)

IntellaSense III
55975 COMBUSTIBLE GAS LEAK DETECTOR

COMPATIBLE WITH COMBUSTIBLE GASES

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

Intella-Sense III Combustible Gas Leak Detector is packaged in a blow molded case with 2 "C" batteries, leak test vial and replacement filters

SPECIFICATIONS
• Sensing element: heated tin oxide
• Sensor life: 2000 hours
• Refrigerants: detects combustible gases
• Response time: less than 1 second
• Battery: 2 "C" alkaline 6000 mAh batteries
• Operating temperature range: 0˚F to 120˚F
• Ultimate sensitivity: 50 – 1000 ppm
• Probe:
  • Intelligent tip, with environment sensing element to eliminate the potential of false alarms
  • Flexible 15.5 inch probe length for difficult to reach locations
• Display:
  Six vertical LED's enable selectively (red, yellow or green) to display the following information to the user such as:
  • The relative signal level of the detected leak
  • The selected sensitivity range (low/medium or high) of the unit
  • Diagnostic information: low battery, interference/wait, contaminated atmosphere, readiness of the unit or fault conditions of the unit
• Keypad controls: ON/OFF, volume/mute, sensitivity for high, medium and low level selection, peak button when multiple leaks are suspected

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, Sulfer Dioxide and Trichloroethane

56100

R32 COMPATIBLE CE

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The *Raptor Refrigerant Leak Detector* offers state-of-the-art features and micro-processing technology while the design sensor delivers an accurate and instantaneous response. Packaged in a blow molded case with 2 "C" batteries and sensor tip.

FEATURES:
- Digital signal micro-processor
- Visual leak level indicator
- Reset function and keypad control
- Sensitivity level adjustment
- Battery test function
- Variable frequency audible alarm
- Meets and exceeds SAE J1627

SPECIFICATIONS:
- 3 levels of sensitivity (5 levels of detection)
- Detects leaks as small as 1/10 oz per year*
  *based on optimal laboratory conditions
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Power: 2 "C" batteries
- Probe: flexible 16" (43 cm)

56200   WITH UV BLUE LIGHT

R32 COMPATIBLE CE

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The *Raptor Refrigerant Leak Detector with UV Blue Light* offers state-of-the-art features and micro-processing technology while the design sensor delivers an accurate and instantaneous response. An ultra bright UV light is built into the end of the probe allowing for both electronic and UV leak detection of even the toughest leaks. Packaged in a blow molded case with UV glasses, 2 "C" batteries and sensor tip.

FEATURES:
- Digital signal micro-processor
- Mute function
- Visual leak level indicator
- Reset function and keypad control
- Battery test function
- Sensitivity level adjustment
- Ultra bright UV/blue LED light
- Variable frequency audible alarm
- Meets and exceeds SAE J1627

SPECIFICATIONS:
- 6 levels of sensitivity (15 levels of detection)
- Detects leaks as small as 1/10 oz per year*
  *based on optimal laboratory conditions
- Detects all refrigerants (CFC's, HCFC's, HFC's)
- Power: 2 "C" batteries
- Probe: flexible 16" (43 cm)

COMPLETE ELECTRONIC & UV LEAK DETECTION KIT

R32 COMPATIBLE

CALIBRATION CERTIFICATE AVAILABLE UPON REQUEST

The ultimate solution for all your A/C leak detection needs.

56300   Kit Includes: 56200 "Raptor" electronic leak detector with UV blue light, UV dye injector w/25 application dye cartridge, dye injector connection hose with R12 adapter, dye cleaner, UV safety glasses, custom molded carrying case

56400   Kit Includes: 56200 "Raptor" electronic leak detector with UV blue light, refillable dye injector, dye injector connection hose with R12 adapter, 2 oz bottle of concentrated universal dye, UV safety glasses, dye cleaner, custom molded carrying case

56300

55600 *Black Series* INFRARED REFRIGERANT LEAK DETECTOR

NEW | R32 COMPATIBLE | YF COMPATIBLE | CE

PROVIDING A RELIABLE SOLUTION TO EFFICIENTLY FINDING SENSITIVE LEAKS

Mastercool's 55600 hand-held infrared refrigerant leak detector uses an infrared sensor to effectively identify halogenated gases. The ergonomic design and rugged construction provides effortless refrigerant leak detection all while allowing the technician to easily adjust sensitivity to adapt to different environments.

This superior IR (infrared) leak detector detects the refrigerant by scanning the area in a slow target scan mode. Moving the sensor back and forth until the alarm sounds; the IR sensor zeroes out when held over a leak. This unit provides the same trigger conditions for all refrigerants which is an advantage over other technologies that work better for some refrigerants than others.

Packaged in a zippered carry case this kit includes the 55600 infrared refrigerant leak detector, charging cable and replacement filters.

Charging port • Earphone jack

Protective rubber boot

Large, full color LCD screen

Flexible probe for difficult to reach places

Peak button marks the maximum leak detected

Sensitivity button adjusts the sensitivity level

Mute button silences the alarm

FEATURES:
- Innovative infrared sensor offers an extended sensor life of 10 years
- Easily select high, medium and low sensitivity levels with a maximum sensitivity up to 0.14 oz/yr
- Advanced TFT screen provides clear and easy readings using color graphics that show leakage, sensitivity, battery level and sensor fault indicators
- Peak button indicates the maximum leak detected during measurements
- Auto-off function will automatically shut down the unit after 10 minutes
- Designed to meet EN14624, SAE1627, SAE2791 and SAE2913 standards

APPLICATIONS:
- Responds to all halogenated refrigerants including but not limited to:
  HFC's (R134a, R410A, R407C, R417A, R404A, R507, R23, R508B, R152a, R32)
  HCFC's (R22, R123, R124, R141b, R142b, R402A, R402B, R408, R409)
  CFC's (R11, R12, R13, R500, R502, R503)
  PFC's (PFC-14, PFC-116, PCF-218)
  HFO's (R1234yf)
- Responds to blends such as R410A and R407
- Detects SF-6 in high voltage circuit breakers
- Detects halogen gases in fire-extinguishing systems

SPECIFICATIONS:
- Sensor: UV spectrum absorption
- Sensor life: 10 years
- Alarm mode: visual and audible
- Display: high resolution bright TFT active matrix LCD
- Automatic shutdown: 10 minutes without operation
- Operating temperature: -10 to 52°C (14 to 125.6°F)
- Operating relative humidity: 50% to 85% RH
- Storage temperature: -20 to 60°C (-4 to 140°F)
- Probe length: 14.37"
- Battery: rechargeable (6 hours of detection)
- Weight: 15 oz.
- Size: 7.8 x 3 x 1.5"

55745 *Black Series* INFRARED CO_2 LEAK DETECTOR

NEW • CE

EXTREMELY EFFECTIVE AT LOCATING CO_2 LEAKS

Mastercool's 55745 hand-held CO_2 leak detector uses an advanced infrared sensor to effectively pinpoint R744 (CO2). The efficient design and rugged construction provides effortless leak detection all while allowing the technician to easily adjust sensitivity to adapt to different environments.

Packaged in a zippered carry case, this kit includes the 55745 infrared CO_2 leak detector, charging cable and replacement filters.

Charging port
Earphone jack
Protective rubber boot
Flexible probe for difficult to reach places
Large, full color LCD screen
Peak button marks the maximum leak detected
Sensitivity button adjusts the sensitivity level
Mute button silences the alarm

FEATURES:
- Flexible probe is easy to use and extremely effective at locating difficult leaks
- Advanced infrared sensor with a sensor life of 40,000 hours
- Easily select high, medium and low sensitivity levels
- Advanced TFT screen provides clear and easy readings using color graphics that show leakage, sensitivity, battery level and sensor fault indicators
- Peak button indicates the maximum leak detected during measurements
- Auto-off function will automatically shut down the unit after 10 minutes
- Compliant to RoHS, SAE-J1627 and EN14624

SPECIFICATIONS:
- Sensor life: 40,000 hours
- Sensitivity:
  High < 350 ppm at 350 ppm ambient
  Low < 3500 ppm at 350 ppm ambient
- Alarm mode: visual and audible
- Display: high resolution bright TFT active matrix LCD
- Automatic shutdown: 10 minutes without operation
- Reset time: <3 seconds
- Warm-up time: 30 seconds
- Response time: <1 second
- Refrigerants: R744 (CO2)
- Battery: rechargeable (8 hours of detection)
- Storage temperature: -20 to 60°C (-4 to 140°F)
- Operating temperature: -10 to 52°C (14 to 125.6°F)
- Humidity: maximum 90% RH (non-condensing)
- Probe length: 14.37"
- Weight: 15 oz.
- Size: 7.8 x 3 x 1.5"

53518-UV   **RECHARGEABLE 110 V UV FLASHLIGHT (LED)**
53518-UV-220   **RECHARGEABLE 220 V UV FLASHLIGHT (LED)**

- AAA battery holder provides backup power to flashlight (3 AAA batteries included)
- Battery life: 3 to 5 hours continuous leak detection
- Includes safety glasses

SPECIFICATIONS:
- High intensity LED
- Lamp power: 2W
- 154 - 170 µW/cm^2 which is compatible to a 50 watt UV flashlight
- Battery: lithium li-ion, full discharge and cut-off discharge of 4.2V and 2.75V

53513-UV   **MINI UV FLASHLIGHT (LED)**

When dye has been added to the system, easily search for a bright green/yellow glow where the system is leaking with this high intensity LED illumination mini flashlight.

- High intensity LED bulb – UV illumination
- Aluminum body with anodized finish
- Easy grip texture
- Includes UV enhancing safety glasses

SPECIFICATIONS:
- UV wavelength: 390-400
- Bulb life: 25,000 hours
- Batteries: 3 AAA

53515   **MACH IV FLEXIBLE UV LIGHT (LED)**

The Mach IV flexible UV light has **4 TRUE UV LEDS** delivering a brilliant fluorescent glow.

- Gets into tight areas easily
- Includes UV enhancing safety glasses

PATENT NO. 6,647,761

53515-B   Light Bulb

53312   **UV MINI LIGHT (12 V/50 WATTS)**

- High intensity
- 16ft. (5m) cord
- Compact & lightweight
- Instant ON
- Includes UV enhancing safety glasses

53312-B   Light Bulb

53312-L   Lens

COMPACT UV LEAK LOCATOR KITS

Leading the way in UV LEAK DETECTION, Mastercool offers a variety of compact UV leak locator kits. Each kit offers a powerful inspection lamp, a "refillable" or "cartridge type" dye injector and accessories. All kits are packaged in a clamshell or custom molded carrying case.

53451-220

53585

53500

KIT PART#	INJECTOR / LIGHT	CONTENTS OF EACH KIT	VOLTAGE/WATT
53451-110	53123/ 53518-UV	Rechargeable UV light, batteries, rechargeable batteries, battery holder, refillable 2 oz dye injector, 2 oz concentrated universal A/C fluorescent dye (25 application), 4 oz dye remover, 25 service information labels, UV enhancing safety glasses	LED
53451-220	53123/ 53518-UV-220	Rechargeable UV light, batteries, rechargeable batteries, battery holder, refillable 2 oz dye injector, 2 oz concentrated universal A/C fluorescent dye (25 application), 4 oz dye remover, 25 service information labels, UV enhancing safety glasses	LED
53451-C-110	53223/ 53518-UV	Same as 53451-110 but with replaceable 2 oz dye cartridge (25 applications)	LED
53451-C-220	53223/ 53518-UV-220	Same as 53451-220 but with replaceable 2 oz dye cartridge (25 applications)	LED
53580	53809/ 53515	MACH IV flexible LED UV light with 1 oz (30 ml) dye injector, with replaceable 1 oz (30 ml) dye cartridge (10 applications), low-side hose with R134a coupler, 1/4" FL adapter, 10 service information labels & UV enhancing safety glasses	LED
53585	53809/ 53515	Same as above, but with 1 oz OIL/ATF/Gas (53610) and diesel fluorescent dye and 1 oz (30 ml) engine coolant fluorescent dye (53609)	LED
53500	53123/ 53312	High intensity mini light with refillable 2 oz (60 ml) dye injector, 2 oz (60 ml) concentrated universal A/C fluorescent dye (25 applications), 4 oz (120 ml) dye remover, 25 service information labels and UV enhancing safety glasses	12 V/50 WATT
53500-C	53223/ 53312	Same as 53500, but with replaceable 2 oz (60 ml) dye cartridge (25 applications)	12 V/50 WATT

REFILLABLE "PISTON TYPE" UNIVERSAL OIL/DYE INJECTOR
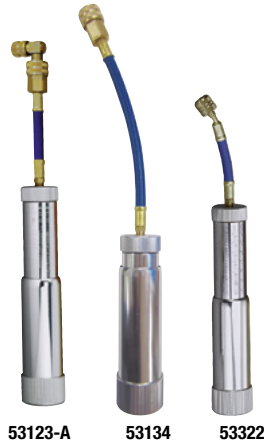
To inject the oil or dye, simply connect the injector to the low side of the A/C system and twist the handle until you reach the desired amount.

53123   Refillable Universal Dye Injector
with auto shut-off valve adapter and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)

53123-A   Refillable Universal Dye/Oil Injector (without dye)
with auto shut-off valve adapter

53134   Refillable Oil/Dye Injector (with R134a 13 mm Connection)
and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)

53322   Refillable Dye Injector (with 1/4" Auto Shut-off Valve Connection)
and 2 oz (60 ml) bottle of concentrated A/C dye (25 applications)

53123-A   **53134**   **53322**

53223   "CARTRIDGE TYPE" UNIVERSAL DYE/OIL INJECTOR

Adding dye with the 53223 is fast and easy, simply connect the injector to the low side of the A/C system and twist the handle to the next application line. The replaceable cartridge provides 25 applications of universal dye that is compatible with all systems. The injector hose comes complete with an auto shut-off valve adapter for 1/4" FL systems.

53809   MINI DYE INJECTOR

"Cartridge Type" dye injector with (10 applications) of concentrated dye.

53123-YF   REFILLABLE R1234yf OIL/DYE INJECTOR
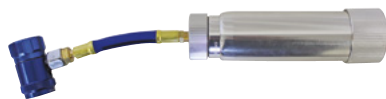
YF COMPATIBLE

To inject the oil or dye, simply connect the injector to the low side of the A/C system and twist the handle until you reach the desired amount.

• Heavy duty, anodized aluminum, 2 oz container with dye scales represented in 1/10 ounce, 1/4 ounce and milliliters
• Nylon barrier blue hose meets J2888, EPA, SAE and UL standards
• R1234yf low side coupler with extended disconnect sleeve and meets SAEJ639 and J2888

OIL INJECTOR

90375

82375

Excellent method for adding refrigerant oil or large amounts of UV leak detection dye to the A/C system. Add oil by allowing vacuum to pull it in after evacuation process, or use refrigerant to push it in using the recharge system.

90375   Standard 1/4" FFL x 1/4" MFL

82375   ACME 1/2" FFL x 1/2" MFL

HYBRID COMPATIBLE   **YF COMPATIBLE**   **CO₂ COMPATIBLE**

STANDARD UNIVERSAL ULTRAVIOLET A/C DYES

92699   Standard Universal Dye - Six 1/4 oz Packs (6 pcs)
pack 1/4 oz (7.5 ml) - 1 application

92708   Standard Universal Dye
8 oz (240 ml) bottle - 32 applications

92732   Standard Universal Dye
32 oz (1 L) bottle - 128 applications

92699   92708   92732

HYBRID COMPATIBLE   **YF COMPATIBLE**   **CO₂ COMPATIBLE**

CONCENTRATED UNIVERSAL ULTRAVIOLET A/C DYES

53825   Concentrated Universal Dye Cartridge Replaceable Cartridge
25 applications

53810   Concentrated Universal Dye Cartridge Replaceable Cartridge
10 applications

53625   Concentrated Universal Dye
2 oz (60 ml) bottle - 25 applications

53825   53810   53625

FLUORESCENT DYE

53609   Engine Coolant (1 oz. (30 ml) bottle)
• 1 oz for 1 vehicle application per 16 quarts (15 L) of fluid

53610   Engine Oil (1 oz. (30 ml) bottle)
• Engine oil (gas & diesel) - 1 vehicle application per 4-5 quarts
(4 L-5 L) of oil
• Automatic transmission fluid - 1 vehicle application per 4-5 quarts
(4 L-5 L) of fluid
• Gasoline and diesel fuel - 1 vehicle application per 2 gallons (8 L) of fuel

53609   53610

ACCESSORIES

53314   Dye Remover
4 oz (120 ml)

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

53315   53314   92398

MASTER LEAK SHIELD HVAC

LABORATORY TESTED
✓ NO DAMAGE
✓ NO RESTRICTION

- Lubricates system and helps prevent leaks
- Seals small leaks
- Illuminates larger leaks through the use of high quality universal fluorescent dye
- Compatible with all refrigerants and oils
- No need to recover refrigerant during application
- Stops leaks in metal and rubber air conditioner and refrigeration parts including evaporators, o-rings, gaskets and hoses
- Patented delivery system prevents any residual sealant from being left in can

53615	Master Leak Shield HVAC - up to 1.5 Tons (5.3 kW) 1 oz can of master leak shield HVAC sealant with dye for use on systems up to 1.5 tons
53660	Master Leak Shield HVAC - 1.5 to 6 Tons (5.3 kW to 21 kW) 3 oz can of master leak shield HVAC sealant with dye for use on systems 1.5 to 6 tons

AUTO A/C MASTER LEAK SHIELD

LABORATORY TESTED
✓ NO DAMAGE
✓ NO RESTRICTION

- Lubricates system and helps prevent leaks
- Seals small leaks in evaporator, condenser, hoses, o-rings and gaskets
- Illuminates larger leaks through the use of high quality universal fluorescent dye
- For R134a A/C systems
- Safe for hybrid and electric compressors

53909	Mini Auto A/C Master Leak Shield Dye Injector "Cartridge type" 1 oz injector with auto A/C master leak shield sealant with dye, low side hose, 1/4" FL adapter
53910	Auto A/C Master Leak Shield 1 oz replacement cartridge of auto A/C master leak shield sealant with dye
53593	Mini UV Flashlight Kit Mini UV flashlight (53513-UV), "cartridge type" 1 oz injector with auto A/C master leak shield sealant with dye, low side hose, 1/4" FL adapter, UV safety glasses, service information labels, packaged in a clam shell

Easy to use! Stops leaks in metal and rubber automotive air conditioner parts including evaporators, condensers, o-rings, gaskets and hoses.

- For use in R134a, HFO-1234yf, hybrid and electronic A/C systems
- Includes o-ring conditioner, proprietary anti-wear and anti-oxidant additives
- Adds 1 oz. (30 ml) leak stop with U/V leak detection dye
- Patented delivery system, does not contain refrigerant
- Safe, does not contain harmful polymers
- HFC free aerosol

US Patent No. 8,074,009, other US and foreign patents pending

53615-A	Auto Master Leak Shield 1 oz can of auto master leak shield sealant with dye

43060-EV   EVAP DIAGNOSTIC SMOKE MACHINE

For all evap, intake, exhaust, vacuum lines and vacuum components, passenger compartment window and sunroof, headlight/tail-light fixtures and much more. This unit provides the option of compressed air, inert gases and a built-in internal compressor to inject the smoke into the system.

Accessories included: full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose (green cap), high intensity smoke illuminating battery powered flashlight and 8 oz smoke producing fluid

FEATURES:
• Compact, heavy-duty design for years of reliable service
• Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
• Quick smoke generation
• Built-in safety pressure relief valve
• Built-in pressure regulated at 0.5 PSI for safe evap testing
• Large easy to read pressure decay gauge 0-30 in. H2O (70 mbar)
• Easy to read and clean flow meter
• Non-toxic and non-corrosive smoke
• 10' 12V power cables with durable clamps
• Heavy-duty 10' smoke injection hose
• Velcro strap for hose and power cable storage
• High intensity, battery operated smoke illuminating telescoping flashlight

SPECIFICATIONS:
• Voltage: 12 VDC
• Output pressure: 12 – 14 inH2O (30 – 35 mBar)
• Auto shut-off: 5 minutes
• Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
• Operating humidity: No Restrictions
• Operating temperature: 0°F to 140°F (-17°C to 60°C)
• Power cable: 10 feet
• Input pressure: max 100 psi (7 bar)
• Safety pressure relief: 120 (±5) psi
• Oil fill line indicator: 3.4 oz (100 ml (±10 ml)
• Power consumption: max 6.5 amps
• Operating altitude: No restrictions
• Vapor output hose: 10 feet
• Pressure supply: air/inert gas/pump

43060-HD   HEAVY DUTY TRUCK DIAGNOSTIC SMOKE MACHINE

For all HD truck intakes, exhaust, vacuum lines and components, cabin air and water leaks and much more. Not for EVAP testing

Accessories included: two large inflatable block-off bladders with safety chains, 6" rigid smoke stack ring, pressure sensor port adapter, oxygen sensor port adapter, temperature sensor port adapter, high intensity battery powered smoke illuminating flashlight and 8 oz smoke producing fluid

FEATURES:
• Compact, heavy-duty design for years of reliable service
• Operates on shop air or inert gas
• Quick smoke generation
• Built-in safety pressure relief valve
• Pressure can be regulated from 0 to 28 PSI
• Large easy to read pressure decay gauge 0 to 30 PSI
• Non-toxic and non-corrosive smoke
• 10' 12V power cables with durable clamps
• Heavy-duty 10' smoke injection hose
• Velcro strap for hose and power cable storage

SPECIFICATIONS:
• Voltage: 12 VDC
• Output pressure: Max 28 psi (190 kPa)
• Auto shut-off: 5 minutes
• Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
• Operating humidity: no restrictions
• Operating temperature: 0°F to 140°F (-17°C to 60°C)
• Power cable: 10 feet
• Input pressure: max 100 psi (7 bar)
• Safety pressure relief: 120 (±5) psi
• Oil fill line indicator: 3.4 oz (100 ml (±10 ml)
• Power consumption: max 6.5 amps
• Operating altitude: no restrictions
• Vapor output hose: 10 feet
• Pressure supply: air/inert gas

Optional Accessories

43060-DW-LG	Diffuser Assembly - Long
43060-HDBR-9	9" Bladder Ring
43060-HDLB-9	Large Bladder for Heavy-Duty Truck

NEW AUTO

43060-TB   TURBO/INTAKE DIAGNOSTIC SMOKE MACHINE

For all turbo, intakes, exhaust, vacuum lines and vacuum components, manifolds, passenger compartment window and sunroof, headlight/tail-light fixtures and much more. Not for EVAP testing. This unit provides the option of compressed air, inert gases and a built-in internal compressor to inject the smoke into the system.

Accessories included: inflatable intake bladder, full set of block off caps, exhaust cone, high intensity battery powered smoke illuminating flashlight and 8 oz smoke producing fluid

FEATURES:
• Compact, heavy-duty design for years of reliable service
• Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
• Quick smoke generation
• Built-in safety pressure relief valve
• Pressure can be regulated from 0 to 28 PSI
• Large easy to read pressure decay gauge 0 - 30 PSI
• Non-toxic and non-corrosive smoke
• 10' 12V power cables with durable clamps
• Heavy-duty 10' smoke injection hose
• Velcro strap for hose and power cable storage

SPECIFICATIONS:
• Voltage: 12 VDC
• Internal pump max 22 psi (150 kPa)
  External pressure source max 28 psi (190 kPa)
• Auto shut-off: 5 minutes
• Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
• Operating humidity: no restrictions
• Operating temperature: 0°F to 140°F (-17°C to 60°C)
• Pressure supply: air/inert gas/pump

• Input pressure: max 100 psi (7 bar)
• Vapor output hose: 10 feet
• Safety pressure relief: 120 (±5) psi
• Oil fill line indicator: 3.4 oz (100 ml (±10 ml)
• Power consumption: max 6.5 amps
• Operating altitude: no restrictions
• Power cable: 10 feet

Optional Accessories

43060-DW-ST   Diffuser Assembly - Short

NEW AUTO

43060-UHA   HEAVY DUTY/TRUCK SMOKE MACHINE UNIVERSAL COOLING SYSTEM ADAPTER KIT

Mastercool's heavy duty/truck smoke machine universal cooling system adapter is used with our heavy duty diagnostic smoke machine (43060-HD) or any smoke machine with a standard quick disconnect.

• Universal design will fit most heavy duty radiator and expansion tanks
• Easily smoke test any empty cooling system with the use of the universal adapter
• Ultimate coverage provided by 3 rubber ring gaskets included in the kit
• Secure fit using the simple twist style design

NEW AUTO

43060-UTA   HIGH PRESSURE/TURBO SMOKE MACHINE UNIVERSAL COOLING SYSTEM ADAPTER KIT

Mastercool's high pressure/turbo smoke machine universal cooling system adapter is used with diagnostic smoke machines.

• Universal design will fit most automotive radiators and expansion tanks
• Easily smoke test any empty cooling system with the use of the universal adapter
• Rubber hose fitting on adapter will connect to most diagnostic smoke machines
• Ultimate coverage provided by 3 rubber ring gaskets included in the kit
• Secure fit using the simple twist style design

DUAL EVAP/HIGH PRESSURE DIAGNOSTIC SMOKE MACHINES

These units are for evap, turbo/intake and heavy duty truck testing providing a solution to difficult to diagnose automotive leaks. Mobile repairs are now possible as both units include an internal compressor which allows use without the need of shop air while also having the ability to utilize shop air and inert gases. These specifically engineered units allow today's technician to quickly and efficiently locate and repair the complete spectrum of evap, turbo, heavy duty truck, intakes, exhausts, vacuum lines, cooling systems, manifolds, catalytic converters, brake boosters, passenger compartment air, water leaks and much more. The 43065 comes complete with all the adapters for evap low pressure testing and universal high pressure testing capabilities. The 43070 includes all the adapters for evap, high pressure and heavy duty truck testing. Mastercool now offers the professional technician the capability of complete automotive smoke detection testing in a single unit.

43070

DUAL EVAP/HIGH PRESSURE DIAGNOSTIC SMOKE MACHINE

43065

43062

FEATURES:
- Compact, heavy-duty design for years of reliable service
- Multiple options for smoke injection include built-in internal compressor, shop air and inert gases
- Quick smoke generation
- Built-in safety pressure relief valve
- Built-in pressure regulated at 0.5 PSI for safe evap testing
- Large easy to read pressure decay gauge 0-30 in. H2O (70 mbar)
- Easy to read and clean flow meter
- Non-toxic and non-corrosive smoke
- 10' 12V power cables with durable clamps
- Heavy-duty 10' smoke injection hose
- Velcro strap for hose and power cable storage
- High intensity, battery operated smoke illuminating telescoping flashlight

SPECIFICATIONS:
- Voltage: 12 VDC
- Output pressure: 12 – 14 inH2O (30 – 35 mBar)
- Auto shut-off: 5 minutes
- Flow meter: 0 - 0.040 in. (0 - 1.0 mm)
- Operating humidity: No restrictions
- Operating temperature: 0°F to 140°F (-17°C to 60°C)
- Power cable: 10 feet
- Input pressure: max 100 psi (7 bar)
- Safety pressure relief: 120 (±5) psi
- Oil fill line indicator: 3.4 oz (100 ml (±10 ml)
- Power consumption: max 6.5 amps
- Operating altitude: no restrictions
- Vapor output hose: 10 feet
- Pressure supply: air/inert gas/pump

43065	Dual Evap/High Pressure Diagnostic Smoke Machine Accessories included: smoke hose, power cord, full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose, high intensity smoke illuminating battery powered flashlight, 8 oz smoke producing fluid and bladder for intake testing
43070	Dual Evap/High Pressure Diagnostic Smoke Machine with Truck Adapter Accessory Kit Accessories included: smoke hose, power cord, full set of block off caps, exhaust cone, evap schrader valve remover/installer, evap service port adapter hose, high intensity smoke illuminating battery powered flashlight, 8 oz smoke producing fluid, bladder for intake testing, (2) bladders for heavy duty/truck applications, 6" ring, temperature sensor port adapter, oxygen sensor port adapter and pressure sensor port adapter
43062	Truck Adapter Diagnostic Smoke Machine Accessory Kit The 43062 contains the bladders and adapters to service trucks and heavy-duty equipment. Standard quick connect fittings, large bladders and sensor test fittings allow for easy and quick smoke diagnosis. The 43062 can also be used in conjunction with the 43060-TB to allow the technician to perform high-pressure diagnostic leak tests on all passenger cars and trucks as well as all commercial and heavy duty vehicles. Accessories included: • Smoke hose • (2) bladders for heavy duty/truck applications • 6" ring • Temperature sensor port adapter • Oxygen sensor port adapter • Pressure sensor port adapter

SERVICE ACCESSORIES & CONSUMABLES

CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

40

MASTERCOOL

CE   **Directive 97/23/EC**

NITROGEN PRESSURE REGULATORS

Mastercool's 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
• 63 mm (2 1/2") gauges with guards
• High pressure gauge 4400 psig (300 bar), Low pressure gauge 1000 psig (70 bar)

53001	53002	53003	53004	53005	53006
CGA580 (US)	DIN477#6 and DIN477#10 (This unit includes an adapter to convert DIN477#6 to DIN477#10) (France/Germany)	BS3 (England)	AS2473.2 (Australia)	5-UNI11144 (Italy)	21.8 L NEN 3268 Left hand thread, for Hydrogenated Nitrogen

1/4 FL-M outlet connection

PRESSURE TESTING REGULATOR KITS

53010

53010 — Pressure Testing Regulator Kit (US)
Nitrogen pressure regulator (53001), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53020 — Pressure Testing Regulator Kit (France/Germany)
Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53030 — Pressure Testing Regulator Kit (England)
Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53040 — Pressure Testing Regulator Kit (Australia)
Nitrogen pressure regulator (53004), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53050 — Pressure Testing Regulator Kit (Italy)
Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53060 — Nitrogen/Hydrogen Pressure Testing Regulator Kit
Nitrogen/Hydrogen pressure regulator (53006), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1⁄4 FL-M x 5/16 swivel-F (90413), blow molded case (53000-PB)

53042-YF   LEAK TESTING ADAPTER FOR R1234YF

YF COMPATIBLE

• 80 mm gauge
• R1234yf low side coupler

OPTIONAL ACCESSORIES

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

PRESSURE TESTING REGULATOR KITS*

ONLY FOR SALE IN EUROPE

53025	Pressure Testing Regulator Kit (France/Germany) Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), regulator adapter (53002-AD), 1 liter bottle of nitrogen (91150), blow molded case (53015-PB)
53035	Pressure Testing Regulator Kit (England) Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413),1 liter bottle of nitrogen (91150), regulator adapter (53003-AD), blow molded case (53015-PB)
53055	Pressure Testing Regulator Kit (Italy) Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of nitrogen (91150), regulator adapter (53004-AD), blow molded case (53015-PB)
53025-NH	Pressure Testing Regulator Kit (France/Germany) Nitrogen pressure regulator (53002), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of NitroH (91151), regulator adapter (53002-AD), blow molded case (53015-PB)
53035-NH	Pressure Testing Regulator Kit (England) Nitrogen pressure regulator (53003), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413),1 liter bottle of NitroH (91151), regulator adapter (53003-AD), blow molded case (53015-PB)
53055-NH	Pressure Testing Regulator Kit (Italy) Nitrogen pressure regulator (53005), 38" yellow charging hose (47382), leak testing adapter (53042), R32/R410A straight adapter 1/4 FL-M x 5/16 swivel-F (90413), 1 liter bottle of NitroH (91151), regulator adapter (53004-AD), blow molded case (53015-PB)

53025

* add an **-A** to include a low side manual R134a 1/4" FL-M x 13mm quick coupler (82934-e)
* add an **-AYF** to convert the leak testing adapter to a R1234yf leak testing adapter (53042-yf)

REGULATOR ADAPTER

ONLY FOR SALE IN EUROPE

53003-AD

These adapters are designed to work with Mastercool's line of Nitrogen Pressure Regulators and allow for the use of our 1 Liter Nitrogen and NitroH bottles.

53002-AD	France/Germany	**53003-AD**	England	**53005-AD**	Italy

1 LITER NITROGEN BOTTLE (max filling pressure 110 bar)

ONLY FOR SALE IN EUROPE

The nitrogen bottles are commonly used for:

• Testing for leaks in pressure of HVAC & A/C
• Flushing of HVAC & A/C systems
• Fluxing during soldering in HVAC & A/C
• Calibration of pressure switches
• Gauge calibration and much more

91150-6	(6 pcs.) 1 Liter Bottle of Nitrogen
91150-48	(48 pcs.) 1 Liter Bottle of Nitrogen
91150-96	(96 pcs.) 1 Liter Bottle of Nitrogen

1 LITER NITRO H BOTTLE (max filling pressure 110 bar)

ONLY FOR SALE IN EUROPE

NitroH is a mixture of 95% nitrogen and 5% hydrogen. This unique combination allows this gas to be used for leak detection in conjunction with Mastercool's 55800 Intella-Sense Refrigerant Leak Detector.

91151-6	(6 pcs.) 1 Liter Bottle of NitroH
91151-48	(48 pcs.) 1 Liter Bottle of NitroH
91151-96	(96 pcs.) 1 Liter Bottle of NitroH

SPECIAL CONFIGURATION NITROGEN-HYDROGEN KIT FOR AUTOMOTIVE

NEW AUTO CE Directive 97/23/EC

This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

SPECIFICATIONS:
• 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
• 63 mm (2 1/2") gauges with guards
• High pressure gauge 4400 psig (300 bar)
• Low pressure gauge 1000 psig (70 bar)

53035-NH-YF

53025-NH-YF
Special Configuration Nitrogen/Hydrogen Kit for Automotive (France/Germany)
• 53002 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53002-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
• 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
• 83734 12mm-m x 1/4" fl-m Adapter
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53035-NH-YF
Special Configuration Nitrogen/Hydrogen Kit for Automotive (England)
• 53003 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53003-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
• 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
• 83734 12mm-m x 1/4" fl-m Adapter
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53055-NH-YF
Special Configuration Nitrogen/Hydrogen Kit for Automotive (Italy)
• 53005 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53005-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 82934-E Low-Side Manual R134a 1/4" FL-M x 13 mm Quick Coupler
• 83934 Low Side R1234yf Coupler (12 mm-F x 14 mm)
• 83734 12mm-m x 1/4" fl-m Adapter
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

SPECIAL CONFIGURATION NITROGEN/HYDROGEN KIT FOR HVAC

NEW HVAC CE Directive 97/23/EC

This single stage nitrogen regulator is used to test systems for leaks when they do not contain refrigerant.

SPECIFICATIONS:
• 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
• 63 mm (2 1/2") gauges with guards
• High pressure gauge 4400 psig (300 bar)
• Low pressure gauge 1000 psig (70 bar)

53055-NH-HVKT

53025-NH-HVKT
Special Configuration Nitrogen/Hydrogen Kit for HVAC (France/Germany)
• 53002 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53002-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53035-NH-HVKT
Special Configuration Nitrogen/Hydrogen Kit for HVAC (England)
• 53003 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53003-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

53055-NH-HVKT
Special Configuration Nitrogen/Hydrogen Kit for HVAC (Italy)
• 53005 Nitrogen Pressure Regulator
• 47382 38" Yellow Charging Hose
• 53042 Leak Testing Adapter
• 53005-AD Regulator Adapter
• 91151 1 Liter NitroH Bottle
• 90413 R32/R410A Straight Adapter 1/4 FL-M x 5/16 Swivel-F
• 55975 IntellaSense III Combustible Gas Leak Detector with 2 "C" Batteries, Leak Test Vial and Replacement Filters

"MASTERCLEANSE" FLUSH MACHINE

Mastercool's "MASTERCLEANSE" large volume flush machines are designed to flush all HVAC/R and automotive systems. "MASTERCLEANSE" will be commonly used for the removal of all solids and residues caused by breakage of compressor or filters. Designed with durable roll-away wheels and handle, this machine can conveniently move as needed.

FEATURES:
- Stainless steel ball valve controls
- 1/4" SAE connection
- Additional external container connection
- External nitrogen bottle connection
- Pump equipped with mechanical seal and PTFE gasket
- Mechanical filter present at suction side

SPECIFICATIONS:
- Pump flow rate: 4 g/min (16 l/min)
- Pump motor: 300 watts
- Pump horsepower: 110V/60 Hz - 0.4 HP, 220-240V/50/60 Hz - 0.28 HP
- Full load amperage: 110V/60 Hz - 2.4 amps, 220-240V/50/60 Hz - 1.7 amps
- Flush container: 2.6 gal (10 l)
- Hoses: 9 ft (3 m) flexible, clear coiled
- Dimensions: 15" (l) x 16" (w) x 24" (h) /with handle extended 36" (h) (381 mm (l) x 406 mm (w) x 609 mm (h) /with handle extended 914 mm (h))
- Weight: 42 lbs (19 kg)

69900	110 V / 60 Hz
69900-220	220-240 V / 50/60 Hz
69901-220	220-240 V / 50/60 Hz with internal nitrogen regulator for use with European standard 1 liter nitrogen bottle

69925   MULTIPLE FLUSHING & LEAK TEST ADAPTER KIT FOR FLUSH MACHINE

Multi-purpose leak test and flushing adapters suitable for more that 80% of the automotive air conditioning systems in the market!

- Isolates A/C system components for closed loop flushing
- Flush individual components without removing them from the vehicle
- Install adapters on A/C line ends to allow attachment of flushing equipment

A/C FLUSH SOLVENT

- Effectively removes debris and sludge from A/C components
- Solvent-based
- Evaporates quickly
- Leaves no residue
- O-Ring safe
- Non-Flammable
- Non-Corrosive
- Flush any A/C system

91049-32	32 oz. Flush Solvent
91049-32-6	6 pack - 32 oz. Flush Solvent
91049-128	1 Gallon Flush Solvent
91049-128-4	4 pack - 1 Gallon Flush Solvent

91049-32   91049-128

TOTAL A/C QUICK FLUSH

91051

91050

Specific fluid for the inner flushing of air conditioning and refrigeration systems.

• O-Ring safe
• Non-Flammable
• Non-Corrosive
• For professional use
• Pressurized container ready to use

91051	Total A/C Quick Flush Kit
91050	17 oz. Total A/C Quick Flush Can
91050-6	6 Pack - 17 oz. Total A/C Quick Flush Cans

A/C SYSTEM FLUSH KIT

91046-A

91046-OEX

Includes flush gun, hose, canister and canister adapter.

Designed to work with any light weight flushing agent which can be mixed with pressurized air. Excellent for quickly and effectively removing refrigerant oil debris during retrofitting or compressor replacement.

91046-A	A/C System Flush Kit with standard compressed air connection
91046-OEX	A/C System Flush Kit with 1/4" male flare connection

92707   HYBRID A/C COMPRESSOR OIL

• Formulated for vehicles with electric A/C compressors
• High dielectric formula provides advanced compressor protection
• Synthetic lubricant specifically created for electric hybrid air conditioning compressors
• For replenishing hybrid or electric compressor oil in accordance with the quantity evacuated or the quantity recommended by the compressor manufacturer
• Provides outstanding lubricity and compressor protection
• Compatible replacement lubricant for compressors using Honda 38899RCJA01, ND-10, ND-OIL 11 (ND-11), and SE-10Y
• High dielectric protection formula has excellent "resistivity" to potential electrical current leakage in high voltage hybrid A/C systems
• Contains conditioners, inhibitors and anti-wear agents
• Net contents 7 oz. (210 mL)

COMPRESSOR OILS

Maximum protection with excellent thermal & oxidative stability. Moisture tolerant. OEM approved.

	PAG 46
92709-46-32	**NEW** PAG 46 Oil (32 oz (1 L) bottle)
	PAG 65
92709-65-8	PAG 65 Oil (8 oz (236 ml) bottle)
92709-65-32	PAG 65 Oil (32 oz (1 L) bottle)
	PAG 100
53826	PAG 100 Oil (2 oz (60 ml) cartridge)
92709-100-8	PAG 100 Oil (8 oz (236 ml) bottle)
92709-100-32	PAG 100 Oil (32 oz (1 L) bottle)
	PAG 150
92709-150-8	PAG 150 Oil (8 oz (236 ml) bottle)
92709-150-32	PAG 150 Oil (32 oz (1 L) bottle)
	Ester 100 Oil
53827	Ester Oil (2 oz (60 ml) cartridge)
92710	Ester Oil (8 oz (236 ml) bottle)
92712	Ester Oil (32 oz (1 L) bottle)

ZEROL HD46 R1234yf MOBILE AIR CONDITIONING COMPRESSOR LUBRICANT

YF COMPATIBLE

ZEROL HD46 is a fully formulated ISO VG46 grade polyalkylene glycol lubricant designed specifically for application with HFO refrigerant R1234yf in mobile air conditioning (MAC) systems. The product is a double end-capped PAG, and is manufactured to exacting standards of high double endcapping efficiency. ZEROL HD46 is suitable for use in both belt and electrically driven compressors utilizing R1234yf, and is also fully suitable for use in R134a belt-driven and electric MAC compressors.

- Optimized miscibility in HFO refrigerant R1234yf
- Superior lubricity compared to alternative lubricant types, including standard 'single end-capped' PAG products, and di-capped PAGs with lower di-capped material content
- Exceptional viscosity index (VI) – The high VI enhances compressor life by ensuring efficient running at temperature extremes. The high VI may also allow the user to select a lower viscosity fluid than typically used, with associated power usage savings.
- Good high temperature and chemical stability, even in presence of water, resulting in system lifetime extension and reduced maintenance costs.
- Low hygroscopicity (tendency to absorb moisture) compared to alternative PAG products with lower di-capping content.
- Formulating expertise – ZEROL HD46 series contain optimized additive technology to provide additional corrosion protection within the A/C system, to further enhance the extreme pressure and anti-wear performance of the PAG, and to maximize fluid lifetime by ensuring against thermal or oxidative deterioration of the lubricant.
- Excellent electrical resistivity properties for electrically driven systems.

SPECIFICATIONS:
- Viscosity @ 40°C (cSt): 42.0 – 48.0
- Colour (gardner): 1 max.
- Water content (ppm): 300 max.
- Total acid value (mgKOH/g): 0.03 max.
- Pour point (°C): <-25
- Capping efficiency: 85.0% minimum
- Appearance: clear to slightly hazy, free of visible particles

92709-YF-8	8 fl. oz (236 ml) Bottle
92709-YF-32	32 fl. oz (946 ml) Bottle

ALUM BOND

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 hrs application time): 650 psi

90935	Aluminum Repair Kit (6.5 oz package)
90935-12	Aluminum Repair Kit - box of 12 (each box contains Hardener & Resin (3.25 oz. (94g) each)

90936   HVAC SUPER PRO KIT (1.85 oz, 50g) packaged in a clamshell

NEW **HVAC**

LIFETIME SOLDERLESS BONDING FOR COPPER, BRASS & ALUMINUM

- Compatible with all refrigerants and oils
- Holds 850 psi of refrigerant pressure 12 minutes after bonding (20 minutes for aluminum)
- Holds 1200 psi of refrigerant pressure - fully cured
- In 12 minutes the bond will withstand 850 psi of refrigerant pressure
- Bonding time in 1 minute for aluminum and is set in 4 minutes
- Approximately 2 hours is fully cured and will withstand 1200 psi of refrigerant pressure
- Starts to set up in 20 seconds and forms a solid bond in 3 minutes
- Makes approximately 200 bonds on 1/2 inch pipe
- Temperature Range -65˚ to 350˚F (-54˚ to 176˚C)
- Adherence Strength (ASTM 4541): Pull Apart 1500 foot pounds, Rotational 450 foot pounds

92329   TOYOTA A/C DISCONNECT TOOL

The Toyota spring lock A/C hose couplings require this special disconnect tool. Simply insert the end of the tool into the coupling to disengage the hose.

91000-B   DELUXE CLUTCH HUB PULLER/INSTALLER KIT

Kit contains a complete offering of A/C compressor clutch hub pullers and installers for GM, Ford, Chrysler and Imports. Includes a universal clutch holding tool and comes in a custom molded case.

92311   DELUXE ORIFICE TUBE SERVICE KIT

This 5 piece universal kit will remove and install any style orifice tube. Comes in custom molded box.

CELEBRATING 40 YEARS OF WORLD CLASS QUALITY

MASTERCOOL

TUBE & HOSE FORMING

71500-A   HYDRA-KRIMP
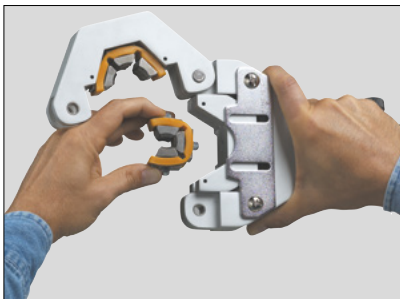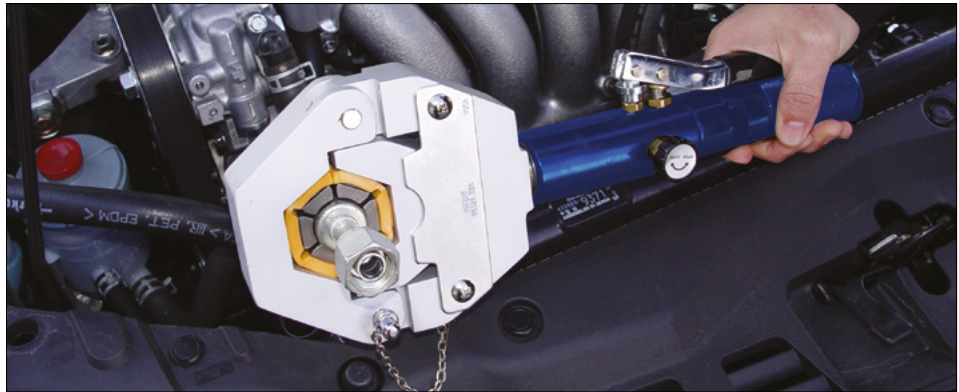
Fabricating A/C Hoses Just Got Easier...
Mastercool's patented "Hydra-Krimp" makes crimping barbed and beaded fittings as easy as 1 - 2 - 3! The lightweight hand-held hydraulic press is very portable and ideal for shop and field applications. The kit comes with a complete set of dies covering hose sizes #6, #8, #10, #12 and reduced barrier #6, #8, #10 and #12. The dies snap quickly into the press fixture requiring no pins or screws. **PATENT# 6,324,884**

The die snaps quickly into the press fixture requiring no pins or screws

Kit comes in a custom molded case and includes:

71500-001AB	Hydra-Krimp Pump
71500-001B	Hydra-Krimp Yoke
71500-001C	Complete Die Set Assembly (7 pc. set)
71500-6	Die Set - #6 (5/16"), Die Set - #8 (13/32" Reduced Barrier)
71500-8	Die Set - #8 (13/32")
71500-10	Die Set - #10 (1/2")
71500-12	Die Set - #12 (5/8")
71500-6SRB	Die Set - #6 (5/16" Reduced Barrier)
71500-10SRB	Die Set - #10 (1/2" Reduced Barrier)
71500-12SRB	Die Set - #12 (5/8" Reduced Barrier)
71500-PB	Custom Molded Box

71550   A/C HOSE CRIMPER

The 71550 is our "manual style" A/C hose crimper. The dies snap quickly into place requiring no pins or screws. The unit can be easily mounted to a bench using the holding fixture or held securely in a vice. This kit comes with a complete set of dies covering standard hose sizes #6, #8, #10 and #12. **PATENT# 6,324,884**
*Optional reduced barrier sizes are available.
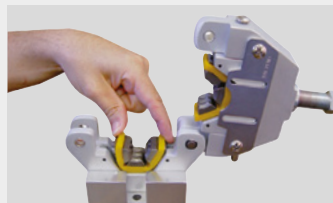
The die snaps quickly into the press fixture requiring no pins or screws
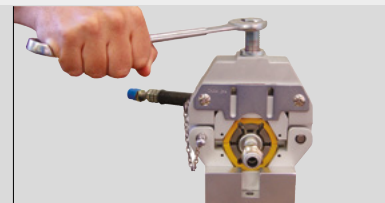
Close yoke, insert pin and turn arbor screw

Kit comes in a custom molded case and includes:

71550-001	Yoke Assembly	**71500-8**	Die Set - #8 (13/32")
71550-002	Arbor Assembly	**71500-10**	Die Set - #10 (1/2")
71550-003	Holding Fixture Assembly	**71500-12**	Die Set - #12 (5/8")
71500-6	Die Set - #6 (5/16")	**71550-PB**	Custom Molded Carrying Case

HYDRA-SWAGE

Fabricates and Expands Copper, Aluminum and Soft Steel Tubing Using Hydraulic Power.
PATENT# 6,619,099

Part#	Description
71600-A	**(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
71600-A-M	**(7 HEAD KIT)** Same as 71600, but using metric expander heads 10, 12, 15, 16, 18, 22 and 28 mm
71650-A	**(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
71601-A	Hydra-Swage
71601-D	Adapter for 71601
71685	Inner - Outer Reamer
71600-PB	Molded Box for 71600, 71600-M & 71650

71650-A

71600-A

PART#	DESCRIPTION	TUBE O.D.
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" (35 mm)
71600-13	Expander Head	1 5/8"
71600-17	Expander Head	2 1/8" (54 mm)
71600-10M	Expander Head	10 mm
71600-12M	Expander Head	12 mm
71600-15M	Expander Head	15 mm
71600-16M	Expander Head	16 mm
71600-18M	Expander Head	18 mm
71600-22M	Expander Head	22 mm
71600-28M	Expander Head	28 mm

HYDRAULIC FLARING AND EXPANDING

These kits are an upgrade to the existing hydra-swage expanding kits, allowing the user to easily make OEM flares with a pump of the handle.
PATENT# 6,619,099

71675   **(7 HEAD KIT)**
Complete Hydraulic Flaring and Expanding Kit
Consists of expander heads 3/8, 1/2, 5/8, 3/4,
7/8, 1 and 1 1/8", hydra-swage 71601, adapter,
inner-outer reamer and hydraulic flaring accessory
71680 packaged in a blow molded case

71676   **(10 HEAD KIT)**
Complete Hydraulic Flaring and Expanding 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, inner-outer reamer and hydraulic
flaring accessory 71680 packaged in a blow
molded case

71680   **HYDRAULIC FLARING ACCESSORY**
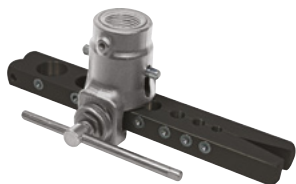
Add the 71680 to your existing Mastercool hydraulic expanding kits to allow for the ability to make OEM flares with a simple pump of the handle.

Flares 7 sizes: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8."

71700   HYDRAULIC FLARING & SWAGING TOOL
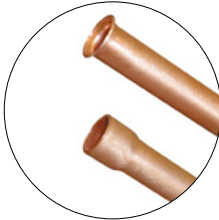
This kit features a hand-held hydraulic press that accurately flares & swages copper tubing. Once the die and adapter are secured in the fixture, a few pumps of the handle and you're done! This tool really takes the work out of swaging and flaring, especially on larger tube sizes. The kit includes dies 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 a custom molded carrying case.
PATENT# 5,782,128

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
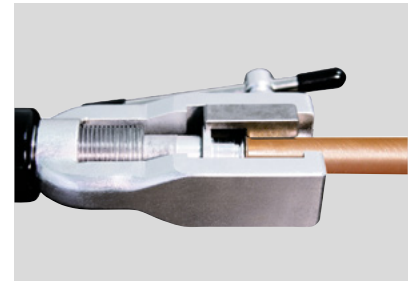
The copper tube is secured in the holding fixture by the forming dies. The hydraulic pump pushes in the forming adapter to fabricate the flare or swage. This cut-away photo shows the forming process.

72475   UNIVERSAL HYDRAULIC FLARING TOOL SET

This kit fabricates:
• Push connect 1/4, 5/16 and 3/8"
• GM fuel line flare
• Brake lines and transmission 5/16 and 3/8"
• Flare/double flare 3/16, 1/4, 5/16, 3/8 and 1/2"
• Metric bubble flare 4.75, 6, 8, and 10 mm
• Comes in a custom molded box
PATENT# 5,782,128

Push Connect

GM Fuel

45° Double Flare

ISO Bubble Flare

72485-PB	Custom Molded Plastic Box for 72475

BALL BEARING CUTTERS

72029

Each cutter includes up to 8 ball bearings for easy operation and extra smooth cut.

72035
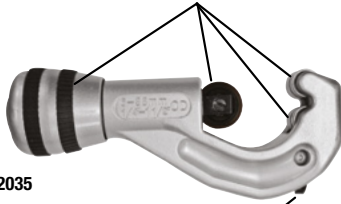
Includes a detachable swivel deburring tool for smooth surface

Mastercool's ball bearing 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!

COMPARE

Standard steel cutting wheel used on competing cutters

Re-enforced steel cutting wheel with internal ball bearings for extra smooth cut
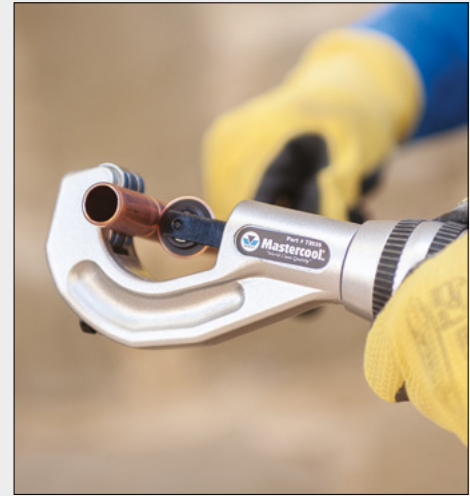
72029	"Reduced Friction" Tube Cutter for 1/8 to 1 1/8" (3-28 mm)
72035	"Reduced Friction" Tube Cutter for 1/4 to 1 1/2" (6-38 mm)
72030	Replacement Cutting Wheel for 72029
72034	Replacement Cutting Wheel for 72035

TUBE CUTTERS

70027

70029

70033

70037

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	Mini Tube Cutter for 1/8 to 5/8" (3-16 mm) O.D. Tubing (1/8 to 1/2" Nominal)
70029	Mini Tube Cutter for 3/8 to 1 1/8" (4-28 mm) O.D. Tubing (1/4 to 1" Nominal)
70033	Heavy Duty Tube Cutter for 1/8 to 1 1/8" (4-28 mm) O.D. Tubing (1/4 to 1" Nominal)
70035	Heavy Duty Tube Cutter for 1/4 to 1 5/8" (6-40 mm) O.D. Tubing (1/4 to 1 1/2" Nominal)
70037	Sliding Ratchet Tube Cutter for 1/4 to 2 5/8" (6-67 mm) 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" (6-89 mm) O.D. Tubing (1/4 to 3" Nominal)

RATCHET STYLE TUBE CUTTER

70030

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

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. Plumbers type mini tube cutter for 1/8 to 7/8" (4-22 mm) O.D. tubing. (1/8 to 3/4" nom.)

80121	Spare Cutting Wheel for 80021

REPLACEMENT CUTTER WHEELS

70028

70034

70028	Replacement Cutting Wheels for 70027 (10 pcs)
70034	Replacement Cutting Wheels for 70029, 70030, 70031, 70033, 70035, 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. 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

INNER-OUTER REAMERS

70085
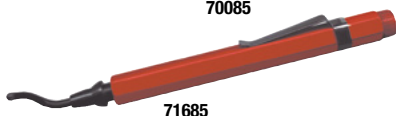
71685

70085	Inner/Outer Reamer for 3/16 to 1 1/2" O.D. Tubing
71685	Inner/Outer Reamer Designed to remove inner burrs easily. Full metal grip. Includes one spare tungsten blade for long use.
71686-2	Two spare blades for 71685 (2 pcs).

ONLY ECCENTRIC FLARING TOOL ON THE MARKET TO COVER UP TO 7/8"

70059

70060

Make the perfect flare every time.

This eccentric flaring tool is the only tool on the market to cover up to 7/8" making the job of the HVAC/R technician easier everyday! Its automatic torque release prevents cracking of copper caused by over flaring.

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

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

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

70059	45º Eccentric Flaring Tool Flares 6 sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8" O.D. tubing
70060	45º Eccentric Flaring Tool Kit includes: Eccentric Flaring Tool (70059), Inner-Outer Reamer (71685), Heavy Duty Tube Cutter (70033) for (1/8" – 1 1/8") 4 to 28 mm

ECCENTRIC FLARING TOOLS

70057

70058

• Aluminum design
• Light weight and durable
• Automatic torque release

70057-A	Flares 6 Sizes: 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. Tubing
70057-AM	Flares 7 Metric Sizes: 6, 8, 10, 12, 14, 16 and 18 mm O.D. Tubing
70058-A	Kit includes: Eccentric Flaring Tool (70057-A), Inner-Outer Reamer (71685), Heavy Duty Tube Cutter (70033) for (1/8 – 1 1/8") 4 to 28 mm. O.D. Tubing (1/4 to 1" Nominal)
70058-AM	Same as Kit 70058-A, but with Metric Eccentric Flaring Tool (70057-AM)

STANDARD 45° FLARING TOOL

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
70051-M	Metric 45° Flaring Tool Flares 7 metric sizes: 4, 6, 8, 10, 12, 15 and 16 mm O.D. tubing

70052   SLIDING DIE-BLOCK 45° FLARING TOOL

Sliding die-block 45˚ flaring tool flares and burnishes 6 sizes: 3/16, 1/4, 5/16, 3/8, 1/2 and 5/8" O.D. tubing.

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

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.

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

70049

70048

70040

70078   TORQUE WRENCH

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

Optional Wrench Sizes Available:

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

RATCHET WRENCHES

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

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

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"

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.

70069-AM   Metric complete 180° bend all metal multi-purpose tube bender for 6, 8, 10 mm 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"

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.

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.
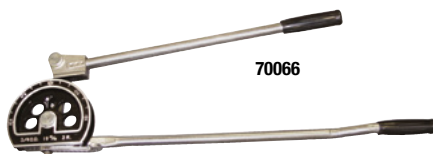
70061

70066

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"

"Ratchet Style" TUBE BENDER KIT - 5 SIZES

- Hand-operated ratchet design bends annealed (soft) copper, annealed (soft) brass, SAE 1010 (soft) and brazed bundy GM steel and annealed (soft) stainless
- Bends 5 sizes: 3/8, 1/2, 5/8, 3/4 and 7/8" O.D. soft tubing
- Bending radius from 1 3/16" to 3 3/8", easily bends to 90˚ without creasing the tubing
- Compact and portable design
- 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

70070 "Ratchet Style Tube Bender Kit

70070-M "Ratchet Style" Metric Tube Bender Kit
Same as 70070 less 70033 cutter & 70085 reamer. Bends 8, 10, 12, 14, 16, 18 & 22 mm O.D. soft tubing.

70070-RD   REVERSE DIRECTION BENDING ADAPTER

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

MC-DISP   STEEL DISPLAY

Steel display with light box to promote Mastercool products.

• Four tier cold rolled steel black display
• Adjustable shelves
• 900 x 410 x 1900 mm
• Each tier can bear 65 kg of weight
• Shipped with 220 V schuko plug, 110 V standard US transformer available upon request

MC-CRDBD-DISP-21   FULL COLOR CARDBOARD DISPLAY

Cardboard display to promote Mastercool products.

• Full color, 3 tier cardboard display
• Pegs included for hanging product on first tier
• Dimensions: 1828 mm (h) x 508 mm (w) x 724 mm (d)

MC-LCD-DISP   LCD MONITOR

17" LCD monitor that mounts to ceiling. This monitor displays video containing information and operation procedures of various Mastercool products.

• Dimensions: 370 mm (h) x 540 mm (w)

APPAREL

This T-shirt is made with 100% combed ringspun, preshrunk cotton material and features Mastercool's screen-printed logo on the front.

Adult-size solid-color cotton hat features Mastercool's embroidered logo on the front. Cloth strap with buckle closure in back.

MC-SHIRT-SS	Small Silver T-Shirt
MC-SHIRT-MS	Medium Silver T-Shirt
MC-SHIRT-LS	Large Silver T-Shirt
MC-SHIRT-XLS	Extra Large Silver T-Shirt
MC-SHIRT-SB	Small Black T-Shirt
MC-SHIRT-MB	Medium Black T-Shirt
MC-SHIRT-LB	Large Black T-Shirt
MC-SHIRT-XLB	Extra Large Black T-Shirt
MC-HAT	Hat

MC-BANNER12-LG   LARGE VINYL BANNER

Heavy-Duty vinyl banner with grommets for easy hanging.

• Dimensions: 48" (w) x 24" (h)

MC-SIGN12-SM   CARDBOARD SIGN

Cardboard sign for top of display

• Dimensions: 30" (w) x 6" (h)

COUNTERPAD-22   COUNTERPAD

Counterpad features a scratch resistant surface and non-slip base to provide durability.

• Dimensions: 20" (w) x 14" (h)

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