

PRODUCT CATALOG

ZEPPELIN
ELIMINATOR
KOBRA
ZEPPELIN
MILAS
PLATINUM
SUPERNOVUM

43
VERSION



**LEADER IN HVAC TOOLS AND ACCESSORIES
PROUDLY MADE IN THE USA SINCE 1967**



2009 proved to be a stressful year for the United States and indeed the World. Tough economic conditions including record high unemployment, lack of credit, unprecedented government involvement, and massive debt provided more than enough to concern everyone. Everyday there are predictions on when the recession will end and the economy rebound. The bottom line is nobody knows the answer; however, the U.S. economy has gone through difficult times in the past and, based on historical evidence, it is fairly safe and comforting to predict that the recession will indeed come to an end and the economy will recover. It is easy to remain optimistic that this will happen sooner rather than later when dealing with the passion and dedication displayed by our tremendous team through these challenging times.

We are committed to working through the tough times and to position JB Industries for what we believe will be a long and robust recovery. The economic situation has forced us to evaluate and refocus our efforts in areas where we can have the greatest impact on our success and the well being of our employees and partners. We have aggressively reviewed and improved cost cutting initiatives, we have renegotiated contracts with vendors, and we have encouraged employees to brainstorm ideas for making our slogan “Just Better” exactly that, just better in everything we do. The results of these initiatives have allowed us to proudly proclaim that JB has been able to retain all its employees through this difficult period and look to a future where we continue to add new resources to support our efforts.

Going forward JB will continue to focus its efforts in areas that have made it successful; investing in new technology, product development, manufacturing processes and most of all our people. By keeping our manufacturing facility in the USA we will continue to protect American jobs and reinvest our dollars here at home. We will leverage the enormous talent of our distributor network to seek out and develop new markets both here in the USA and globally. All of this will be done with an uncompromising commitment on product quality and integrity in dealing with our customers, employees and distributors. The cornerstone of this begins with our goal of “Total Customer Satisfaction” from the moment you call JB and deal with a real person in our best in class customer service team.

Finally, to JB’s great customer base we say thank you for your support throughout JB’s history and particularly during the challenging times we are mutually experiencing. Your loyalty and support are an inspiration to all JB employees because without you there would be no JB. On behalf of all JB employees, I commit the company to make every effort to produce products and provide service deserving of the loyalty you have demonstrated to JB. We look forward to a great 2010.

Jeff Cherif
President

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DEEP VACUUM

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24 MONTH WARRANTY

1/2 HP CAPACITOR START MOTOR WITH THERMAL OVERLOAD PROTECTION

1/2" NPT BREAK RESISTANT HANDLE ENCOMPASSES EXHAUST

LIFT RING

2 STAGE DIRECT DRIVE TO ACHIEVE DEEP 15 MICRON VACUUM

AVAILABLE DOMESTIC 115 VOLT, INTERNATIONAL 230 VOLT, AND DUAL VOLTAGE

CHECK VALVE PREVENTS OIL BACK FLOW DURING POWER FAILURE

LOW PROFILE ROCKER SWITCH

ALL METAL CONSTRUCTION INCLUDING ALL BRASS FITTINGS

LIGHTER WEIGHT FINNED ALUMINUM HOUSING REDUCES HEAT DURING OPERATION

TETHERED SAFETY CAP PREVENTS OIL SPILLS DURING TRANSPORT

BLANK OFF ISOLATION VALVE ISOLATES THE PUMP FROM THE SYSTEM TO DETERMINE LEAKS IN THE SYSTEM

WELL-PROTECTED DRAIN VALVE SEALED WITH O-RING TO PREVENT LEAKS

MADE IN USA

Best Pump in the industry

JB Industries' Platinum® Series Vacuum pump is the best pump in the industry. This pump is designed for the serious air conditioning and refrigeration technician. American made and subjected to JB's rigorous performance standards, the Platinum® Series is the top of the line for both quality and durability. Backed by an unprecedented **24 month over-the-counter warranty, there is no better pump on the market. Because each Platinum® pump is made at our facility in Aurora, Illinois, quality and dependability are woven in with hard working American pride. Completely field repairable, our Platinum® series is designed to last. Turn to page 70 for a complete list of repair parts.

Operating instructions available on our web site at www.jbind.com
**Subject to warranty as set forth on page 68 and warranty and terms and conditions of sales set forth at www.jbind.com

PLATINUM® SERIES VACUUM PUMPS



UNITED KINGDOM



INTERNATIONAL



US DOMESTIC

DUAL

EURO

U.K.

US DOMESTIC	DV-42N	DV-85N	DV-142N	DV-200N	DV-285N
CFM	1.5 CFM (42 l/m)	3 CFM (85 l/m)	5 CFM (142 l/m)	7 CFM (200 l/m)	10 CFM (285 l/m)
MOTOR	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM
VOLTAGE	115v, 60Hz	115v, 60Hz	115v, 60Hz	115v, 60Hz	115v, 60Hz
PLUG	Std. U.S. 110v	Std. U.S. 110v	Std. U.S. 110v	Std. U.S. 110v	Std. U.S. 110v
INTAKE PORT	1/4"	1/4" x 3/8"	3/8" x 1/4" x 3/8"	1/2" x 1/4" x 3/8"	1/2" x 1/4" x 3/8"
OIL CAP	27 oz. (798 cc)	27 oz. (798 cc)	23 oz. (680 cc)	23 oz. (680 cc)	24 oz. (709 cc)
SHIP DIMENS.	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)
WEIGHT	29 lbs. (13.2 Kg)	30 lbs. (13.6 Kg)	32 lbs. (14.5 Kg)	32 lbs. (14.5 Kg)	34 lbs. (15.4 Kg)

DUAL VOLTAGE	DV-42N-250	DV-85N-250	DV-142N-250	DV-200N-250	DV-285N-250
MOTOR	1/2 HP 1725/1425 RPM	1/2 HP 1725/1425 RPM	1/2 HP 1725/1425 RPM	1/2 HP 1725/1425 RPM	1/2 HP 1725/1425 RPM
VOLTAGE	115v/60Hz, 230v/50Hz	115v/60Hz, 230v/50Hz	115v/60Hz, 230v/50Hz	115v/60Hz, 230v/50Hz	115v/60Hz, 230v/50Hz
PLUG	Std. U.S. 220v	Std. U.S. 220v	Std. U.S. 220v	Std. U.S. 220v	Std. U.S. 220v

EURO	DV-42N-250EU	DV-85N-250EU	DV-142N-250EU	DV-200N-250EU	DV-285N-250EU
MOTOR	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM
VOLTAGE	230v, 50Hz	230v, 50Hz	230v, 50Hz	230v, 50Hz	230v, 50Hz
PLUG	Euro	Euro	Euro	Euro	Euro

UNITED KINGDOM	DV-42N-250UK	DV-85N-250UK	DV-142N-250UK	DV-200N-250UK	DV-285N-250UK
MOTOR	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM
VOLTAGE	230v, 50Hz	230v, 50Hz	230v, 50Hz	230v, 50Hz	230v, 50Hz
PLUG	UK	UK	UK	UK	UK

To check vacuum accurately, use the new DV-40 SUPERNOVA or the DV-22N (see pages 10 & 11).
*One Micron On A U-Tube Manometer. 25,400 Microns = 1"

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ELIMINATOR

ELIMINATOR® SERIES VACUUM PUMPS

**24 MONTH
WARRANTY**

**LARGE, EASY-TO-SEE
SIGHT GLASS ENSURES
PROPER OIL LEVEL**

**1/2 HP CAPACITOR START MOTOR
WITH THERMAL OVERLOAD PROTECTION**

**2 STAGE DIRECT DRIVE TO
ACHIEVE DEEP 15 MICRON
VACUUM**

**AVAILABLE DOMESTIC 115
VOLT,
INTERNATIONAL 230 VOLT, AND
DUAL VOLTAGE**

**CHECK VALVE PREVENTS OIL
BACK FLOW DURING POWER
FAILURE**

LOW PROFILE ROCKER SWITCH

**ALL METAL CONSTRUCTION
INCLUDING ALL BRASS FIT-
TINGS**

**SCRATCH RESISTANT POWDER
PAINTED COVER AND TRAP**

**TETHERED SAFETY CAP
PREVENTS OIL SPILLS DURING
TRANSPORT**

**OIL EXHAUST FILTER ELIMI-
NATES MIST FROM EXHAUST.
SOLD AS AN ACCESSORY ON
PAGE 9.**

**WELL-PROTECTED DRAIN VALVE
SEALED WITH O-RING TO PREVENT LEAKS**

MADE IN USA

Best VALUE in the industry

Built for the Air Conditioning Serviceman who wants a high quality, dependable vacuum pump, the Eliminator® Series offers many higher end features without the higher end price. American made, 100% tested to JB's stringent quality standards, backed by an unparalleled **24 month over-the-counter warranty, the Eliminator® is the best value vacuum pump in the industry. This is the only American made economy vacuum pump on the market and because each Eliminator® is made at our factory in Aurora, Illinois American pride is built into each one of these workhorses. Completely field repairable, these pumps are built to withstand the toughest jobs. Please refer to page 72 for a complete list of repair parts.

Operating instructions available on our web site at www.jbind.com

**Subject to warranty as set forth on page 68 and warranty and terms and conditions of sales set forth at www.jbind.com

ELIMINATOR® SERIES VACUUM PUMPS

HOW TO CHOOSE THE RIGHT SIZE PUMPS

CFM²= maximum tonnage rating. Therefore take the CFM rating of a pump and multiply it by that number to find the maximum number of tons the pump is rated for. Therefore, a 3 CFM pump (3 x 3) is rated for 9 tons. A 7 CFM pump (7 x 7) is rated for 49 tons. In many cases, depending on the system line sizes of large tonnage systems, it is better to put two or more smaller, easily maneuverable pumps at different locations. This will overcome some of the pressure drop problems and actually evacuate faster than a single, large pump. Pumps in the 1.5 to 10 CFM class are adequate to handle 99% of the work.

US DOMESTIC

DUAL

EURO
U.K.

US DOMESTIC	DV-3E	DV-4E	DV-6E
CFM	3 CFM (85 l/m)	4 CFM (113 l/m)	6 CFM (170 l/m)
MOTOR	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM	1/2 HP, 1725 RPM
VOLTAGE	115v, 60Hz	115v, 60Hz	115v, 60Hz
PLUG	Std. U.S. 110v	Std. U.S. 110v	Std. U.S. 110v
INTAKE PORT	1/4" x 3/8"	1/4" x 3/8"	1/4" x 3/8"
OIL CAP	20 oz. (591 cc)	18 oz. (532 cc)	18 oz. (532 cc)
SHIP DIMENS.	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)	17-5/8" (h) x 9-1/8" (w) x 14" (l)
WEIGHT	29 lbs. (13.1 Kg)	30 lbs. (13.6 Kg)	30 lbs. (13.6 Kg)

DUAL VOLTAGE	DV-3E-250	DV-4E-250	DV-6E-250
MOTOR	1/2 HP 1725/1425 RPM	1/2 HP, 1725/1425 RPM	1/2 HP 1725/1425 RPM
VOLTAGE	115v/230v 50/60Hz	115v/230v 50/60Hz	115v/230v 50/60Hz
PLUG	Std. U.S. 220v	Std. U.S. 220v	Std. U.S. 220v

EURO	DV-3E-250EU	DV-4E-250EU	DV-6E-250EU
MOTOR	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM
VOLTAGE	230v, 50Hz	230v, 50Hz	230v, 50Hz
PLUG	Euro	Euro	Euro

UNITED KINGDOM	DV-3E-250UK	DV-4E-250UK	DV-6E-250UK
MOTOR	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM	1/2 HP, 1425 RPM
VOLTAGE	230v, 50Hz	230v, 50Hz	230v, 50Hz
PLUG	UK	UK	UK



The last inch of pressure as indicated on the gauge is 25,400 microns.



HOW TO MEASURE EVACUATION

A micron is a unit of pressure starting from a perfect vacuum (no pressure) expressed in linear increments. One inch equals 25,400 microns. That last inch of pressure below zero on the low side compound gauge (see illustration) is 25,400 microns. A compound gauge only indicates that a vacuum is being produced, but does not tell you if moisture or contaminants are still in the system. Evacuation is complete when a system holds 500 microns to ensure dehydration is complete. Therefore, there is a small fraction of an inch difference between a complete evacuation and an inadequately evacuated system. A compound gauge cannot measure this pressure at these levels accurately. Only a micron gauge like the new SUPERNOVA DV-40 or our DV-22 (refer to pages 10 and 11) can accurately read the low pressures produced when evacuation / dehydration is complete.

To check vacuum accurately, use the new DV-40 SUPERNOVA or the DV-22N (see pages 10 & 11).
*One Micron On A U-Tube Manometer. 25,400 Microns = 1"

DEEP VACUUM PUMP ACCESSORIES

DEEP VACUUM

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Best Oil in the industry

Black Gold Vacuum Pump Oil is the Gold Standard in Vacuum pump care. For use in any vacuum pump, Black Gold is extremely pure and non-detergent. Our Black Gold is hydro processed which means it goes through a series of catalytic steps rendering the oil extremely refined, more viscous, and more stable. The result is clear mineral oil which will alert you to contamination sooner as it becomes cloudy or milky. In extreme temperatures, the oil will be more resistant to contaminants. We still recommend, however, that the oil be changed after every evacuation for maximum performance and pump efficiency.

The best test to see if your oil is contaminated is through a micron gauge. With a leak-free system, if your DV-22N micron gauge is still not reading a deep vacuum, the oil is too contaminated and should be changed. If the micron gauge pulls down to about 50 microns the oil is good. Viscosity is a measure of the weight of the oil. For industrial oil, the viscosity is an ISO grading at 40°C. Black Gold vacuum pump oil is an ISO 41, a special to this type of application.



MSDS INFORMATION FOR OUR BLACK GOLD PUMP OIL CAN BE FOUND UNDER TECHNICAL INFORMATION ON OUR WEB SITE AT WWW.JBIND.COM.

PART NO.	DESCRIPTION	CTN. QTY.	SHIPPING WEIGHT	CARTON DIMENS.
DVO-1	Pint Bottle	24	25 Lbs /11.4 kg	9" x 14-1/4" x 12-1/2"
DVO-12	Quart Bottle	12	24 Lbs /10.9 kg	11" x 13" x 10"
DVO-24	Gallon Bottle	6	47 Lbs /21.4 kg	12-1/2" x 15-1/2" x 12-1/2"

FLEXIBLE METAL LINE

Unlike charging hose, our flexible metal lines will not permeate under vacuum. Our metal lines feature finger-tight O-ring coupler ends.

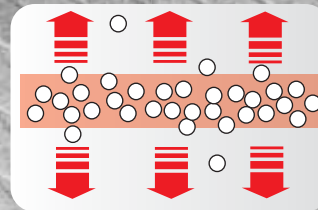
PART NO.	DESCRIPTION
D10436	1/4" x 36" flexible metal line (one 45° fitting)
D10472	1/4" x 72" flexible metal line (one 45° fitting)
D10636	3/8" x 36" flexible metal line (one 45° fitting)
D10660	3/8" x 60" flexible metal line (one 45° fitting)
DV-294	1/4" x 10" flexible metal line (straight fittings)
P90009	1/4" replacement O-ring (10 pack)
P90012	3/8" replacement O-ring (10 pack)



DIRECTION OF PERMEATION THROUGH HOSE WALL

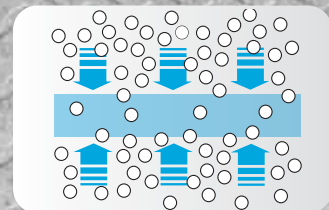
Even with the advanced technology of today's hoses, permeation through the hose compound still exists.

When checking pressure rise, the atmosphere will permeate to the lower pressure in the hoses and the micron reading will slowly rise.



Charging System

Gas under pressure in the hose will permeate to the lower pressure of the atmosphere.



Evacuation

The atmosphere which has a higher pressure permeates to the lower pressure in the hose.

DEEP VACUUM PUMP ACCESSORIES

SWIVEL COUPLERS

Features an O-ring Seal.



D10244

PART NO.	DESCRIPTION
D10244	1/4" female swivel coupler
D10266	3/8" female swivel coupler
P90009	1/4" replacement O-ring (10 pack)
P90012	3/8" replacement O-ring (10 pack)

SHUT OFF VALVE

Our O-ring quick coupler valves are great for blanking off any vacuum system and work for pressures up to 800 lbs.



D10162

PART NO.	DESCRIPTION
D10162	1/4" Fe QC x 1/4" flare

QUICK COUPLERS

Features an O-ring seal and no depressor. Please refer to page 47 for a complete list of elbow, straight, and FTP thread couplers and valves.



QC-E64

PART NO.	DESCRIPTION
QC-E64	3/8" QC x 1/4" SAE elbow
QC-S64	3/8" QC x 1/4" SAE straight
P90009	1/4" replacement O-ring (10 pack)
P90012	3/8" replacement O-ring (10 pack)

TETHERED SAFETY CAP

Designed to prevent oil spills during transport. Two sizes available to fit both vacuum pump handle sizes.



PART NO.	DESCRIPTION
DV-EP6	Tethered Cap 3/8"
DV-EP8	Tethered Cap 1/2"

OIL MIST FILTER

Eliminates oil mist from pump handle. DV-F8 fits 1/2" exhaust pipe in 2008 model Platinums, while DV-F6 fits 3/8" exhaust pipe for all Eliminator series and pre-2008 model Platinums.



DV-F8

PART NO.	DESCRIPTION
DV-F6	Oil Mist Filter 3/8"
DV-F8	Oil Mist Filter 1/2"

ECONOMY DEEP VACUUM MANIFOLD D10053

Ideal for use in domestic service, the deep vacuum manifold features separate valves for isolating the system from the pump and charging and/or performing pressure drop tests. The manifold can be hooked up for charging, to a micron gauge, and to charging hoses as well as quickly connecting to a pump with a 3/8" intake port. Use P90018 as replacement o-rings.



D10053

BLANK-OFF MANIFOLD VALVE D10160

Blank-Off Manifold valves isolate the pump from the system. These are designed and necessary for all pumps without an internal blank-off valve like the Eliminator®. The 3/8" QC connects to the center manifold port, the 3/8" SAE flare port is for the hose connection from the pump, and the 1/4" ports are for the refrigerant line and the micron gauge.



D10160

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SUPERNOVA

DV-40 DIGITAL MICRON GAUGE

INNOVATION AT ITS BEST

12 MONTH WARRANTY

PROGRAMMABLE ALARM

JB Industries is proud to introduce our award winning SUPERNOVA gauge. The unit allows a service technician to be certain when a system is properly evacuated of air and moisture before charging with refrigerant. The SUPERNOVA is accurate from 12,000 microns down to 10 microns. The unit features many user-defined programmable options such as duration of the backlight, programmed shut-off, and the ability to set alarms when system reaches defined mark. The service technician can customize the SUPERNOVA to fit work habits. Make service calls more efficient without sacrificing quality. The SUPERNOVA has been named a Bronze winner for the 2009 Dealer Design in tools.



BRASS FITTING ON LENGTHY FLEXIBLE CORD FOR HARD TO REACH PLACES

PROGRAMMABLE ALARM ALLOWS YOU TO PERFORM OTHER TASKS

FACTORY CALIBRATED AND REQUIRES NO ADDITIONAL CALIBRATION

MEASURES IN MICRONS, PSIA, INHG, PASCALS, TORR, MTORR, AND MBAR

DURATION OF BACKLIGHT IS PROGRAMMABLE

LARGE, EASY TO READ LCD SCREEN

PROGRAMMABLE SHUT-OFF

IF SENSOR GETS CONTAMINATED, CLEAN WITH SIMPLE ALCOHOL



PART NO.	DESCRIPTION
DV-40	Hand held digital vacuum gauge
DV-41	DV-40 with protective carrying case and AC adapter
DV-40C	Protective carrying case and adapter only
DV-40AC	A/C Adapter
DV-40HK	Replacement Hanging Hook
P90009	Replacement o-ring (10 pack)

*The DV-40 is not recommended for connection to vacuum pump when blanking off isolation valve. The preferred hook-up uses the DV-29 when the blank-off valve is engaged as illustrated on page 15.

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DIGITAL MICRON GAUGES

DV-22N DIGITAL GAUGE

JB's DV-22 reads vacuum in 7 international units: Microns, PSIA, InHg, mBars, Pascals, Torr, and mTorr. The DV-22 has a micron range of 20 to 9,000 microns. It is a good idea to attach the micron gauge to the vacuum pump before evacuation to make sure the pump pulls down to at least 50 microns. If it doesn't, your pump oil is contaminated and should be changed. A compound gauge only indicates that a vacuum is being produced, but does not tell you if moisture and acids are still present in the system. Micron gauges are the only tool to accurately read the low pressure produced when evacuation/ dehydration is complete. Refer to page 7 under "How to Measure Evacuation" for more information.



RETRACTABLE HANGING HOOK

DIGITAL DISPLAY WITH SOLID STATE CIRCUITRY AUTOMATICALLY ADJUSTS FOR FLUCTUATING TEMPERATURE

SEALED TOUCH BUTTONS PROTECT AGAINST DIRT AND DUST

12 MONTH WARRANTY

MADE IN USA

EFFECTIVE RANGE 20-9000 MICRONS

LOW BATTERY INDICATOR ALERTS TO REPLACING 9-VOLT BATTERY (NOT INCLUDED)

SAVES LAST VACUUM READOUT AFTER SHUT-DOWN

LEAK-PROOF WITH O-RING COUPLER TO ENSURE PROPER REGISTER OF VACUUM

ALL METAL CONSTRUCTION INCLUDING ALL BRASS FITTINGS

POWERS OFF AFTER 10 MINUTES OF NO USE TO PRESERVE BATTERY LIFE

+32°F TO 120°F
+0°C TO 48.9°C
AMBIENT TEMPERATURE

NIST TRACEABLE



T2-4 FLARE TEE USED TO ATTACH HOSES TO GAUGE. SOLD AS AN ACCESSORY.

PART NO. DESCRIPTION

DV-22N	Hand held digital vacuum gauge
DV-24N	DV-22N with protective carrying case
DV-26N	Protective carrying case only
DV-18	A/C Adapter
P90009	1/4" replacement O-ring (10 pack)
T2-4	1/4" SAE flare tee

*The DV-22N is not recommended for connection to vacuum pump when blanking off isolation valve. The preferred hook-up uses the DV-29 when the blank-off valve is engaged as illustrated on page 15.

ATLAS REFRIGERANT CHARGING SCALE

ATLAS Refrigerant Charging Scale

The JB ATLAS refrigerant charging scale is designed for the HVAC/R industry. Every day users will appreciate the advanced solid state load cell for superior sensitivity (0.25 oz/ 10 gm) and accuracy. The ATLAS's 220 pound (100 kg) weight capacity, all metal construction, heavy duty plastic storage case, and easy to read hand held combine to make the ATLAS the best overall package in the industry. Pound for Price our 220 pound scale competes at a 110 pound price. Operates with a 9 volt battery (included).

220 LB (100 KG) CAPACITY

PIECES ARE MODULARIZED SO PARTS ARE EASILY REPLACED WITHOUT NEED TO PURCHASE ENTIRELY NEW UNIT

DISPLAYS WEIGHT IN DECIMAL POUNDS, POUNDS & OUNCES, AND KILOGRAMS

AUTO SHUT OFF AFTER 30 MINUTES TO PRESERVE BATTERY AND CAN BE DISABLED

THE ATLAS WON THE BRONZE AWARD FOR PRODUCT INNOVATION IN THE FOURTH ANNUAL 2007 ACHR DEALER DESIGN AWARD FOR THE TOOLS CATEGORY.



2007
DEALER DESIGN
AWARDS

theNEWS | BRONZE

**24 MONTH
WARRANTY**



SOLID STATE LOAD CELL ACCURATE TO 0.25OZ/ 10 GM WITHOUT NEED OF CYLINDER DIRECTLY ON CENTER OF WEIGHING PLATFORM

HANDHELD HAS A LARGE LCD SCREEN THAT CAN BE READ FROM A DISTANCE OR IN DIRECT SUNLIGHT

Technical Information

Usage	Indoor/Outdoor Not waterproof
Operating Temp.	+32°F to 122°F (0°C to +50°C)
Storage Temp.	+14°F to 140°F (-10°C to +60°C)
Humidity	85% RH @113°F (45°C), Non Condensing
Altitude	6500 feet (2000 meters)
Battery Life	Approximately 60 hours
Pollution Degree	2
Over Voltage Category	2



OPTIONAL CHARGING MODULE (DS-MOD) TURNS THE ATLAS INTO A CHARGING STATION WITHOUT THE CYLINDER EVER LEAVING THE WEIGHING PLATFORM. TRANSFERS UP TO 999 POUNDS IN CHARGING INCREMENTS OF 0.25 OZ (10GM). CONNECTION IS A 1/4" FLARE.



PART NO.	DESCRIPTION
DS-20000	220 lb weight capacity ATLAS scale
DS-MOD	Charging Module
DSR-10	Replacement communication cable
DSR-20	Replacement handheld remote
DSR-30	Replacement weighing platform

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SUPERHEAT SUBCOOLING GAUGES

SH-35N SUPERHEAT SUBCOOLING GAUGE

Our Superheat and Subcooling Gauge saves high, low, and average values for detailed analysis. The SH-35N's gauges feature a built-in R-22 table, or use the plug-in refrigerant pressure-temperature memory key. Included with gauge is a multi key, an A34000 access tee, a 6' (1.8m) dry/wet bulb temperature sensor, and 5 socks in a convenient carrying case.

DIGITAL DISPLAY WITH SOLID STATE CIRCUITRY AUTOMATICALLY ADJUSTS FOR FLUCTUATING TEMPERATURE

R-22 BUILT IN AND MULTI-REFRIGERANT KEY IS INCLUDED, SEE CHART BELOW FOR LIST OF ALL REFRIGERANTS

1 AND 24-HOUR MEMORY

SAVES HIGH, LOW, AND AVERAGE VALUES FOR DETAILED ANALYSIS

LOW BATTERY INDICATOR ALERTS REPLACING 9-VOLT BATTERY (NOT INCLUDED)

PULSATION PROOF AND ACCURATE TO ANY ELEVATION UP TO 16,000 FEET WITHOUT ADJUSTMENT FOR USE IN MOST GEOGRAPHICAL APPLICATIONS

SIMPLE TWO-BUTTON OPERATION

MADE IN USA

PART NO.	DESCRIPTION
SH-35N	Superheat/Subcooling gauge (F°) in case
SH-36N	Superheat/Subcooling gauge (C°) in case
SK-35N	Key with 32 refrigerants (2007 model) (F°)
SK-36N	Key with 32 refrigerants (2007 model) (C°)
A34000	1/4" QC x 1/4" access tee
SH-54	6' (1.8m) temperature sensor
SH-58	Temperature clamp
SH-55	Plastic carrying case
SH-56	Socks (5 pack)
SH-51	28' (8.5m) temperature sensor extension
A31992	Replacement plastic 1/4" SAE cap
DV-18	AC Adapter

R22 is built in to the SH-35N

Refrigerant data source from NIST REFRPRO software and manufacturers data.

12 MONTH WARRANTY

SEALED TOUCH BUTTONS PROTECT AGAINST DIRT AND DUST

MULTI REFRIGERANT KEY LISTING

R12	R403B	R410A	R422C
R22*	R404A	R411C	R422D
R134a	R406A	R413A	R427A
R290	R407A	R414B	R428A
R401A	R407B	R416A	R438A
R401B	R407C	R417A	R502
R402A	R408A	R422A	R507
R402B	R409A	R422B	R508B

SH-35 and SH-36 Refrigerant Keys

For prior SH-35 and SH-36 models without the multi key, refrigerant keys are available.

	PART NO. °F	PART NO. °C
R-12	SK-40012	SK-50012
R-134A	SK-40134A	SK-50134A
R-404A	SK-40404A	SK-50404A
R-410A	SK-40410A	SK-50410A
R-502	SK-40502	SK-50502
R-507	SK-40507	SK-50507

Technical Information

	STANDARD	METRIC
Pressure Disp. Range	29 InHg to 600 psig	(-98 kPa to 4134 kPa)
Temp Display Range	-40° F to 200° F	-40° C to 93° C
Operating Temp	32° F to 176° F	0° C to 80° C
Max. Overpressure	800 psig	5512 kPa

SUPERHEAT SUBCOOLING GAUGES

DEEP VACUUM

CHARGING EQUIPMENT

GAUGES

HOSES

ACCESS VALVES

TOOLS & ACCESSORIES

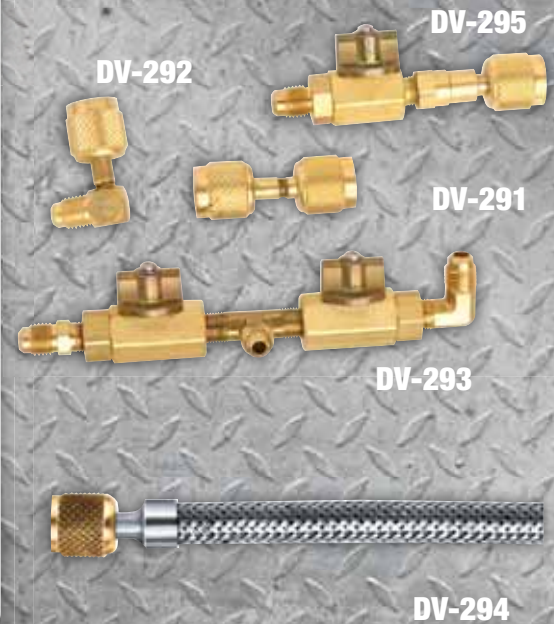
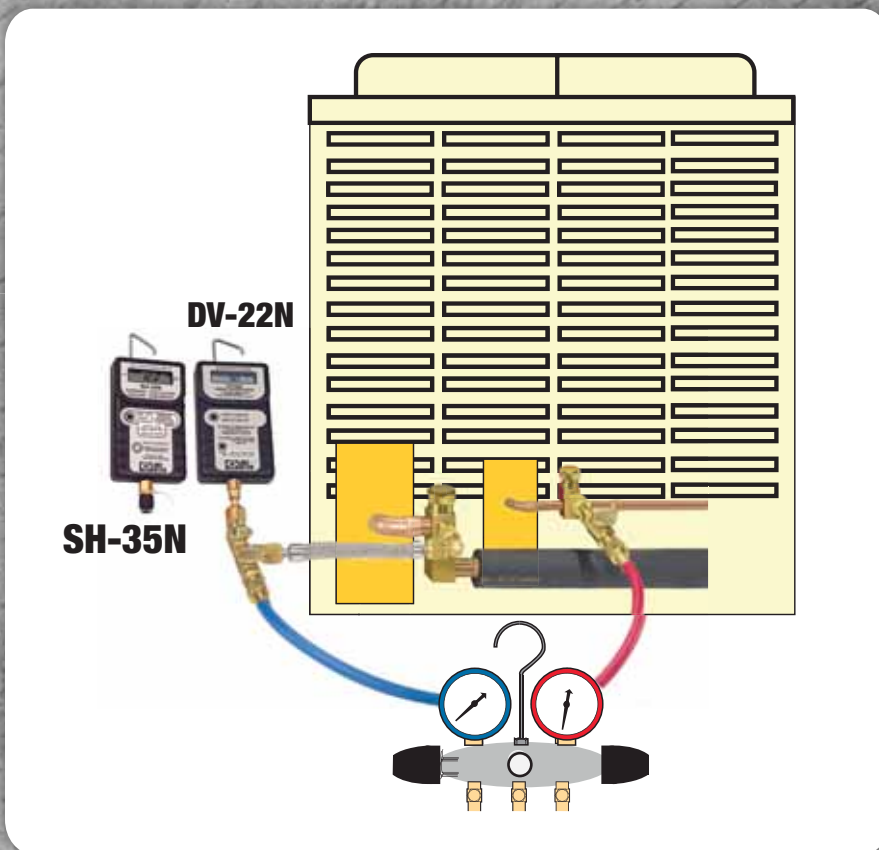
BRASS FITTINGS

REPAIR PARTS

INDEX

DV-29 Micron and Superheat Gauge Hookup Test Unit

Used in conjunction with our micron gauges DV-40 or DV-22N and our superheat/ subcool gauge the SH-35N, the DV-29 ensures a leak proof setup. JB's DV-29 works with all micron gauges and creates a closed system, eliminating any leakage under deep vacuum. The DV-29 eliminates other problems when attaching the micron gauge into the system. If the micron gauge is attached directly to the vacuum pump or with a 3' (91.4 cm) dedicated hose, you will get a lower reading as the gauge is sensing what the pump is doing and not what the pump is doing to the system.



PART NO. DESCRIPTION

DV-29	Entire hook up system
DV-291	Replacement 1/4" SAE swivel coupler
DV-294	Replacement 10" (25.4 cm) metal hose with O-ring
DV-295	Replacement Ball Valve with O-ring QC and depressor
DV-292	Replacement 90° male flare with 1/4" O-ring QC
DV-293	Replacement valve assembly 1/4" MFL connector
P90009	Replacement O-ring (10 pack)

USED IN CONJUNCTION WITH OUR DV-22N AND SH-35N, THE DV-29 ENSURES A LEAK PROOF SETUP THE DV-29 CONSISTS OF ONE EACH OF THE FOLLOWING:

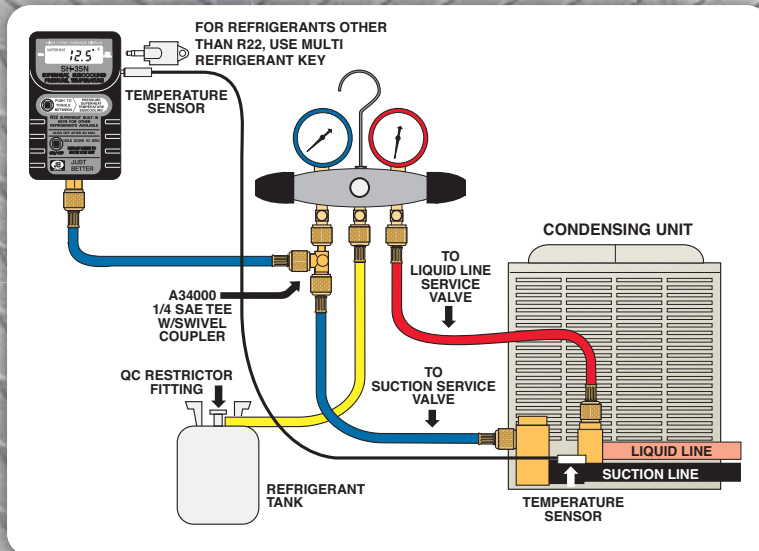
- 10" (25.4 CM) METAL HOSE WITH O-RING QUICK COUPLERS (DV-294)
- 90° MALE FLARE WITH 1/4" O-RING QUICK COUPLER (DV-292)
- BALL VALVE WITH O-RING QUICK COUPLER WITH DEPRESSOR (DV-295)
- VALVE ASSEMBLY WITH 1/4" MALE FLARE CONNECTIONS (DV-293)

CHARGING AND TESTING METHODS

CHARGING METHODS

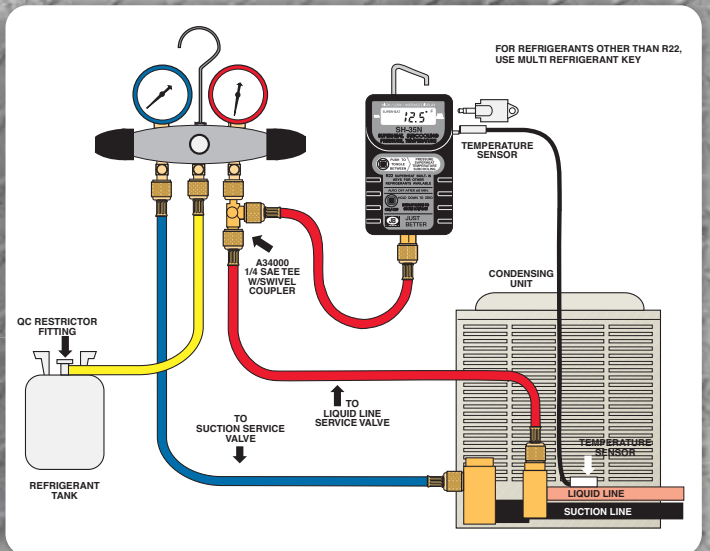
Charging by superheat method
RESIDENTIAL A/C OR REFRIGERATION SYSTEMS EQUIPPED WITH TXV AND RECEIVER, CAPILLARY TUBE, OR METERING DEVICE

CONTACT MANUFACTURER OR WHOLESALE FOR SUPERHEAT NUMBER.



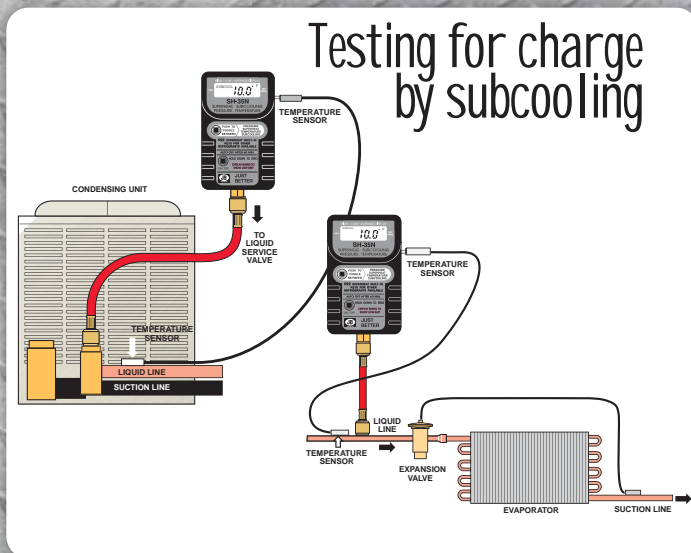
Charging by subcooling method
CONTACT MANUFACTURER OR WHOLESALE FOR SUBCOOLING NUMBER.

Average subcooling value is 10°-12°F.

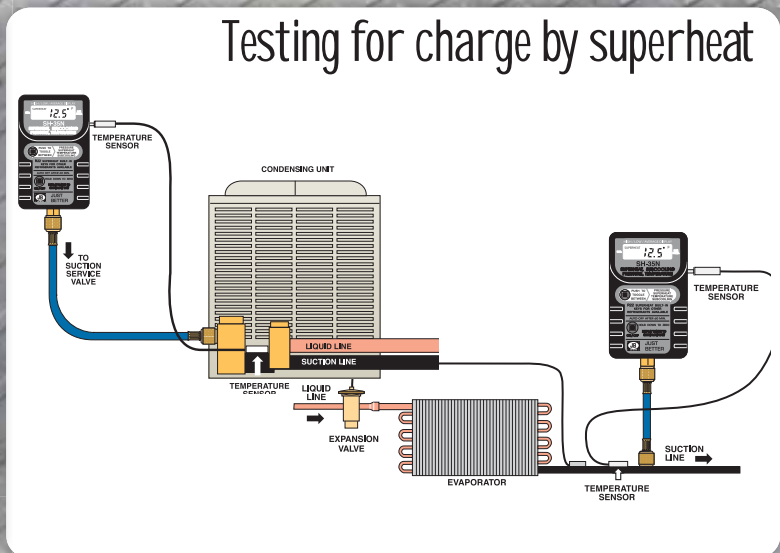


TESTING METHODS

Testing for charge by subcooling



Testing for charge by superheat



*For refrigerants other than R22, use multi refrigerant key
Operating instructions available under Technical Information at www.jbind.com

DEEP VACUUM
CHARGING EQUIPMENT
GAUGES
HOSES
ACCESS VALVES
TOOLS & ACCESSORIES
BRASS FITTINGS
REPAIR PARTS
INDEX

DIGITAL MANIFOLD

Most Intelligent Manifold on the Market

The Award winning DM-2 is the most intelligent manifold on the market. Combining a superheat/subcooling gauge with a charging and testing manifold and temperature gauge, the DM-2 is a must for the serious service technician. Calibration, calculation, and conversion are automatic, thereby eliminating errors and ensuring that you charge correctly. The built-in capabilities of this unit make it low maintenance, accurate, and quick. Many functions are instant and continue to analyze and record up to 24 hours. This year, we are proud to introduce the four valve version of our digital manifold. This product is so revolutionary and vital for the job, that it has won the Dealer Design Awards TWICE. Our two valve won the gold medal in 2006, and our four valve version won the bronze medal for 2008.

DEEP VACUUM
CHARGING EQUIPMENT
GAUGES
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12 MONTH WARRANTY

HEAVY-DUTY RUBBER BOOT

EASY-TO-USE DISPLAY
RENDERS INSTRUCTION
BOOKLET OBSOLETE

HEAVY-DUTY/ANODIZED
ALUMINUM BODY

MADE IN USA

JB'S FAMOUS FULL FLOW DESIGN FOR FASTER EVACUATION. REFER TO PAGE 18 FOR A DESCRIPTION OF HOW OUR FULL FLOW WORKS

NOT INTENDED TO HANG ON BACK OF TRUCK

ONE TEMPERATURE SENSOR AND ONE CLAMP TO MEASURE TEMPERATURE DROP ACROSS A COOLING COIL

COMBINES SUPERHEAT AND SUBCOOLING GAUGE WITH STANDARD MANIFOLD CAPABILITIES

32 REFRIGERANTS BUILT IN. PLEASE SEE CHART ON NEXT PAGE FOR REFRIGERANTS

ADVANCED SOFTWARE ALLOWS FOR QUICK CONVERSIONS FROM °F TO °C AND PSI TO KPA

AUTO CALIBRATES TO ZERO FOR THE ELEVATION EACH TIME TURNED ON WITHOUT PRESSURE

SHOWS LOW SIDE AND HIGH SIDE PRESSURES IN SEPARATE DISPLAYS

SUPERHEAT AND SUBCOOLING TEMPERATURES SHOWN SIMULTANEOUSLY

OPERATES ON 9-VOLT BATTERY

PROVIDES MIN., MAX., AND AVG. VALUE FOR ANY DISPLAY



2007
DEALER DESIGN AWARDS

theNEWS | **BRONZE**

DIGITAL MANIFOLD

DEEP VACUUM

CHARGING EQUIPMENT

GAUGES

HOSES

ACCESS VALVES

TOOLS & ACCESSORIES

BRASS FITTINGS

REPAIR PARTS

INDEX

Technical Information



	STANDARD	METRIC
Pressure Disp. Range	0 to 600 psig	(0 to 4134 kPa)
Temp Display Range	-40° F to 200° F	-40° C to 93° C
Operating Temp	32° F to 176° F	0° C to 80° C
Max. Overpressure	800 psig	5512 kPa
	R-410A rated	

PRESSURE RANGE +/- 1 PSI TO 200 PSI (+/- 1.5° C)
TEMPERATURE RANGE +/- 1°F (+/- 10°C)

BUILT-IN REFRIGERANTS FOR THE DIGITAL MANIFOLD:

R12	R403B	R410A	R422C
R22	R404A	R411C	R422D
R134a	R406A	R413A	R427A
R290	R407A	R414B	R428A
R401A	R407B	R416A	R438A
R401B	R407C	R417A	R502
R402A	R408A	R422A	R507
R402B	R409A	R422B	R508B



THE DIGITAL MANIFOLD WON THE PRODUCT DESIGN GOLD AWARD FOR 2006 (TWO VALVE VERSION) AND THE BRONZE AWARD FOR 2008 (FOUR VALVE VERSION) IN THE ACHR DEALER DESIGN AWARDS FOR THE TOOLS CATEGORY

PART NO. DESCRIPTION

DM2-8	2-valve digital manifold (no hoses) with temperature sensor and case
DM2-5	2-valve digital manifold with 60" (152 cm) Kobra® hoses, temperature sensor, and case
DM2-3	2-valve digital manifold with 60" (152 cm) Kobra® hoses, temperature clamp and sensor, and case
DV4-3	4-valve digital manifold with 60" (152 cm) Kobra® hoses, temperature clamp and sensor, and case
DM2-103	Case only (fits both 2 and 4 valve versions)
SH-51	28' (8.5 m) temperature sensor extension
SH-60	6' (1.8 m) temperature sensor with right elbow
SH-59	Temperature clamp
SH-56	Socks (5 pack)
DMB	Protective rubber boot (retrofits all DM2 models)
A34000	1/4" QC x 1/4" access branch tee



STANDARD BRASS 2-VALVE MANIFOLD

The Industry Standard

An industry standard for countless years, the JB M2 series of manifolds features our full flow design for faster evacuation/charging. Coupled with an angled bar for better knuckle clearance in rotating the hand wheels and the original free floating dual O-ring sealing system, the M2 is the classic American made manifold. All of JB's brass manifolds are equipped with heavy-duty metal gauge cases for added durability.

SURGE DAMPENED GAUGES FOR REDUCED NEEDLE MOVEMENT

ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM FOR FASTER EVACUATION/CHARGING. SEE BELOW FOR DESCRIPTION

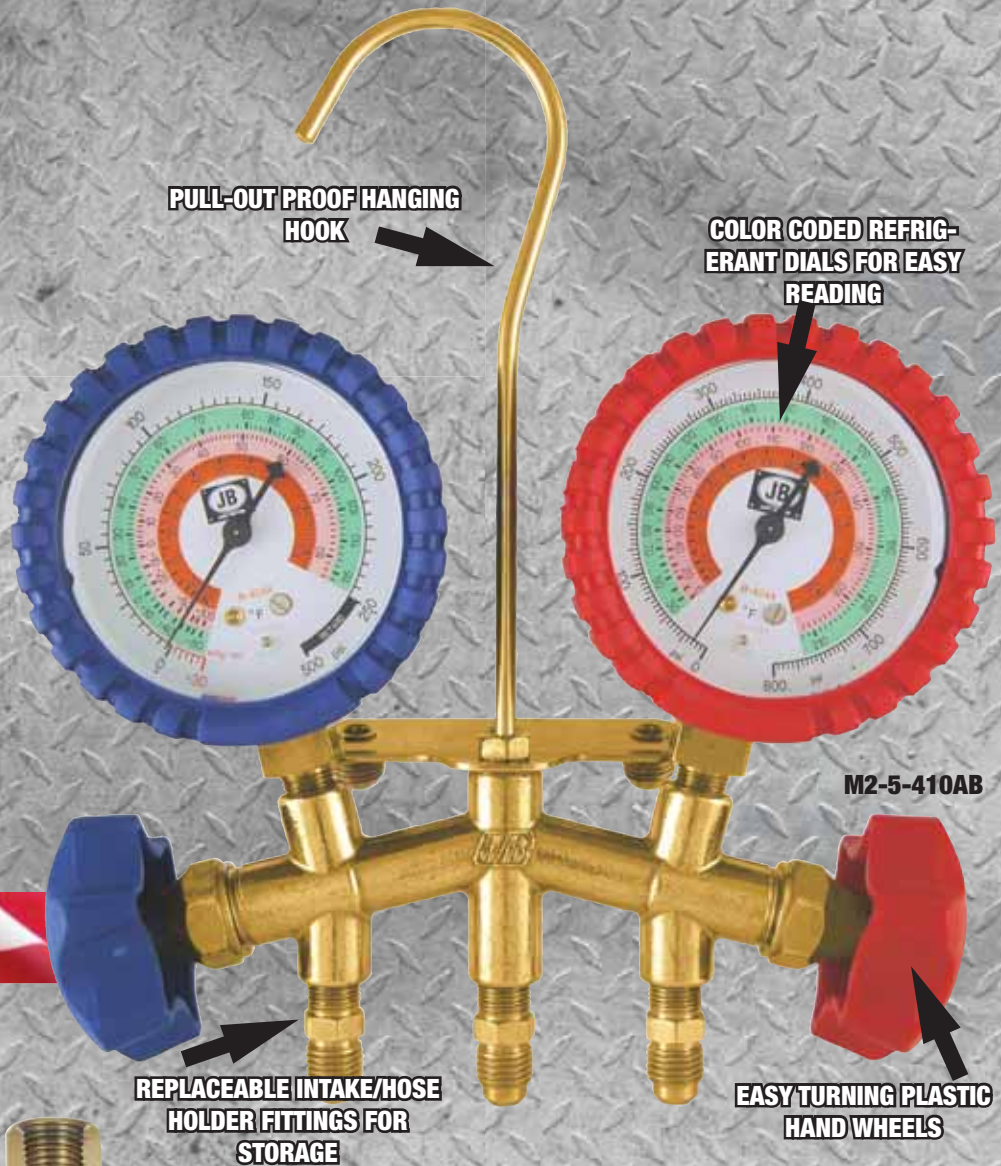
AVAILABLE FOR USE WITH R410A

AVAILABLE WITH 2-1/2" AND 3-1/8" SIZE GAUGES WITH AND WITHOUT BOOT

METRIC INFORMATION

OFFERED WITH 63.5 MM (2-1/2") METRIC GAUGES READING BAR/PSI, KPA/PSI, AND KG/CM². FOR INFORMATION ON METRIC VERSIONS, PLEASE REFER TO PAGE 28.

MADE IN USA



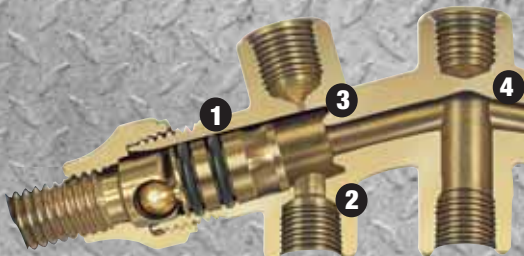
PULL-OUT PROOF HANGING HOOK

COLOR CODED REFRIG-ERANT DIALS FOR EASY READING

M2-5-410AB

REPLACEABLE INTAKE/HOSE HOLDER FITTINGS FOR STORAGE

EASY TURNING PLASTIC HANDWHEELS



ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM

- 1. DOUBLE O-RING**
- 2. STEM SEATS RETRACT COMPLETELY FROM FULL FLOW PATH**
- 3. ZERO LEAKAGE HIGH PRESSURE RAISED SEAT FOR POSITIVE SEATING**
- 4. DOUBLE SIZE FLOW PATH THROUGHOUT LENGTH OF CENTER PORT**

GAUGE FEATURES AND REPLACEMENTS ARE DETAILED ON PAGE 31.

METRIC VERSIONS ARE DETAILED ON PAGE 28.

KOBRA HOSES ARE DETAILED BEGINNING ON PAGE 36.

REFER TO "MANIFOLD REPAIR PARTS" BEGINNING ON PAGE 75 FOR ALL JB MANIFOLD REPAIR PARTS

STANDARD BRASS 2-VALVE MANIFOLD

TO FIND THE RIGHT MANIFOLD

1. CHOOSE THE DESIRED REFRIGERANT COMBINATION
2. SELECT THE HOSE SET THAT SUITS YOUR NEEDS
3. MOVE ACROSS THE CHART TO FIND THE GAUGES AND YOUR MODEL NUMBER

R-12
R-22
R-502

Includes (3) 60" hoses unless otherwise noted	Standard 2-1/2" gauges	2-1/2" gauges with boots	Glow-in-the-dark 3-1/8" gauges	3-1/8" gauges with 1% accuracy
NO HOSE SET	M2-8	M2-8B	-----	-----
CL (36" RB, 60" Y)	M2-6	M2-6B	-----	-----
CL 60"	M2-5	M2-5B	-----	-----
CL 36"	M2-36	M2-36B	-----	-----

R-22
R-134a
R-404A

NO HOSE SET	M2-21125	M2-21125B	M2-22125	M2-23125
1/4" CCLE 60" KOBRA® HOSE	M2-21131	M2-21131B	M2-22131	M2-23131

R-22
R-404A
R-410A

NO HOSE SET	M2-8-410A	M2-8-410AB	M2-22225	M2-23225
CCLE 60"	M2-5-410A	M2-5-410AB	M2-22231	M2-23231

R-410A

NO HOSE SET	M2-21525	M2-21525B	M2-22525	-----
CCLE 60"	M2-21531	M2-21531B	M2-22531	-----

R-427A
R-422b
R-407A

NO HOSE SET	-----	-----	M2-22325	-----
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R-22
R-410A
R-407C

NO HOSE SET	-----	-----	M2-22425	-----
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GAUGE BOOTS FOR THE 2-1/2" AND 3-1/8" ARE DETAILED ON PAGE 34.
IF YOU DO NOT SEE A REFRIGERANT COMBINATION, PLEASE CONTACT US AT 800-323-0811.

1/4" PREMIUM BRASS 2-VALVE ZEPPELIN®

ZEPPELIN

2-VALVE PREMIUM BRASS MANIFOLD

SURGE DAMPENED GAUGES FOR REDUCED NEEDLE MOVEMENT

ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM FOR FASTER EVACUATION/CHARGING. SEE PAGE 18 FOR DESCRIPTION

AVAILABLE FOR USE WITH R410A

AVAILABLE WITH 2-1/2" AND 3-1/8" SIZE GAUGES

ALL MODELS AVAILABLE WITH AND WITHOUT SIGHT GLASS

COLOR CODED REFRIGERANT DIALS FOR EASY READING

PULL-OUT PROOF HANGING HOOK

23225

HEAVY-DUTY FORGED BRASS BODY IS RUGGED AND DURABLE

MADE IN USA

SOFT GRIP RUBBER HAND WHEELS REDUCE TURNING TO OPEN/CLOSE

REPLACEABLE INTAKE/HOSE HOLDER FITTINGS FOR STORAGE (ON BACK)

2-Valve Premium Brass Manifold

The American made Zeppelin® series of manifolds are available in brass and aluminum. This series features durable molded "Soft Grip" rubber handles that eases opening and closing while the improved stem design means "Full Open" in only 2½ turns. Featured here, the brass Zeppelin® series, available only in 2-valve, also incorporates cutting edge styling and technology to significantly reduce the weight of the manifold.

In addition to the new look, JB also offers an increased selection of gauges in metal cases and refrigerant combinations. Standard 2-1/2", large glow-in-the-dark 3-1/8", and liquid-filled 3-1/8" gauges can be coupled with different refrigerant combinations and JB's multiple hose options to serve any application. All manifolds include a 60" (152.3 cm) hose set unless noted otherwise.

GAUGE FEATURES AND REPLACEMENTS ARE DETAILED ON PAGE 31.

DEEP VACUUM

CHARGING EQUIPMENT

GAUGES

HOSES

ACCESS VALVES

TOOLS & ACCESSORIES

BRASS FITTINGS

REPAIR PARTS

INDEX

1/4" PREMIUM BRASS 2-VALVE ZEPPELIN®

TO FIND THE RIGHT MANIFOLD

1. CHOOSE THE DESIRED REFRIGERANT COMBINATION
2. SELECT THE HOSE SET THAT SUITS YOUR NEEDS
3. MOVE ACROSS THE CHART TO FIND THE GAUGES AND YOUR MODEL NUMBER

R-12
R-22
R-502
(Replaces M8 series)

Includes (3) 60" hoses unless otherwise noted	Standard 2-1/2" gauges	3-1/8" Liquid filled gauges	Glow-in-the-dark 3-1/8" gauges
NO HOSE SET	23000	23050	23025
1/4" CL STANDARD HOSE SET	23004	-----	23029
1/4" CLE KOBRA® HOSE SET	23006	23056	23031*
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	23013	23063	23038
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	23017	23067	23042

*23031 available with sight glass, order 23033

R-22
R-134a
R-404A

NO HOSE SET	23100	23150	23125
1/4" CLE KOBRA® HOSE SET	23106	23156	23131*
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	23113	23163	23138
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	23117	23167	23142

*23131 available with sight glass, order 23133

R-22
R-404A
R-410A

NO HOSE SET	23200	23250	23225
1/4" CLE KOBRA® HOSE SET	23206	23256	23231*
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	23213	23263	23238
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	-----	23267	-----

*23231 available with sight glass, order 23233

R-134a
R-404A
R-507

NO HOSE SET	23300	-----	23325
1/4" CLE KOBRA® HOSE SET	23306	-----	23331
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	23313	-----	23338
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	23317	-----	23342

(Replaces M5 series)

GAUGES DO NOT ILLUMINATE.

R-410A
(Replaces M7 series)

NO HOSE SET	23500	-----	23525
1/4" & 5/16" CLE KOBRA® HOSE SET	23510	-----	23535
1/4" CLE KOBRA® HOSE SET	23506	-----	23531*
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	23513	-----	23538*
1/4" CLV KOBRA® HOSE W/ WHIP END	23521	-----	23546

*23531 available with sight glass, order 23533

*23238 available with sight glass, order 23540

GAUGE BOOTS FOR THE 2-1/2" AND 3-1/8" ARE DETAILED ON PAGE 34.
IF YOU DO NOT SEE A REFRIGERANT COMBINATION, PLEASE CONTACT US AT 800-323-0811.

1/4" ALUMINUM 2-VALVE ZEPPELIN®

ZEPPELIN 2-VALVE ALUMINUM MANIFOLD

2-Valve ALUMINUM Manifold

The American made Zeppelin® series of manifolds are available in brass and aluminum. This series features durable molded "Soft Grip" rubber handles that eases opening and closing while the improved stem design means "Full Open" in only 2½ turns. Featured here, the aluminum Zeppelin® series, available in 2-valve and 4-valve, also incorporates cutting edge styling and technology to significantly reduce the weight of the manifold.

In addition to the new look, JB also offers an increased selection of gauges in metal cases and refrigerant combinations. Standard 2-1/2", large glow-in-the-dark 3-1/8", and liquid-filled 3-1/8" gauges can be coupled with different refrigerant combinations and JB's multiple hose options to serve any application. All manifolds include a 60" (152.3 cm) hose set unless noted otherwise.

SURGE DAMPENED GAUGES FOR REDUCED NEEDLE MOVEMENT

ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM FOR FASTER EVACUATION/CHARGING. SEE PAGE 18 FOR DESCRIPTION

AVAILABLE FOR USE WITH R410A

AVAILABLE WITH 2-1/2" AND 3-1/8" SIZE GAUGES

ALL MODELS AVAILABLE WITH AND WITHOUT SIGHT GLASS

COLOR CODED REFRIGERANT DIALS FOR EASY READING

PULL-OUT PROOF HANGING HOOK

24225

MADE IN USA

METRIC INFORMATION

OFFERED WITH 63.5 MM (2-1/2") METRIC GAUGES READING BAR/PSI, KPA/PSI, AND KG/CM². FOR INFORMATION ON METRIC VERSIONS, PLEASE REFER TO PAGE 29.

SOFT GRIP RUBBER HAND WHEELS REDUCE TURNING TO OPEN/CLOSE

PRECISELY MACHINED ANODIZED ALUMINUM BODY

REPLACEABLE INTAKE/HOSE HOLDER FITTINGS FOR STORAGE (ON BACK)

GAUGE FEATURES AND REPLACEMENTS ARE DETAILED ON PAGE 31. METRIC VERSIONS ARE DETAILED ON PAGE 34.

1/4" ALUMINUM 2-VALVE ZEPPELIN®

R-12
R-22
R-502

Includes (3) 60" hoses unless otherwise noted	Standard 2-1/2" gauges	3-1/8" Liquid filled gauges	Glow-in-the-dark 3-1/8" gauges
NO HOSE SET	24000	24050	24025
1/4" CLE KOBRA® HOSE SET	24008	24058	24033
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	24065	24040
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	-----	24069	24044

R-22
R-134a
R-404A

NO HOSE SET	24100	24150	24125
1/4" CLE KOBRA® HOSE SET	24108	24158	24133
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	24165	24140
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	-----	24169	24144

R-22
R-404A
R-410A

NO HOSE SET	24200	24250	24225
1/4" CLE KOBRA® HOSE SET	24208	24258	24233
1/4" CLV KOBRA® HOSE W/ WHIP END	-----	24265	24240

GAUGES DO NOT ILLUMINATE.

R-410A

NO HOSE SET	24500	-----	24525
1/4" CLE KOBRA® HOSE SET	24508	-----	24533

R-22
R-134a
R-404A
R-410A

NO HOSE SET	-----	24600	-----
1/4" CLE KOBRA® HOSE SET	-----	24608	-----
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	24615	-----

R-427A
R-422b
R-407A

NO HOSE SET	-----	-----	24325
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R-22
R-410A
R-407C

NO HOSE SET	-----	-----	24425
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GAUGE BOOTS FOR THE 2-1/2" AND 3-1/8" ARE DETAILED ON PAGE 34.
IF YOU DO NOT SEE A REFRIGERANT COMBINATION, PLEASE CONTACT US AT 800-323-0811.

DEEP VACUUM

CHARGING EQUIPMENT

GAUGES

HOSES

ACCESS VALVES

TOOLS & ACCESSORIES

BRASS FITTINGS

REPAIR PARTS

INDEX

STANDARD BRASS 4-VALVE MANIFOLD

NEW ECONOMY 4-VALVE

JB introduces the newest member of our manifold family, the M4. Designed from our industry standard two valve model, the M4 features the same free flowing dual o-ring sealing system. This American made manifold is rugged and durable.

SURGE DAMPENED GAUGES FOR REDUCED NEEDLE MOVEMENT

ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM FOR FASTER EVACUATION/CHARGING. SEE BELOW FOR DESCRIPTION

AVAILABLE FOR USE WITH R410A

AVAILABLE WITH 2-1/2" AND 3-1/8" SIZE GAUGES WITH AND WITHOUT BOOT

MADE IN USA

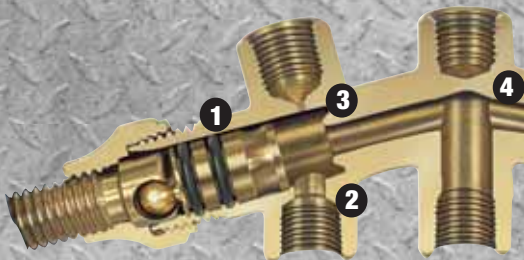


PULL-OUT PROOF HANGING HOOK

COLOR CODED REFRIG-ERANT DIALS FOR EASY READING

EASY TURNING PLASTIC HAND WHEELS

REPLACEABLE INTAKE/HOSE HOLDER FITTINGS FOR STORAGE



ORIGINAL FREE FLOATING DUAL O-RING SEALING SYSTEM

- 1. DOUBLE O-RING**
- 2. STEM SEATS RETRACT COMPLETELY FROM FULL FLOW PATH**
- 3. ZERO LEAKAGE HIGH PRESSURE RAISED SEAT FOR POSITIVE SEATING**
- 4. DOUBLE SIZE FLOW PATH THROUGHOUT LENGTH OF CENTER PORT**

GAUGE FEATURES AND REPLACEMENTS ARE DETAILED ON PAGE 31.

KOBRA HOSES ARE DETAILED BEGINNING ON PAGE 36.

REFER TO "MANIFOLD REPAIR PARTS" BEGINNING ON PAGE 75 FOR ALL JB MANIFOLD REPAIR PARTS

STANDARD BRASS 4-VALVE MANIFOLD

TO FIND THE RIGHT MANIFOLD

1. CHOOSE THE DESIRED REFRIGERANT COMBINATION
2. SELECT THE HOSE SET THAT SUITS YOUR NEEDS
3. MOVE ACROSS THE CHART TO FIND THE GAUGES AND YOUR MODEL NUMBER

R-12
R-22
R-502

Includes (4) 60" hoses unless otherwise noted	Standard 2-1/2" gauges	2-1/2" gauges with boots	Glow-in-the-dark 3-1/8" gauges
NO HOSE SET	M4-8	M4-8B	-----
CL 60"	M4-5	M4-5B	-----
CL 36"	M4-36	M4-36B	-----

R-22
R-134a
R-404A

NO HOSE SET	M4-21125	M4-21125B	M4-22125
1/4" CCLE 60" KOBRA® HOSE	M4-21131	M4-21131B	M4-22131

R-22
R-404A
R-410A

NO HOSE SET	M4-8-410A	M4-8-410AB	M4-22225
CCLE 60"	M4-5-410A	M4-5-410AB	M4-22231

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3/8" ALUMINUM 4-VALVE ZEPPELIN®

ZEPPELIN

4-VALVE ALUMINUM MANIFOLD

SURGE DAMPENED GAUGES FOR REDUCED NEEDLE MOVEMENT

FULL 3/8" BORE EVACUATES 40% FASTER THAN THE COMPETING 4-VALVE MANIFOLD

AVAILABLE WITH 2-1/2" AND 3-1/8" SIZE GAUGES

SOFT GRIP RUBBER HAND WHEELS REDUCE TURNING TO OPEN/CLOSE

METRIC INFORMATION

OFFERED WITH 63.5 MM (2-1/2") METRIC GAUGES READING BAR/PSI, KPA/PSI, AND KG/CM². FOR INFORMATION ON METRIC VERSIONS, PLEASE REFER TO PAGE 30.

MADE IN USA

**FULL 3/8" BORE
EVACUATES
40% FASTER**

HEAVY-DUTY FORGED ALUMINUM BODY IS RUGGED AND DURABLE

SIGHT GLASS STANDARD ON ALL 4-VALVE MODLES

REPLACEABLE INTAKE/HOSE HOLDER FITTINGS FOR STORAGE (ON BACK)

COLOR CODED REFRIGERANT DIALS FOR EASY READING

PULL-OUT PROOF HANGING HOOK



25325

4-Valve ALUMINUM Manifold

The American-made Zeppelin® series of manifolds. Available in brass and aluminum, this series features durable molded "Soft Grip" rubber handles that eases opening and closing while the improved stem design means "Full Open" in only 2½ turns. The aluminum Zeppelin® series, available in 2- and 4- valve, also incorporates cutting edge styling and technology to significantly reduce the weight of the manifold.

In addition to the new look, JB also offers an increased selection of gauges in metal cases and refrigerant combinations. Standard 2-1/2", large 3-1/8" glow-in-the-dark, and large 3-1/8" liquid-filled gauges can be coupled with different refrigerant combinations and JB's multiple hose options to serve any application. All manifolds include a 60" (152 cm) hose set unless noted otherwise.

**GAUGE FEATURES AND REPLACEMENTS ARE DETAILED ON PAGE 31.
METRIC VERSIONS ARE DETAILED ON PAGE 34.**

3/8" ALUMINUM 4-VALVE ZEPPELIN®

Includes (4) 60" hoses unless otherwise noted	Standard	3-1/8" Liquid	Glow-in-the-dark
	2-1/2" gauges	filled gauges	3-1/8" gauges
NO HOSE SET	25000	25050	25025
1/4" CLE KOBRA® HOSE SET	25008	25058	25033
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	25065	25040
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	-----	25069	25044

NO HOSE SET	25100	25150	25125
1/4" CLE KOBRA® HOSE SET	25108	25158	25133
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	25165	25140
1/4" CLS KOBRA® HOSE W/ SECURE SEAL	-----	25169	25144

NO HOSE SET	25200	25250	25225
1/4" CLE KOBRA® HOSE SET	25208	25258	25233
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	25265	25240
1/4" CLV KOBRA® HOSE W/ WHIP END	-----	25269	25244

NO HOSE SET	-----	-----	25325
-------------	-------	-------	-------

NO HOSE SET	-----	-----	25425
-------------	-------	-------	-------

GAUGES DO NOT ILLUMINATE.

NO HOSE SET	25500	25550	25525
1/4" CLE KOBRA® HOSE SET	25508	25558	25533
1/4" CLV KOBRA® HOSE W/ WHIP END	25523	25573	25548

NO HOSE SET	-----	25600	-----
1/4" CLE KOBRA® HOSE SET	-----	25608	-----
1/4" CLBV KOBRA® HOSE W/ BALL VALVE	-----	25615	-----

R-12
R-22
R-502

R-22
R-134a
R-404A

R-22
R-404A
R-410A

R-427A
R-422b
R407-A

R-22
R-410A
R407-C

R-410A

R-22
R-134a
R-404A
R-410A

GAUGE BOOTS FOR THE 2-1/2" AND 3-1/8" ARE DETAILED ON PAGE 34.
IF YOU DO NOT SEE A REFRIGERANT COMBINATION, PLEASE CONTACT US AT 800-323-0811.

M2 METRIC BRASS MANIFOLDS

M2 Metric Brass Manifold

JB's classic forged brass manifold is offered with 63.5 mm (2-1/2") metric gauges in BAR/PSI, kPA/PSI, and kg/cm² as well as Standard CL and Kobra® CLE series hoses. Look to page 18 for all the features of JB's brass manifold.

Available with 80 mm (3-1/8") metric gauges in select quantities. For more information, please contact sales@jbind.com or 800.323.0811.



MADE IN USA

Includes (3) 60" hoses (unless noted)	BAR/PSI	kPA/PSI	kg/cm ²
---------------------------------------	---------	---------	--------------------

R-134a

No hose set	28502	28202	28102
1/4" CLA standard hose with quick couplers	28505	28205	28105

R-12
R-22
R-502

No hose set	28572	28272	28172
1/4" CL standard hose set (36"/91 cm hose)	28570	28270	28170
1/4" CL standard hose set (60"/152 cm hose)	28574	28274	28174
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	28576	28276	28176

R-134a
R-404A
R-507

No hose set	28582	28282	28182
1/4" CL standard hose set (36"/91 cm hose)	28580	28280	28180
1/4" CL standard hose set (60"/152 cm hose)	28584	28284	28184
1/4" CLE Kobra® hose (60"/152 cm hose)	28586	28286	28186
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	28588	28288	28188

R-22
R-404A
R-410A

No hose set	28592	28292	28192
1/4" CLE Kobra® hose set	28596	28296	28196
5/16", 1/4", 5/16" CLE Kobra® hose set	28597	28297	28197
1/4" CLB Kobra® hose set with ball valve	28599	28299	28199

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METRIC ZEPPELIN® MANIFOLD

Metric Aluminum Zeppelin®

JB's Zeppelin® manifold is offered with 63.5 mm (2-1/2") metric gauges in BAR/PSI, kPA/PSI, and kg/cm² as well as Standard CL and Kobra® CLE series hoses. Look to page 22 for all the features of JB's 2-valve aluminum manifold.

Available with 80 mm (3-1/8") metric gauges in select quantities. For more information, please contact sales@jbind.com or 800.323.0811.



Includes (3) 60" hoses (unless noted)	BAR/PSI	kPA/PSI	kg/cm ²
---------------------------------------	---------	---------	--------------------

R-134a

No hose set	28732	28832	28932
1/4" CL standard hose with quick couplers	28735	28835	28935

R-22

R-404A

R-410A

No hose set	28752	28852	28952
1/4" CLE Kobra® hose set	28754	28854	28954
1/4" CLBV Kobra® hose set with ball valve	28759	28859	28959

R-12

R-22

R-502

No hose set	28772	28872	28972
1/4" CL standard hose set (36"/91 cm hose)	28770	28870	28970
1/4" CL standard hose set (60"/152 cm hose)	28774	28874	28974
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	28776	28876	28976

R-134a

R-404A

R-507

No hose set	28782	28882	28982
1/4" CL standard hose set (36"/91 cm hose)	28780	28880	28980
1/4" CL standard hose set (60"/152 cm hose)	28784	28884	28984
1/4" CLE Kobra® hose (60"/152 cm hose)	28786	28886	28986
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	28788	28888	28988

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4-VALVE METRIC ZEPPELIN® MANIFOLD

4-Valve Metric Aluminum Zeppelin®

Evacuate, charge, or test your system without disconnecting hoses with JB's 4-valve aluminum manifold. This manifold is offered with 63.5 mm (2-1/2") metric gauges and CL and Kobra® CLE series hoses. See page 26 for all the features of the 4-valve manifold. JB's four valve is a full 3/8" bore which renders it 40% faster than the leading competitor.

Available with 80 mm (3-1/8") metric gauges in select quantities. For more information, please contact sales@jbind.com or 800.323.0811.



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R-12
R-22
R-502

Includes (4) 60" hoses (unless noted)	BAR/PSI	kPA/PSI	kg/cm ²
No hose set	27772	27872	27972
1/4" CL standard hose set (36"/91 cm hose)	27770	27870	27970
1/4" CL standard hose set (60"/152 cm hose)	27774	27874	27974
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	27776	27876	27976

R-22
R-404A
R-410A

No hose set	27752	27852	27952
1/4" CLE Kobra® hose set	27754	27854	27954
1/4" CLB Kobra® hose set with ball valve	27759	27859	27959

R-134a
R-404A
R-507

No hose set	27782	27882	27982
1/4" CL standard hose set (36"/91 cm hose)	27780	27880	27980
1/4" CL standard hose set (60"/152 cm hose)	27784	27884	27984
1/4" CLE Kobra® hose set (60"/152 cm hose)	27786	27886	27986
1/4" CLS Kobra® hose with secure seal (60"/152 cm hose)	27788	27888	27988

2-1/2" STANDARD GAUGES

MADE IN USA

REFRIGERANTS	COMPOUND STEEL CASE	PRESSURE STEEL CASE
R-12, R-22, R-502*	M2-250	M2-500
R-22, R-134a, R-404A	M2-430	M2-435
R-22, R-404, R-410A*	M2-460	M2-465
R-134a, R-404A, R-507	M2-420	M2-425
R-134a	M2-350	M2-355
R-410A	M2-410	M2-415

*Also available in brass cases: Compound M2-250B and Pressure M2-500B and Compound M2-460B and Pressure M2-465B.

2-1/2" (63.5 mm) Gauges

These high quality, all steel case standard gauges are identical to the gauges used on our manifold sets. They are surge dampened for accuracy. Gauges are sensitive instruments and therefore should not be subjected to pressures beyond scale.

- High impact clear view Lexan lens
- Recalibration screw
- Full size brass movements
- 1/8" MPT connections



R-134a, R-404A and R-507 Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



R-12, R-22 and R-502 Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



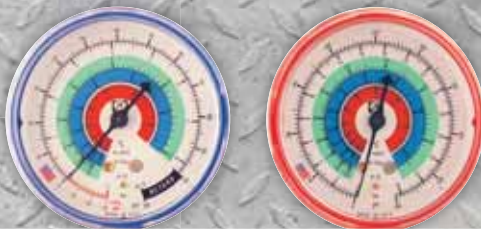
R-410A Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



R-134a Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



R-22, R-134a, R-404A Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



R-22, R-404, R-410A Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi

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3-1/8" GLOW-IN-THE-DARK GAUGES

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Illuminated Gauges

JB offers 3-1/8" (80 mm) illuminated gauges. The glow-in-the-dark dials store energy to emit light in dimly lit or dark applications. The R-410A only gauge are not glow-in-the-dark due to their pink dial. The illuminated large gauges are also available with a 1% accuracy rating. Please refer to the 1% accuracy area on the manifold charts for refrigerant combination availability.

MADE IN USA

REFRIGERANTS

COMPOUND STEEL CASE ILLUMINATED

PRESSURE STEEL CASE ILLUMINATED

R-12, R-22, R-502
 R-22, R-134a, R-404A
 R-22, R-404, R-410A
 R-410A
 R-22, R-410A, R-407C
 R427A, R422B, R407A

M2-800
 M2-851
 M2-820
 M2-810
 M2-830
 M2-828

M2-805
 M2-856
 M2-825
 M2-815
 M2-831
 M2-829



M2-851 and M2-856

R-134a, R-404A and R-507 Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi



R-22, R-410A and R-407C Refrigerant Gauges

Compound Gauge: 30" vacuum to 250 psi, retard to 500 psi. Pressure Gauge: 0 to 800 psi



M2-810 and M2-815
 (Note: These gauges do not illuminate)

R-410A Refrigerant Gauges

Compound Gauge: 30" vacuum to 250 psi, retard to 500 psi. Pressure Gauge: 0 to 800 psi



R427A, R422B and R407A Refrigerant Gauges

Compound Gauge: 30" vacuum to 250 psi, retard to 500 psi. Pressure Gauge: 0 to 800 psi



M2-820 and M2-825

R-22, R-404, R-410A Refrigerant Gauges

Compound Gauge: 30" vacuum to 250 psi, retard to 500 psi. Pressure Gauge: 0 to 800 psi

not pictured

R-12, R-22 and R-502 Refrigerant Gauges

Compound Gauge: 30" vacuum to 120 psi, retard to 350 psi. Pressure Gauge: 0 to 500 psi

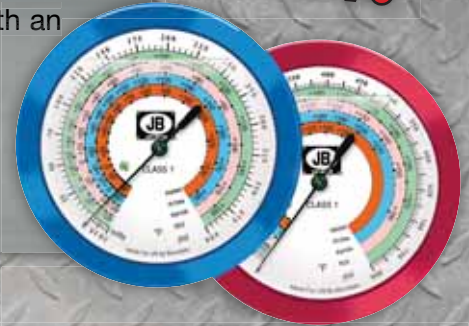
3-1/8" LIQUID FILLED GAUGES

3-1/8" (80 mm) Liquid-filled Gauges

Made with European craftsmanship and quality standards, these Class 1 gauges are +/- 1% accuracy. These liquid filled gauges are offered with an exclusive four refrigerant combination dial for most applications.

- CLASS 1 GAUGES FOR 1% ACCURACY
- RECALIBRATION SCREW
- HEAVY-DUTY CASE WITHSTANDS DAILY USE
- NO LEAK SYSTEM PREVENTS GLYCERIN LEAK

JB exclusive



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EXCLUSIVE four refrigerant combination dial for most applications.

REFRIGERANTS

R-22, R-134a, R-404A, R-410A

COMPOUND LIQUID-FILLED

M2-860

PRESSURE LIQUID-FILLED

M2-865



3-1/8" (80 mm) Liquid-filled Gauges

These 3-1/8" (80 mm) American-made liquid-filled gauges are simply the toughest in the industry and are backed by an extended warranty. Features an internal "breathing diaphragm" that eliminates air bubbles which can distort the reading. Thus, calibration is unnecessary. The seal on the internal diaphragm prevents freezing and corrosion.

MADE IN USA

- HIGHLY ACCURATE TO 1%
- 1/8" MPT FITTING
- TOUGH, IMPACT-RESISTANT ZYTEL CASING WITH OVER 10,000 POUND TENSILE STRENGTH
- TEMPERATURE COMPENSATED FOR CHANGES IN CASE PRESSURE FOR ACCURACY

REFRIGERANTS

R-12, R-22, R-50
R-22, R-134a, R-404A
R-22, R-404, R-410A

COMPOUND LIQUID-FILLED

M2-870
M2-880
M2-890

PRESSURE LIQUID-FILLED

M2-875
M2-885
M2-895

3-1/8" Class One Gauges

Certified for 1% accuracy, these 80 mm replacement gauges. Please refer to page 19 for ordering information on these gauges on our M2 brass manifold body.

REFRIGERANTS

R-22, R-134a, R-404A
R-22, R-404A, R-410A

COMPOUND STEEL CASE

M2-951
M2-924

PRESSURE STEEL CASE

M2-956
M2-925



MADE IN USA

MANIFOLD ACCESSORIES

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63.5 mm (2-1/2") Metric Gauges

These high quality metric gauges are identical to the gauges used on our manifold sets. Featuring high impact Lexan lenses for better durability and visibility. Gauges are sensitive instruments and therefore should not be subjected to pressures beyond scale. Please refer to pages 28-30 for product information on metric manifolds.

- AVAILABLE IN BAR/PSI, KPA/PSI, AND KG/CM² MEASUREMENTS
- FULL SIZE BRASS MOVEMENTS
- FULL SIZE BRASS MOVEMENTS
- RECALIBRATION SCREW
- 1/8" MPT CONNECTION

MADE IN USA



Refrigerant Combination	Compound BAR/PSI	Pressure BAR/PSI	Compound kPA/PSI	Pressure kPA/PSI	Compound kPA/PSI	Pressure kPA/PSI
R-12, R-22, R-502	29280	29285	29260	29263	29384	29385
R-22, R-404, R-410A	29310	29315	29311	29316	29312	29317
R-134a, R-404A, R-410A	29290	29295	29291	29296	29292	29297
R-134a	29330	29335	29331	29336	29332	29337

FOR SAFETY REASONS, GAUGES AND HOSES NOT SPECIFIED FOR R410 CAN DAMAGE PRODUCT AND CAUSE INJURY.

Protective Gauge Boots

Protective gauge boots add even more durability to both 2-1/2" (63.5 mm) and 3-1/8" (80 mm) gauges on your manifold. They are not required on liquid-filled gauges.

PART NO.	DESCRIPTION
MR-591	2-1/2" Red boot
MR-592	2-1/2" Blue boot
MR-594	3-1/8" Red four refrigerant liquid gauge boot
MR-595	3-1/8" Blue four refrigerant liquid gauge boot
MR-593	3-1/8" Black boot



MANIFOLD ACCESSORIES

Controls Pump

The controls pump is used in conjunction with a gauge manifold to quickly and accurately test and set single or dual pressure controls to 350 psi and 25" of vacuum.

PART NO.	DESCRIPTION
40200	Controls pump with 40201
40201	Replacement Adapter with O-Ring
40202	Replacement Adapter O-Ring
40203	Replacement Pressure access valve with 35 psi core
40204	Replacement Piston O-Ring
40205	Replacement Pressure valve core 35 psi
40206	Replacement Vacuum valve core 3 psi
40207	Replacement Vacuum access valve with 3 psi core

Replacement Lens

PART NO.	DESCRIPTION
MR-517	2-1/2" (63.5 mm) Gauge case screw-on lens (one) fits plastic and metal
MR-533	80 mm Gauge case snap-on lens (one)

Gauge Mounting Brackets

PART NO.	DESCRIPTION
M2-106	1/8" FPT
M2-108	1/4" FPT

LIQUID CHARGING ADAPTER

Metering element reduces liquid flow to a level below capacity of compressor. This assures a safe, fast charge without damaging the compressor.

Accepts liquid refrigerant from the cylinder and discharges into low side of the system. Liquid charging is recommended when charging blends into refrigeration and air conditioning systems, and a liquid charger adapter is necessary for safe and fast liquid charging through the low side of a system.

Eliminates the time and effort of heating cylinders

PART NO.	DESCRIPTION
LC-4	1/4" Liquid Charging Adapter
LC-5	5/16" Liquid Charging Adapter



manifold rebuild kits

Rebuild kits are now available for our manifold series. Standard rebuild kits include a stem, nut, piston with seat, and o-rings. Premium rebuild kits feature 2 standard kits plus 2 handwheels and screws. For a complete list of manifold repair parts, please refer to the manifold repair parts section beginning on page 75.

PART NO.	DESCRIPTION
M2R-S	Standard M2 rebuild (also fits M5 thru M9 series)
M2R-P	Premium M2 rebuild (fits M2 series only)
M4R-S	Standard M4 rebuild
M4R-P	Premium M4 rebuild
2VZR-S	Standard Zeppelin 2-valve rebuild (fits both Aluminum and brass)
2VZR-P	Premium Zeppelin 2-valve rebuild (fits both aluminum and brass)
4VZR-S	Standard Zeppelin 4-valve rebuild
4VZR-P	Premium Zeppelin 4-valve rebuild

FOR SAFETY REASONS, GAUGES AND HOSES NOT SPECIFIED FOR R-410A CAN DAMAGE PRODUCT AND CAUSE INJURY. FOR MANIFOLD REPLACEMENT PARTS, PLEASE REFER TO "MANIFOLD REPAIR PARTS" BEGINNING ON PAGE 75.

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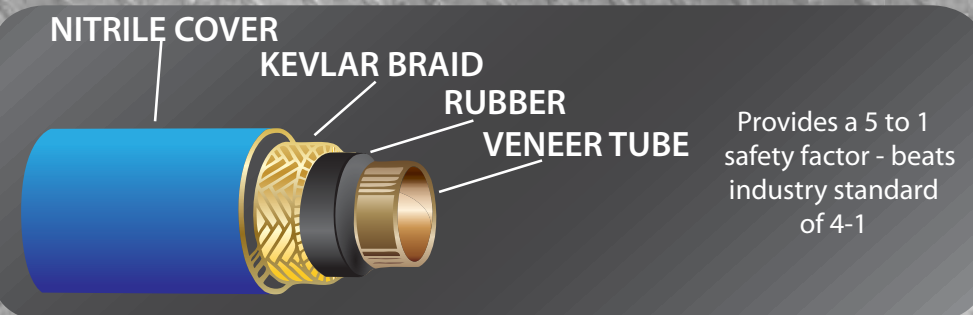
KOBRA® HIGH PRESSURE HOSE

KOBRA® HIGH PRESSURE HOSE

MAXIMUM FLOW. NO BLOWOUTS. BEST HOSE IN THE INDUSTRY

JB introduces a revolutionary patent pending design improvement to our American-made Kobra series of high pressure hoses. The internal enhancements significantly reduce blowouts, provide maximum flow, and are the best hoses available on the market. We have redesigned the gasket, the barb, the depressor, and the cup as a complete upgrade to the existing hose fitting. The process of each step is outlined below. In addition, JB's Kobra® series of refrigerant hoses are made from Kevlar®—the same material that stops bullets in bullet-proof vests. The hoses are incredibly strong and flexible. A common crimp grips the full circumference of the hose, yielding a maximum hold and uniform seal that prevents leaks and busts. Kobra® hoses feature a nitrile cover which is better than neoprene because it is more resistant to oil, giving the hoses a longer life. With a pressure rating of 800 psi working and 4000 psi burst, these hoses can be used with ALL common refrigerants except ammonia.

KOBRA™ CHARGING HOSE



800 Working
4000 Burst

KOBRA™ CUT AWAY



MADE IN USA

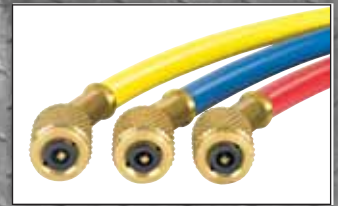
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KOBRA® HIGH PRESSURE HOSE

Kobra® CLE Series



LENGTH	BLUE	YELLOW	RED	BYR SET	BLACK
36" (91 cm)	CLE-36B	CLE-36Y	CLE-36R	CCLE-36	CLB-36
48" (122 cm)	CLE-48B	CLE-48Y	CLE-48R	CCLE-48	CLB-48
60" (152 cm)	CLE-60B	CLE-60Y	CLE-60R	CCLE-60	CLB-60
72" (182 cm)	CLE-72B	CLE-72Y	CLE-72R	CCLE-72	CLB-72
10' (3 m)	CLE-120B	CLE-120Y	CLE-120R	-----	-----
25' (7.6 m)	CLE-300B	CLE-300Y	CLE-300R	-----	-----
50' (15.2 m)	CLE-600B	CLE-600Y	CLE-600R	-----	-----
75' (22.8 m)	CLE-900B	CLE-900Y	CLE-900R	-----	-----
100' (30.5 m)	CLE-1200B	CLE-1200Y	CLE-1200R	-----	-----

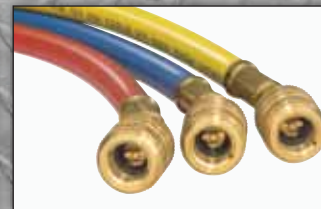


- GASKET SEAL FITTING
- DEPRESSOR SET TO ARI STANDARD FOR ACCESS VALVE CORE
- FEATURES BLOWOUT RESISTANT DEPRESSOR AND BARREL GASKET
- P90514 DEPRESSOR
- P511 GASKET

Kobra® CLS Series



LENGTH	BLUE	YELLOW	RED	BYR SET
36" (91 cm)	CLS-36B	CLS-36Y	CLS-36R	CCLS-36
48" (122 cm)	CLS-48B	CLS-48Y	CLS-48R	CCLS-48
60" (152 cm)	CLS-60B	CLS-60Y	CLS-60R	CCLS-60
72" (182 cm)	CLS-72B	CLS-72Y	CLS-72R	CCLS-72
10' (3 m)	CLS-120B	CLS-120Y	CLS-120R	-----
25' (7.6 m)	CLS-300B	CLS-300Y	CLS-300R	-----
50' (15.2 m)	CLS-600B	CLS-600Y	CLS-600R	-----
75' (22.8 m)	CLS-900B	CLS-900Y	CLS-900R	-----
100' (30.5 m)	CLS-1200B	CLS-1200Y	CLS-1200R	-----

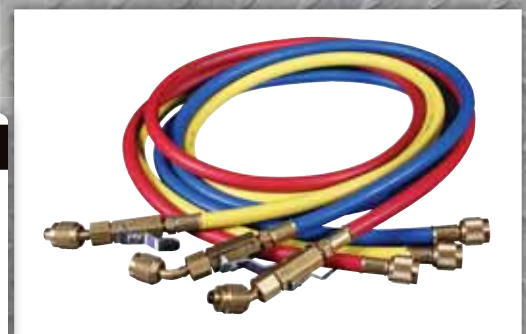


- SECURE SEAL FITTING
- OPENS TO FULL FLOW
- AUTOMATICALLY TRAPS REFRIGERANT DISCHARGE IN HOSE
- P90022 O-RING

Kobra® CLB Series



LENGTH	BLUE	YELLOW	RED	BYR SET
36" (91 cm)	CLBV-36B	CLBV-36Y	CLBV-36R	CCLBV-36
48" (122 cm)	CLBV-48B	CLBV-48Y	CLBV-48R	CCLBV-48
60" (152 cm)	CLBV-60B	CLBV-60Y	CLBV-60R	CCLBV-60
72" (182 cm)	CLBV-72B	CLBV-72Y	CLBV-72R	CCLBV-72



P90514 DEPRESSOR
P511 GASKET

Kobra® CLV Series



LENGTH	BLUE	YELLOW	RED	BYR SET
36" (91 cm)	CLV-36B	CLV-36Y	CLV-36R	CCLV-36
48" (122 cm)	CLV-48B	CLV-48Y	CLV-48R	CCLV-48
60" (152 cm)	CLV-60B	CLV-60Y	CLV-60R	CCLV-60
72" (182 cm)	CLV-72B	CLV-72Y	CLV-72R	CCLV-72



P90514 DEPRESSOR
P511 GASKET

DEEP VACUUM

CHARGING EQUIPMENT

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HIGH PRESSURE KOBRA HOSE

Whip End Only with Ball Valve

(CONNECTS TO HOSE FITTING)



LENGTH	BLUE	YELLOW	RED	BYR SET	BLACK
1/4" X 6" (15 cm)	CLV-6B	CLV-6Y	CLV-6R	CCLV-6	CLV-6BL
3/8" X 6" (15 cm)	-----	-----	-----	-----	-----

retro fit hose kit with ball valve



One 1/4" yellow whip end (CLV-6Y), one 1/4" black whip end (CLV-6BL), and one 3/8" black whip end to retro fit to existing hoses.

Whip End Only with 1/8" MPT Fitting



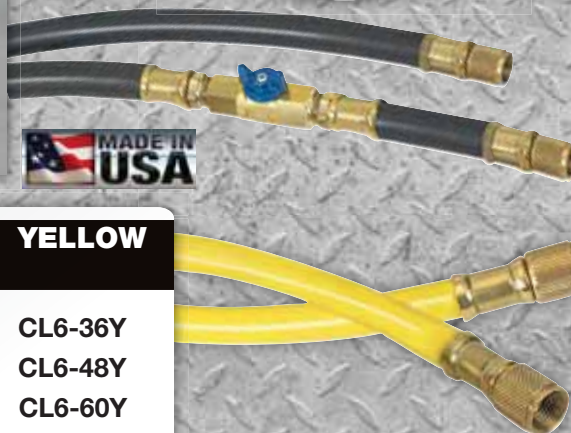
(REPLACEMENT FOR CLV)

LENGTH	BLUE	YELLOW	RED
6" (15 cm)	CLP-6B	CLP-6Y	CLP-6R

3/8" KOBRA Black and Yellow Charging Hose

Available in yellow and black, these hoses feature gasket seal fittings. Both colors of charging hose have a 500 psi working pressure and 2500 psi burst. Black hoses are available with and without UL approved Shut-off ball valve. P90012 is the replacement gasket for these hoses.

500 Working
2500 Burst



LENGTH	BLACK WITH BALL VALVE SHUT-OFF	BLACK WITHOUT VALVE	YELLOW
36" (91 cm)	CLV6-36	CL6-36	CL6-36Y
48" (122 cm)	CLV6-48	CL6-48	CL6-48Y
60" (152 cm)	CLV6-60	CL6-60	CL6-60Y
72" (182 cm)	CLV6-72	CL6-7	CL6-72Y

STANDARD CHARGING HOSE

1/4", 3/8" AND 1/2" Heavy-Duty BLACK Charging Hose

New heavy-duty charging hose reduces permeation and handle 900 psi working, 3500 psi burst. Available in black only. Straight fittings by straight fittings.

900 Working
3500 Burst



LENGTH	1/4"	3/8"	1/2"
36" (91 cm)	CL4HD-36	CL6HD-36	CL2HD-36
48" (122 cm)	CL4HD-48	CL6HD-48	CL2HD-48
60" (152 cm)	CL4HD-60	CL6HD-60	CL2HD-60
72" (182 cm)	CL4HD-72	CL6HD-72	CL2HD-72



Deep Vacuum Flexible Metal Hoses

Unlike charging hose, our flexible metal lines will not permeate under vacuum. Our metal lines feature finger-tight O-ring coupler ends.



PART NO. DESCRIPTION

D10436	1/4" x 36" flexible metal line (one 45° fitting)
D10472	1/4" x 72" flexible metal line (one 45° fitting)
D10636	3/8" x 36" flexible metal line (one 45° fitting)
D10660	3/8" x 60" flexible metal line (one 45° fitting)
P90009	1/4" replacement O-ring (10 pack)
P90012	3/8" replacement O-ring (10 pack)



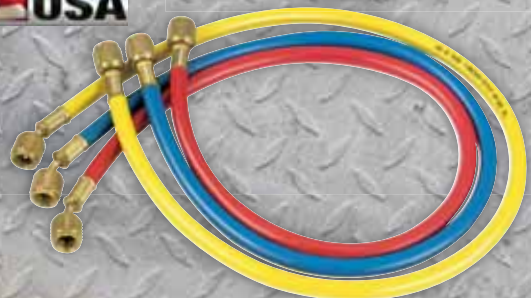
1/4" STANDARD Charging Hose

With a pressure rating of 750 psi working and 3000 psi burst, these hoses are ideal or use with all standard refrigerants (except high pressure refrigerants). Permeation can be detected and will vary with refrigerant type and time of exposure.



750 Working
3000 Burst

LENGTH	BLUE	YELLOW	RED	BYR SET
36" (91 cm)	CL-36B	CL-36Y	CL-36R	CCL-36
48" (122 cm)	CL-48B	CL-48Y	CL-48R	CCL-48
60" (152 cm)	CL-60B	CL-60Y	CL-60R	CCL-60
72" (182 cm)	CL-72B	CL-72Y	CL-72R	CCL-72



DEEP VACUUM

CHARGING EQUIPMENT

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BRASS FITTINGS

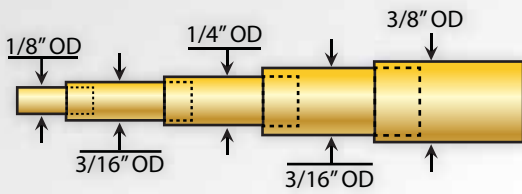
REPAIR PARTS

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ACCESS VALVES

JB machines access valves at their Aurora, Illinois facility using brass of the highest content, 65% copper and 35% zinc. This gives our brass fittings and access valves high tensile strength while resisting corrosion. If you are not buying American made brass fittings, ask yourself what is the metal content used in the imported versions, do you trust it, and can you afford to have them fail? We also machine all of our valves according to the strict specifications of ARI to ensure proper sealing of valve and core surfaces. Quality and dependability from American made products.

AC/R COPPER TUBE FITTING GUIDE



CONNECTING TUBE SIZE

OD TUBE SIZE	ODS INTERNAL TUBE FIT	ODF EXTERNAL TUBE FIT	ODF SWAGE FIT
1/8	--	3/16	--
3/16	1/8	1/4	3/16
1/4	3/16	5/16	1/4
5/16	1/4	3/8	5/16
3/8	5/16	--	3/8

ODS AND ODF FIT DESCRIPTIONS

MADE IN USA

Descriptions for solder/braze access valves specify the connecting tube OD. Size and type fit illustrated below are the types of fit for a31723 valve.

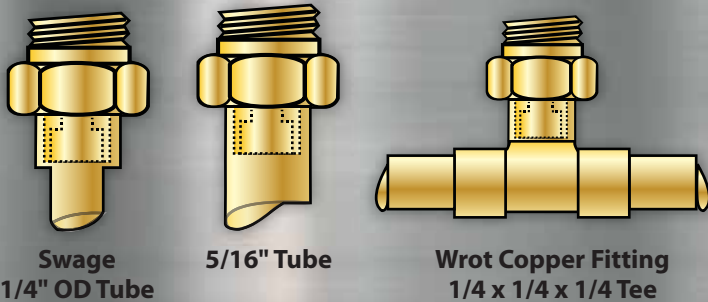
PART NO.	DESCRIPTION
A31723	3/16" ODS X 1/4" ODF

1/4" ODF FIT

Connecting line slips around access fitting. Look under the ODF heading in the AC/R Copper Tube chart above.

There are two types. JB Access Valve description for ODF is always "swage fit." The connecting tube OD is the same OD as the fitting end. Therefore A31723 above will also slip into 5/16" OD tube.

If connecting to wrought copper fitting, use ODF swage size.

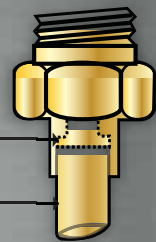


3/16" OD FIT

Connecting line slips into solder cup. Note extra depth solder cups on copper solder tees.

Internal Solder Cup

3/16" OD Tube



Nomenclature:

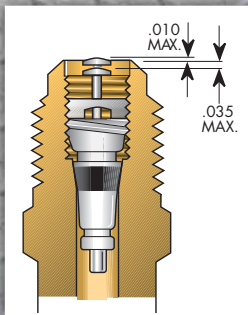
FOR EASY REFERENCE, THE LAST TWO NUMERALS OF OUR FLARE FITTINGS CORRESPOND TO THEIR RESPECTIVE TUBE SIZES:

NUM	TUBE SZ.	NUM	TUBE SZ.
02	1/8"	08	1/2"
03	3/16"	10	5/8"
04	1/4"	12	3/4"
05	5/16"	14	7/8"
06	3/8"	18	1-1/8"

ACCESS VALVES

Specifications

ARI Standard	720-2002
ARI Torque	3.0 - 5.0 inches/pound
Temp Range	-40 F° to 250 F°
Valve Bodies	Brass
Valve Core	Stainless steel and brass for use with all refrigerants such as R-12, R-22, R-134a, R-410A, and R-502. Resistant to oils, alkalites, and diluted mineral acids.



GENEROUS COUNTER BORE ALLOWS REMOVAL OF CORE IF FLARE BECOMES DAMAGED.

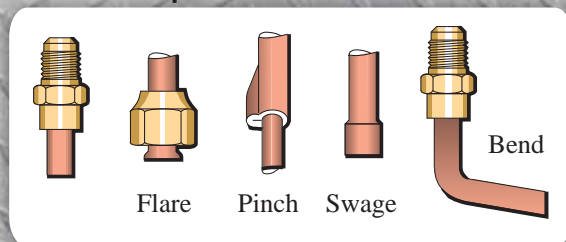
ALL TEES AND CROSSES ARE TAPPED TO RECEIVE AN ACCESS CORE IN ALL 1/4" SAE FLARE ENDS.

ALL PIPE CONNECTIONS HAVE INTERNAL BRAZE CUPS FOR DIP TUBE APPLICATIONS.

ALL VALVES ARE EQUIPPED WITH CAP AND ONE VALVE CORE (BRAZE TYPE LOOSELY ASSEMBLED).

Valve Core Pin Location
After valve installation, replace valve core with valve core tool. Torque to ARI specifications.

Multi-step

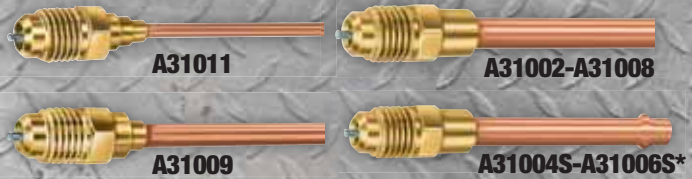


PART NO.	TUBE EXT SIZE	BLISTER PKG.
A31009	1/8" OD EXT; 3/16", 1/4" and 5/16" ODF body steps	3
A31011	3/16" OD EXT; 1/4" and 3/8" ODF body steps	3

Copper Tube Extension



Use these fittings with Sil-phos alloy and copper fittings. Install through the side of the larger line to extend length approximately two inches. Includes cap (NFT5-4) and valve core. 1/4" ID.



PART NO.	TUBE EXT. SIZE	BLISTER PKG.
A31002	1/8" OD	5
A31003	3/16" OD X 1/8" ID	5
A31004	1/4" OD X 3/16" ID	5
A31005	5/16" OD X 1/4" ID	5
A31006	3/8" OD X 5/16" ID	5
A31008	1/2" OD	5
A31004S	1/4" OD	5
A31006S	3/8" OD	5

NOTE: OD X ID sizes are for copper tube extension. For connecting line size, see chart on left for ODS and ODF fit.

Copper Saddle Braze/Tapper



The new A32800 series of saddles offer the best protection from leaks. Once brazed on, you can check for leaks before piercing the tube. The steel pin is inserted and the cap is tightened down to pierce the tube. Body sizes are contoured to match specific tube sizes. The Braze/Tapper has a hardened steel-piercing needle and is furnished with a cap.



PART NO.	TUBE SIZE	BLISTER PKG.	PART NO.	TUBE SIZE	BLISTER PKG.
*A32804	1/4"	5	*A32904	1/4"	5
*A32805	5/16"	5	*A32905	5/16"	5
*A32806	3/8"	5	*A32906	3/8"	5
*A32808	1/2"	3	*A32908	1/2"	3
*A32810	5/8"	3	*A32910	5/8"	3
*A32812	3/4"	2	*A32912	3/4"	2
*A32814	7/8"	2	*A32914	7/8"	2
*A32818	1-1/8"	2			

*Core pre-torqued to ARI specifications torque flare nut to 8 to 10 ft.lbs.

ACCESS VALVES

Copper Braze Tees

- BEND, CUT, FLARE, SWAGE OR PINCH
- EXTRA DEPTH SLIP FIT BRAZE CUPS
- SIMPLE INSTALLATION ANYWHERE ALONG LINE
- USE SIL-PHOS ALLOY



SEE PAGE 43 FOR FORGED BRASS TEES



PART NO.	SLIP FIT CONNECT LINE SIZE	OAL	LENGTH "A"	BLISTER PKG.
A31134	1/4" ODS X 5/16" ODF	2-1/8"	1"	3
A31135	5/16" ODS X 3/8" ODF	2-1/8"	1"	3
A31136	3/8" ODS X 1/2" ODF	2-1/8"	1"	3
A31138	1/2" ODS	2-1/8"	1"	3
A31140	5/8" ODS	2-1/2"	1"	1
A31142	3/4" ODS	3"	1-1/4"	1
A31144	7/8" ODS	3-1/2"	1-1/2"	1
A31148	1-1/8" ODS	3-1 3/16"	1-5/8"	1
A31154	3/16" ODS X 1" ODF	4"	1-15/16"	2
A31155	1/4" ODS X 5/16" ODF	4"	1-15/16"	2
A31156	5/16" ODS X 3/8" ODF	4"	1-15/16"	2

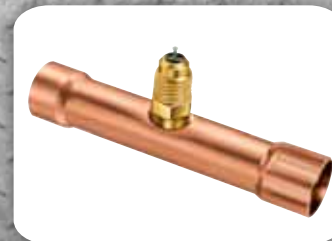
Swaged Copper Braze Tees

- SIMPLE INSTALLATION ANYWHERE ALONG LINE



- BRAZE CUP ENDS
- USE SIL-PHOS ALLOY

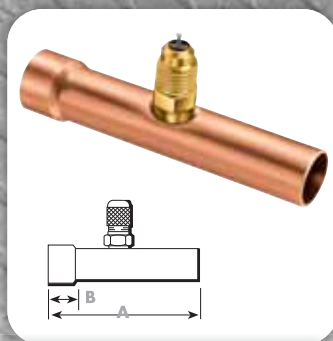
SEE PAGE 43 FOR FORGED BRASS TEES



PART NO.	SLIP FIT CONNECT LINE SIZE	OAL	BLISTER PKG.
A31334	1/4" OD	2- 1/8"	1
A31335	5/16" OD	2 -1/8"	3
A31336	3/8" OD	2- 1/8"	3
A31338	1/2" OD	2- 1/8"	3
A31340	5/8" OD	2 -1/2"	1
A31342	3/4" OD	3"	1
A31344	7/8" OD	3- 1/2"	1
A31348	1 1/8" OD	3 -13/16"	1

Copper Access Union

- INSTALL VALVE IN ANY POSITION
- USE SIL-PHOS ALLOY
- CONNECTING LINE SIZE FOR ODS AND ODF EXTERNAL TUBE ENDS



SEE PAGE 43 FOR FORGED BRASS TEES

PART NO.	CONNECTING LINE SIZE	A (OAL)	B (MIN)	BLISTER PKG.
A31199	1/4" OD	2-3/8"	5/16"	2
A31200	3/8" OD	2-3/4"	5/16"	2
A31201	1/2" OD	3"	3/8"	2
A31202	5/8" OD	3-1/4"	1/2"	2
A31204	7/8" OD	3-3/4"	3/4"	2

Multi-step



PART NO.	TUBE EXTENSION SIZE	BLISTER PKG.
A31012	1/8" ext. 1/8" and 3/16" tube	3

Copper 90° Elbow



PART NO.	CONNECTING LINE SIZE	PKG.
A31160	5/8" ODS	1
A31162	3/4" ODS	1
A31164	7/8" ODS	1
A31168	1-1/8" ODS	1

ACCESS VALVES

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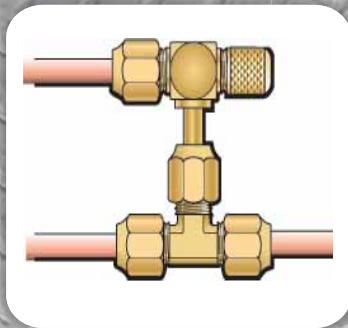
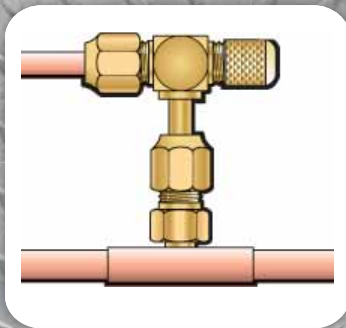
Swivel Flare Connection

Add multiple ports with just one fitting. These valves offer a safe, simple installation without the need for brazing. All of the flare ends are tapped to receive access core. JB provides a full range of various end configurations to provide greater flexibility. One core and cap are packaged with each valve.

Typical swivel flare installation

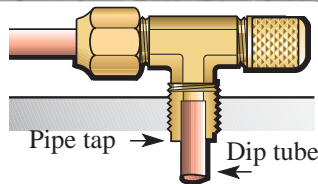
Swivel flare with core depressor installed on existing access valve. Add a new line or control. No refrigerant loss on charged system.

Valve without depressor installed on flare fitting. Multiple ports provide additional line or controls and access site.



Typical MPT Installation

All MPT connections have internal braze cup for dip tube installation.



Swivel Tee with Depressor



A31851
A31864 (no depressor)



PART NO.	DESCRIPTION	BLISTER PKG.
A31851	1/4" Fe SAE swivel nut on run	3
A31852	1/4" Fe SAE swivel nut on branch	3

Swivel Tee without Depressor



A31852
A31854 (no depressor)



PART NO.	DESCRIPTION	BLISTER PKG.
A31854	1/4" Fe SAE swivel nut on branch	3
A31864	1/4" Fe SAE swivel nut on run	3

Swivel 3/8" SAE Tee



A31853



PART NO.	DESCRIPTION	BLISTER PKG.
A31853	3/8" SAE X 3/8" Fe SAE swivel nut X 1/4" access	1
A31856	3/8" SAE X 1/4" access X 3/8" Fe SAE swivel nut	1

Swivel Cross with Depressor



A31520

PART NO.	DESCRIPTION	BLISTER PKG.
A31520	1/4" Fe SAE swivel nut x access	1

MPT Connections tee



A31452
A31454

A31512
A31514



PART NO.	DESCRIPTION	BLISTER PKG.
A31452	1/8" MPT branch	3
A31454	1/4" MPT branch	3
A31512	1/8" MPT run	3
A31514	1/4" MPT run	3

Cross with Three Access Ports



A31522



PART NO.	DESCRIPTION	BLISTER PKG.
A31522	1/8" MPT cross	1

Flared Tube Connection



A31424



A31444

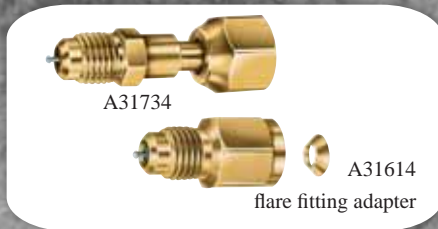


*Core pre-torqued to ARI

PART NO.	DESCRIPTION	BLISTER PKG.
*A31424	1/4" Fe SAE union w/ flare nut	3
A31444	1/4" Fe SAE tee w/ nuts	3

ACCESS VALVES

FLARE CONNECTION AND FLARE FITTING ADAPTER



*Core pre-torqued to ARI

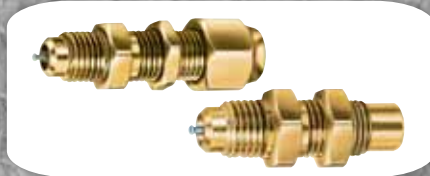
PART NO.	DESCRIPTION	BLISTER PKG.
*A31614	1/4" Fe SAE w/ copper gasket	5
*A31734	1/4" Fe SAE swivel nut w/ depressor	3

MPT CONNECTIONS



PART NO.	DESCRIPTION	BLISTER PKG.
*A31482	1/8" MPT half union	5
*A31484	1/4" MPT half union	5
*A31492	1/8" MPT elbow	3
*A31494	1/4" MPT elbow	3

bulkhead mounting



*Core pre-torqued to ARI

PART NO.	DESCRIPTION	BLISTER PKG.
*A31434	Access x 1/4" SAE w/ nut	1
*A31727	Access x 3/16" and 1/4" ODS or 3/8" ODF	1

Access valve coupler with depressor



Quickly add controls or branch line to service valve. Valve core depressed when coupler is tightened.

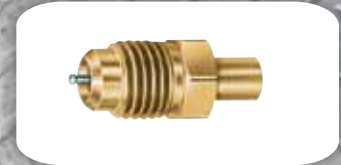
PART NO.	DESCRIPTION	BLISTER PKG.
A33004	1/4" SAE swivel flare x Male flare	1

forged brass braze tees



PART NO.	DESCRIPTION	BLISTER PKG.
A31234	1/4" ODS x 3/8" ODF	3
A31235	5/16" ODS x 3/8" ODF	3
A31236	3/8" ODS x 1/2" ODF	3
A31238	1/2" ODS x 5/8" ODF	3
A31544	1/4" ODS	3

brass bodies



PART NO.	DESCRIPTION	BLISTER PKG.
A31722	1/8" ODS x 1/4" ODF	3
A31723	3/16" ODS x 1/4" ODF	3
A31724	1/4" ODS x 3/8" ODF	3
A31725	5/16" ODS x 1/2" ODF	3
A31726	3/8" ODS x 1/2" ODF	3
A31728	1/2" ODS x 5/8" ODF	3

multi step



PART NO.	DESCRIPTION	BLISTER PKG.
A31720	3/16" ODS x 1/4" or 3/8" ODF steps	5
A31729	3/16", 1/4", 5/16", 1/2" ODF steps	3
A31736	1/8" ODS x 3/16", 1/4" or 5/16" ODF	3

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VALVE CORE TOOLS

1/2" ACME service valve



PART NO.	DESCRIPTION	BLISTER PKG.
AF-13550	1/2" ACME x 1/8" NPTF w/ 13494 cap	1

SAE 45° Brass Flared Tube Fittings



PART NO.	DESCRIPTION	BLISTER PKG.
A32600	1/4" (NS4-4)	10
A32601	5/16" (NS4-5)	5
A32602	3/8" (NS4-6)	10
A32603	1/2" (NS4-8)	5
A32604	5/8" (NS4-10)	5
A32605	3/4" (NS4-12)	2

Swivel FE Flare x Solder Adapter

DOUBLE DEEP SOLDER CUTS



A32700-04



PART NO.	DESCRIPTION	BLISTER PKG.
A32700	1/4" x 1/4" (US5-44)	4
A32701	3/8" x 3/8" (US5-66)	4
A32702	1/2" x 1/2" (US5-88)	4
A32703	5/8" x 5/8" (US5-1010)	2
A32704	3/4" x 3/4" (US5-1212)	2

1/4" Valve Core Torque Tool

The rotary torque mechanism prevents over-torquing of valve core.



PART NO.	DESCRIPTION
32002	1/4" Valve core torque tool
32003	Core remover bit replacement part

Valve core torque tool A32008



Our new valve core torque tool sets proper torque. Calibrated to precise torquing requirements for core valves, the tool will no longer tighten once proper torque is achieved. Eliminates guess work which results in under and over torquing.



Evacuation and Core Remover Tools

Specifically designed to valve off the system to remove valve core, these tools feature a quarter turn ball valve shut-off and O-ring seals. The valve core can be completely removed and replaced without losing system charge. Speed-up evacuation, recovery, or recharging time through the full flow port. Both tools have a storage area to house spare valve cores.



A32525N



A32500N

PART NO.	DESCRIPTION
A32500N	1/4" Valve core remover
A32505N	5/16" Valve core remover
A32525N	1/4" Valve core remover w/ access port
A32501N	Core remover bit for A32500N replacement part
A32504	Core remover bit for A32525N replacement part

1/4" Valve Core Tool

Complete with a hollow handle for storage of the 6 extra valve cores.



PART NO.	DESCRIPTION
A32004	1/4" Valve core tool

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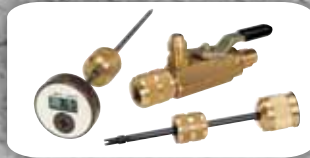
1/4" Valve Cores

PTFE/neopreneseal replacement valve core. Max 800 psi and 220°F (104°C).



PART NO.	DESCRIPTION
A31999	1/4" Valve Core (5 pack)
A31999-25	1/4" Valve Core (25 pack)
A31999-100	1/4" Valve Core (100 pack)

Evacuation Core Remove and Superheat Thermometer Tool Set



This combo set calculates superheat from -58°F to +302°F (-50°C to 150°C) with the temperature/pressure tool. All items have O-ring seals and the core remover tool has a quarter turn ball valve shut-off.

PART NO.	DESCRIPTION
A32550N	Evacuation core remover and superheat tool set
A32504	Core remover bit replacement part

Evacuation/Recovery Tool

Our evacuation/recovery tool is a plier-type tool with a quick release trigger which punctures large holes into the line for discharge of a recovery unit. Fits 3/16" to 7/8" OD hard tubing.



A31200



PART NO.	DESCRIPTION
A32100	Evacuation/Recovery tool
A32101	Hardened steel needle and gasket

Wrench Style Seal Cap

For A/C Refrigeration service. Brass to brass positive seal and permanent installation.



PART NO.	DESCRIPTION
A31986	1/4" SAE cap (5 pack)

Core Removers

A31997 is a 1/4" SAE gasket seal cap with core remover feature. A31998 is a 1/4" plastic core remover.



PART NO.	DESCRIPTION
A31997	1/4" SAE gasket seal caps with core removers (10 pack)
A31998	1/4" plastic core removers (5 pack)

O-Ring Quick Seal Caps

Deep Vacuum and A/C Refrigeration. Finger tight sealing for all male SAE connections.



PART NO.	DESCRIPTION
NFT5-4	1/4" SAE cap (10 pack)
NFT5-6	3/8" SAE cap (3 pack)
NFT5-4-100	1/4" SAE cap (100 pack)
NFT5-6-100	3/8" SAE cap (100 pack)
P90010	Replacement 1/4" O-ring (5 pack)
P90011	Replacement 3/8" O-ring (5 pack)

Quick Seal Gasket Caps

For A/C Refrigeration service. Finger tight sealing for all male SAE connections.



PART NO.	DESCRIPTION
A31985	1/4" SAE cap (10 pack)
A31985-100	1/4" SAE cap (100 pack)
P509	Replacement gasket (10 pack)
P509-25	Replacement gasket (25 pack)

Specialty Caps and 1/2" 16 ACME Caps.

PART NO.	DESCRIPTION
A31992	1/4" SAE cap (5 pack)
A31992-100	1/4" SAE cap (100 pack)
13493	Plastic cap with retainer strap (2 pack)
13494	Plastic cap (1 pack)



COUPLERS

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Quick Couplers

QC-S5

5/16" female x 1/4" male adapter is designed to give the end user the ability to connect their standard refrigeration hoses to 5/16" (1/2" UNF) fittings being used on most R-410A mini-splits. Swiveled so the adapter can remain on hoses for easy on/off application and installation.

3/8" couplers with patented O-Ring seal for deep vacuum. No depressor.

3/16" couplers with valve core depressor, safety channels and O-Ring seal



QC-S5

For 410A5/16" connections, use QC-S5

1/4" and 5/16" couplers with valve core depressor, safety channels and rubber gasket seal

Quick Coupler Shut-Off Fittings

Use with existing charging hose. Immediately traps refrigerant discharge from hose when disconnected from access fitting.



PART NO.	DESCRIPTION
33112N	1/4" QC x 1/4" SAE
33113N	1/4" QC x 1/4" SAE 90°
3311RK	Replacement kit to rebuild



Quick Coupler Access Tee

O-Ring seal quick coupler. Furnished with cap and valve core.



PART NO.	DESCRIPTION
A34000	1/4" QC x 1/4" access branch tee
P90009	Replacement O-Ring (10 pack)

straight



PART NO.	DESCRIPTION
QC-S3	3/16" QC x 1/4" SAE
QC-S4	1/4" QC x 1/4" SAE
QC-S46	1/4" QC x 3/8" SAE
QC-S5	5/16" QC x 1/4" SAE
QC-S64	3/8" QC x 1/4" SAE (no depressor)
QC-S65	3/8" QC x 5/16" SAE (no depressor)



QC-S4A

Swivel Cylinder Valve

Finger tight seal. Includes gasket.



PART NO.	DESCRIPTION
CV-20004	3/4" NPS x 1/4" M flare
CV-20006	3/4" NPS x 3/8" M flare



fto thread



PART NO.	DESCRIPTION
QC-S4A	1/4" QC X 1/8" FTP
QC-S4B	1/4" QC X 1/4" FTP



QC-S3

1/4" Core Depressor



PART NO.	DESCRIPTION
A33500	1/4" thumbscrew core depressor



Elbow



PART NO.	DESCRIPTION
QC-E3	3/16" QC X 1/4" SAE elbow
QC-E4	1/4" QC X 1/4" SAE elbow
QC-E5	5/16" QC X 1/4" SAE elbow
QC-E64	3/8" QC X 1/4" SAE elbow (no depressor)



QC-E3

Replacement Parts for quick couplers

PART NO.	DESCRIPTION
P90009	3/16" O-Ring (10 pack)
P509	1/4" gasket (6 pack)
P90513	Depressor for 1/4" QC (5 pack)
P90012	3/8" O-Ring (10 pack)

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134a Automotive Couplers

Quick connect/ disconnect valve actuation without refrigerant venting. Safety sleeve holds coupler securely to service port. Color coded knobs.



PART NO.	DESCRIPTION
AC-13430	High side 90 degree snap coupler x 14 mm
AC-13435	Low side 90 degree snap coupler x 14 mm
AC-14530	High side straight snap coupler x 14 mm
AC-14535	Low side straight snap coupler x 14 mm
AC-15530	High side 90 degree snap coupler x 1/4" SAE
AC-15535	Low side 90 degree snap coupler x 1/4" SAE

134a automotive quick adapter

Retrofit existing SAE flare fitting for 134a auto service



PART NO.	DESCRIPTION	QC GASKET
QC-S4A-134a	1/4" QC x 1/2" male ACME thread	P509
QC-13445-134a	1/2" ACME QC x 1/4" male flare	P510

1/2" Acme thread half union



PART NO.	DESCR.	PART NO.	DESCR.
AF-13450	1/8" NPTF	AF-13455	1/4" Fe SAE
AF-13451	1/4" NPTF	AF-13457	3/8" Fe SAE
AF-13452	3/8" NPTF		

Oil Tap Tube A33600



End the mess in oil changes and save time on service calls with JB's oil tap access tube. This access tube reduces motor burnout by simplifying acid tests and can be left in place for future tests and changes.



PART NO.	DESCRIPTION
A33600	Oil Tap Tube
RG-33600	Replacement Gasket

O-Ring Seal Line Piercing

Our spring loaded needle automatically back-seats, forming a leak proof seal. A simple installation that is 100% restriction free. Both models fit 1/4", 5/16", 3/8", 1/2", and 5/8" OD tubing.



PART NO.	DESCRIPTION
LT-456	1/4" - 3/8" Line piercing valve
LT-810	1/2" - 5/8" Line piercing valve

E-Z Tapper

The back-seating stem eliminates line restriction when servicing through access port or use the valve for flow control.



PART NO.	DESCRIPTION
EZ-40288	E-Z topper piercing valve
EZ-40288-126	E-Z tapper gasket (5 pack)

Back Seating Control Valve

Ideal for use on pre-charged line sets. Eliminates spraying of leak detection dye and refrigerant. Compact brass body for long service. Swivel coupler with double safety grooves.



PART NO.	DESCRIPTION
A33000	1/4" SAE x 1/4" O-ring quick coupler
P90009	Replacement O-ring (10 pack)

REFRIGERANT BALL VALVES

Full Flow Ball-Refrigeration

JB's ball-refrigeration valves have a large port design that provides a minimum pressure drop with straight through flow. Copper end fittings reduce installation time without disturbing valve. We have two types of ball valves to suit your needs. Our traditional ball valves have brass acutators and a working pressure rating of 500 psi. Our new addition ball valve features stainless steel actuators and a working pressure rating of 700 psi. We differentiate the two types here by "Brass" and "Steel". Both are UL listed.

BRASS NO PORT	STEEL NO PORT	BRASS WITH PORT	STEEL WITH PORT	DESCRIPTION
V34200	V34300	V34400	V34500	3/8" ODS extensions
V34201	V34301	V34401	V34501	1/2" ODS extensions
V34202	V34302	V34402	V34502	5/8" ODS extensions
V34203	V34303	-----	-----	3/4" ODS extensions
V34204	V34304	V34404	V34504	7/8" ODS extensions
V34206	V34306	V34406	V34506	1-1/8" ODS extensions
V34207	V34307	V34407	V34407	1-3/8" ODS extensions
V34208	V34308	V34408	V34508	1-5/8" ODS extensions
V34209	V34309	V34409	V34509	2-1/8" ODS extensions
V34210	V34310	-----	-----	2-5/8" ODS extensions
V34211	V34311	-----	-----	3-1/8" ODS extensions



"BRASS" BALL VALVE FEATURES

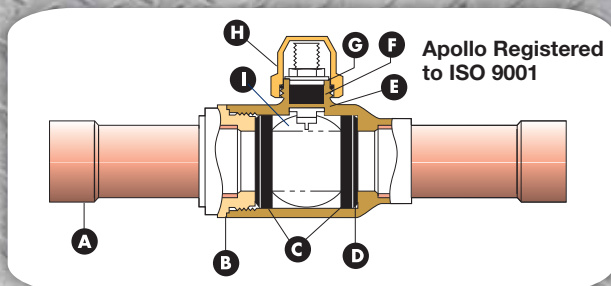
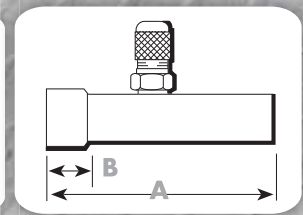
- COPPER TUBE EXTENSIONS
- HERMETIC WELDED AND BRAZED JOINTS
- REINFORCED TEFLON* SEATS
- ONE PIECE FORGED BRASS BODY
- BEARING WASHER
- CHANGEABLE REINFORCED PTFE STEM PACKING
- PACKING GLAND
- STEM CAP ASSEMBLY WITH NEOPRENE SEAL
- CHROMIUM PLATED BALL WITH VENTED

BRASS ACTUATORS
PRESSURE TO 500 PSI
UL LISTED 57R7

stainless steel
ACTUATORS
PRESSURE TO 700 PSI
UL LISTED 32DC

Copper Access Union

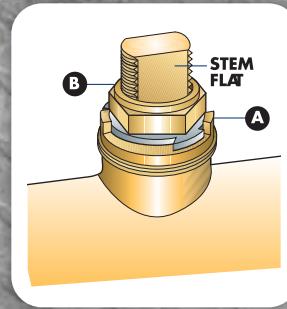
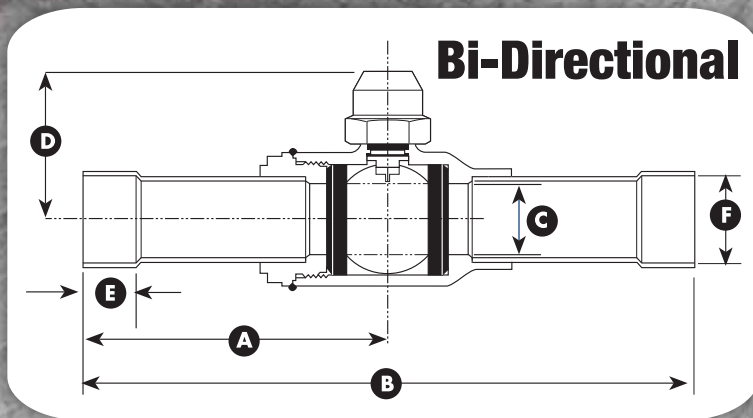
These unions can be installed in any position. They retro fit any existing ball valve with access port. Use only with phosphor copper alloy.



- 500 PSI WORKING PRESSURE
- UP TO +500° F WORKING TEMPERATURE AT 0 PSI
- UP TO +300° F WORKING TEMPERATURE AT 500 PSI
- NO BOLTED OR SCREWED BONNETS OR FLANGES TO LEAK

PART NO.	CONNECTING LINE SIZE	A (OAL)	B (MIN.)
A31199	1/4" ODS	2-3/4"	5/16"
A31200	3/8" ODS	2-3/4"	5/16"
A31201	1/2" ODS	3"	3/8"
A31202	5/8" ODS	3-1/4"	1/2"
A31204	7/8" ODS	3-3/4"	3/4"

REFRIGERANT BALL VALVES



Operation

A. Quarter turn mechanical stop. Positive open and closed positions.
B. Packing gland adjusting nut.

Part No.	O.D. Tube Size	C _v (1)	Equivalent Length (2)	Reference dimensional data						
				A	B	C	D	E	F	
V34200 V34400	3/8"	2.9"	10.8"	3.18"	6.09"	.3"	1.55"	3/8"	3/8"	
V34201 V34401	1/2"	5.6"	13.3"	3.18"	6.09"	.45"	1.55"	3/8"	1/2"	
V34202 V34402	5/8"	13.1"	10.4"	3.43"	6.59"	.5"	1.55"	1/2"	5/8"	
V34203 -----	3/4"	-----	-----	3.45"	7.27"	.69"	1.89"	3/4"	3/4"	
V34204 V34404	7/8"	31.9"	11.2"	3.69"	7.07"	.75"	1.83"	3/4"	7/8"	
V34206 V34406	1-1/8"	68"	10.7"	4.20"	8.00"	1.00"	2.01"	2-9/32"	1-1/8"	
V34207 V34407	1-3/8"	109"	11.6"	4.54"	8.63"	1.25"	2.61"	3-1/32"	1-3/8"	
V34208 V34408	1-5/8"	152"	13.2"	4.47"	8.85"	1.5"	2.79"	1-3/32"	1-5/8"	
V34209 V34409	2-1/8"	275"	15.1"	4.84"	9.59"	2.00"	3.17"	1-11/32"	2-1/8"	
V34210 -----	2-5/8"	349"	21.1"	5.00"	10.00"	2.43"	3.90"	1-31/64"	2-5/8"	
V34211 -----	3-1/8"	391"	30.1"	7.00"	14.00"	2.50"	3.90"	1-43/64"	3-1/8"	

1. This is the most commonly used flow coefficient used by piping engineers in the design of piping systems. It is defined as "the number of US gallons of water per minute at 70° F (21° C) that will flow through a valve at a pressure drop (P1-P2) of 1 psi."

2. Most engineers, contractors, and others engaged in the layout and installation of refrigeration and/or air conditioning systems will normally use the "equivalent length" method of determining the pressure drop through the systems. Since proper line sizing is critical to all installations, it is important to be able to determine the pressure drop through each component that makes up the system. "Equivalent length" figures are readily available through a number of sources for fittings, valves, etc.

Refrigeration Shut-Off Ball Valves

Ideal for building your own vacuum or charging system, our straight through flow design has no restriction. A quarter turn and the valve is fully open or closed.

PART NO.	DESCRIPTION
V34900	1/8" FPT x 1/8" FPT
V34910	3/8" FPT x 3/8" FPT



PART NO.	DESCRIPTION
V34901	1/4" SAE x 1/8" MPT
V34905	1/4" SAE x 1/4" MPT



Needle Valves

The packing used in the needle seat valves is resistant to gasoline, oils, and water while providing excellent sealing characteristics over the life of the valve. Metal to Metal seating provides ease in shut-off to working pressures of 105 psi.

Comp x Comp

PART NO.	DESCRIPTION
NV62-4	1/4" X 1/4"



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in exclusive partnership with

ROTHENBERGER
pipetool technologies at work

The partnership of **ROTHENBERGER** and JB brings together the best of German engineering and European craftsmanship with American distribution to create the highest quality tools in the HVAC/R marketplace.

ROTHENBERGER tools are made of the highest quality materials and to the strictest quality standards to ensure that these tools will not fail when you need them the most. Backed by a 24 month over-the-counter warranty, JB and **ROTHENBERGER** are dedicated to standing behind their products. We have seen a tremendous growth and acceptance in the marketplace. Through the JB distribution channel, **ROTHENBERGER** is now available in over 900 HVAC/R branch locations nationwide. Once you get your hands on these tools, you can immediately feel the quality and see why **ROTHENBERGER** tools are Just Better. We are proud to present our collection for your review. Should you not see a particular tool of interest, please contact us at 800-323-0811. The entire **ROTHENBERGER** product line and technical features can be viewed at our web site www.jbind.com.

24 MONTH WARRANTY

Mini Tube Cutters

Used for cutting copper tubes, these mini tube cutters have a large knurled knob and handy design to produce fatigue-free pressure control. The two guide rollers with recess assist with cutting close to flares. Compatible with Yellow Jacket 60120 cutting wheels.



PART NO.	DESCRIPTION
RT70401	Copper 1/8" to 5/8" OD
RT70402	Copper 1/4" to 7/8" OD
RT70105	Copper MINICUT 1/8" to 7/8" OD
RT70015	Copper MINI MAX 1/8" to 1-1/8" OD
RT70017B	Replacement cutter wheel (2 pack)
RT70017D	Replacement cutter wheel (5 pack)

ROTRAC PLUS

New JB precision tube cutters for copper tube are manufactured by **ROTHENBERGER** for JB and designed with smooth-running telescopic action for a consistent working radius. Features include a rolling stop which protects the cutter wheel, a protected screw spindle to shield against dirt and jamming, and a lightweight cast aluminum body. The deburrer swivels up, and the spare cutter wheel is stored in the handle, making them always within reach. Compatible with Yellow Jacket 60120 cutting wheels.



PART NO.	DESCRIPTION
RT70020	Copper tube 1/8" to 1-1/8" OD
RT70021	Copper tube 1/4" to 1-5/8" OD
RT70007B	Replacement cutter wheel (2 pack)
RT70007X	Replacement cutter wheel (10 pack)
RT99016	Replacement clip and axle

Professional Tube Cutter

For tubes made out of copper, brass, aluminum, this tube cutter features a retractable deburrer blade and a spare cutter wheel in the handle. The smooth adjustment knob allows for quick adjustment. Compatible with Yellow Jacket 60124 cutting wheels.



PART NO.	DESCRIPTION
RT70027	1/4" to 1-3/8" OD copper, aluminum pipe
RT70029	1/4" to 1-5/8" OD copper, aluminum pipe
RT21652B	Replacement deburring blade (10 pack)
RT70017B	Replacement cutter wheel (2 pack)
RT70017D	Replacement cutter wheel (5 pack)
RT70056D	Replacement cutter wheel for stainless steel (5 pack)

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Ratchet Tube Cutter

For copper, brass, aluminum, thin-walled steel, and plastic coated tubes, this ratchet tube cutter has a retractable internal deburring tool and spare cutter wheel in the handle so they are always within reach. The ratchet telescopic guide with automatic spring-driven withdrawal allows for quick adjustment and fast opening. RT70030 is compatible with Yellow Jacket 60120 cutting wheels.



PART NO.	DESCRIPTION
RT70030	1/8" to 2-5/8" OD
RT70142	2" to 5" OD
RT70017B	Replacement cutter wheel for RT70030 (2 pack)
RT70017D	Replacement cutter wheel for RT70030 (5 pack)
RT70057D	Replacement cutter wheel for RT70142 (5 pack)
RT21652B	Replacement deburring blade (10 pack)

Chain Tube Cutter

For copper, brass, aluminum, thin-walled steel tubes, and plastic coated tubes 1" to 2" OD. The stable chain with 15 mini cutter wheels has a two-step adjustment. Ideal for working in confined spaces like parallel-running tubes.



PART NO.	DESCRIPTION
RT70285	1" to 2" OD chain tube cutter
RT70286	Replacement cutter wheel chain

Pipe Slice

Cut tubes with less turns with this tube cutter. The self-clamping and self alignment feature make readjustment unnecessary. Ideal for those hard to reach places. Made of cast aluminum.



PART NO.	DESCRIPTION
RT88807	Nominal 3/8" OD 1/2"
RT88810	Nominal 1/2" OD 5/8"
RT88808	Nominal 5/8" OD 3/4"
RT88802	Nominal 3/4" OD 7/8"
RT88814	Nominal 1" OD 1-1/8"

PLASTICUT PEX CUTTER

For cutting pipes made of MDPE, PE, PP, HEP20, P-EX. This cutter is ideal for use in confined spaces. The unique, patented design cuts clean and square using no force to operate. The lightweight, simple to use tool is highly efficient with no moving parts.



PART NO.	DESCRIPTION
RT59060	1/2" PlastiCut PEX cutter
RT59070	3/4" PlastiCut PEX cutter
RT59080	1" PlastiCut PEX cutter
RT59000	Replacement Blades for 1/2" and 3/4"
RT59001	Replacement Blades for 1"

Steel Pipe Cutters

The easy pressure control of our pipe cutters yields optimum force transmission onto the tube. The burr-free external cutting action makes it possible to thread without deburring.

Wide rollers securely guide the cutter wheel on the tube. For 1/8" to 4" OD steel pipe.



PART NO.	DESCRIPTION
RT70045	1/8" to 2" OD steel pipe cutter
RT70060	2" to 4" OD steel pipe cutter
RT70051D	Replacement cutter wheel RT70045 (3 pack)
RT70061D	Replacement cutter wheel RT70060 (2 pack)

ROCUT 63 Pipe shears

For precise cutting of PVC, PP, PE, PEX, PB, and PVDF, our pipe shears are the finest you can find. The rugged precision shears for effortless cutting of plastic pipes. The double-sided blade and ratchet support apply precise force transfer as well as precise guided cutter feed. The shears feature a stainless steel blade with a v-edge that offers pin-point precision without deformation of pipe. The ideally meshed cutting curve allows for minimum effort. The shear arms lock for transport.



PART NO.	DESCRIPTION
RT52030	For 2" PVC Max OD 2-1/2"
RT50063	Replacement blade for RT 52030

TUBING TOOLS

Pipe Shears

For precise cutting of PVC, PP, PE, PEX, PB, and PVDF, our pipe shears are the finest you can find. The quick release lever provides automatic opening of the blade at the push of a button. A double-sided stainless steel blade with v-shaped edges pierce the pipe to prevent deformation. The wide pipe rest ensures a square cut every time. A locking lever secures the blade during transport.

RT52010

RT52000



PART NO.	DESCRIPTION
RT52000	Max. OD 1-5/8", Sched. 40 PVC 1-1/4"
RT52010	Max. OD 2", Sched. 40 PVC 1 1/2"
RT52011	Replacement blade for RT 52010
RT52042	Replacement blade for RT 52000

Deburring Tools

Internal/External deburring tools for copper and plastic tubes.



RT11006



RT70075

RT21660



RT21655

PART NO.	DESCRIPTION
RT11006	Copper and stainless steel internal/external reamer 1/8" to 1-5/8" OD
RT70075	Copper and stainless steel internal/external reamer 1/8" to 2" OD
RT21660	Deburring tool (blade non-replaceable)
RT21655	Deburring tool
RT21652B	Replacement deburring blade for RT21655 (10 pack)

RO-GRIP

With a perfect grip and better leverage, our self-adjusting pliers offer many advantages over conventional pliers. Made of drop forged chrome vanadium steel, the rhombus-shaped jaws securely grab round, hex, sheets, and other shapes up to 1-5/8" OD.



RT70558

ROLOCK

Professional-grade water pump pliers with a jaw locking system providing a secure grip on round, square, or hex-shaped items with a push of a button. The ROLOCK has 14 groove opening positions with an opening capacity of 2-1/3".



RT70533

PART NO.	DESCRIPTION
RT70531	ROLOCK 7"
RT70532	ROLOCK 9"
RT70533	ROLOCK 12"

WATER PUMP PLIERS

Complies with DIN 5321 D, these pliers are made with heavy-duty box joint, chrome vanadium steel, drop forged, tempered, and polished head and joint. The longer, thinner pliers with measurements for corners are ideal for hard to reach places. The self-clamping jaws will not slip, even on smooth surfaces.



PART NO.	DESCRIPTION
RT70521	7" Pliers Max. 1" OD
RT70522	10" Pliers Max. 1-1/4" OD
RT70523	12" Pliers Max. 1-1/2" OD

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Pipe Wrenches

Monoblock cast body with high strength, double T profile, these wrenches feature a forged jaw and hook, fine-polished teeth set against turning direction, anti-slip adjustment screw and spring supported hook. With features similar to the Heavy-duty style, the aluminum wrenches are made of high strength alloy and 40% lighter. Both styles conform to US Standard GGG-W-651 Type 1 Class A (Class B for Aluminum).



PART NO.	DESCRIPTION
RT70150	8" Heavy-duty Wrench Max. 1" OD
RT70151	10" Heavy-duty Wrench Max. 1-1/2" OD
RT70152	12" Heavy-duty Wrench Max. 2" OD
RT70153	14" Heavy-duty Wrench 2" OD
RT70154	18" Heavy Duty Wrench Max. 2-1/2" OD
RT70159	10" Aluminum Wrench Max. 1-1/2" OD
RT70160	14" Aluminum Wrench Max. 2" OD
RT70161	18" Aluminum Wrench Max. 2-1/2" OD

Chain Pipe Wrench

RT70235

With a double-sided teeth surface set against turning direction, this chain pipe wrench works in both directions without re-inserting. The wrench is 12" with a maximum OD of 4".



Hand Tube Bender

RT90614

This universal hand bender provides bending of 1/2", 5/8", 3/4" and 7/8" OD soft copper, aluminum, and light grade stainless steel tubing.



ROBEND® H-W PLUS

RT24504

For exact cold bending up to 180° of soft and hard copper, thin-walled coated copper, aluminum and brass, precision steel, and coated, seamless stainless steel tubes. Unique design provides bending without deforming the pipe. Guide shoes and formers are anti-stick for less friction and bending effort. Base plate can be attached to vice for easy, free-hand bending. Set includes bending spray, 1/2", 5/8", 7/8" formers and steel carry case.



MINIBEND® Tube Bender

RT25151

For exact, two-handed bending up to 180° for tubes made out of soft copper, brass, aluminum, and precision steel. 1/4", 5/16", and 3/8" OD.



Standard Tube Bender

For exact bending radius up to 180° for tubes made up of soft copper, aluminum, and precision steel. The light construction results in fatigue-free hand operation. The clamp mechanism better holds the tube and enables the bending of even the shortest of tube pieces.



PART NO.	DESCRIPTION
RT25140	1/4" OD Radius (0.71")
RT25131	5/16" OD Radius (0.95")
RT25141	3/8" OD Radius (1.18")
RT25913	Tube Bender Pro 1/2" OD Radius
RT25142	3/4" OD Radius
RT25136	5/8" OD Radius (2.28")

TUBING TOOLS

Tube Bender Set

RT24134

The ratchet feed of this tube bender is ideal for rapid, exact bending of small diameter soft copper and aluminum up to 90°. Designed for one hand operation, the compact design fits in even the tightest spaces. The open bending frame allows for the production of repeated alternate angled bends. Set includes bending tool, formers for 1/4", 5/16", 3/8", 1/2", and steel case.



RT24134



Spring Type Tube Bender

Ideal for irregular bends, these spring type benders are available in single springs and packaged sets. Used for soft copper, aluminum, brass, and steel.



Packaged sets

PART NO.	DESCRIPTION
BS-55	1/4", 5/16", 3/8", 1/2", and 5/8" in pouch
BS-77	All seven sizes in pouch

Single springs

PART NO.	TUBE O.D.	NOM
BS-4	1/4"	1/8"
BS-5	5/16"	
BS-6	3/8"	1/4"
BS-7	7/16"	
BS-8	1/2"	3/8"
BS-10	5/8"	1/2"
BS-12	3/4"	5/8"

MAXI Tube Bender Set

RT23022

The smooth-running feed lever of this tube bender makes it ideal in restricted spaces and one-handed operations. The side lever allows for quick release and reset of bending former. The pliers feature a bayonet catch to easily change bending formers. The open bending frame makes it possible to repeatedly produce alternate angled bends. The set consists of the basic tool, bending support, bending formers, and steel case. For use on copper and soft aluminum 3/8", 1/2", 5/8", 3/4", and 7/8".



RT23022

Single Size Swage Size stamped OD and Nominal



PART NO.	TUBE O.D.
T21002	1/8"
T21003	3/16"
T21004	1/4" Nom. 1/8"
T21005	5/16"
T21006	3/8" Nom. 1/4"
T21007	7/16"
T21008	1/2" Nom. 3/8"
T21010	5/8" Nom. 1/2"
T21012	3/4" Nom. 5/8"
T21014	7/8" Nom. 3/4"

Packaged Set T21024

Packaged swage set. Tube OD 1/4", 3/8", 1/2", and 5/8". The nominals are 1/8", 1/4", 3/8", and 1/2".

Pinch-Off Tool

T21294

This plier-type pinch-off tool temporarily closes off line while making repairs. The quick release trigger and rounded jaws prevent cutting while allowing for reopening and rounding using a standard flare bar. For 1/8" to 5/8" OD (1/8" to 1/2" Nominal).



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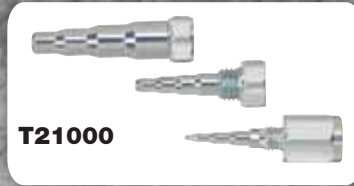
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Multi-Swage

T21000

T21000 consists of three pieces that work with OD sizes including 3/16", 3/4", and 7/8" producing perfect solder cups for 9 OD tube sizes. OD sizes are 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4", and 7/8". Nominal 1/8", 1/4", 3/8", 1/2", 5/8", and 3/4".



T21000

Multi-Swage

T20095



Handy all-in-one tool. T20095 is a single piece that works with 1/4", 5/16", 3/8", 7/16", 1/2", and 5/8" OD.



T20095

45° Flare/Swage

T20275

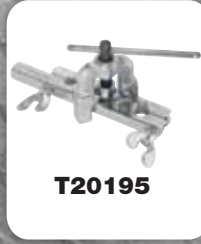
Heavy-duty wide-range bar type flaring tool. The rugged, forged steel slip-on self centering yoke has a hardened chrome plate swivel type cone to form quality flares with minimal effort. Hardened bars provide positive clamping action with minimum distortion and are fully hinged with king-sized forged steel wing nuts for easy use. The extra second bar extends our flaring tool to 9 OD tube sizes.



T20275

PART NO.	TUBE O.D.	NOM
BT20275	Flare: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", and 3/4"	Nominal Flare: 1/8", 1/4", 1/2", 5/8"
T20203	Swage: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", and 3/4"	Nominal Swage: 1/8", 1/4", 3/8", 1/2", and 5/8"

Flaring Tools



T20195



RT222402



RT222601

PART NO.	TUBE O.D.
T20195	3/16", 1/4", 5/16", 3/8", 7/16", (nom. 1/8", 1/4", 3/8", and 1/2")
T20203	5/8", 3/4", 7/8", and 1-1/8" OD
T20500	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", and 3/4" OD
RT222402	1/8", 1/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" OD
RT222601	Adjustable from 3/16" to 5/8" OD

45° Flaring Tool

RT26036 SINGLE FLARE

RT26033 DOUBLE FLARE

For making precise 45° flares on copper, brass, aluminum, and precision steel tubes up to 0.04" (1 mm) in wall thickness. The special screw thread allows proper, efficient handling of material. The "Multiblock" multi-clamping calipers provide a firm, quick off-center clamping of the tube and automatic self-centering. Flares 3/16", 1/4", 5/16", 3/8", 1/2", and 5/8".



RT26036

Swaging Kit

RT26715

For precise 45° single flares and sockets on copper, brass, aluminum, and steel tubes. Set includes flaring tool, 45° cone, expander pin, internal/external deburrer, tube cutter, and plastic case.



RT26715

Tee Extractor Set

RT22124

Extract your own tees on soft, semi-hard and hard copper or aluminum and save time and money saved on T-pieces. The ergonomic, compact design fits into the tightest spaces. The set includes tee-extractors for 1/2", 5/8", 7/8" and 1-1/8", ratchet handle, cam pincer, high-speed drill, and steel case.



RT22124

Tube Expander Kit

RT12318

The high strength, forged aluminum body make for lower weight and easy handling of our expander set. The longer lever arms reduce effort and the automatic pin guide retracts for faster operation. The set includes expander with riveted expander heads in 3/8", 1/2", 5/8", 3/4", 7/8", and 1-1/8", internal/external deburring tool, steel case. Replacement heads are interchangeable with Yellow Jacket and Ridgid tube expanders.



RT12318



PEX Crimper combo

RT12428

Constructed of hardened steel with Ultra-Lite fiberglass reinforced handle, this PEX crimper is ideal for making copper crimp ring connections in potable water and radiant heating applications. Each tool is supplied with a go/no go gauge. The crimp cavity does not skive the copper ring or cause it to fishtail during crimping process. Glass-filled composite handles reduce fatigue especially when working overhead. Minimal calibration adjustments. Meets ASTM F1807 Specifications. 1-2" and 3/4".



SUPER CUT Hand Threader

RT70905X

Precision thread cutting 1/4" to 2" diameter to approved standards. Slim and compact shape with excellent overall size requiring an angle of 22.5° to reach those difficult positions. The quick change die heads have a positive octagonal universal drive for a secure hold. The long pipe guide results in perfect centering. Set includes ratchet handle, die heads for 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2" NPT for steel pipe, and plastic case.



RT70905X

SUPERTRONIC 12500

This power threader features a heavy-duty helicoidal power transmission for 50% longer life. The Supertronic 12500 is constructed of durable, lightweight aluminum body and heavy-duty fiberglass reinforced plastic motor covers. Our electrical reverse reduces weight and increases portability. Maximum threading capacity of 1-1/4" is perfect for maintenance, repair, gas lines, and boiler installations. The set includes 1/2", 3/4", 1", and 1-1/4" die heads.



RT125000

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ROMAX® PRESSLINER

CORDLESS PRESS TOOL

The PRESSLINER is a high quality, battery powered press tool features a hydraulic drive and controlled, fully automatic pressing sequence for complete connections every time. The AC ECO is a high quality, cost effective 110 volt powered press tool with an innovative electro-hydraulic drive making it light, convenient, and well suited for use on the construction site. The centrally balanced design of both makes the tools easy and safe to use in all positions, even overhead. The jaw fixture rotates 270° for working in tight spaces and angles. For use with copper and brass press fittings up to 4" diameter and connections for ASTM F1807 PEX tubing up to 1-1/4" in diameter. The ROMAX Pressliner is compatible with Viega, Elkhart, and NIBCO press fittings. Please see Information Sheets under the Technical section at www.jbind.com to view compatibility statements from each company. Press rings are available in 2-1/2", 3", and 4" upon request.



PART NO.	DESCRIPTION
RT15721	AC ECO tool, 6 copper jaws 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2", carrying case
RT15720	AC ECO tool, 3 copper jaws 1/2", 3/4", and 1" carrying case
RT15422	PRESSLINER Tool, 2 batteries, charger, case
RT15423	PRESSLINER Tool, 3 copper jaws 1/2", 3/4", 1", two batteries, charger, carrying case
RT15222X	Press Jaw 1/2" copper
RT15223X	Press Jaw 3/4" copper
RT15224X	Press Jaw 1" copper
RT15225X	Press Jaw 1-1/4" copper
RT15226X	Press Jaw 1-1/2" copper
RT15227X	Press Jaw 2" copper
RT15410	ROMAX Battery
RT15416	ROMAX Battery charger
RT15031	Case for 6 jaws only

ROMAX® compact

COMPACT CORDLESS PRESS TOOL

The ROMAX® Compact light-weight, battery-powered press tool weighs only 5.4 lbs and connects copper tube and fittings in about 6 seconds. The slim profile allows one hand operation of the tool leaving the other hand free to hold and position the fitting. The 350° rotation of the jaw fixture and slim design easily reaches into tight spaces. When a press is complete, the jaws automatically release signaling the tool is ready for the next press. The ROMAX Pressliner is compatible with Viega, Elkhart, and NIBCO press fittings. Please see Information Sheets under the Technical section at www.jbind.com to view compatibility statements from each company.



PART NO.	DESCRIPTION
RT15002V	ROMAX Compact Press Tool, 3 copper jaws 1/2", 3/4", 1", two batteries, charger, case
RT15031V	Compact Press Jaw 1/2" copper
RT15032V	Compact Press Jaw 3/4" copper
RT15033V	Compact Press Jaw 1" copper
RT15010V	Battery, compact
RT15005V	Battery charger, compact
RT15013V	Carrying case, compact

Fin Straighteners

T20352 Stainless steel fin straightener.

T20351 For 8, 9, 10, 12, 14, and 15 spacings per inch.

T20353 Stainless steel fin straightener with larger, easy to grip handle.



TUBING TOOLS

Braze-Rite Adapter

BRZ1000



Nitrogen purging adapter for ACR pipe. Quickly connects to manifold gauge hose, and slips easily and securely into pipe. Allows for bleed of nitrogen through pipe being brazed, keeping the pipes clean and oxide-free. Stepped to fit most common ACR pipe sizes, making it fast to go from one tube to the next. Saves time and money and helps maintain equipment manufacturer's system performance and installation guidelines. No more duct taping your hose to the pipe!

Oil Transfer Pump

T30251

Designed to pump oil into the system while unit is operating without shutting down for charging. Smoothly pumps oil into the compressor on the down stroke while system is under pressure resulting in easier pumping on the positive stroke. The universal tapered rubber adapter is designed to fit all 1, 2-1/2, and 5 gallon containers without additional adapters. Works against 200 psi of pressure and is compatible with all oil types including synthetic, mineral, and polyol ester. Pumps 2.6 ounces (78 ml) per stroke.



T30251

Gas Pressure Test Kit

This diaphragm gauge scale comes complete in case with hose and hook-up fitting.



PART NO.

DESCRIPTION

- | | |
|-------|--|
| 29435 | Natural and LP gases. Scales 0-20 oz/sq. in; 0-35" of water column |
| 29436 | Natural gas only. Scales 0-6 oz/sq. in; 0-10" of water column |

gas test gauge

To test system pressure for leaks in new installs, use these 3" easy to read test gauges. Fits 3/4" and 1" pipes.



PART NO.

DESCRIPTION

- | | |
|---------|-------------------------------------|
| GTBG-12 | 3-1/2" Test gauge 0-30 lb. 3/4" end |
| GTBG-16 | 3-1/2" Test gauge 0-30 lb. 1" end |

Service wrenches

Double end reversible ratchet wrenches feature accurately broached multiple openings and offer the greatest number of uses in a single unit. Choose offset or hex and square ends. Items ending in "U" denote Made in the USA.



PART NO.

DESCRIPTION

- | | |
|---------|--|
| T21124 | 3/16", 1/4" square end and 1/2", 9/16" hex port end |
| T21127 | 3/16", 1/4", 5/16", and 3/8" |
| T21127U | 1/2", 3/16" on one end 3/8", 5/16" on other end |
| T21126U | Offset 1/2", 3/16" on one end 3/8", 5/16" on other end |
| T21125U | 3/8" square end and 1/2" square end |

HEX KEY ADAPTER

T2-HKA

Heat treated black oxide plated hex key adapter for accessing liquid and suction based valves. Works for 3/16" and 5/16" hex valves.



Steel Strap

Our Steel Straps are zinc plated and alternate between nail and bolt holes.



PART NO.

DESCRIPTION

- | | |
|-------|-------------------------|
| PS-10 | 10' (3 m) steel strap |
| PS-25 | 25' (7.6 m) steel strap |
| PS-50 | 50' (15 m) steel strap |



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Acid Brushes

Our acid brushes are ideal for thread sealant, flux, and past solders. Made of 100% long and stiff horsehair bristles that are evenly placed and securely crimped into tinned acid-resisting handles.



PART NO.	DESCRIPTION
C33804	1/4" flux brush (12 pack)
C33808	1/2" flux brush (10 pack)
C33808-CTN	1/2" flux brush (144 bulk)



Capillary Tubing

Short coils are boxed with application charts. Cut from 100' (30.5 m) sealed and dehydrated tube.

S/B 100' (30.5 m) Coils are boxed with conversion and application charts.



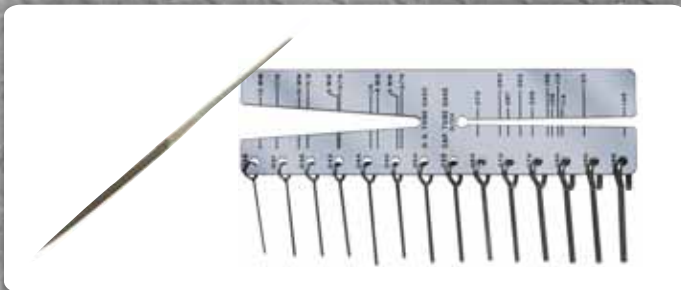
Gauge File and Cutting Tool

A10971 cap tube and file in pouch

A10972 cap tube file



Precision engineered with stainless steel wire plugs. Features a specially designed file to cut and open tubes. The numbers are etched in black for better legibility. Fourteen ID sizes from 0.026 to 0.090 and Twenty-two OD sizes from 0.072" to 7/16" (5 to 12 mm). Use both the ID and OD calibrations to correctly determine tube size. Place tube in "V" slot to measure OD. Pin gauge measures ID. The cap tube file is designed to cut and open the tube by filing a notch around the tubing at desired cutting point. Snap tube by bending at the notch and clean burrs by reaming out with the special file tip.



Cap Tube Cutting Tool

A10973

The sturdy design of our cap tube cutter results in no collapsing of the tube, clean cuts, and no chips.



Available in cartons of 10. Add suffix -101 to part number.

SHORT COIL	100' COILS	DESCRIPTION
TC-26-16	TC-26-100	0.026 ID x 0.072 OD x 16' (BC-5, GC-5)
TC-31-12	TC-31-100	0.031 ID x 0.083 OD x 12' (BC-1, GC-1)
TC-36-12	TC-36-100	0.036 ID x 0.087 OD x 12' (GC-6)
TC-42-12	TC-42-100	0.042 ID x 0.093 OD x 12' (BC-2, GC-2)
TC-44-12	TC-44-100	0.044 ID x 0.109 OD x 12'
TC-49-11	TC-49-100	0.049 ID x 0.099 OD x 11' (BC-3, GC-3, GC-7)
TC-50-11	TC-50-100	0.050 ID x 0.114 OD x 11'
TC-54-11	TC-54-100	0.054 ID x 0.106 OD x 11' (GC-8)
TC-55-11	TC-55-100	0.055 ID x 0.125 OD x 11'
TC-59-10	TC-59-100	0.059 ID x 0.112 OD x 10'
TC-64-10	TC-64-100	0.064 ID x 0.125 OD x 10' (BC-4, GC-4)
TC-70-12	TC-70-100	0.070 ID x 0.125 OD x 12' (GC-9)
TC-75-9	TC-75-100	0.075 ID x 0.125 OD x 9' (GC-10)
TC-80-10	TC-80-100	0.080 ID x 0.145 OD x 10' (GC-11)
TC-85-9	TC-85-100	0.085 ID x 0.145 OD x 9' (GC-12)
TC-90-7	TC-90-100	0.090 ID x 0.145 OD x 7'
TC-100-10	TC-100-100	0.100 ID x 0.156 OD x 10'

Cap tube length conversion chart

Part No.	TC-26	TC-31	TC-36	TC-42	TC-44	TC-49	TC-50	TC-54	TC-55	TC-59	TC-64	TC-70	TC-75	TC-80	TC-85	TC-90
Tube ID	0.026 ID	0.031 ID	0.036 ID	0.042 ID	0.044 ID	0.049 ID	0.050 ID	0.054 ID	0.055 ID	0.059 ID	0.064 ID	0.070 ID	0.075 ID	0.080 ID	0.085 ID	0.090 ID
0.024	1.44															
0.025	1.20															
0.026	1.00	2.24														
0.028	0.72	1.59														
0.030	0.52	1.16														
0.031	0.45	1.00	2.00													
0.032		0.86	1.75													
0.033		0.50	1.54													
0.034		0.65	1.35													
0.035		0.58	1.16	2.31												
0.036		0.50	1.00	2.10												
0.037		0.45	0.90	1.79	2.22											
0.038		0.39	0.80	1.59	1.92											
0.039		0.31	0.71	1.41	1.75											
0.040		0.28	0.62	1.25	1.55	2.51										
0.041		0.25	0.56	1.12	1.38	2.26	2.50									
0.042		0.23	0.50	1.00	1.24	2.03	2.23									
0.043		0.20	0.45	0.87	1.11	1.83	1.98									
0.044			0.39	0.81	1.00	1.62	1.79									
0.045			0.35	0.73	0.90	1.47	1.60	2.32								
0.046			0.32	0.67	0.82	1.34	1.47	2.08	2.27							
0.047				0.59	0.74	1.20	1.31	1.89	2.06							
0.048				0.54	0.67	1.10	1.20	1.72	1.87							
0.049				0.49	0.61	1.00	1.09	1.55	1.69							
0.050				0.45	0.56	0.91	1.00	1.43	1.56	2.14						
0.051				0.41	0.51	0.84	0.90	1.31	1.44	1.96						
0.052					0.47	0.76	0.85	1.19	1.32	1.78						
0.053					0.43	0.69	0.78	1.09	1.20	1.64						
0.054					0.39	0.65	0.70	1.00	1.09	1.52	2.18					
0.055					0.36	0.59	0.64	0.92	1.00	1.38	2.00					
0.056						0.54	0.60	0.85	0.94	1.27	1.85					
0.057						0.50	0.55	0.79	0.87	1.17	1.72					
0.058						0.46	0.51	0.73	0.80	1.07	1.56					
0.059						0.42	0.47	0.67	0.73	1.00	1.44	2.18				
0.060						0.39	0.43	0.62	0.67	0.93	1.33	2.04				
0.064							0.32	0.47	0.50	0.69	1.00	1.50	2.07			
0.070								0.47	0.50	0.67	0.93	1.33	2.04			
0.075								0.30	0.33	0.46	0.67	1.00	1.37	1.84		
0.080											0.48	0.73	1.00	1.37	1.75	
0.085												0.54	0.74	1.00	1.32	1.71
0.090													0.57	0.76	1.00	1.29
0.095													0.43	0.62	0.76	1.00
0.100														0.46	0.60	0.79
0.105															0.48	0.62
																0.49

To Use Chart

1. Locate recommended cap tube ID in left column
2. Read across and find conversion factor under copper cap tube size
3. Multiply the given length of the cap tube by the conversion factor
4. The resultant length of the cap tube will give you the same flow characteristics as the original recommended cap tube.

EXAMPLE: Locate 0.040 in left hand column and reading across gives the following conversion factor: No. TC-36 cap tube (0.036 ID) -0.62 and No. TC-42 cap tube (0.042 ID) -1.25. Multiply the recommended cap tube length of 9' by the conversion factor gives the following results: 5.5' - 0.036 ID and 11.25 - 0.042 ID. Either of these two cap tubes will give the same results as the original cap tube of 9' -0.40 ID.

Every precaution should be taken to prevent chips, dirt, flux, moisture, etc., from entering the system when changing the cap tube. Most cap tube has very small holes that do not require much debris to plug flow.

The size of the cap tube is critical to its application. While some variation from the ideal can be tolerated, it is important to understand those factors which the service engineer can control. Unlike orifices such as expansion valve seats, capillary tubing depends on its length as well as its diameter to determine the total restriction. A change in diameter on a percentage basis, can change the flow more than an equal change in length. For example, changing the diameter by 0.005" as between 0.026" ID and 0.031" ID can double the flow.

The length of the cap tube is the one factor over which the service engineer has the easiest and most immediate control. The best known method of changing the restriction of a cap tube is to change its length. Cut off a piece and its restriction is reduced. Substitute a longer tube and increase the restriction. However, there are factors that are not generally understood that limit the amount of lengthening or shortening.

As a general rule, keep the cap tube no shorter than 5 feet and no longer than 16 feet to eliminate many problems. Only plug drawn capillary tubing should be used in refrigeration and air conditioning application. JB capillary tubing is drawn to a plus or minus 0.0001" on the ID, the finest attainable. Therefore, we recommend using JB cap tubing and the application charts included in the packaging.

The "Capillary Tubing Length Conversion Chart" was developed to enable users of capillary tubing to use standard tubing sizes which are widely available. While many OEMs recommend specific lengths and diameters of cap tube for their units, these tube sizes are not always readily available and may have to be special ordered.

This conversion chart enables the user to translate the recommended length into that of a tube diameter that can be quickly obtained. In using the chart, it is recommended that conversions be made using factors within the shaded area. In addition, it is highly recommended that the minimum length of capillary tubing used by 5 feet.

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Cool Gel™ Heat Dissipating Spray

11509

Heat dissipating spray helps prevent heat damage to components and surrounding materials during soldering, brazing, and welding. It protects painted and finished surfaces from discoloration due to adjacent torch operations. This product also reduces the danger of fire to surrounding surfaces such as studs, drywall, and insulation. The unique non-staining gelled formula sticks to surfaces without dripping or running off and leaves no residue. Safe, non-toxic, and odorless spray liberally on adjacent surfaces needing protection. The spray pattern is adjustable from stream to mist. One quart spray bottles sold in cases of 12.



Valve Action™ Paint Marker

96822 Red

96823 Black



This long-lasting, weather-, water-, and UV-resistant paint marker dries in 3 minutes. Marks on all surfaces including metal, wood, glass, plastic, rubber, cardboard, and paper. Lead-free paint meets California VOC regulations. Marking range is -50° F to 150° F (-46°C to 66°C). Sold in bulk cases of 12.

Slic-Tite® Paste with PTFE

42019



Premium thread sealant for sealing water, air, steam, natural gas, LP gas, refrigerants, ammonia, gasoline, and oil. For use on metal, PVC, CPVC, and ABS plastic threads. Do not use on Oxygen service, use PTFE tape or LA-CO Oxytite®. Sealing temperature -50° F to 500° F (-46° C to 260° C). Pressures 3,000 psi (204 bar) for gas, 10,000 psi (680 bar) for liquid. NSF, UPC, CSA, cULus, FGG/BM/CZ approved. 1/2 pints sold in cases of 12.



Pipetite-Stik®

11175



Non-toxic and lead-free, the Pipetite Stik is for use for water, steam, air, natural gas, and LP gas. Use on metal threads. Do not use on Oxygen service; use PTFE tape or LA-CO Oxytite®. Sealing temperature is up to 350° F (177° C) and pressures to 2,000 psi (136 bar) for liquids and 350 psi (24 bar) for gasses. Certified by NSF to meet ANSI/NSF Standard 61 for use on potable water. 11/4 Oz. sticks sold in cases of 12.

Heat-Seal Stik® Premixed Epoxy Sealer

11575



Ideal for use on high and low side of refrigeration systems, the Heat-Seal Stik can be used on aluminum, copper, other metals, glass, and ceramics. Works on R-410A based systems. Sticks, melts, seals, and cures in one 90 second operation. One part epoxy, there is no mixing or measuring needed. Sealing temperature is up to 350° F (177° C) and pressures to 450 psi (31 bar). 3/8 Oz. sticks sold in cases of 12.

Bloc-It® Heat Absorbing Paste

11511



Heavy paste effectively absorbs surface heat and protects adjoining surfaces that may be damaged by excessive heat. Typically used to protect rubber, plastic, distortion, painted and finished surfaces during soldering, brazing or welding. Safe to use, Bloc-It is non-toxic, harmless to skin, odorless, and does not contain asbestos. Wipe off with cloth or wash with water, Bloc-It will not leave stains. 10 oz. tubes sold in cases of 24.



BRASS FITTINGS

JB's American-made brass SAE 45° flared tube fittings may be used with copper, brass, aluminum, steel, and plastic tube provided an acceptable flare could be generated with the material.

Vacuum and pressures of 5,000 psi can be handled depending upon the size, material, and conditions. Using a 4:1 safety factor, the following general rule (excluding plastic tube) is used:

3,000 psi to 1/4"
 2,000 psi to 1/2"
 1,500 psi to 1"



Long nuts are recommended when vibration is a factor. Tubing should be double flared in extreme applications to minimize flare thinning on over-tightening.

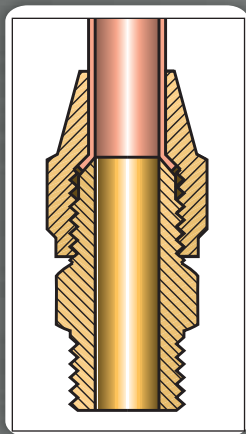
Fittings listed generally comply with SAE, ASA, ASME, and MS standards, however when design makes dimensions critical, please contact us at 800-323-0811 for samples and/or prints for testing and evaluation.

Tube sizes listed are OD (outside diameter). To determine nominal (water tube) size, subtract 1/8", thus 5/8" OD = 1/2" nominal.

Pipe sizes listed are standard nominal pipe size and threads are to Dryseal Taper Pipe Standards.

JB will provide flare fitting to SAE Standard J513 whenever possible. In some cases, slight deviations will occur when full compliance fittings are not available.

- Make and break
- Good vibration resistance (improved by using long nuts)
- Low cost
- Easy assembly
- Wide selection



Heavy-duty ACR tube fittings generally conform to SAE, ASA, and ARI Standards for hydraulic, marine, and refrigeration service. Long dryseal pipe threads minimize leakage and provide more clearance for tightening flare nuts. Shapes, elbows, tees, etc., are made from brass forgings to maximize strength and eliminate cracks.

Assembly Instructions

1. Cut tube square and remove cut-off burr
2. Slide nut on tube, threaded end facing end of tube
3. Flare tube following flaring tool manufacturers instructions (check flare quality)
4. Thread nut on to fitting body "hand tight"
5. With proper wrench, tighten to a solid feel

CAUTION: Over tightening and dirt can damage fittings and/or tube causing leaks.

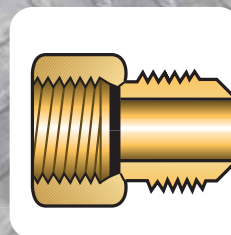
NOTE: Lubrication of flare faces and threads is recommended when practical.

Thread size of tube ends

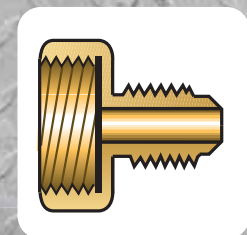
O.D. TUBE	SAE/FLARE	O.D. TUBE	SAE/FLARE
1/8"	5/16-24	1/2"	3/4-16
3/16"	3/8-24	5/8"	7/8-14
1/4"	7/16-20	3/4"	1 -1/16-14
5/16"	1/2-20	7/8"	1 -1/4-12
3/8"	5/8-18	1"	1 -3/8-12
7/16"	11/16-16		

Torque pounds for flare fitting (dry thread)

SIZE	FT. LBS. (MIN.)	FT. LBS.
1/4"	8	10
3/8"	15	25
1/2"	25	35
5/8"	40	55
3/4"	50	60



Copper Seal gaskets (B2) series furnished with all female flares



Fiber gaskets (K1 and D/E) furnished with all drum adapters (K1-1 through 8)

BRASS FITTINGS

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Copper Flare Bonnet

Use with Flare nut to cap a fitting



PART NO.	SIZE	PKG
B1-3	3/16"	5
B1-4	1/4"	25
B1-6	3/8"	5
B1-8	1/2"	5
B1-10	5/8"	10
B1-12	3/4"	5

Copper Flare Gasket

Used on brass to brass or brass to steel connections to prevent leaks



PART NO.	SIZE	PKG
B2-3	3/16"	5
B2-4	1/4"	25
B2-5	5/16"	5
B2-6	3/8"	25
B2-8	1/2"	25
B2-10	5/8"	10
B2-12	3/4"	10

Cross



PART NO.	SIZE	PKG
C1-4	1/4"	2
C1-6	3/8"	2

Flare x Male Pipe Ell



PART NO.	SIZE	PKG
E1-2A	1/8" x 1/8"	5
E1-3A	3/16" x 1/8"	2
E1-4A	1/4" x 1/8"	10
E1-4B	1/4" x 1/4"	10
E1-4C	1/4" x 3/8"	5
E1-5A	5/16" x 1/8"	5
E1-5B	5/16" x 1/4"	5

Flare x Male Pipe Ell (Continued)

PART NO.	SIZE	PKG
E1-5C	5/16" x 3/8"	5
E1-6A	3/8" x 1/8"	5
E1-6B	3/8" x 1/4"	10
E1-6C	3/8" x 3/8"	10
E1-6D	3/8" x 1/2"	5
E1-6E	3/8" x 3/4"	2
E1-8B	1/2" x 1/4"	5
E1-8C	1/2" x 3/8"	5
E1-8D	1/2" x 1/2"	10
E1-8E	1/2" x 3/4"	2
E1-10C	5/8" x 3/8"	2
E1-10D	5/8" x 1/2"	2
E1-10E	5/8" x 3/4"	2
E1-12D	3/4" x 1/2"	2
E1-12E	3/4" x 3/4"	2

Flare Ell



PART NO.	SIZE	PKG
E2-2	1/8"	5
E2-3	3/16"	5
E2-4	1/4"	5
E2-5	5/16"	5
E2-6	3/8"	5
E2-8	1/2"	5
E2-10	5/8"	2
E2-12	3/4"	2

Reducing



PART NO.	SIZE	PKG
ER2-64	3/8" x 1/4"	5
ER2-84	1/2" x 1/4"	2
ER2-86	1/2" x 3/8"	5
ER2-108	5/8" x 1/2"	2

Flare x Female Solder Ell



PART NO.	SIZE	PKG
ES2-44	1/4" x 1/4"	5
ES2-66	3/8" x 3/8"	5
ES2-68	3/8" x 1/2"	2
ES2-88	1/2" x 1/2"	2

Flare x Female Pipe Ell



PART NO.	SIZE	PKG
E3-4A	1/4" x 1/8"	5
E3-4B	1/4" x 1/4"	2
E3-5B	5/16" x 1/4"	2
E3-6A	3/8" x 1/8"	5
E3-6B	3/8" x 1/4"	2
E3-6C	3/8" x 3/8"	2
E3-6D	3/8" x 1/2"	2
E3-8C	1/2" x 3/8"	2
E3-8D	1/2" x 1/2"	2
E3-8E	1/2" x 3/4"	2
E3-10D	5/8" x 1/2"	2
E3-10E	5/8" x 3/4"	2

Female Flare x Flare Ell

Includes copper gasket



PART NO.	SIZE	PKG
E4-44	1/4" x 1/4"	5
E4-66	3/8" x 3/8"	2
E4-88	1/2" x 1/2"	2

Swivel Female Flare x Flare Ell



PART NO.	SIZE	PKG
ES4-44	1/4" x 1/4"	2
ES4-66	3/8" x 3/8"	2
ES4-88	1/2" x 1/2"	2
ES4-1010	5/8" x 5/8"	2
ES4-1212	3/4" x 3/4"	2

Fusible Pipe Plug



PART NO.	SIZE	PKG
168° F		
FP-A-168	1/8"	5
FP-B-168	1/4"	5
FP-C-168	3/8"	2

Fusible Pipe Plug (Continued)

PART NO.	SIZE	PKG
210° F		
FP-A-210	1/8"	5
FP-B-210	1/4"	5
FP-C-210	3/8"	2
283° F		
FP-A-283	1/8"	5
FP-B-283	1/4"	2
FP-C-283	3/8"	2

Refrigerant Drum Adapter



NPS CYLINDER X MALE FLARE. FURNISHED WITH FIBER GASKET.



PART NO.	SIZE	PKG
K1-1	3/4" x 1/4"	10
K1-3	3/4" x 3/8"	2
K1-5	3/4" x 1/2"	2
K1-8	1/2" x 1/4"	2

Fiber Drum Adapter Seal Gasket



PART NO.	SIZE	PKG
K1-D	1/2"	10
K1-E	3/4"	10

Fusible Flare x Pipe Adapter



PART NO.	SIZE	PKG
168° F		
FU-4B-168	1/4" x 1/4"	2
FU-4C-168	1/4" x 3/8"	2
FU-6C-168	3/8" x 3/8"	2
210° F		
FU-4B-210	1/4" x 1/4"	2
FU-4C-210	1/4" x 3/8"	2
FU-6C-210	3/8" x 3/8"	2

BRASS FITTINGS

Fusible Flare x Pipe Adapter (cOntinued)

PART NO.	SIZE	PKG
283° F		
FU-4B-283	1/4" x 1/4"	2
FU-4C-283	1/4" x 3/8"	2
FU-6C-283	3/8" x 3/8"	2

Long Forged Refrigeration Nut



INCREASE VIBRATION RESISTANCE



PART NO.	SIZE	PKG
N4-4	1/4"	10
N4-5	5/16"	5
N4-6	3/8"	10
N4-8	1/2"	5
N4-10	5/8"	5
N4-12	3/4"	2

Flare Cap



PART NO.	SIZE	PKG
N5-3	3/16"	5
N5-4	1/4"	25
N5-5	5/16"	5
N5-6	3/8"	25
N5-8	1/2"	10
N5-10	5/8"	10
N5-12	3/4"	2

Finger Tight Flare Cap



NEOPRENE SEAL. SEE PAGE 45 FOR SINGLE INFORMATION.

PART NO.	SIZE	PKG
NFT5-4-101	1/4"	1000
NFT5-6-101	3/8"	500

Short Forged Refrigeration Nut



PART NO.	SIZE	PKG
NS4-3	3/16"	10
NS4-4	1/4"	25
NS4-4-CS	1/4"	1000
NS4-5	5/16"	10
NS4-6	3/8"	25
NS4-6-CS	3/8"	500
NS4-8	1/2"	25
NS4-8-CS	1/2"	350
NS4-10	5/8"	10
NS4-10-CS	5/8"	200
NS4-12	3/4"	5
NS4-12-CS	3/4"	100
NS4-14	7/8"	2

Reducing



PART NO.	SIZE	PKG
NRS4-43	1/4" x 3/16"	5
NRS4-54	5/16" x 1/4"	5
NRS4-64	3/8" x 1/4"	10
NRS4-65	3/8" x 5/16"	10
NRS4-86	1/2" x 3/8"	10
NRS4-108	5/8" x 1/2"	5
NRS4-1210	3/4" x 5/8"	2

Old Style Extra Heavy Pre-1968 Nut



PART NO.	SIZE	PKG
HNS4-4	1/4"(3/4" hex)	25
HNS4-6	3/8"(7/8" hex)	25
HNS4-8	1/2"(1" hex)	10
HNS4-10	5/8"(1 1/8" hex)	10
HNS4-12	3/4"(1 3/8" hex)	2

Frost-Proof Forged Refrigeration Nut

HOLES RELIEVE FROST IN THREAD AREA



PART NO.	SIZE	PKG
NST4-4	1/4"	5
NST4-6	3/8"	5
NST4-8	1/2"	10
NST4-10	5/8"	2

Flare Plug



PART NO.	SIZE	PKG
P2-3	3/16"	5
P2-4	1/4"	10
P2-5	5/16"	5
P2-6	3/8"	10
P2-8	1/2"	10
P2-10	5/8"	5
P2-12	3/4"	2

Flare x Flare x Male Pipe Tee



PART NO.	SIZE	PKG
T1-4A	1/4" x 1/4" x 1/8"	10
T1-4B	1/4" x 1/4" x 1/4"	10
T1-4C	1/4" x 1/4" x 3/8"	2
T1-5B	5/16" x 5/16" x 1/4"	2
T1-6B	3/8" x 3/8" x 1/4"	5
T1-6C	3/8" x 3/8" x 3/8"	5
T1-6D	3/8" x 3/8" x 1/2"	2
T1-8B	1/2" x 1/2" x 1/4"	2
T1-8C	1/2" x 1/2" x 3/8"	2

Flare x Flare x Male Pipe Tee (continued)

PART NO.	SIZE	PKG
T1-8D	1/2" x 1/2" x 1/2"	2
T1-10C	5/8" x 5/8" x 3/8"	2
T1-10D	5/8" x 5/8" x 1/2"	2

Flare Tee



PART NO.	SIZE	PKG
T2-3	3/16"	5
T2-4	1/4"	10
T2-5	5/16"	5
T2-6	3/8"	10
T2-8	1/2"	5
T2-10	5/8"	2
T2-12	3/4"	2

Reducing

PART NO.	SIZE	PKG
TR2-446	1/4" x 1/4" x 3/8"	5
TR2-664	3/8" x 3/8" x 1/4"	5
TR2-668	3/8" x 3/8" x 1/2"	2
TR2-886	1/2" x 1/2" x 3/8"	2

Flare x Male Pipe x Flare Tee



PART NO.	SIZE	PKG
T3-4A	1/4" x 1/8" x 1/4"	5
T3-4B	1/4" x 1/4" x 1/4"	5

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Flare x Male Pipe x Flare Tee (continued)

PART NO.	SIZE	PKG
T3-5B	5/16" x 1/4" x 5/16"	2
T3-6B	3/8" x 1/4" x 3/8"	5
T3-6C	3/8" x 3/8" x 3/8"	2
T3-6D	3/8" x 1/2" x 3/8"	2
T3-8C	1/2" x 3/8" x 1/2"	2
T3-8D	1/2" x 1/2" x 1/2"	2
T3-10D	5/8" x 1/2" x 5/8"	2

Flare x Male Pipe Adapter (continued)

PART NO.	SIZE	PKG
U1-6E	3/8" x 3/4"	5
U1-8A	1/2" x 1/8"	2
U1-8B	1/2" x 1/4"	5
U1-8C	1/2" x 3/8"	10
U1-8D	1/2" x 1/2"	10
U1-8E	1/2" x 3/4"	5
U1-10B	5/8" x 1/4"	5
U1-10C	5/8" x 3/8"	5
U1-10D	5/8" x 1/2"	10
U1-10E	5/8" x 3/4"	5
U1-12C	3/4" x 3/8"	2
U1-12D	3/4" x 1/2"	2
U1-12E	3/4" x 3/4"	2
U1-14E	7/8" x 3/4"	2

Flare x Female Pipe Adapter



PART NO.	SIZE	PKG
U3-2A	1/8" x 1/8"	5
U3-3A	3/16" x 1/8"	5
U3-4A	1/4" x 1/8"	10
U3-4B	1/4" x 1/4"	10
U3-4C	1/4" x 3/8"	5
U3-5A	5/16" x 1/8"	5
U3-5B	5/16" x 1/4"	5
U3-6A	3/8" x 1/8"	5
U3-6B	3/8" x 1/4"	5
U3-6C	3/8" x 3/8"	5
U3-6D	3/8" x 1/2"	5
U3-8B	1/2" x 1/4"	5
U3-8C	1/2" x 3/8"	5
U3-8D	1/2" x 1/2"	5
U3-8E	1/2" x 3/4"	2
U3-10C	5/8" x 3/8"	5
U3-10D	5/8" x 1/2"	5
U3-10E	5/8" x 3/4"	2

Flare x Solder Adapter

FURNISHED WITH COPPER GASKET



PART NO.	SIZE	PKG
US3-44	1/4" x 1/4"	10
US3-45	1/4" x 5/16"	5
US3-46	1/4" x 3/8"	5
US3-64	3/8" x 1/4"	5
US3-65	3/8" x 5/16"	5
US3-66	3/8" x 3/8"	10
US3-68	3/8" x 1/2"	5
US3-610	3/8" x 5/8"	5
US3-86	1/2" x 3/8"	2
US3-88	1/2" x 1/2"	5
US3-810	1/2" x 5/8"	2
US3-108	5/8" x 1/2"	2
US3-1010	5/8" x 5/8"	5
US3-1012	5/8" x 3/4"	2
US3-1014	5/8" x 7/8"	2
US3-1212	3/4" x 3/4"	5
US3-1214	3/4" x 7/8"	2

Flare x Flare x Female Flare Tee



PART NO.	SIZE	PKG
T6-4	1/4"	2

Flare Union



PART NO.	SIZE	PKG
U2-2	1/8"	5
U2-3	3/16"	5
U2-4	1/4"	25
U2-5	5/16"	10
U2-6	3/8"	25
U2-8	1/2"	10
U2-10	5/8"	10
U2-12	3/4"	2
U2-14	7/8"	2

Flare x Male Pipe Adapter



PART NO.	SIZE	PKG
U1-2A	1/8" x 1/8"	5
U1-3A	3/16" x 1/8"	5
U1-3B	3/16" x 1/4"	5
U1-4A	1/4" x 1/8"	25
U1-4B	1/4" x 1/4"	25
U1-4C	1/4" x 3/8"	10
U1-4D	1/4" x 1/2"	10
U1-5A	5/16" x 1/8"	5
U1-5B	5/16" x 1/4"	5
U1-5C	5/16" x 3/8"	5
U1-6A	3/8" x 1/8"	10
U1-6B	3/8" x 1/4"	10
U1-6C	3/8" x 3/8"	10
U1-6D	3/8" x 1/2"	10

Reducing



PART NO.	SIZE	PKG
UR2-43	1/4" x 3/16"	5
UR2-54	5/16" x 1/4"	5
UR2-64	3/8" x 1/4"	10
UR2-65	3/8" x 5/16"	5
UR2-84	1/2" x 1/4"	5
UR2-86	1/2" x 3/8"	10
UR2-106	5/8" x 3/8"	5
UR2-108	5/8" x 1/2"	5
UR2-128	3/4" x 1/2"	2
UR2-1210	3/4" x 5/8"	2

Female Flare x Flare Adapter



INCLUDES COPPER GASKET

PART NO.	SIZE	PKG
UR3-43	1/4" x 3/16"	2
UR3-46	1/4" x 3/8"	10
UR3-48	1/4" x 1/2"	5
UR3-64	3/8" x 1/4"	20
UR3-68	3/8" x 1/2"	10
UR3-84	1/2" x 1/4"	10
UR3-86	1/2" x 3/8"	10
UR3-810	1/2" x 5/8"	10
UR3-108	5/8" x 1/2"	5
UR3-1012	5/8" x 3/4"	2
UR3-1210	3/4" x 5/8"	2

Female Flare x Female Flare Connector

INCLUDES TWO COPPER GASKETS



PART NO.	SIZE	PKG
U4-4	1/4"	10
U4-6	3/8"	10
U4-8	1/2"	2
U4-10	5/8"	2
U4-12	3/4"	2

Swivel Female Flare Connector



PART NO.	SIZE	PKG
US4-4	1/4"	10
US4-5	5/16"	5
US4-6	3/8"	10
US4-8	1/2"	10
US4-10	5/8"	5

BRASS FITTINGS

Female Flare x Male Pipe Adapter

INCLUDES COPPER SEAL GASKET



PART NO.	SIZE	PKG
U5-4A	1/4" x 1/8"	5
U5-4B	1/4" x 1/4"	10
U5-6B	3/8" x 1/4"	5
U5-8C	1/2" x 3/8"	2
U5-8D	1/2" x 1/2"	2

Swivel Female Flare x Solder Adapter

A32700 SERIES PG 45



PART NO.	SIZE	PKG
US5-44	1/4" x 1/4"	5
US5-66	3/8" x 3/8"	5
US5-88	1/2" x 1/2"	5
US5-1010	5/8" x 5/8"	5
US5-1212	3/4" x 3/4"	2

Female Flare x Female Pipe Adapter

INCLUDES COPPER SEAL GASKET



PART NO.	SIZE	PKG
U6-4A	1/4" x 1/8"	2
U6-4B	1/4" x 1/4"	2

Extra Long Flare x Male Pipe Adapter



PART NO.	SIZE	PKG
UX1-4A	1/4" x 1/8"	2
UX1-4B	1/4" x 1/4"	5

Extra Long Flare Union



PART NO.	SIZE	PKG
UX2-4	1/4"	5

Brass Pipe Fittings

JB's American made forged brass pipe fittings are manufactured from CA 377 alloy and are threaded to Dryseal Taper Pipe Standards to generally comply with SAE, ASA, ASME, and MS Standards. Forgings can be used on vacuums to pressures of 5,000 psi depending on size, material, and conditions.

Features:

- Good vibration resistance (improved by using long nuts)
- Low cost
- Easy assembly
- American made quality
- Wide selection

JB recommends the use of a compatible thread sealant and tightening 2 1/2 full turns past hand tight.

Vacuum and pressures of 5,000 psi can be handled depending upon the size, material, and conditions.

Caution: Over-tightening and dirt can damage fittings

JB brass fittings are sold in box quantities only. For more information, please contact sales@jbind.com or 800.323.0811.

Nominal Pipe Size Threads

NOM. PIPE	THD./ IN.	NOM. PIPE	THD./ IN.
1/16"	27	2"	11.5
1/8"	27	2-1/2"	8
1/4"	18	3"	8
3/8"	18	3-1/2"	8
1/2"	14	4"	8
3/4"	14	5"	8
1"	11.5	6"	8
1-1/4"	11.5	8"	8
1-1/2"	11.5		

El



PART NO.	SIZE	PKG
100-A	1/8"	5
100-B	1/4"	5
100-C	3/8"	5
100-D	1/2"	2
100-E	3/4"	2

Tee



PART NO.	SIZE	PKG
101-A	1/8"	5
101-B	1/4"	10
101-C	3/8"	5
101-D	1/2"	2
101-E	3/4"	2

Coupling (PC)



PART NO.	SIZE	PKG
1103-A	1/8"	5
103-B	1/4"	10
103-C	3/8"	5
103-D	1/2"	5
103-E	3/4"	5

Hex Brushing (R1)



PART NO.	SIZE	PKG
110-BA	1/4" x 1/8"	10
110-CA	3/8" x 1/8"	5
110-CB	3/8" x 1/4"	10
110-DA	1/2" x 1/8"	5
110-DB	1/2" x 1/4"	10
110-DC	1/2" x 3/8"	10
110-EA	3/4" x 1/8"	2
110-EB	3/4" x 1/4"	5
110-EC	3/4" x 3/8"	5
110-ED	3/4" x 1/2"	5
110-FD	1" x 1/2"	2
110-FE	1" x 3/4"	2

Long Nipple



PART NO.	SIZE	PKG
113-A15	1/8" x 1-1/2"	5
113-A2	1/8" x 2"	5
113-A25	1/8" x 2-1/2"	5
113-A3	1/8" x 3"	5
113-A35	1/8" x 3-1/2"	5
113-B15	1/4" x 1-1/2"	5
113-B2	1/4" x 2"	5
113-B25	1/4" x 2 -1/2"	5
113-B3	1/4" x 3"	5
113-B35	1/4" x 3-1/2"	5
113-C15	3/8" x 1- 1/2"	5
113-C2	3/8" x 2"	5
113-C25	3/8" x 2 -1/2"	5
113-C3	3/8" x 3"	5
113-C35	3/8" x 3 -1/2"	5
113-D15	1/2" x 1-1/2"	5
113-D2	1/2" x 2"	5
113-D25	1/2" x 2-1/2"	5
113-D3	1/2" x 3"	2
113-D35	1/2" x 3-1/2"	2

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WARRANTY

Street El



PART NO.	SIZE	PKG
116-A	1/8" forged	5
116-B	1/4" closed forged	5
116-C	3/8" closed forged	5
116-D	1/2" forged	2

Hex Head Plug (P3)



PART NO.	SIZE	PKG
121-A	1/8"	10
121-B	1/4"	10
121-C	3/8"	5
121-D	1/2"	5
121-E	3/4"	5
121-F	1"	2

Hex Nipple (U10)



PART NO.	SIZE	PKG
122-A	1/8"	5
122-B	1/4"	10
122-C	3/8"	5
122-D	1/2"	5
122-E	3/4"	5

Compression Break-Off Sleeve (Pilot) Nut



PART NO.	SIZE	PKG
81LB-4	1/4"	10

LIMITED WARRANTY

The entire limited warranty and OTC warranty can be found at www.jbind.com. Products sold by JB Industries, Inc. are warranted for a period of 12 months from the date of sale with the following exceptions:

- Vacuum pumps are warranted 24 months over-the-counter
- Digital gauges are warranted 12 months ATLAS scale 24 months over-the-counter
- Rothenberger tools are warranted 24 months over-the-counter

JB limits this warranty to the repair, replacement or credit at invoice price (JB's option) of products that in JB's opinion are defective due to defects in workmanship and/or materials. Warranty claims resulting from obvious product abuse, misuse such as broken parts or lack of maintenance including failure to keep the vacuum pump filled with clean oil, abnormal use or normal wear and tear will not be honored as warranty repair and will be subject to JB's published repair costs. This express warranty is in lieu of and excludes all other warranties, guarantees and/or representations, express or implied, of JB and/or the manufacturer of such products that make **NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE**. Technical information, recommendations and advice as to properties and usages of materials, design, installation and use of products, engineering and other matters are provided as an accommodation and are intended only as suggestions. Although they are believed to be accurate, based on JB's knowledge and experience, JB assumes no obligation or liability for any results obtained in their use or application, and they are not to be construed as establishing any warranty, express or implied. In no event shall JB be liable for claims for any damages whatsoever (whether direct, foreseeable, consequential or special) suffered by buyer or anyone else arising out of any breach by JB. JB makes no warranty to those defined as consumers in the Magnuson-Moss Warranty-Federal Trade Commission Improvement Act.

Disclaimers:

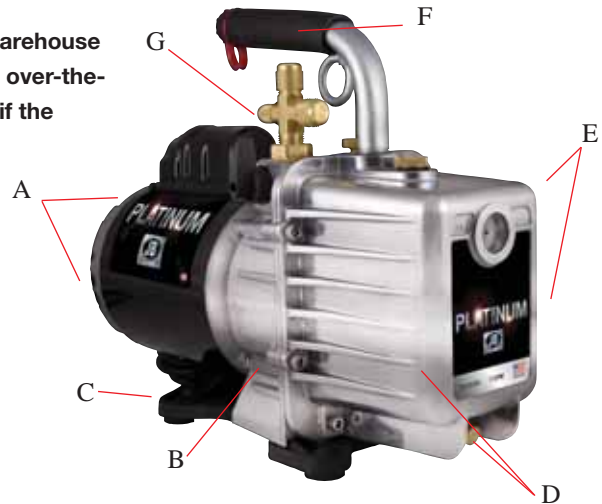
All product items pictured, described, or otherwise displayed herein are subject to changes, alterations, and/or modifications at anytime by JB Industries, Inc. The terms and conditions for the purchase of JB Industries, Inc. products are subject to changes, alterations, and/or modifications at any time by JB Industries, Inc. and will be made available upon request to JB Industries and shall be provided to customers of JB Industries, Inc. at time of purchase.

VACUUM PUMPS: 24 MONTHS

Pumps that are in warranty are examined as soon as they arrive at the warehouse so that we may contact the wholesaler regarding our determination. The over-the-counter warranty applies only to the manufacturing defects and is VOID if the problem has been determined to be abuse.

Check for Signs of Abuse:

- A. Bell back housing area
- B. Side of trap
- C. Base is broken or missing corners
- D. Damage to protective fins and drain valve
- E. Flat hit marks on top and bottom of corners
- F. Handle bent down or broken
- G. Intake damaged or missing



MANIFOLDS: LIFETIME BAR ONLY

Manifolds carry a lifetime warranty on the bar only and does not include coverage of any parts. The 12 month over-the-counter warranty covers manufacturing defects only, not abuse. Signs of abuse include lens cracked or missing, gauges that can be loosened by hand, and drop marks on manifolds or unions. Check calibration with the set screw on the gauge as well.

DIGITAL INSTRUMENTS (Gauges, Manifolds): 12 Months, Atlas Scale: 24 Months

Check the batteries. The product will provide a low battery warning with flashing dots at the bottom of the display. Plug in and toggle through the settings as well as the temperature setting to check if the sensors are working. If the sensors are working, push the on/off button to auto cal to see if it will return to zero. If any of the readings are off, check to see what the temperature sensor is for both sensors. A few degrees difference between the two can cause a problem with the readings. Check for signs of abuse which include a cracked case, drop marks on fittings, display is dimmed or damaged, sensor is pinched or sliced, and the hook is bent or missing.

For our Digital Micron gauge, DV-22N, check the last recorded vacuum and then press twice to clear the last recorded vacuum to see if it resets (if the numbers are jumping around, it may be a cold pump or oil contaminant inside the thermistor). If the numbers are jumping around after you have disconnected the gauge from the vacuum and it will not return to one, wait until the gauge auto calibrates. Unit will display JB and turn off before it reads 1 if batteries are low. Check for signs of abuse which include a cracked case, the coupler is loose at the base of the case, the O-ring/gasket is chewed up or damaged or missing, there are pliers or channel locks on couplers, and the hook is broken or missing.

ROTHENBERGER TOOLS: 24 MONTHS

Check for signs of abuse

HOW TO RETURN PRODUCT

Prior to returning any product to JB, you are required to obtain a Return Goods Authorization number (RGA). Contact customer service at 800-323-0811 to obtain your RGA. Insure that all returned products are packed adequately to avoid damage during shipment as we will not honor warranty claims for items damaged in transit. The recommended packing procedure for pumps is detailed below. Paperwork should be placed in a separate plastic bag and should include your assigned RGA, a description of the problem, a copy of the invoice, and any customer assigned repair or purchase order number (if applicable). Please provide contact information of whom to inform of package receipt as well as the person authorized to accept repair charges should the warranty be void.

1. Completely drain oil and close all valves
2. Place pump in plastic bag and seal
3. Cushion bottom of carton with packing paper or crumpled newspaper before placing pump in carton and fill in along sides and top. DO NOT USE PEANUTS
4. Place paperwork in a separate plastic bag and seal. Include the RGA and detail of problem
5. If estimate is required before repair, be certain this is highlighted and clearly specified
6. Depending on time of year, allow 2-4 weeks for repair service

Ship repairs to:
 JB Industries
 601 N. Farnsworth Ave.
 Aurora, IL 60505

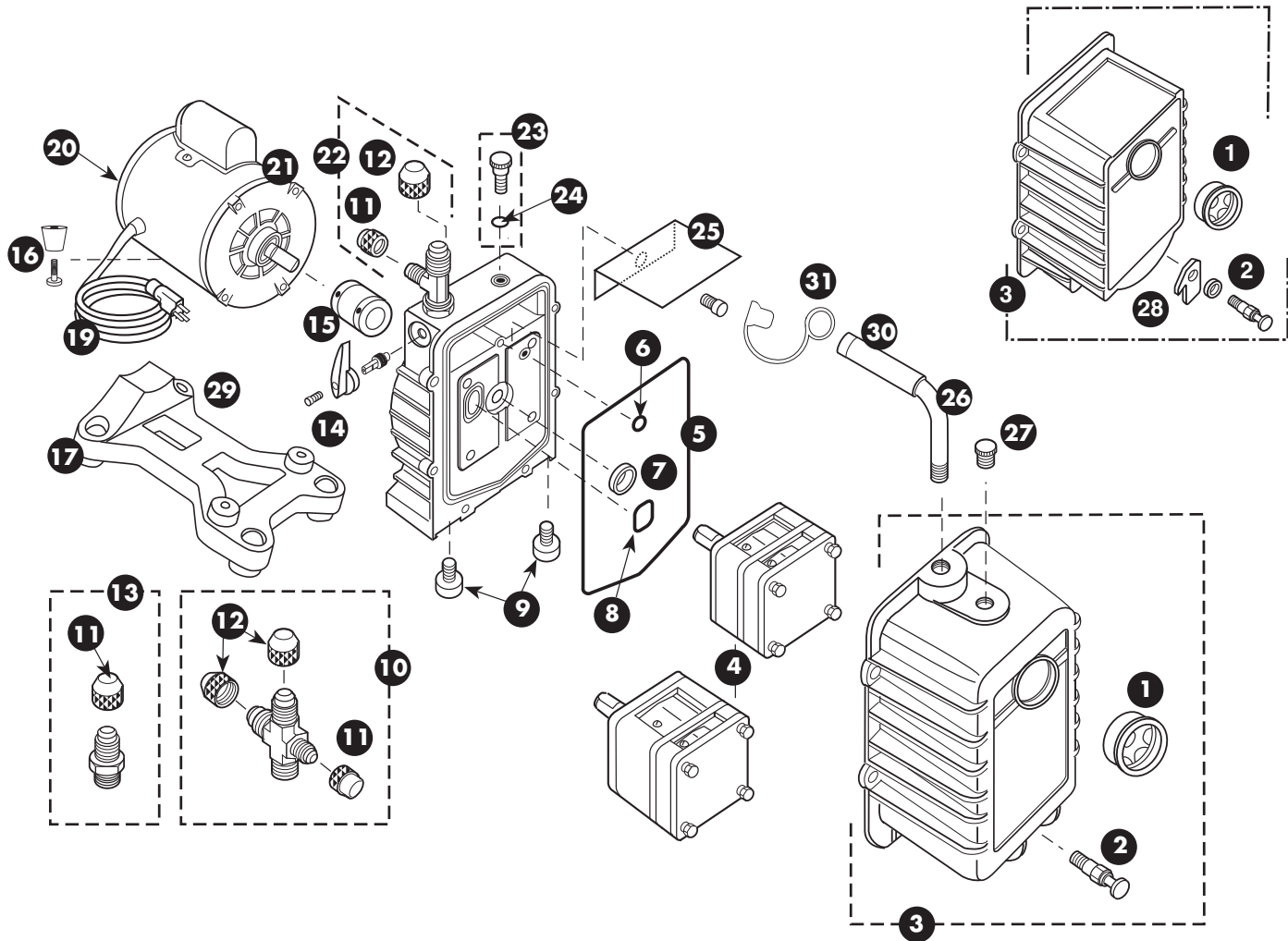
Merced Wholesale
 805 S. Fremont
 Alhambra, CA 91803
 Phone 626-293-5710
 Fax 626-289-1196

FOR VACUUM PUMPS ONLY:

AK, AZ, CA, ID, MT, NV, OR, UT, and WA customers have the option of also using Merced Wholesale for pump repair. For customers choosing the Merced facility, prices and terms of condition must be obtained from Merced.

VACUUM PUMP REPAIR

DV-42N through DV-285N Series



WHEN ORDERING, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- MODEL NUMBER
- FOUR DIGIT SERIAL NUMBER
- PART NUMBER AND DESCRIPTION

FOR REPAIR PARTS FOR DV-42 AND DV-42N SERIES PUMPS
MANUFACTURED PRIOR TO JANUARY 2001 SEE PAGE 70.

OPERATING INSTRUCTIONS FOR ALL PUMPS MANUFACTURED SINCE
1980 AVAILABLE UNDER "TECHNICAL INFORMATION"
AT WWW.JBIND.COM.

new:

NOTE : ON FLEXIBLE COUPLER (15)
FLEBIBLE SECTION IS AVAILABLE AS
PR-308

new:

PR-209 NOW INCLUDES STEM WITH
O-RINGS AND RETAINER

new:

PR-56 - ADAPTOR NUT WITH O-RING

VACUUM PUMP REPAIR

DV-42N through DV-285N Series

REFERENCE	PART NO.	DESCRIPTION	REFERENCE	PART NO.	DESCRIPTION
1	PR-1	Sight Glass	16	PR-42	Motor Foot With Screw
2	PR-2	Drain Valve	17	PR-59	Base Foot
3	PR-300	DV-42N Through DV200N Cover Assy. w/ Sight Glass And Drain Valve	19	PR-31	Line Cord (Emerson Motor)
3	PR-301	Dv-285N Cover Assy. w/ Sight Glass And Drain Valve	19	PR-58	Line Cord (Marathon Motor)
3	<u>PR-200</u>	No Longer Available. Can Substitute PR-201	20	PR-35	Rocker Switch With Prongs (Marathon 1101-0105)
3	<u>PR-201</u>	DV-142N & DV-200N Cover Assy. w/ Sight Glass, Drain Valve & Guard	20	PR-54	Rocker Switch With Wire Leads (Emerson)
4	<u>PR-202</u>	Dv-85N Cartridge w/ O-Rings And Seal	21	PR-206	1/2 Hp, 115v, 60 Hz Motor With Line Cord And Switch
4	OBSOLETE		21	PR-207	1/2 Hp, 115/230v, 50/60 Hz Motor W/ Line Cord And Switch
4	<u>PR-203</u>	DV-142N Cartridge w/O-Rings And Cover Seal	22	PR-5	Intake Tee With Caps
4	OBSOLETE		23	PR-7	Gas Ballast Valve With O-Ring
4	<u>PR-204</u>	DV-200N Cartridge w/O-Rings And Cover Seal	24	P90009	O-Ring, Gas Ballast Valve
4	OBSOLETE		25	PR-40	Splash Guard And Screw (Excludes 3cfm Manufactured Before 1/01. Use PR-39.)
4	<u>PR-214</u>	DV-285N Cartridge w/ O-Rings And Cover Seal	26	PR-75	Cushioned Handle With Lift Ring 1/2" NPT And DV-EP-8 As Of 2008
4	OBSOLETE		26	PR-205	Cushioned Handle 3/8" NPT
4	PR-302	DV-85N Cartridge w/ O-Rings And Cover Seal	27	PR-22	Oil Fill Plug With O-Ring
4	PR-303	DV-142N Cartridge w/ O-Rings And Cover Seal	28	<u>PR-55</u>	Drain Valve Guard And Spacer
4	PR-304	DV-200N Cartridge w/ O-Rings And Cover Seal	28	OBSOLETE	
4	PR-314	DV-285N Cartridge w/ O-Rings And Cover Seal	29	PR-62	Pump Base (Includes Feet)
5	<u>PR-216</u>	Cover Seal	30	PR-500	Cushion And Cap 3/8" NPT
5	PR-311	Cover Seal	30	PR-501	Cushion And Cap 1/2" NPT
6	PR-211	Trap O-Ring, Gas Ballast	31	DV-EP6	Tethered Safety Cap 3/8"
7	PR-3	Shaft Seal	31	DV-Ep8	Tethered Safety Cap 1/2"
8	<u>PR-215</u>	Trap O-Ring, Intake	Not Shown	PR-18	Cartridge Valve Repair Kit (Includes DV-285N As Of 2007 Models)
8	PR-315	Trap O-Ring, Intake			
9	PR-4	Rubber Foot & Screw Assembly (1 Per Package)	Not Shown	PR-52	DV-285N Cartridge Valve Repair Kit Prior To 2007
10	PR-24	Intake Caps With Cross	Models		
11	NFT5-4	1/4" O-Ring, Intake	Not Shown	PR-45	Pump Repair Kit: PR-1, PR-2, PR-4(2), PR-42, Pr-208
12	NFT5-6	3/8" O-Ring Cap			
13	PR-32	1/4" Intake With Cap			
14	PR-209	Plastic Isolation Valve Handle And Screw (Not Interchangeable w/ PR- 210)			
14	<u>PR-210</u>	Metal Isolation Valve Handle And Screw			
15	PR-208	Flexible Coupler			

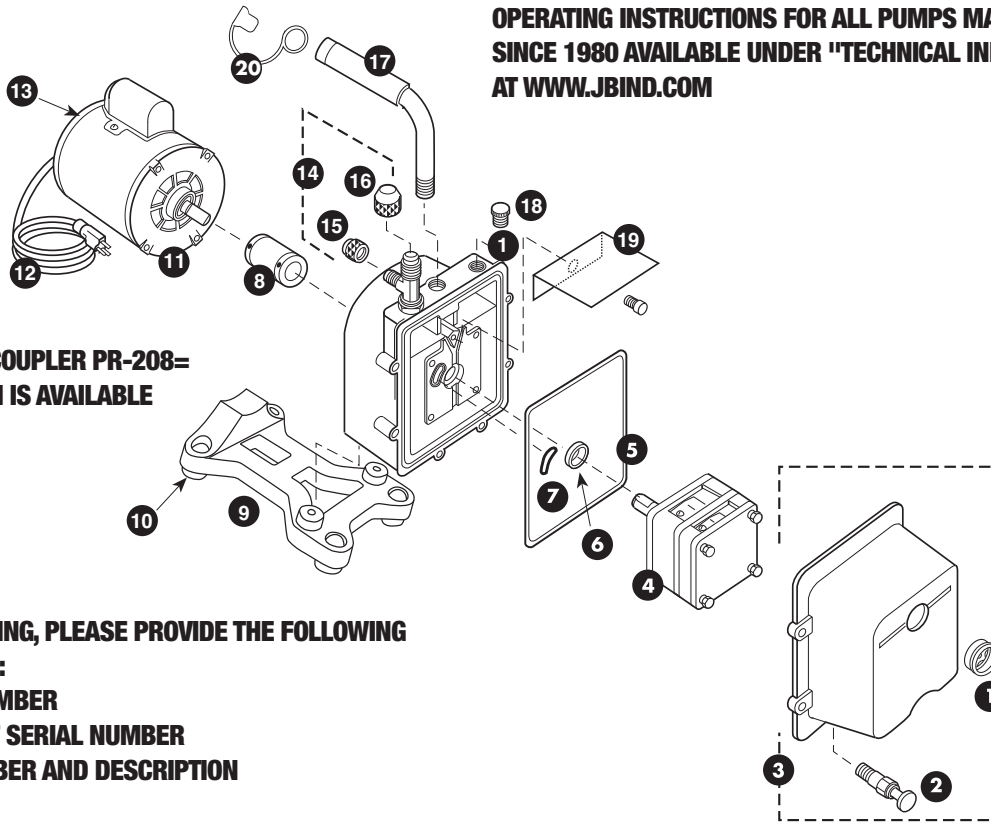
Plain type: All pumps
 Bold type: pumps manufactured beginning January 2001
 Underlined: Pumps manufactured before January 2001

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PUMP REPAIR PARTS

DV-3E, DV-4E and DV-6E Eliminator® Series

OPERATING INSTRUCTIONS FOR ALL PUMPS MANUFACTURED SINCE 1980 AVAILABLE UNDER "TECHNICAL INFORMATION" AT WWW.JBIND.COM



new:

NOTE : FLEXIBLE COUPLER PR-208= FLEXIBLE SECTION IS AVAILABLE AS PR-308

WHEN ORDERING, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- **MODEL NUMBER**
- **FOUR DIGIT SERIAL NUMBER**
- **PART NUMBER AND DESCRIPTION**

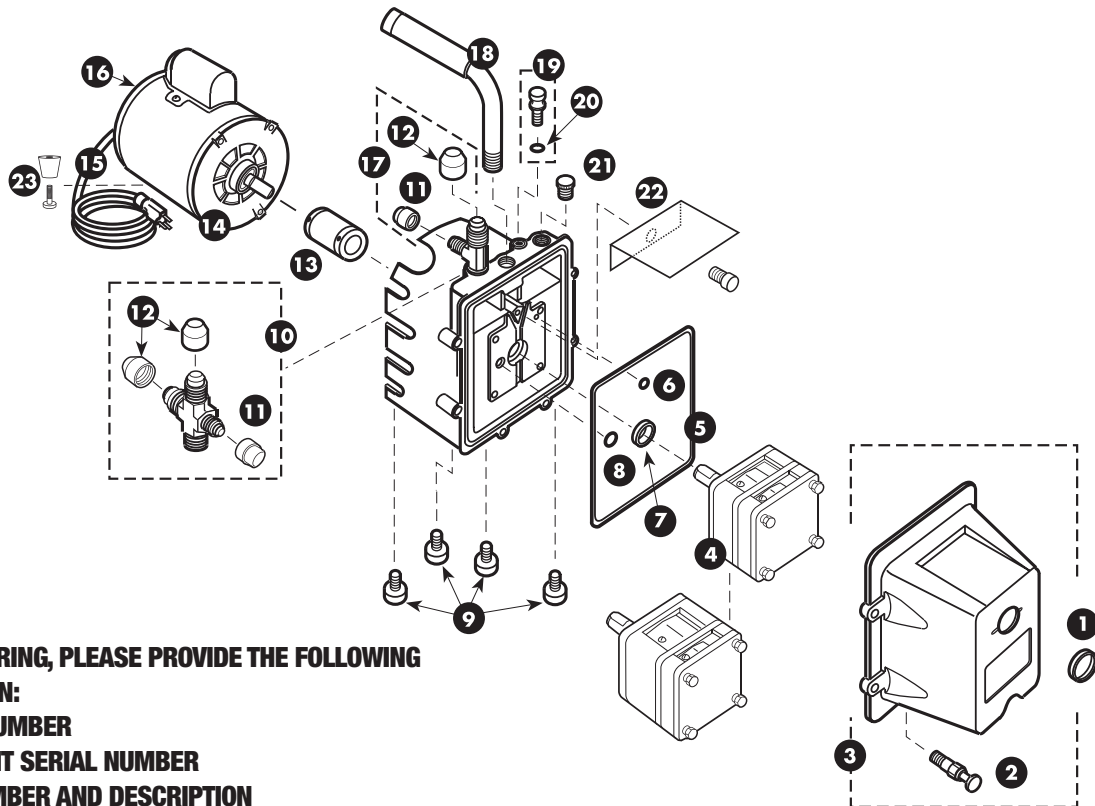
REFERENCE	PART NO.	DESCRIPTION
1	PR-1	Sight glass
2	PR-2	Drain valve
3	PR-9	DV-3E Cover assembly includes sight glass and drain valve
3	PR-10	DV-4E and DV-6E Cover assembly includes sight glass and drain valve
4	NEW PR-403	DV-3E Cartridge complete with O-rings and cover seal
4	NEW PR-404	DV-4E Cartridge complete with O-rings and cover seal
4	NEW PR-406	DV-6E Cartridge complete with O-rings and cover seal
5	NEW PR-217	Cover seal
6	PR-3	Shaft seal
7	PR-315	Trap intake O-ring
8	PR-208	Flexible coupler
9	PR-62	Pump base (includes rubber feet)

REFERENCE	PART NO.	DESCRIPTION
10	PR-59	Rubber foot
11	PR-207	1/2 HP, 115/230 V, 50/60 HZ Motor with line cord and switch
11	PR-206	1/2 HP Motor with line cord and switch
12	PR-31	Line cord (Emerson motor)
12	NEW PR-58	Line Cord (Marathon motor)
13	PR-54	Motor switch, rocker
14	PR-63	Intake tee with cap
15	NFT5-4	1/4" O-ring cap
16	NFT5-6	3/8" O-ring cap
17	PR-205	Cushioned handle with 3/8" NPT
18	PR-22	Oil fill plug with O-ring
19	PR-39	DV-3E splash guard with screw
19	PR-40	DV-4E and DV6E splash guard with screw
20	DV-EP6	Tethered safety cap 3/8"
Not shown	PR-18	Cartridge valve repair kit

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PUMP REPAIR PARTS

DV-3 and DV-5 Series Vacuum Pumps MANUFACTURED PRIOR TO JANUARY 2001



WHEN ORDERING, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- **MODEL NUMBER**
- **FOUR DIGIT SERIAL NUMBER**
- **PART NUMBER AND DESCRIPTION**

REFERENCE PART NO.	DESCRIPTION
1	PR-8 Sight glass
2	PR-2 Drain valve
3	PR-10 Cover assembly includes glass and drain valve. Silver cover not available. Substitute Black Eliminator cover
4	Obsolete No longer available
5	PR-216 Cover seal
6	PR-12 O-ring
7	PR-3 Shaft seal
8	P90015 O-ring
9	PR-4 Rubber foot and screw assembly (one per package)
10	PR-24 Intake cross with caps DV-5
10	PR-5 Intake tee with caps DV-3
11	NFT5-4 1/4" O-ring
12	NFT5-6 3/8" O-ring
13	PR-6 Flexible coupler
13	PR-53 Flexible coupler (Needed for replacing motor with shorter shaft)

REFERENCE PART NO.	DESCRIPTION
14	PR-206 1/2 HP, 115 V, 60 HZ Motor w/ line cord and switch
14	PR-207 1/2 HP, 115/230 V, 50/60 HZ Motor w/ line cord and switch
15	PR-31 Line cord (Emerson motor)
16	PR-30 115 V Motor switch, rocker (Marathon motor)
16	PR-54 115/230 V Motor switch, rocker (Emerson motor after Serial No. 0198)
17	PR-5 Intake tee with caps
18	PR-205 Cushioned handle
19	PR-7 Gas Ballast w/ o-ring assembly
20	P90009 O-ring and gas ballast
21	PR-22 DV-3 and DV-5 Oil fill plug with O-ring
22	PR-40 Splash guard with screw
23	PR-42 Motor foot with screw
Not shown	PR-18 Cartridge valve repair kit

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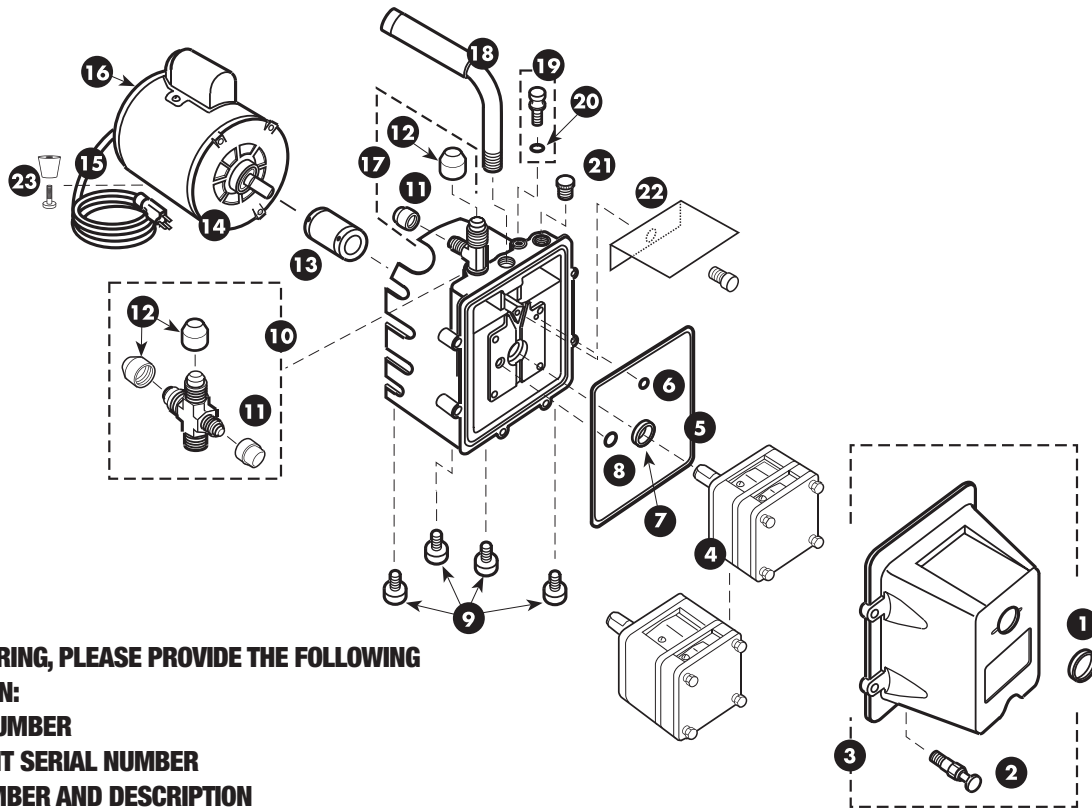
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PUMP REPAIR PARTS

DV-42 and DV-42N Series Vacuum Pumps **MANUFACTURED PRIOR TO JANUARY 2001**



WHEN ORDERING, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- **MODEL NUMBER**
- **FOUR DIGIT SERIAL NUMBER**
- **PART NUMBER AND DESCRIPTION**

REFERENCE	PART NO.	DESCRIPTION
1	PR-1	DV-85C and DV-42 Sight glass
2	PR-2	Drain valve
3 (Not Available)	PR-9 /PR-10	DV-85C, DV-42 & DV-42N Cover assembly includes sight glass and drain valve. Short nose cover not available substitute for black Eliminator cover.
4	PR-403	No longer available (Obsolete)
5	PR-216	Cover seal
6	PR-12	O-ring
7	PR-3	Shaft Seal
8	P90015	O-ring
9	PR-4	Rubber foot and screw assembly (1 per package)
10	PR-6	Flexible coupler
10	PR-53	Flexible coupler (-250 Models after Serial No. 0198)
11	PR-207	1/2 HP, 115/230V, 50/60 HZ motor with line cord and switch
11	PR-206	1/2 HP Motor with line cord and switch

REFERENCE	PART NO.	DESCRIPTION
12	PR-31	Line Cord
13	PR-30	Motor switch-rocker with prongs (Marathon motor)
13	PR-54	115/230V Motor switch-rocker with wire leads (Emerson motor after Serial No. 0198)
14	PR-32	DV-42 Intake with cap
15	NFT5-4	1/4" O-ring cap
16	PR-205	Cushioned handle - 3/8" NPT
17	PR-7	Gas Ballast w/ O-ring assembly
18	P90009	O-ring and gas ballast
19	PR-22	Oil fill plug with O-ring for newer style DV-42
20	PR-39	DV-42 and DV85C Splash guard and screw
21	PR-5	DV-85C Intake tee with caps
22	NFT5-6	3/8" O-ring cap
Not shown	PR-18	Cartridge valve repair kit

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MANIFOLD REPAIR PARTS

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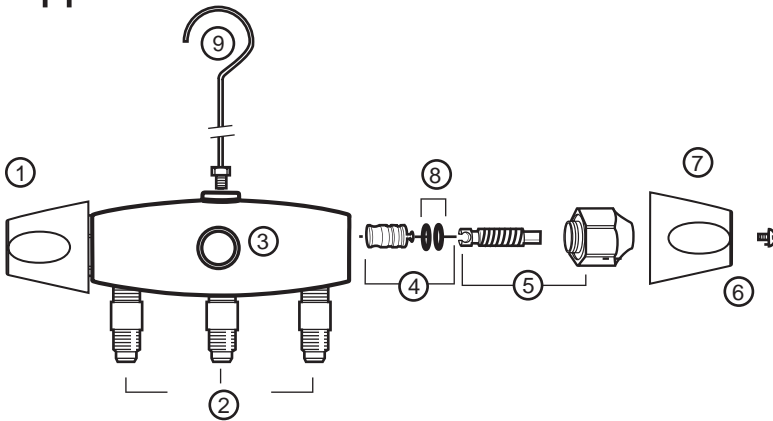
TOOLS & ACCESSORIES

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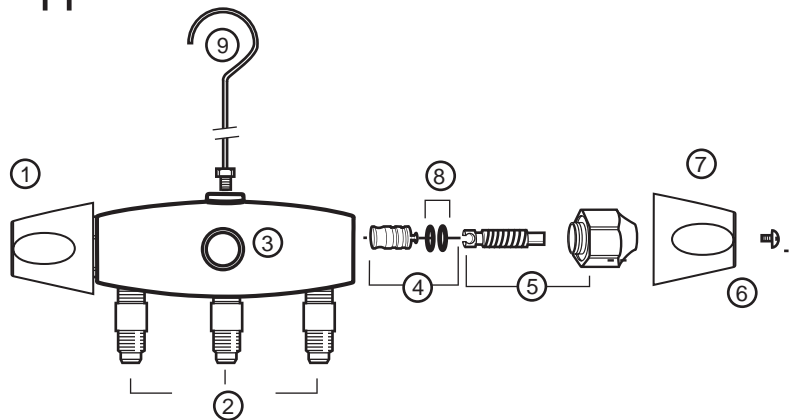
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Zeppelin Brass Series Manifold



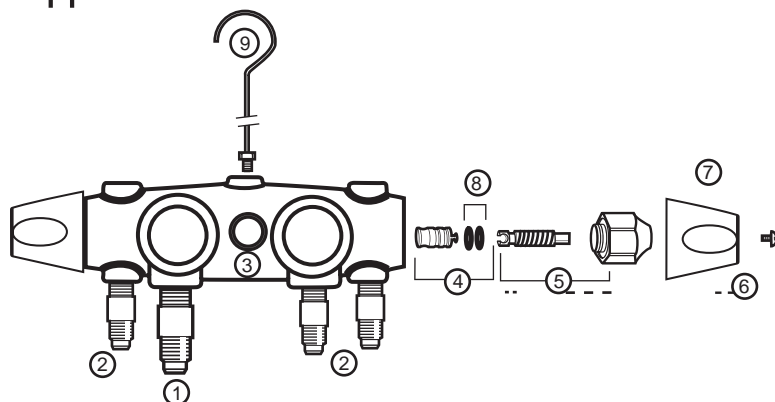
REFERENCE	PART NO.	DESCRIPTION
1	MR-601	Hand wheel and screw
2	U1-4A	1/4" Intake
3	MR-520	Sight glass
4	MR-505	Piston with seat and O-rings
5	MR-606	Stem and nut
6	MR-601	Hand wheel and screw
7	MR-503	Hand wheel screws (two)
8	MR-509	O-rings (two)
9	M2-102N	Hanging hook

Zeppelin Aluminum Series Manifold



REFERENCE	PART NO.	DESCRIPTION
1	MR-601	Hand wheel and screw
2	U1-4A	1/4" Intake
3	MR-520	Sight glass
4	MR-505	Piston with seat and O-rings
5	MR-606	Stem and nut
6	MR-601	Hand wheel and screw
7	MR-503	Hand wheel screws (two)
8	MR-509	O-rings (two)
9	M2-102N	Hanging hook

Zeppelin 4-valve Aluminum Series Manifold



REFERENCE	PART NO.	DESCRIPTION
1	U1-6B	3/8" Intake
2	U1-4A	1/4" Intake
3	MR-520	Sight glass
4	MR-605	Piston with seat and O-rings
5	MR-607	Stem and nut
6	MR-601	Hand wheel and screw
7	MR-503	Hand wheel screws (two)
8	MR-409	O-rings (two)
9	M2-102N	Hanging hook

MANIFOLD REPAIR PARTS

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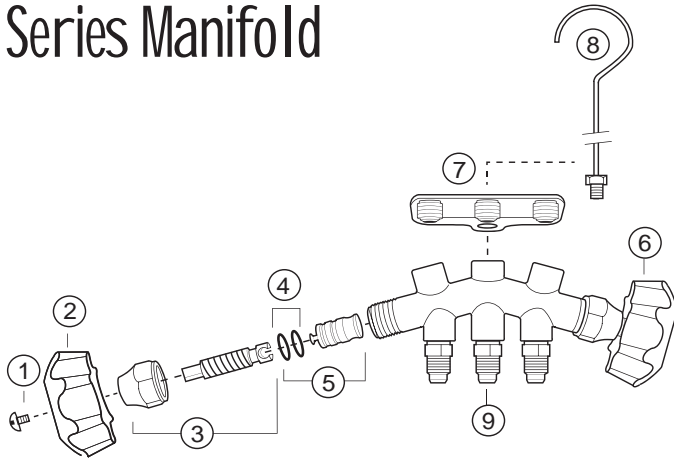
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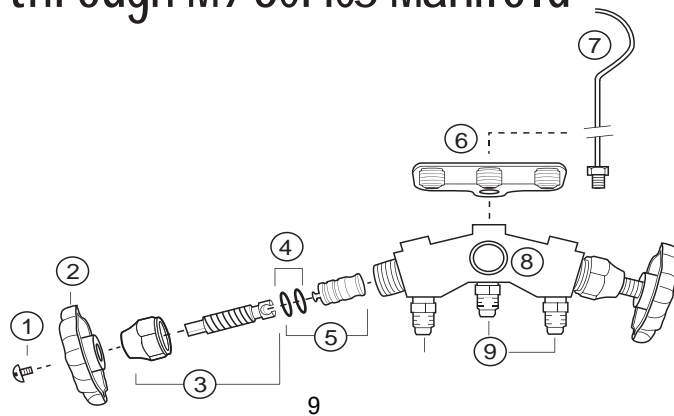
M2 Series Manifold



REFERENCE PART NO. DESCRIPTION

1	MR-503	Hand wheel screw (two)
2	MR-501B	Blue Hand wheel and screw
3	MR-516	Stem and nut
4	MR-509	O-ring (two)
5	MR-505	Piston with seat and O-rings
6	MR-501R	Red Hand wheel
7	M2-300	Hose holder
8	M2-102N	Hanging hook
9	U1-4A	Intake

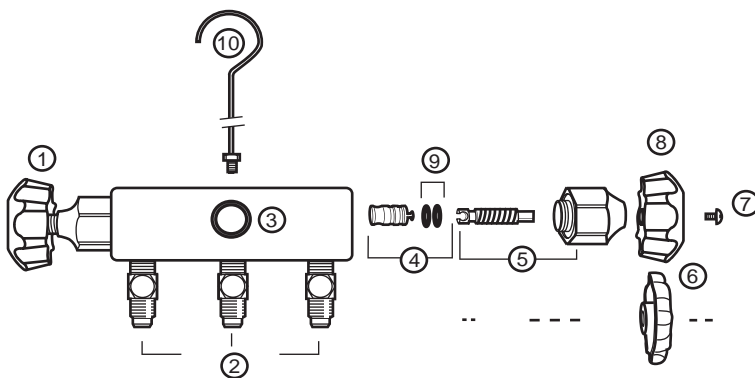
M5 through M9 Series Manifold



REFERENCE PART NO. DESCRIPTION

1	MR-503	Hand wheel screw (two)
2	MR-508	Metal hand wheel and screw
3	MR-516	Stem and nut
4	MR-509	O-ring (two)
5	MR-505	Piston with seat and O-rings
6	M2-300	Hose holder
6	MR-521	ACME thread hose holder
7	M2-102N	Hanging hook
8	MR-520	Sight glass
9	U1-4A	Intake
9	AF-13450	ACME Intake

M3 Series Manifold

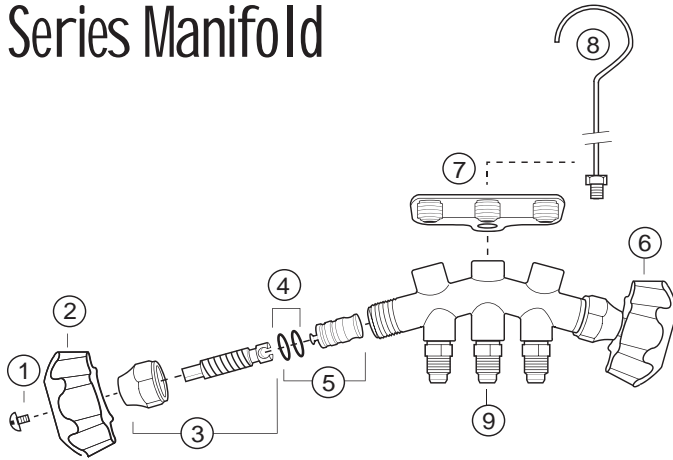


REFERENCE PART NO. DESCRIPTION

1	MR-501B	Blue Hand wheel and screws
2	MR-550	1/4" Intake and hose holder
3	MR-520	Sight glass
4	MR-505	Piston with seat and O-rings
5	MR-560	Stem and nut
6	MR-508	Metal hand wheel and screw
7	MR-503	Hand wheel screws (two)
8	MR-501R	Red Hand wheel
9	MR-509	O-rings (two)
10	M2-102N	Hanging hook

MANIFOLD REPAIR PARTS

M4 Series Manifold



REFERENCE	PART NO.	DESCRIPTION
1	MR-550	1/4" Intake and hose holder
1	U1-4A	1/4" Intake
2	MR-551	3/8" Intake and hose holder
2	U1-6B	3/8" Intake
3	MR-520	Sight glass
3	MR-420	Sight glass (before 2004)
4	MR-405	Piston with seat and O-rings
5	MR-409	O-rings (two)
6	MR-416	No longer available
7	MR-501B	Blue hand wheel & screw
7	MR-504B	Black hand wheel & screw
7	MR-501Y	Yellow hand wheel & screw
7	MR-501R	Red hand wheel & screw
7	MR-508	Metal hand wheel & screw
8	MR-503	Hand wheel screws (two)
9	MR-531	Hose holder (before 2004)
10	M2-102N	Hanging hook

POP MARKETING MATERIALS

JB has point of purchase material to highlight your show-room. From banners, to backing for pegboard and slatwall, to counter mats and headers, please refer to www.jbind.com/marketing for an order form or call **800-323-0811** to place your order.



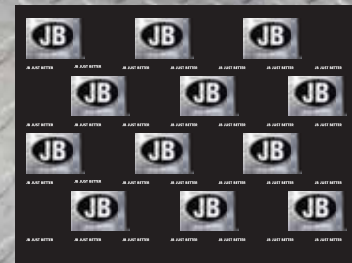
MKDS22
BANNER 36" X 48" WITH GROMMETS.



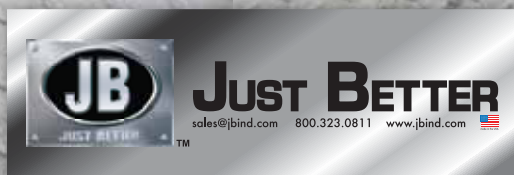
MKDS23
BANNER 36" X 48" WITH GROMMETS.



MKDS27
COUNTER MAT 12" X 18" LAMINATED WITH A DURABLE RUBBER BACKING.



MKDS04
BACKING FOR PEGBOARD 2 PANELS 34.5" X 23.5" EACH.



MKDS03
FLAT HEADER 12" X 36". ALSO AVAILABLE FOR END CAPS - MKDS02

MKDS05
BACKING FOR SLATWALL 2 PANELS 36" X 47.5" EACH.

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