



 Refrigerant Leaks, a Global Problem

 Our Planet has a Billion \$ Problem

 We Have a Multi-Billion \$ Solution

 License to Change an Industry





Background and Experience

- Over 40 Years in the Air conditioning and Refrigeration Industry
- Training and Certification at Climate Control Institute
- Mechanical Contracting
- Master A/C and Refrigeration License
- EPA Refrigerant Handling Certification
- United States Patent Holder



Nov8tive Air Products LLC



The Company

Nov8tive Air Products was established in 2018 as a Manufacturer and Distributor of Air Conditioning and Refrigeration Parts and Equipment

Based in Wichita, KS. An Official Licensee of the Patented MP2 Multi-Port Shutoff Valve

Our product line consist of:

The Patented MP2 Multi-Port Shutoff Valve

Eco/Reveal Brand of Heating, Air Conditioning, and Refrigeration Equipment

HVACR Parts and Supplies

The Vision

There are big game changers that destroy competition and alter the course of industries.

- The transistor eliminated the vacuum tube and all the products from early computers to TVs that used tubes. The transistor radio, pocket calculator, and personal computer were born.
- The iPhone wiped out the popular flip phone (Nokia, Blackberry), the camera (Kodak), and the carry-around music (Sony's Walkman). It launched a multi-billion dollar "app" market and boosted companies that developed smart phones (Samsung).
- The Air conditioning and Refrigeration Industry needs its iPhone.



Refrigerant Leaks in the Air-conditioning and Refrigeration Industry is a Multi-Billion Dollar Annual Market

The Problem is, the methods used to locate refrigerant leaks are outdated and not very reliable.

Often, the technicians feel like they are searching for a needle in a haystack or using a canary to sense the leak

It can take many hours and even days to locate a refrigerant leak in an air conditioning or refrigeration system.

The technician is limited to old tools equivalent to taking a canary into a coal mine. The tool has to “smell” the leak. That means going inch by inch over an entire system. That takes a lot of expensive technician time and may not reliably locate the leak. It’s trial and error at best.

Technicians need to be able to locate refrigerant leaks quickly and confidently.



Still using a canary?

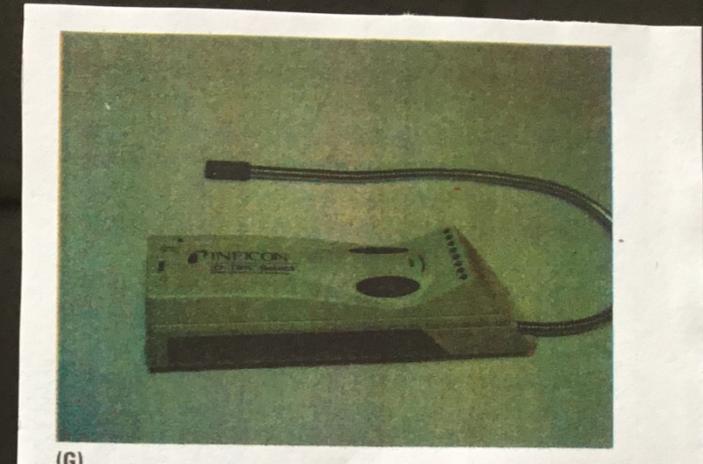
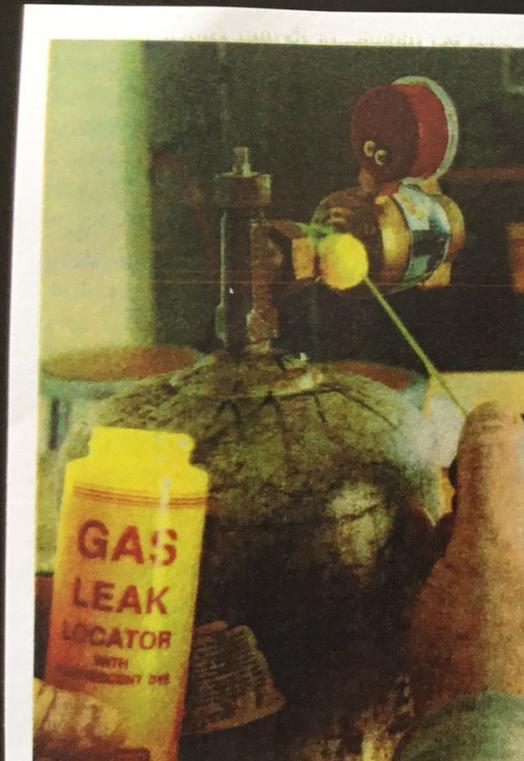


How Refrigerant Leaks Are Detected Today

These methods haven't changed in over 50 years.

The problem is that the methods require point of contact, which in most cases is impossible.

1. Electronic leak detectors (Sniffers)
2. Ultra-violet dye injection
3. Soap Bubbles



(G)



(H)

Figure 3-39 Common methods used for leak detection. (A) Lis for audible leaks. (B) Ultrasonic leak detector. (C) Soap-bubble solution. (D) Soap-bubble solution causes bubbles to form when is present. (E) Halide torch. (F) The flame on the halide leak dete turns green when a leak is present. (G) Electronic leak detector. (H) Ultraviolet leak detection equipment.



The Cost

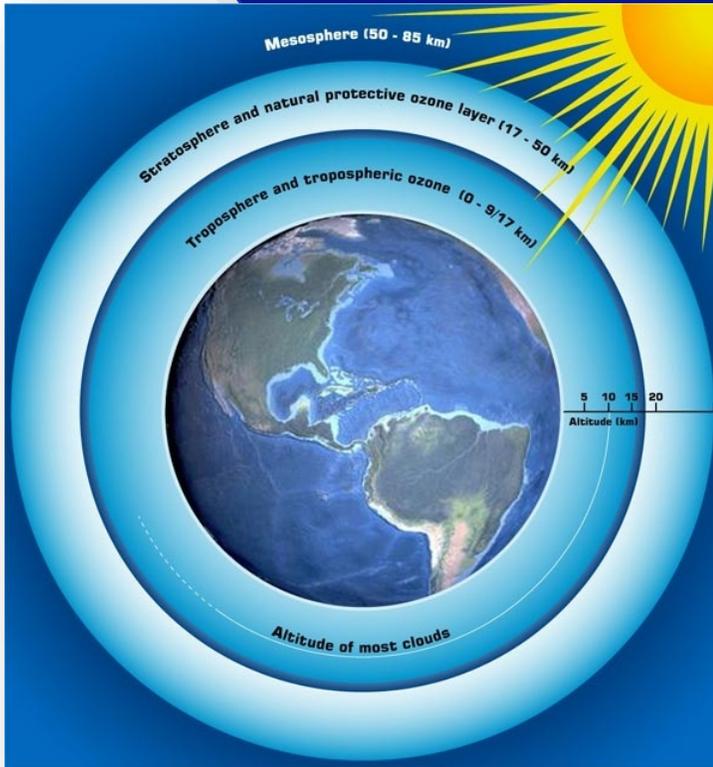
Technicians spend many hours or even days looking for refrigerant leaks. Often without success.

Air Conditioning Manufacturers spend hundreds of thousands of dollars on warranty work that is spent trying to locate leaks.

Consumers spend millions as technicians try their best to locate leaks, yet often have to come back to unhappy customers with an unsolved problem.

Nobody wins.

Environmental Concerns



Refrigerants leaks do happen and must be located and repaired as soon as possible.

Refrigerant leaks are not only a national problem, but also a Global problem.

Refrigerants are a known cause of damage to the Earth's Ozone protective shield against cancer causing UV rays.

The EPA have been implementing more and more regulations requiring refrigerant leaks to be located and repaired to address this serious problem.

\$ THE ANNUAL MULTI-BILLION \$ DOLLAR MARKETS IN WHICH OUR MP2 MULTI-PORT SHUTOFF VALVE CAN SERVE

(Aftermarket) Existing Air conditioning Systems

Over 1.6 Million Refrigerant leaks per year in USA

(Aftermarket) Existing Refrigeration Systems

Over 1 Million Refrigerant leaks per year in USA

(New) Air conditioning Equipment being manufactured

Over 5 Million pieces of equipment per year in USA

(New) Refrigeration Equipment being manufactured

Over 2 Million pieces of equipment per year in USA

**WE HAVE THE GAME CHANGING ANSWER
TO SOLVE REFRIGERANT LEAKS WITH
100% SUCCESS, EVERY TIME!**

THE MP2 MUTI-PORT SHUTOFF VALVE

ITS SIMPLE, IT WORKS

Regardless of the location of the leak, the Multiport Shutoff Valves will determine which refrigerant circuit is leaking and the technician can pinpoint the location quickly.

The Multiport Shutoff Valve eliminates guess work, reduces time & repair cost, and ensures technician confidence in the ability to find leaks with 100% success.

- Technician time saving
- Cost savings for the Customer
- Satisfied Customers
- Reduced Warranty Service Costs



At Manufacturing Time or Aftermarket

Add Value to Your Air Conditioning and Refrigeration Systems

Installing our Multiport Shutoff Valves on new equipment during the manufacturing process will add a greater value to equipment than the current single port Valves. Refrigerant leaks, do happen, even in new equipment. Our Multiport Shutoff Valves will solve the ACR Industry concerns for purity of refrigerant systems and warranty compliance when other agents are introduced into systems for refrigerant leak detection and sealing of leaks.

Lucrative Aftermarket Installs

Installing our Multiport Shutoff Valves on existing systems in the field will provide service technicians with the confidence and tool to locate refrigerant leaks with 100% success. Our 2-Port Isolation Valves can be installed and the leak found in a very timely manner.

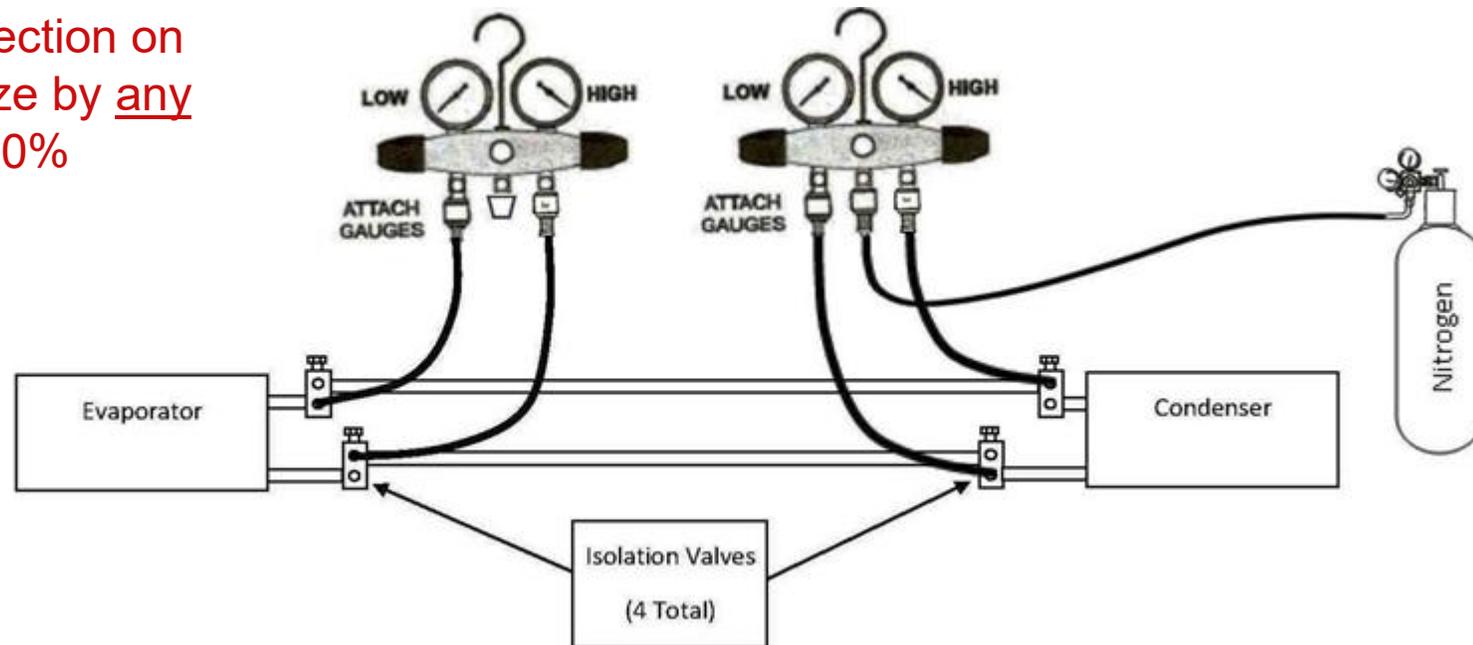
Now for the first time in history, the task of refrigerant leak detection can be used with flat rate pricing.



Works on ANY Air Conditioning or Refrigeration System

All air conditioning and refrigeration systems have the same basic 4 components.

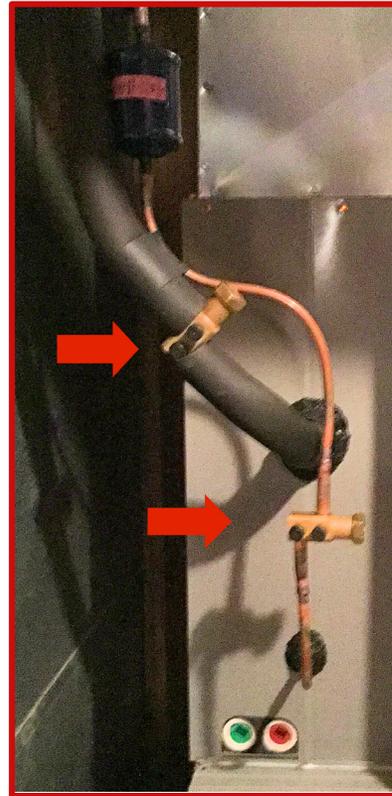
The Multiport Shutoff valves will facilitate leak detection on any system of any size by any manufacturer with 100% accuracy.



Great Design Is In Simplicity

The Multiport Shutoff Valves are easily added to any air conditioning system.

They can be installed during manufacturing process or added aftermarket as a system improvement.



Incorporate at Time of Manufacture

The Patented MP2 Multi-Port Valves will give your company a marketing edge.

Nov8tive Air Products



4 POINTS OF ADDED VALUE

- 1. ENVIRONMENT:** The world has become more concerned about our planet's environment. The question being asked, what negative things are manufacturers and consumers doing to destroy our planet, and what positive things are being done to repair and preserve it. Ozone depleting refrigerants have been shown to be a major problem to our environment. The ACR statistics show 1.6 million refrigerant leaks per year in our country alone. It is also a Global problem. Our MP2 Shutoff Valve solves this problem by allowing the technician to locate refrigerant leaks quickly and with 100% success. This means less refrigerant leaking into our atmosphere.
 - 2. Equipment Manufacturing:** Refrigerant leaks do occur even in brand new equipment. Manufacturers pay a certain amount for warranty repairs. There is also a concern with technicians putting other chemicals into a system for refrigerant leaks that could void the warranty of the equipment. With our MP2 Multi-Port Shutoff Valves in place on new equipment, no other chemicals need to be introduced into a system for warranty concerns, and the refrigerant leak can be located in a very timely manner.
 - 3. HVAC Contractors:** When comparing apples to apples, a contractor would rather have the capability of refrigerant leak detection already built into the brand of equipment he sells. He knows that time will be saved which will benefit the contractor and his customer on many types of repairs along with leak detection. Also by having this capability on the new equipment it is also a marketing benefit for sales, to be able to show that this brand allows for a positive effect for the environment. The majority of polled HVACR contractors have said that they would love to sell the Brand of equipment that is equipped with the MP2 Multi-Port Valves.
 - 4. End User/Consumers:** Consumers are very conscious about cost and value of purchases. They seek the best value for their dollar. They are also very concerned about the condition of our planet and the environment. They are concerned about the condition that we will leave our planet for our children and our children's children. They get information from commercials and advertisements about which companies that are making a positive effort to help repair and preserve the good health of our planet. The HVACR Brand with our MP2 Multi-Port Valves will show these positive efforts, by giving the technician the ability to locate and solve refrigerant leaks quickly and successfully. This will stop the continued leaking of ozone depleting refrigerants into the atmosphere. Consumers do use their purchasing power to support brands that support the good health of our planet.
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It's Patented

**The MP2 Multi-Port Shutoff Valve has past
the “patent pending” stage.**

United States Patent #

US 9,335,078 B1





(12) **United States Patent**
Buggs, Sr.

(10) **Patent No.:** **US 9,335,078 B1**
(45) **Date of Patent:** **May 10, 2016**

(54) **AIR CONDITIONING SYSTEM**

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137/360

(71) Applicant: **Gregory D. Buggs, Sr.**, Wichita, KS
(US)

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29/890

(72) Inventor: **Gregory D. Buggs, Sr.**, Wichita, KS
(US)

* cited by examiner

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 242 days.

Primary Examiner — Emmanuel Duke

(74) *Attorney, Agent, or Firm* — Kenneth H. Jack; Davis & Jack, L.L.C.

(21) Appl. No.: **13/850,826**

(57) **ABSTRACT**

(22) Filed: **Mar. 26, 2013**

An air conditioning system for refrigerant based cooling of air within a building, the air conditioning system including an outdoor condenser unit having a refrigerant output port and a refrigerant input port; an indoor evaporator unit having a refrigerant input port and refrigerant output port; a pair of refrigerant carrying lines having a condenser unit and evaporator unit ends, one of the lines extending from the condenser unit's refrigerant output port to the evaporator unit's refrigerant input port, and the other line extending from the evaporator unit's refrigerant output port to the condenser unit's refrigerant input port; and exterior and interior pairs of isolation valves respectively operatively connected to the refrigerant carrying lines' condenser and evaporator unit ends, each isolation valve having at least a first pressure testing port opening its upstream or downstream end.

(51) **Int. Cl.**
F25B 39/04 (2006.01)

(52) **U.S. Cl.**
CPC **F25B 39/04** (2013.01)

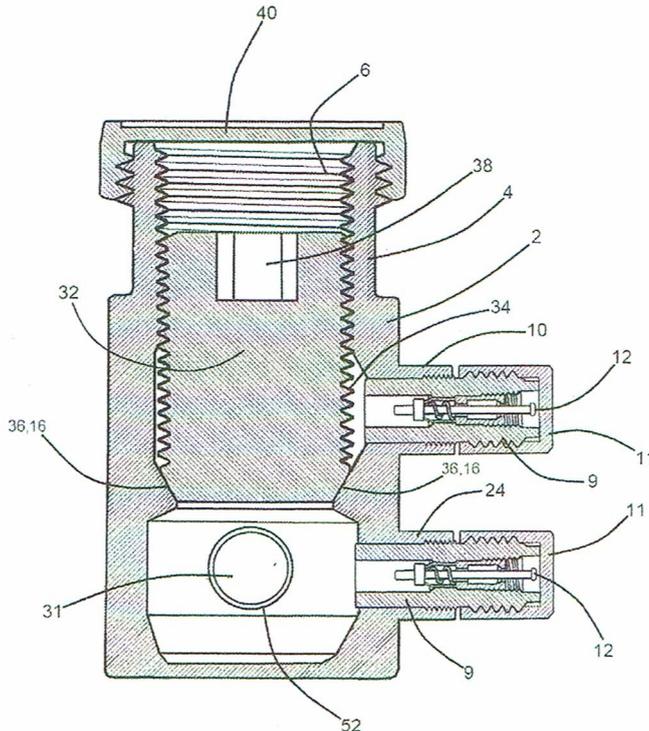
(58) **Field of Classification Search**
CPC F25B 39/04; F25B 45/00
USPC 62/77, 527; 137/68, 223
See application file for complete search history.

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6 Claims, 5 Drawing Sheets



Products and Services

The product line of Nov8tive Air Products LLC consist of eco-friendly air-conditioners, heat pumps, evaporator coils, and refrigeration equipment, featuring our unique Patented Multi-Port Shutoff Valve. We are the only brand on the market that can claim the **4-Point Value** that our products brings to the market. This concept is a first.

Point 1. Environment: Our Multi-Port Shutoff Valves provides 100% accuracy and a time saving method in locating refrigerant leaks. This expedites the ability to seal off refrigerants leaking into atmosphere.

Point 2. New Equipment Manufacturing: Refrigerant leaks do happen, even on new equipment. Installing our Multi-Port Shutoff Valves on new equipment will already have in place the means to locate refrigerant leaks very quickly. This will save technician time on labor which is paid by the manufacturer, and will address the manufactures concerns for purity of refrigerant systems and warranty compliance when other agents are introduced into systems for leak detection and sealing of refrigerant leaks.

Point 3. Service Technician: By having our Multi-Port Shutoff Valves in the service vehicle, this will give the technician the one sure device to find any refrigerant leak every time. The Multi-Port Shutoff Valve allows the technician the ability to isolate different refrigerant circuits, thereby allowing work to be on a particular component or area of a system only, which saves time. And now for the first time in the industry; refrigerant leak detection can be used with flat rate pricing.

Point 4. Consumer: Whether our Multi-Port Shutoff Valves are on the customer's new equipment or added aftermarket by the technician, any repair or refrigerant leak detection will be performed and completed in a time-saving manner. When time is saved, money is saved by the customer.

Facts:

1. Currently all existing and newly produced Air-conditioning and Refrigeration Condensers use single port service valves with only 2 functions, (1) to allow a means of checking operation of the system, (2) to secure the refrigerant inside of the condensing unit.
2. Our Multi-Port Shutoff Valves provide the same 2 functions as the single port valves, (1) to allow a means of checking operation of the system, (2) to secure the refrigerant inside of the condenser, along with (3) the additional capability of isolating the refrigerant circuits for leak detection, (4) isolating individual components for repair, which saves time and labor cost.