

## **NAVAC Inc.**

1099 Wall Street West, Suite 179 Lyndhurst, NJ 07071 Tel/Fax: +1 877 MY-NAVAC 877 696 2822 Info@NavacGlobal.com www.NavacGlobal.com



## **Empowering You to Work Smarter**

Leading Technology · Superior Quality · Best Experience







Delivering unsurpassed customer value at every opportunity defines the mission of NAVAC. We empower HVAC technicians to get jobs done with more accuracy, ease and efficiency by offering highly differentiated products with leading technology and superior quality. NAVAC products include the industry's first Brushless DC-Driven Vacuum Pump, North America's first Cordless Vacuum Pump - the 2019 Dealer Design Award (DDA) Gold Winner, the world's first 4-Cylinder Digital DC Recovery Unit - the 2020 DDA Gold Winner, Smart Refrigerant Charging Machine and our unique Power Tube Expander and Power Flaring Tools. Those award-winning, innovative tools serve contractors well in delivering unprecedented performances while saving their time and effort.

NAVAC Empowering You to Work Smarter.











### NP2DLM BreakFree™ Cordless Vacuum Pump



## **Cordless · Compact · Convenient**

### **High Performance Lithium Battery**

- High capacity
- Up to 1 hour running time

### Twin Cylinder

Ultimate vacuum down to 23 microns

### Brushless DC Technolog

- Light weight at 8.4 lbs
- Highly efficient

### **Other Features**

- Backflow prevention check valve
- Isolation valve

### eient • Easy to store

· Easy to carry

Model		NP2DLM
Li-ion Battery		NB1, 18V, 5Ah
Flow Rate	CFM	
Ultimate Vacuum	micron	23
Pump Design		Dual-Stage, DC Motor
Motor Power	HP	1/6
Inlet Port	in	1/4", 3/8" flare
Oil Capacity	OZ	5.1
Dimension	in	9.2 × 3.5 × 7.5
Weight	lbs	8.4 (with battery)
Accessory		Carry bag, NB1 Battery, NC2 Battery Charger

### **NP4DLM**

### BreakFree™ Cordless Vacuum Pump



### **World's Highest Capacity Cordless DC Pump**

### Highest Capacity Cordless Pump

- 4CFM
- Residential and light commercial applications

### Compact Design

- Easy to carry
- Easy to store

### High Performance Lithium Battery

- High capacity
- Up to 1 hour running time

### Twin Cylinde

High ultimate vacuum down to 15 microns

### Brushless DC Technology

- Light weight at 15.4 lbs
- Highly efficient

### Other Features

- Backflow prevention check valve
- Isolation valve & Lifting hook

Model		NP4DLM
Li-ion Battery		NBP2,18V, 9Ah
Flow Rate	CFM	4
Ultimate Vacuum	micron	15
Pump Design		Dual-Stage, DC Motor
Motor Power	HP	1/2
Inlet Port	in	1/4", 3/8", 1/2" flare
Oil Capacity	0Z	8.8
Dimension	in	12.4 × 4.4 × 9.4
Weight	lbs	15.4 (with battery)
Accessory		Carry bag, NBP2 Battery, NC2 Battery Charger





NB1 NBP2 NAPS1 NC2

### **Battery Power Accessories**

## **NB1**Battery for NP2DLM



NAPS1
Power Supply Adapter



NBP2
Battery for NP2DLM & NP4DLM



NC2
Battery Charger for NB1 & NBP2



Model	Description	Compatibility	Specification
NB1	Battery Pack	NP2DLM	Li-ion 18V 5.0Ah 90Wh
NBP2	Battery Pack	NP2DLM, NP4DLM	Li-ion 18V 9.0Ah 162Wh
NC2	Charger	NB1, NBP2	Input: 100V-240V-50/60Hz 180W Output: 18V 6A
NAPS1	Power Supply Adapter	NP2DLM, NP4DLM	Input: 100V-240V-50/60Hz, 4.5A, 450VA Output: 21V 20A



NP4DP



## Performance · Reliability

### Dual-Stage Integrated Cylinder Design

- High ultimate vacuum
- High reliability

### Forced Oil Circulation

• Improved efficiency and durability

### Internal Check Va

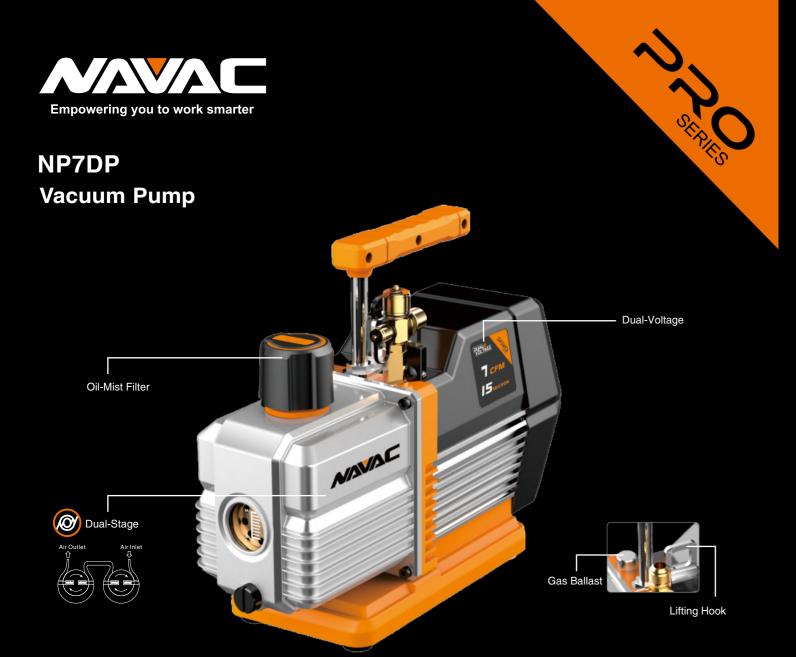
Prevent oil backflow

### Lifting Hoo

• Safe & convenient for roof top use

Model		NP4DP
Power Supply	V/Hz	115V / 60Hz
Flow Rate	CFM	4
Run Load Amps	A	4.3
Ultimate Vacuum	micron	15
Pump Design		Dual-Stage, AC Motor
Motor Power	HP	3/4
Inlet Port	in	1/4", 3/8", 1/2" Flare
Oil Capacity	OZ OZ	17
Dimension	in	14×5×11.3
Weight	lbs	24.3





## **Performance · Reliability**

Expanded application

Prevent oil backflow

- High ultimate vacuum
- High reliability

### Forced Oil Circulation

• Improved efficiency and durability

Safe & convenient for roof top use

Model		NP7DP
Power Supply	V/Hz	115V / 60Hz
		230V / 60Hz
Flow Rate	CFM	7
Run Load Amps	Α	4A (115V), 1.8A (230V)
Ultimate Vacuum	micron	15
Pump Design		Dual-Stage, AC Motor
Motor Power	HP	3/4
Inlet Port	in	1/4", 3/8", 1/2" Flare
Oil Capacity	0Z	15
Dimension	in	14 ×5 ×11.3
Weight	lbs	26



### NP7DP2 **Vacuum Pump**





Lifting Hook

## **Performance · Reliability**

Expanded application

- High ultimate vacuum
- High reliability

### Prevent oil backflow

• Improved efficiency and durability

Safe & convenient for roof top use

	NP7DP2
/Hz	115V / 60Hz
FM	7
	4A
icron	15
	Dual-Stage, AC Motor
P	3/4
	1/4", 3/8", 1/2" Flare
	15
	14 ×5 ×11.3
s	26
F ic P	Hz M



**Empowering you to work smarter** 

### The Industry's First **Brushless DC Vacuum Pump**



The era of smart refrigerant evacuation begins here with the combination of inverter, vacuum measurement and smart control in one unit, NAVAC **NRP6D**i and **NRP8Di**. Light-weight, inverter-driven, dual-stage vacuum pump delivers high-speed evacuation along with high ultimate vacuum. A built-in Micron Vacuum Gauge with LCD Digital Display precisely measures vacuum level and provides a realtime view of the system's internal vacuum condition. Smart control assures the system's vacuum by automatically extending evacuation time. Built-in solenoid valve prevents oil back flow and seals the system to preserve the vacuum during power outage or accidental disconnect.

Leading Technology, Superior Quality, Best Experience.

**Empowering You to Work Smarter** 







### NRP6Di NRP8Di







## **Brushless DC with Smart Control**

- Light
- More efficient

- Extended evacuation for better vacuum
- Automatic control
- Task reminder

- Precise vacuum measurement
- Digital display

High ultimate vacuum

- Prevent oil backflow
- Preserve vacuum

Model		NRP6D	NRP8D
Power Supply	V/Hz	115V / 60Hz	115V / 60Hz
Flow Rate	CFM		8
Ultimate Vacuum	micron	15	15
Pump Design		Dual-Stage, DC Motor	Dual-Stage, DC Motor
Motor Power	HP	3/4	3/4
Inlet Port	in	1/4", 3/8", 1/2" Flare	1/4", 3/8", 1/2" Flare
Oil Capacity	OZ	17.6	17.6
Dimension		14 × 5.3 × 11.9	14 × 5.3 × 11.9
Weight	lbs	25.35	25.35





**Empowering you to work smarter** 

### NP12DM **Vacuum Pump**







## Fast • Robust • Powerful

- High quality, super high vacuum
- High evacuation performance

### Oil Backflow Prevention

 No system oil contamination during power failure

- Light
- More efficient

### Oil Drain Valve

• Ball valve design, easier to drain

High vacuum level down to 5 microns

### Large Oil Sight Glass

Better view of oil level

Model		NP12DM
Power Supply	V/Hz	115V / 60Hz
Flow Rate	CFM	12
Ultimate Vacuum	micron	5
Pump Design		Dual-Stage, DC Motor
Motor Power	HP	1/2
Inlet Port	in	1/4", 3/8", 1/2" Flare
Oil Capacity	oz	28
Dimension		16.3 × 6 × 12.1
Weight	lbs	32



### NP12DA1 **Ammonia Vacuum Pump**





## **Robust and Corrosion-Resistant**

- Special corrosion resistant pump parts
- Stainless steel inlet port

Electronic starter for ignition prevention

### **Brushless DC Technology**

- Light
- More efficient

• Ball valve design, easier to drain

- Super high vacuum level down to 5 microns
- · Heavy duty for industrial applications

### Large Oil Sight Glass

Better view of oil level

Model		NP12DA1
Power Supply	V/Hz	115V / 60Hz
Flow Rate	CFM	12
Ultimate Vacuum	micron	5
Pump Design		Dual-Stage, DC Motor
Motor Power	HP	1/2
Inlet and Exhaust Flange		KF25
Oil Capacity	OZ	28
Dimension		16.3×6×12.1
Weight	lbs	32



## MASTER SERIES

### **VO1Q VO1G Vacuum Pump Oil**



## **Premium Oil**

Wid	de	lv /	۸m	ыII	ica	ы	

Suitable for most vacuum pumps available in the market

• Clean and free of contaminants

Model	VO1Q	VO1G
Capacity	1 Liquid Quart	1 Liquid Gallon



### NRD16T



### **Suitable for Heavy Commercial Applications Industry-Leading Ultimate Vacuum down to 3 Microns Fast Evacuation with Power and Reliability**

**Adjustable Gas Ballast Valve** 

**Integrated Cylinder Structure** 

### **Forced Oil Circulation**

Model		NRD16T
Flow Rate	CFM	12
Ultimate Vacuum	micron	
Ultimate Vacuum Gas Ballast	micron	6
Water Vapor Capacity	lbs/h	0.7
Motor Power	hp	1
Oil Capacity	Quart	1.6
Inlet and Exhaust Flange		Inlet KF16 Exhaust KF25
Noise Level	dB	58
Net Weight	lbs	98 (with cart)
Dimensions	in	20.5 × 7.4 × 10.7
Accessory		Cart, NPO68 Pump Oil, NOT30B Oil Mist Filter, KF16 to 1/2" Adapter, KF16 & KF25 Clamps







### NRD24M NRD30M Industrial Vacuum Pump





## **Powerful · Reliable · Corrosion-Resistant**

leavy-Duty, Industrial-Grade Design

Corrosion-ResistantSuitable for use on ammonia systems

Adjustable Gas Ballast Valve

Oil Backflow Prevention

**Forced Oil Circulation** 

Integrated Cylinder Structure

Model		NRD24M	NRD30M	
Flow Rate	CFM	18	23	
Ultimate Vacuum	micron		3	
Ultimate Vacuum Gas Ballast	micron	6	6	
Water Vapor Capacity	lbs/h	1.1	1.1	
Motor Power	hp	1.5	1.5	
Oil Capacity	Quart	2.1	2.1	
Inlet and Exhaust Flange		Inlet KF25 Exhaust KF25	Inlet KF25 Exhaust KF25	
Noise Level	dB	58	58	
Net Weight	lbs	77	77	
Dimensions	in	20.5 × 7.4 × 10.7	20.5 × 7.4 × 10.7	
Accessory		NPO68 Pump Oil, KF25 Clamps		



CART1 NOT30B NPO68

**Industrial Pump Accessories** 

CART1
Cart for NRD16T/24M/30M



NOT30B
Oil Mist Filter for NRD16T/24M/30M



NPO68
Industrial Grade Vacuum Pump Oil
1 Liquid Quart









## MASTER SERIES

The Industry's First Smart Refrigerant Charging Machine

## NRC62D Smart Charging

Automatic operation for easy, reliable evacuation and refrigerant charging













The industry's first smart charging machine, with never before seen features and advanced technology, NAVAC brings smart charging products to the HVAC industry. Conventional refrigerant charging operations use vacuum pump, manifold gauges, electronic charging scale, refrigerant tubing and other connection devices. It is dependent on the technician's experience level and judgement to evacuate and charge refrigeration systems. The conventional method is inconvenient, labor intensive, and it is difficult to ensure accuracy of the refrigerant charge.

The high-power dual-stage vacuum pump, with ultra-high vacuum capability, rapidly evacuates the system to the preset vacuum level. The smart control precisely measures the system's vacuum and digitally displays the vacuum level. After reaching the preset vacuum level, it automatically conducts the dry operation and leak detection. When the unit confirms the system is under proper conditions, the smart control automatically starts the charging function with precise control of the predetermined refrigerant charge, and turns off the system once charging is complete. The NAVAC smart charging machine enables you to automatically, accurately, and efficiently complete HVAC system charging.

Leading Technology, Superior Quality, Best Experience.

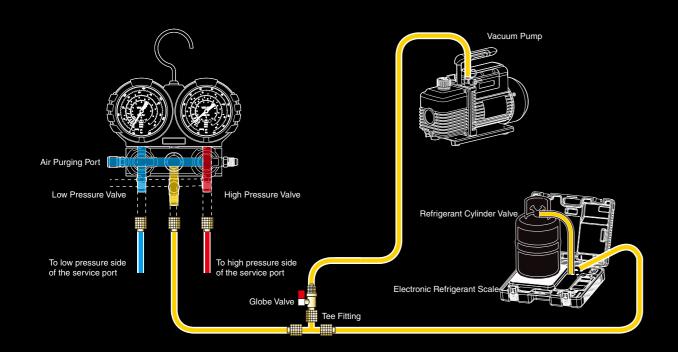
**Empowering You to Work Smarter** 



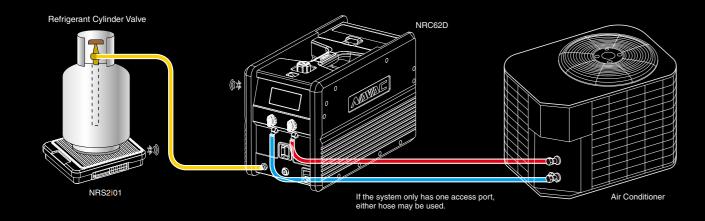




### **Traditional Refrigerant Charging:**



### **Smart Refrigerant Charging:**



The innovative design and advanced technology of the Smart Refrigerant Charging Machine delivers automatic, accurate and efficient refrigerant charging experience for HVAC service technicians.

Leading Technology, Superior Quality, Best Experience.

**Empowering You to Work Smarter** 





### NRC62D **Smart Refrigerant Charging Machine**





## **Smart Charging**

### hine with Vacuum Pump, Digital Manifold and Refrigerant Scale

- 6 CFM DC dual-stage vacuum pump
- Built-in advanced digital manifold gauge
- · Wireless refrigerant scale

- Built-in micron vacuum gauge with leak detection
- Wireless temperature probes
- 3-color refrigerant hoses

- Automatic operation Built-in leak detection
- Real time status display and warning

Model		NRC62D
Power Supply	V/Hz	115V / 60Hz
Evacuation Rate	CFM	6
Charge Rate	lbs/min	4
Motor Power	HP	1/3
Dimension	in	19.7 × 10 × 14.5
Weight	lbs	39.6
Accessory Included		NRS201 (Scale), NRHH53 (Hoses), NMT1 (High Temp Probe), NMT2 (Low Temp Probe)







### **NRRD**



## Light • Fast

Easy to use

• Prevent mixing of various refrigerants

Fast recovery

• Suitable for all commonly used refrigerants

Added safety

Model		NRRD			
Refrigerant Type		Category III: R-12, R-134a, R-401C, R-500 Category IV: R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509 Category V: R-402A, R-404A, R-407A, R-407B, R-410A, R-507			
Power Supply	V/Hz	115V/60Hz			
Motor	HP	1			
Max Current Draw	A	10			
Compressor		Oil-less, Air-cooled, Piston style			
Automatic Safety Shut-Off		558 psi/38.5 bar			
			R-410A	R-22	R-134a
Recovery Rate	lbs/min	Direct Vapor	0.44	0.49	0.31
riocovery riado	103/111111	Direct Liquid	6.06	6.17	4.7
		Push/Pull Liquid	12.61	11.60	10.8
Dimension	in	18 × 10 × 14			
Weight	lbs	30			



## MAYAC MASTER SERIES



## **Fastest in Its Class**

• UL verified recovery rate, best performance in its class

Fast recovery

· Light and more efficient

• Suitable for all commonly used refrigerants

- Easy-to-read large LCD display
- Backlit for clarity

• Prevent mixing of various refrigerants

Model		NRDD				
Refrigerant Type		Category III: R-12, R-134a, R-401C, R-500 Category IV: R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509 Category V: R-402A, R-404A, R-407A, R-407B, R-410A, R-507				
Power Supply	V/Hz	115V/60Hz	115V/60Hz			
Motor	HP	1	1			
Max Current Draw	A	12				
Compressor		Oil-less, Air-cooled, Piston style				
Automatic Safety Shut-Off		558 psi/38.5 bar				
			R-410A	R-22	R-134a	
UL Verified  Becovery Rate	lbs/min	Direct Vapor	0.75 (0.34) 🍅	0.64 (0.29)	0.57 (0.26)	🗖 Industry Fastest
riccovery riate	(kg / min)	Direct Liquid	14.44 (6.55)	11.11 (5.04)	7.85 (3.56)	
VERIFIED		Push/Pull Liquid	18.41 (8.35)	17.04 (7.73)	12.81 (5.81)	
Dimension		14.5×9.9×11.7				
Weight	lbs	24.3				
3-VEAR WARRANT	3-YEAR WARRANTY *			er the counter warra	nty, but you can <b>extend</b>	to 3 years with



## **Fast • Compact • Ignition-Proof**

- Designed and tested to UL 121201, CSA C22.2 No. 213-17 and IEC 60079-7 Standards
- Suitable for A2L, A2 and A3 refrigerants

• Suitable for all commonly used refrigerants

- Brushless DC motor
- Twin cylinder with 2-row oversized condenser

• Prevent mixing of various refrigerants

- Easy-to-read large LCD display
- Backlit for clarity

• Tested to be waterproof and dustproof

Model		NRDDF			
Refrigerant Type		Category III: R-12, R-134a, R-401C, R-500, R-1234YF, R-600a Category IV: R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-411A, R-411B, R-412A, R-502, R-509, R-290 Category V: R-32, R-402A, R-404A, R-407A, R-407B, R-410A, R-507			
Power Supply	V/Hz	115V/60Hz			
Motor	HP	1			
Max Current Draw	A	12			
Compressor		Oil-less, Air-cooled, Piston style			
Automatic Safety Shut-Off		558 psi/38.5 bar			
			R-410A	R-22	R-134a
UL Verified  Recovery Bate	lbs/min	Direct Vapor	0.75 (0.34)	0.64 (0.29)	0.57 (0.26)
riccordi y ridio	(kg / min)	Direct Liquid	14.44 (6.55)	11.11 (5.04)	7.85 (3.56)
VERIFIED		Push/Pull Liquid	18.41 (8.35)	17.04 (7.73)	12.81 (5.81)
Dimension	in	14.5×9.9×11.7			
Weight	lbs	24.3			



## MAVAC MASTER SERIES



### **World's First DC Inverter 4-Cylinder Recovery Unit**

### **Fastest · Most Powerful**

- Up to 40% faster than 2-cylinder unit
- Oversized inlet port for faster recovery

- Easy-to-read large LCD display
- Backlit for clarity

- Over-sized micro-channel coil
- 3 cooling fans

· Suitable for all commonly used refrigerants

More efficient

To achieve faster vapor recovery

Model		NRDC4M			
Refrigerant Type		Category III: R-12, R-134a, R-401C, R-500 Category IV: R-22, R-401A, R-401B, R-402B, R-407C, R-407D, R-408A, R-409A, R-502, R-509 Category V: R-402A, R-404A, R-407A, R-407B, R-410A, R-507			
Power Supply	V/Hz	115V/60Hz			
Motor	HP	1.5			
Max Current Draw	A	12			
Compressor		Oil-less, Air-cooled, Piston style			
Automatic Safety Shut-Off		558 psi/38.5 bar			
			R-410A	R-22	R-134a
UL Verified (UL)	lbs/min	Direct Vapor	1.06 (0.48)	0.99 (0.45)	0.84 (0.38)
riecovery riale	(kg / min)	Direct Liquid	16.82 (7.63)	12.76 (5.79)	9.19 (4.17)
VERIFIED		Push/Pull Liquid	18.23 (8.27)	16.76 (7.60)	15.08 (6.84)
Inlet/Outlet Port	in	Inlet 3/8", Outlet 1/4"			
Dimension	in	17×10.7×12.2			
Weight	lbs	41.9			



## NVR1 Valve Core Removal Tool





## **Fast Recovery and Evacuation**

For Use With Both 1/4" and 5/16" Flare Fittings

Designed for High-Pressure Refrigerants Including R410a

**Vacuum Rated to 20 Microns** 

**Metal Handle for Durability** 

Model	NVR1
Accessory	VR01005 O Ring (3pk)



### NMV1

### **Micron Vacuum Gauge**

It uses the Pirani high-precision vacuum sensor to precisely measure vacuum levels. Digital display affords a comprehensive view of vacuum conditions. When reaching the preset vacuum level, it will buzz as a reminder. When the vacuum level increases from the preset vacuum level, it will buzz rapidly and flash the backlight to warn of leaks.

Leading Technology, Superior Quality, Best Experience.

Buzzing Alert

**Empowering You to Work Smarter** 



## **Precise Measurement**

### Pirani Vacuum Senso

- Professional grade
- More precise

### Large Backlit Display

- Easy-to-read large digital display
- Backlit for clarity
- Auto power off

### **Buzzing Alert**

- Vacuum level reminder
- Vacuum leakage warning

### Ergonomic Design

Fasy to carry

Model	NMV1
Maximum overload pressure	14 psi
Range	0~10000 Pa, 0~100 mBar, 0~75 mmHg, 0~75000 microns
Resolution	0.01 (10 Pa), 0.0001 (10 mBar), 0.0001 (10 mmHg), 1 (30000 microns)
Accuracy	15-750 micron: ±5% of reading (at 68°F)
Operating temperature	32~122°F(0~50°C)
Unit	Pa, mBar, mmHg, microns
Sensor	Pirani sensor
Buzzer alarm	90 dB, shut down after 10 seconds
Weight	4.5 oz
Accessory	Storage Bag





### NML<sub>1</sub>



## **Accurate Detection**

 Precise measurement Extended service life

 Rechargeable Easy to carry

• 2 CFM ball bearing fan for very small leaks

NML1
NMLI
CFC, HCFC, HFC refrigerants
≤0.1 oz / year (R-134a)
$\leq 3$ s (depending on the size and location of leak)
≥8 hours
≥50 psi
≥1 year under normal usage (1500 h)
15,7 in
0.77 lbs
Auto
2 CFM
Carry Case



### NMC<sub>1</sub> **Digital Clamp Meter**





## Simple · Solid

Backlit LCD

1-1/8" Jaw

Precise measurement

• Ideal for tight spaces

Easy to read large display

Suitable for large conductors

01
4
μF
F~1832°F (-40°C~1000°C)
Z
Leads, Type K Temperature Probe, Storage Bag
/ A





### NMT300 Infrared Thermometer

NAVAC NMT300 determines surface temperature by measuring the infrared energy of target surface. Its low power consumption design allows for a long-lasting operation. High-precision infrared sensor is quick and accurate in getting surface temperature.

Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



## Easy to Use

### Precision Infrared Sensor

Backlit LCDEasy to read display

Rapid response, accurate measurement

### Large-Aperture Silicon Mirro

- Long-distance reach
- Wide measuring range

### One-Key Operation

· Convenient, easy to use

# Model NMT300 Emissivity 0.10~1.00 adjustable Temperature Range -25.6°F~752°F (-32°C~400°C) Max Measuring Accuracy ±2% Response Time 500 mS Debug Mode Single-process debugging



NRS2i01 NRS3i01

**Wireless Refrigerant Scale** 



The NAVAC NRS2i01, NRS3i01 bluetooth wireless electronic refrigerant scale is designed and reinforced with advanced technology, providing more precise and portable refrigerant charging technology.

Through the bluetooth connection between handheld device and electronic charging scale, you can perform other tasks while charging.

While real-time refrigerant charge is transmitted to the handheld device, it will buzz when the charge is within 2 oz of the setting, to alert the operator to stop the charging once the setting is reached.

The magnesium alloy weighing pan and ergonomic, one-piece, portable design makes it lighter and easier to carry.

Leading Technology, Superior Quality, Best Experience.

**Empowering You to Work Smarter** 







## NRS2i01 Wireless Refrigerant Scale



## **Precise Charging**

### **Wireless Bluetooth Control**

- More convenient
- Auto power off

### Large Backlit Displa

• Large screen digital display, better readability

### Precision Sensor

- Precise measurements
- Accuracy 0.05%

### **Integrated Handle Desig**

• Convenient hide-away storage for hand-held device

• 3.3 lbs only, easy to carry

Model		NRS2 01
Range	lbs	220
Resolution	OZ	0.2
Accuracy	%	0.05%
Power		4 × AA (scale), 4 × AAA (controller)
Dimension	in	8.25 × 10.2
Weight	lbs	3.3
Accessory		Storage Bag



## NRS3i01 Wireless Refrigerant Scale, Large Weighing Pan





## **Precise Charging**

### Wireless Bluetooth Contr

- More convenient
- Auto power off

### Large Backlit Display

• Large screen digital display, better readability

### Precision Sensor

- Precise measurements
- Accuracy 0.05%

### Integrated Handle Design

Convenient hide-away storage for hand-held device

### Laura Alauria wa Walakia a Blatfa w

- Suitable for larger size refrigerant cylinders
- Durable and highly reliable

Model		NRS3 01
Range	lbs	265
Resolution	0Z	0.35
Accuracy	%	0.05%
Power		4 × AA (scale), 4 × AAA (controller)
Dimension	in	10.6 × 12.6
Weight	lbs	10.3
Accessory		Carry Case





### N2D4H Manifold Gauge with Digital Display





## **Precision · Impact-Resistant**

### Accurate

- Class 0.4 accuracy
- Over 100% improvement vs. analog gauges

### Folding Hook

Hidden hook design, easy to transport

### Aluminum Body with 1/4 Turn Ball Valve Handle

- Reliable, efficient and durable
- Better work experience

### Digital Display

- Easy to read
- Auto power off

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

22 Programmed Refrigerant Types

Model		N2D4H
Refrigerant Type		R-22, R-32, R-134A, R-290, R-404A, R-407A, R-407C, R-410A, R-426A, R-427A, R-434A, R-442A, R-448A, R-449A, R-450A, R-452A, R-453A, R-507A, R-513A, R-600A, R-744, R-1234YF
Pressure Range	psi	-30 inHg to 720 psi
Hose	in	Red 1/4" - 1/4" Yellow 1/4" - 1/4" Blue 1/4" - 1/4"
Standard Length	ft	3x5'
Accessory		Carry Case



### N2A4 Manifold Gauge



## **Precision · Impact-Resistant**

### Accurat

 Precision pressure gauge with Class 1.0 accuracy

### mpact-Resistant

- Impact-resistant design
- Durable rubber cover

### Aluminum Body with 1/4 Turn Ball Valve Handl

- Reliable, efficient and durable
- Better work experience

### Folding Hoo

Hidden hook design, easy to transport

### 4-Refrigerants for Wider Application

- Φ3-1/8 large dial for easy reading
- Commonly used refrigerants on outer rings for better reading

Model		N2A4
Refrigerant Type		R-22, R-404A, R-134a, R-410A
Gauge Diameter		Ф 3-1/8
Pressure Range	psi	-30 inHg to 800 psi -30 inHg to 500 psi
Hose		No
Accessory		Carry Case









## **Precision · Impact-Resistant**

### Accurate

 Precision pressure gauge with Class 1.0 accuracy

### Impact-Resistan

- Impact-resistant design
- Durable rubber cover

### Aluminum Body with 1/4 Turn Ball Valve Handle

- Reliable, efficient and durable
- Better work experience

### Folding Hool

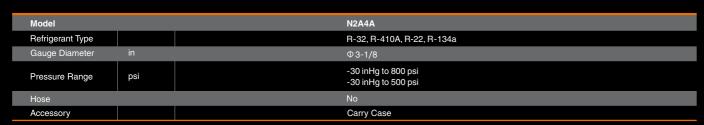
• Hidden hook design, easy to transport

### R32 Compatible for Wider Application

- Φ3-1/8 large dial, color-coded for easy reading
- R32 refrigerant on outer rings for better reading

### Phosphorescent

Glow in the dark





### N4A4H 4-Valve Manifold Gauge





## **Precision · Impact-Resistant**

### Accurate

 Precision pressure gauge with Class 1.0 accuracy

### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

### Aluminum Body with 1/4 Turn Ball Valve Hand

- Reliable, efficient and durable
- Better work experience

### Folding Hool

Hidden hook design, easy to transport

### 4-Refrigerants for Wider Application

- Φ3-1/8 large dial for easy reading
- Commonly used refrigerants on outer rings

### 4 Valve

Easy to use

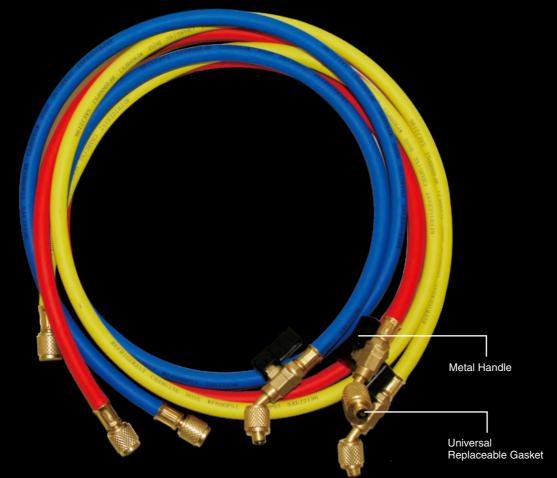
Model		N4A4H
Refrigerant Type		R-22, R-404A, R-134a, R-410A
Gauge Diameter	in	Ф 3-1/8
Pressure Range	psi	-30 inHg to 800 psi -30 inHg to 500 psi
Hose	in	Black 3/8"-3/8" Red 1/4"-1/4" Yellow 1/4"-1/4" Blue 1/4"-1/4"
Hose Length	ft	4x5'
Accessory		Carry Case







### NH5SC Refrigerant Hose



## 1/4" Charging Hoses with Ball Valve, 5 Ft Long

### High Strength

- Ball valve to prevent refrigerant loss
- Suitable for R-410A, R-134a, R-22 and other refrigerants
- 1/4" SAE fittings with 45° bend on one end
- Leak-proof eight-sided crimp
- 800 psi working pressure, 4000 psi burst pressure

### Improved Design

- Metal valve handle
- Universal, replaceable gasket

Model			NH5SC	
Туре		Red	Yellow	Blue
Pressure Scale	psi		0~800 psi	
Length	ft		5	
Connector	in		1/4" - 1/4"	



### NHB1 NHB2

### **Big Boy High-Flow Evacuation Hoses**



## **Evacuation Hose**

### Fast & Efficient

- 1/2" large diameter for fast evacuation
- 4-layer construction for low permeation
- 3200 psi burst pressure, 640 psi working pressure
- Vacuum rated to 20 microns

Model		NHB1	NHB2
Length	feet	6'	6'
Diameter		1/2"	1/2"
Fitting		3/8" to 1/4"	1/2" to 1/4"







NEVK1 NEVK2 NEVK3

**Rapid Evacuation Kit** 





## **Rapid Evacuation**

### Big Boy High-Flow Evacuation Hoses, 6' Long

- 1/2" large diameter for fast evacuation
- 4-layer construction for low permeation
- 3200 psi burst pressure, 640 psi working pressure
- Vacuum rated to 20 microns

### **NVR1 Valve Core Removal Tool**

- For use with both 1/4" and 5/16" flare fitting
- Vacuum rated to 20 microns
- Designed for high-pressure refrigerants including R410a
- Metal handle for durability

### NMV1 Micron Vacuum Gauge

- Pirani vacuum sensor
- Large backlit display
- Buzzing alert
- Ergonomic design

Model	NEVK1	NEVK2	NEVK3
Description	Rapid Evacuation Kit, Pro Series	Rapid Evacuation Kit, Pro Series	Rapid Evacuation Kit, Pro Plus
Items		Quantity	
NHB1 Evacuation Hose, 3/8" to 1/4" Fitting	1	-	1
NHB2 Evacuation Hose, 1/2" to 1/4" Fitting			1
NVR1 Valve Core Removal Tool	1	1	2
NMV1 Micron Vacuum Gauge			1



### NKS1 Mini-Split Tool Kit





## **NAVAC Advanced Tool Kit for Mini-Split Installation**

### NEF6LM Cordless Flaring Tool

- Quick accurate flaring
- Ultra light at 2.9 lbs

### NTW1 Digital Torque Wrench

- Digital readout
- Adjustable jaw

### Manifold Gauge with Digital Display

- Large LCD screen for clarity
- Doubling accuracy vs. analog gauge

Model	Item	Specification	Quantity
NEF6LM	Cordless Power Flaring Tool	Lithium battery: 7.4V 2Ah 14.8Wh Tube OD: 1/4", 3/8", 1/2", 5/8", 3/4"	1
NTW1	Digital Torque Wrench	3.1 - 62.7 ft·lb (4.2 - 85 N-m)	1
NRM1D	Manifold Gauge with Digital Display	Refrigerant type: R-22, R-134a, R-1234yf, R-290, R-404A, R-407C, R-410A, R-32, R-507	1
NHK1	30-Piece Hex Wrench Set	SAE: 7/250"-3/8" Metric: 0.7-10 mm	
NTC6	Tube Cutter	Tube OD 1/8" ~ 3/4"	1
NTC12	Tube Cutter	Tube OD 1/8" ~ 1-1/4"	
NTR14	Internal/External Reamer	Tube OD 1/8" ~ 1-1/2"	1
NTD28	Tube Deburrer	2 spare blades included	1
NFG1	Flare Gauge	Tube OD: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"	1







### NTW1 **Digital Torque Wrench**



## **Digital Readout · Adjustable Jaw**

- Accurate within 2%
- Dual direction (CW & CCW)
- Torque setting memory & Peak hold

- Auto turn-off after 5 minutes inactivity
- Selectable measuring units (ft-lb, in-lb, N-m, kg-cm)
- Indicator lights and sound for target torques

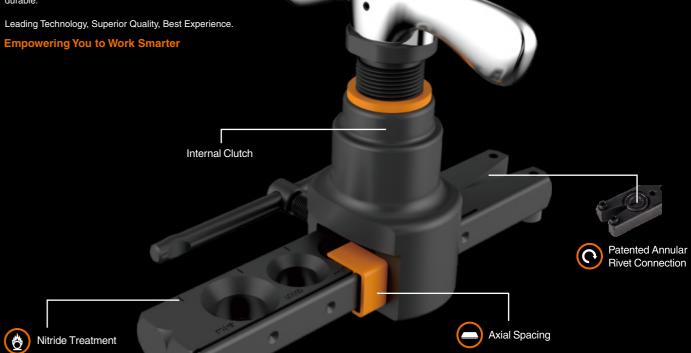
Model	NTW1	
Torque Measuring Range	3.1 - 62.7	ft·lb (4.2 - 85 N-m)
Jaw Size	0.2 - 1.2 i	nch (5 - 30 mm)
Weight	3 lbs	
Accessory	Storage C	ase



### NTF66 NTF66C

### **Flaring Tool**

NAVAC Flaring Tools, with axial spacing and patented rivet connection, deliver consistent, accurate flaring each and every time. Nitride treatment makes them more robust and



## **Accurate Flaring**

• Ensuring accurate and consistent flaring

Preventing over-torquing

- Longer service life
- Robust and durable

• 45° flare for R410A system

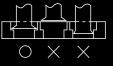
**Heavy-Duty Handle & Shaft** 











Model	NTF66	NTF66C
Tube OD	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"	1/4", 5/16", 3/8", 1/2", 5/8", 3/4"
Accessory	Carry Case	Carry Case, NTC12 (Cutter)







Empowering you to work smarter



### NTF67D

**Hand and Drill-Powered** 



## **Accurate Flaring**

• Efficient and labor-saving with drill attached









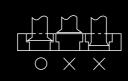


Axial spacing for accurate and consistent flaring

• Eccentric cone with 45° flare

Preventing over-torquing





• 45° flare for R410A system

Longer service life

Robust and durable

Model	NTF67D
Tube OD	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"
Accessory	Carry Case, NFG1 Flare Gauge

### **NEF6LM**

### BreakFree™ Power Flaring Tool

Weighing less than three pounds, the new Model NEF6LM Power Flaring Tool produces precise, automatic flares in a fraction of the time compared to traditional flaring methods. NAVAC's new cordless flaring solution makes flaring faster and far simpler without sacrificing accuracy or consistency. Offering easy flare connectivity, it can create flares in five sizes, ranging from 1/4" to 3/4". Designed to perform reliably in harsh environments, the NEF6LM Cordless Power Flaring Tool is your ideal flaring solution for mini-split ACs and

Leading Technology, Superior Quality, Best Experience. ering You to Work S











### NEF6LM BreakFree™ Power Flaring Tool



## **Quick Accurate Flaring · Ultra Light**

- Complete a flare in 15 seconds
- Over 100 flares per charge
- Quick charge in 30 minutes

Accessory

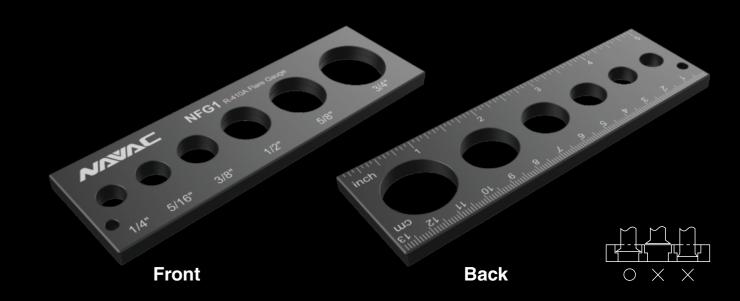
- Ultra light at 2.9 lbs
- Quick connect with ready-to-use clamps
- 45° flaring for R410A
- Limit baffle assures precise flare depth
- Easy one-button operation
- Battery power indicator
- LED flash light
- Flare gauge included



Carry Case, NFG1 Flare Gauge



### NFG1 Flare Gauge



## **Ensuring Perfect Flares**

Tube OD: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"

For Precise Measurement of Tube Flares







## NTE7 Tube Expander



## **Easy to Expand**

### Easy to Carry

• Foldable design for portability

### Easy to Use

Simple structure for expanding copper tubing









 Model
 NTE7

 Tube OD
 3/8", 1/2", 5/8", 3/4", 7/8"



### NTE11H

**Hydraulic Tube Expander** 



## **Powerful and Durable**

### Hydraulic Expande

- Vacuum sealed hydraulic system, no oil change needed
- Easy to expand
- Suitable for large diameter copper

### Compact

- Convenient for narrow spaces
- Easy to use

### **Easy One-Hand Operation**

Reduced labor and improved efficiency













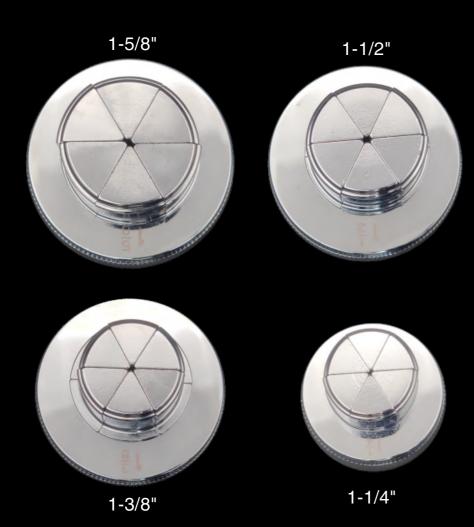
Model	NTE11H
Tube OD	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"
Accessory	NTC12 (Cutter), NTD28 (Deburring Tool), Carry Case







## NTEHHK Expander Kit for NTE11H



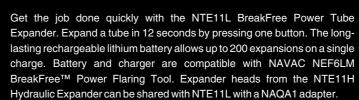
Model	NTEHHK	
Tube OD	1-1/4". 1-3/8". 1-1/2". 1-5/8"	





### NTE11L

### BreakFree™ Power Tube Expander



Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter













### NTE11L BreakFree™ Power Tube Expander





## **Effortless, Quick & Accurate Expanding**

7.4V 2Ah 14.8Wh

3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"

- One-button operation
- Automatic pressure relief
- Quick connect heads

Model Battery Type

Tube OD

- Large capacity lithium battery
- Complete an expansion in 12 seconds
- Up to 200 expansions per charge
- Quick charge in 30 minutes

- Innovative head design minimizing 3/8" tube splitting
- Battery power indicator
- LED flash light

### NTE11L (full kit)

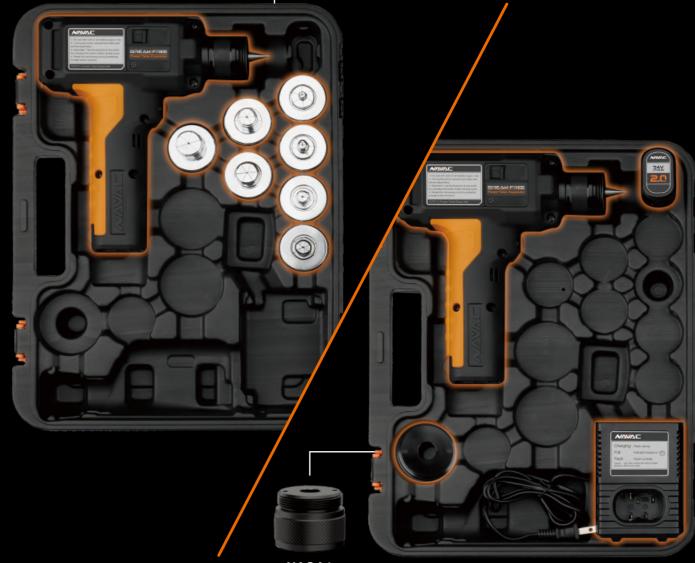
Quick Connect Expander Heads	Yes
NAQA1 Quick Connect Adapter	No
NBF2 Lithium Battery	Yes
NCF2 Battery Charger	Yes
Carry Case	Yes



### N11LNB (no battery, no charger)

For NEF6LM owners

Quick Connect Expander Heads	Yes
NAQA1 Quick Connect Adapter	No
NBF2 Lithium Battery	No
NCF2 Battery Charger	No
Carry Case	Yes



### NAQA1 Quick Connect Adapter

Expander heads from NTE11H Hydraulic Expander can be shared with NTE11L with a NAQA1 adapter.

## N11LNH (no heads)

Quick Connect Expander Heads	No
NAQA1 Quick Connect Adapter	Yes
NBF2 Lithium Battery	Yes

NCF2 Battery Charger Yes
Carry Case Yes







### NTC6 NTC12 NTC15

### **Tube Cutter**

With sharp cutting blade, ball bearings and aluminum alloy body, it makes tube cutting easy and efficient.

Leading Technology, Superior Quality, Best Experience.



## **Easy to Cut**

- Sharp and durable
- One extra blade supplied

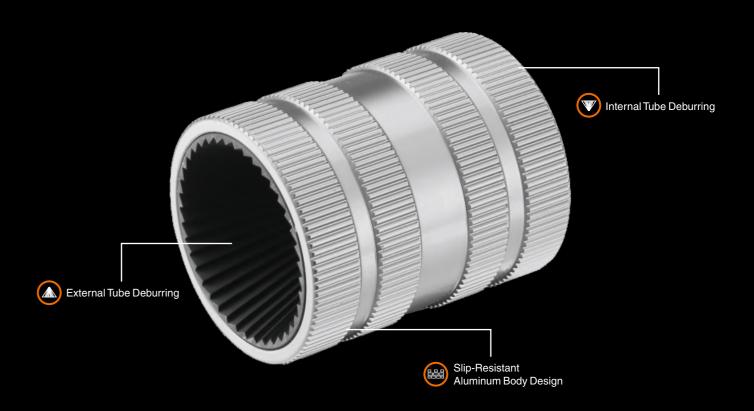
- · Easy cutting and better quality
- Short cut for flare ends, saving copper

- Light weight, easy to carry and use
- NTC15 Tube OD 1/8"~3/4" 1/8" ~ 1-1/4" 1/4" ~ 1-5/8"



### **NTR14**

### **Internal & External Reamer**



## Fast, Easy and Clean

Easy to clean internal and external tubing surfaces

Slip-Resistant Aluminum Body Design

- Light weight
- Durability

Model	NTR14
Tube OD	1/8" ~ 1-1/2"







## NTD28 Tube Deburring Tool





## **Easy to Carry and Use**

Replaceable Blades2 spare blades included

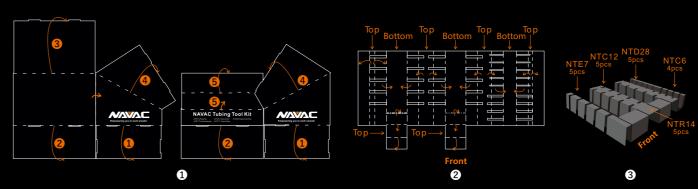
**Easy to Carry** 

ceable Blades Easy to



### NTK1 Tubing Tool Kit





## **Your Favorite NAVAC Tubing Tools**

Counter Displayable	Convenient Showcase	Easy to Refill
Item	Description	Quantity
NTE7	Tube Expander, 7/8" Max OD	5
NTR14	Internal/External Reamer, 1-1/2" Max OD	5
NTC12	Tube Cutter, 1/8"~1-1/4" Max OD	5
NTC6	Tube Cutter, 3/4" Max OD	4
NTD28	Tube Deburrer	5
MM014	2 sets of counter display cartons	1







### A2L (R32) Compatible Tools

### **Special Tools Needed, Processes Unchanged**

Refrigerant Safety Groups	Lower Toxicity OEL > 400ppm	Higher Toxicity OEL < 400ppm
Higher Flammability	<b>A3</b> All Hydrocarbons	В3
Lower Flammability HCFs, non-fluorocarbons	<b>A2</b> R-152a	B2
Lower Flammability (Mildly Flammable) Low Burning Velocity HCFs, HFC/HFO Blends, HFOs	<b>A2L</b> R-32, R-452B, R-454B, R-455A, R-516A, R-1234yf, R-134ze(E)	B2L
No Flame Propagation HFFCs, HFC/HFO Blends, HFOs, HCFOs, HFO/chloro-olefin blends, non-fluorocarbons	<b>A1</b> R-134a, R410A, R-448A, R-449A, R-460B. R-513A, R-515A, R-1336mzz(Z)	B1

With the impending phasedown of HFCs, including the widely used R-410A, air conditioning equipment containing lower-GWP refrigerants will be coming to market over the next few years. Unlike previous refrigerant transitions, which moved from one nonflammable (A1) refrigerant to another, this transition will likely be to A2L refrigerants, which are mildly flammable. (1)

NAVAC, the world's largest supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and other industry-specific items, is one of the first manufacturers who offer a full-line of A2L compatible tools, including vacuum pumps, recovery units and manifold gauges.

### Resource:

①Turpin, J. R. (2021, October 9). A1 versus A2L refrigerants: Similar but different. ACHR News RSS. Retrieved November 19, 2021.



### A2L (R32) Compatible Tools

### Special Tools Needed, Processes Unchanged



No.	Model	Description	No.	Model	Description
1	NP2DLM	BreakFree Cordless Vacuum Pump, 2CFM	6	NRDD & NRDDF	Digital DC Recovery Unit
2	NP4DLM	BreakFree Cordless Vacuum Pump, 4CFM		NRDC4M	4-Cylinder Recovery Unit
3	NP7DP2	Vacuum Pump, 7CFM	8	N2A4A	Manifold Gauge
	NRP6Di & NRP8Di	Smart Vacuum Pump, Master Series		N2D4H	Manifold Gauge with Digital Display, 5 Hoses
5	NP12DM	Vacuum Pump, Industrial Grade, Master Series	10	NKS1	Advanced Mini-Split Tool Kit







### **NAVAC'S No-Hassle Warranty**

### **Warranty Information**

NAVAC Inc. GUARANTEES all NAVAC products to be free of defective material and craftmanship which could affect the life of the product when used for purpose for which it is designed. This warranty does not cover items which have been abused, misused, or improperly maintained, (including failure to use the correct type of vacuum pump oil). The sole obligation under this warranty shall be to repair, replace (OTC Exchange), or provide credit for any defective product or parts thereof, at the discretion of NAVAC Inc. within the period mentioned below. In some instances, NAVAC Inc. may require the defective product be returned for warranty analysis.

Note: Warranty only applies if product is purchased from a NAVAC Authorized Dealer.

## Different warranty periods cover different product groups, so please read carefully. Warranty period is stated in chart below:

Category	Model	Warranty Period (Years)
Charging Station	NRC62i / NRC62D	2
BreakFree™ Cordless Vacuum Pump	NP2DLM / NP4DLM	2
Digital Vacuum Pump	NRP6Di / NRP8Di	2
Industrial-Grade Vacuum Pump	NP12DM	2
Digital Recovery Unit	NRDD	2**
4 Cylinder Recovery Unit	NRDC4M	2
BreakFree™ Power Flaring Tool	NEF6Li / NEF6LM	2
BreakFree™ Power Tube Expander	NTE11L/N11LNB/N11LNH	2
Hydraulic Tube Expander	NTE11H / NTEHHK	2
Vacuum Pump	NP4DP / NP7DP / NP7DP2	1
Mechanical Pump	NRP6DV / NRP8DV	1
Ammonia Vacuum Pump	NP12DA1	1
Industrial Vacuum Pump	NRD16T / NRD24M / NRD30M	1
Mechanical Recovery Unit	NRRD	1
Recovery Unit for Flammable Refrigerants	NRDDF	1
Manifold Gauge	NRM1D / NRM2D / N2D4H / N4A3H / N4A4H /NRM1B / NRM2B / N2A4 / N2A4A	+
Hose	NRHH53 / NRHH53C / NH5SC / NHB1 / NHB2 / NHB3	1
Core Tool	NVR1	1
Rapid Evacuation Kit	NEVK1 / NEVK2 / NEVK3	1
Scale	NRS2i01 / NRS3i01	1
Micron Gauge	NMV1	1
Refrigerant Leak Detector	NML1	1
Digital Clamp Meter	NMC1	1
Infrared Thermometer	NMT300	1
Mechanical Flaring Tool	NTF66 / NTF66C / NTF67D	1
Flaring Gauge	NFG1	1
Mechanical Expander	NTE7	1
Torque Wrench	NTW1	1
Tube Cutter	NTC6 / 11 / 12 / 13 / 15	1
Reamer / Deburrer	NTR14 / NTD28	1
Electronic Accessory	NB1 / NBF2 / NBP2 / NAPS1 / NC1 / NC2 / NCF2	2

<sup>\*\*3</sup> YEARS IF PRODUCT IS REGISTERED at <a href="https://navacglobal.com/product-registration/">https://navacglobal.com/product-registration/</a> (Effective 4/1/2020)



### Vacuum Pump / Charging Machine / Recovery Unit / Tubing Tools:

Use these devices to pump and recover only HVAC/R refrigerants from sealed HVAC/R systems. Warranty is voided if used for any other purpose, including manufacturing purposes.

NAVAC Pumps and Recovery Units are not warrantied for use on the following systems:

- Lithium
- Ammonia (Except NP12DA1)
- Bromide

- Butane (Except NRDDF)
- CO<sub>2</sub> type extraction
- Leak Stop products

### Warranty is VOID if:

- Oil has NOT been changed.
- Corrosive substances have been introduced in the pump.•
- Pump has been altered, modified, or any components missing or removed.

### Gauges

The following exceptions will not be covered under this warranty.

- Over-pressurized or broken gauges.
- Gauges that have been altered, misused, or improperly maintained.

### Tools:

Hand tools are covered except for "Tool Kits". Only the failed component will be issued a credit or replacement. For the NKS1, each tool will be warrantied for its individual warranty period in the chart above, based on Date of Purchase of NKS1.

### **How to Return Product**

Prior to returning any product to NAVAC, you are required to obtain a Returns Merchandise Authorization, (RMA), number.

Fill out the online RMA form at <a href="https://navacglobal.com/return-merchandise-authorization/">https://navacglobal.com/wp-content/uploads/2019/05/2019-RMA-Form.pdf</a> and email to <a href="mailto:Techsupport@navacglobal.com">Techsupport@navacglobal.com</a>, or Fax to 877-696-2822 Please fill out completely. Any missing information could delay processing.







### **Company Information:**

NAVAC Inc. is a leading provider of advanced HVAC Tools. We offer highly differentiated vacuum pumps, recovery units, refrigerant charging machines, manifold gauges and other tools for HVAC service technicians to make their job easier, more efficient and enjoyable.

Office Address: 1099 Wall Street West, Suite 179

Lyndhurst, NJ 07071

Telephone: +1 877 MY-NAVAC

Fax: +1 877 696 2822

Web URL: www.NavacGlobal.com

**Primary/Order** Phone: +1 877 MY-NAVAC, Fax: +1 877 696 2822

Contact: Email: Order@NavacGlobal.com

Facebook:
@NAVAChvactools



**LinkedIn**: NAVAC Inc. - HVAC Tools Division



Instagram: navac inc hvac too



YouTube:

NAVAC Inc. HVAC Tools Division





