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**BREAKFREE®**  
CORDLESS SERIES



**Commercial & Industrial**



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 Technology**

- Light weight at 8.4 lbs
- Highly efficient

**Other Features**

- Backflow prevention check valve
- Isolation valve

**Compact Design**

- Easy to carry
- Easy to store

Model	NP2DLM	
Li-ion Battery		NB1, 18V, 5Ah
Flow Rate	CFM	2
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 x 3.5 x 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 Cylinder**

- 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	oz	8.8
Dimension	in	12.4 x 4.4 x 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



**NBP2**  
Battery for NP2DLM & NP4DLM



**NAPS1**  
Power Supply Adapter



**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**  
**Vacuum Pump**



**Performance • Reliability**

**Dual-Stage Integrated Cylinder Design**

- High ultimate vacuum
- High reliability

**Forced Oil Circulation**

- Improved efficiency and durability

**Internal Check Valve**

- Prevent oil backflow

**Lifting Hook**

- 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	17
Dimension	in	14 x 5 x 11.3
Weight	lbs	24.3

**NP7DP**  
Vacuum Pump

**PRO**  
SERIES



**Performance • Reliability**

**Dual-Voltage**

- Expanded application

**Dual-Stage Integrated Cylinder Design**

- High ultimate vacuum
- High reliability

**Lifting Hook**

- Safe & convenient for roof top use

**Internal Check Valve**

- Prevent oil backflow

**Forced Oil Circulation**

- Improved efficiency and durability

Model	NP7DP	
Power Supply	V/Hz	115V / 60Hz 230V / 60Hz
Flow Rate	CFM	7
Run Load Amps	A	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	oz	15
Dimension	in	14 x 5 x 11.3
Weight	lbs	26

**NP7DP2**  
Vacuum Pump

**PRO**  
SERIES



**NEW**



**Performance • Reliability**

**A2L (R32) Compatible**

- Expanded application

**Dual-Stage Integrated Cylinder Design**

- High ultimate vacuum
- High reliability

**Lifting Hook**

- Safe & convenient for roof top use

**Internal Check Valve**

- Prevent oil backflow

**Forced Oil Circulation**

- Improved efficiency and durability

Model	NP7DP2	
Power Supply	V/Hz	115V / 60Hz
Flow Rate	CFM	7
Run Load Amps	A	4A
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	15
Dimension	in	14 x 5 x 11.3
Weight	lbs	26

## 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 NRP6Di 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 real-time 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

## Smart Vacuum Pump



## Brushless DC with Smart Control

### Brushless DC Technology

- Light
- More efficient

### Smart Control

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

### Built-In Micron Vacuum Gauge

- Precise vacuum measurement
- Digital display

### Dual-Stage

- High ultimate vacuum

### Solenoid Valve

- Prevent oil backflow
- Preserve vacuum

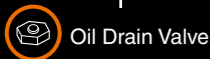
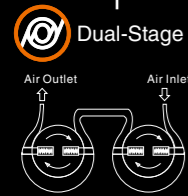
Model		NRP6Di	NRP8Di
Power Supply	V/Hz	115V / 60Hz	115V / 60Hz
Flow Rate	CFM	6	8
Ultimate Vacuum	micron	15	15
Pump Design		Dual-Stage, DC Motor	Dual-Stage, DC Motor
Motor Power	HP	3/4	3/4
Inlet Port	in	1/4", 3/8", 1/2" Flare	1/4", 3/8", 1/2" Flare
Oil Capacity	oz	17.6	17.6
Dimension	in	14 × 5.3 × 11.9	14 × 5.3 × 11.9
Weight	lbs	25.35	25.35

## NP12DM Vacuum Pump

**5** micron **12** CFM



High Performance Oil Mist Filter

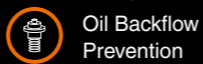


Oil Drain Valve

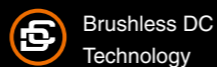


Adjustable Gas Ballast

Lifting Hook



Oil Backflow Prevention



Brushless DC Technology

## Fast • Robust • Powerful

### Industrial Grade Design

- High quality, super high vacuum
- High evacuation performance

### Oil Backflow Prevention

- No system oil contamination during power failure

### Brushless DC Technology

- Light
- More efficient

### Oil Drain Valve

- Ball valve design, easier to drain

### Integrated Dual-Stage Pump

- High vacuum level down to 5 microns

### Large Oil Sight Glass

- Better view of oil level

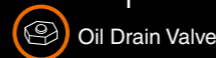
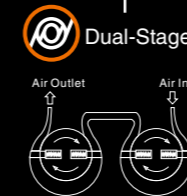
Model		NP12DM
Power Supply	V/Hz	115V / 60Hz
Flow Rate	CFM	12
Ultimate Vacuum	micron	5
Pump Design		Dual-Stage, DC Motor
Motor Power	HP	1/2
Inlet Port	in	1/4", 3/8", 1/2" Flare
Oil Capacity	oz	28
Dimension	in	16.3 x 6 x 12.1
Weight	lbs	32

## NP12DA1 Ammonia Vacuum Pump

**5** micron **12** CFM



Indoor Application

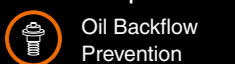


Oil Drain Valve



Adjustable Gas Ballast

Lifting Hook



Oil Backflow Prevention



Brushless DC Technology

## Robust and Corrosion-Resistant

### Corrosion Resistant for Ammonia (R-717)

- Special corrosion resistant pump parts
- Stainless steel inlet port

### Ignition-Proof Design

- Electronic starter for ignition prevention

### Brushless DC Technology

- Light
- More efficient

### Oil Drain Valve

- Ball valve design, easier to drain

### Industrial Grade Design

- 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	in	16.3 x 6 x 12.1
Weight	lbs	32

**VO1Q  
VO1G  
Vacuum Pump Oil**



**Premium Oil**

**Widely Applicable**

- Suitable for most vacuum pumps available in the market

**High Quality**

- Clean and free of contaminants

Model	VO1Q	VO1G
Capacity	1 Liquid Quart	1 Liquid Gallon

**NRD16T  
Industrial Vacuum Pump**



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

Adjustable Gas Ballast Valve

Oil Backflow Prevention

Integrated Cylinder Structure

Forced Oil Circulation

Model		NRD16T
Flow Rate	CFM	12
Ultimate Vacuum	micron	3
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 x 7.4 x 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**

**Heavy-Duty, Industrial-Grade Design**

**Corrosion-Resistant**

- Suitable 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	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 x 7.4 x 10.7	20.5 x 7.4 x 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**





Empowering you to work smarter

## The Industry's First Smart Refrigerant Charging Machine

### NRC62D Smart Charging

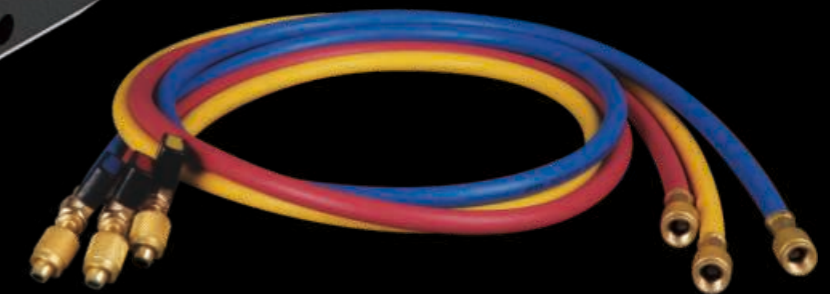
Automatic operation for easy, reliable evacuation and refrigerant charging



# MASTER SERIES

# 3 in 1

- 1 High Performance Vacuum Pump
- 2 Digital Manifold Gauge
- 3 Wireless Refrigerant Scale



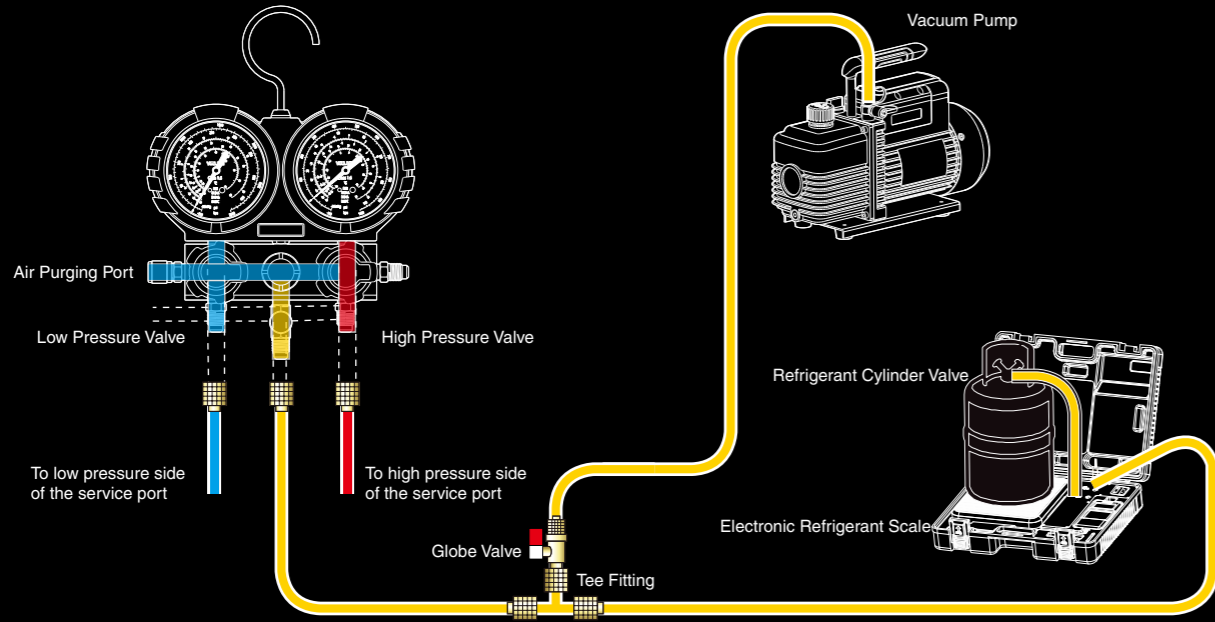
The industry's first smart charging machine, with never before seen features and advanced technology, NAVAC brings smart charging products to the HVAC industry. Conventional refrigerant charging operations use vacuum pump, manifold gauges, electronic charging scale, refrigerant tubing and other connection 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.

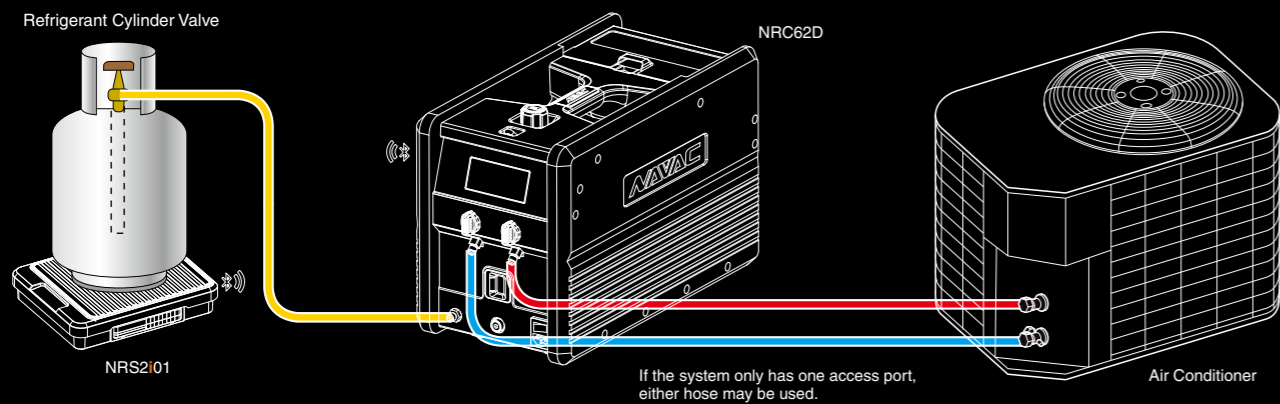
Leading Technology, Superior Quality, Best Experience.

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**



**3 in 1**



**Smart Charging**

**3-in-1 Smart Charging Machine 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

**Smart Control**

- 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 x 10 x 14.5
Weight	lbs	39.6
Accessory Included		NRS2101 (Scale), NRHH53 (Hoses), NMT1 (High Temp Probe), NMT2 (Low Temp Probe)

**NRRD**  
Recovery Unit



**Light • Fast**

**One Key Operation**

- Easy to use

**Purge Function**

- Prevent mixing of various refrigerants

**Twin Cylinder**

- Fast recovery

**High Pressure Protection**

- Added safety

**Oil-Free Compressor**

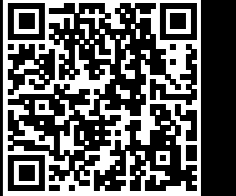
- Suitable for all commonly used refrigerants

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			
Recovery Rate	lbs/min		R-410A	R-22	R-134a
		Direct Vapor	0.44	0.49	0.31
		Direct Liquid	6.06	6.17	4.7
		Push/Pull Liquid	12.61	11.60	10.8
Dimension	in	18 x 10 x 14			
Weight	lbs	30			

**NRDD**  
Digital DC Recovery Unit



Fastest Twin-Cylinder Recovery Unit



Scan to see recovery unit comparison sheet



**Fastest in Its Class**

**Fastest in Direct Vapor for R410A, R22**

- UL verified recovery rate, best performance in its class

**Twin Cylinder with 2-Row Oversized Condenser**

- Fast recovery

**Brushless DC Motor**

- Light and more efficient

**Oil-Free Compressor**

- Suitable for all commonly used refrigerants

**Large Backlit Display**

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

**Purge Function**

- 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			
Motor	HP	1			
Max Current Draw	A	12			
Compressor		Oil-less, Air-cooled, Piston style			
Automatic Safety Shut-Off		558 psi / 38.5 bar			
UL Verified Recovery Rate	lbs/min (kg/min)		R-410A	R-22	R-134a
		Direct Vapor	<b>0.75 (0.34) 🏆</b>	<b>0.64 (0.29) 🏆</b>	0.57 (0.26)
		Direct Liquid	14.44 (6.55)	11.11 (5.04)	7.85 (3.56)
		Push/Pull Liquid	18.41 (8.35)	17.04 (7.73)	12.81 (5.81)
Dimension	in	14.5 x 9.9 x 11.7			
Weight	lbs	24.3			

**3-YEAR WARRANTY \***

\* NAVAC offers a 2-year over the counter warranty, but you can extend to 3 years with registration on [navacglobal.com/product-registration](http://navacglobal.com/product-registration) within 30 days of purchase

**NRDDF**  
Recovery Unit for  
Flammable Refrigerants

**NEW**

**A2L, A2 & A3**  
Compatible



**Fast • Compact • Ignition-Proof**

**Sparkless, Ignition-Proof Design**

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

**Oil-Free Compressor**

- Suitable for all commonly used refrigerants

**Fast and Efficient Recovery**

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

**Purge Function**

- Prevent mixing of various refrigerants

**Large Backlit Display**

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

**IP54 Waterproof Design**

- 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			
UL Verified Recovery Rate	lbs/min (kg/min)		R-410A	R-22	R-134a
		Direct Vapor	0.75 (0.34)	0.64 (0.29)	0.57 (0.26)
		Direct Liquid	14.44 (6.55)	11.11 (5.04)	7.85 (3.56)
		Push/Pull Liquid	18.41 (8.35)	17.04 (7.73)	12.81 (5.81)
Dimension	in	14.5 x 9.9 x 11.7			
Weight	lbs	24.3			

\* For recovering only HVAC/R refrigerants from sealed HVAC/R systems. Warranty Voided if used for any other purposes.

**NRDC4M**  
4-Cylinder Recovery Unit

**4-Cylinder**

**A2L R32**  
Compatible

**2020**  
DEALER DESIGN  
AWARDS  
theNEWS | GOLD

Industry Fastest



Scan to see recovery unit comparison sheet



**World's First DC Inverter 4-Cylinder Recovery Unit**  
Fastest • Most Powerful

**4-Cylinder for Powerful Recovery**

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

**Large Digital Display**

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

**Super-Efficient Condenser**

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

**Dual Oil-Free Compressors**

- Suitable for all commonly used refrigerants

**Brushless DC Motor**

- More efficient

**Acceleration Knob Design**

- 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			
UL Verified Recovery Rate	lbs/min (kg/min)		R-410A	R-22	R-134a
		Direct Vapor	1.06 (0.48)	0.99 (0.45)	0.84 (0.38)
		Direct Liquid	16.82 (7.63)	12.76 (5.79)	9.19 (4.17)
		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 x 10.7 x 12.2			
Weight	lbs	41.9			

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

**2** sizes in 1 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.

Empowering You to Work Smarter



**Precise Measurement**

**Pirani Vacuum Sensor**

- 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**

- Easy 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

## NML1 Refrigerant Leak Detector

Featuring a semiconductor sensor and a high-performance rechargeable lithium battery, it is precise, durable and easy to carry.

Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



## Accurate Detection

### Semiconductor Sensor

- Precise measurement
- Extended service life

### Lithium Battery

- Rechargeable

### Ergonomic Design

- Easy to carry

### Sniffing Fan

- 2 CFM ball bearing fan for very small leaks

Model	NML1
Refrigerants	CFC, HCFC, HFC refrigerants
Minimum of leakage	≤ 0.1 oz / year (R-134a)
Response time	≤ 3 s (depending on the size and location of leak)
Battery life	≥ 8 hours
System pressure	≥ 50 psi
Sensor life	≥ 1 year under normal usage (1500 h)
Length of probe	15.7 in
Weight	0.77 lbs
Calibration	Auto
Fan	2 CFM
Accessory	Carry Case

## NMC1 Digital Clamp Meter

NAVAC NMC1 Digital Clamp Meter has a high-precision smart chip for a quick and accurate measurement of electrical current. Its adjustable 1-1/8" jaw makes it easy to get around large conductors. Easy to read with a large backlit LCD. The compact design is ideal for tight spaces.

Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



## Simple • Solid

### High Precision Chip

- Precise measurement

### Backlit LCD

- Easy to read large display

### 1-1/8" Jaw

- Suitable for large conductors

### Compact Design

- Ideal for tight spaces

Model	NMC1
Max Measurement Voltage	600V
Max Measurement AC Current	400 A
Max Measurement Capacitance	4000 μF
Temperature Measurement Range	-40°F~1832°F (-40°C~1000°C)
Weight	9.6 oz
Accessory	Test Leads, Type K Temperature Probe, Storage Bag

## 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**

**NEW**



## Easy to Use

### Precision Infrared Sensor

- Rapid response, accurate measurement

### Large-Aperture Silicon Mirror

- Long-distance reach
- Wide measuring range

### One-Key Operation

- Convenient, easy to use

### Backlit LCD

- Easy to read display

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

**Precision Sensor**

- Precise measurements
- Accuracy 0.05%

**Magnesium Alloy Weighing Platform**

- 3.3 lbs only, easy to carry

**Large Backlit Display**

- Large screen digital display, better readability

**Integrated Handle Design**

- Convenient hide-away storage for hand-held device

Model	NRS2i01	
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

**NEW**



**Precise Charging**

**Wireless Bluetooth Control**

- More convenient
- Auto power off

**Precision Sensor**

- Precise measurements
- Accuracy 0.05%

**Large Aluminum Weighing Platform**

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

**Large Backlit Display**

- Large screen digital display, better readability

**Integrated Handle Design**

- Convenient hide-away storage for hand-held device

Model	NRS3i01	
Range	lbs	265
Resolution	oz	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**

**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 Handle**

- Reliable, efficient and durable
- Better work experience

**Folding Hook**

- Hidden hook design, easy to transport

**4-Refrigerants for Wider Applications**

- Ø 3-1/8 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	in	Ø 3-1/8
Pressure Range	psi	-30 inHg to 800 psi -30 inHg to 500 psi
Hose		No
Accessory		Carry Case

**N2A4A  
N2A4B  
Manifold Gauge**

**NEW**

**R32  
Compatible**



**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 Handle**
  - Reliable, efficient and durable
  - Better work experience
- Folding Hook**
  - Hidden hook design, easy to transport
- R32, R454B Compatible for Wider Applications**
  - Ø 3-1/8 large dial, color-coded for easy reading
  - A2L refrigerants on outer rings for better reading
- Phosphorescent**
  - Glow in the dark

Model	N2A4A	N2A4B
Refrigerant Type	R-32, R-410A, R-22, R-134a	R-454B, R-32, R-410A, R-22
Gauge Diameter	in Ø 3-1/8	Ø 3-1/8
Pressure Range	psi -30 inHg to 800 psi -30 inHg to 500 psi	-30 inHg to 800 psi -30 inHg to 500 psi
Hose	No	No
Accessory	Carry Case	Carry Case

**N4A4H  
4-Valve Manifold Gauge**

**4 Valve**

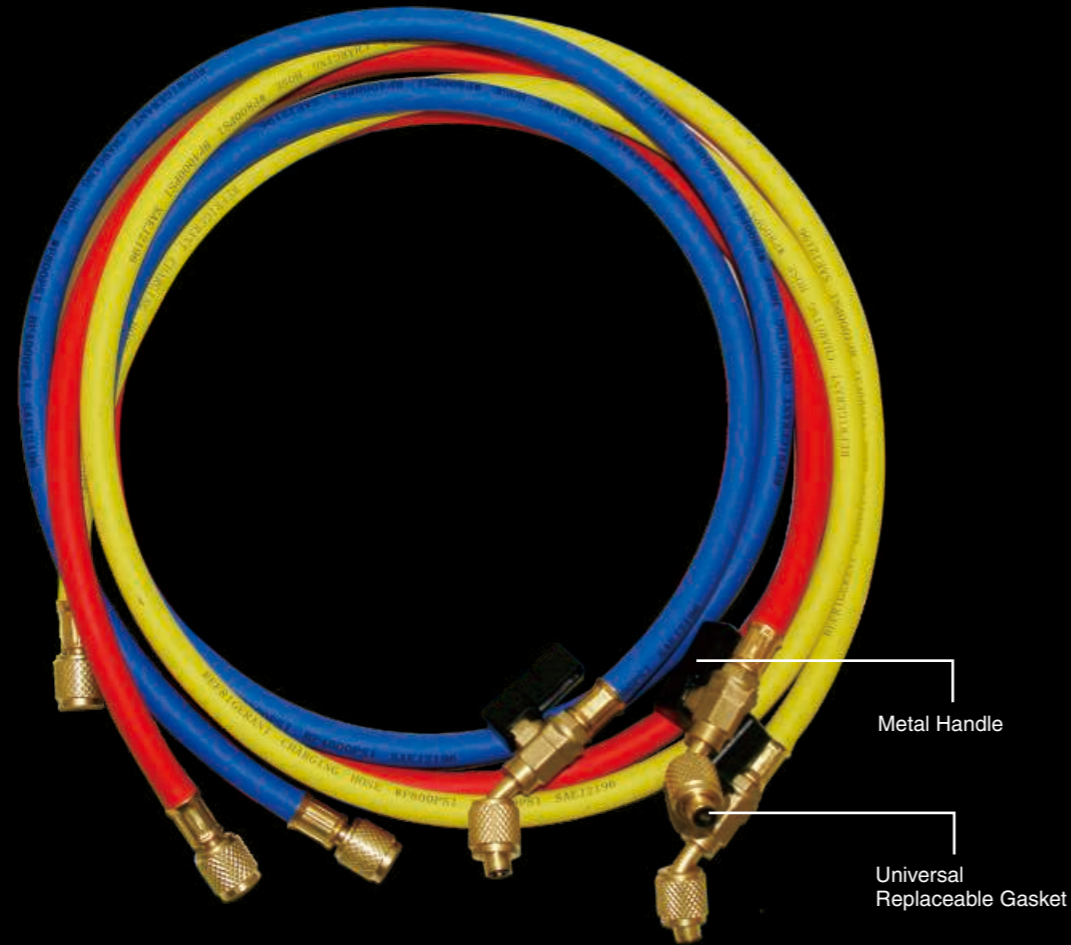


**Precision • Impact-Resistant**

- 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 Handle**
  - Reliable, efficient and durable
  - Better work experience
- Folding Hook**
  - Hidden hook design, easy to transport
- 4-Refrigerants for Wider Applications**
  - Ø 3-1/8 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	Ø 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		
Type	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



For best evacuation performance,  
Use NAVAC NVR1 Valve Core Removal Tool

**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'	feet	6'
Diameter	in	1/2"	in	1/2"
Fitting		3/8" to 1/4"		1/2" to 1/4"

**NEVK1  
NEVK2  
NEVK3  
Rapid Evacuation Kit**



**2** sizes in 1 tool



**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	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**

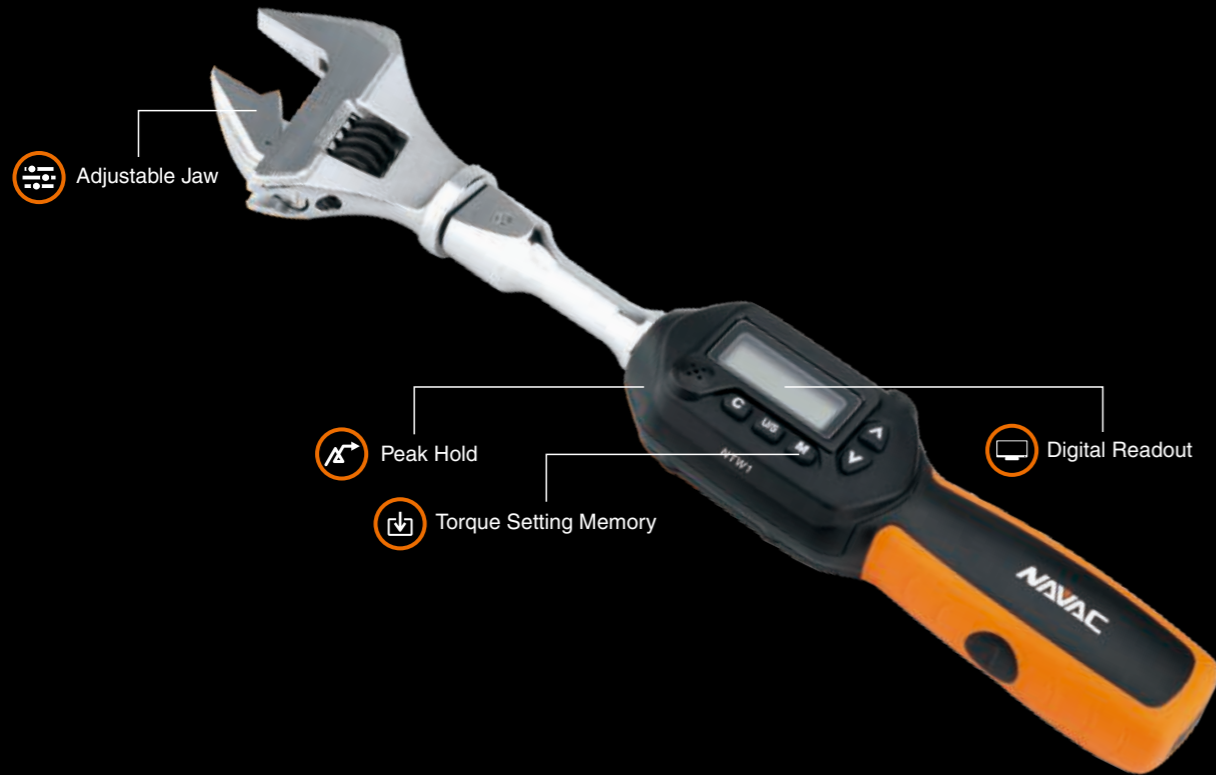
- Digital readout
- Adjustable jaw

**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	1
NTC6	Tube Cutter	Tube OD 1/8" ~ 3/4"	1
NTC12	Tube Cutter	Tube OD 1/8" ~ 1-1/4"	1
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 inch (5 - 30 mm)
Weight	3 lbs
Accessory	Storage Case

## 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 durable.

Leading Technology, Superior Quality, Best Experience.

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### Accurate Flaring

#### Axial Spacing

- Ensuring accurate and consistent flaring

#### Internal Clutch

- Preventing over-torquing

#### Nitride Treatment

- Longer service life
- Robust and durable

#### Eccentric Cone

- 45° flare for R410A system

#### Patented Annular Rivet Connection

#### 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)

**NTF67D**  
Hand and Drill-Powered  
Flaring Tool



**Accurate Flaring**

**Hand or Drill-Powered**

- Efficient and labor-saving with drill attached

**Axial Spacing**

- Axial spacing for accurate and consistent flaring
- Eccentric cone with 45° flare

**Nitride Treatment**

- Longer service life
- Robust and durable

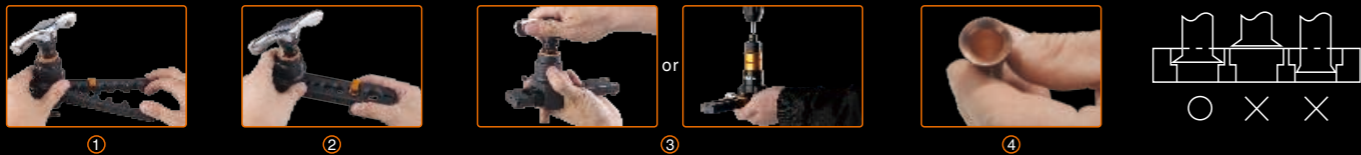
**Patented Annular Rivet Connection**

**Internal Clutch**

- Preventing over-torquing

**Eccentric Cone**

- 45° flare for R410A system



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 VRF systems.

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**NEF6LM**

**BreakFree® Power Flaring Tool**  PATENTED



**NBF2 Battery**

**NCF2 Charger**

**NFG1**

**Flare Gauge**



**Quick Accurate Flaring · Ultra Light**

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



Model	NEF6LM
Battery Type	7.4V 2Ah 14.8Wh
Tubing Type	Copper
Tube OD	1/4", 3/8", 1/2", 5/8", 3/4"
Weight	2.9 lbs (with battery)
Accessory	Carry Case, 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

NAVAC NTE7 Tube Expander, with its simple structure and foldable design, is convenient to carry and easy to use. Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



Foldable, Easy to Carry

## 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 Expander

- 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 **PATENT PENDING**

Get the job done quickly with the NTE11L BreakFree® Power Tube Expander. Expand a tube in 12 seconds by pressing one button. The long-lasting rechargeable lithium battery allows up to 200 expansions on a single charge. Battery and charger are compatible with NAVAC NEF6LM BreakFree® Power Flaring Tool. Expander heads from the NTE11H Hydraulic Expander can be shared with NTE11L with a NAQA1 adapter.

Leading Technology. Superior Quality. Best Experience.  
**Empowering You to Work Smarter**



**NTE11L**

**BreakFree® Power Tube Expander** PATENT PENDING



**Effortless, Quick & Accurate Expanding**

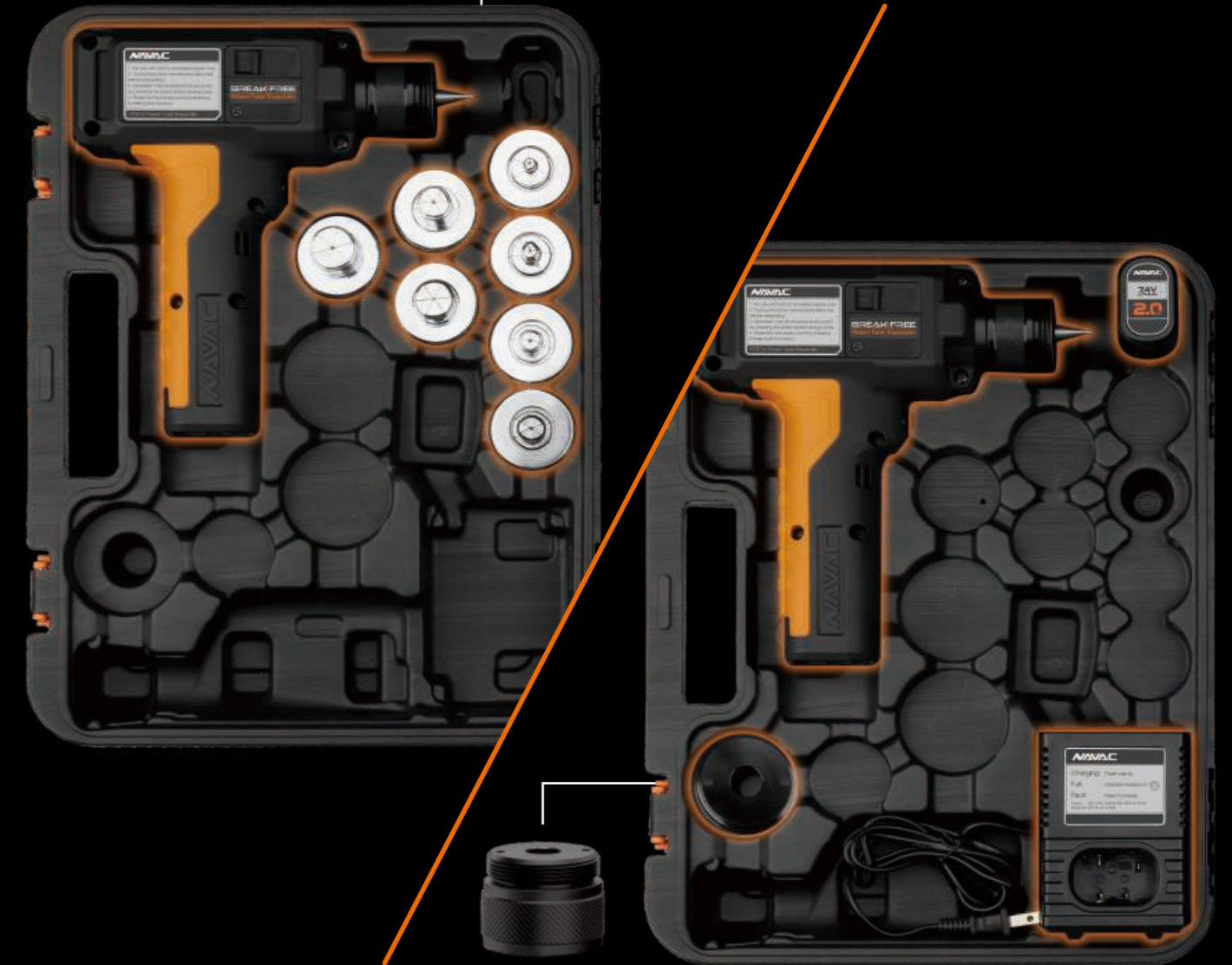
- One-button operation
- Large capacity lithium battery
- Quick charge in 30 minutes
- Automatic pressure relief
- Complete an expansion in 12 seconds
- Battery power indicator
- Quick connect heads
- Up to 200 expansions per charge
- LED flash light

Model	NTE11L
Battery Type	7.4V 2Ah 14.8Wh
Tubing Type	Soft or Annealed Copper
Tube OD	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"
Weight	3.4 lbs (with battery)

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)  
▶ For NTE11H, NTEHHK owners

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.

Empowering You to Work Smarter



**Easy to Cut**

**High-Quality Cutting Blade**

- Sharp and durable
- One extra blade supplied

**Ball Bearing**

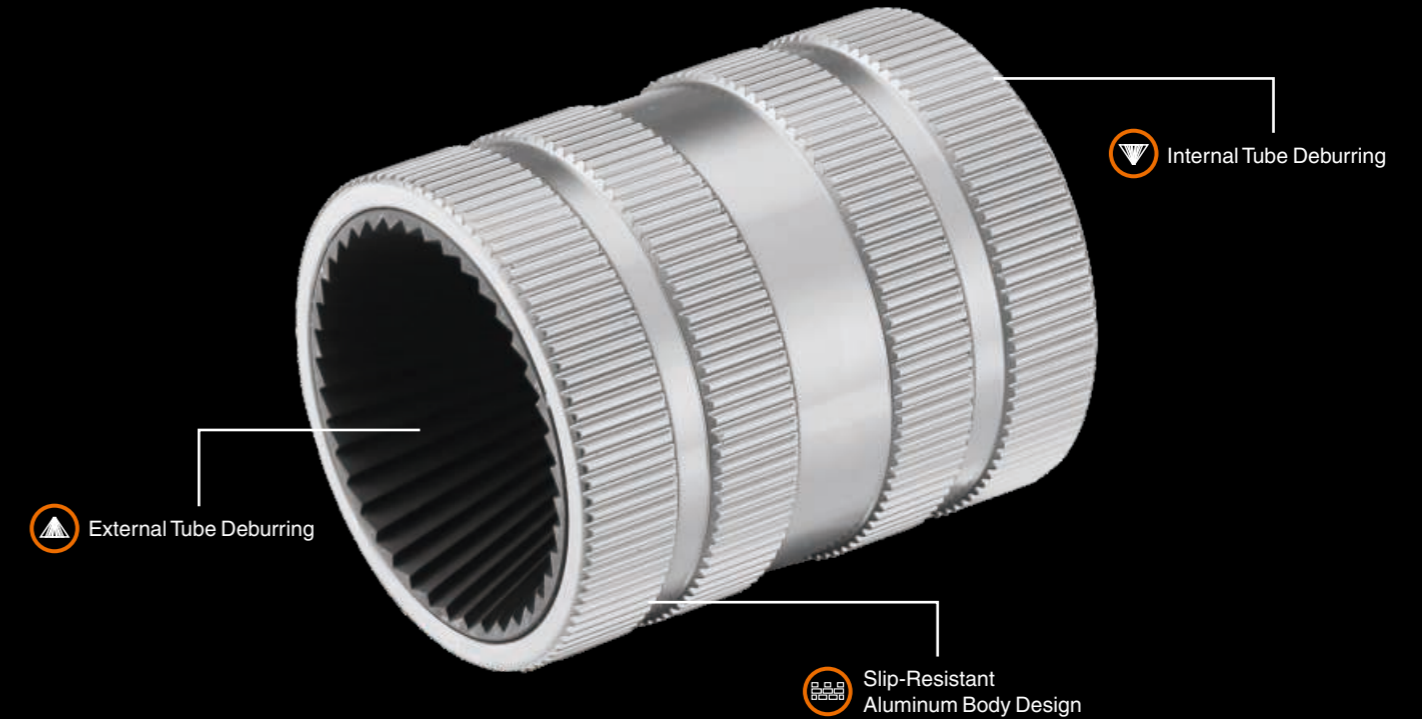
- Easy cutting and better quality
- Short cut for flare ends, saving copper

**Aluminum Alloy**

- Light weight, easy to carry and use

Model	NTC6	NTC12	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**

**Multi-Blade Alloy Steel Internal Surface**

- 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

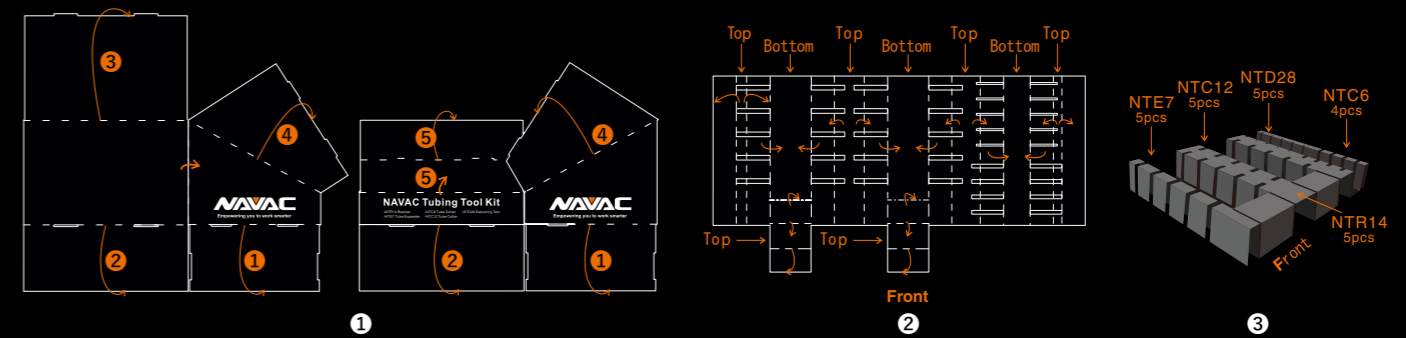


**Easy to Carry and Use**

**Replaceable Blades**  
• 2 spare blades included

**Easy to Carry**

**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
<b>Higher Flammability</b>	<b>A3</b> All Hydrocarbons	<b>B3</b>
<b>Lower Flammability</b> HCFs, non-fluorocarbons	<b>A2</b> R-152a	<b>B2</b>
<b>Lower Flammability</b> (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)	<b>B2L</b>
<b>No Flame Propagation</b> HFCs, 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)	<b>B1</b>

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.<sup>①</sup>

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	7	NRDC4M	4-Cylinder Recovery Unit
3	NP7DP2	Vacuum Pump, 7CFM	8	N2A4A	Manifold Gauge
4	NRP6Di & NRP8Di	Smart Vacuum Pump, Master Series	9	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 craftsmanship 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
<b>Digital Recovery Unit</b>	<b>NRDD</b>	<b>2**</b>
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	1
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

**\*\*3 YEARS IF PRODUCT IS REGISTERED** at <https://navacglobal.com/product-registration/> (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 warranted 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 <https://navacglobal.com/return-merchandise-authorization/> or Download an RMA Form <https://navacglobal.com/wp-content/uploads/2019/05/2019-RMA-Form.pdf> and email to [Techsupport@navacglobal.com](mailto:Techsupport@navacglobal.com), 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.

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