

NAVAC® Inc.

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Empowering You to Work Smarter

Leading Technology · Superior Quality · Best Experience



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.







Compact Design

· Easy to carry

Easy to store











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

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 × 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
- ommercial applications

 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 × 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

NB1Battery for NP2DLM



NAPS1
Power Supply Adapter



NBP2

Battery for NP2DLM & NP4DLM



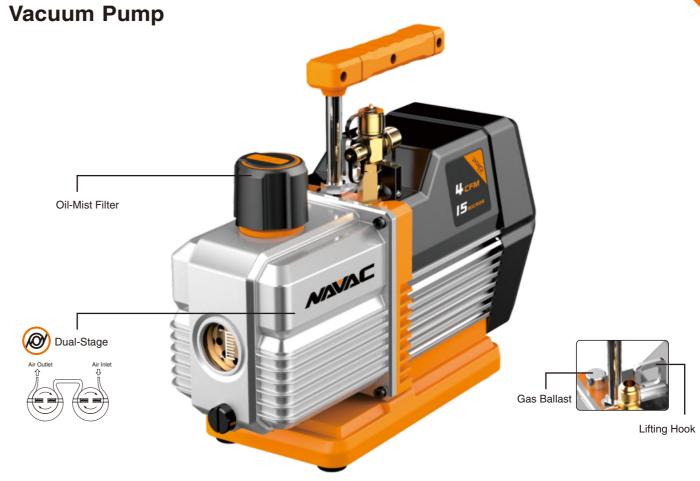
NC2
Battery Charger for NB1 & NBP2



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 Valve

Prevent oil backflow

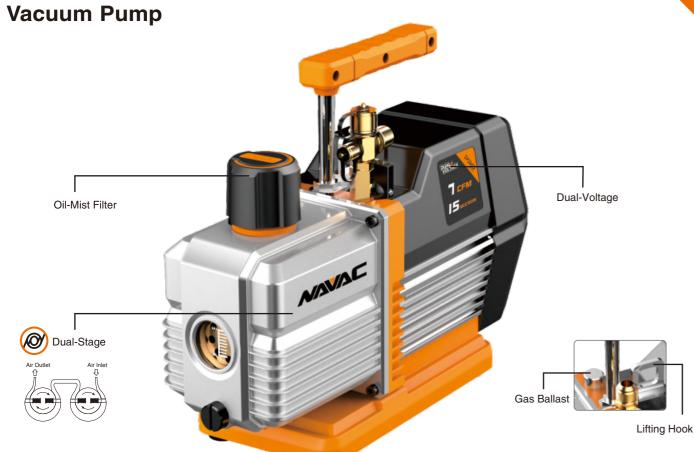
Lifting Hook

• 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 ×5 ×11.3
Weight	lbs	24.3







Performance · Reliability

Expanded application

Internal Check Valve

Prevent oil backflow

Dual-Stage Integrated Cylinder Design

Lifting Hook

Safe & convenient for roof top use

- High ultimate vacuum
- High reliability

Forced Oil Circulation

• Improved efficiency and durability

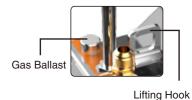
Model		NP7DP
Power Supply	V/Hz	115V / 60Hz
		230V / 60Hz
Flow Rate	CFM	7
Run Load Amps	A	4A (115V), 1.8A (230V)
Ultimate Vacuum	micron	15
Pump Design		Dual-Stage, AC Motor
Motor Power	HP	3/4
Inlet Port	in	1/4", 3/8", 1/2" Flare
Oil Capacity	OZ	15
Dimension	in	14 ×5 ×11.3
Weight	lhe	26



NP7DP2







Performance · Reliability

A2L (R32) Compatible

Expanded application

Internal Check Valve

Prevent oil backflow

Dual-Stage Integrated Cylinder Design

- High ultimate vacuum
- High reliability

Forced Oil Circulation

• Improved efficiency and durability

Lifting Hook

Safe & convenient for roof top use

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 ×5 ×11.3	
Weight	lbs	26	



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 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 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.









NRP6Di NRP8Di







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	lhs	25.35	25.35





NP12DM Vacuum Pump







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

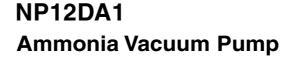
High vacuum level down to 5 microns

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 × 6 × 12.1
Weight	lbs	32











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	16.3×6×12.1
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



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

Oil Backflow Prevention **Integrated Cylinder Structure Adjustable Gas Ballast Valve**

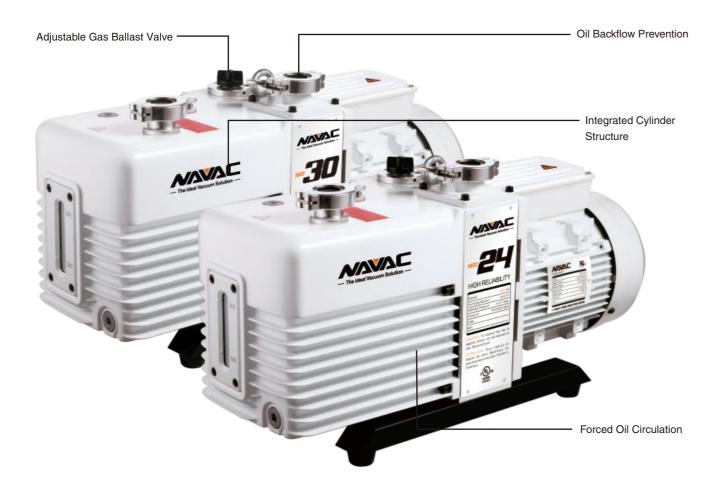
Forced Oil Circulation	
Model	

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 × 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

Heavy-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	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 Clam	os



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.

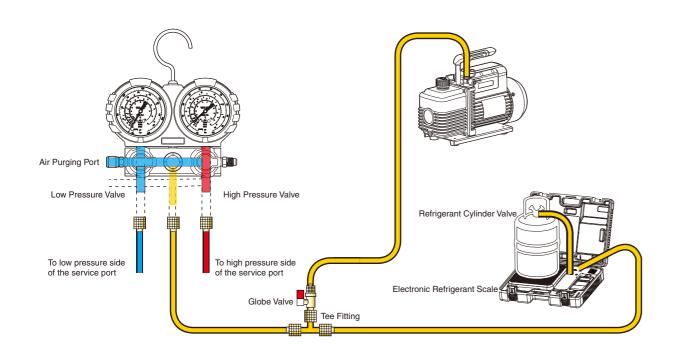
The high-power dual-stage vacuum pump, with ultra-high vacuum capability, rapidly evacuates the system to the preset vacuum level. The smart control precisely measures the system's vacuum and digitally displays the vacuum level. After reaching the preset vacuum level, it automatically conducts the dry 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.

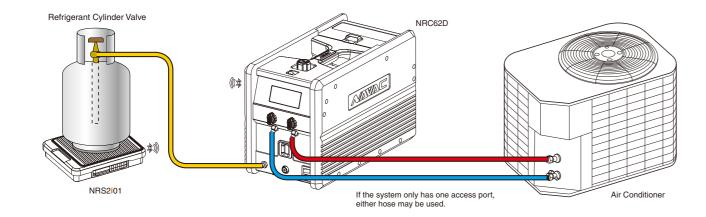
Empowering You to Work Smarter



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

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

Wireless Low & High Temperature Probes

- Automatic operation
- Built-in leak detectionReal 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		NRS2i01 (Scale), NRHH53 (Hoses), NMT1 (High Temp Probe), NMT2 (Low Temp Probe)



NRRD



Light • Fast

One Key Operation

Easy to use

Purge Function

• Prevent mixing of various refrigerants

Twin Cylinder

Fast recovery

Oil-Free Compressor

Suitable for all commonly used refrigerants

High Pressure Protection

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	Α	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
11000vory 11ato	105/111111	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			







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	Α	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 (UI)	lbs/min	Direct Vapor	0.75 (0.34) 🍅	0.64 (0.29) 🍅	0.57 (0.26)	🖆 Industry Fastes
Recovery Rate	(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				

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 within 30 days of purchase





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 IV: R-22, R-409	R-401A, R-401B, R-4 A, R-411A, R-411B, I	00, R-1234YF, R-600a 02B, R-407C, R-407D, R-412A, R-502, R-509, 07A, R-407B, R-410A,	R-290	
Power Supply	V/Hz	115V/60Hz				
Motor	HP	1				
Max Current Draw	Α	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 (UI)	lbs/min	Direct Vapor	0.75 (0.34)	0.64 (0.29)	0.57 (0.26)	
Recovery Rate	(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				







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	Α	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 (UI)	lbs/min	Direct Vapor	1.06 (0.48)	0.99 (0.45)	0.84 (0.38)
Recovery Rate	(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



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



Accurate Detection

Semiconductor Sensor

Precise measurement

Ergonomic Design

Easy to carry

Extended service life

Sniffing Fan

• 2 CFM ball bearing fan for very small leaks

Madal	NML1
Model	NINLI
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

Lithium Battery

• Rechargeable



NMC1 Digital Clamp Meter



Simple · Solid

High Precision ChipPrecise measurement

Backlit LCD

Easy to read large display

1-1/8" JawSuitable for large conductors

Compact Design

• Ideal for tight spaces

Model	NMC1
Wodei	NING
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



Easy to Use

Precision Infrared Sensor

Backlit LCD
 Easy to read display

Rapid response, accurate measurement

Large-Aperture Silicon Mirror

- 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





NRS2₁₀₁

Wireless Refrigerant Scale



Precise Charging

Wireless Bluetooth Control

- 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

Magnesium Alloy Weighing Platform

• 3.3 lbs only, easy to carry

Model		NRS2i01
Range	Ibs	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 Control

- 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

Large Aluminum Weighing Platform

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

Model	1	NRS3i01
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

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





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

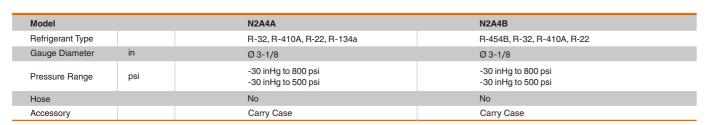
• Hidden hook design, easy to transport

R32, R454B Compatible for Wider Applications

- $\bullet~$ Ø 3-1/8" large dial, color-coded for easy reading
- A2L refrigerants on outer rings for better reading

Phosphorescent

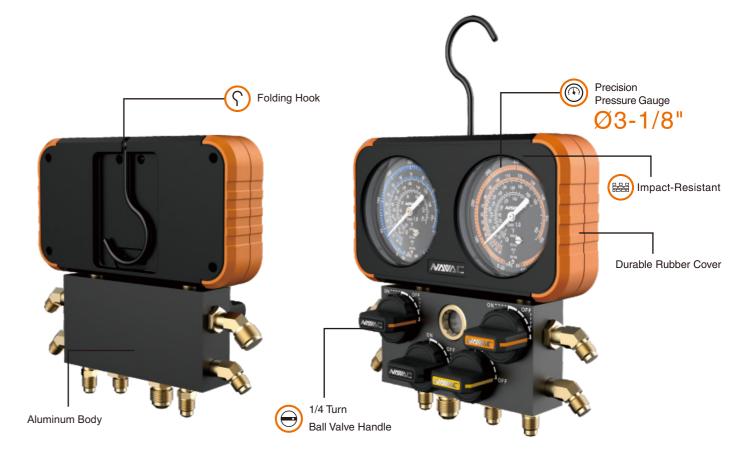
Glow in the dark





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 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

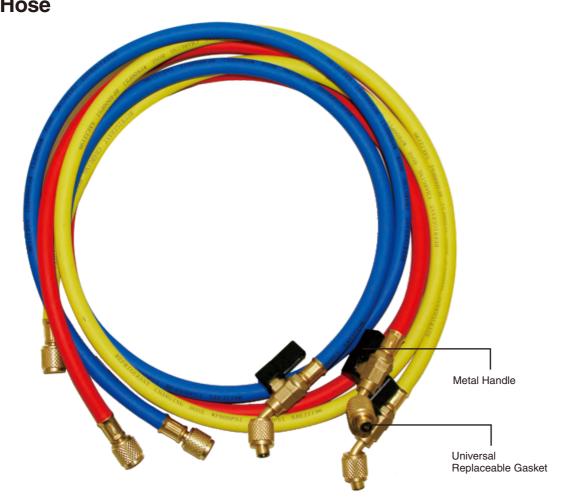
4 Valve

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	
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	in	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	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

ı	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	

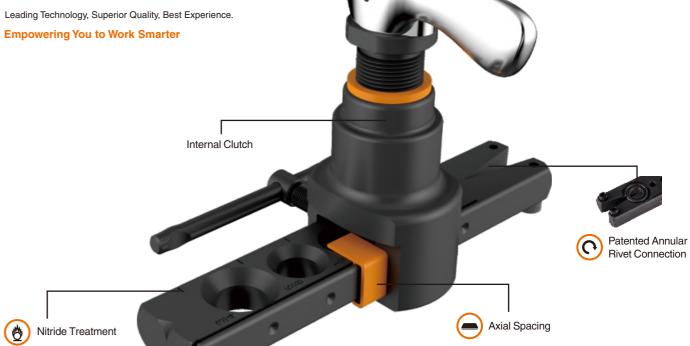


NTF66 NTF66C

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





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

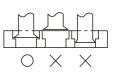
Patented Annular Rivet Connection

Heavy-Duty Handle & Shaft









Model	NTF66	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)	

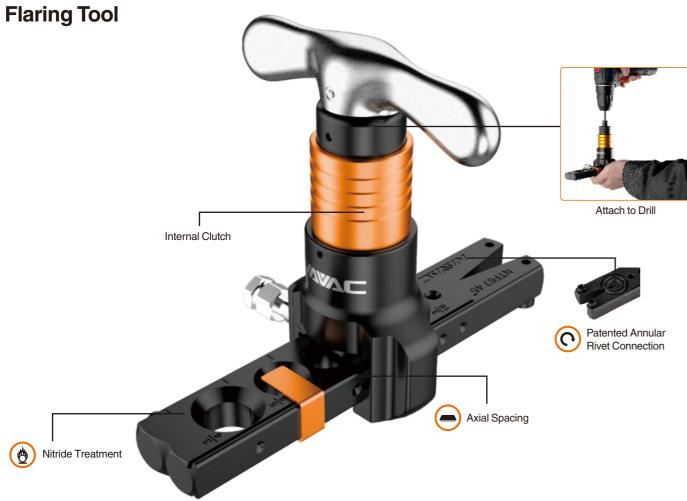


Empowering you to work smarter



NTF67D

Hand and Drill-Powered



Accurate Flaring

Hand or Drill-Powered

Efficient and labor-saving with drill attached

Patented Annular Rivet Connection







Axial Spacing

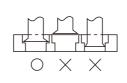
Internal Clutch Preventing over-torquing

• Eccentric cone with 45° flare



Axial spacing for accurate and consistent flaring





• 45° flare for R410A system

Nitride Treatment

Longer service life

Eccentric Cone

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 VRF systems.

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







Empowering you to work smarter

NEF6LMBreakFree® Power Flaring Tool



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

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 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











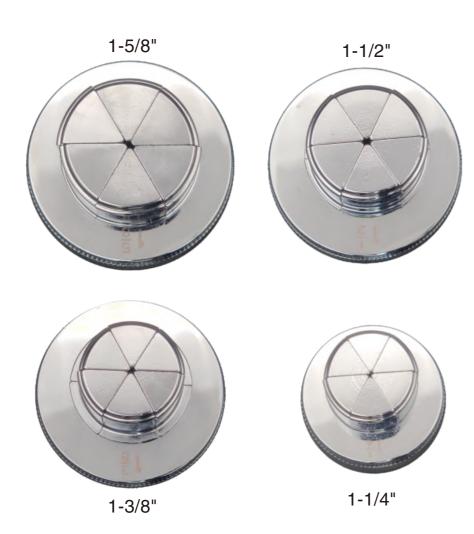


Model	NTE11H
Tube OD	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"
Accessory NTC12 (Cutter), NTD28 (Deburring Tool), Carry Case	



NTEHHK

Expander Kit for NTE11H



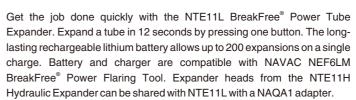
Model	NTEHHK
Tube OD	1-1/4", 1-3/8", 1-1/2", 1-5/8"





NTE11L

BreakFree® Power Tube Expander



 $\label{lem:leading Technology, Superior Quality, Best Experience.} \\$

Empowering You to Work Smarter







NTE11L

BreakFree® Power Tube Expander





Effortless, Quick & Accurate Expanding

NTE11L

7.4V 2Ah 14.8Wh

Soft or Annealed Copper 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"

3.4 lbs (with battery)

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

Battery Type

Tubing Type

Tube OD

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

- Quick charge in 30 minutes
- 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)

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.



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

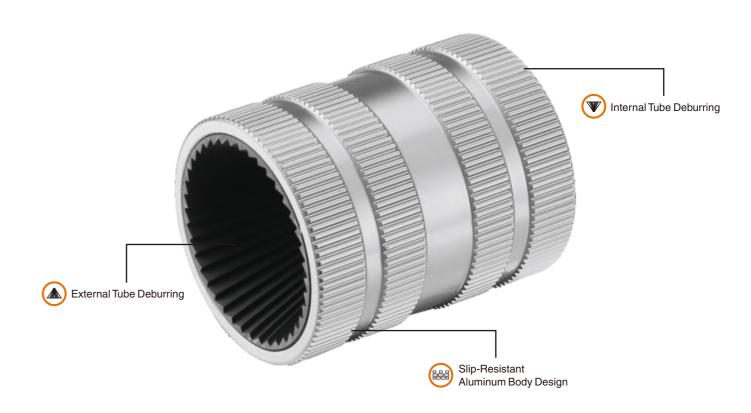
- Light weight, easy to carry and use
- Model
 NTC6
 NTC12
 NTC15

 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

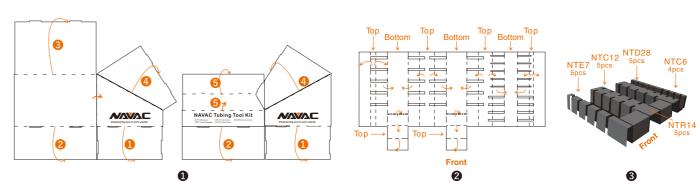
• 2 spare blades included

Easy to Carry



NTK1 Tubing Tool Kit





Your Favorite NAVAC Tubing Tools

unter 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	A3 All Hydrocarbons	ВЗ
Lower Flammability HCFs, non-fluorocarbons	A2 R-152a	B2
Lower Flammability (Mildly Flammable) Low Burning Velocity HCFs, HFC/HFO Blends, HFOs	A2L 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	A1 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	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 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	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 warrantied for use on the following systems:

- Lithium
- Ammonia (Except NP12DA1)
- Bromide

- Butane (Except NRDDF)
- CO₂ 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 <u>except for</u> "Tool Kits". <u>Only the failed component</u> will be issued a credit or replacement. For the NKS1, <u>each tool will be warrantied</u> 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, or Fax to 877-696-2822 Please fill out completely. Any missing information could delay processing.



Empowering you to work smarter

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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