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1	Tubing ToolsPower Tubing Tools01Ratcheting Tubing Bender07Flaring Tools08Tube Expanders10Cutters12Mini-Split Tool Kit17
19	Refrigerant Recovery  NR7 Recovery Unit 19  NRDD Digital Recovery Unit 22  NRDC4M 4-Cylinder Recovery Unit 24
<b>25</b>	Vacuum Pumps25BreakFree Cordless Vacuum Pumps27Pro Series Vacuum Pumps27Master Series Vacuum Pumps31Ammonia Vacuum Pump33Industrial Vacuum Pump34Charging Machine36Vacuum Pump Accessories & Oil37
40	Testing Tools & Instruments  Valve Core Removal Tool 40  Vacuum Gauges 41  Leak Detector & Multi Meter 43  Thermometers 45  Refrigerant Scales 47
49	Manifold GaugesDigital Gauges49Pro Series Gauges51Pro Plus Gauges52Manifold Gauge Accessories54
<b>55</b>	Hoses & Hose Kits           Hose Sets         55           Color Hoses         55           Big Boy Hoses         56           Rapid Evacuation Kits         57
<b>58</b>	Fittings Rapid Y Connection

# TABLE OF CONTENT













#### NTB7L

## BreakFree® Power Tube Bender PATENT PENDING



It is a tough and frustrating job for HVAC Service Techs when bending large diameter tubes, which consumes tremendous labor work while needs precise focus on bending angles. Furthermore, to get the tube out of a traditional bender mandrel is another frustrating moment. Suitable for tubing sizing 1/4" to 7/8" OD, NAVAC NTB7L saves tons of your time and labor, and makes the job much easier. By pressing a single controller switch, you can bend the tube to any desired angle. When a bend is completed, the baffle will push the tube out automatically while tool resets, helping you to remove the tube effortlessly. Its large capacity lithium battery makes over 100 bends each charge and can be fully charged in 30 minutes. Reverse bending kit NTBRK is available and sold separately.



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



## NTB7L

BreakFree® Power Tube Bender PATENT PENDING





Charger

**Easy Operation** 

Ergonomic handle design

• Stop any time for customized angles



## **Effortless & Quick Bending**

#### **Battery-Driven Effortless Bending**

- Powerful for large size tubing
- Push and hold for 90° bending
- Automatic tube release

#### **Large Lithium Battery**

- Over 100 bends per charge
- Quick charge in 30 minutes

#### **Patented Tubing Size Selector**

- 7 sizes in one selector
- Easy to switch to different tubing size setting

NTBRK Reverse Bending Attachment Kit (Sold Separately)

#### **Other Features**

- Quick connect mandrel and crossbar
- Battery power indicator

Model	NTB7L
Battery Type	7.4V 2Ah 14.8Wh
Tubing Type	Soft (HVACR) Copper
Tube OD	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8"
Weight	6.2 lbs (with battery)
Accessory	Carry Case, 3 Mandrels, 1 Battery, 1 Charger









## **NEF6LM**

## 



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** 









NAQC1	5/16"
NAQC2	1/4"
NAQC3	3/8"
NAQC4	1/2"
NAQC5	5/8"
NAQC6	3/4"



Part No.	Tube OD
NAQC1	5/16"
NAQC2	1/4"
NAQC3	3/8"
NAQC4	1/2"
NAQC5	5/8"
NAQC6	3/4"

One-Button Operation







## **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	Soft (HVACR) 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, 1 Battery, 1 Charger











## 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







## Powerful, Quick & Accurate Expanding

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

- 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

Model	NTE11L
Battery Type	7.4V 2Ah 14.8Wh
Tubing Type	Soft (HVACR) Copper
Tube OD	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8"
Weight	3.4 lbs (with battery)
Accessory	Carry Case, 7 Expander Heads, 1 Battery, 1 Charger



## NTB7

## **Ratcheting Tube Bender**





## **Compact and Reliable**

#### **Easy and Fast Bending**

- Quick connect mandrels
- Single crossbar for all sizes
- 90° bending angle marks
- Smooth sweep bends with no kinking

#### **Patented Tubing Size Selector**

- 7 sizes in one selector
- Easy switch to different tubing size

#### **Other Features**

- Ergonomic handle design
- Reverse bending structure available
- Light and compact design

Model	NTB7
Tubing Type Soft (HVACR) Copper	
Tube OD	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8"
Weight	3.7 lbs
Accessory	4 Mandrels, Crossbar with Tubing Size Selectors, Carry Case, Reverse Bending Kit* *Sold separately under NTBRK



## 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** 

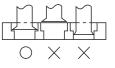
**Heavy-Duty Handle & Shaft** 











Model	NTF66	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

**Patented Annular Rivet Connection** 









**Axial Spacing** 

**Internal Clutch** 

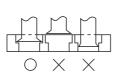
• Eccentric cone with 45° flare

Preventing over-torquing



Axial spacing for accurate and consistent flaring





• 45° flare for R410A system

**Nitride Treatment** 

Longer service life

Robust and durable

**Eccentric Cone** 

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



## 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"





## NTE11H2

## **Hydraulic Tube Expander**





## **Effortless and Durable**

#### **Hydraulic Expander**

- Vacuum sealed hydraulic system, no oil change needed
- Innovative hydraulic oil system design for easy expansion
- Suitable for large diameter copper

#### Compact, Easy to Use

- Convenient for narrow spaces
- Easy one-hand operation

#### **Automatic Pressure Relief**

- Tube released at final trigger compression
- Built-in manual relief button

#### **Quick Connect Expander Heads**

• Quarter-turn head design, quick to attach/remove

Model	NTE11H2
Tubing Type	Soft (HVACR) Copper
Tube OD	3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4"*, 1-3/8"*, 1-1/2"*, 1-5/8"* *Sold separately under NTEQHK
Weight	2.3 lbs
Accessory	NTD28 (Deburring Tool), Carry Case



## 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.



NTC15, NTC12



PC15W, PC12W, PC6W Replacement Cutting Wheel Set (2 blades & 1 pin)



## **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"
Blade Diameter	0.7" (18mm)	0.9" (23mm)	1.2" (30mm)





## NTW1 Digital Torque Wrench



## Digital Readout · Adjustable Jaw

- Accurate within 2%
- Dual direction (CW & CCW)
- 50 data memories & 9 pre-sets
- Peak hold

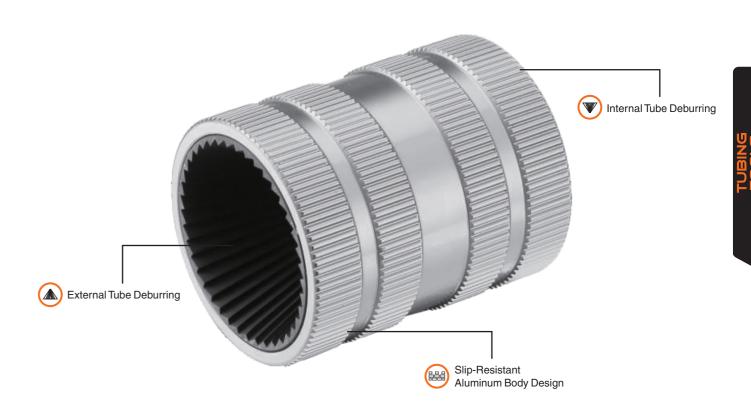
- Auto turn-off after 5 minutes inactivity
- Selectable measuring units (ft-lb, in-lb, N-m, kg-cm)
- Indicator lights and sound for target torques

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



## **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 NTD14
MICCE NINI4
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** 



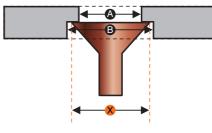
## NFG1 Flare Gauge



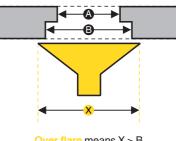
## **Ensuring Perfect Flares**

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

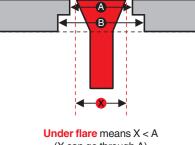
For Precise Measurement of Tube Flares



A good flare means A < X < B X can go into B but can not go through A)



Over flare means X > B (X can not go through B)



(X can go through A)





## NKS2 Mini-Split Tool Kit



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

NEF6LIV	l Power	Flaring	Tool

- Quick accurate flaring
- Ultra light at 2.9 lbs

#### NTW1 Digital Torque Wrench

- Digital readout
- Adjustable jaw

#### NVR1 Valve Core Removal Tool

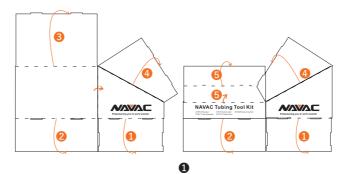
- 2 sizes (1/4" & 5/16") in 1 tool
- Designed for high-pressure refrigerants

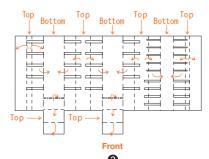
Model	Item	Specification	Quantity	Warranty
NEF6LM	BreakFree Power Flaring Tool	Lithium battery: 7.4V 2Ah 14.8Wh Tube OD: 1/4", 3/8", 1/2", 5/8", 3/4"	1	2-year
NTW1	Digital Torque Wrench	3.1 - 62.7 ft·lb (4.2 - 85 N-m)	1	1-year
NVR1	Valve Core Removal Tool	Vacuum rated to 20 Microns For use with both 1/4" and 5/16" flare fittings	1	1-year
NHK1	30-Piece Hex Wrench Set	SAE: 7/250"-3/8" Metric: 0.7-10 mm	1	1-year
NTC6	Tube Cutter	Tube OD 1/8" ~ 3/4"	1	1-year
NTC12	Tube Cutter	Tube OD 1/8" ~ 1-1/4"	1	1-year
NTR14	Internal/External Reamer	Tube OD 1/8" ~ 1-1/2"	1	1-year
NTD28	Tube Deburrer	2 spare blades included	1	1-year
NFG1	Flare Gauge	Tube OD: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"	1	1-year
NAB1	Tool Bag	Heavy duty tool bag	1	1-year



## NTK1 Tubing Tool Kit









## **Your Favorite NAVAC Tubing Tools**

ounter 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





## NR7

## **Recovery Unit**

Introducing the NR7 Recovery Unit, a compact and lightweight machine weighing just 20.3 lbs, ensuring easy storage and transportation for HVAC techs. With its brushless DC motor, the unit offers a soft starting experience. The NR7's purge function prevents refrigerant mixing, and its large condenser and oil-free compressor accommodate all common refrigerants, ensuring maximum efficiency for technicians. Moreover, the NR7 has CSA safety certification, providing technicians peace of mind with full-tank and high-pressure protection. Boasting an efficient design, twin-cylinder system, and one-key operation, the NR7 is a great choice for quick and reliable recoveries. A2L compatibility and a focus on user-friendly functionality establish the NR7 as a great solution for HVAC recovery needs.

VAVC









## NR7 **Recovery Unit**





## **Compact** · **Light** · **Swift**

#### **Compact and Light**

- · Small & light weight, only 20.3 lbs
- Easy to store and carry

#### **One Key Operation**

Easy to use

#### **Brushless DC Motor**

- Soft & easy starting
- · Compact & efficient

#### **Purge Function**

• Prevent mixing of various refrigerants

#### **Fast Recovery**

• Twin cylinder • Large condenser

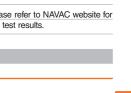
**Oil-Free Compressor** 

• Suitable for all common refrigerants

- **CSA Safety Certification** • Full-tank, Overload & High Pressure protection

#### **A2L Compatible**

Model		NR7				
Refrigerant Type		Category III: R-12, R-134a, R-1234yf, 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-32, R-402A, R-404A, R-407A, R-407B, R-410A, R-454B, R-507				
Power Supply	V/Hz	115V/60Hz				
Motor	HP	1	1			
Rated Current Draw	Α	12.5				
Compressor		Oil-less, Air-cooled,	Piston style			
Automatic Safety Shut-Off		558 psi/38.5 bar				
			R-410A	R-22	R-134a	
Daggrant Data**	lbs/min	Direct Vapor	0.54 (0.25)	0.58 (0.27)	0.47 (0.21)	**Please refer to NAVAC website fo
Recovery Rate**	(kg / min)	Direct Liquid	12 (5.5)	9 (4.1)	8 (3.6)	latest test results.
		Push/Pull Liquid	17 (7.8)	15.8 (7.2)	15 (6.8)	
Dimension	in	12.2×9.4×9.6				
Weight	lbs	20.3				







## **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	
Tiodovory Tiato	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 Twin-Cylinder** 





## **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, R-1234yf 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-32, R-402A, R-404A, R-407A, R-407B, R-410A, R-454B, R-507				
Power Supply	V/Hz	115V/60Hz				
Motor	HP	1	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				





## **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, R454B, R-502, R-509, R-290 Category V: R-32, R-402A, R-404A, R-407A, R-407B, R-410A, R-454B, R-507 **PROHIBITED to use with IIB and IIC refrigerants: RE170, R702, R1150, R429A, R432A, R435A, R510A.					
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	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, R-1234yf 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-32, R-402A, R-404A, R-407A, R-407B, R-410A, R-454B, R-507				
Power Supply	V/Hz	115V/60Hz				
Motor	HP	1.5				
Max Current Draw	А	12	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				





**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	92×35×7.5
Weight	Ibs	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**

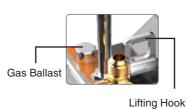
- Backflow prevention check valve
- Isolation valve & Lifting hook

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 × 4.4 × 9.4
Weight	lbs	15.4 (with battery)
Accessory		Carry bag, NBP2 Battery, NC2 Battery Charger









## **Performance · Reliability**

**Dual-Stage Integrated Cylinder Design** 

High ultimate vacuum

High reliability

#### Forced Oil Circulation

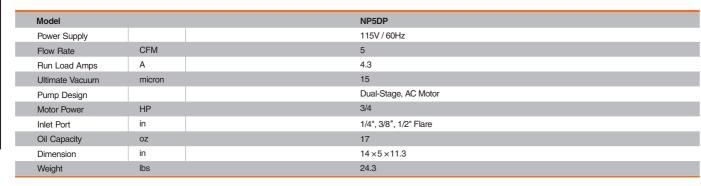
• Improved efficiency and durability

Internal Check Valve

Prevent oil backflow

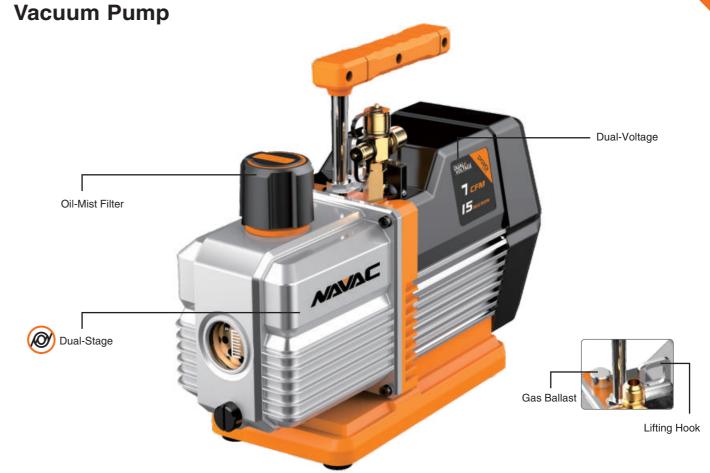
Lifting Hook

Safe & convenient for roof top use





NP7DP



## **Performance · Reliability**

#### Dual-Voltag

Expanded application

**Internal Check Valve** 

Prevent oil backflow

#### **Dual-Stage Integrated Cylinder Design**

High ultimate vacuum

**Forced Oil Circulation** 

High reliability

Improved efficiency and durability

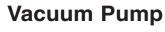
#### Lifting Hook

Safe & convenient for roof top use

Model		NP7DP	
Power Supply	V/Hz	115V / 60Hz	
		230V / 60Hz	
Flow Rate	CFM	7	
Run Load Amps	A	4 (115V), 1.8 (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	lbs	26	



NP7DP2







Lifting Hook

## **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	4
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





## **NP7DPF**

## **Vacuum Pump for Flammable Refrigerants**



## Reliability · 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

#### **Internal Check Valve**

Prevent oil backflow

#### **Dual-Stage Integrated Cylinder Design**

- High ultimate vacuum
- High reliability

#### Forced Oil Circulation

• Improved efficiency and durability

#### ign Lifting Hook

Safe & convenient for rooftop use

Model		NP7DPF
Power Supply		115V / 60Hz
Flow Rate	CFM	7
Run Load Amps	A	4
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

- \* For evacuation of sealed HVAC/R systems only. Warranty may void if used for any other purposes.
- \*\* PROHIBITED to use with IIB and IIC refrigerants: RE170, R702, R1150, R429A, R432A, R435A, R510A.

## MAYAC MASTER SERIES





## NRP6Di NRP8Di







## **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 Ultimate Vacuum 15 micron Dual-Stage, DC Motor Dual-Stage, DC Motor Pump Design HP 3/4 3/4 Motor Power 1/4", 3/8", 1/2" Flare Inlet Port 1/4", 3/8", 1/2" Flare Oil Capacity 17.6 17.6 07 Dimension $14 \times 5.3 \times 11.9$ 14 × 5.3 × 11.9 Weiaht lbs 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

# NP12DA1 Ammonia Vacuum Pump







## **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



NRD16T



## 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 × 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

Suitable for use on ammonia systems

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

Corrosion-Resistant

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 Clamp	os





## NRC62D Smart Refrigerant Charging Machine





Wireless Low & High Temperature Probes

## **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 × 10 × 14.5
Weight	lbs	39.6
Accessory Included		NRS2i01 (Scale), NRHH53 (Hoses), NMT1 (High Temp Probe), NMT2 (Low Temp Probe)





NB<sub>1</sub> NBP2 NAPS1 NC2

**Battery Power Accessories** 

#### NB<sub>1</sub>

#### Battery for NP2DLM

Battery life indicator



## NAPS1 Power Supply Adapter



#### NBP2

#### Battery for NP2DLM & NP4DLM

Battery life indicator



NC<sub>2</sub> 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





## NVO1Q NVO1G

## **Quantum Premium Vacuum Pump Oil**



## **Fueling Pumps With Advanced Tech**

#### **Advanced Non-Misting Formulation**

- Low volatility
- High resistance to oxidation

#### **Widely Applicable**

• Suitable for most vacuum pumps available in the market

#### **Hydro Processed Mineral Oil**

- Extremely pure, highly refined
- Excellent lubricity & pump protection at deepest vacuum

Model	NVO1Q	NVO1G	
Capacity	1 Liquid Quart	1 Liquid Gallon	





## 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





## NVR1

## **Valve Core Removal Tool**







## **Fast 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)





## NMV<sub>1</sub>

## **Micron Vacuum Gauge**

It uses Pirani high-precision vacuum sensor to accurately 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 value, 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
- Precise

#### **Ergonomic Design**

Easy to carry

#### Large Backlit Display

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

#### **Buzzing Alert**

- Vacuum level reminder
- Vacuum leakage warning
- Programmable vacuum target

Model	NMV1
Operation Pressure	< 14.7 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	Angled Stem, Storage Bag





Compatible with MyNAVAC™ APP

## NMV1S **Premium Micron Vacuum Gauge**



## **Smart Measurement**

#### Pirani Vacuum Sensor

- Professional grade
- Precise

#### **Rechargeable Battery**

Long battery life

#### **Large Backlit Display**

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

#### **High Pressure Protection**

• 500 psi maximum pressure

#### **Buzzing Alert**

- Vacuum level reminder
- Vacuum leakage warning
- Decay target and decay duration

#### **Compact Design**

Easy to carry

Model	NMV1S
Maximum Pressure	500 psi (34.5 bar)
Range	0~25000 microns, 0~3300 Pa, 0~33.3 mBar, 0~25 mmHg
Resolution	0.01 micron (<10 microns), 0.01 Pa (<10 Pa), 0.001 mBar, 0.001 mmHg
Accuracy	15-1000 microns: ±5% of reading (at 68°F)
Operating Temperature	32~122°F(0~50°C)
Unit	Pa, mBar, mmHg, microns
Sensor	Pirani sensor
Battery	2000 mAh Li-ion
Weight	6.2 oz
Accessory	Angled Stem, Storage Bag

## NML1



## **Accurate Detection**

Semiconductor Sensor

Precise measurementExtended service life

Rechargeable

**Lithium Battery** 

**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	
Length of probe	≥1 year under normal usage (1500 h)
Weight	15.7 in
Calibration	0.77 lbs
Fan	Auto
Accessory	2 CFM



# NMC1 Digital Clamp Meter



## Simple · Solid

#### **High Precision Chip**

Precise measurement

#### **Backlit LCD**

Easy to read large display

#### 1-1/8" Jaw

Suitable for large conductors

С	ompact Design
•	Ideal for tight space

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** 



## **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

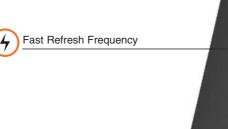


## **NMT1000 Thermal Imaging Camera**

The NAVAC NMT1000 is designed for HVAC applications. Equipped with a 160×120 resolution thermal detector, it provides the technician with fast and accurate thermal imaging of the entire field of the measurement vs. just spot temperature. It highlights the highest and lowest temperature spots in the field to assist with fast diagnosis and troubleshooting of HVAC systems.

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









## Troubleshoot HVAC systems through a new lens

#### **High-Quality Imaging**

- Highly sensitive vanadium oxide detector
- Distinctive thermal vision of the target

#### **Quick Temperature Measurement**

- · Covers the entire field of the target
- · Highlight hot and cold spots

#### 25 Hz Fast Refresh Frequency

- Smooth video and measurements
- Captures moving targets

#### **Long Battery Life**

• Up to 8 hours of continuous run time

#### **Light Weight**

• Compact design, easy to carry

#### **Other Features**

- Auto temperature range
- Laser pointer
- Quick start in 8 seconds
- Store and export images

Model	NMT1000
Thermal Resolution	160 x 120 (19,200 pixels)
Refresh Frequency	25 Hz
Display	$320 \times 240$ pixels, 2.4" color LCD
Temperature Range	-4°F ~ 1022°F (-20 °C - 550 °C)
Measuring Accuracy	± 3.6 °F (± 2 °C) or ± 2%
Thermal Sensitivity (NETD)	< 40 mK
Battery Life	8 hours
Measurement Presets	Center Spot, Hot Spot, Cold Spot, Off

#### NRS2 01

## **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

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 Control**

- More convenient
- Auto power off

**Magnesium Alloy Weighing Platform** 

• 3.3 lbs only, easy to carry

#### 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

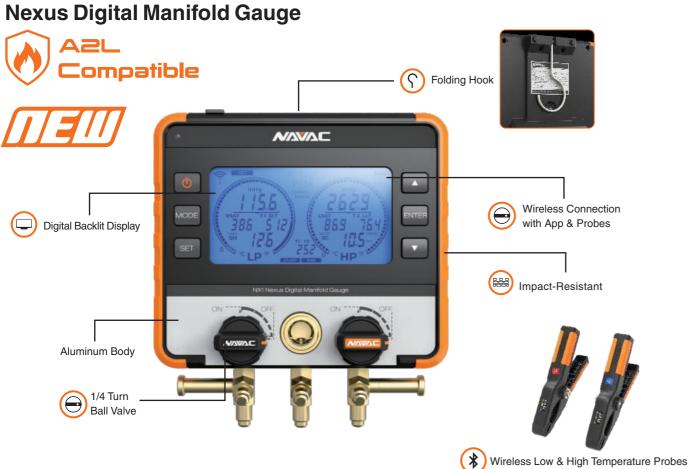
Model		NRS3i01
Range	lbs	265
Resolution	OZ	0.35
Accuracy	%	0.05%
Power		4 × AA (scale), 4 × AAA (controller)
Dimension	in	10.6 × 12.6
Weight	lbs	10.3
Accessory		Carry Case





## NX1 NX1V





## **Smart and Precise**

#### **Smart and Wireless**

- Work with *MyNAVAC™* App
- Bluetooth connections with temp probes
   micron gauge (sold separately)

#### Aluminum Body w/ 1/4 Turn Ball Valve

- Reliable, efficient and durable
- Better work experience

#### **Multi-Operation Modes**

- Manifold mode with SH/SC display
- Pressure Test mode
- Evacuation mode

#### **Folding Hook**

- Hidden hook design
- Easy to transport

#### **Digital and Accurate**

- Class 0.4 accuracy with digital display
- One gauge for 72 refrigerants
- Precision at a glance

#### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

Model		NX1	NX1V
Refrigerant Type		R-401B, R-402A, R-402B, R-403B, R-404A, R-406A, R-407A R-416A, R-417A, R-417C, R-420A, R-421A, R-421B, R-422A	
Pressure Range	psi	-30 inHg to 720 psi	
Power Supply		Rechargeable Li-ion Battery	
Bluetooth Range	feet	Up to 260	
Accessory		2 Temperature Probes, Charging Cable, Carry Case	NMV1S Micron Gauge in additional to the NX1 Kit



## N2D72 Flex72 Manifold Gauge with Digital Display



## One Gauge, Seventy-Two Solutions

#### **Ideal Alternative to Multiple Gauges**

- One gauge for 72 refrigerants, no need for multiple gauges
- Save money, save space, save time

#### **Digital Display**

- Easy to read
- Auto power off

#### Accuracy

 Class 0.4 accuracy, over 100% improvement vs. analog gauges

#### Impact-Resistant

- Impact-resistant design
- Durable rubber cover

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

- Reliable, efficient and durable
- Better work experience

#### Folding Hook

• Hidden hook design, easy to transport

Model		N2D72
Refrigerant Type		R-11, R-12, R-13, R-22, R-23, R-32, R-113, R-114, R-115, R-116, R-123, R-124, R-125, R134A, R-236FA, R-245FA, R-290, R-401A, R-401B, R-402A, R-402B, R-403B, R-404A, R-406A, R-407A, R-407B, R-407C, R-408A, R-409A, R-410A,R-413A, R-414A, R-414B, R-416A, R-417A, R-417C, R-420A, R-421A, R-421B, R-422B, R-422B, R-422C, R-422D, R-424A, R-427A, R-428A, R-434A, R-437A, R-438A, R-448A, R-449A, R-450A, R-452A, R-452B, R-453A, R-454B, R-458A, R-500, R-501, R-502, R-503, R-507A, R-508B,R-513A R-600, R-600A, R-601, R-601A, R-744*, R-1233ZD, R-1234YF, R-1234ZE
Pressure Range	psi	-30 inHg to 720 psi
Accessory		Carry Case





## Simple · Reliable

#### **Reliable Brass Body with Needle Valve**

- Reliable, efficient and durable
- Better work experience

#### Accurat

• Precision pressure gauge with Class 1.0 accuracy

#### **Easy Reading**

- Ø 3-1/8" large dial for improved readability
- Color-coded for easy reading

#### Other Features

- Illuminating, glow in the dark
- Hose holder
- Fixed metal hanging hook

Model		NMG11A	NMG12A	NMG13A	NMG14A	NMG15A
Refrigerant Type		R-410A R-22 R-134a R-404A	R-454B R-32 R-410A A2L R-22 Compatible	R-32 R-454B R-22 A2L Compatible	R-22 R-410A R-404A	R-134a R-404A R-410A
Gauge Diameter	in			Ø 3-1/8		
Pressure Range	psi			-30 inHg to 800 psi -30 inHg to 500 psi		
Accessory				Carry Case, Rubber Boots*	*Sold separately unde	r NMGB1



N2A4B N2A4C N2A4C N2A4D N2A4E





## **Precise · Impact-Resistant**

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

- Reliable, efficient and durable
- Better work experience

#### **Accurate**

 Precision pressure gauge with Class 1.0 accuracy

#### Impact-Resistant

Hose Holder

- Impact-resistant design
- Durable rubber cover

#### Folding Hook

• Hidden hook design, easy to transport

#### **Easy Reading**

• Ø 3-1/8" large dial for improved readability

Precision

Pressure Gauge 031/8"

lmpact-Resistant

**Durable Rubber Cover** 

1/4 Turn Ball Valve

Color-coded for easy reading

#### Other Features

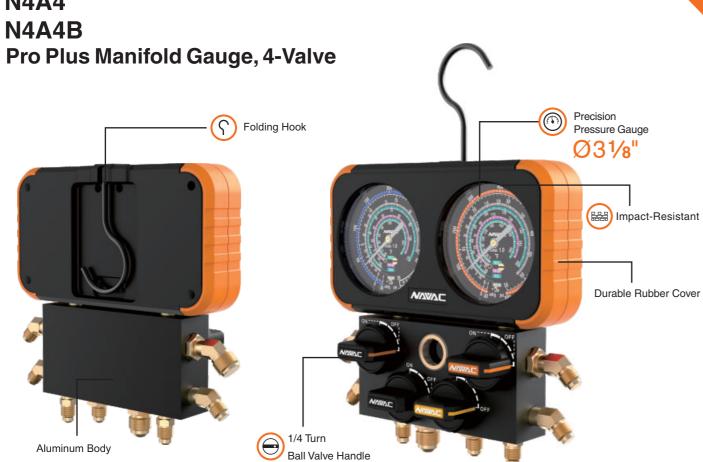
- Illuminating, glow in the dark
- Hose holder

Model		N2A4	N2A4B	N2A4C	N2A4D	N2A4E
Refrigerant Type		R-410A R-22 R-134a R-404A	R-454B R-32 R-410A A2L R-22 compatible	R-32 R-454B R-22 A2L Compatible	R-22 R-410A R-404A	R-134a R-404A R-410A
Gauge Diameter	in	Ø 3-1/8				
Pressure Range	psi	-30 inHg to 800 psi -30 inHg to 500 psi				
Accessory				Carry Case		





N4A4H N4A4 N4A4B



## **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

Valve

Model		N4A4H	N4A4	N4A4B
Refrigerant Type		R-22, R-404A, R-134a, R-410A	R-22, R-404A, R-134a, R-410A	R-454B, R-22, R-32, R-410A
Gauge Diameter	in	Ø 3-1/8	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	-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"	1	1
Hose Length	ft	4x5'	/	/
Accessory		Carry Case	Carry Case	Carry Case



## NMGB1 Manifold Gauge Boots ø3-1/8"







Part No.	Diameter	Qty	
NMGB1	ø3-1/8"	One pair (2 pieces)	

## **Manifold Gauge Head**





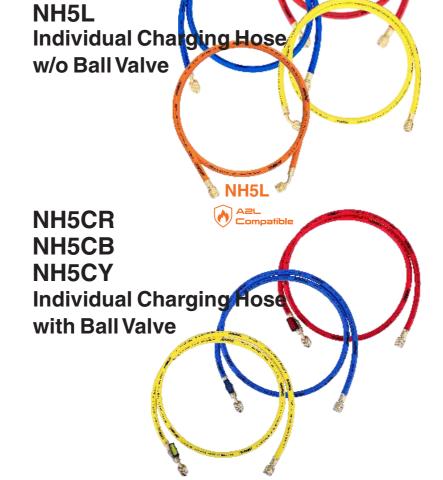
Part No.	Refrigerant Type	Specification	Gauge Diameter
NMH11H	R-410A, R-22, R-134a, R-404A	High Side	
NMH11L	R-410A, R-22, R-134a, R-404A	Low Side	
NMH12H	R-454B, R-32, R-410A, R-22	High Side	
NMH12L	R-454B, R-32, R-410A, R-22	Low Side	
NMH13H	R-32, R-454B, R-22	High Side	ø3-1/8"
NMH13L	R-32, R-454B, R-22	Low Side	
NMH14H	R-22, R-410A, R-404A	High Side	
NMH14L	R-22, R-410A, R-404A	Low Side	
NMH15H	R-134a, R-404A, R-410A	High Side	
NMH15L	R-134a, R-404A, R-410A	Low Side	

## NH5S Charging Hose Set w/o Ball Valve



NH5SC Charging Hose Set with Ball Valve





## 1/4" Color Hoses, 5 Ft Long

#### Main Features for All Models

- 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
- Universal, replaceable gasket
- Adjustable depressor

#### Dell Veles Medels

NH5R

NH5B

NH5Y

- Ball valve for reduced refrigerant loss
- Metal valve handle

#### NH5L

• Reverse threaded for A2L





The valve core depressor can be adjusted up or down to optimize its access to valve core. Use a valve core depressor adjustor to turn the depressor. To lower, turn clockwise; to raise, turn counterclockwise.

Model		NH5S	NH5R	NH5B	NH5Y	NH5L	NH5SC	NH5CR	NH5CB	NH5CY
Color		Red, Yellow, Blue	Red	Blue	Yellow	Orange	Red, Yellow, Blue	Red	Blue	Yellow
Quantity	рс	3	1	1	1	1	3	1	1	1
Ball Valve			Without ball valve				With ball	/alve		
Pressure Scale	psi		0~800 psi							
Length	ft	5								
Connector	in	1/4"-1/4"								





## NHR38AA NHR38AB Big Boy Recovery Hoses



## NHB1 NHB2 Big Boy High-Flow Hoses





## NH38BB Big Boy Evacuation Hoses





## NH34AB NH34AC Big Boy Evacuation Hoses





## **Fast & Efficient**

- Large diameter for optimized evacuation and recovery
- High-grade low permeation hoses

Vacuum rated to 20 microns

Model		NHR38AA	NHR38AB	NH38BB	NHB1	NHB2	NH34AB	NH34AC
Length	feet	6'	6'	5'	6'	6'	3'	3'
Diameter	in	3/8"	3/8"	3/8"	1/2"	1/2"	3/4"	3/4"
Fitting		1/4" to 1/4"	1/4" to 3/8"	3/8" to 3/8"	1/4" to 3/8"	1/4" to 1/2"	1/4" to 3/8"	1/4" to 1/2"
Burst Pressure	psi		2300		3	200	2	90
Working Pressure	psi		460		6	40	7	2.5



NEVK1 NEVK2 NEVK3 NEVK4 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	NEVK4
Description	Rapid Evacuation	on Kit, Pro Series	Rapid Evacuat	tion Kit, Pro Plus
Items	Quantity		Quantity	
NHB1 Evacuation Hose, 3/8" to 1/4" Fitting	1	-	1	1
NHB2 Evacuation Hose, 1/2" to 1/4" Fitting		1	1	1
NVR1 Valve Core Removal Tool	1	1	2	1
NMV1 Micron Vacuum Gauge		-	1	-





## **Rapid Y Connection Fitting**

With it's large internal boring and flow-friendly design, NAVAC's Rapid-Y facilitates significantly faster and more efficient evacuation times when connect more hoses to pump system. When it comes to the recovery process, in conjunction with NAVAC's large diameter hoses and core removal tools, the Rapid-Y is the final piece in "ditching the manifold" to gain dramatic recovery speed.

Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



F1028

## No Assembly · Less Turbulence · More Flow

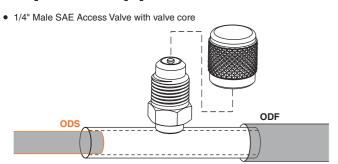
- Single-piece solid brass construction
- Large internal boring for maximum flow and minimal resistance

Vacuum rated to 20 microns

Part No.	Fitting Configuration	Qty
F1028	2 x 3/8" M to 1x 3/8" FE	1 pack
F1029	2 x 3/8" M to 1x 1/4" FE	1 pack



## **Slip Fit Copper Braze Tee**

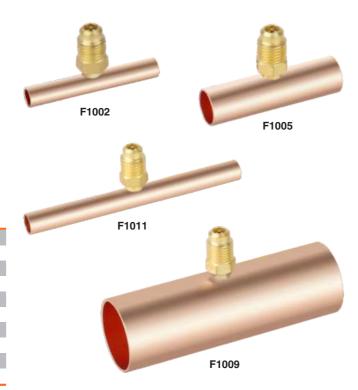


#### ODS = Outside Diameter Solder

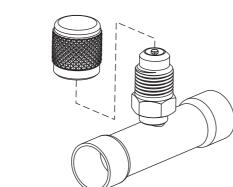
ODF = Outside Diameter Female

Part No.	Fit Configuration	Length	Qty
F1002	1/4" ODS x 5/16" ODF	2-1/8"	3 pack
F1003	5/16" ODS x 3/8" ODF	2-1/8"	3 pack
F1004	3/8" ODS x 1/2" ODF	2-1/8"	3 pack
F1005	1/2" ODS	2-1/8"	3 pack
F1006	5/8" ODS	2-1/2"	1 pack
F1007	3/4" ODS	3"	1 pack
F1008	7/8" ODS	3-1/2"	1 pack
F1009	1-1/8" ODS	3-13/16"	1 pack
F1011	1/4" ODS x 5/16" ODF	4"	2 pack

F1019

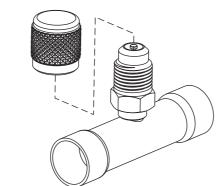


## **Swaged Copper Braze Tee**



Part No.	Fit Configuration	Length	Qty
F1015	3/8" OD	2-1/8"	3 pack
F1016	1/2" OD	2-1/8"	3 pack
F1019	7/8" OD	3-1/2"	1 pack

- 1/4" Male SAE Access Valve with valve core
  - Braze cups on both ends •



Part No.	Fit Configuration	Length	Qty
F1015	3/8" OD	2-1/8"	3 pack
F1016	1/2" OD	2-1/8"	3 pack
F1019	7/8" OD	3-1/2"	1 pack



## 1/4" Access Tee Connector with Flare Nut

• Includes (1) core and (1) cap











•			Control of the Contro	
F1022	F1023	F1024	F1025	F1027

Part No.	Fit Configuration	Depressor	Swivel Nut	Qty
F1022	1/4" SAE x 1/4" FE SAE Swivel	Yes	On Run	3 pack
F1023	1/4" SAE x 1/4" FE SAE Swivel	Yes	On Branch	3 pack
F1024	3/8" SAE x 3/8" FE SAE Swivel	No	On Run	1 pack
F1025	1/4" SAE x 1/4" FE SAE Swivel	No	On Branch	3 pack
F1027	1/4" SAE x 1/4" FE SAE Swivel	No	On Run	3 pack

## 1/4" Access Tee Connector

• 1/4" SAE male

Part No.

- x 1/4" SAE female with depressor x 1/4" SAE male
- Includes (1) core and (1) cap



• 1/4" SAE x 1/4" O-Ring Connector



Part No.	Fitting Configuration	Qty
F1031	1/4" SAE M x 1/4" O-Ring Coupler	1 pack

## **Copper Tube Extension**

Fitting Configuration

1/4" SAE M x 1/4" SAE FE x 1/4" SAE M

• 1/4" Access Valve









Part No.	Fitting Configuration	Qty	
F1042	1/8" OD	5 pack	
F1043	3/16" OD x 1/8" ID	5 pack	
F1044	1/4" OD x 3/16" ID	5 pack	
F1045	5/16" OD x 1/4" ID	5 pack	
F1046	3/8" OD x 5/16" ID	5 pack	
F1048	1/2" OD	3 pack	



# **Quick Coupler SAE Female Adapter**



Part No.	Fitting Configuration	Qty
F2001	1/4" SAE M x 5/16" SAE FE	1 pack
F2002	5/16" SAE M x 1/4" SAE FE	1 pack

## Liquid Charging Adapter

Part No.	No. Fitting Configuration	
F2008	1/4" SAE M x 1/4" SAE FE	1 pack
F2009	5/16" SAE M x 5/16" SAE FE	1 pack

# Swivel Female Flare x Solder Adapter



Part No.	Fitting Configuration	Qty
F2003	1/4" SAE FE x 1/4" OD	4 pack
F2004	3/8" SAE FE x 3/8" OD	4 pack
F2005	1/2" SAE FE x 1/2" OD	4 pack
F2006	5/8" SAE FE x 5/8" OD	2 pack
F2007	3/4" SAE FE x 3/4" OD	2 pack



# A2L Adaptor for LH A2L Refrigerant Tanks

Part No.	Fitting Configuration	Qty
F2010	1/4" LH FPT x 1/4" MPT	1 pack

## 1/4" SAE Caps





F3005, F3007

Part No.	Description	Qty
F3002	1/4" SAE Plastic Cap with Gasket	5 pack
F3005	1/4" SAE Brass Cap with O-Ring	10 pack
F3007	3/8" SAE Brass Cap with Gasket	3 pack

## **Valve Core Accessories**

F9013



Part No.	Description	Qty
F9001	F9001 1/4" Valve Cores	
F9007	1/4" Hose Gaskets	10 pack
F9011	F9011 NVR1 Valve Core Removal Tool Rebuild Kit	
F9013	Brass Core Depressors for Hoses	10 pack



## **Adapters**



FH1214

FH12K2

FHK1K2



FH1238





FH12K2



FHK1K2

1 pack

1 pack

ı	Part No.	Description	Qty
	FH1214	Adapter 1/2" to 1/4"	5 pack
	FH1238	Adapter 1/2" to 3/8"	5 pack
	FH12K1	Adapter 1/2" to KF16	1 pack

Adapter 1/2" to KF25

Adapter KF16 to KF25

FH12K1

## 4 PORT

## FHH4

4 Port Hose Hanger, 1/4", 1/4", 1/2", 3/8"

#### **Innovative Hose Organizer for Professional Technicians**

- Supporting professional hose management, only hanger to hold multiple hoses
- Premium metal material, built to last
- Modern finish for sleek aesthetic
- Light weight at 0.15 lbs
- Suitable for multi-sized fittings

Leading Technology, Superior Quality, Best Experience.

Empowering You to Work Smarter



Part No.	Description	Qty
FHH4	4 Port Hose Holder, 1/4", 1/4", 1/2", 3/8"	1 pack



## **Industry Changes**

WE ARE READY FOR A2L, ARE YOU?







## Recovery Units







No.	Model	Description	No.	Model	Description
1	NP2DLM	BreakFree Cordless Vacuum Pump, 2 CFM	5	NP12DM	Vacuum Pump, Industrial Grade, Master Series
2	NP4DLM	BreakFree Cordless Vacuum Pump, 4 CFM	6	NR7	Recovery Unit
3	NP7DP2	Vacuum Pump, 7 CFM, Pro Series, A2L Compatible	7	NRDD	Digital DC Recovery Unit
4	NRP6Di & NRP8Di	Smart Vacuum Pump, Master Series	8	NRDC4M	4-Cylinder Recovery Unit



## **Industry Changes**

WE ARE READY FOR A2L, ARE YOU?







Hose



No.	Model	Description	No.	Model	Description
1	NMG12A	Pro Manifold Gauge, A2L (R-454B, 32, 410A, 22)	6	N2D72	Flex72 Manifold Gauge w/ Display, A2L
2	NMG13A	Pro Manifold Gauge, A2L (R-32, 454B, 22)	7	NX1	Nexus Digital Manifold Gauge
3	N2A4B	Pro Plus Manifold Gauge, A2L (R-454B, 32, 410A, 22)	8	NH5L	Charging Hose w/o Ball Valve
4	N2A4C	Pro Plus Manifold Gauge, A2L (R-454B, 32, 22)	9	NRDDF	Digital DC Recovery Unit, A3 Compatible
5	N4A4H	4-Valve Manifold Gauge A2L (R-410A, 22, 134a, 404A)	10	NP7DPF	Vacuum Pump, 7 CFM, Pro Series, A3 Compatible





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

ASHRAE Standard 34 designates every refrigerant with a letter (A or B) and number (1, 2/2L, 3) to classify its toxicity and flammability. The letter represents the refrigerant's toxicity, with "A" representing low toxicity and "B" for high. The number refers to the refrigerant's flammability. A Class 1 refrigerant is a refrigerant with little to no flame propagation and a low risk of igniting under normal circumstances. Class 3 refrigerants indicate our most flammable refrigerants. ASHRAE recently added the subclass of 2L to represent Class 2 refrigerants that are significantly slower to ignite or burn than other Class 2 gases. When a substance is exposed to spark or flame, many people assume it will behave like water or gasoline. In reality, there's huge grey area in between. It's in this grey area that we find A2L refrigerants. They're much less flammable, but can certainly ignite if several factors align at the same time.

Refrigerant Safety Groups	Lower Toxicity OEL > 400ppm	Higher Toxicity OEL < 400ppm
Highly Flammable	A3 All Hydrocarbons	В3
Flammable HCFs, non-fluorocarbons	<b>A2</b> R-152a	B2
Less 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	B2L
Little to No Flame Propagation HFFCs, HFC/HFO Blends, HFOs, HCFOs, HFO/chloro-olefin blends, non-fluorocarbons	<b>A1</b> R410A, R-134a, R-744	B1

There is an inverse relationship between Global Warming Potential (GWP) and flammability. As the GWP goes down to acceptable levels, the flammability increases. Today for the residential and light commercial split or unitary markets, the GWP target is 750. The widely used R410A (A1 class) has a GWP of 2088, while R32 (A2L class) has a GWP of 675. Recent data shows that replacing R410A with R32 can help us avoid ~0.9°F of global warming by 2100. That's why we see an impending phasedown of HFCs, including R410A, and the inclusion of R32 or other A2L refrigerants in future equipment. EPA approved A2L refrigerants will bring us closest to being in line with the new GWP targets while having the least overall impact on installation, service and maintenance practices.

R32 and any flammable refrigerants CANNOT be used in any R22 or R410A refrigerant retrofit applications. If we look at the equipment coming off the assembly lines manufacturing A2L equipment, they are being designed at the factory to have the components already on board that mitigate the risks of A2L refrigerants, which we call "intrinsically safe". For A2L equipment best practices, always consult the manufacturers' literature before and during an installation for precise standards, requirements and considerations. Always use tools that are rated for use with A2L refrigerants.

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.

Sparkless Design

DC Brushless Motor

Soft Contact Power Switches

Covered Connections for All Electrical Terminations

Inclusion of a Fan



















#### **NAVAC Product Model Number Index**

Model	Page
Cart1	39
F1002	59
F1003	59
F1004	59
F1005	59
F1006	59
F1007	59
F1008	59
F1009	59
F1011	59
F1015	59
F1016	59
F1019	59
F1022	60
F1023	60
F1024	60
F1025	60
F1027	60
F1028	58
F1029	58
F1030	60
F1031	60
F1042	60
F1043	60
F1044	60
F1045	60
F1046	60
F1048	60
F2001	61
F2002	61
F2003	61
F2004	61
F2005	61
F2006	61
F2007	61
F2008	61
F2009	61
F2010	61
F3002	61
F3005	61
F3007	61
F9001	61

F9007

61

Model	Page
F9011	61
F9013	61
FH1214	62
FH1238	62
FH12K1	62
FH12K2	62
FHH4	62
FHK1K2	62
N2A4	52
N2A4B	52
N2A4C	52
N2A4D	52
N2A4E	52
N2D72	50
N4A4	53
N4A4B	53
N4A4H	53
NAB1	17
NAPS1	37
NAQC1	04
NAQC2	04
NAQC3	04
NAQC4	04
NAQC5	04
NAQC6	04
NB1	37
NBF2	02, 04, 06
NBP2	37
NC2	37
NCF2	02, 04, 06
NEF6LM	03
NEVK1	57
NEVK2	57
NEVK3	57
NEVK4	57
NFG1	16
NH34AB	56
NH34AC	56
NH38BB	56
NH5B	55
NH5CB	55
NH5CR	55
NH5CY	55

Model	Dogo
	Page
NH5L	55
NH5R	55
NH5S	55
NH5SC	55
NH5Y	55
NHB1	56
NHB2	56
NHR38AA	56
NHR38AB	56
NKS2	17
NMC1	44
NMG11A	51
NMG12A	51
NMG13A	51
NMG14A	51
NMG15A	51
NMGB1	54
NMH11H	54
NMH11L	54
NMH12H	54
NMH12L	54
NMG13H	54
NMG13L	54
NMG14L	54
NMG14H	54
NMG15L	54
NMG15H	54
NML1	43
NMT1000	46
NMT300	45
NMV1	41
NMV1S	42
NOT30B	39
NP12DA1	33
NP12DM	32
NP2DLM	25
NP4DLM	26
NP5DP	27
NP7DP	28
NP7DP2	29
NP7DPF	30
NPO68	39
NR7	19

Model	Page
NRC62D	36
NRD16T	34
NRD24M	35
NRD30M	35
NRDC4M	24
NRDD	22
NRDDF	23
NRP6Di	31
NRP8Di	31
NRRD	21
NRS2i01	47
NRS3i01	48
NTB7	07
NTB7L	01
NTBRK	02, 07
NTC12	12
NTC15	12
NTC6	12
NTD28	15
NTE11H2	11
NTE11L	05
NTE7	10
NTEQHK	06, 11
NTF66	80
NTF66C	80
NTF67D	09
NTK1	18
NTR14	14
NTW1	13
NTWH41	13
NTWR38	13
NVO1G	38
NVO1Q	38
NX1	49
NX1V	49
PC12W	12
PC15W	12
PC6W	12





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

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.

For more information about warranty, please visit <a href="https://navacglobal.com/return-merchandise-authorization/">https://navacglobal.com/return-merchandise-authorization/</a>

