

# GUARDAIR®

## OPERATING INSTRUCTIONS

FOR GUARDAIR STANDARD AND NED COMPRESSED AIR-POWERED VACUUMS

***Please save these instructions and the accompanying replacement parts information for your future reference.***

### FOR YOUR SAFETY

Turn off all compressed air connections with the compressed air source at the nearest valve. Disconnect compressed air connections only after the compressed air supply has been turned off and the air supply hose vented by opening the valve on the vacuum head. NEVER disconnect a pressurized compressed air hose.

### AIR SUPPLY

An adequate supply of compressed air is essential for the proper performance of your Guardair vacuum. Compressed air requirements for vacuum units and vacuum generating heads equipped with the following Venturi types are listed below:

#### “Dual B” Venturi

N552B Series ..... 110 cfm

#### “B” Type Venturi

N551B Series, N301B Series ..... 68 cfm

#### “D” Type Venturi

N551D Series, N301D Series, N201DC, N101DC ..... 47 cfm

#### “S” Type Venturi

N201SC, N101SC ..... 20 cfm

#### “M” Type Venturi

N101MC, N051MC ..... 20 cfm

Please note that these requirements are for compressed air volume, not pressure. The recommended compressed air inlet operating pressure is 100 psi for all vacuum units. All units will function at lower operating pressures, but with a corresponding reduction in performance.

Units featuring a “B” or “D” Type Venturi include a Chicago-style connector. A 3/4” ID or larger compressed air supply hose is recommended for these models.

Units featuring an “S” Type Venturi include a 1/2” industrial interchange male connector. A 1/2” ID

or larger compressed air supply hose is recommended for these models. Units featuring an “M” Type Venturi include a 3/8” industrial interchange male connector. A 3/8” ID or larger compressed air supply hose is recommended for these models.

**FOR ALL MODELS:** To ensure maximum performance, clean or replace the internal filter as necessary. In addition, clean or replace the exhaust silencer (inside the exhaust housing) as necessary. Inspect the cover gasket for deterioration and replace if necessary. On all vacuum units, use of a smaller diameter air hose or smaller size air fittings will seriously restrict performance. Use the recommended hoses and fittings.

Be certain that the drum has no dents along the seams and is airtight. The cover gasket under the vacuum generating head must form a complete seal with the top edge of the drum.

**CAUTION:** Drums used with Guardair vacuum generating heads must meet the steel gauge requirements in the table below. Thinner gauges of steel run the risk of drum collapse.

DRUM	55 gal	30 gal	20 gal	10 gal	5 gal
GAUGE	19	18	18	20	20

### REPLACING GASKETS

**On 55, 30 & 20 Gallon Models,** remove the gasket to be replaced. On the new gasket, remove the protective tape covering the adhesive, then apply gasket to lid.

**On 10 & 5 Gallon Models,** the lid gasket is adhered to the lid by hot glue. The hot glue can easily be removed with rubbing alcohol. Let the rubbing alcohol sit for one minute, then simply peel off with a flat head screwdriver. We recommend using hot glue when installing new gasket.

## SET-UP AND OPERATION, 55-GALLON, 30-GALLON AND 20-GALLON MODELS:

Place the vacuum generating head on the drum. There are no clamps required to form an airtight seal. When the vacuum is in operation, the negative pressure within the drum will create the airtight seal between the head and drum.

Connect the vacuum hose to the vacuum generating head by inserting the hose adapter into the inlet elbow. Slip the hose end onto the adapter. Connect vacuum attachments to the vacuum hose.

Turn off the compressed air supply valve at the compressor.

### B & D Venturis

Connect the compressed air supply hose to the vacuum generating head via the Chicago-style coupler. Twist together and be sure they lock. Install the safety clips. Connect the compressed air supply hose to the compressor. Turn on the compressed air supply. Open the shut-off valve to operate.

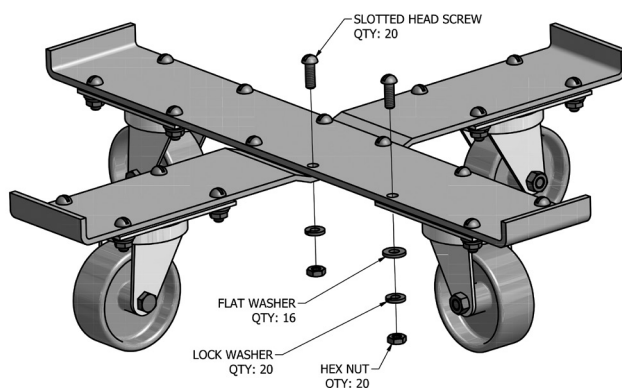
### S Venturis

Connect the compressed air supply hose to the vacuum generating head via the 1/2" industrial interchange male connector. Connect the compressed air supply hose to the compressor. Turn on the compressed air supply. Open the shut-off valve to operate.

### Liquid Shut-off Accessory

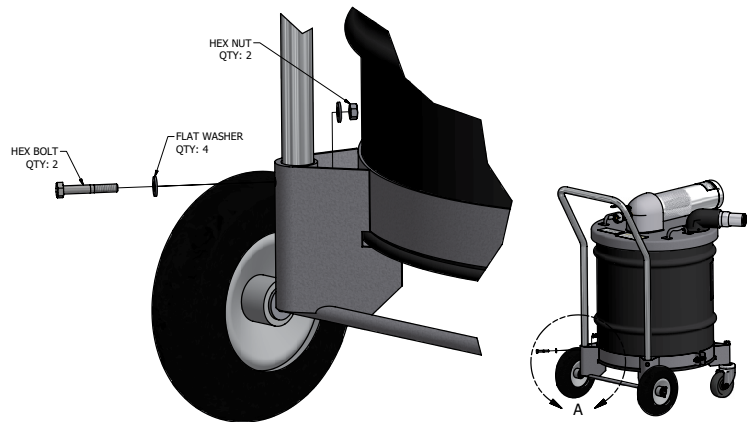
Before picking up liquids, remove the internal filter, which is held in place by three springs. For continuous liquid pick-up, the liquid shut-off accessory (optional) should be installed in place of the internal filter and held in place by the same three springs.

**55 & 30 Gallon Drum Dolly** Assemble the drum dolly for 55-gallon and 30-gallon models as shown below.



**Caution: Dolly maximum load capacity is 1,000 pounds.**

**20 Gallon Drum Dolly:** Assemble the drum dolly for 20-gallon model as shown below (Compatible with 30 gallon).



**Caution: Dolly maximum load capacity is 1,000 pounds.**

## SET-UP & OPERATION, 10-GALLON MODELS:

The vacuum generating head, which mounts on top of the drum, seals to the drum via the lid clamps.

Connect the vacuum hose to the vacuum hose inlet by slipping the hose end onto the connector. This is an intentionally tight fit. Connect vacuum attachments to the vacuum hose.

The vacuum comes with a liquid shutoff assembly built internally within the cartridge filter. The cartridge filter can be removed for maintenance or replacement by removing the wing nut and washer on the bottom of the filter.

Turn off the compressed air supply valve at the compressor.

**Model N101DC** - Connect the compressed air supply hose to the vacuum generating head via the Chicago-style coupler. Twist together, making sure that they lock. Install the safety clips. Connect the compressed air supply hose to the compressor. Turn on the compressed air supply. Open the shut-off valve to operate.

**Model N101SC** - Connect the compressed air supply hose to the vacuum generating head via the 1/2" industrial interchange male connector. Connect the compressed air supply hose to the compressor. Turn on the compressed air supply. Open the shut-off valve to operate.

**Model N101MC** - Connect the compressed air supply hose to the vacuum generating head via the 3/8" industrial interchange male connector. Connect the compressed air supply hose to the compressor. Turn on the compressed

air supply. Open the shut-off valve to operate.

#### **SET-UP & OPERATION, 5-GALLON MODELS:**

The vacuum generating head, which mounts on top of the drum, seals to the drum via the lid clamps.

Connect the vacuum hose to the vacuum hose inlet by slipping the hose end onto the connector. This is an intentionally tight fit. Connect vacuum attachments to the vacuum hose.

The vacuum comes with a liquid shutoff assembly built internally within the cartridge filter. The cartridge filter can be removed for maintenance or replacement by removing the wing nut and washer on the bottom of the filter.

Turn off the compressed air supply valve at the compressor.

Connect the compressed air supply hose to the vacuum generating head via the 3/8" industrial interchange male connector. Connect the compressed air supply hose to the compressor. Turn on the compressed air supply. Open the shut-off valve to operate.

#### **STATIC CONDUCTIVE MODELS:**

Guardair manufactures NED (non-electrical discharge) models, designed to eliminate static electricity by incorporating static conductive components to suppress static electricity charges. Should stray static charges become generated, these charges are immediately dissipated through the electrically interconnected, static conductive components. For an added measure of protection, users can ground the vacuum by connecting the grounding lug to an external electrical ground using a grounding clamp and cable (available as an accessory item).

To ensure proper electrical bonding (connectivity between components), make sure that only static conductive, factory-supplied parts and accessories are used with Guardair NED vacuums. All components must fit together firmly, including the static conductive vacuum hose, which must mount securely on the vacuum hose inlet, and all static conductive vacuum accessories.

Always inspect all static conductive vacuum components before use, and replace worn or rusted parts as needed.

If you have questions about the necessity for grounding, consult with a qualified safety engineer.

# **WARNING**

## **FIRE/EXPLOSION DANGER**

**Guardair vacuums, like all other electric and pneumatic vacuums, generate static electric charges. Factory installed kits to control static electricity, the use of static conductive hoses and grounding straps, and Guardair Static Conductive Pneumatic Vacuums are intended to control and eliminate static electric shocks only to the operators of the vacuums. Guardair vacuums are NOT APPROVED OR SAFE to use in any hazardous (classified) location, such as locations determined under NFPA 70 (National Electrical Code) to be Class I (flammable liquids, gases and vapors – includes all Class I Divisions and IEC Zones), Class II (combustible dust – includes all Class II Divisions and IEC Zones) and Class III (ignitable fibers and flyings – includes all Class III Divisions and IEC Zones).**

## **FOREVER WARRANTY:**

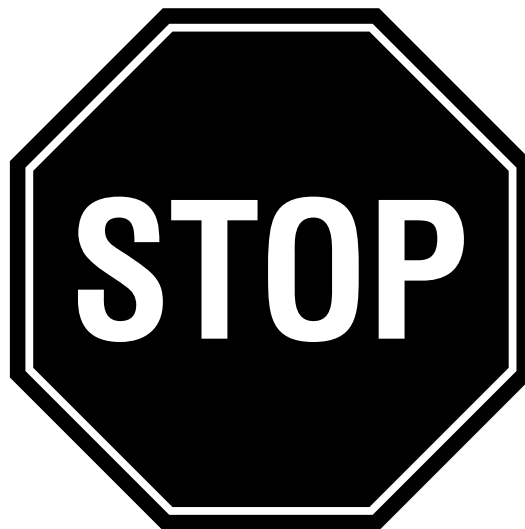
Guardair Corporation ("Guardair") warrants that its compressed air-powered vacuums are free from defects in materials and workmanship for as long as the original end-user purchaser owns the product, except as provided below. Guardair will, at its option, repair or replace with a comparable product, any product, part, or component that fails under normal use as a result of such defect. This warranty does not apply to damage caused by the carrier; normal wear and tear; deterioration due to solvents, corrosives, environmental conditions, or harsh vacuumed material; soiling, saturation, or perforation of filters or exhaust silencers; consumable components; modifications to the product; attachments to the product not sold by Guardair; or any product not installed, used, or maintained in accordance with the foregoing and other published Guardair instructions and warnings. Consumables purchased from Guardair, including attachments, vacuum hose, filters, exhaust silencers, and cover gaskets are warrantied for a period of 90 days against defects in materials and workmanship, subject to the same exclusions noted above.

This warranty covers the original purchase of a new product by an end-user for normal industrial or commercial use only when installed and used as specified and in accordance with published operating instructions and within all applicable regulatory rules, limits, and guidelines.

**THIS WARRANTY IS THE ONLY WARRANTY MADE BY GUARDAIR FOR THIS PRODUCT, AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED.**

Guardair's sole obligation and the end-user purchaser's exclusive remedy under this warranty shall be limited to the repair or replacement, at the sole discretion of Guardair, of product or components. In no event shall Guardair be responsible for special, consequential, or incidental damages arising out of a claim for a defective product or failure of warranty. All labor and material costs of repair or replacement under this warranty shall be the responsibility of Guardair. Shipping costs to and from the purchaser associated with repair or replacement under this warranty shall be the responsibility of Guardair for a period of one year from the date of sale, and shall be the responsibility of the purchaser thereafter. This warranty applies to purchasers within and products used within the United States and Canada only. To obtain service under this warranty, within 30 days of the discovery of the defect, the end-user purchaser must contact the dealer or distributor from whom the product was purchased, or contact Guardair at the address shown below. The purchaser must provide a reasonable opportunity for inspection and investigation of the claim, prior to any repairs or alteration to the product. Until the claim is resolved, the purchaser must discontinue use of the product if continued use creates or exacerbates problems associated with, or incidental to, the defect. Proof of purchase will be verified by the selling party and applicability of the warranty will be determined by Guardair. Guardair will determine whether to provide replacement parts, provide repair service, or replace the product. Written approval from Guardair must be obtained before any warranty work is performed. Any repairs performed by persons other than Guardair or its authorized dealers or distributors will void this warranty.

**QUESTIONS?** Contact Guardair with questions concerning applications, operation, and performance of Guardair vacuums, regardless of the original purchase date.

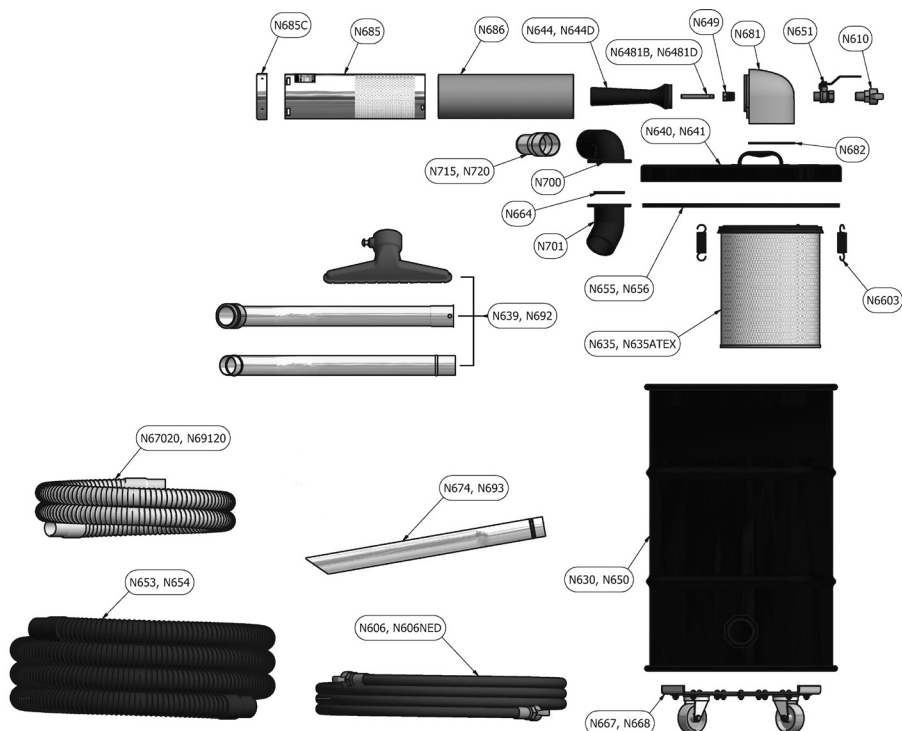


## **DO NOT RETURN THIS PRODUCT TO PLACE OF PURCHASE!**

**For problems pertaining to the operation of this vacuum unit, contact Guardair Corporation Customer Service at (800) 482-7324.**

**Should this vacuum need to be returned to the factory, and if a return has been pre-authorized by Guardair, the unit **MUST** in original condition. Returns will not be accepted unless received in the original packaging and accompanied by the original accessories. If the vacuum has been used, the unit **MUST** be emptied and cleaned before shipping. In addition, a Material Safety Data Sheet (MSDS) for all materials previously vacuumed by the unit **MUST** be supplied to Guardair at the time of shipment.**

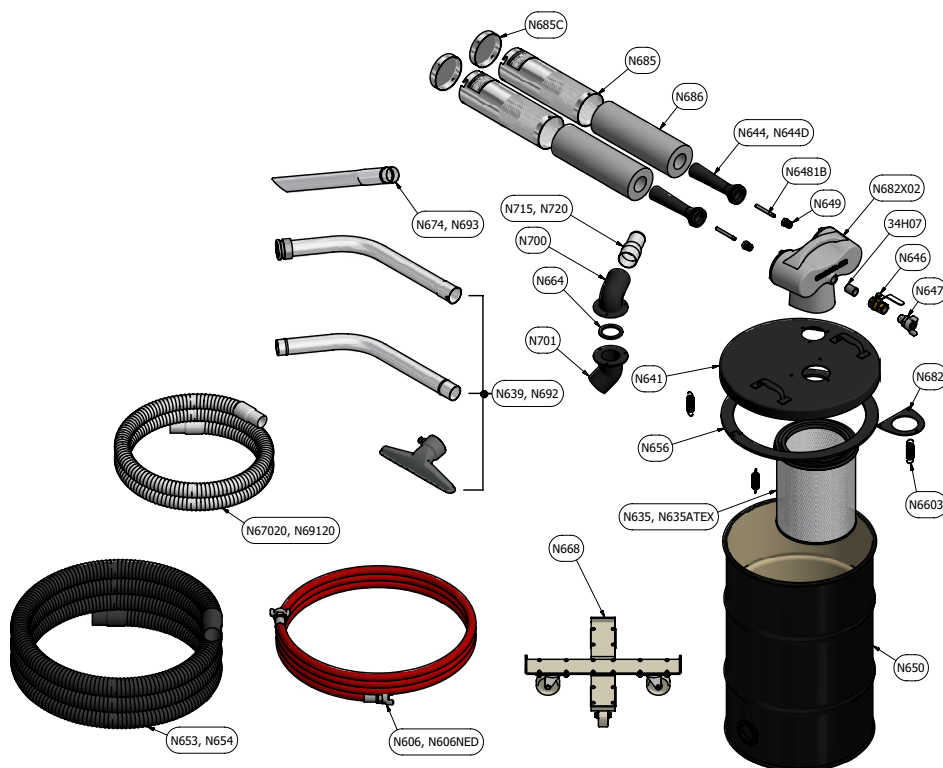
## 55 AND 30 GALLON SINGLE VENTURI VACUUM KIT



Part Number	Description
N606	3/4" ID X 20' Air Supply Hose
N606NED	3/4" ID X 20' Static Conductive Air Supply Hose
N610	1/2" NPT Chicago Coupler
N630	30 Gallon Steel Drum
N635	Standard Cartridge Filter For 30/55 Gallon Vacuums
N635ATEX	ATEX Bonded Cartridge Filter
N639	Floor Tool Kit For 2" Vacuum Hose
N640	Lid For 30 Gallon Drum
N641	Lid For 55 Gallon Drum
N644	B Series Venturi
N644D	D & S Series Venturi
N6481B	B Series Orifice
N6481D	D Series Orifice
N649	1/2" X 1/8" NPT Brass Hex Reducing Bushing For Air Jet
N650	55 Gallon Steel Drum
N651	1/2" NPT Ball Valve, Brass For Compressed Air Shut-Off
N653	1.5" X 20' Static Conductive Vacuum Hose
N654	2" X 20' Static Conductive Vacuum Hose
N655	30 Gallon Vacuum Lid Gasket
N656	55 Gallon Vacuum Lid Gasket
N6603	Retaining Spring (Set of 3)
N664	Elbow Gasket
N667	30 Gallon Dolly Assembly
N668	55 Gallon Dolly Assembly
N67020	2" X 20' Standard Duty Vinyl Vacuum Hose
N674	24" Steel Crevice Tool For 2" Vacuum Hose
N681	Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N69120	1.5" X 20' Standard Duty Vinyl Vacuum Hose
N692	12" Wide Aluminum Wet/Dry Floor Tool Kit For 1.5" Vacuum Hose
N693	24" Aluminum Crevice Tool For 1.5" Vacuum Hose
N700	Inlet Elbow
N701	Discharge Elbow
N715	1.5" Vacuum Hose Adapter
N720	2" Vacuum Hose Adapter

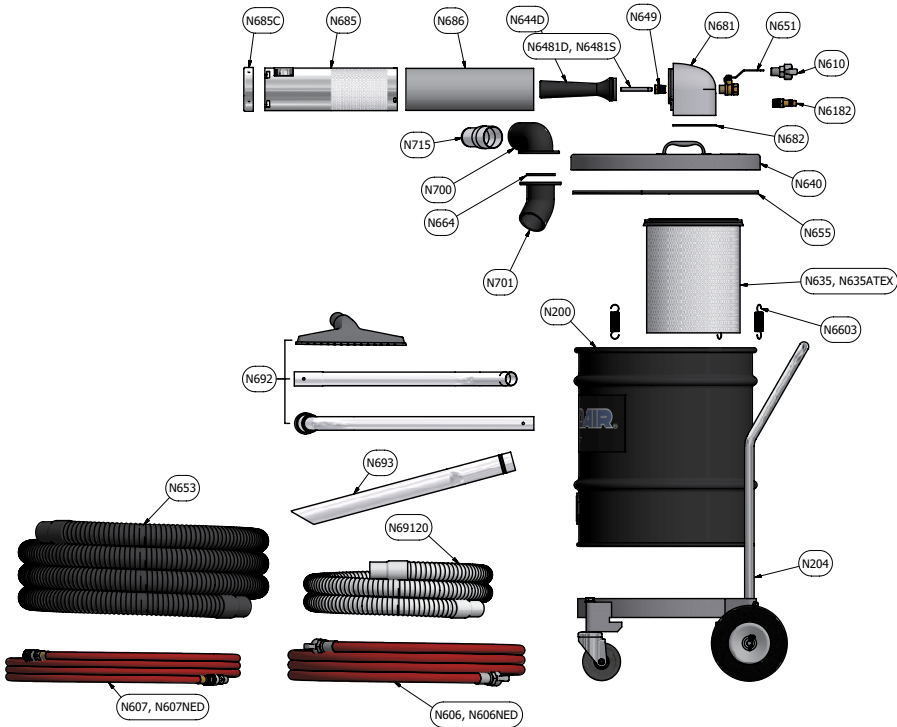
## 55 GALLON DUAL VENTURI VACUUM KIT

Part Number	Description
N606	3/4" ID X 20' Air Supply Hose
N606NED	3/4" ID X 20' Static Conductive Air Supply Hose
N635	Standard Cartridge Filter For 30/55 Gallon Vacuums
N635ATEX	ATEX Bonded Cartridge Filter
N639	Floor Tool Kit For 2" Vacuum Hose
N641	Lid For 55 Gallon Drum
N644	B Series Venturi
N646	Brass Shut-Off Valve For Dual Venturi Models
N647	3/4" NPT Chicago Coupler
N6481B	B Series Orifice
N649	1/2" X 1/8" NPT Brass Hex Reducing Bushing For Air Jet
N650	55 Gallon Steel Drum
N653	1.5" X 20' Static Conductive Vacuum Hose
N654	2" X 20' Static Conductive Vacuum Hose
N656	55 Gallon Vacuum Lid Gasket
N6603	Retaining Spring (Set of 3)
N664	Elbow Gasket
N668	55 Gallon Dolly Assembly
N67020	2" X 20' Standard Duty Vinyl Vacuum Hose
N674	24" Steel Crevice Tool For 2" Vacuum Hose
34H07	Nipple, 3/4" NPT Fully Threaded, Schedule 40, Steel
N682X02	Dual Head Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N69120	1.5" X 20' Standard Duty Vinyl Vacuum Hose
N692	12" Wide Aluminum Wet/Dry Floor Tool Kit For 1.5" Vacuum Hose
N693	24" Aluminum Crevice Tool For 1.5" Vacuum Hose
N700	Inlet Elbow
N701	Discharge Elbow
N715	1.5" Vacuum Hose Adapter
N720	2" Vacuum Hose Adapter



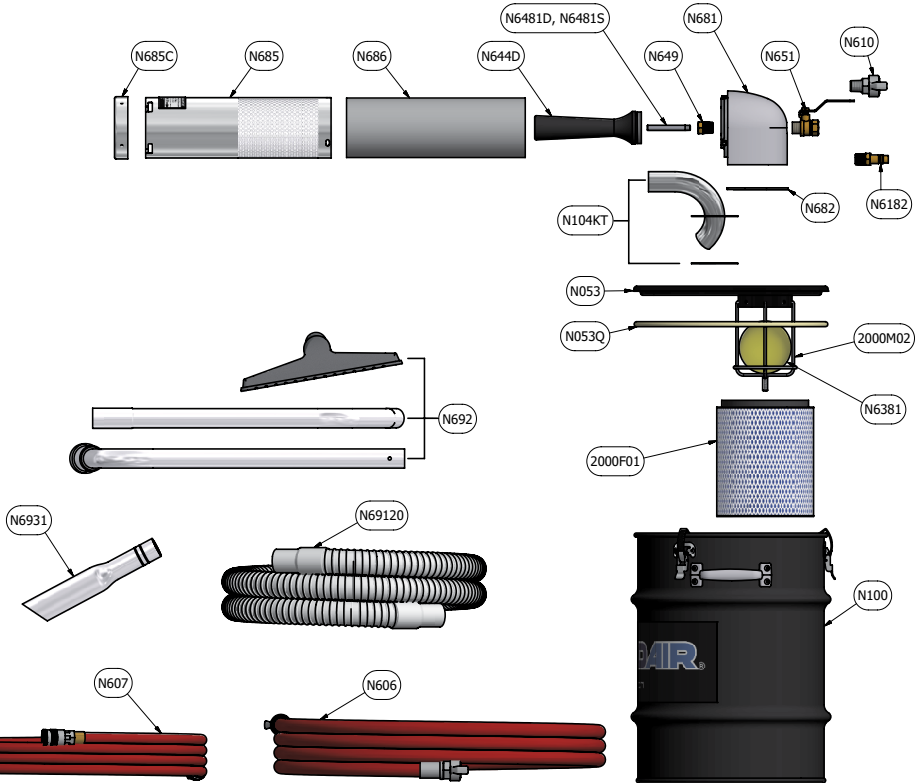
20 GALLON VACUUM KIT

Part Number	Description
N200	20 Gallon Drum
N204	20 Gallon Dolly
N606	3/4" ID X 20' Air Supply Hose
N606NED	3/4" ID X 20' Static Conductive Air Supply Hose
N607	1/2" ID X 20' Air Supply Hose
N607NED	1/2" ID X 20' Static Conductive Air Supply Hose
N610	1/2" NPT Chicago Coupler
N6182	1/2" NPT - 1/2" Male Us Industrial Interchange Coupler
N635	Standard Cartridge Filter
N635ATEX	ATEX Bonded Cartridge Filter
N640	20 Gallon Lid
N644D	D & S Series Venturi
N6481D	D Series Orifice
N6481S	S Series Orifice
N649	1/2" X 1/8" NPT Brass Hex Reducing Bushing for Air Jet
N651	1/2" NPT Ball Valve, Brass For Compressed Air Shut-Off
N653	1.5" X 20' Static Conductive Vacuum Hose
N655	20 Gallon Lid Gasket
N6603	Retaining Spring (Set of 3)
N664	Elbow Gasket
N681	Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N69120	1.5" X 20' Standard Duty Vinyl Vacuum Hose
N692	Floor Tool Kit For 1.5" Vacuum Hose
N693	24" Aluminum Crevice Tool For 1.5" Vacuum Hose
N700	Inlet Elbow
N701	Discharge Elbow
N715	1.5" Vacuum Hose Adapter



10 GALLON VACUUM KIT (N101DC AND N101SC MODELS)

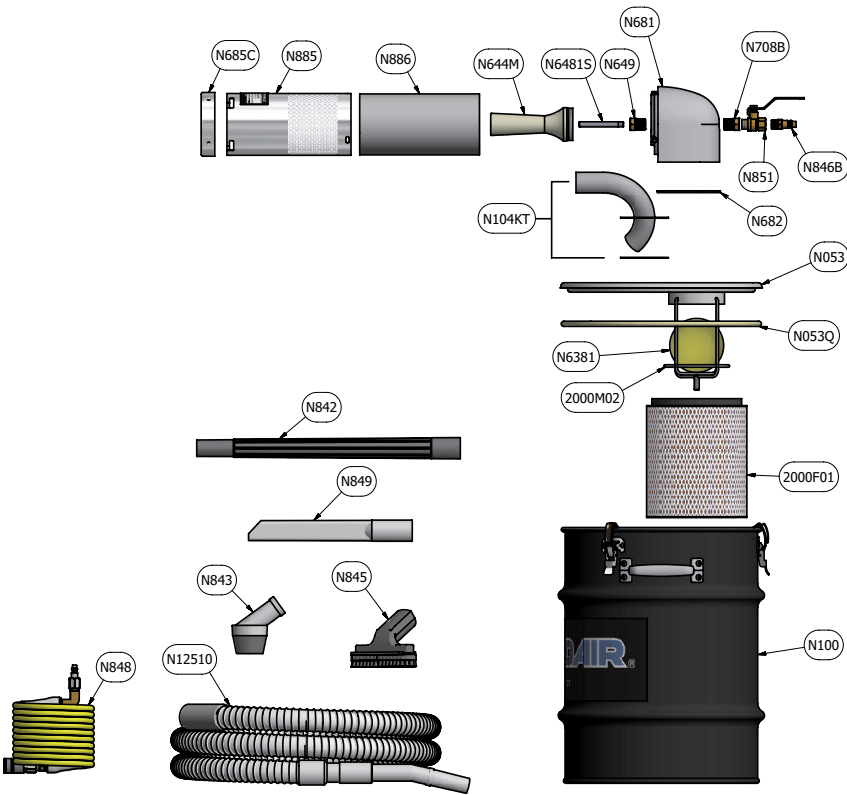
Part Number	Description
2000F01	Standard Cartridge Filter - Small
2000M02	Liquid Shut Off Cage
N053	5 and 10 Gallon Lid
N053Q	5 and 10 Gallon Lid Gasket
N100	10 Gallon Canister With Lid Clamps and Handles
N104KT	5/10 Gallon Vacuum Inlet Kit
N606	3/4" ID X 20' Air Supply Hose
N607	1/2" ID X 20' Air Supply Hose
N610	1/2" NPT Chicago Coupler
N6182	1/2" NPT X 1/2" Male US Industrial Interchange Plug
N6381	Liquid Shut Off Ball
N644D	D and S Series Venturi
N6481D	D Series Orifice
N6481S	S Series Orifice
N649	1/2" X 1/8" NPT Brass Hex Reducing Bushing For Air Jet
N651	1/2" NPT Ball Valve, Brass For Compressed Air Shut-Off
N681	Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N69120	1.5" X 20' Standard Duty Vinyl Vacuum Hose
N692	Floor Tool Kit For 1.5" Vacuum Hose
N6931	11" Aluminum Crevice Tool For 1.5" Vacuum Hose





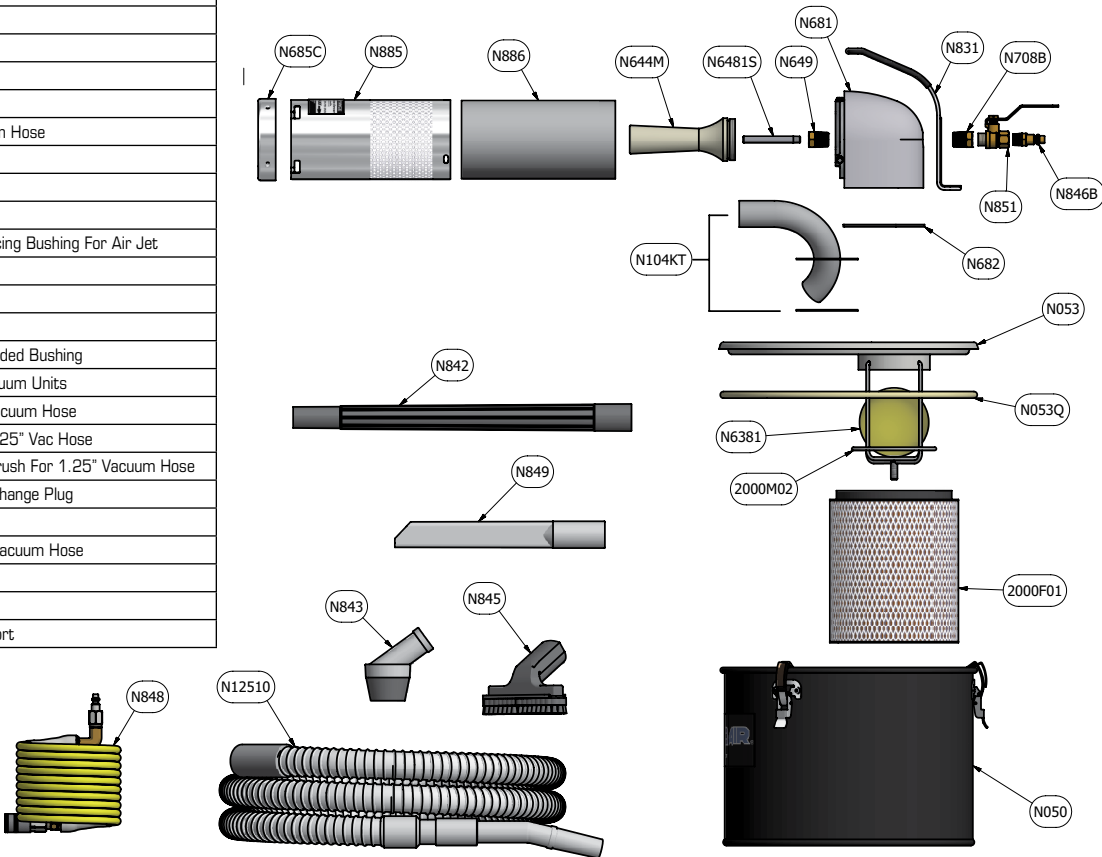
10 GALLON VACUUM KIT (N101MC MODEL)

Part Number	Description
2000F01	Standard Cartridge Filter - Small
2000M02	Liquid Shut Off Cage
N053	5 and 10 Gallon Lid
N053Q	5 and 10 Gallon Lid Gasket
N100	10 Gallon Canister With Lid Clamps and Handles
N104KT	5/10 Gallon Vacuum Inlet Kit
N12510	1.25" X 10' Standard Duty Vacuum Hose
N6381	Liquid Shut Off Ball
N644M	M Series Venturi
N6481S	S Series Orifice
N649	1/2" X 1/8" NPT Brass HEX Reducing Bushing For Air Jet
N681	Venturi Box
N682	Venturi Box Gasket
N685C	Exhaust Housing End Cap
N708B	1/2" Male NPT X 3/8" FNPT Threaded Bushing
N842	20" Plastic Extension For 1.25" Vacuum Hose
N843	3" Plastic Round Brush Tool For 1.25" Vac Hose
N845	5" Wide Plastic Utility Tool With Brush For 1.25" Vacuum Hose
N846B	3/8" MNPT x 3/8" Industrial Interchange Plug
N848	3/8" ID X 12' Air Supply Hose
N849	9" Plastic Crevice Tool For 1.25" Vacuum Hose
N851	3/8" Male NPT Shut-Off Valve
N885	Exhaust Housing - Short
N886	Exhaust Silencer Foam Insert - Short



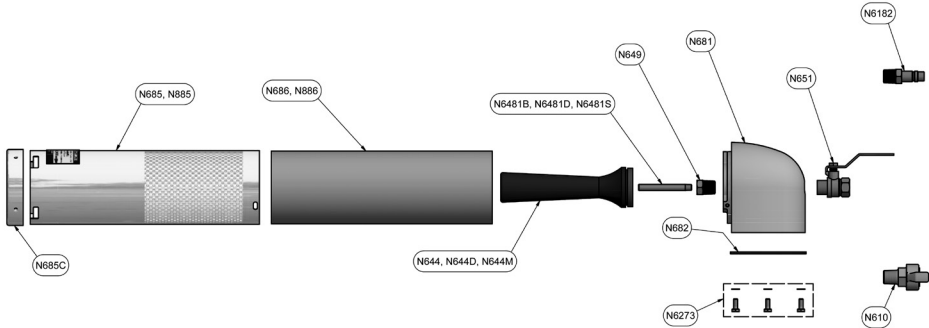
5 GALLON VACUUM KIT

Part Number	Description
2000F01	Standard Cartridge Filter - Small
2000M02	Liquid Shut Off Cage
N050	5 Gallon Canister With Lid Clamps
N053	5 and 10 Gallon Lid
N053Q	5 and 10 Gallon Lid Gasket
N104KT	5/10 Gallon Vacuum Inlet Kit
N12510	1.25" X 10' Standard Duty Vacuum Hose
N6381	Liquid Shut Off Ball
N644M	M Series Venturi
N6481S	S Series Orifice
N649	1/2" X 1/8" NPT Brass HEX Reducing Bushing For Air Jet
N681	Venturi Box
N682	Venturi Box Gasket
N685C	Exhaust Housing End Cap
N708B	1/2" Male NPT X 3/8" FNPT Threaded Bushing
N831	Handle With Grip For 5 Gallon Vacuum Units
N842	20" Plastic Extension For 1.25" Vacuum Hose
N843	3" Plastic Round Brush Tool For 1.25" Vac Hose
N845	5" Wide Plastic Utility Tool With Brush For 1.25" Vacuum Hose
N846B	3/8" MNPT x 3/8" Industrial Interchange Plug
N848	3/8" ID X 12' Air Supply Hose
N849	9" Plastic Crevice Tool For 1.25" Vacuum Hose
N851	3/8" Male NPT Shut-Off Valve
N885	Exhaust Housing - Short
N886	Exhaust Silencer Foam Insert - Short



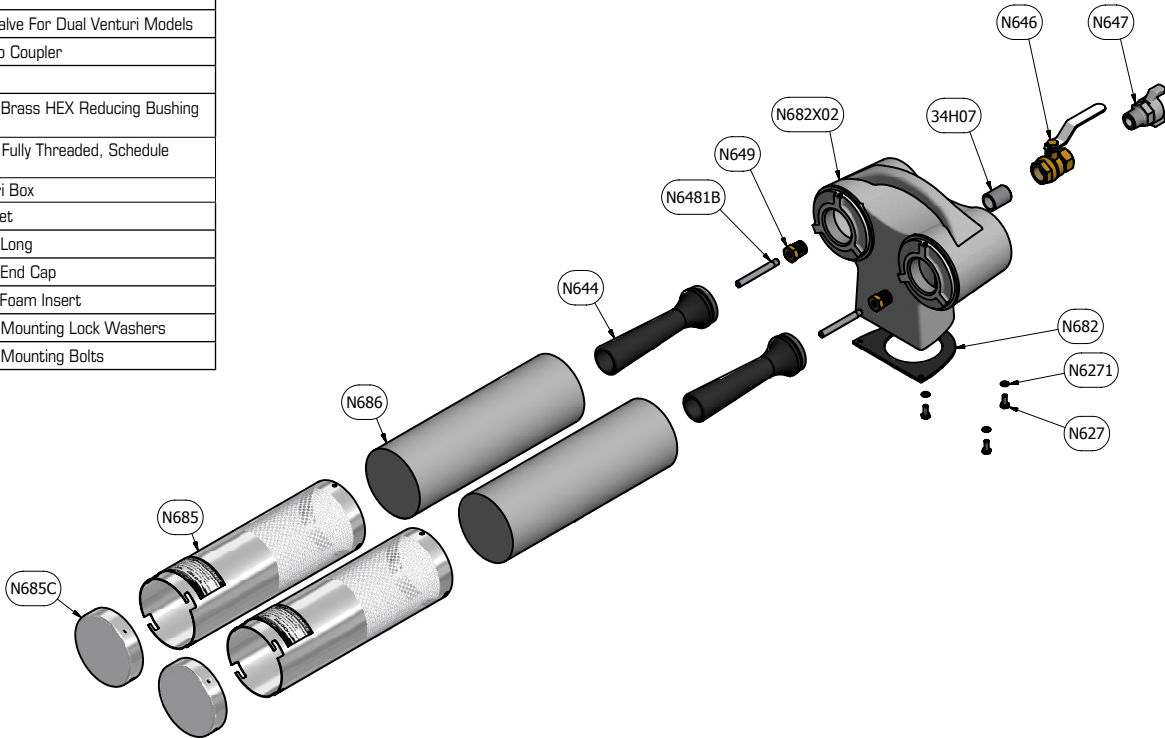
SINGLE VENTURI VACUUM GENERATING HEAD

Part Number	Description
N610	1/2" NPT Chicago Coupler
N6182	1/2" NPT X 1/2" Male US Industrial Inter-change Coupler
N6273	Venturi Box Mounting Hardware (Set)
N644	B Series Venturi
N644D	D Series Venturi
N644M	M Series Venturi
N6481B	B Series Orifice
N6481D	D Series Orifice
N6481S	S Series Orifice
N649	1/2" X 1/8" NPT Brass HEX Reducing Bushing For Air Jet
N651	1/2" NPT Ball Valve, Brass For Compressed Air Shut-Off
N681	Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N885	Exhaust Housing - Short
N886	Exhaust Silencer Foam Insert



DUAL VENTURI VACUUM GENERATING HEAD

Part Number	Description
N644	B Series Venturi
N646	Brass Shut-Off Valve For Dual Venturi Models
N647	3/4" NPT Chicago Coupler
N6481B	B Series Orifice
N649	1/2" X 1/8" NPT Brass HEX Reducing Bushing For Air Jet
34H07	Nipple, 3/4" NPT Fully Threaded, Schedule 40, Steel
N682X02	Dual Head Venturi Box
N682	Venturi Box Gasket
N685	Exhaust Housing-Long
N685C	Exhaust Housing End Cap
N686	Exhaust Silencer Foam Insert
N6271	Dual Venturi Box Mounting Lock Washers
N627	Dual Venturi Box Mounting Bolts



**GUARDAIR®**

47 Veterans Drive • Chicopee, MA 01022-1062  
Toll-Free: 800-482-7324 | Local: 413-594-4400 | Fax: 413-594-4884  
Email: [info@guardair.com](mailto:info@guardair.com) • [guardair.com](http://guardair.com)

