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Operations & Maintenance Manual
For Commercial Use Only


# TASKFORCE® EXTERNAL FILTER AIR VACUUM
# MODEL NO: 95953

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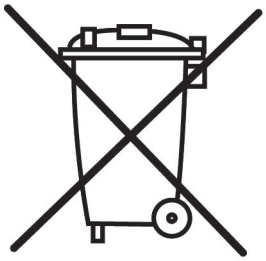
## Save These Instructions

**NOTES**



PROTECT THE ENVIROMENT
Please dispose of packaging materials in an enviromentally safe way according to local waste disposal regulations.

Always remember to recycle.

**Within 30 days, to activate the warranty, go to;**

https://tornadovac.com/services/warranty-registration-form.aspx

For warranty information go to www.tornadovac.com

## General Specifications

This industrial Wet/Dry Vacuum is powered by compressed air. The patented Venturi Powerhead has no moving parts, thus eliminating any risk of creating sparks. This vacuum will pick up wet or dry waste simultaneously without changing any filters. It will efficiently pick up items ranging from light powders to heavy-grade viscosity liquids. The convenient tip and pour tank makes emptying of wet and dry material easy. The steel carrier protects the stainless steel tank and has a basket for attachment storage. Large rear wheels and front 360 degree swivel caster wheels make operation and transportation easy. Unit accepts 1.5" to 2" hoses and attachments. Options include a wide variety of 1.5" and 2" hoses and attachments, and #90573 Liquid Shut Off

## Unit Specifications

**THE 95953 ASSEMBLY INCLUDES:**

95993 Venturi Air Powerhead (External)
98850 Tank Cover
90377 1268 sq. in. Poly Filter
98186 Tip and Pour Steel Carrier w/Basket
92650 18 Gallon 22 gauge Stainless Steel Tank
95996 Filter Support Rod
95991 Single Head Line Connector

| | |
|---|---|
| EXTERNAL FILTER AREA | 1268 sq. in. |
| HORIZONTAL RECOVERY (reach) | 30 ft. |
| VERTICAL RECOVERY (lift) | 15 ft. |
| REQUIRED COMPRESSOR | 15 h.p. |
| AIR LINE AND COUPLINGS | 1/2" I.D. minimum |
| WEIGHT | 54 lbs. |
| | |
| 3/16" JET (installed) w/1.5" HOSE | 82 CFM/185" Static Waterlift |
| 3/16" JET w/2" HOSE | 79 CFM/185" Static Waterlift |
| COMPRESSOR CFM | 47 @ 90 p.s.i. |
| | |
| 7/32" JET (included) w/1.5" HOSE | 73 CFM/223" Static Waterlift |
| 7/32" JET w/2" HOSE | 74 CFM/223" Static Waterlift |
| COMPRESSOR CFM | 61 @ 90 p.s.i |
| | |
| 1/4" JET (included) w/1.5" HOSE | 70 CFM/242" Static Waterlift |
| 1/4" JET w/2" HOSE | 67 CFM/242" Static Waterlift |
| COMPRESSOR CFM | 76 @ 90 p.s.i. |

Features.

- Capable of simultaneous wet/dry pickup when using external filter(s).
- 3/16" (5mm) jets installed. 7/32" (5.5mm) and 1/4" (6mm) jets are included for heavier debris.
- Ideal for materials from powder to oily metal chips, grindings and shavings.
- Recovers fluids from water to heavy weight oils.
- 90 p.s.i at the gauge (valve fully open) allows for maximum pickup power.
- 60 p.s.i. at the gauge (valve fully open) allows for lighter liquid pickup power

WARNING: Failure to adhere to these instructions could result in serious bodily injury of property damage.

**BEFORE OPERATING MACHINE**

Read this manual completely before attempting to operate machine. This manual has important information for the use and safe operation of the machine. Keep this manual on file and handy. If additional information in needed, please contact your local distributor or contact:

TORNADO INDUSTRIES 800-VACUUMS
3101 WICHITA COURT Fax: 817-551-0719
FORT WORTH, TX 76140 www.tornadovac.com

## Safety Instructions

When using this unit, basic precautions should always be followed. Read all instructions before using this unit.

**WARNING: To reduce the risk of fire, electric shock or injury:**

- Do not leave machine unattended when running. Turn off when not in use.
- Before attempting any maintenance or adjustment, disconnect air lines.
- Do not expose to rain.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- If machine is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Turn off all controls before disconnecting air lines.
- Do not put any object into openings. Do not use with any opening blocked. Keep openings free of dust, lint, hair, and anything that may reduce air flow.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not pick up flammable or combustible liquids, such as gasoline, or use machine where they may be present.
- Do not use without filters in place.
- Use extra care when cleaning on stairs.
- Always replace worn or torn external filters immediately. This will prevent possible injury due to flying objects.
- Never operate with intake unguarded. Strong suction will pull fingers and/or clothing into hose and other parts. Always wear safety glasses when in vicinity of this unit.
- Never operate above 100 p.s.i. (8 BAR) pressure.
- Always turn off your air line supply at the drop before disconnecting the air line.

# Head Assembly Setup and Operation

## ASSEMBLY OF HEAD UNIT AND DRUM

1. Remove all components from package. NOTE: The carrier, tank, and tank cover assembly all come pre-assembled to each other.

2. The Venturi Powerhead comes already attached to the tank cover. To detach, remove the unit air con nector, then turn powerhead counterclockwise and it will unlock from tank cover.

3. Install external filter support rod by placing in access bracket located on tank cover.

4. Attach external filter by attaching to filter support rod and installing inlet collar onto exhaust nozzle. Turn collar clockwise to lock. Do not twist filter.

## STARTING/STOPPING MACHINE

1. Connect air supply line to head line connector.

2. Start vacuum by turning air valve located on line connector to its ON position.

3. Stop vacuum by turning air valve located on line connector to its OFF position.

## OPERATING RULES

Use 1.5" to 2" I.D. hoses and attachments.

Use 1/2" I.D. air line hose and flow-thru quick connects (do not use ball style fittings).

90 p.s.i. (7 BAR) at gauge (valve open) for maximum pickup power, 60 p.s.i. (5 BAR) at gauge (valve open) for lighter debris recovery.

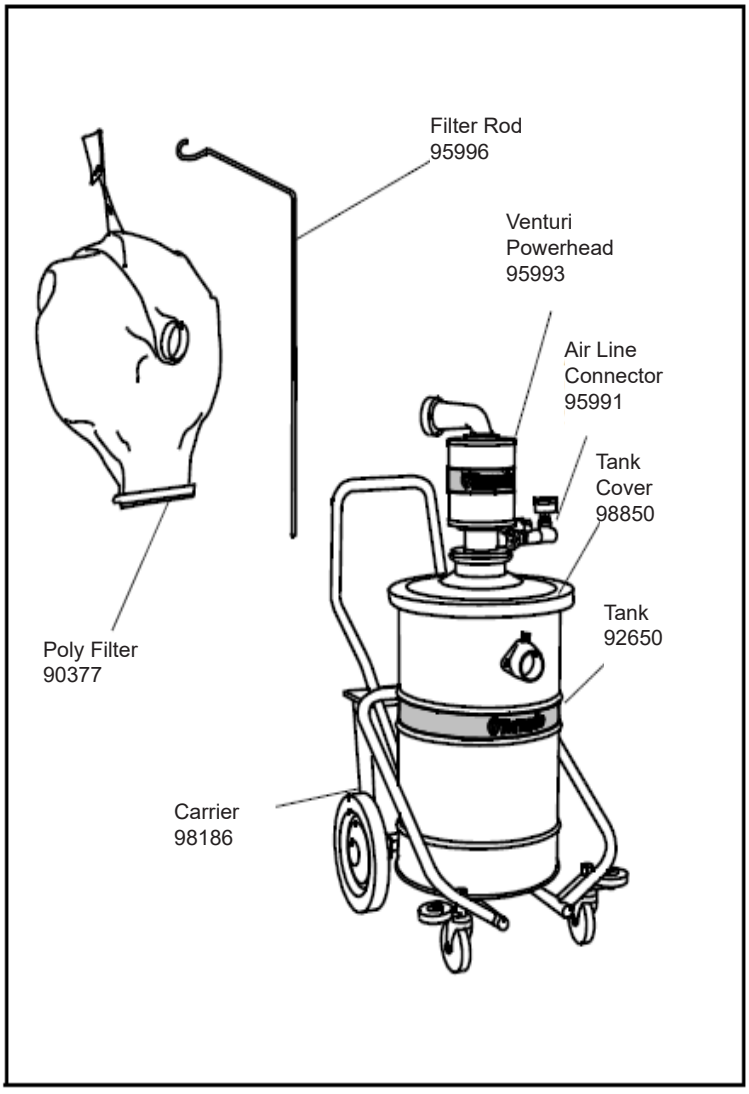
Use to recover water, heavy oils, powders, grindings, and metal shavings.

Use Tornado #94655 Add-A-Tank system when recovering fine dry powders. Grounding and static discharge are required when recovering powders. Use TORNADO brand static conductive hoses (urethane or neoprene), and ground vacuum head and tank assembly to an earth ground.

## MAINTENANCE OF EXTERNAL FILTER

For maximum operating efficiency and to insure longer wear, remove filter and empty by detaching the bottom clamp after every use.

Empty and clean vacuum, filter, and attachments after each days use for maximum performance.



# Troubleshooting Guidelines

| ***Problem*** | ***Remedy*** |
|---|---|
| 1. Machine does not operate | Make sure air line valve is in ON position.<br><br>Inspect air regulators for interference of air flow.<br><br>Inspect air compressor for adequate size, and verify that proper air pressure is available ( 90 p.s.i.)<br><br>Inspect air line for proper size and/or damage.<br><br>Always use flow thru connectors. |
| 2. Machine stops running | Inspect drum level.<br><br>Inspect air line for damage.<br><br>Inspect air pressure. |
| 3. Machine has no suction | Inspect for clogged hose, collapsed hose, defective drum, material too heavy for unit. |
| 4. Air pressure drops at gauge | Inspect air compressor for proper free air consumption and resistance in air line size or connections. |
| 5. Machine has poor recovery | Inspect for correct size hose and attachments, poor sealing, defective drum, material too heavy for unit.<br><br>Inspect external filter(s). Empy and clean if necessary.<br><br>Inspect for proper drum cover seal (gasket).<br><br>Inspect for damage and/or wear to hose and accessories.<br><br>Inspect locked position(s) of venturi powerhead(s) to Jumbo Cover.<br><br>Inspect locked position(s) of external filter(s) to venturi powerhead(s).<br><br>Inspect all seals for wear and/or damage. |

# Things To Know

## COMPRESSED AIR VACUUM FACTS

1. Use the smallest air jet possible to do the job. The smaller the jet, the lower the compressed air C.F.M. required.

2. Use a single venturi unit where liquid recovery is the primary application. A single venturi will recover liquids as fast as a double venturi will, yet consumes only one half as much compressed air.

3. Use a double venturi or quad venturi unit where higher volume of vacuum air is required. Remember, compressor overload is more likely to occur with a quad than a double venturi.

4. Use the lowest air line pressure possible per the given jet size to do the job. The lower the line pressure, the lower the compressed air consumption.

5. Air line **must** be maintained at the valve of the venturi unit. If pressure is not maintained at the unit, vacuum performance **will not** be reached. Be sure to use low line pressure for light liquid recovery, and high line pressure for liquids, sludge, and other heavy debris.

6. The air line hose should be as short as possible, and of maximum inside diameter (single 1/2", double 3/4", quad 1" recommended). Line air losses that occur are related to hose length and diameter, thus reducing performance.

7. Any air line moisture (condensation) should be eliminated. Using a water trap in the air line to the venturi unit will help maintain peak performance.

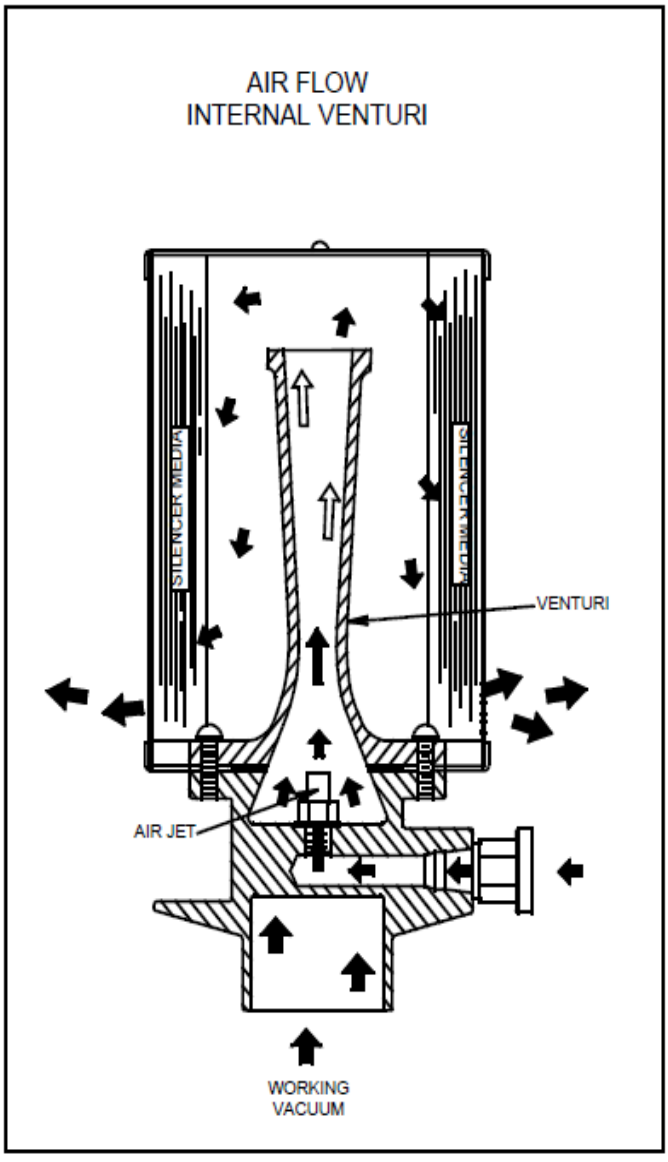
8. Air line components can reduce performance. Quick disconnect couplings and line filters, for example, may reduce compressed air delivery.

9. Factors that affect compressed air supply are compressor horsepower rating, compressor C.F.M. rating, and system resistance of installed air lines.

## AIR COMPRESSOR EVALUATION

Independent of high horsepower or high compressor C.F.M. rating claims made by individuals, the final evaluation in determining if a compressor is capable of supplying enough compressed air, is to demonstrate the air vacuum with a pressure gauge at the venturi unit. This will show the actual pressure being maintained while the unit is operating (refer to fact #5). This approach will also compensate for air line system resistance losses. If the compressor cannot maintain the free air consumption necessary, the line pressure will drop. Consequently, the compressed air C.F.M. will also drop, thus reducing the vacuum or suction performance.

**NOTE:** The compressed air C.F.M. is not the same as the vacuum air C.F.M.

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