Safety – Operation – Maintenance
Keep this document in a safe place
Read and understand this manual before operating your air tool

CLAYTON
Dustless Made Simple™

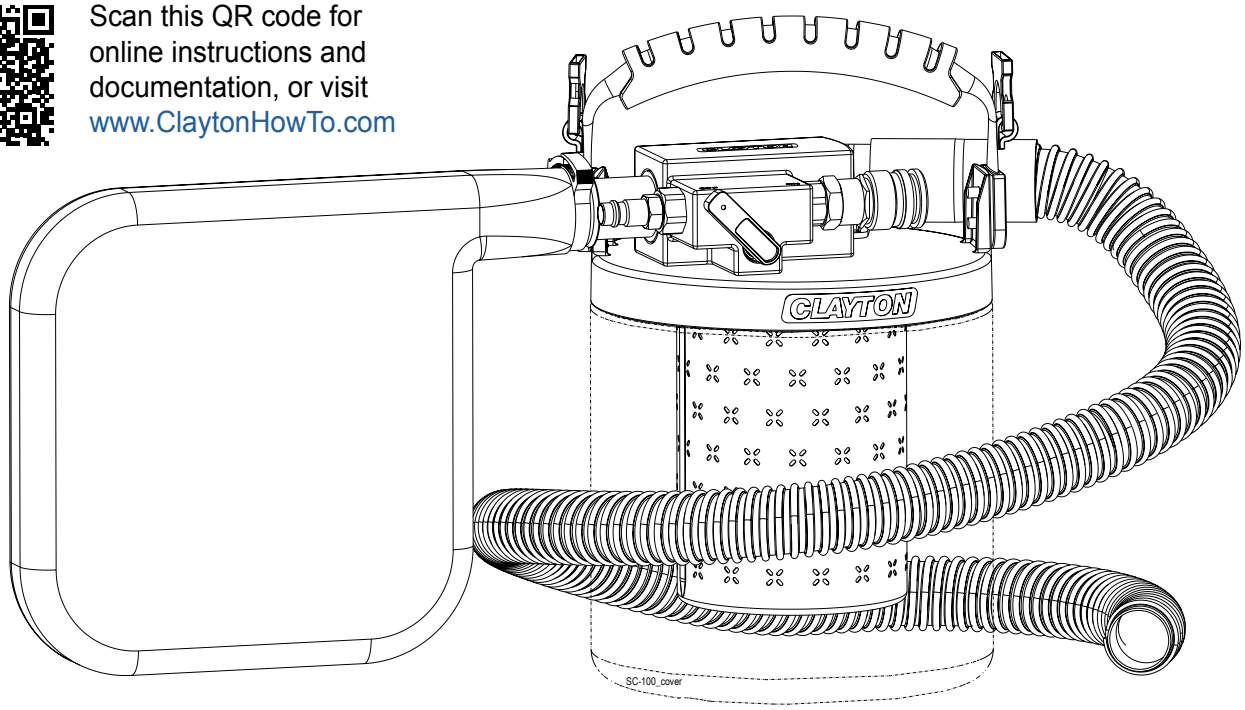
Scorpion

Handheld HEPA Vacuum

Model: SC-100

- Designed for FOD Control, Dustless Sanding, and General Cleanup
- Dry Recovery Only

Scan this QR code for online instructions and documentation, or visit www.ClaytonHowTo.com



⚠WARNING

SAFETY LEGEND

⚠WARNING
Read and understand operator's manual before using this equipment.

⚠WARNING
Eye protection is required when operating this equipment.

⚠WARNING
Hearing protection is recommended when operating this equipment.

⚠WARNING
Respiratory protection is recommended operating this equipment.

⚠WARNING

- A HEPA Filter must be installed in this vacuum at all times
- If this vacuum is used to collect hazardous material, appropriate personal protective equipment may be required
- Any alteration to this equipment by a third party will nullify its warranty
- 90 PSI Max air supply pressure

TABLE OF CONTENTS

APPLICATIONS & ENVIRONMENTS

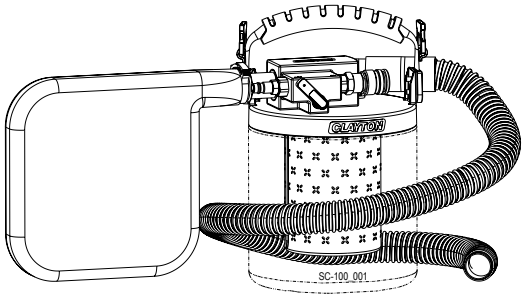
Designed for:

- Designed for FOD Control, Dustless Sanding, and General Cleanup.
- Dry recovery only.

⚠WARNING

Do not use this equipment for cleaning or extracting fuel residues from any vehicle or equipment.
Do not use this equipment for cleaning or extracting live sparks or burning embers.
Do not use this equipment in combustible dust or gas atmospheres.
90 PSI Max air supply pressure

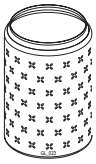
WHAT'S IN THE BOX



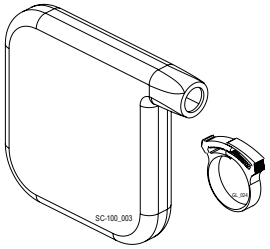
Scorpion Vacuum

Factory Pre-Installed

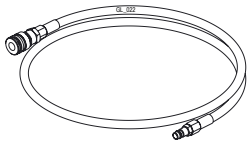
HEPA Filter



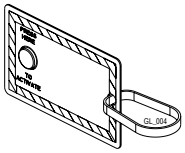
HEPA Pre-FIlter



Muffler and Clip



4 Foot Compressed Air Line



HEPA Timer Card

Shoulder Strap

CONSUMABLES/ACCESSORIES

Recommended Clayton consumables and accessories:

Scorpion Consumables

Item	Part Number
HEPA Filter for Hornet/Scorpion	627-516H
HEPA Pre-Filter 5 pack	627-516P

Scorpion Accessories

Item	Part Number
FOD Wand 3/4in x 1in x 18in (15 element)	500-415-1216
FOD Wand 3/4in x 1in x 24in Tygon Clear	500-524-1216
Scorpion Vac Wall Mount Wire Form	604-005
Adapter Hose 4ft - 1in Hose to 1-1/4in Smooth Cuff	671-VHA16-022
Compressed Airline 1/4in x 4ft	922-A04H04
Compressed Airline 3/8in X 30ft	922-A06H30

SPECIFICATIONS & REQUIREMENTS

PHYSICAL:

Weight	3 lbs (1.4 kg)
Dimensions (Diameter x Height)	7 x 9 in (17.8 x 22.9 cm)
Recovery Capacity	1 qt (0.95 liter)
Sound Level	77 dBA

POWER CONSUMPTION:

Pressure	90 psi (621 kPa)
Flow	15 CFM (26 SCMH)

FILTRATION:

HEPA Filter Efficiency	99.97% @ 0.3 µm (H13)
Bag Filter Efficiency	95% @ 0.5 micron

PERFORMANCE:

Vacuum Flow	45 CFM (77 SCMH)
Vacuum Suction	50 inH_2O (345 kPa)

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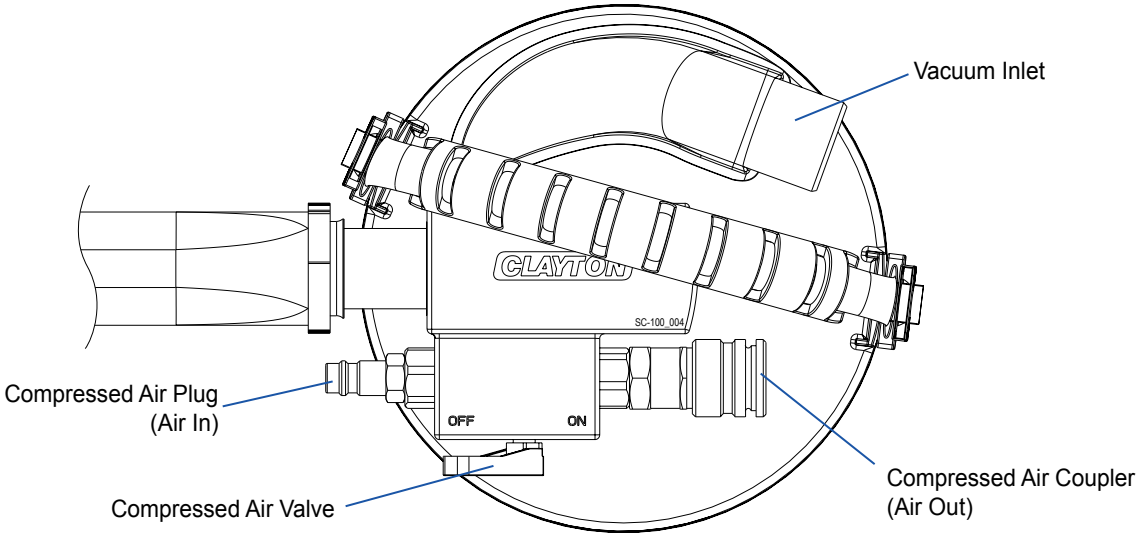
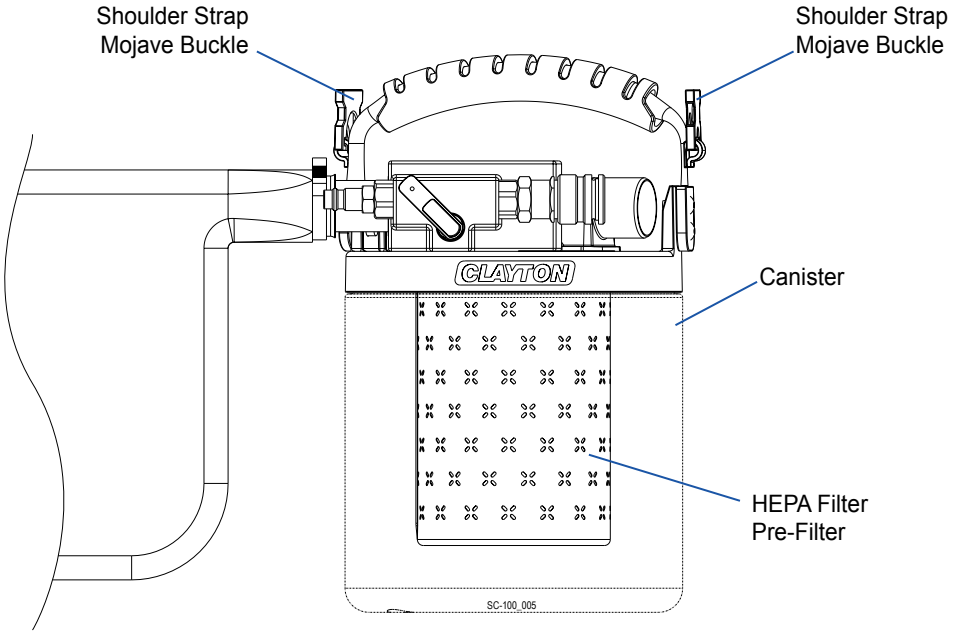
GETTING STARTED

1. **Remove and identify the vacuum, consumables, and accessories included in the box.**
2. **Visually inspect vacuum to verify no parts are missing or damaged.**
3. **Activate the HEPA Filter Timer.**
   - The HEPA Timer Card is attached to the handle.
   - Refer to the directions on Timer Card to activate it.
4. **Familiarize yourself with the vacuum.**





COMPRESSED AIR FITTINGS

The vacuum has the following compressed air requirements to function properly:

- Compressed air must be clean, dry, and oil free to prevent blockage of the pneumatic system.
- Compressed air line and fittings must have a minimum diameter of 3/8 in (10 mm).

Compressed Air Plug (Air In)

- The Vacuum is supplied with a 1/4 in (7 mm) industrial interchange compressed air plug for connection to your compressed air supply.

The Compressed Air Plug may be changed to another nominal 1/4 in (7 mm) style if required.

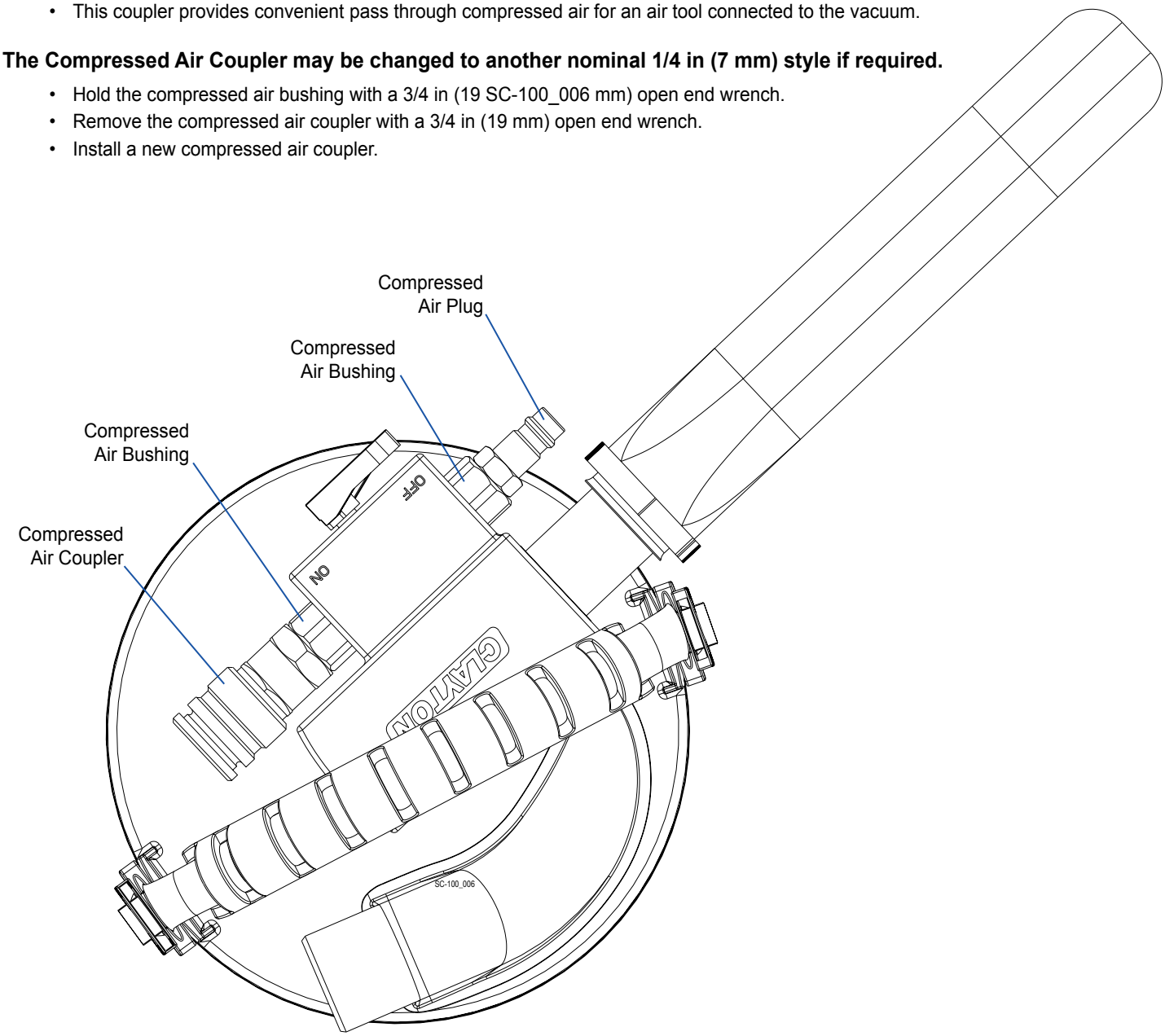
- Hold the compressed air bushing with a 3/4 in (19 mm) open end wrench.
- Remove the compressed air plug with either a 9/16 in (15 mm) deep socket or 9/16 in (15 mm) open end wrench.
- Install a new compressed air plug.

Compressed Air Coupler (Air Out)

- The Vacuum is supplied with a 1/4 in (7 mm) brass high flow compatible industrial interchange compressed air coupler.
- This coupler provides convenient pass through compressed air for an air tool connected to the vacuum.

The Compressed Air Coupler may be changed to another nominal 1/4 in (7 mm) style if required.

- Hold the compressed air bushing with a 3/4 in (19 SC-100_006 mm) open end wrench.
- Remove the compressed air coupler with a 3/4 in (19 mm) open end wrench.
- Install a new compressed air coupler.



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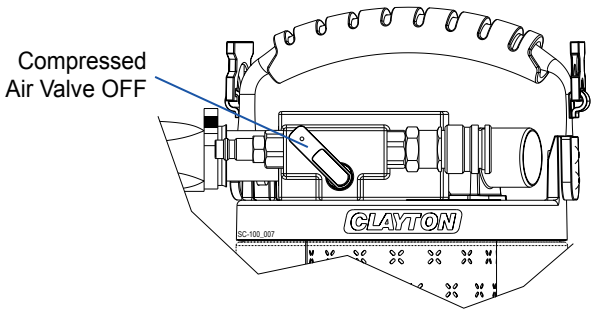
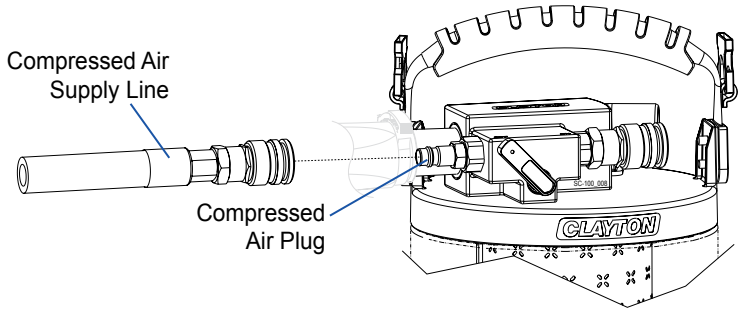
BEFORE EACH USE

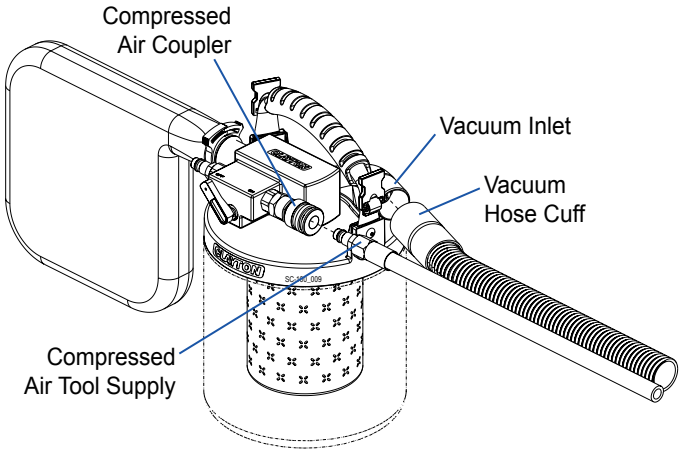
1. **Visually inspect vacuum to confirm no parts are missing or damaged.**
2. **Empty the vacuum (if necessary).**
   - Refer to “Empty the Vacuum” on page 8 for complete information.
3. **Install a new HEPA filter (if necessary).**
   - Refer to “HEPA Filter Change” on page 11 for complete information.
4. **Install a new pre-filter (if necessary).**
   - Refer to “Pre-Filter Change” on page 10 for complete information.
5. **Attach a compressed air line.**
   - Verify the compressed air valve on the vacuum is in the OFF position.



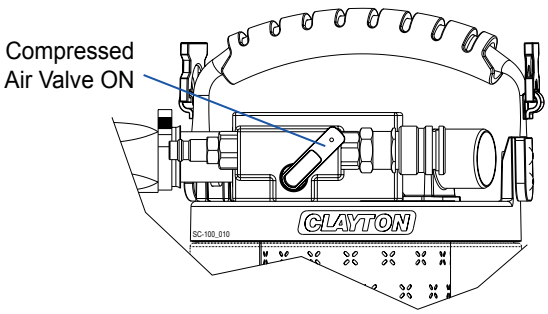
   - Connect a compressed air line to the compressed air source.
   - Connect the compressed air line to the compressed air plug on the vacuum.



6. **Attach vacuum hose.**
   - **Vacuum Hose only:**
     - Press the vacuum hose cuff onto the Vacuum Inlet.
   - **Combination Air/Vac Hose:**
     - Press the vacuum hose cuff onto the Vacuum Inlet.
     - Connect the compressed air tool supply to the compressed air coupler on the vacuum.



7. **Activate the vacuum.**
   - Rotate the compressed air valve on the vacuum 45° forward to start compressed air flowing and activate the vacuum.

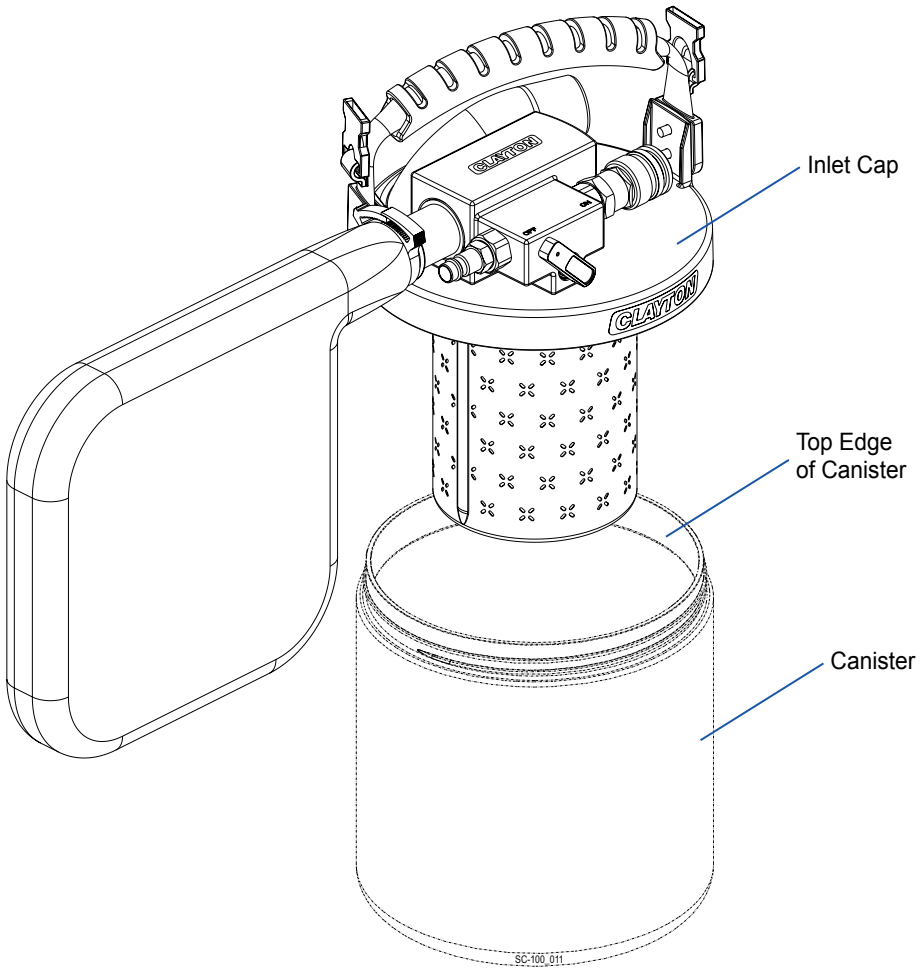


EMPTY THE VACUUM

If this vacuum is used to collect hazardous material, appropriate personal protective equipment may be required.

The vacuum should be emptied when half full or when dust accumulation in the vacuum degrades performance.

1. **Safe the vacuum.**
   - Disconnect the compressed air source from the vacuum.
   - Disconnect the vacuum hose.
2. **Remove the inlet cap.**
   - Hold the vacuum canister and rotate the inlet cap counterclockwise approximately one (1) complete turn.
   - Remove the cap from the canister and set aside.
3. **Empty the canister**
   - Discard the contents of the canister in an approved waste receptacle.
4. **Replace the inlet cap.**
   - Clean/wipe the top edge of the canister to ensure a good seal when the inlet cap is attached.
   - Replace the inlet cap on the canister and rotate clockwise approximately one (1) complete turn, until snug.



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SAFE DEBRIS REMOVAL

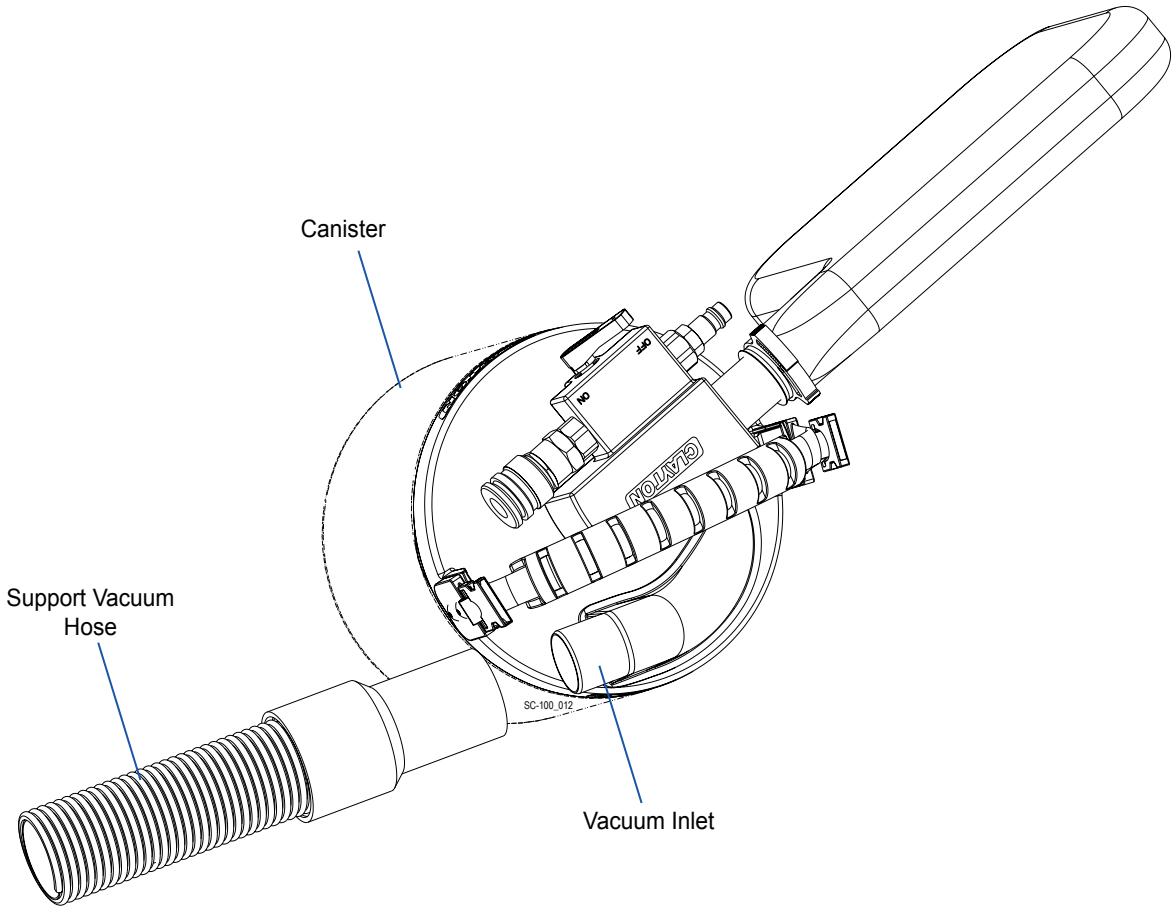
Principle of Operation

If the Scorpion is used to collect hazardous debris, a second HEPA filtered vacuum (i.e., the support vacuum,) maybe used to safely remove debris from the Scorpion. It is recommended that the support vacuum be equipped with a 11/2 in vacuum hose.

If the primary vacuum is used to collect hazardous material, appropriate personal protective equipment may be required.

The primary vacuum should be emptied when half full or when dust accumulation in the vacuum degrades its performance.

1. **Safe the primary vacuum.**
   - Disconnect the compressed air source from the vacuum.
   - Disconnect the vacuum hose.
2. **Connect the support vacuum.**
   - Activate the support vacuum.
   - Place the end of the support vacuum's hose over the Scorpion's inlet port as shown in the figure below.
3. **Empty the primary Scorpion vacuum.**
   - Tilt the Scorpion onto its side to help debris flow to its vacuum inlet.
   - Continue to tilt and lightly shake the Scorpion until all debris has been removed from the canister.

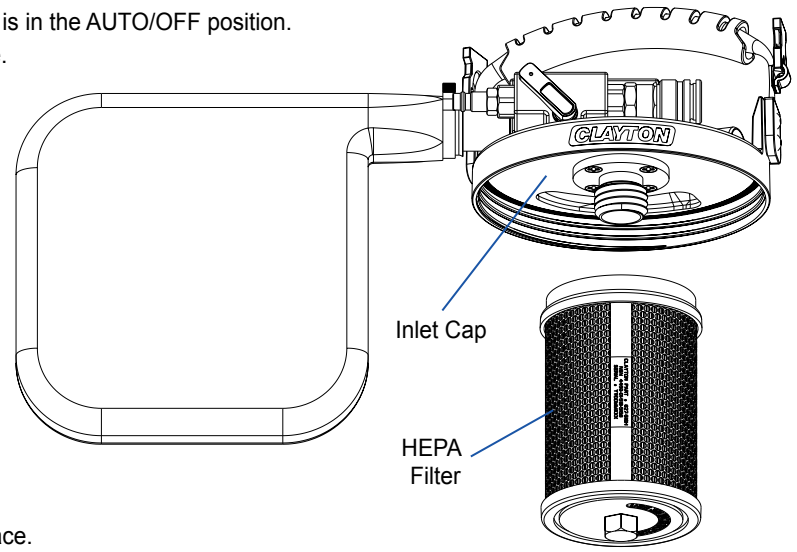


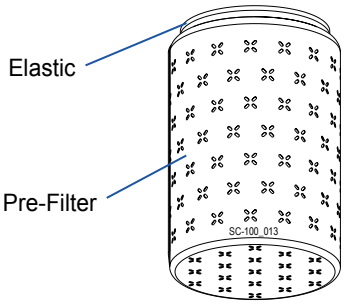
PRE-FILTER CHANGE

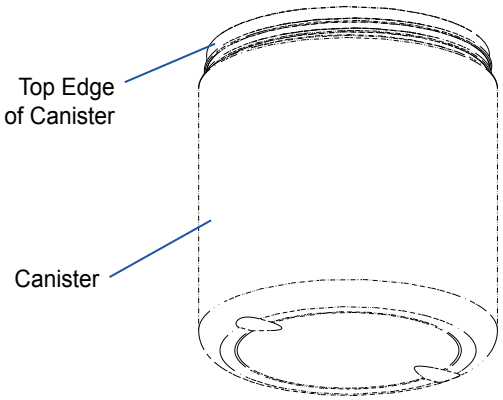
If this vacuum is used to collect hazardous material, appropriate personal protective equipment may be required.

The pre-filter should be replaced if clogged or visibly dirty.

1. **Safe the vacuum.**
   - Verify the Compressed Air Control valve on the vacuum is in the AUTO/OFF position.
   - Disconnect the vacuum from the compressed air source.
   - Remove all tools and hoses from the vacuum.
2. **Remove the inlet cap**
   - Hold the vacuum canister and rotate the inlet cap counterclockwise approximately one (1) complete turn.
   - Remove the cap from the canister
3. **Remove the pre-filter.**
   - Hold the inlet cap in your left hand.
   - Grasp the bottom of the pre-filter with your right hand and carefully pull it down and off the HEPA filter.
   - Dispose of the pre-filter according to company policy.
4. **Install a new pre-filter on the HEPA filter.**
   - Lay the inlet cap assembly upside down on a work surface.
   - Stretch a new pre-filter over the HEPA filter.
   - Pull the pre-filter on to the HEPA filter until the entire HEPA filter is covered.
   - Verify the pre-filter's elastic is touching the bottom of the inlet cap.
   - Verify the pre-filter's elastic is NOT caught between the HEPA filter gasket and the bottom of the inlet cap.
5. **Replace the inlet cap.**
   - Clean/wipe the top edge of the canister to guarantee a good seal when the inlet cap is attached.
   - Replace the inlet cap on the canister and rotate clockwise until snug, approximately one (1) complete turn.







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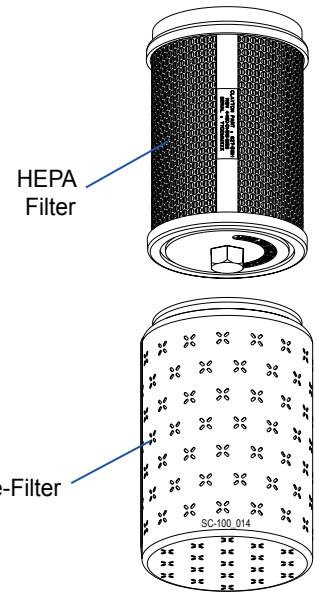
HEPA FILTER CHANGE

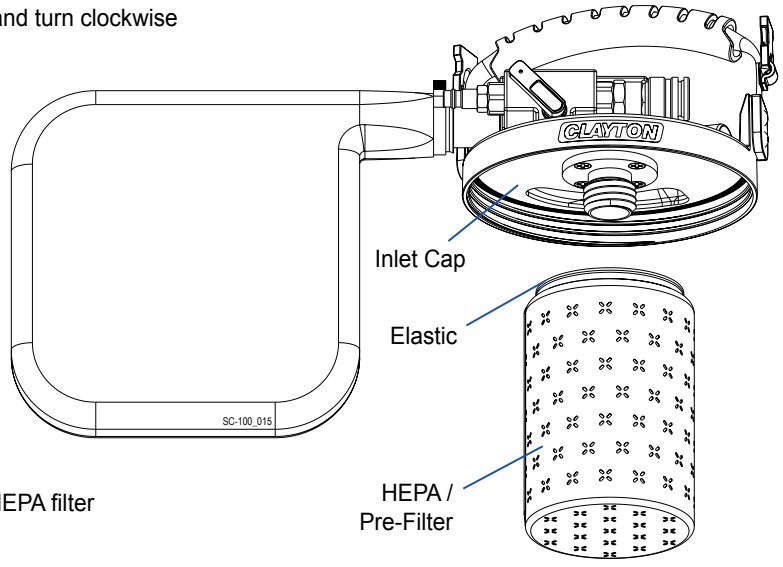
If this vacuum is used to collect hazardous material, appropriate personal protective equipment may be required.

The HEPA filter should be replaced when it is damaged, clogged, or when the HEPA timer card has reached 12 months.

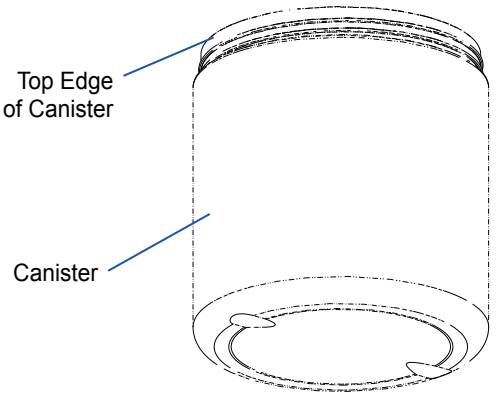
1. **Safe the vacuum.**
   - Verify the Compressed Air Control valve on the vacuum is in the AUTO/OFF position.
   - Disconnect the vacuum from the compressed air source.
   - Remove all tools and hoses from the vacuum.
2. **Unbox a new HEPA filter.**
   - Remove the Clayton HEPA timer card from the box and set aside.
   - Remove the HEPA filter from the box and unwrap.
3. **Remove the inlet cap**
   - Hold the vacuum canister and rotate the inlet cap counterclockwise approximately one (1) complete turn.
   - Remove the cap from the canister
4. **Remove the HEPA filter with pre-filter from the inlet cap.**
   - Hold the inlet cap in your left hand.
   - Grasp the bottom of the HEPA filter with your right hand and turn counter clockwise approximately three (3) complete turns.
   - Remove the HEPA filter and pre-filter .
   - Dispose of the HEPA filter and pre-filter according to company policy.



5. **Install a new HEPA filter.**
   - Hold the inlet cap in your left hand.
   - Grasp the bottom of the HEPA filter with your right hand and turn clockwise approximately three (3) complete turns.
   - Tighten the HEPA filter until it hard stops.
   - Optional
     - Using a 3/4 inch, 6-point, socket and torque wrench, verify the filter is tightened to 46 in/ lbs of torque.
6. **Install a new pre-filter on the HEPA filter.**
   - Lay the inlet cap assembly upside down on a work surface.
   - Stretch a new pre-filter over the HEPA filter.
   - Pull the pre-filter on to the HEPA filter until the entire HEPA filter is covered.
   - Verify the pre-filter's elastic is touching the bottom of the inlet cap.
   - Verify the pre-filter's elastic is NOT caught between the HEPA filter gasket and the bottom of the inlet cap.



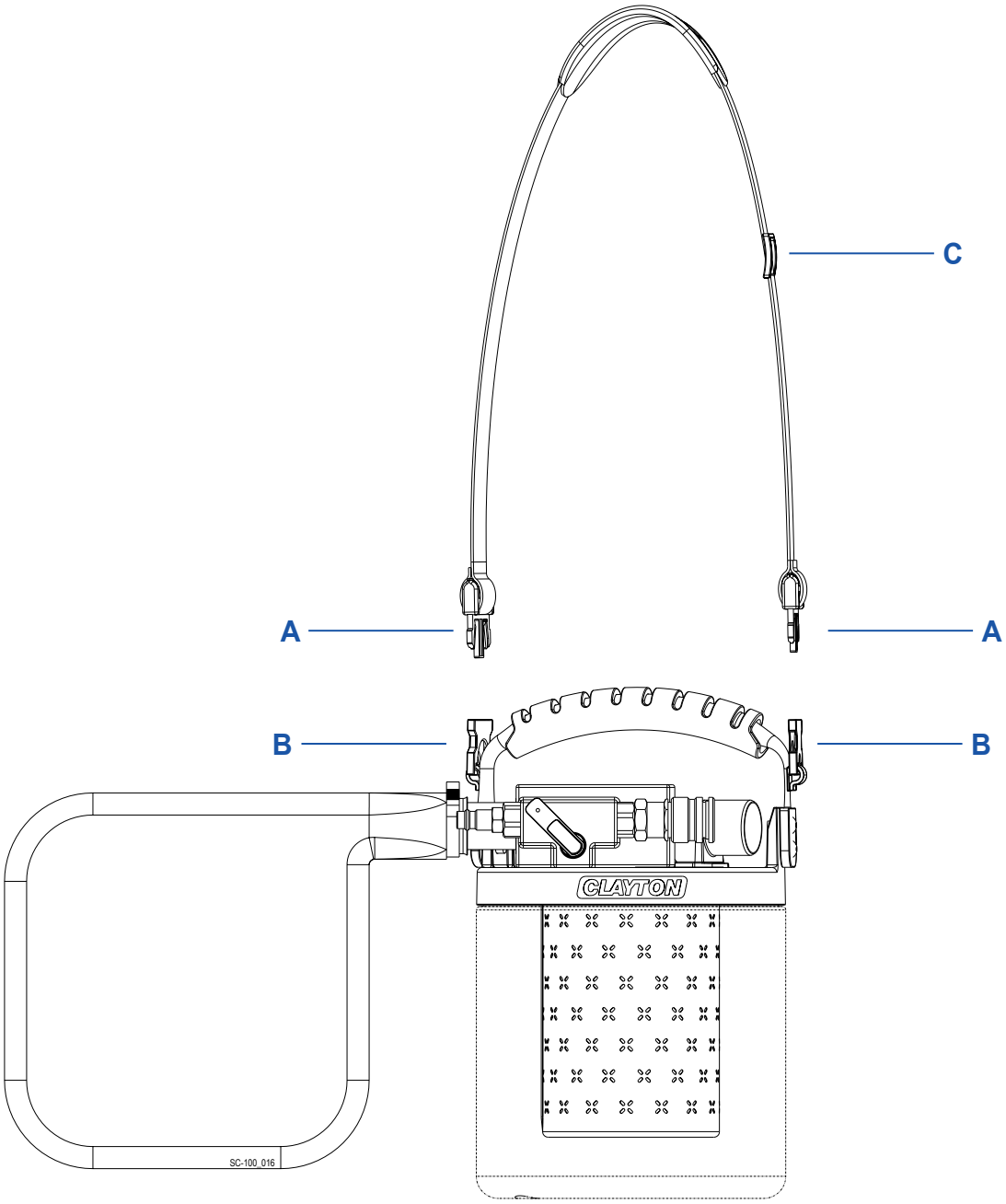
7. **Replace the inlet cap.**
   - Clean/wipe the top edge of the canister to guarantee a good seal when the inlet cap is attached.
   - Replace the inlet cap on the canister and rotate clockwise until snug, approximately one (1) complete turn.
8. **Activate the HEPA filter timer.**
   - Remove the old HEPA timer card from the top handle of the vacuum.
   - Attach the new HEPA timer card with a zip tie (included) to the top handle of the vacuum.
   - Refer to the directions on the timer card to activate it.



SHOULDER STRAP

Attach the Shoulder Strap

- The Shoulder Strap buckles clip A to two (2) Mojave Buckles B on the Inlet Cap.
- Adjust the Shoulder Strap by sliding buckle C.



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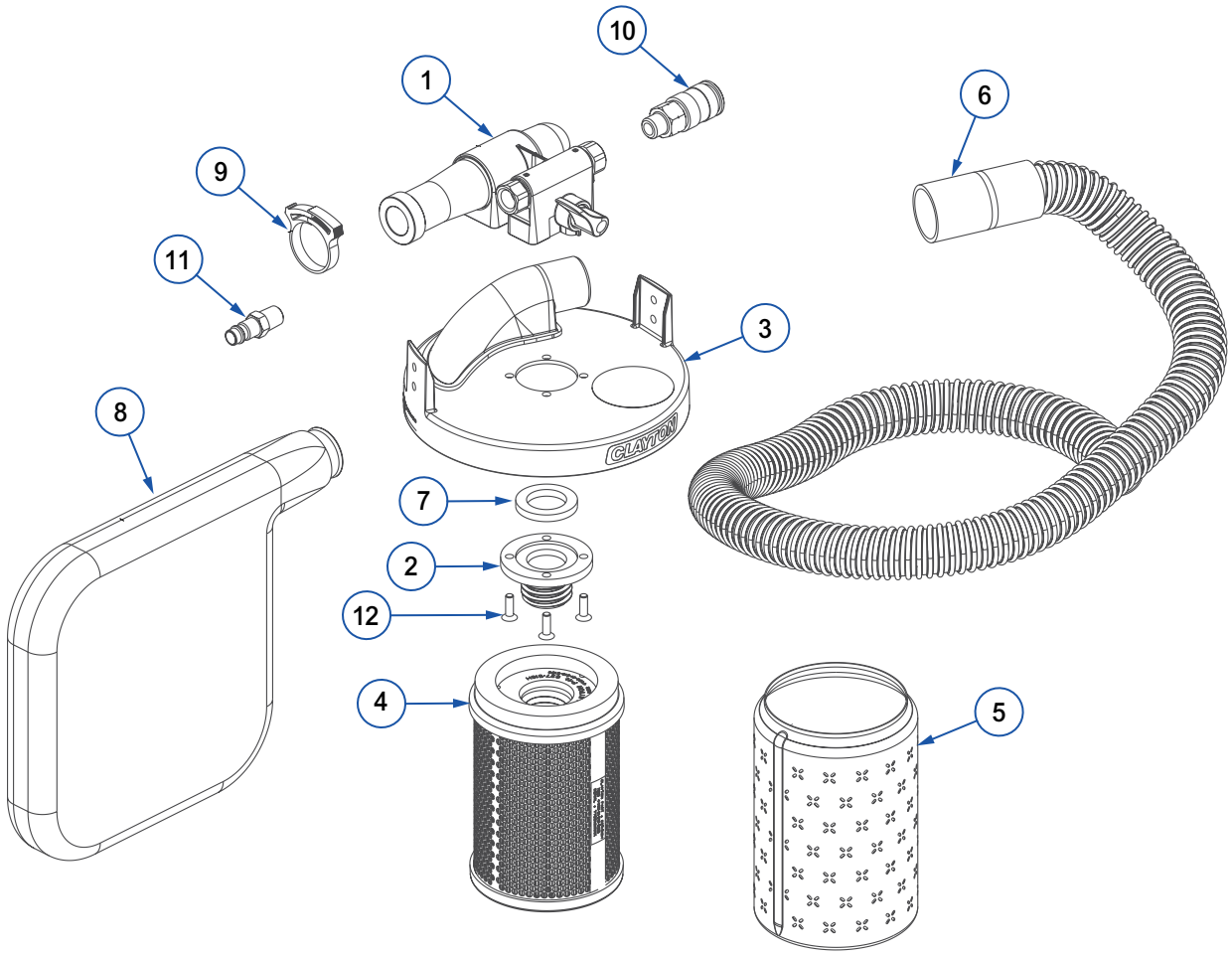
ILLUSTRATED PARTS BREAKDOWN

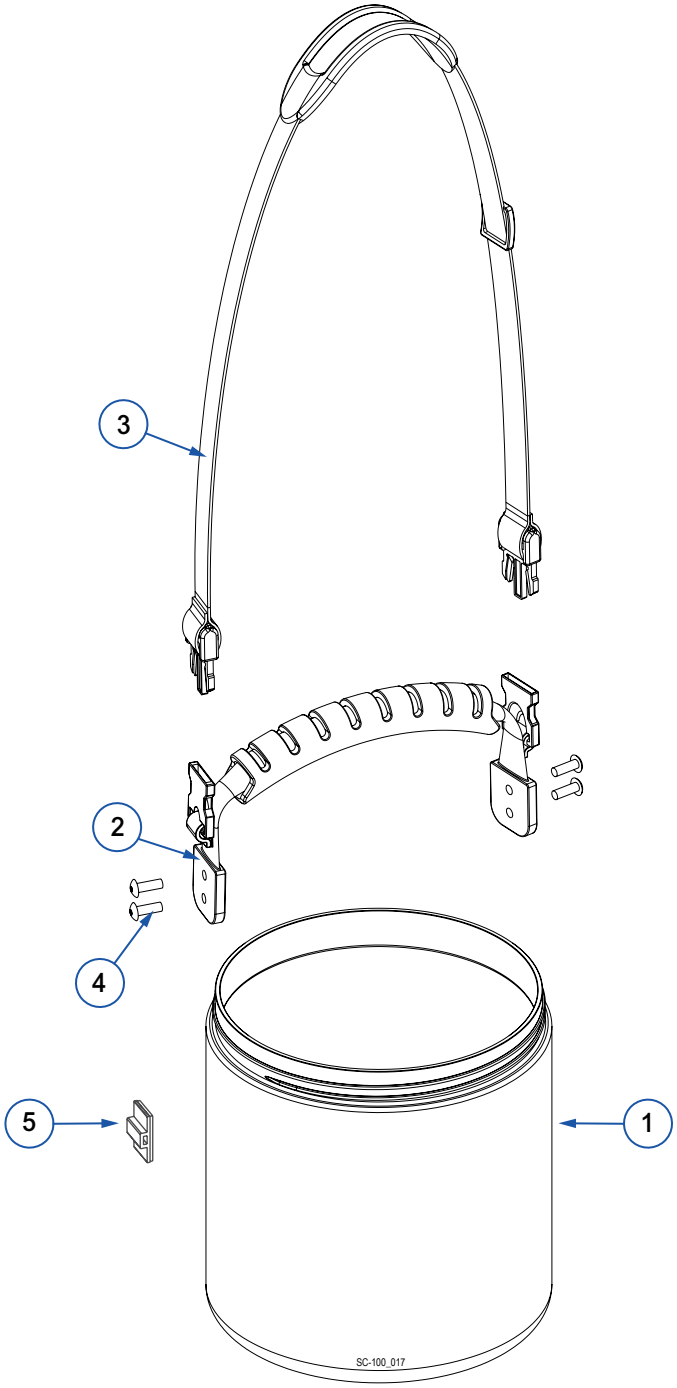
SC-100 (Sheet 1 of 2)

Seq	Item No	Description
1	600-028	Scorpion Venturi Assy
2	601-023M	Hornet Filter adapter Nickel Plated Aluminum
3	602-SC05Y	Scorpion Vacuum Cap/Inlet Yellow
4	627-516H	HEPA Filter for Hornet / Scorpion
5	627-516P	Prefilter Scorpion 5pk
6	671-VHA16-022	Adapter Hose 4ft - 1in Hose to 1-1/4in Smooth Cuff
7	911-060	Hornet Filter Adapter inside gasket
8	911-806	Muffler for Scorpion
9	911-806C	Muffler Clip for Scorpion
10	940-011M	Fitting Coupler 1/4in HiFlow x 1/4 MNPT
11	940-016	Fitting Plug 1/4in HiFlow x 1/4in MNPT
12	SE103210-PFSM-Z	Screw, FH100, SS, 1032 X .625



SC-100 (Sheet 2 of 2)

Seq	Item No	Description
1	602-SC01	Scorpion Vacuum Canister Lexan
2	930-054	Carry Handle with Mojave Buckles Single Tack
3	930-054-1	Shoulder Strap Mojave Buckles
4	RE0618-PDATB-Z	Rivet Blind 3/16 x 0.563 Open Alum Blk (.251-.375)
5	930-160	Cable Tie Mount



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LIMITED LIFETIME WARRANTY TERMS AND CONDITIONS

Warranty Terms

Clayton Associates, Inc. guarantees its manufactured products against defects in materials or workmanship and will either repair or replace all parts that prove defective under normal use during the lifetime of the products. The warranty period shall commence from the date of paid invoice.

This warranty does not cover (a) repairs due to normal wear, accident, neglect, misuse, or use other than as indicated in the instruction booklet (b) products manufactured by third parties and distributed by Clayton (c) wear items such as bearings, rotor blades, regulators, valve stems, levers, shrouds, guards, O-rings, seals, gaskets, motor brushes, and other wearable parts.

Repair within the Continental US

During the first 90 days of the warranty period, Clayton will provide parts and labor to the customer's site at no charge or pay freight costs associated with returning the products for repair to a Clayton selected service location and repair the product at no charge. Clayton personnel will determine the best way to repair the product.

Past 90 days, Clayton will provide parts to the customer's site at no charge or the customer may ship the product to a Clayton selected service location at customer's expense and Clayton will repair the product at no charge and provide return shipping.

Repair Outside the Continental US

Clayton will provide parts to the customer's site at no charge or the customer may ship the product to a Clayton selected service location at customer's expense and Clayton will repair the product at no charge and provide return shipping.

Limitation of Liability

Clayton shall not in any event be liable for any damages, loss of production time or profits, whether based on contract, warranty, negligence, strict liability or otherwise, including without limitation any consequential, incidental or special damages, arising with respect to the equipment or its failure to operate.

Clayton Associates, Inc. makes no other warranty or representation of any kind, except that of title, and all other warranties, express or implied, including warranties of merchantability or fitness for any particular purpose, are hereby expressly disclaimed.

EC DECLARATION OF CONFORMITY

CE

Clayton Associates, Inc. of 1650 Oak Street, Lakewood New Jersey 08701 U.S.A. declare on our own responsibility that the following equipment:

Industrial HEPA Filtered, Pneumatically Powered Vacuum Cleaners

- Vacuum Models: **SC-100, SC-100CK, SC-100TK, SC-100MK**
- With serial numbers ranging from **SC0000001** through **SC9999999**

Were tested to verify the integrity of the HEPA filter and the assembled machine.

Test Procedure:

- The test was performed using an aerosol generator and a photometer.
- The system was challenged with 18 microliters/m^3 Poly Alfa Olefin (PAO).
- The system was fitted with a HEPA filter, part number 627-516H having a certified minimum efficiency of 99.97%.

Test Results:

- The filtration efficiency of the assembled Scorpion vacuum was 99.988%
- Test performed at: 740 Driving Park Avenue, Rochester NY 14613 USA

Declaration:

- The assembled unit meets the standard for US HEPA filtration and EU H13.

Brad Clayton
President
Clayton Associates, Inc.

Place of Issue: Lakewood, New Jersey, USA August 10, 2024

CLAYTON

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Clayton products are proudly made in the USA

Repair or Warranty Contact

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