

Safety – Operation – Maintenance

Keep this document in a safe place

Read and understand this manual before operating your air tool

CLAYTON
Dustless Made Simple™

Tent & Vent

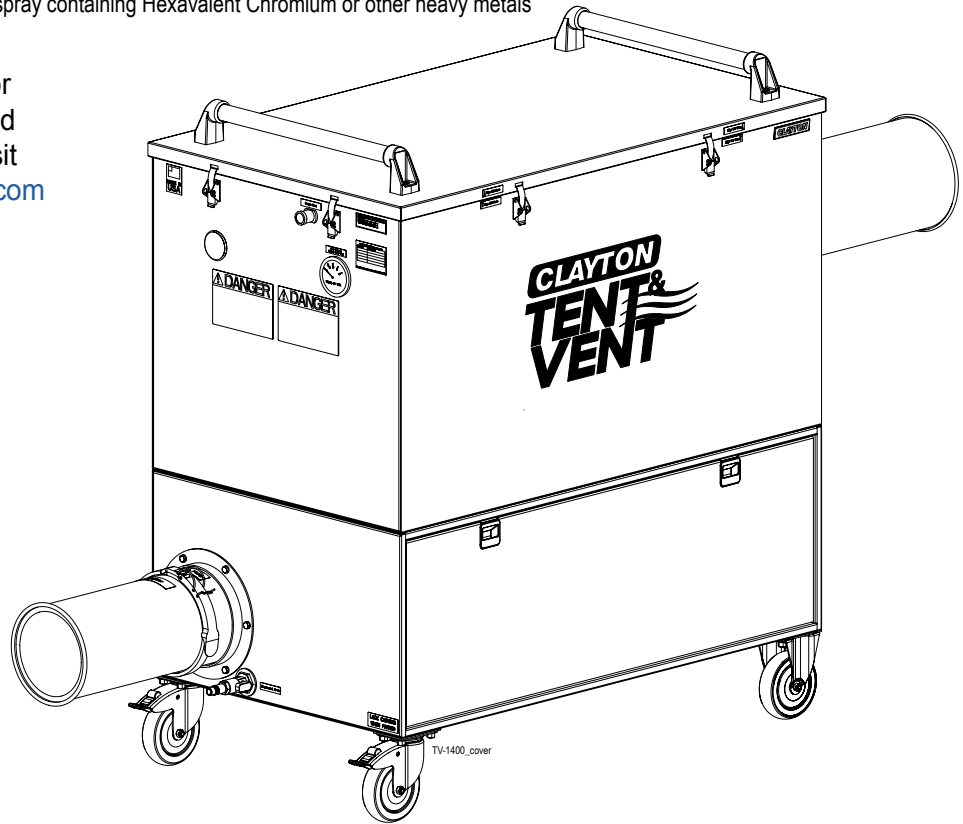
High Flow NESHAP Filtration System

Models: TV-1400

- Designed for the collection of wet paint overspray containing Hexavalent Chromium or other heavy metals



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

- The proper NESHAP Filters from Clayton Associates must be installed in the TV-1400 at all times..
- The TV-1400 must be used with the supplied or recommended accessories from Clayton Associates.
- Any alteration to the TV-1400 by a third party will nullify its warranty.
- Always lock the brakes on the TV-1400 once positioned so that it does not roll.

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APPLICATIONS & ENVIRONMENTS

The TV-1400 is designed to extract and filter wet paint overspray from enclosures or tents during painting operations where the removal of overspray particulate, especially chromates, must adhere to the NESHAP Test Method 319 for Aerospace painting and de-painting operations.

The TV-1400 employs a specific set of Clayton filters that, when used together, provide filtration that passes the NESHAP Test Method 319 for both liquid and solid phase particulate. For this reason, individual filter specifications are not listed.

Stage 1 - NESHAP Super High-Capacity Synthetic Overspray Arrestor

Stage 1 is a progressive density media, composed of 100% synthetic fibers, created especially for high volume coating operations. It effectively removes overspray solids from lacquers, air dry enamels, and thermo-reactive coatings. Full depth loading provides up to 99.8% removal efficiency with a Paint-holding capacity of 12 pounds.

Stage 2 - NESHAP Merv 8 Filter

Stage 2 is a progressive density media, composed of 100% synthetic fibers. It has durable internal steel support wires and is excellent for high moisture applications.

Stage 3 - Pocket Filter

Stage 3 is a High Efficiency Multi Pocket Final Filter for Paint Booth Exhaust. It is designed for Aerospace painting and de-painting operations where the removal of overspray particulate, especially chromates, must adhere to NESHAP Method 319 standards.

Stage 4 - Merv 8 Carbon Filter

Stage 4 is a High Efficiency MERV 8 Carbon/Particulate Filter designed to help adsorb VOCs. The Gas-Phase Filtration Media layer suspends 250g/m of activated carbon in a uniform distribution throughout a tightly bonded three-dimensional network of cotton & polyester fibers which also capture the particulate contaminants.

System Performance Data

| Liquid Phase | Solid Phase |
|-----------------------------|-----------------------------|
| 85.70% @ .42 Microns | 88.00% @ .70 Microns |
| 96.10% @ 1.0 Microns | 93.90% @ 1.1 Microns |
| 98.60% @ 2.0 Microns | 97.50% @ 2.5 Microns |
| Exceeds NESHAP requirements | Exceeds NESHAP requirements |

ONLY APPROVED CLAYTON FILTERS SHOULD BE USED.

SPECIFICATIONS & REQUIREMENTS

⚠ WARNING

Grounding Instructions

The TV-1400 should be connected to an earth ground source with a Grounding/Bonding Cable. If the TV-1400 should come in contact with an external electrical source, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock.

Bonding Instructions

The work piece should be bonded to the same earth ground as the TV-1400. This ensures that the TV-1400 and the work piece are at the same electrical potential to eliminate static discharge between them.

Tools And Attachments

The TV-1400 is only NESHAP compliant when used with the proper filters and accessories provided by Clayton. Proper order and orientation of the filters is required. Any alteration to this equipment by a third party will nullify its warranty.

Compressed Air Requirements

- Compressed air must be clean, dry, and oil free to prevent blockage of the pneumatic system.
- Compressed airline and fittings must have a minimum diameter of 1/2 in.
- Compressed air supply must provide at least 90 psi.
- Compressed air supply must provide a minimum of 50 cfm.

Physical:

Weight.....TBD lbs (TBD kg)
Dimensions (W x D x H).....48 x 24 x 48 in (122 x 61 x 122 cm)

POWER CONSUMPTION:

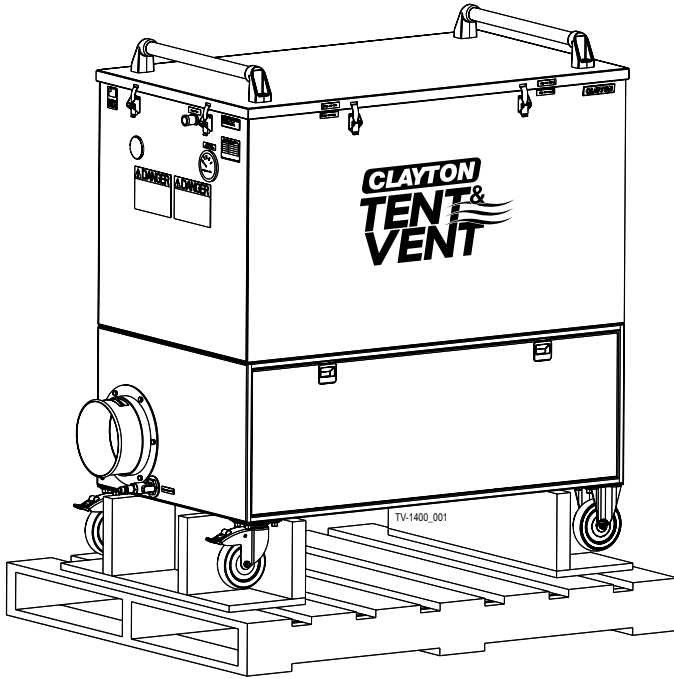
Pressure.....90 psi (621 kPa)
Flow62 SCFM (105 SCMH)

PERFORMANCE:

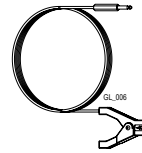
Vacuum Flow 1462 CFM (2485 SCMH)

WHAT'S IN THE BOX

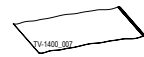
The Clayton Tent & Vent was shipped with the items shown stored in the lower drawer.



TV-1400 Filter Unit



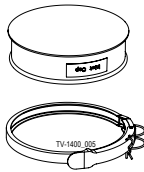
Ground
Cable



Hardware



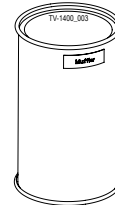
Inlet Flange



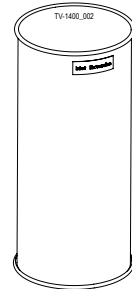
Inlet Cap
and Clamp



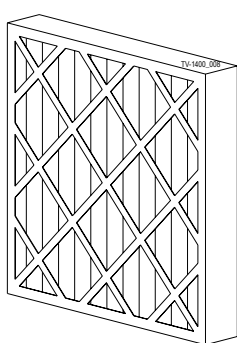
Exhaust Cap
and Clamp



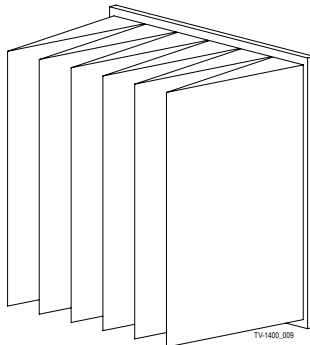
12" Muffler



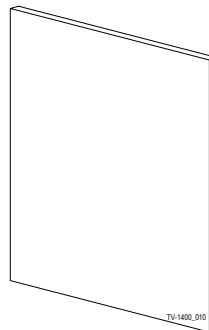
18" Inlet Extension



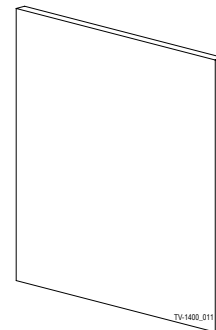
Carbon Filter



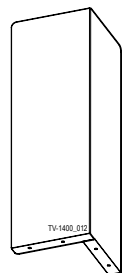
NESHAP
Pocket Filter



NESHAP
Stage 2 Filter



NESHAP
Stage 1 Filter



Inlet Diverter

CONSUMABLES

Recommended Clayton consumables:

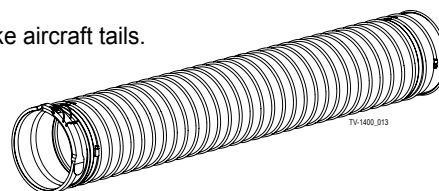
| Item | Part Number |
|----------------------------------|-----------------|
| Filter Pad Merv 8 24X24 10Pk | 627-242401-PM08 |
| Filter Pad Neshap 99 24X24 10Pk | 627-242401-PN99 |
| Carbon Filter 24X24X4 2Pk | 627-242404PC-02 |
| Multi-Pocket Filter 24X24X15 5Pk | 627-242415-PM14 |
| Tent Vent Diverter | TV-1400-4 |

ACCESSORIES

Recommended Clayton Accessories:

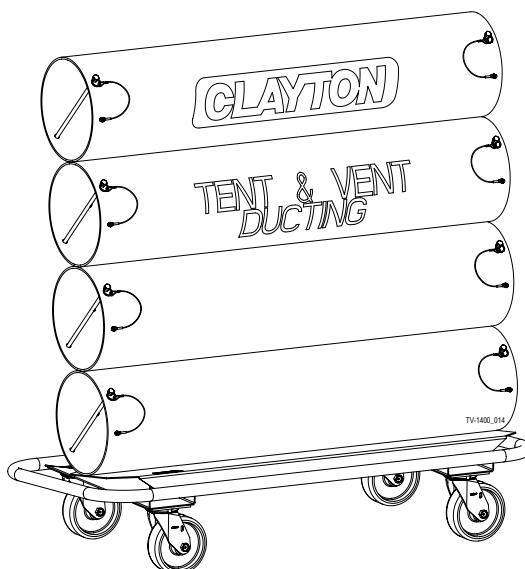
- **671-VHD80-15 Flexible Duct – 15 feet with Clamp**

Flexible ducting provides the ability to direct Tent & Vent suction to areas like aircraft tails. Link up to four sections creating a 60 foot extension duct.



- **955-TVC5225 Ducting Cart**

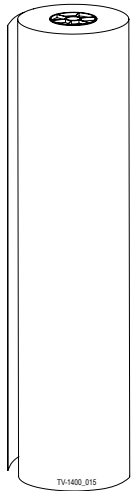
The Ducting Cart provides storage for four sections of flexible ducting.



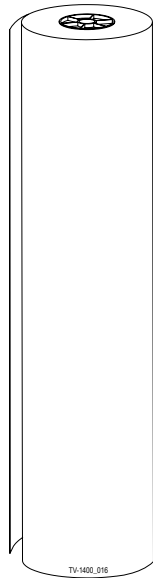
ACCESSORIES

• TV-1400-KIT2 Tent & Vent Consumable Replenishment Kit

- Rosin Paper
Keeps your floor clean during painting in the tent.
- Poly sheeting 4 mil
Create your tent from this durable poly sheeting.
- High Tack Masking Tape
Use to attach the tent to the aircraft or whatever your work piece is.
- Plier Stapler
Stitching poly sheeting together with staples is easier than tape.
- Intake Filter Media
Use this gauze type material to cover make up air vents in your tent preventing debris from entering.
- Poly Ducting
Attach to the Tent & Vent muffler to direct exhaust away from the work area or outside.
- Filters
A compliment of Tent & Vent replacement filters.



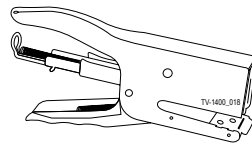
Rosin Paper



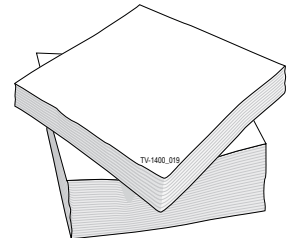
Poly Sheeting



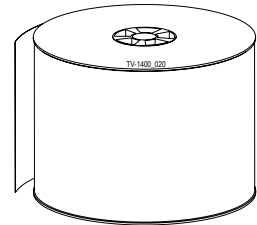
High Tack
Masking Tape



Plier Stapler

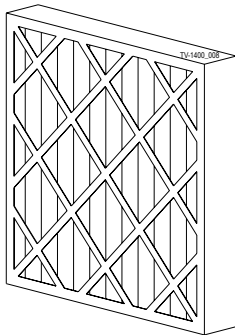


Intake Filter
Media

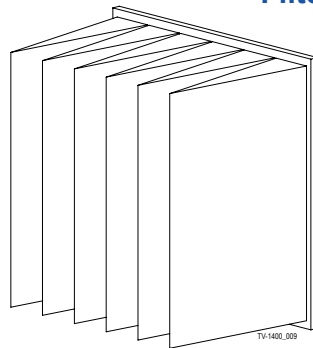


Poly Ducting

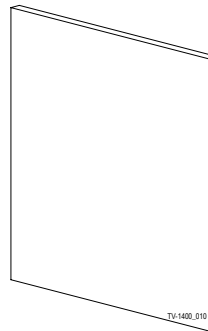
Filters



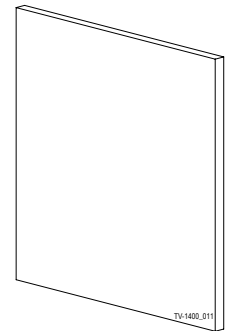
Carbon Filter



NESHAP
Pocket Filter



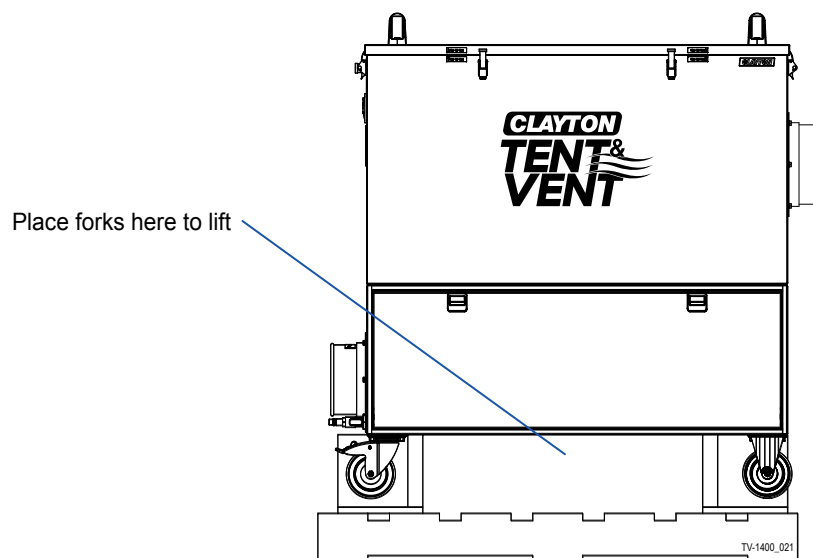
NESHAP
Stage 2 Filter



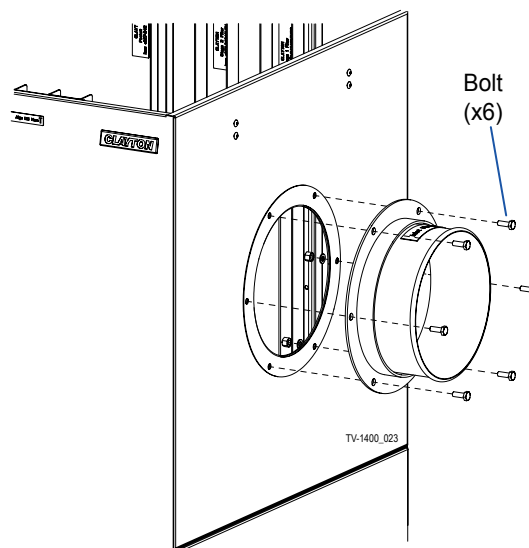
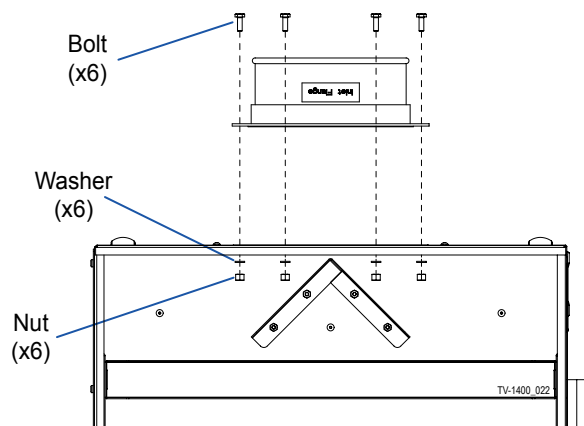
NESHAP
Stage 1 Filter

GETTING STARTED

1. Using a forklift, carefully remove the Tent & Vent TV-1400 from the shipping pallet.



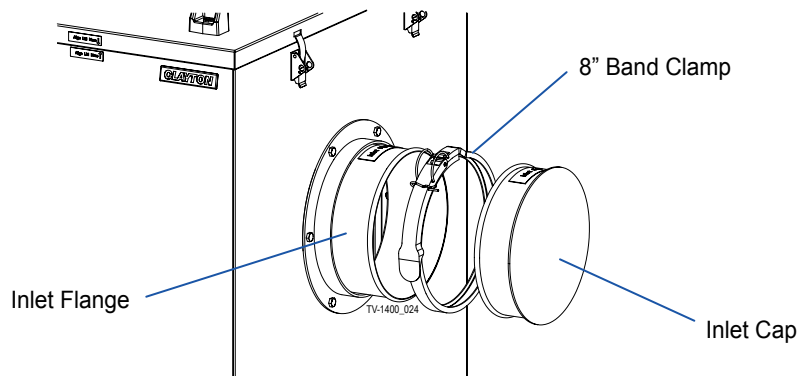
2. Visually inspect the Tent & Vent TV-1400 to verify that no parts are missing or damaged.
3. Attach the Inlet Flange. This may ship installed.
 - Using the six (6) sets of hardware provided, attach the inlet flange to the inlet opening.



GETTING STARTED

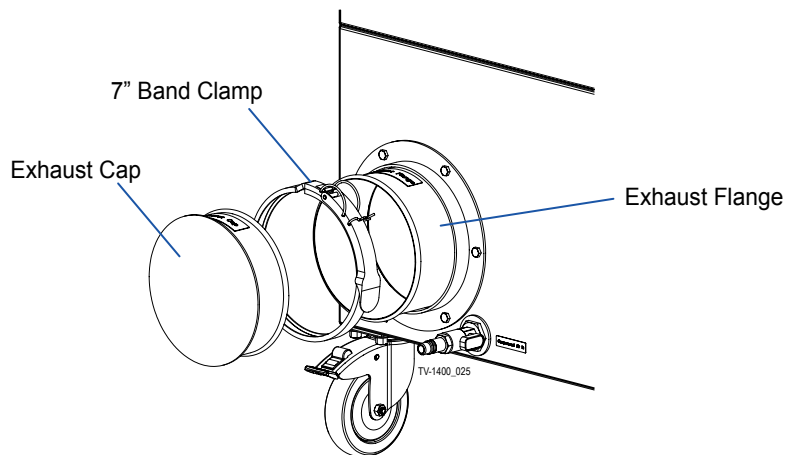
4. Attach the inlet cover to the inlet flange.

- Using the 8 inch band clamp provided, attach the inlet cover to the upper inlet flange.



5. Attach the exhaust cap.

- Using the 7 inch band clamp provided, attach the exhaust cap to the lower exhaust flange.

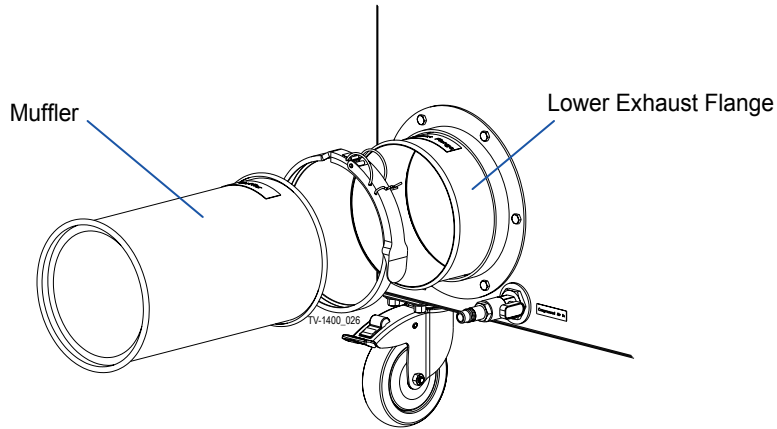


BEFORE EACH USE

ALWAYS ENGAGE THE WHEEL BRAKES ONCE IN POSITION SO THAT THE UNIT DOES NOT ROLL.

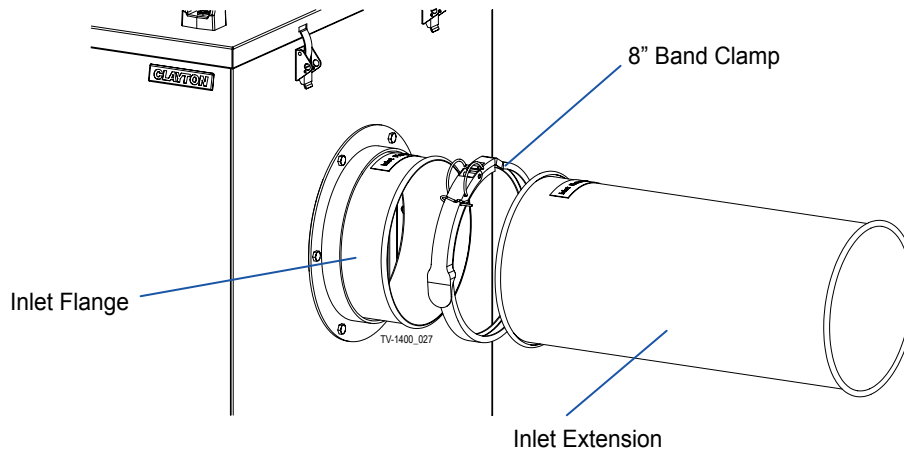
1. Attach the muffler to the lower exhaust.

- Remove the exhaust cap from the lower exhaust flange and store it in the drawer.
- Use the 7 inch band clamp from the cap to attach the 12 inch muffler to the lower exhaust flange.



2. Attach the inlet extension to the inlet flange (optional).

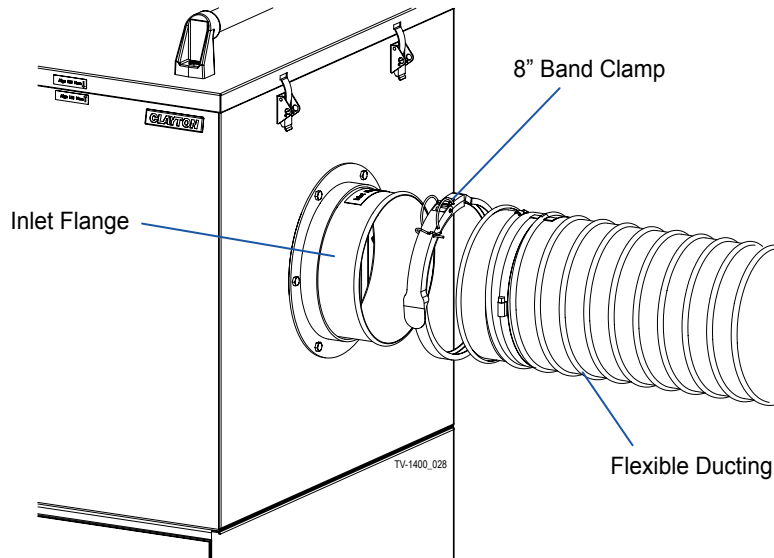
- Remove the exhaust cap from the upper inlet flange and store it in the drawer.
- Use the 8 inch band clamp from the cap to attach the 18 inch inlet extension to the upper inlet flange.



BEFORE EACH USE

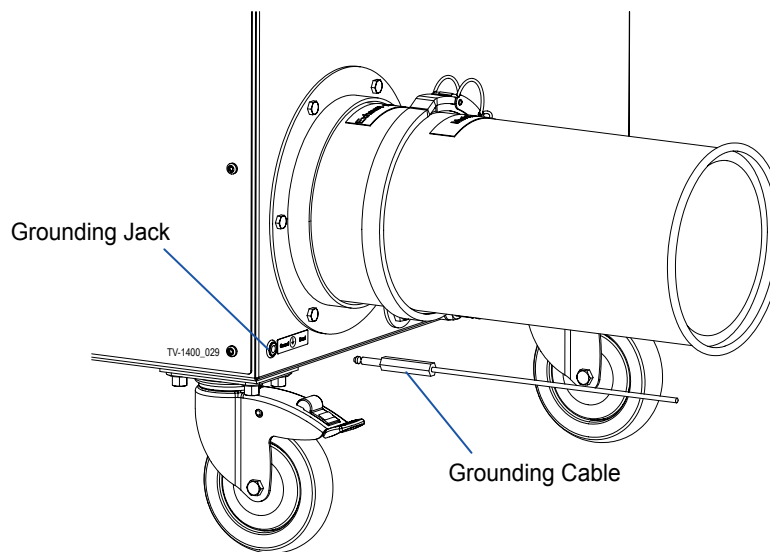
3. Attach the flexible ducting to the inlet flange (optional).

- Remove the exhaust cap from the upper inlet flange and store in the drawer.
- Use the 8 inch band clamp from the cap to attach the 15 foot inlet flexible ducting to the upper inlet flange.
- Attach additional 15 foot sections as needed, up to a maximum of three (3) sections.



4. Attach the grounding cable.

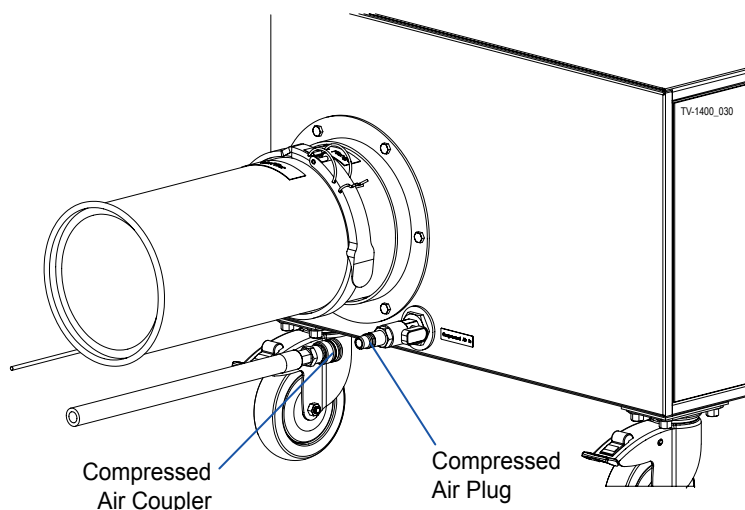
- Plug a grounding cable into the grounding port next to the lower exhaust flange.
- Clamp to either the work piece or the same grounding point as the work piece.



BEFORE EACH USE

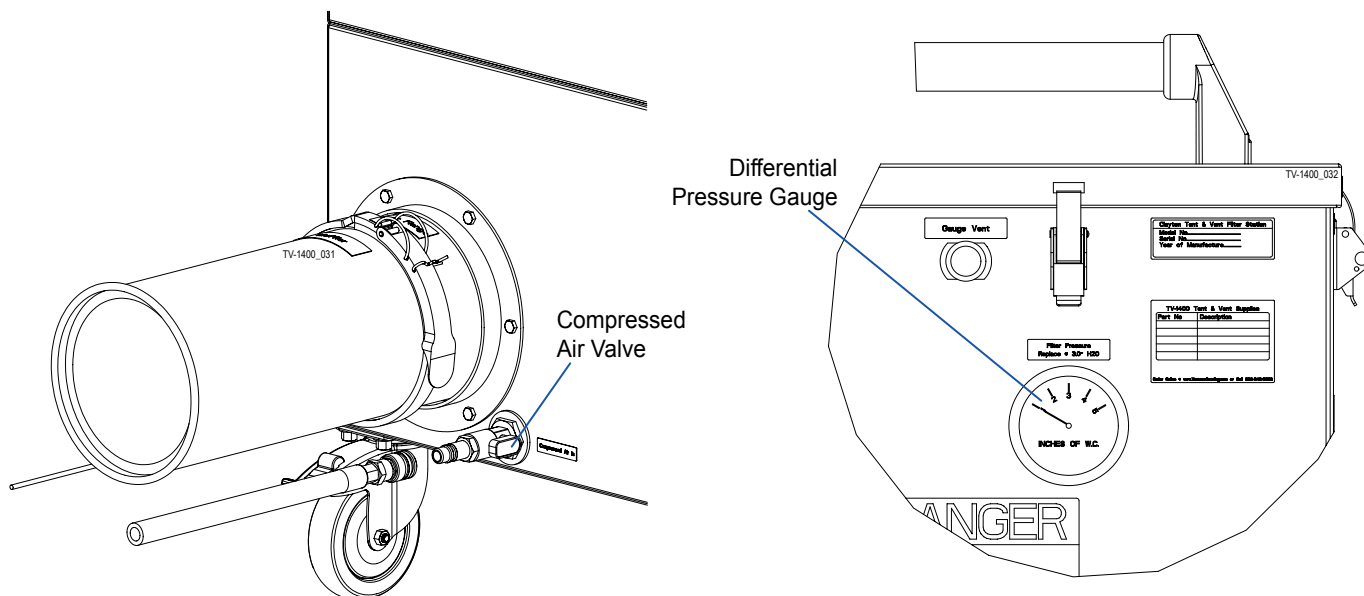
5. Attach the compressed air line.

- Verify the TV-1400 compressed air valve is in the **OFF** position.
- Connect the compressed air line to a compressed air source.
- Connect the compressed air line coupler to the compressed air plug on the TV-1400.
- Compressed air must be clean, dry, and oil free to prevent blockage of the pneumatic system.
- Compressed airline and fittings must have a minimum diameter of 1/2 inch.
- Compressed air supply must provide at least 90 psi.
- Compressed air supply must provide a minimum of 50 cfm.



6. Check the Filters.

- Turn the compressed air valve to the **ON** position to activate the TV-1400.
- Check the differential pressure gauge to determine if one or more filters need to be replaced.
- If the differential pressure gauge exceeds the maximum level specified, then one or more of the filters need to be replaced.
- Turn the compressed air valve to the **OFF** position to deactivate the TV-1400.
- Refer to "Change Filters" on page 15 for complete information.



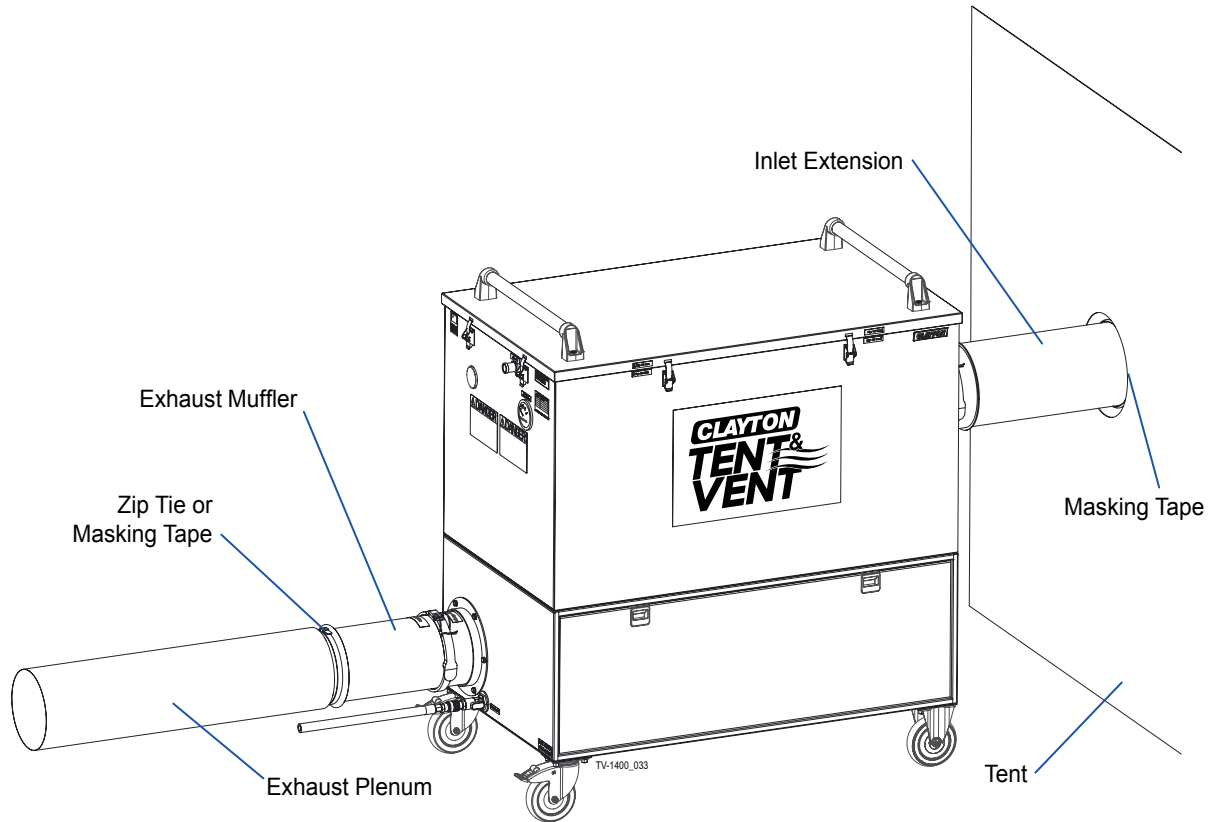
BEFORE EACH USE

7. Attach to tent or area to be vented.

- Insert the inlet Extension or duct extension into the area to be vented and seal with masking tape (or similar).
- Verify the area to be vented has an adequate air supply opening for make up air.

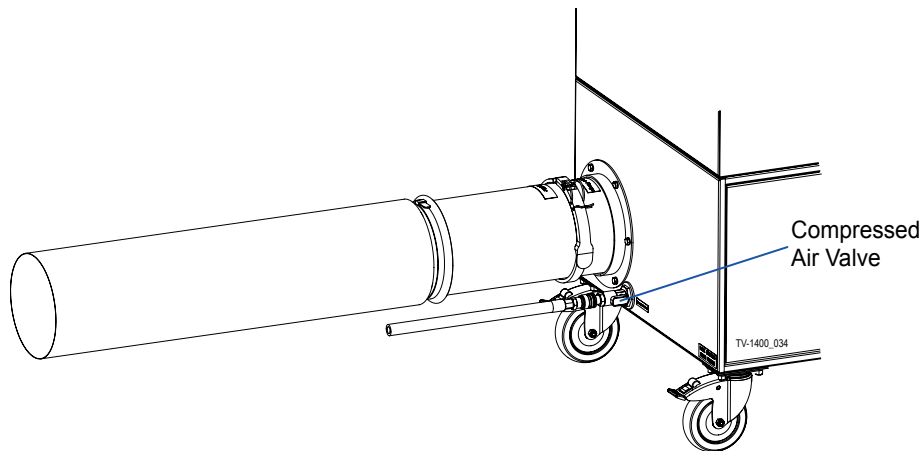
8. Attach the exhaust plenum (optional).

- Insert the end of the exhaust muffler into exhaust plenum and seal with a zip tie or masking tape.



9. Activate the TV-1400.

- Full flow on the TV-1400 is 1200 cfm.
- When activating the TV-1400, turn the compressed air valve on slowly so that the flow does not collapse the tent.
- Turn the compressed air valve to the **ON** position to activate the TV-1400.



CHANGE THE INLET BAFFLE

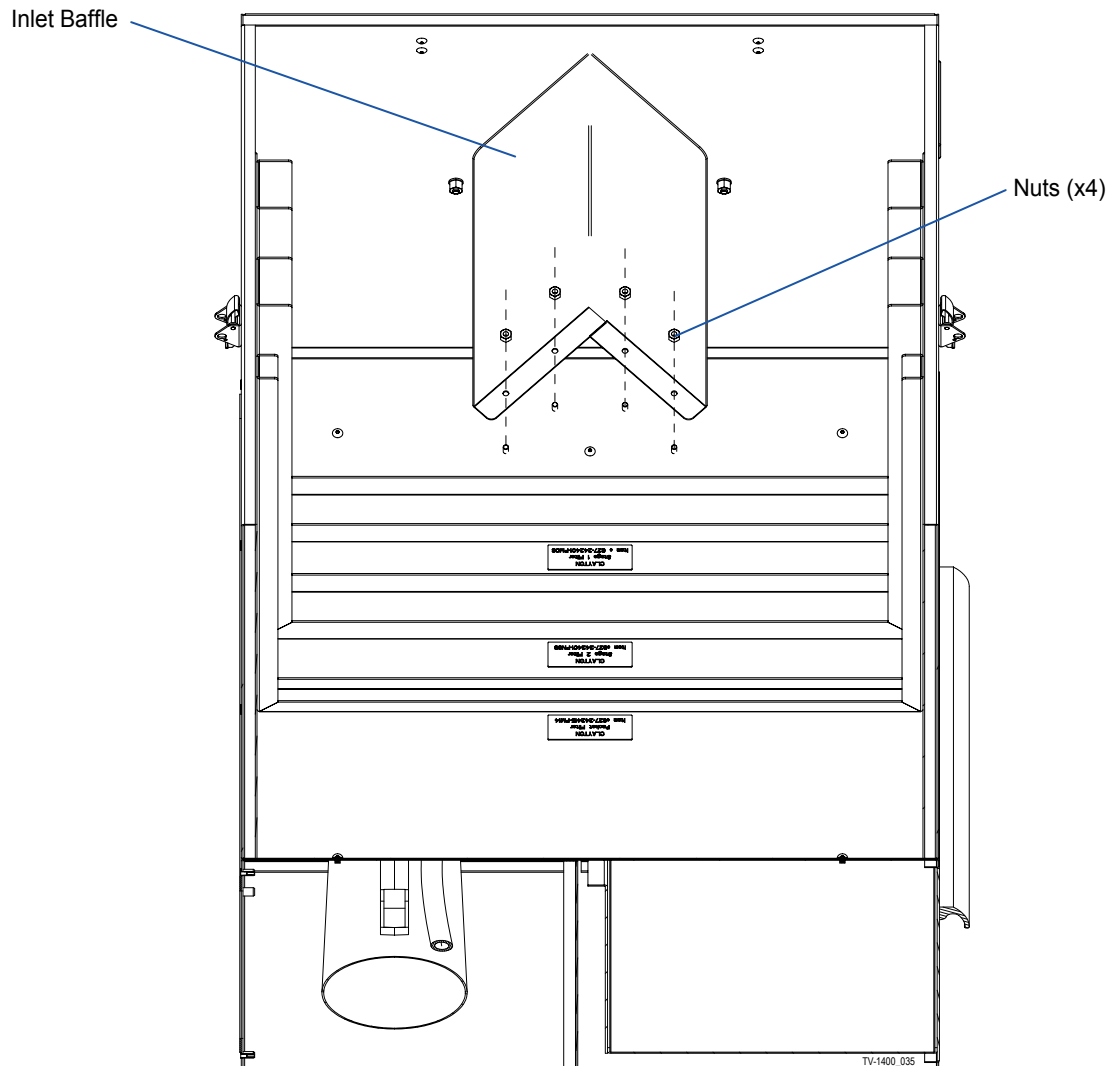
The inlet baffle can accumulate a thick layer of paint overspray. It is removable to be cleaned or replaced.

1. Remove the inlet baffle.

- Carefully remove the four (4) nuts securing the baffle to the bottom of the filter compartment.
- The threaded PEM studs are part of the filter compartment and are NOT removable.
- Carefully pry the baffle off the PEM studs. Residual paint may make removing the baffle difficult.

2. Install a new or cleaned baffle.

- Position the baffle over the PEM studs in the filter compartment.
- Apply a small amount of anti-seize to the threads of the PEM studs.
- Thread new or existing 10-32 lock nuts onto the PEM studs.
- **DO NOT OVERTIGHTEN.**



CHANGE FILTERS

Each filter has a Part Number Label and a Flow Direction Label.

1. Stage 1 NESHAP Filter

- Part Number: 627-242401-PN99;
- Non-woven mesh with internal wire frame;
- Oriented with **Air Exit Label** on **Air Exit** side of TV-1400;
- Verify top corners are folded in before placing lid on the unit.

2. Stage 2 NESHAP Filter

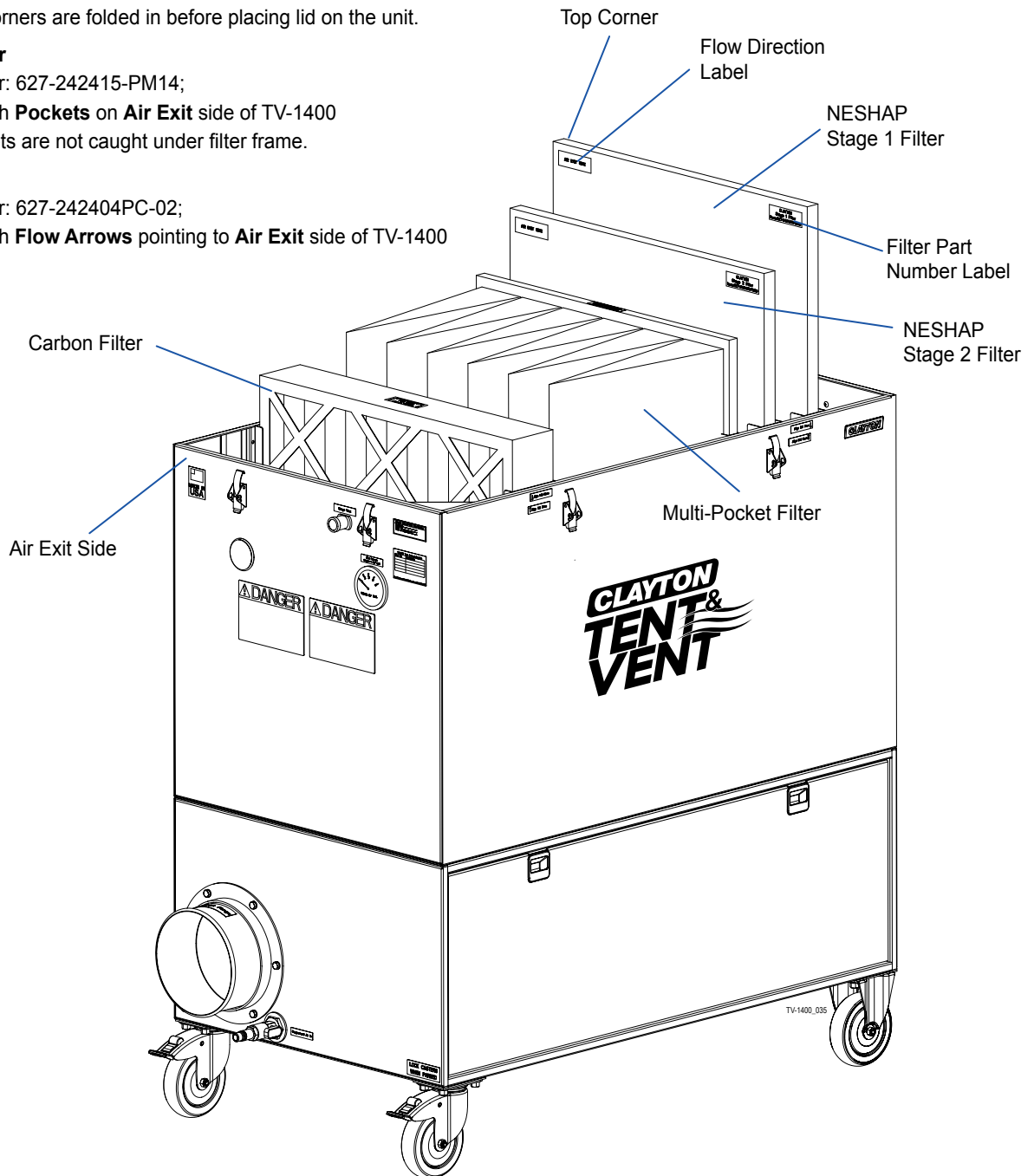
- Part Number: 627-242401-PM08;
- Non-woven mesh with internal wire frame;
- Oriented with **Air Exit Label** on **Air Exit** side of TV-1400
- Verify top corners are folded in before placing lid on the unit.

3. Multi-Pocket Filter

- Part Number: 627-242415-PM14;
- Oriented with **Pockets** on **Air Exit** side of TV-1400
- Verify pockets are not caught under filter frame.

4. Carbon Filter


- Part Number: 627-242404PC-02;
- Oriented with **Flow Arrows** pointing to **Air Exit** side of TV-1400

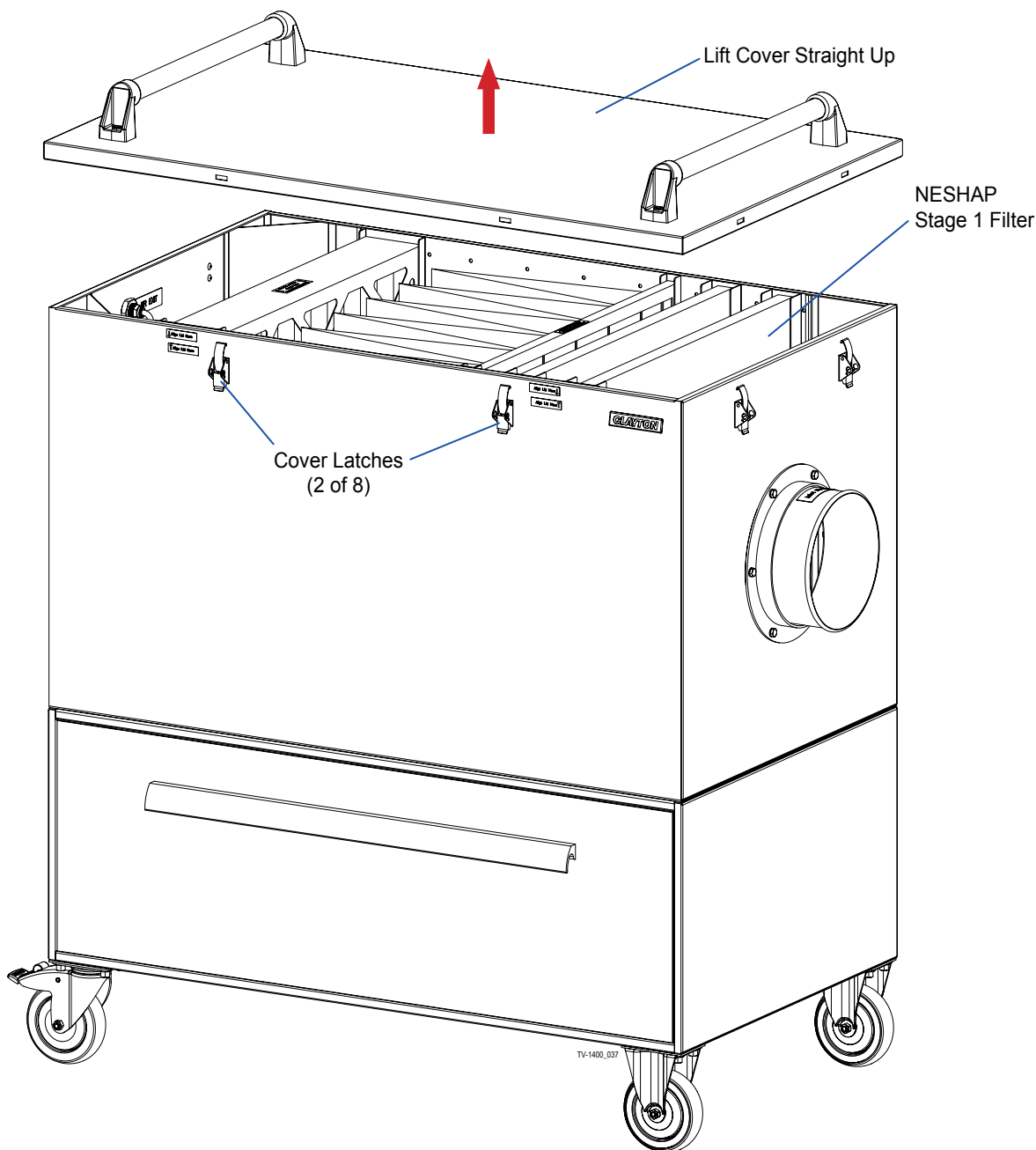


CHANGE FILTERS

5. Inspect the Filters.

- Verify the TV-1400 compressed air valve is in the **OFF** position.
- Unlatch the eight (8) latches securing the cover of the TV-1400.
- Standing in front of the unit, grasp each black handle and lift the cover straight up.
- Carefully place the cover in a safe location.
- Visually inspect each filter starting with the NESHAP Stage 1 filter.
- Identify the first filter that appears restricted or damaged and replace it.
- Replace the cover and secure it by latching the eight (8) latches.
- Repeat Step 6 of "Before Each Use" on page 10 until the Differential Pressure Gauge reads below the maximum level specified.

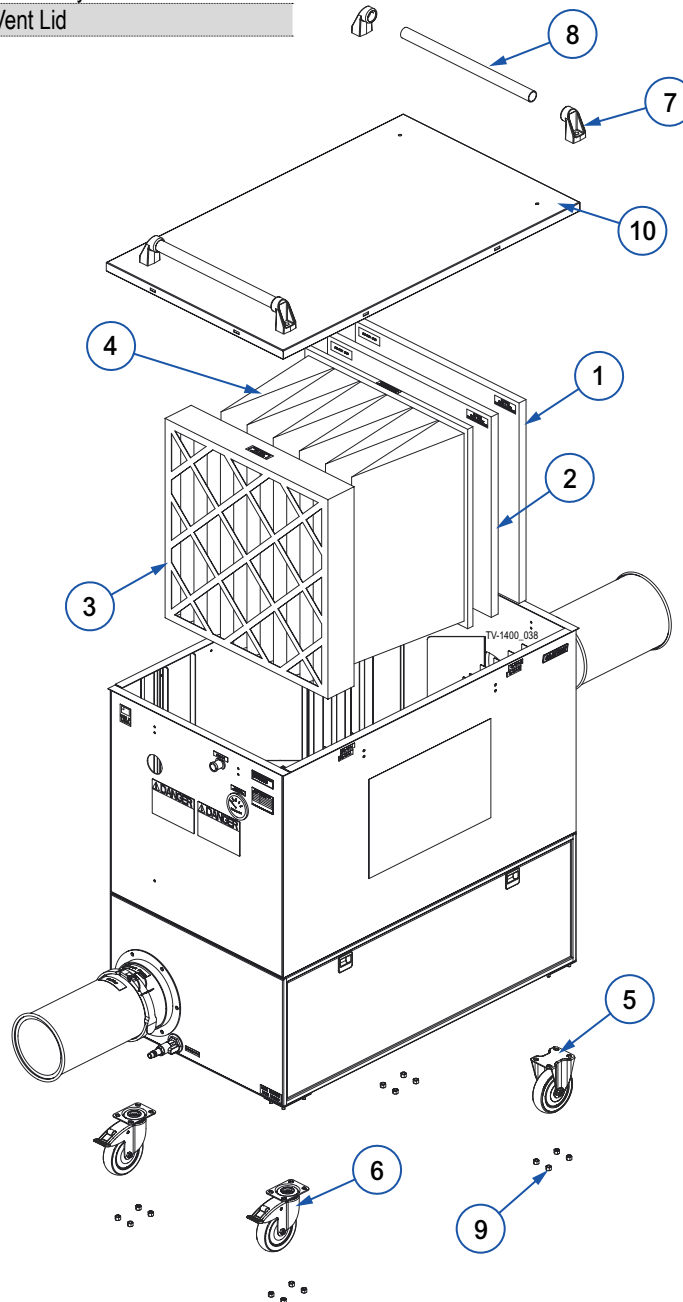
 **NOTE:** If the top and bottom of the NESHAP Stage 1 Filter appear to be unused, you may rotate the NESHAP Stage 1 Filter by 90° and continue using it before replacement to extend filter life.



ILLUSTRATED PARTS BREAKDOWN

TV-1400 (Sheet 1 of 5)

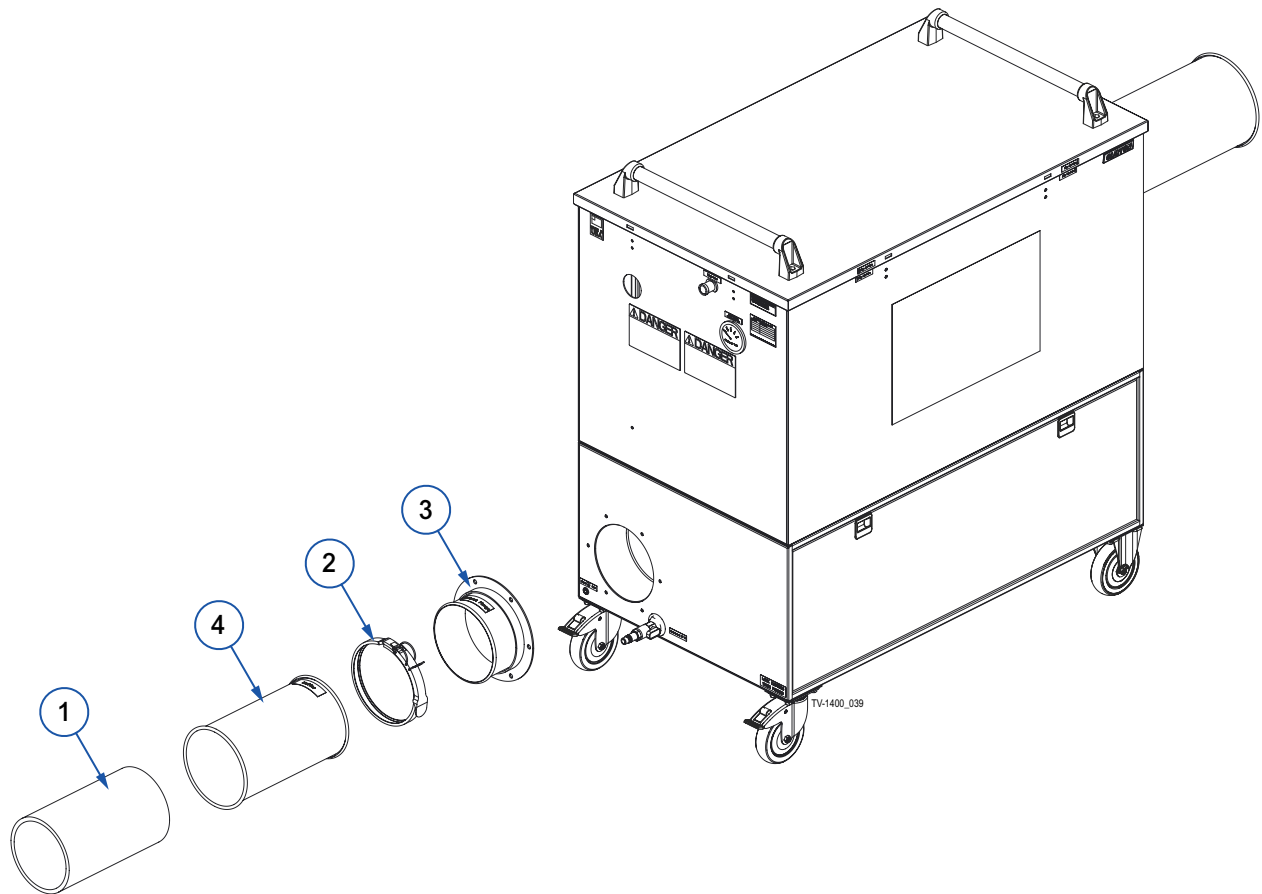
| Seq | Item No | Description |
|-----|-----------------|----------------------------------|
| 1 | 627-242401-PM08 | Filter Pad MERV 8 24X24 10Pk |
| 2 | 627-242401-PN99 | Filter Pad NESHAP 99 24X24 10Pk |
| 3 | 627-242404PC-02 | Carbon Filter 24X24X4 2Pk |
| 4 | 627-242415-PM14 | Multi-Pocket Filter 24X24X15 5Pk |
| 5 | 701-05-001R | Caster Fixed 5In Non-Locking |
| 6 | 701-05-001SL | Caster 5In Swivel Locking |
| 7 | 930-043A | Handle Bracket Black Nylon |
| 8 | 930-043B | Handle Tube Black Alminum |
| 9 | NE20181623-HNSZ | Nut 5/16-18 Nylon Lock Tall SS |
| 10 | TV-1400-3 | Tent Vent Lid |



ILLUSTRATED PARTS BREAKDOWN

TV-1400 (Sheet 2 of 5)

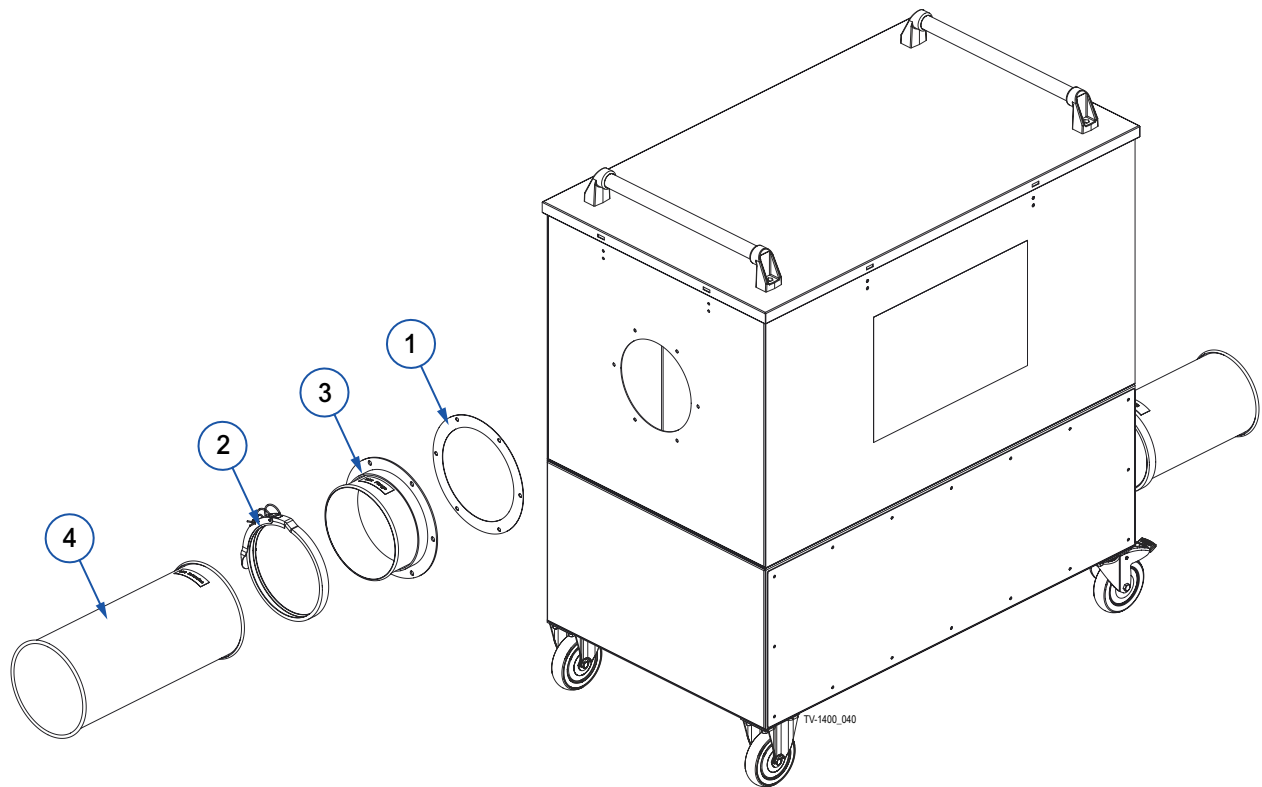
| Seq | Item No | Description |
|-----|---------------|--|
| 1 | 911-813 | Muffler Felt Plain 21-1/8 X 11-7/8 X 3/8In |
| 2 | 921-7000G-BC | Ducting Band Clamp Galv 7In |
| 3 | 921-7000G-F | Ducting Flange Galv 7In X 3.625In |
| 4 | 921-7000G-S12 | Duct Rolled Lip Galv 7In Dia X 12In Len |



ILLUSTRATED PARTS BREAKDOWN

TV-1400 (Sheet 3 of 5)

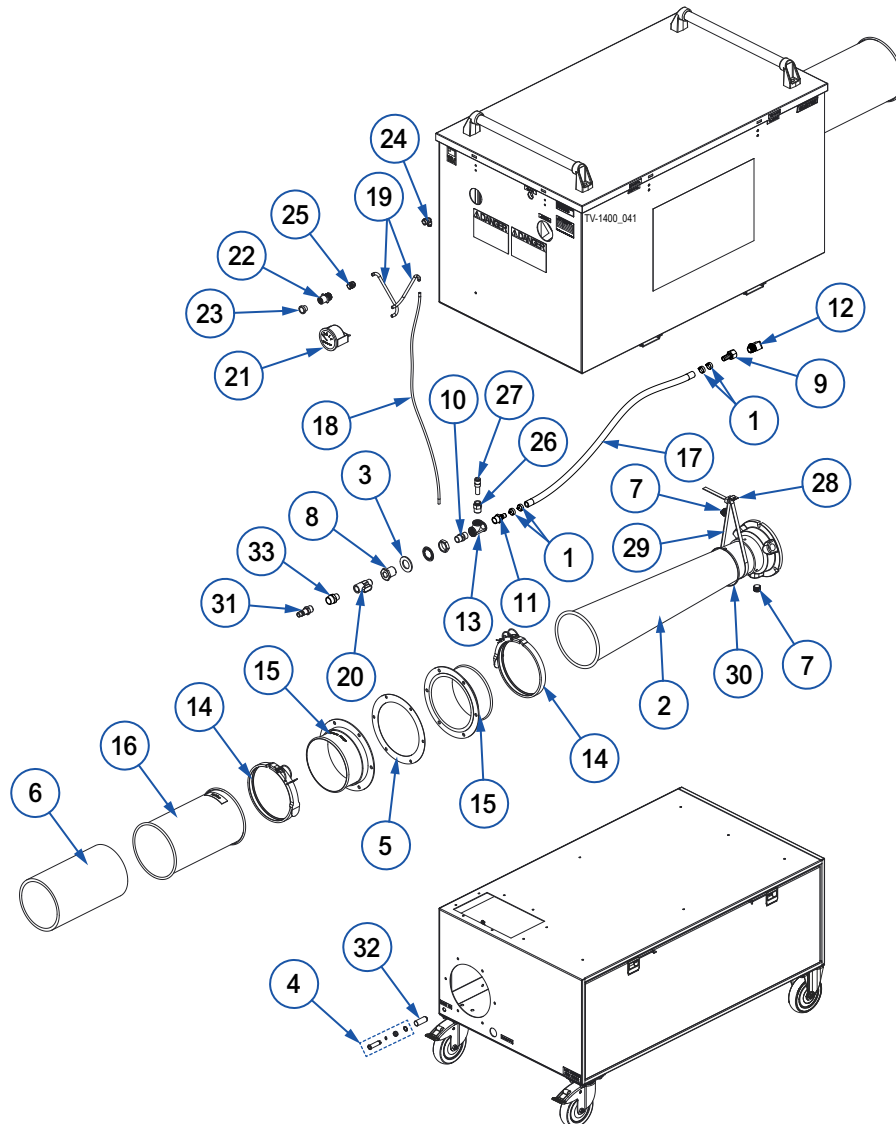
| Seq | Item No | Description |
|-----|---------------|---|
| 1 | 911-040 | Gasket, Tent & Vent Inlet Adapter |
| 2 | 921-8000G-BC | Ducting Band Clamp Galv 8In |
| 3 | 921-8000G-F | Ducting Flange Galv 8In X 3.625In |
| 4 | 921-8000G-S18 | Duct Rolled Lip Galv 8In Dia X 18In Len |



ILLUSTRATED PARTS BREAKDOWN

TV-1400 (Sheet 4 of 5)

| Seq | Item No | Description | Seq | Item No | Description |
|-----|---------------|--|-----|----------------|---|
| 1 | 300-210R | Clamp 210 SS 1 Ear Stepless 1/2 Hose | 17 | 922-H08PV-YL | Hose Comp Air 1/2In Yellow (Per Ft) |
| 2 | 600-026 | Air Mover Casting | 18 | 922-T.25GN | 1/4 In OD. Nylon Tubing Green |
| 3 | 600-WF-1125 | Washer Fiber 1-1/8 Id X 2 OD Grey | 19 | 922-T.516R | Tubing, 5/16 In., Red, Per Foot |
| 4 | 900-019 | Grounding Jack 1/4In X 1.6In Black | 20 | 924-0502 | Valve, 1/2, MPT X FPT, Ball Valve |
| 5 | 911-041 | Gasket, Tent & Vent Venturi Exhaust | 21 | 925-D40R005-01 | Gauge Diff Pressure 2.5In 0-5In H2O Panel Mount |
| 6 | 911-813 | Muffler Felt Plain 21-1/8 X 11-7/8 X 3/8In | 22 | 926-GS06B | GS Filter Holder 3/8In |
| 7 | 915-08P | Plug, 1/2 NPT, Steel, Allen Head | 23 | 926-GS06E | GS Filter Element 3/8In |
| 8 | 918-08BH | Bulkhead, 1/2 X 1/2, Brass | 24 | 927-04L-04F | FTP, 1/4 X 1/4 Elbow, PC To FNPT |
| 9 | 918-08FAS | FTG Brass 1/2In Barb X 1/2In NPSM Swivel | 25 | 927-05MA-06 | 3/8 PC X 5/16 Tubing |
| 10 | 918-08HN | Hex Nipple, 1/2 In Brass, Length 1.5 In | 26 | 927-08MA-08 | FTG, 1/2Tx1/2P Male Conn |
| 11 | 918-08MA | 1/2 In MNPT To 1/2 Hose Barb | 27 | 927-08R04 | FTG Reducer 1/2 MPC To 1/4 PC |
| 12 | 918-08ML08 | FTB Brass Elbow 1/2In MNPT X 1/2In MNPT | 28 | 930-013 | Tie Down Ring SS 7/8In |
| 13 | 918-08T | Tee, 1/2 In Brass | 29 | 930-138 | Zip Tie White 28-1/2In Long |
| 14 | 921-7000G-BC | Ducting Band Clamp Galv 7In | 30 | 930-020 | Zip Tie 11.33 In Black |
| 15 | 921-7000G-F | Ducting Flange Galv 7In X 3.625In | 31 | 940-08PM | FTG, Plug, 1/2 In MNPT |
| 16 | 921-7000G-S12 | Duct Rolled Lip Galv 7In Dia X 12In Len | 32 | 945-HSEC08X3BK | Heat Shrink End 1/2In |
| | | | 33 | 918-08HN12 | |



Repair or Warranty Contact

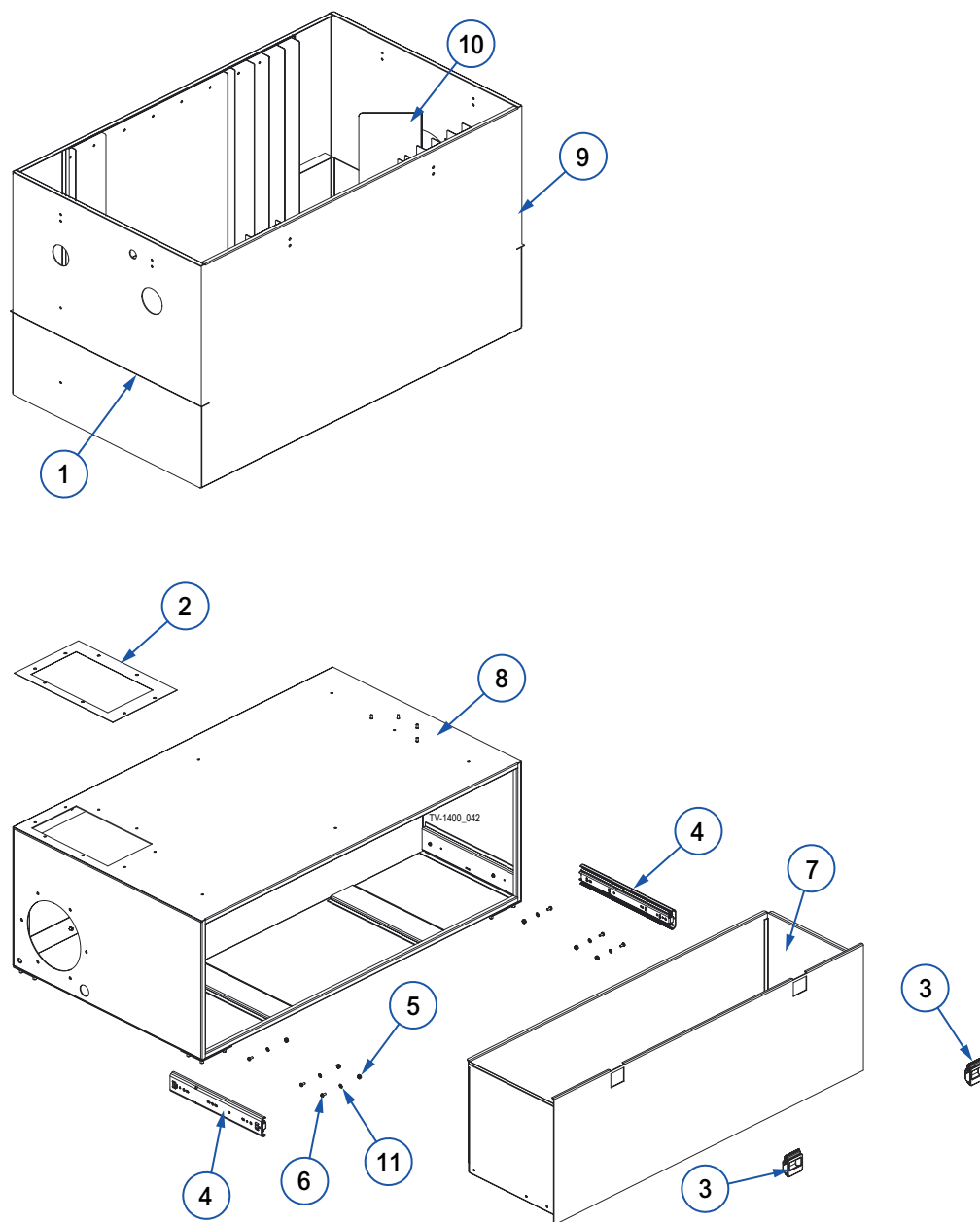
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www.DustlessMadeSimple.com • Sales@JClayton.com

ILLUSTRATED PARTS BREAKDOWN

TV-1400 (Sheet 5 of 5)

| Seq | Item No | Description |
|-----|-----------------|--|
| 1 | 911-030 | 1/16 X 1In Rub Strip W/ PSA, Per Foot |
| 2 | 911-050 | Gasket, Tent & Vent Pass Through |
| 3 | 930-051 | Slide Latch, 1.75In X 1.50In ABS Black |
| 4 | 930-053 | 12in Drawer Glide Pair |
| 5 | NE08321111-HNSZ | Nut 8-32 Low Height Lock Nylon SS |
| 6 | SE083206-XPSM-Z | Screw 8-32 x 3/8in SS TORX |
| 7 | TV-1400-1A | Tent Vent Drawer |
| 8 | TV-1400-1B | Tent Vent Drawer Cabinet |
| 9 | TV-1400-2 | Tent Vent Filter Box |
| 10 | TV-1400-4 | Tent Vent Diverter |
| 11 | WE112402-RFS-Z | Washer .172ID x .375OD .031H Round Stainless |



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



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

Industrial Pneumatically Powered NESHAP Filtration System and Accessories

- Vacuum Models: **TV-1400**
- With serial numbers ranging from **TV0000001** through **TV9999999**

Are designed and manufactured in compliance with the essential requirements and other relevant provisions of the following applicable directives:

- **Machinery Directive 2006/42/EC**

Compliance has been obtained by application of the following standards:

- **EN ISO 12100:2010-11**

The legally authorized entity, established in the EU for compiling the technical file is ExVeritas Limited, Unit 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, LL13 9UZ, United Kingdom.

File Number: 18FILE0423

Subject to use for the purpose for which it was designed in accordance with relevant standards and with the manufacturer's recommendations. We hereby declare that the equipment specified above conforms to the listed Directives and Standards.

Brad Clayton
President
Clayton Associates, Inc.

Place of Issue: Lakewood, New Jersey, USA September 27, 2021



Clayton products are proudly made in the USA

