



Installation Instructions: Tsunami Filtration



WARNING

Your safety is important. System pressure must be released prior to any installation or service. Failure to follow instructions could result in operating failure or product damage. Always install filtration with the arrows indicating the direction of airflow. Use only appropriate thread sealant on all connection fittings unless otherwise specified. Do not alter the filtration from its original design as this may cause failure in its operation parameters.

DESCRIPTION

Tsunami filters are machined from the highest quality materials & anodized inside & out to ensure ultimate durability against trapped contaminants. Our cutting-edge technology is rigorously tested to outperform your expectations regardless of the industry or application.

- Water Separators remove water and up to 1 quart per minute & filters particulate down to 10 micron.
- Oil Coalescing Filters remove oil aerosols down to .001 ppm & traps particulates down to .01 micron.
- Activated Carbon Filters remove oil vapor down to .003 ppm, removing odor & taste from the air.

FILTER SPECIFICATIONS

	20 Series	50 Series	120 Series
Maximum Flow	20 CFM	50 CFM	120 CFM
Port Size	¼" NPT	½" NPT	1" NPT
Maximum Pressure		250 PSI	
Maximum Temperature		175°F	

Note: Tsunami regulators have a maximum temperature of 122°F

INSTALLATION & SERVICE REQUIREMENTS

IMPORTANT: The follow maintenance schedule is recommended for all Tsunami Filters and Filtration Packages. **Failure to follow instructions could result in operating failure or product damage.**

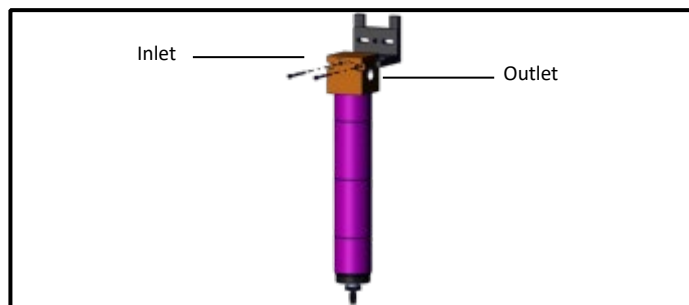
- Oil Coalescing Filter - Mandatory Every 6 Months
- Activated Carbon - Mandatory Every 6 Months
- Water Separator - Zero Maintenance Required. Clean as needed.

Tsunami filters come standard with automatic float drains. If ordered with pneumatic or electronic drains, follow the respected installation procedures listed here:

Pneumatic: Run pilot line from bottom nipple of filter drain to desired pilot signal. Drain line runs out of side port.

Electronic: Plug 110v cord into wall.

FILTER INSTALLATION - OPTION 1 - MOUNTING BRACKET



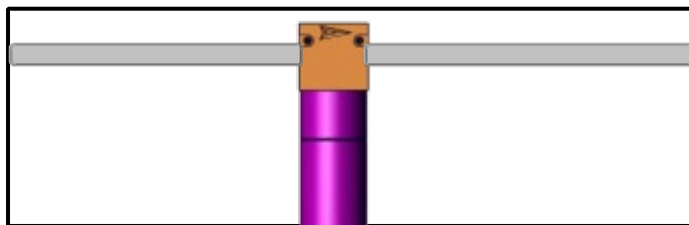
1. If using a Tsunami filter *Mounting Bracket*, secure bracket to wall prior to plumbing filter into air system.
2. Using supplied hardware, attach Tsunami filter to mounting bracket.
3. Using arrow on filter head, plumb unit into system piping in the desired direction of airflow. Use appropriate thread sealant.

FILTER INSTALLATION - OPTION 2 - MOUNTING PANEL



1. If using a Tsunami filter package *Mounting Panel*, secure panel to wall prior to plumbing filter package into air system.
2. Using arrows on filter heads, plumb unit into system piping in the desired direction of airflow. Use appropriate thread sealant.

FILTER INSTALLATION - OPTION 3 - MOUNTING INLINE



1. If installing filter directly inline with air system plumbing, verify that there is adequate support to hold weight of filter. For filter models including electronic drains, verify there is adequate space between the wall and filter to allow for removal of tube during maintenance.
2. Using arrow on filter head, plumb unit into system piping in the desired direction of airflow. Use appropriate thread sealant.

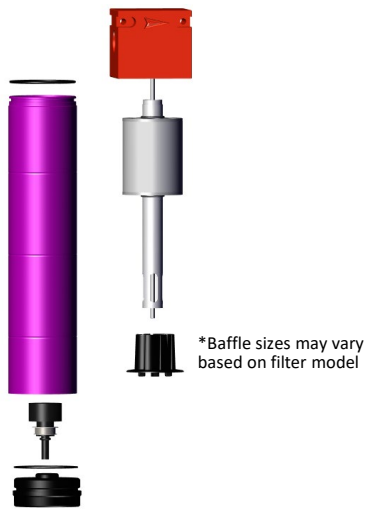


Figure #1: Water Separator

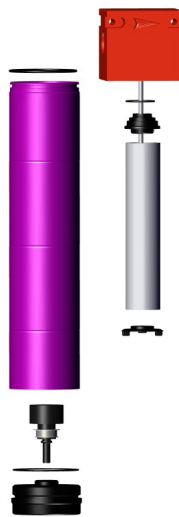


Figure #2: Oil Coalescing Filter



Figure #3: Activated Carbon

Service Part Number Guide

	Water Separator Service Kit	Oil Coalescing Filter Service Kit	(5 Pack) Coalescing Elements	Activated Carbon Kit	(5 Pack) Activated Carbon Elements	(3 Pack) Float Drain	Pneumatic Drain	Electronic Drain
20 Series	21999-0846	21999-0394	21999-0823	21999-0395	21999-0824	21999-0868	21999-0792	21999-0177
50 Series	21999-0227	21999-0202	21999-0825	21999-0200	21999-0826	21999-0868	21999-0795	21999-0177
120 Series	21999-0228	21999-0202	21999-0825	21999-1072	-	21999-0868	21999-0805	21999-0177

WARNING

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WATER SEPARATOR MAINTENANCE

1. Release system pressure.
2. Remove tube from filter head by holding filter head and rotating tube counter-clockwise.
3. Using a 5/16" or 3/8" wrench, remove baffle from threaded rod below element.
4. Remove bottom baffle, filter element, top adaptor (120 & 240 Series Filters Only), and O-ring.
5. Clean stainless steel mesh with soapy water or replace entire element with service kit. Refer to Service Chart shown above.
6. Replace filter element and hardware in reverse order from previous steps. Tighten baffle until filter element can no longer spin freely. DO NOT OVER TIGHTEN!
7. Reinstall outer tube by rotating clockwise onto filter head.
8. Slowly pressurize the unit.

OIL COALESCER / ACTIVATED CARBON MAINTENANCE

1. Release system pressure.
2. Remove tube from filter head by holding filter head and rotating tube counter-clockwise.
3. Using a 5/16" or 3/8" wrench, remove baffle from threaded rod below element.
4. Remove bottom baffle, filter element (element gaskets, 20 Series only), top adaptor, and O-ring.
5. Replace filter element and hardware in reverse order from previous steps. Tighten baffle until filter element can no longer spin freely. DO NOT OVER TIGHTEN!
6. Reinstall outer tube by rotating clockwise onto filter head.
7. Slowly pressurize the unit.

DRAIN REPLACEMENT INSTRUCTIONS

Float Drain

1. Release system pressure.
2. Remove bottom cap by holding filter tube and rotating bottom cap counter-clockwise.
3. Grasp float drain by stem and rotate counter-clockwise.
4. Reinstall new float drain by spinning in clockwise direction until O-ring contacts the end cap. Tighten an additional 1/4 turn. DO NOT OVER TIGHTEN!
5. Reinstall end cap on filter tube.
6. Slowly pressurize system.

Pneumatic Drain

1. Release system pressure.
2. Disconnect pilot line tubing.
3. Remove pneumatic drain by holding filter tube and rotating pneumatic drain counter-clockwise.
4. Reinstall new drain by spinning in clockwise direction. DO NOT OVERTIGHTEN!
5. Reconnect pilot line tubing.
6. Slowly pressurize system.

Electronic Drain

1. Release system pressure.
2. Drain from power source.
3. Remove electronic drain by holding filter end cap and rotating counter-clockwise.
4. Reinstall new drain by spinning in clockwise direction. DO NOT OVERTIGHTEN!
5. Reconnect to power source.
6. Slowly pressurize system.

Element Replacement Kits

Replace every 6 months

CMM Filtration
Installation & Maintenance

20 Series CMM Filtration Maintenance Kits



Oil Coalescing Service Kit



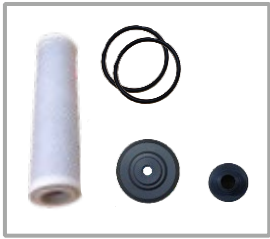
Activated Carbon Service Kit

Description	Part #
20 Series Oil Coalescing Filter Service Kit	21999-0394
20 Series Activated Carbon Filter Service Kit	21999-0395

50 Series CMM Filtration Maintenance Kits



Oil Coalescing Service Kit



Activated Carbon Service Kit

Description	Part #
50 Series Oil Coalescing Filter Service Kit	21999-0202
50 Series Activated Carbon Filter Service Kit	21999-0200

CMM Filtration Installation & Maintenance

YOUR SAFETY IS IMPORTANT

Please read ALL instructions before you begin installation or maintenance on your filtration.
Observe and follow all caution and warning instructions!



!! CAUTION !!

****SYSTEM PRESSURE MUST BE RELEASED PRIOR TO PERFORMING INSTALLATION OR MAINTENANCE PROCEDURES****

- Maximum operating pressure - 250 PSI
- Maximum operating temperature - 122° F
- Exceeding flow rates may result in operating failure
- Failure to follow maintenance instructions could result in operating failure or product damage.
- Always install the filtration system as close as possible to point of use.
- Always install the system with the arrows indicating the direction of airflow.
- Use only appropriate thread sealant on all connection fittings unless otherwise specified.
- Make sure not to over tighten threaded connections as this may result in stripping of the threads and may cause leaking.
- Do not alter the filtration system from its original design as this may cause failure in its operation parameters.

CMM Filtration Installation & Maintenance

CMM Installation Instructions

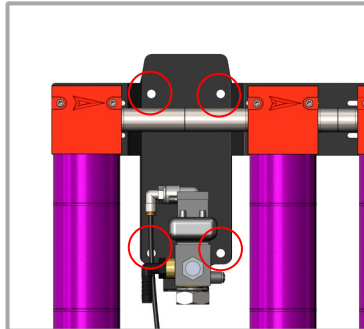
**** SYSTEM PRESSURE MUST BE RELEASED PRIOR TO PERFORMING
INSTALLATION PROCEDURES ****

Refer to the following installation instructions for the part numbers listed below:

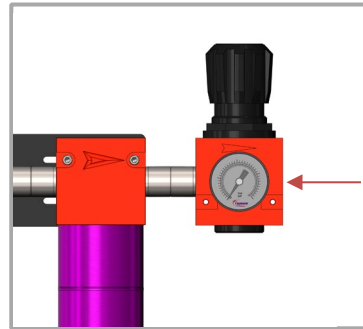
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480-5039

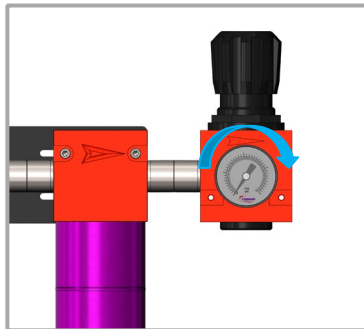
21999-0291



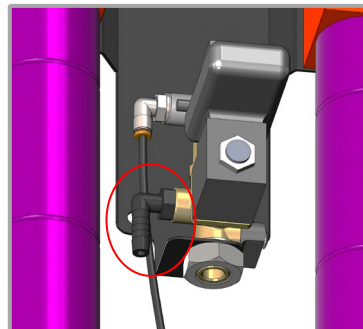
STEP 1: Mount vertically to secure source using adequate hardware through the 4 holes in the mounting bracket.



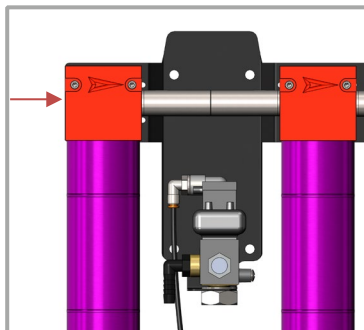
STEP 3: Connect the outlet of the CMM filtration unit to the CMM. (right side)



Note: For systems equipped with a regulator, screw gauge in clockwise. Use thread tape or sealant around threads of gauge.



STEP 4: Connect drain line to solenoid drain. Line can be run to a floor drain or to a covered vessel for collection. Plug in timer.



STEP 2: Connect plant air to inlet of CMM filtration unit. (left side)



STEP 5: Set timer on drain controllers at 1/2 ON & 5 min OFF. Watch drain line to determine amount of moisture present.

CMM Filtration Installation & Maintenance

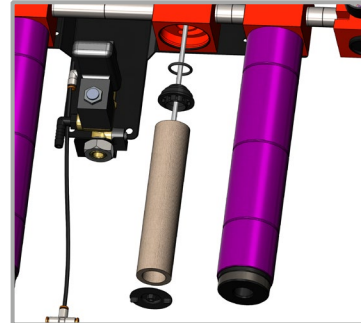
Filtration Maintenance Instructions

**** SYSTEM PRESSURE MUST BE RELEASED PRIOR TO PERFORMING MAINTENANCE PROCEDURES ****

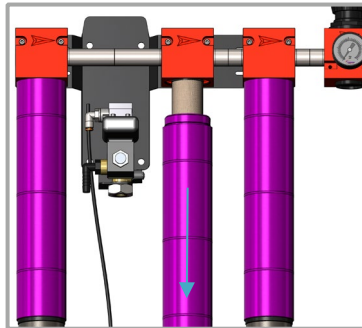
Replace 2nd stage oil coalescing filter & 3rd stage activated carbon filter elements every 6 months. Oil coalescing & activated carbon filters follow same element replacement routine.
Failure to follow maintenance procedures will void warranty.



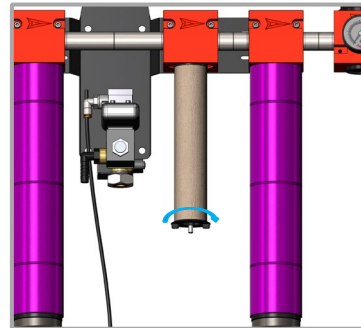
STEP 1: Unplug unit from wall.
Disconnect 1st and 2nd stage drain tubing by pushing in on orange outer connections.



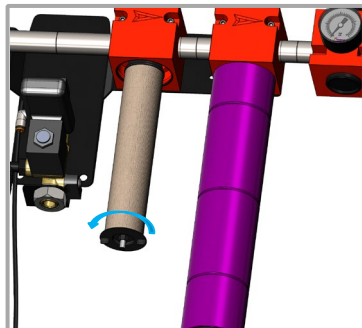
STEP 4: Remove bottom baffle, filter element, top baffle nut, and O-ring.



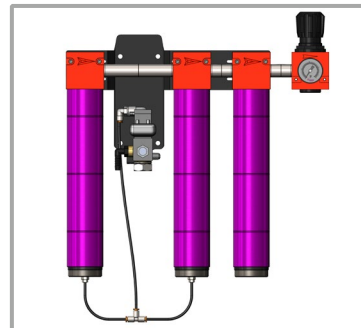
STEP 2: Remove tube from filter head by holding filter head and rotating tube clockwise.



STEP 5: Replace O-ring, top baffle plate, element, and bottom baffle plate. **DO NOT OVER TIGHTEN!**



STEP 3: Remove baffle nut from threaded rod below element.



STEP 6: Reinstall outer tube by rotating counter clockwise onto filter head.
Reconnect tubing and plug unit back into wall.