

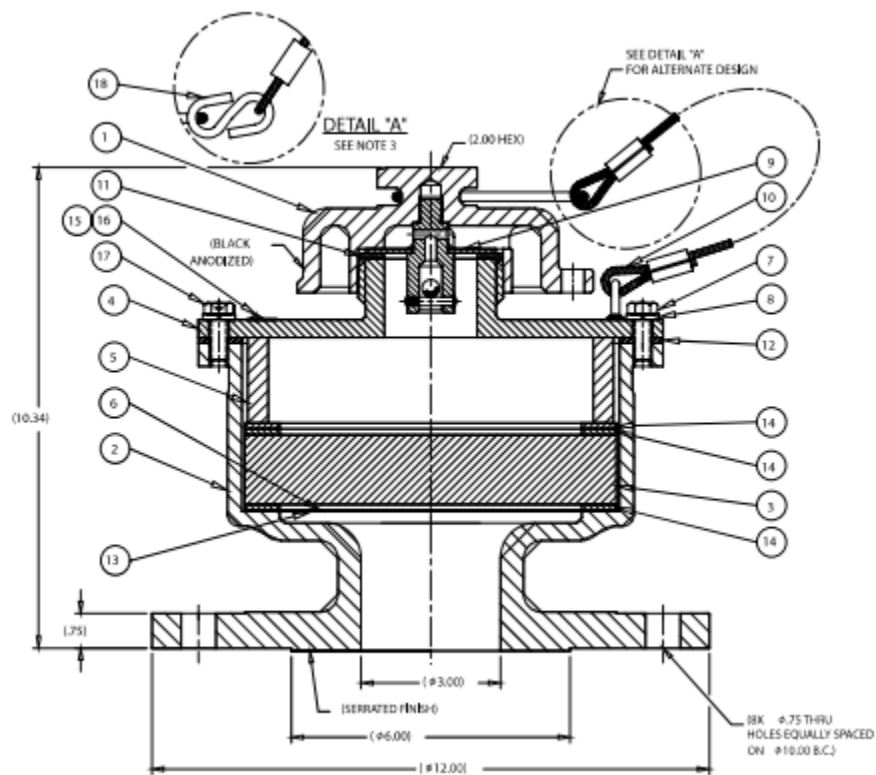
## A-441 Installation, Operation, & Maintenance Instructions

## SAVE THESE INSTRUCTIONS!

[illegible]

Item	Qty	Part Name	A-441-F-SS Stainless Trim		A-441-F-SS-PRA-PA Stainless Trim	
			Material	Part No.	Material	Part No.
1	1	Top	Aluminum	441-1-AL	Aluminum	441-1-AL
2	1	Base	Stainless Steel	441-22-MO	Stainless Steel	441-22-MO-PRA-PA <sup>2,3</sup>
3	1	Filter	Ceramic	441-3-FL	Ceramic	441-3-FL
4	1	Retainer	Stainless Steel	441-4-SS-PA <sup>2</sup>	Stainless Steel	441-4-SS-PA <sup>2</sup>
5	1	Spacer	Stainless Steel	441-5-SS	Stainless Steel	441-5-SS
6	1	Screen	Stainless Steel	441-6-SS	Stainless Steel	441-6-SS
7	8	Bolt	Stainless Steel	441-7-SS	Stainless Steel	441-7-SS
8	8	Lock Washer	Stainless Steel	15-17-SS	Stainless Steel	15-17-SS
10	1	Chain	Stainless Steel	441-101-SS	Stainless Steel	441-101-SS
11	1	Top Gasket	Koro Seal	441-11-KS	Koro Seal	441-11-KS
12	2	Flange Gasket	Koro Seal	441-12-KS	Koro Seal	441-12-KS
14	3	Filter Gasket	Viton A <sup>1</sup>	441-14-VA	Viton A <sup>1</sup>	441-14-VA
15	1	Nameplate	Stainless Steel	12-10-SS-BLANK	Stainless Steel	12-10-SS-BLANK
16	2	Drive Screw	Stainless Steel	763-11-SS	Stainless Steel	763-11-SS

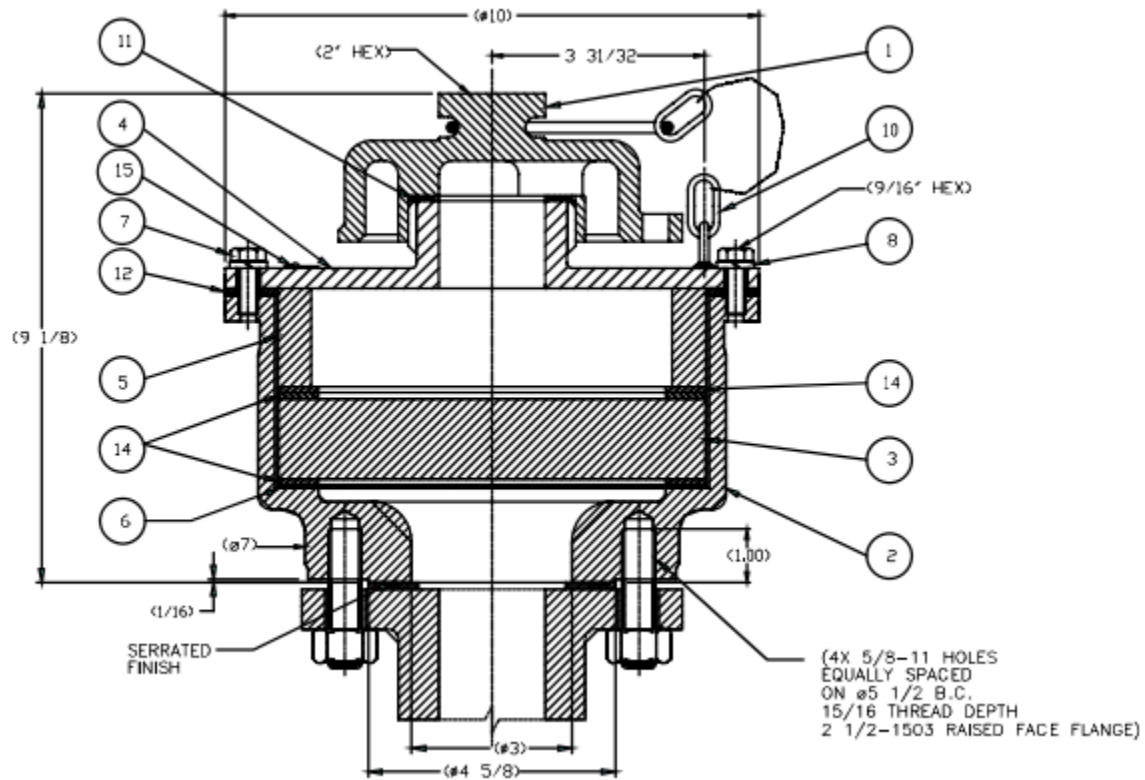
## A-441-F-SS-CV



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Item	Qty	Part Name	A-441-F-SS-CV Stainless Trim		A-441-F-SS-CV-PRA-PA Stainless Trim	
			Material	Part No.	Material	Part No.
1	1	Vent Cover	Aluminum	441-101-AL <sup>4</sup>	Aluminum	441-101-AL <sup>4</sup>
2	1	Base	Stainless Steel	441-24-MO	Stainless Steel	441-24-MO-PRA-PA <sup>2,3</sup>
3	1	Filter	Ceramic	441-3-FL <sup>4</sup>	Ceramic	441-3-FL <sup>4</sup>
4	1	Retainer	Stainless Steel	441-4-SS-PA <sup>2</sup>	Stainless Steel	441-4-SS-PA <sup>2</sup>
5	1	Spacer	Aluminum	441-5-AL <sup>4</sup>	Aluminum	441-5-AL <sup>4</sup>
6	1	Mesh Screen	Stainless Steel	441-6-SS <sup>4</sup>	Stainless Steel	441-6-SS <sup>4</sup>
7	6	Bolt	Stainless Steel	441-7-SS	Stainless Steel	441-7-SS
8	8	Lock Washer	Stainless Steel	15-17-SS	Stainless Steel	15-17-SS
9	1	Check Valve	Stainless Steel	A-114-BV <sup>4</sup>	Stainless Steel	A-114-BV <sup>4</sup>
10	1	Cable Assembly	Stainless Steel	441-9-SS <sup>4</sup>	Stainless Steel	441-9-SS <sup>4</sup>
11	1	Top Gasket	Koro Seal	441-11-KS <sup>1,4</sup>	Koro Seal	441-11-KS <sup>1,4</sup>
12	2	Flange Gasket	Koro Seal	441-12-KS <sup>1</sup>	Koro Seal	441-12-KS <sup>1</sup>
13	1	Support Screen	Stainless Steel	441-61-SS <sup>4</sup>	Stainless Steel	441-61-SS <sup>4</sup>
14	3	Filter Gasket	Viton A <sup>1</sup>	441-14-VA <sup>1,4</sup>	Viton A <sup>1</sup>	441-14-VA <sup>1,4</sup>
15	1	Nameplate	Stainless Steel	12-10-SS-BLANK	Stainless Steel	12-10-SS-BLANK
16	2	Drive Screw	Stainless Steel	763-11-SS <sup>4</sup>	Stainless Steel	763-11-SS <sup>4</sup>
17	2	Bolt with Hole	Stainless Steel	441-71-SS <sup>4</sup>	Stainless Steel	441-71-SS <sup>4</sup>
18	1	S-Hook	Stainless Steel	429-1001-SS <sup>4,5</sup>	Stainless Steel	429-1001-SS <sup>4,5</sup>
Notes						
1. Alternate materials available 2. Parts passivated per ASTM A967 & Tested per ASTM A380. (-PA) 3. Parts tested to ASTM A262 Practice B Acceptance with a rapid screening test per Practice A. (-PRA) 4. If converting from -GT to -CV, these parts are in kit K-441-CV. 5. S-Hook used with installing rebuild kit vent cover.						

## A-441-SS



Item	Qty	Part	A-441-SS	
			Material	Part No.
1	1	Top	Aluminum 443	441-1-AL
2	1	Base	316 Stainless Steel	441-2-MO
3	1	Filter	Ceramic	441-3-FL
4	1	Retainer	Stainless Steel	441-4-SS-PA <sup>2</sup>
5	1	Spacer	Stainless Steel	441-5-SS
6	1	Screen	Stainless Steel	441-6-SS
7	8	Bolt	Stainless Steel	441-7-SS
8	8	Lock Washer	Stainless Steel	15-17-SS
9	--			
10	1	Chain	Stainless Steel	441-101-SS
11	1	Top Gasket	Koro Seal <sup>1</sup>	441-11-KS
12	1	Flange Gasket	Koro Seal <sup>1</sup>	441-12-KS
13	--			
14	3	Filter Gasket	Viton A	441-14-VA
15	1	Nameplate	Stainless Steel	441-18-SS

## A-441 Maintenance Instructions

1. Disassembly
  - a. Cut wire seal wires.
  - b. Loosen the top cap.
  - c. Remove the 8 bolts on the cover.



d.

e. Remove the cap from the top.



f.

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- g. On models with check valves, remove the gasket from the cap.



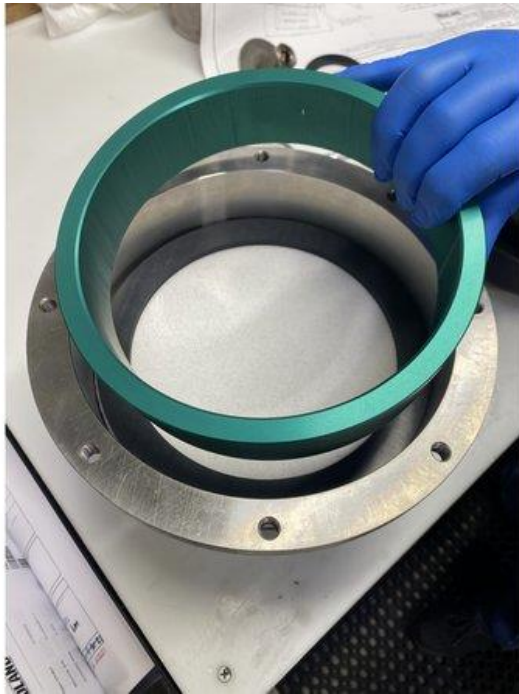
- h. Remove the gasket from the base.
- i. Remove the threaded check valve.



- j.



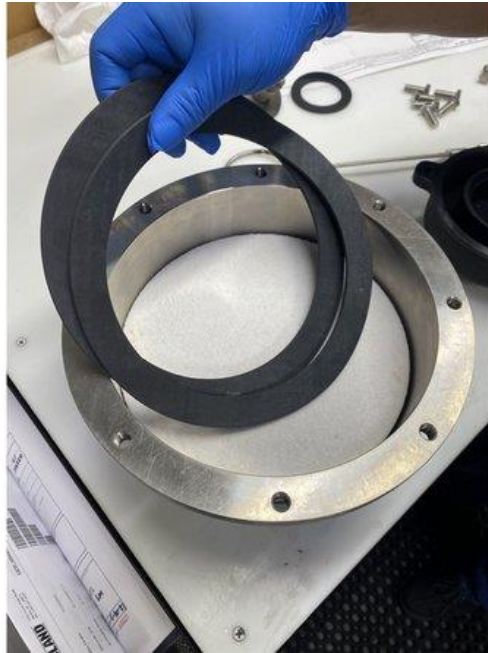
- k.
- l. Remove the spacer.



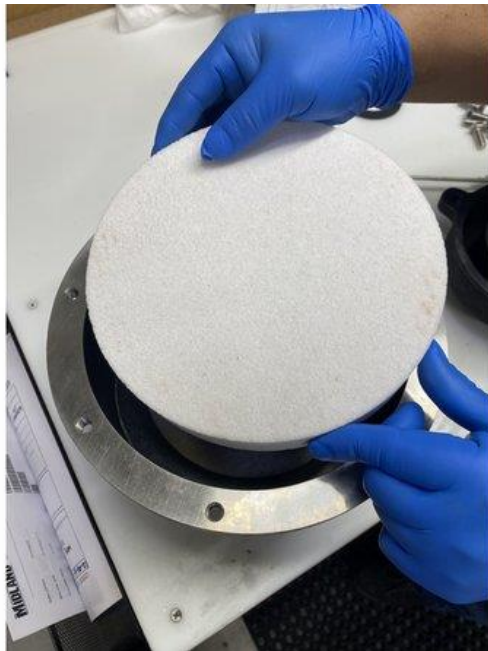
- m.

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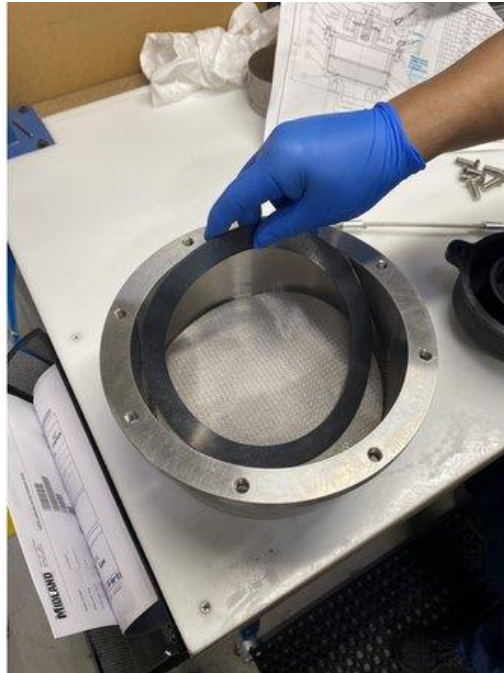
- n. Remove the two gaskets from above the filter stone.



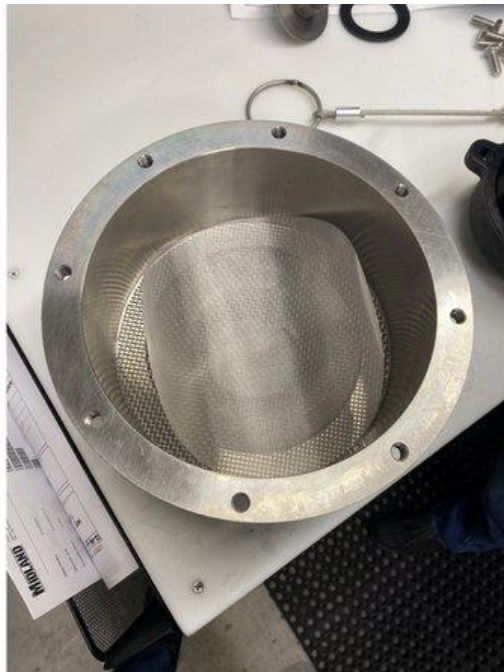
- o. Remove the filter stone.



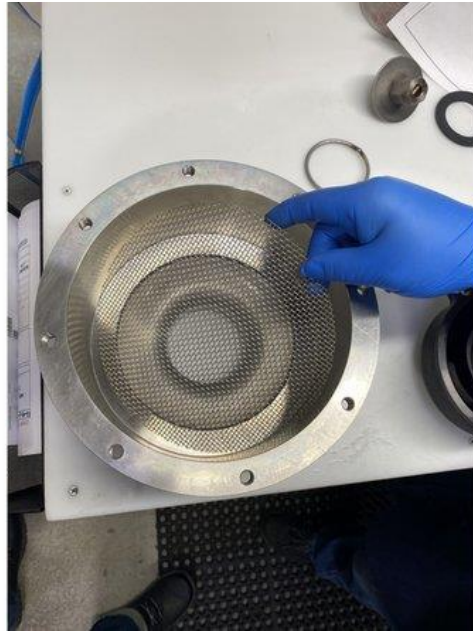
- p.
- q. Remove the gasket.



- r.
- s. Remove the mesh screen.



- t.
- u. Remove the support screen.



v.

2. Discard the gaskets.
3. Visually inspect the screen support and screen. If they are damaged, replace.
4. Visually inspect the spacer. If the spacer is pitted or corroded, replace.
5. If the breather event is equipped with a check valve. Shake the check valve and ensure the float is moving freely.
6. It is recommended the filters be replaced every 10 years or sooner based on the criteria below.

a. Visual Inspection:

Regularly inspect the filters for signs of dirt, dust, or other contaminants that may have accumulated over time. A general rule of thumb is that filters should be replaced if they are visibly dirty.

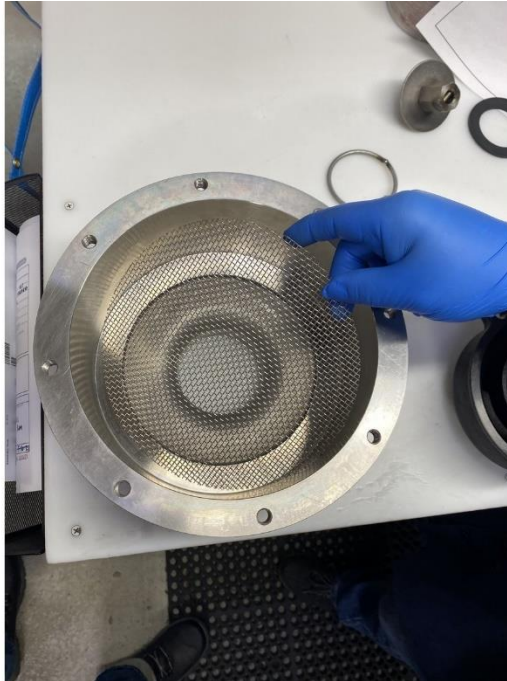
7. Visually inspect the base.
  - a. No cracks are acceptable.
  - b. Minor corrosion or pitting is acceptable.
8. Midland has two types of kits available:
  - a. For breather vents with check valves
    - i. K-441-CV-(Elastomer)
  - b. For breather vents without check valves
    - i. K-441-(Elastomer)

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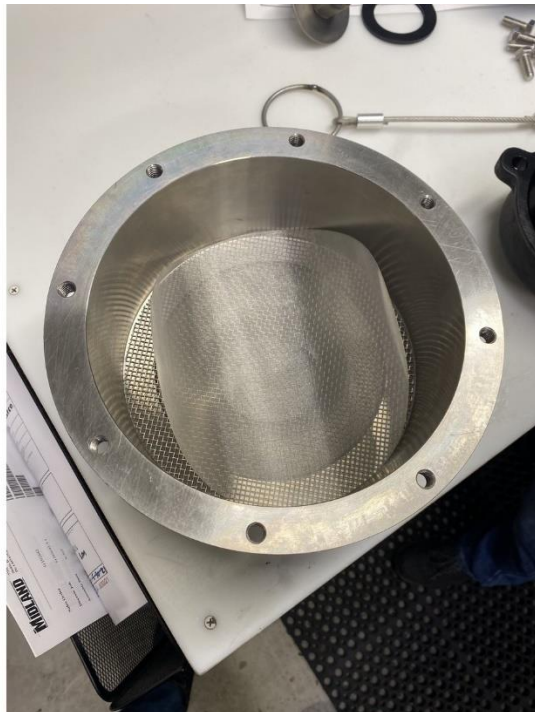
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9. Assembly

- a. Place the support screen on the bottom of the base

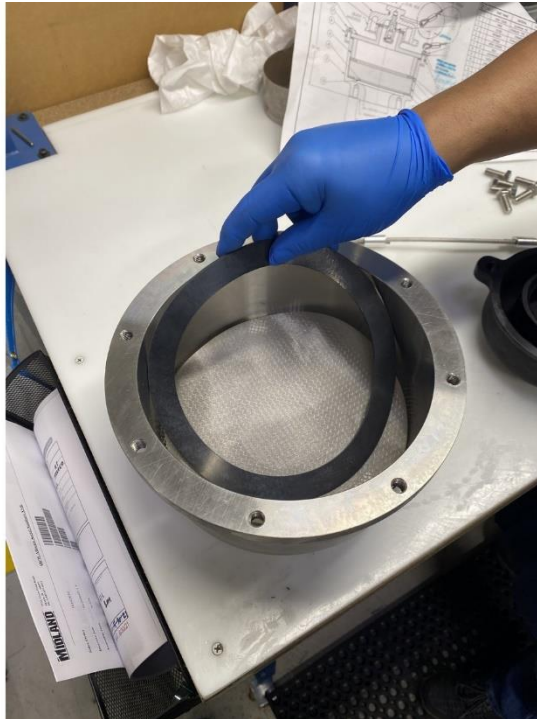


- b. Place the mesh screen on top of the support screen

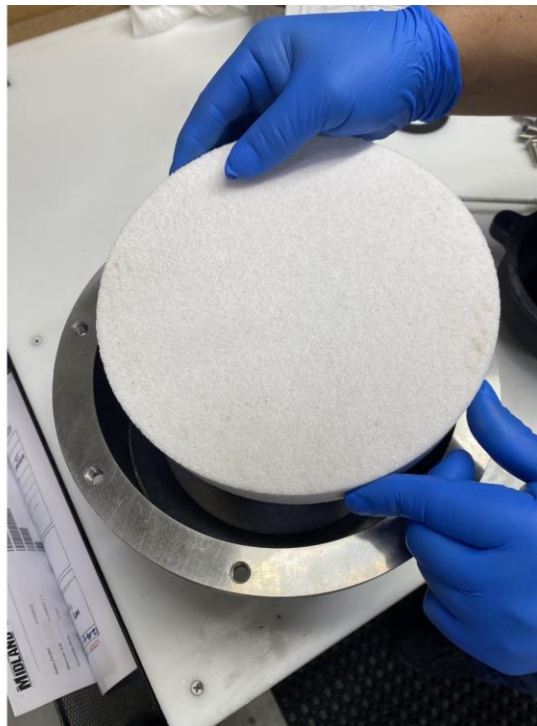


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- c. Place the filter gasket on top of the mesh screen



- d. Place the filter on top of the filter gasket

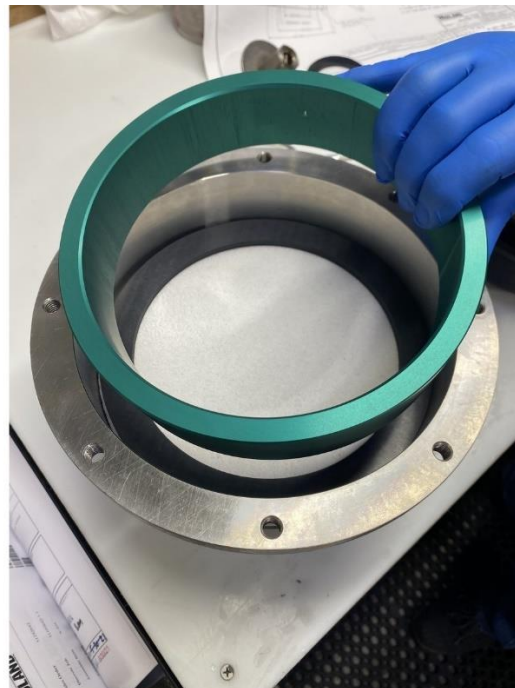


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- e. Place the two filter gaskets on top of the filter



- f. Place the spacer on top of the filter gaskets



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- g. Place the flange gasket on top of the base



- h. If the breather vent has a check valve. Place the top gasket (as shown below) on the check valve assembly, otherwise skip to step j.



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- i. Screw the cap onto the top. If the breather vent does not have a check valve, disregard the check valve in the picture.



- j.

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- k. Place the top assembly on the base. Align the base, gasket, and top holes.



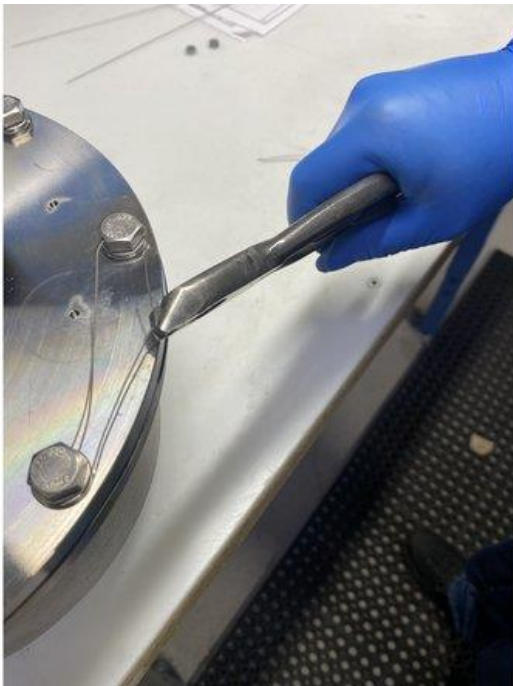
- l. Start placing the bolts at the location where the nameplate will go. Make sure to use the bolts with a hole in the head. Put these two bolts next to each other at the nameplate location.



j. Continue hand tightening the bolts in the other holes. These bolts will not have a hole in their head. Use the torque wrench to tighten the bolts to 180 **inch** lbs. (15 ft-lbs.) in a star pattern.



k. Place seal wire through the two bolts with holes and seal.



m. Assembly is complete.

## **NOTICES AND WARRANTY**

Midland Excess Flow Check Valves are used in a variety of products, many of which are hazardous materials. The acceptance and transportation of the products are regulated by the DOT and AAR in the U.S.A., and in Canada by the CTC and Transport Canada, as well as other governmental bodies, particularly when used in stationary applications. All personnel should be familiar with and follow these regulations. Nothing in this pamphlet is intended to conflict with or supersede these regulations.

### **Obtaining Product Drawings**

Assembly drawings of Midland Excess Flow Check Valves are available at no charge and will be mailed upon request. Address any questions concerning valve maintenance or usage to the Engineering Dept., Midland Manufacturing Corp. The information contained herein is thought to be reliable. It was gathered from knowledgeable sources, but Midland Manufacturing Corp. makes no representations or guarantees about its accuracy or completeness and assumes no liability for this information.

### **Warranty**

Midland warrants the products of its own manufacture to be free of defects in material and workmanship, for a period of 1 year from the date of the invoice. Furnished materials and accessories purchased from other manufacturers are warranted only by and to the extent of those manufacturers' warranties, if any.

MIDLAND MAKES NO WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, OTHER THAN AS SPECIFICALLY STATED HERE. MIDLAND MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR USE. Midland's obligation under this warranty is strictly limited, at its option, to 1) repair or replacement at its factory of a like quantity of product: 2) refunding to purchaser money paid to Midland for its product: or 3) issuance of written authorization for the Purchaser to repair or replace, at costs comparable to Midland's normal manufacturing costs those parts proven defective, provided that Purchaser has given to Midland immediate notice upon discovery of such defect. Merchandise claimed to be defective shall not be returned without first obtaining Midland's written consent. The undertaking of repair or replacement by the Purchaser, or its agents, without Midland's written consent, shall void Midland's warranty and relieve Midland of all responsibility. Under no circumstances shall Midland be liable for any direct, incidental, consequential or other damage of any kind in connection with the installation, operation, maintenance, repair, inspection or other use of any product purchased from it.

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