

Stationary Filters
Bag Filter Dust Collector
SHAKER CLEANER



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Original Installation and Service Manual



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Preface:

- 1) Review the entire manual before installation, operation and service of this product
- 2) A hardcopy version of the IOM should always be present with the unit
- 3) Nederman reserves the right, without previous notice, to modify and improve our products
- 4) All installation, maintenance and repair should be done by qualified personnel using original spare parts
- 5) Contact an authorized distributor or Nederman for technical service and obtaining spare parts
- 6) If any parts are damaged or missing upon delivery, notify carrier and local Nederman representative immediately

**WARNING**

Prior to any installation or maintenance work on this equipment, follow safety procedures listed within and/or requirements by federal and local authorities.

**WARNING**

Disconnect and lock out all power supplies - electrical or pneumatic. Power may come from more than one source.

**WARNING**

The equipment may be top heavy or unstable during assembly and proper precautions must be taken to avoid collapse and bodily injuries.

**WARNING**

Dust release may happen and personnel must wear proper personnel protective equipment (PPE).

**WARNING**

The equipment must be anchored to the floor using proper anchor bolts and the equipment must be properly grounded.

**WARNING**

After the equipment has been assembled or serviced, all guards, doors and covers must be re-installed and secured before starting the equipment.

**WARNING**

Equipment should be installed in accordance with NFPA 654 or NFPA 664 and other applicable local, state, territory, and federal requirements if applicable.

**WARNING**

DO NOT OPERATE SHAKER WHILE FAN IS IN MOTION.


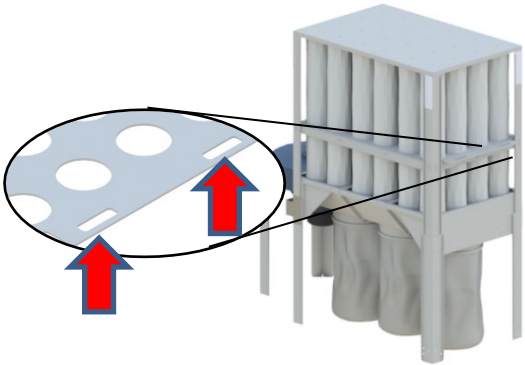

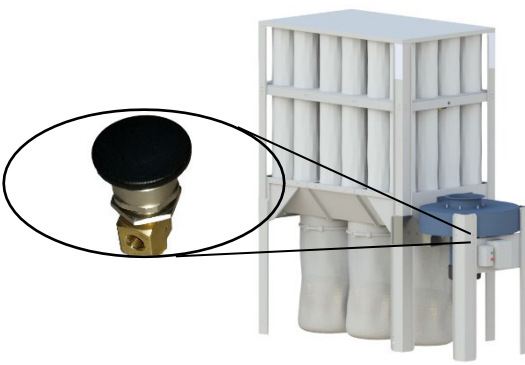

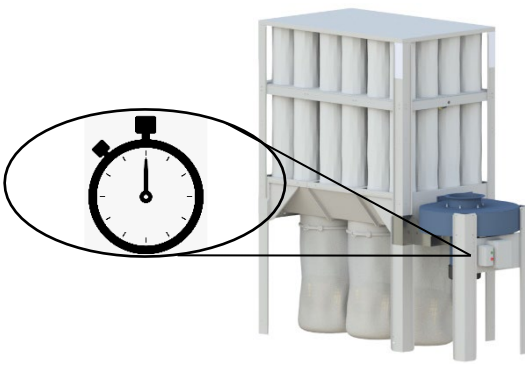
Please contact customer service with any questions or for any topic not covered in this manual.

“WHEN IN DOUBT, PLEASE ASK”

Description:

There are three shaker cleaning kit options for the S-Series enclosureless dust collector: manual, mechanical, and automatic. Installation & proper operation of the shaker kits will improve the cleaning process of the filter bags and increase (also stabilize) the vacuum pressure and flow to extract dust and chips from the process machinery.

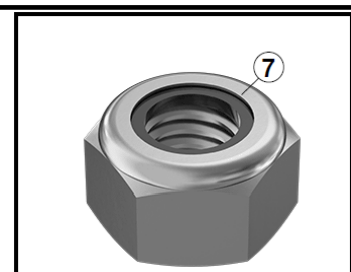
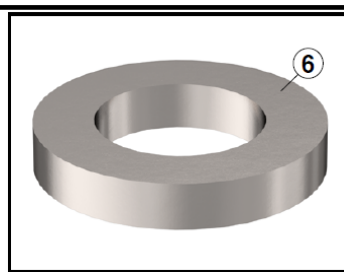
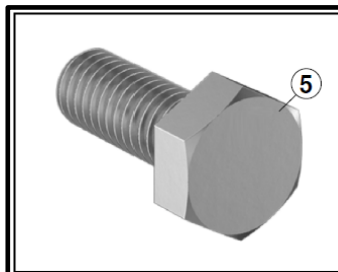
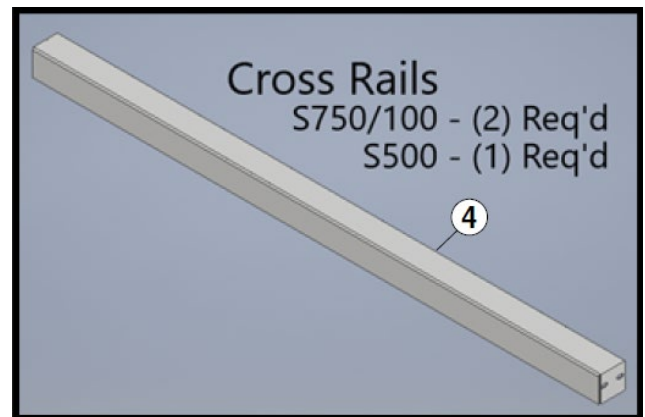
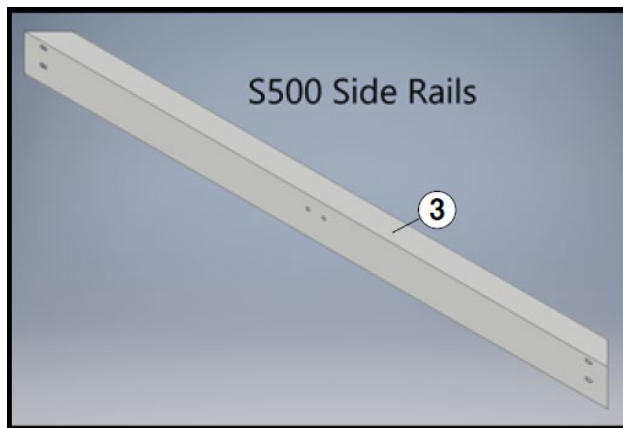
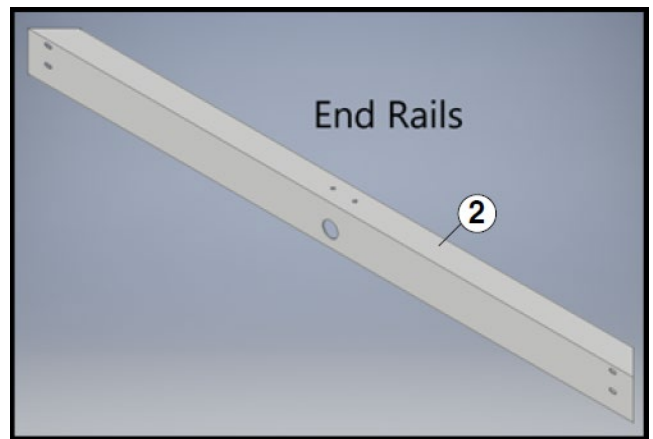
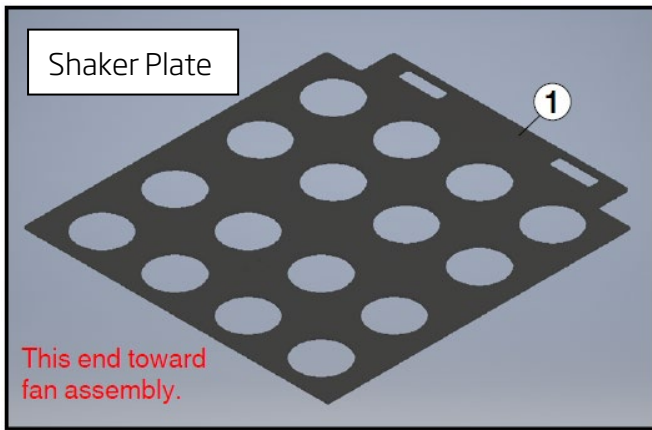
In compliance with fire safety codes for enclosureless dust collectors, when handling combustible dust, the shaker cleaning system should not be activated while the main fan is in operation. Additionally, the shaker cleaning system is designed to operate when the extraction air is not flowing through the filter bags.

Model:	Features:	Description:
<p>Manual Kit:</p>  <p><i>Available on: S-500, S-750, S-1000</i></p>	<ul style="list-style-type: none"> • (2) Slotted cut-outs provide handles in the shaker plate for manually striking the filter bags. 	
<p>Mechanical Kit:</p>  <p><i>Available on: S-500, S-750, S-1000</i></p>	<ul style="list-style-type: none"> • Mechanized activation of the shaker plate to strike the filter bags. • Push button activation of the pneumatic reciprocating cylinder to start and stop the shaking/cleaning process. 	
<p>Automatic Kit:</p>  <p><i>Available on: S-500, S-750, S-1000</i></p>	<ul style="list-style-type: none"> • Mechanized activation of the shaker plate to strike the filter bags. • Control panel automatically starts (~30 seconds after the main fan is shut down) and stops the pneumatic reciprocating cylinder. 	

The design allows for easy upgrades from the manual version to either the mechanical or automatic versions.

Contact customer service with questions on installation, operation or maintenance of the equipment.

S-500 Manual Shaker Kit (89101071) Contents:



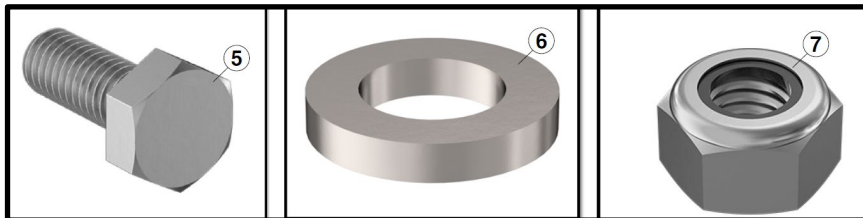
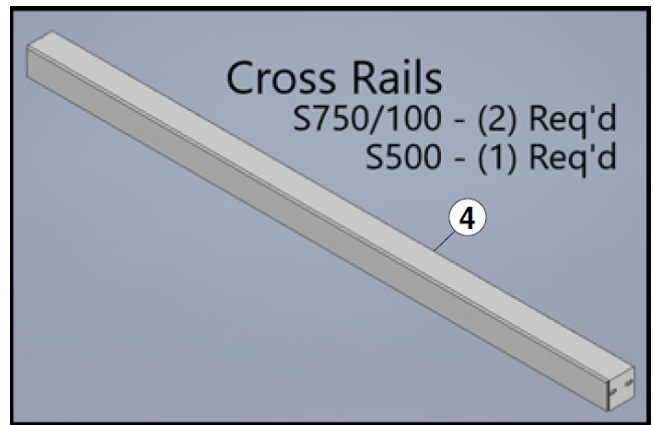
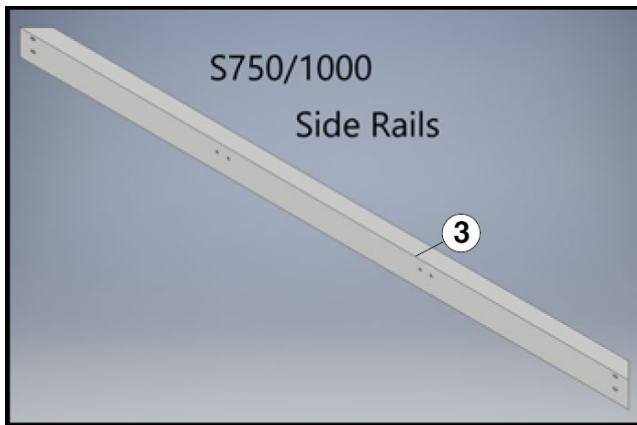
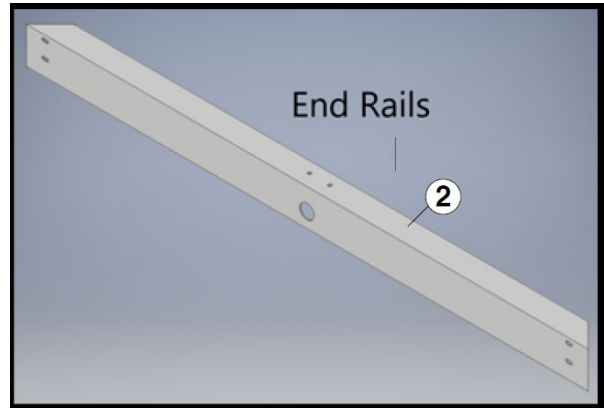
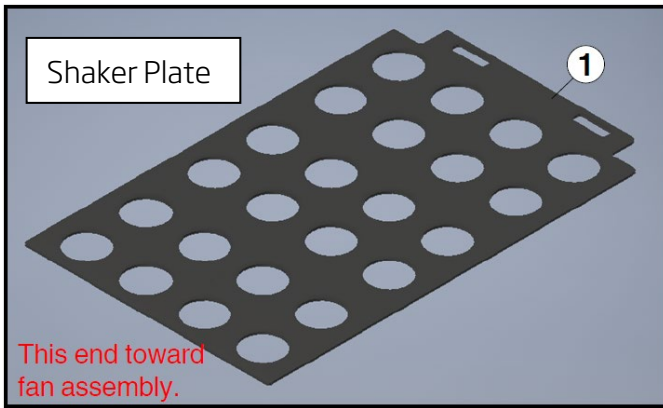
Cap Screw

Washer

Lock Nut

S-500 Manual Shaker Kit			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD - 3/8" x 44-3/8" x 48-7/8" (9,5 mm x 1127 mm x 1242 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 45-7/8" (51 mm x 76 mm x 1165 mm)
4	Cross Rail	1	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	20	M6 x 1mm x 16 mm
6	Washer Zp M6	20	M6
7	Lock Nut Zp M6	20	M6

S-750/1000 Manual Shaker Kit (89101075) Contents:



Cap Screw

Washer

Lock Nut

S-750 & 1000 Manual Shaker Kit			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD -3/8" x 44-3/8" x 71-7/8" (9.5 mm x 1127 mm x 1826 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 68-7/8" (51 mm x 76 mm x 1749 mm)
4	Cross Rail	2	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	24	M6 x 1mm x 16 mm
6	Washer Zp M6	24	M6
7	Lock Nut Zp M6	24	M6

Installation Figures 1-4

1



Disconnect the bottom (snap band end) of all the filter bags from the hopper by squeezing in on the snap band.

2



Place the shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes.

3



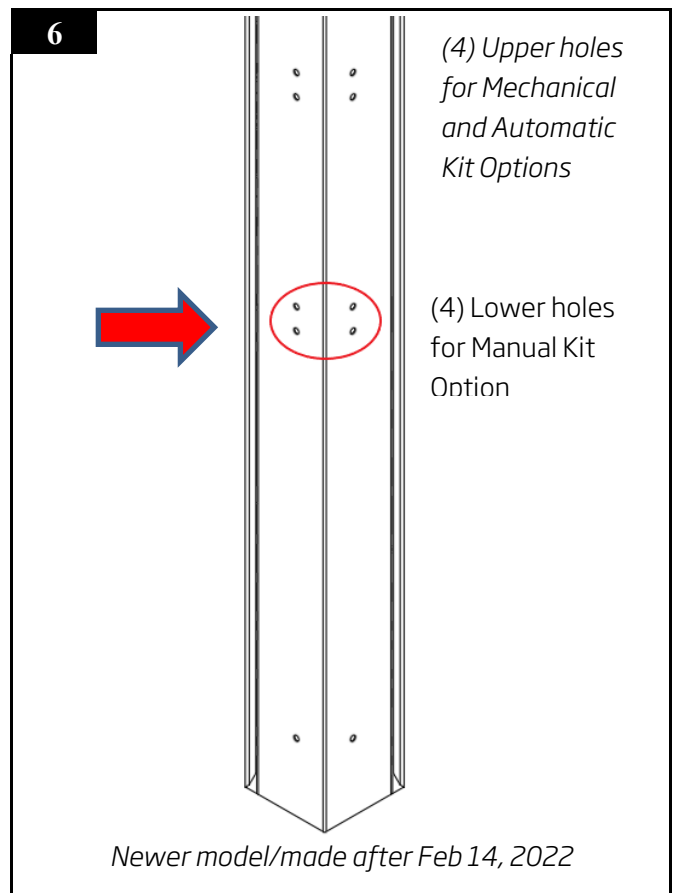
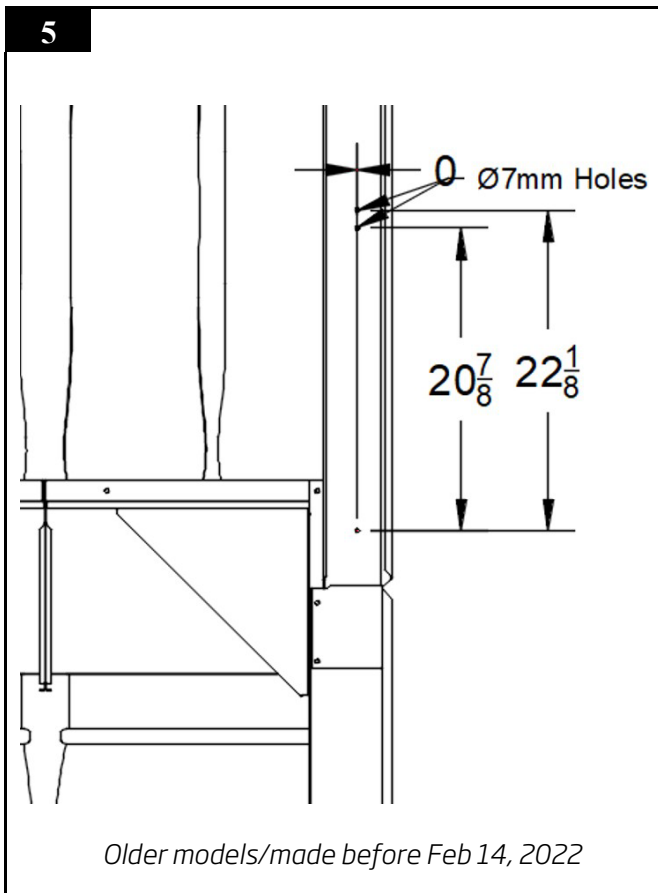
Raise the shaker plate to top of unit (bag house roof) and suspend in place (ex: using *ratchet straps*).

4



Reattach all the filter bags at the bottom (snap band end) making sure the snap band "snaps" into place and bag is securely fastened.

Installation Figures 5 & 6 - Bag House Corners



Models manufactured after Feb. 14, 2022, will have (2) sets of holes drilled in each side of the baghouse corners for shaker rails. (**Figure 6**)
 The lower holes are to be used for the Manual S-Shaker Kit. (Note: Upper holes are used for the Mechanical and Automatic shaker options)



Older models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and requires (4) Ø7mm [9/32"] holes drilled into each baghouse corner. (**Figure 5**)
 Note: Total of (16) holes are required to be drilled



Figure 7 - Installation of End Rails

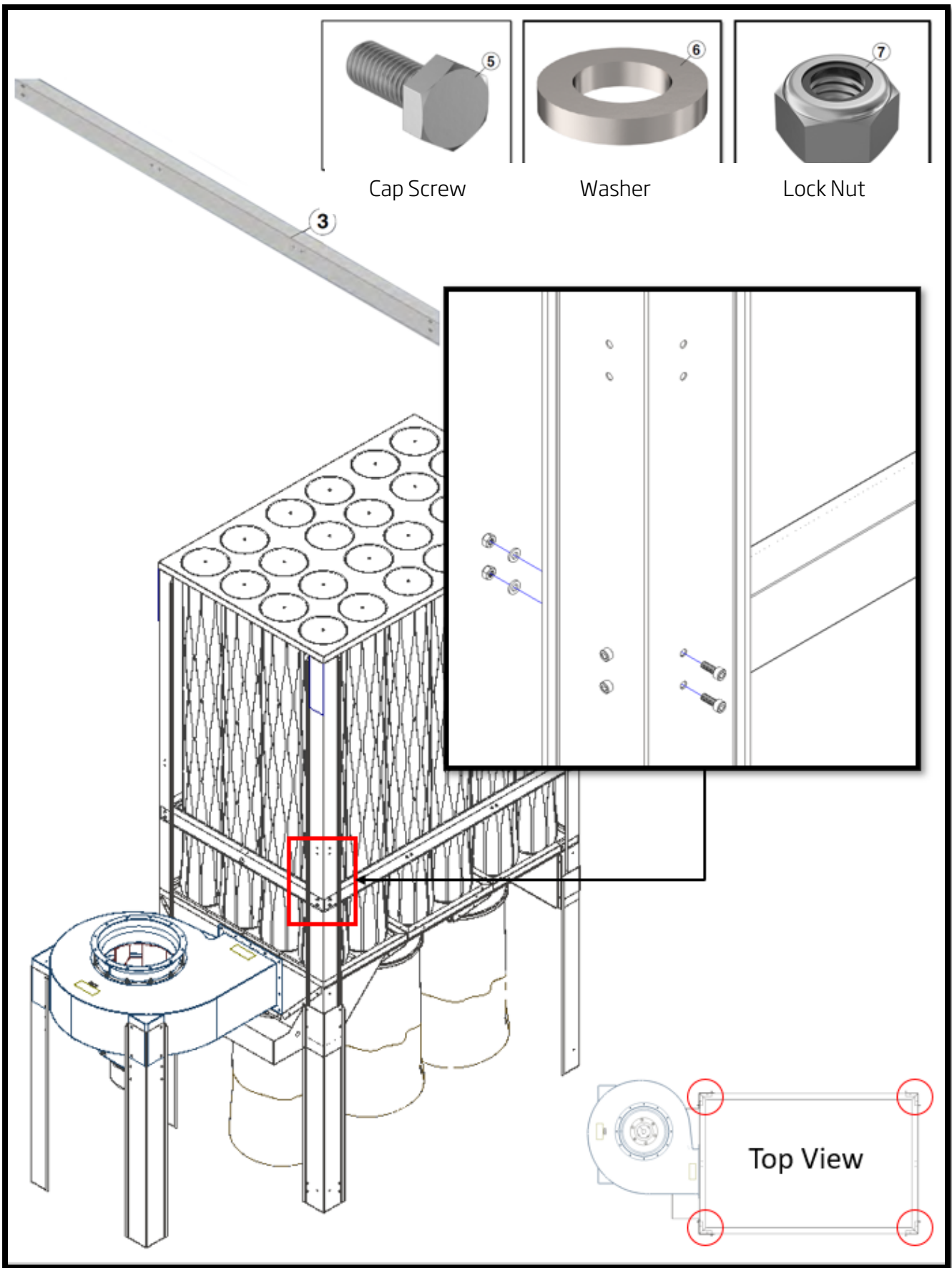
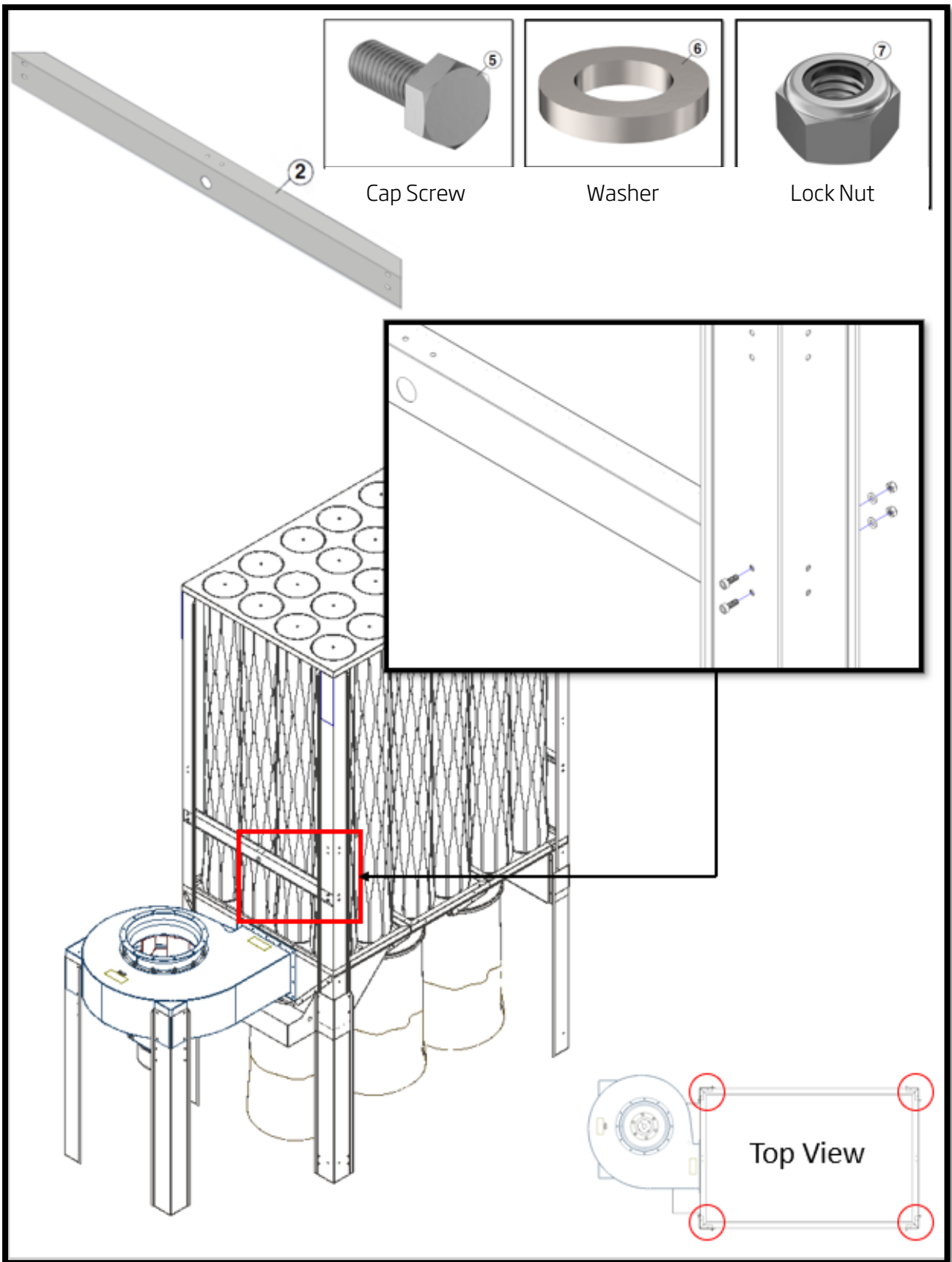
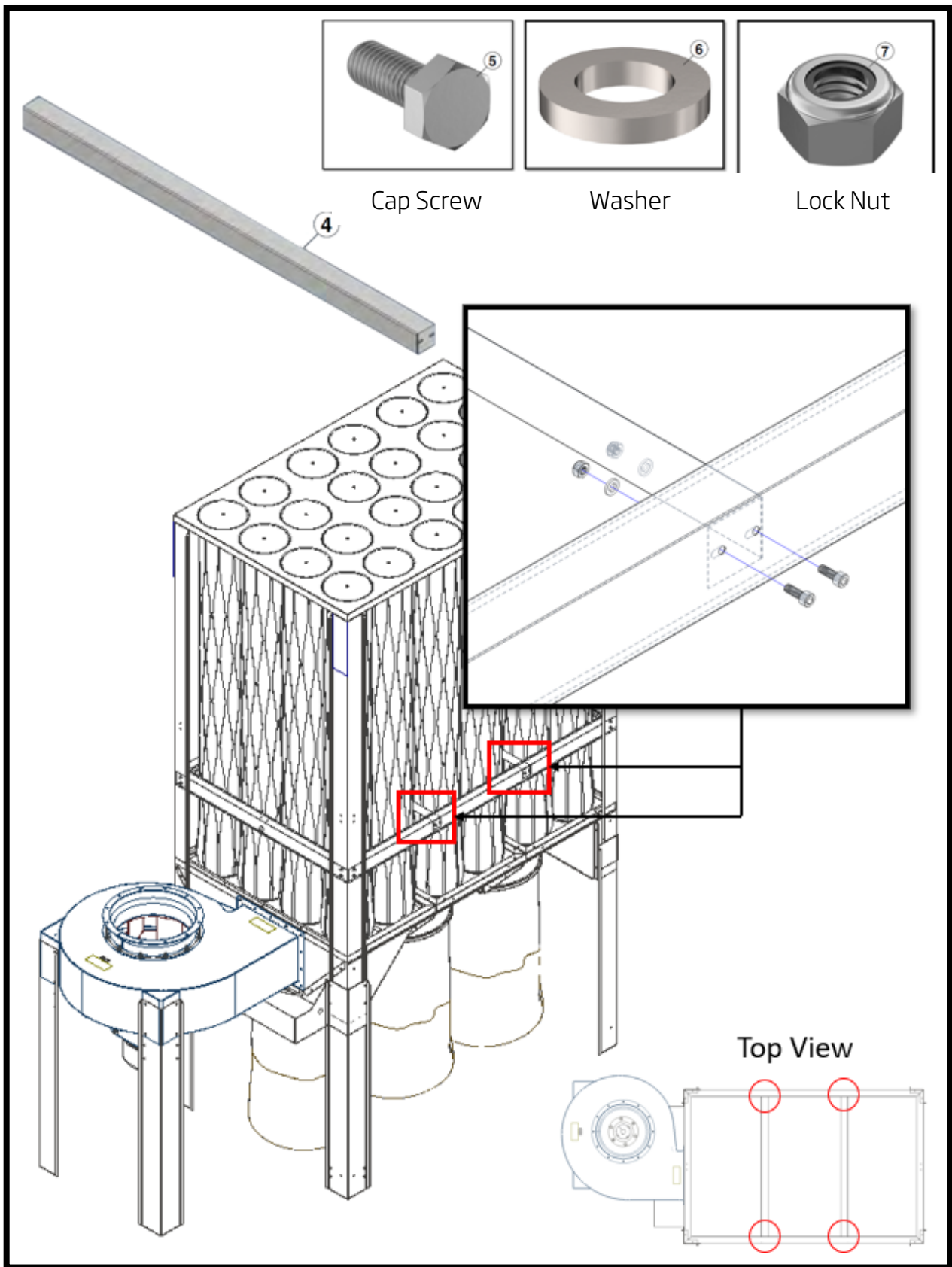


Figure 8 - Installation of Side Rails



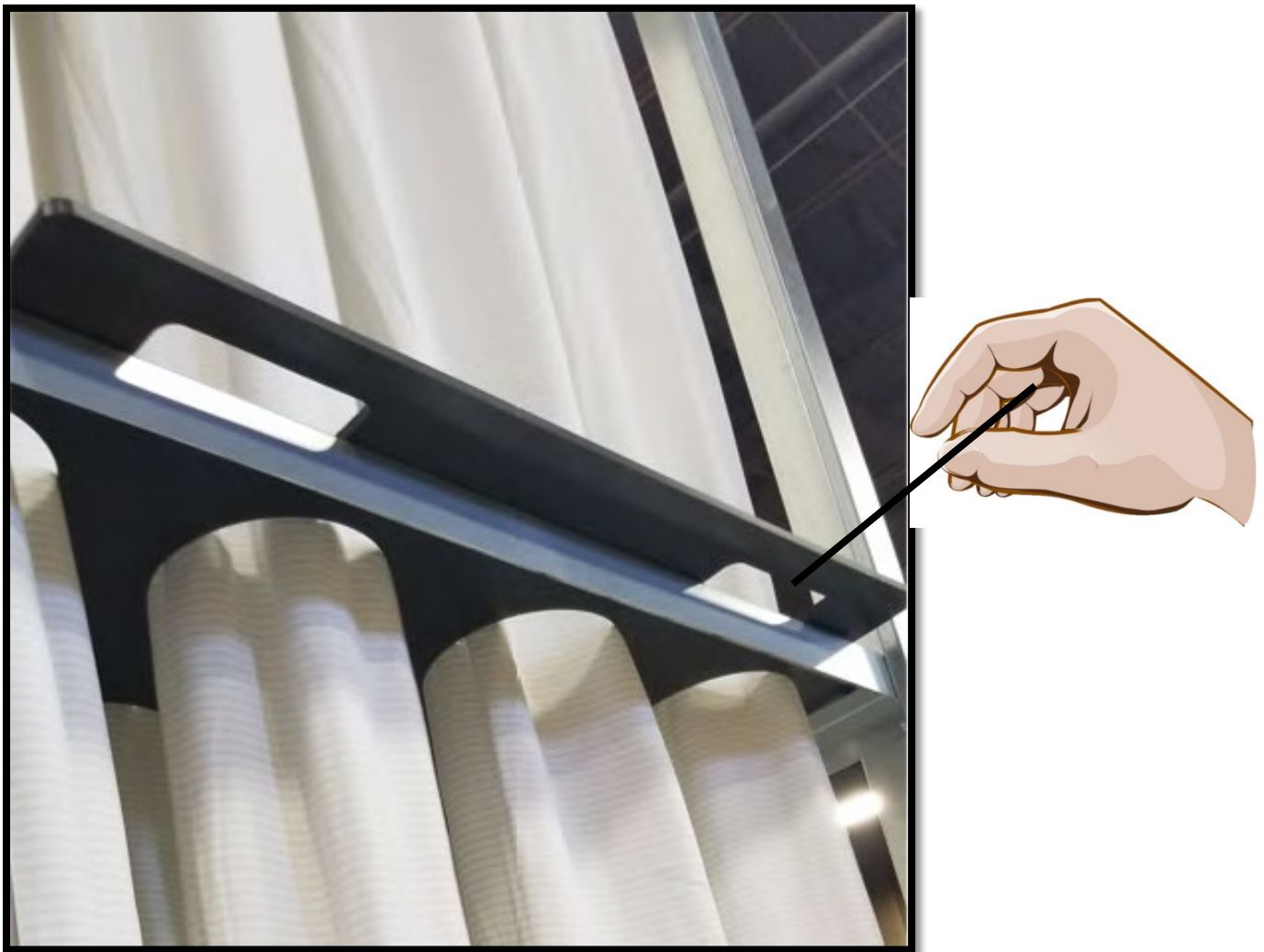
Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails

Figure 9 - Installation of Cross Rails



Note: S-500 kit utilizes a single cross rail while S-750 & S-1000 kits utilize (2) cross rails

Figure 10 - Shaker Plate Handle Cut-Outs



Manual Shaker Operation Instruction:

1. *Press the stop button turning off the fan and wait 30 seconds for the fan to completely stop.*
2. Grasp the UHMW shaker plate handles with 2 hands and vigorously slide the shaker plate forward and backward, along the rail assembly, 15-20 times or until bags are adequately cleaned.

Manual Shaker Kit Installation Instructions:

>> Filter bag section must be raised and secured/bolted prior to installation of shaker kit <<

1. Disconnect the bottom of all the filter bags from the hopper (snap band end) (*Figure 1*).
2. Place the UHMW shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes (*Figure 2*).
3. Raise the shaker plate to top of unit and suspend in place (*Figure 3*). (*ratchet straps are an option*)
4. Reattach all the filter bags at the bottom (snap band end) (*Figure 4*).
5. Older S-Series Models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and require (4) Ø7mm [9/32"] holes drilled into each baghouse corner (*Figure 5*).
Note: A total of (16) holes are required to be drilled
6. S-Series Models manufactured after Feb. 14, 2022, will have (2) sets of holes drilled in each side of the baghouse corners. The lower set of holes should be used for the Manual S-Shaker Kit (*Figure 6*).
7. Install the (2) end rails (end rails are identical for the S-500, S-750 & S-1000) (*Figure 7*).
Note: All fasteners should be left loose until final assembly.
8. Install the (2) side rails. Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails. Regardless of model, side rails attach to the baghouse corners as per *Figure 8*.
Note: All fasteners should be left loose until final assembly.
9. Install the cross rail(s) (*Figure 9*)
 - S-500 kit utilizes a single cross rail
 - S-750 & S-1000 kits utilize (2) cross rails
 Note: All fasteners should be left loose until final assembly
10. Once all the rails are in place, tighten all nuts (*making sure the tops of the angles are flush*)
11. Lower the UHMW shaker plate onto the rails (*Figure 10*).
Note: This completes the installation of the manual shaker kit

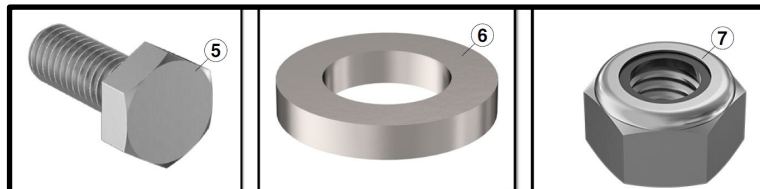
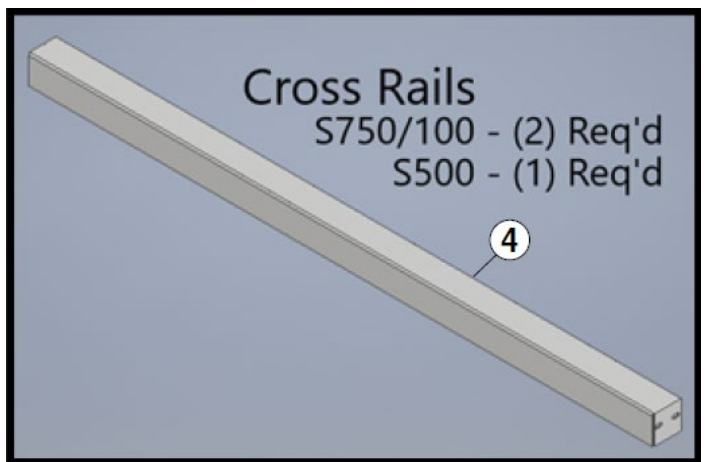
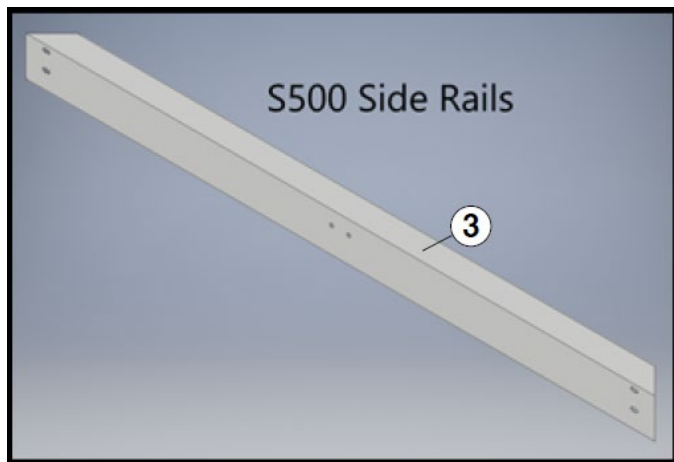
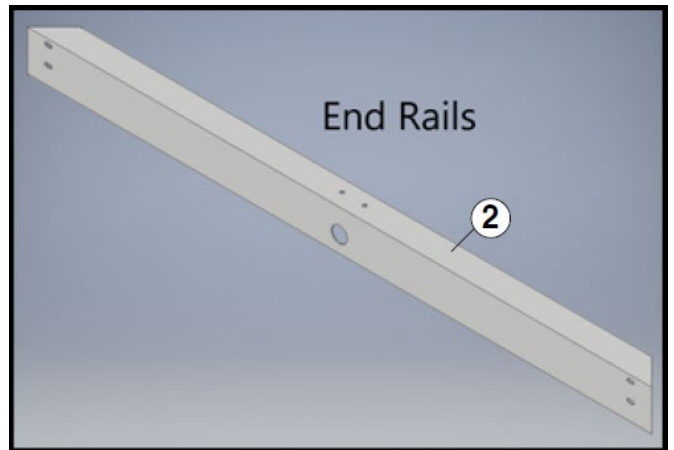
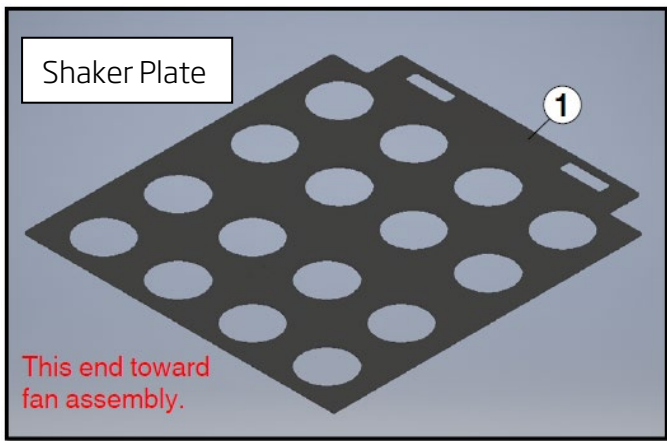


Manual Shaker Operation Instruction:

1. **Press the stop button turning off the fan and wait 30 seconds for fan to come to complete stop.**
2. Grasp the UHMW shaker plate handles (Figure 10) with 2 hands and vigorously slide shaker plate forward and backward, along the rail assembly, 15-20 times or until bags are adequately cleaned.

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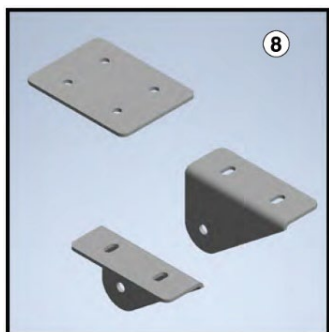
S-500 Mechanical Shaker Kit (89101072) Contents:



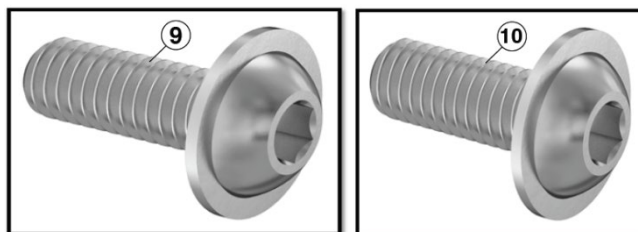
Cap Screw

Washer

Lock Nut



Shaker Plate Air
Cylinder Brackets



Button Head Screws

S-500 Mechanical Shaker Kit (89101072) Contents Cont:



Air Cylinder Kit

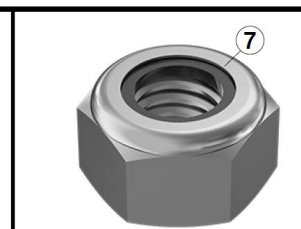
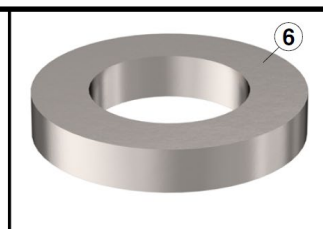
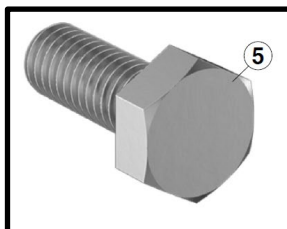
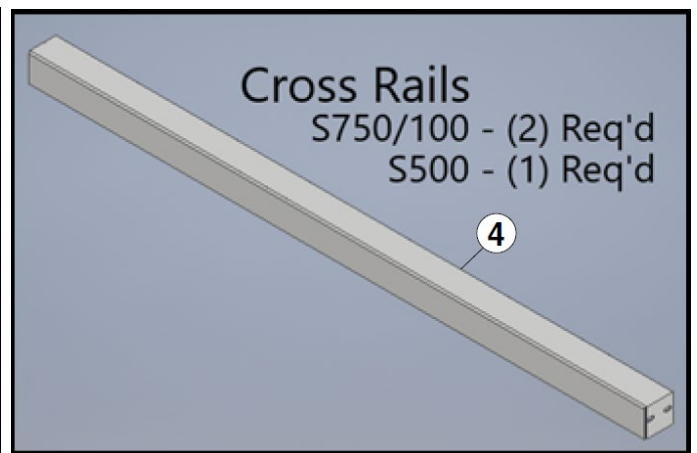
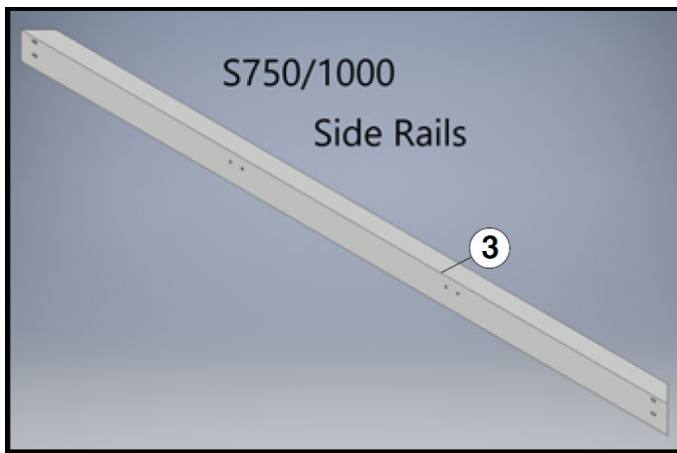
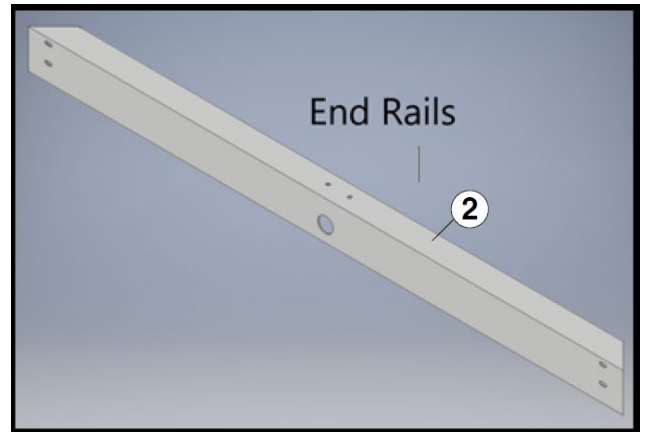
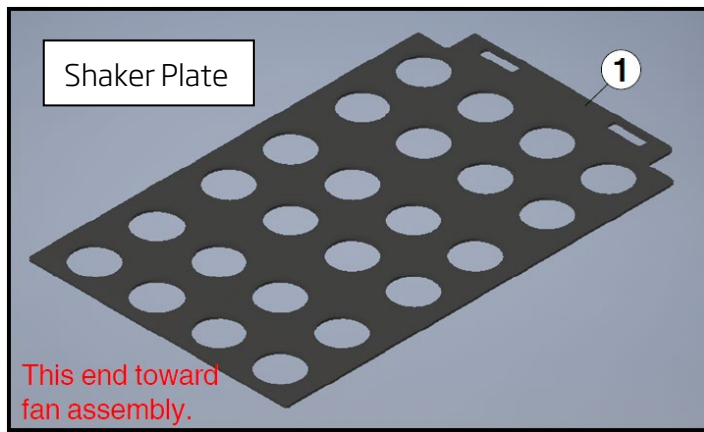


Actuator



S-500 Mechanical Shaker Kit			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD - 3/8" x 44-3/8" x 48-7/8" (9.5 mm x 1127 mm x 1242 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 45-7/8" (51 mm x 76 mm x 1165 mm)
4	Cross Rail	1	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	20	M6 x 1mm x 16 mm
6	Washer Zp M6	26	M6
7	Lock Nut Zp M6	26	M6
8	S-Shaker Grid Bracket Set (All)	1	10 ga galv. 4" x 3" x 2-9/16" (102 mm x 76 mm x 65 mm)
9	Button Head Screws	4	M6 x 1mm x 25 mm
10	Button Head Screws	2	M6 x 1mm x 20 mm
11	Air Cylinder Kit (All)	1	
12	Mechanical Actuator	1	

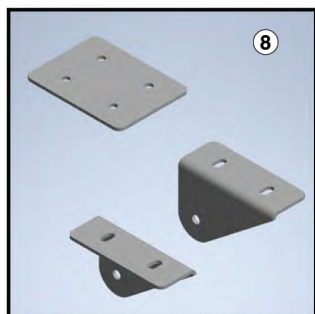
S-750/1000 Mechanical Shaker Kit (89101076) Contents:



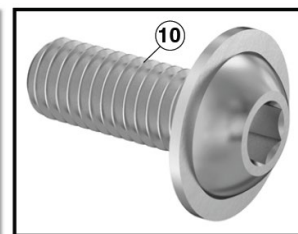
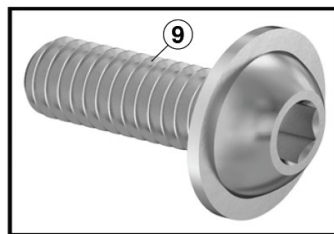
Cap Screw

Washer

Lock Nut



Shaker Plate Air
Cylinder Brackets



Button Head Screws

S-750/1000 Mechanical Shaker Kit (89101076) Contents Cont:



Air Cylinder Kit



Actuator



S-750 & 1000 Mechanical Shaker Kit			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD - 3/8" x 44-3/8" x 71-7/8" (9.5 mm x 1127 mm x 1826 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 68-7/8" (51 mm x 76 mm x 1749 mm)
4	Cross Rail	2	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	24	M6 x 1mm x 16 mm
6	Washer Zp M6	30	M6
7	Lock Nut Zp M6	30	M6
8	S-Shaker Grid Bracket Set (All)	1	10 ga galv. 4" x 3" x 2-9/16" (102 mm x 76 mm x 65 mm)
9	Button Head Screws	4	M6 x 1mm x 25 mm
10	Button Head Screws	2	M6 x 1mm x 20 mm
11	Air Cylinder Kit (All)	1	
12	Mechanical Actuator	1	

Installation Figures

1



Disconnect the bottom (snap band end) of all the filter bags from the hopper by squeezing in on the snap band.

2



Place the shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes

3



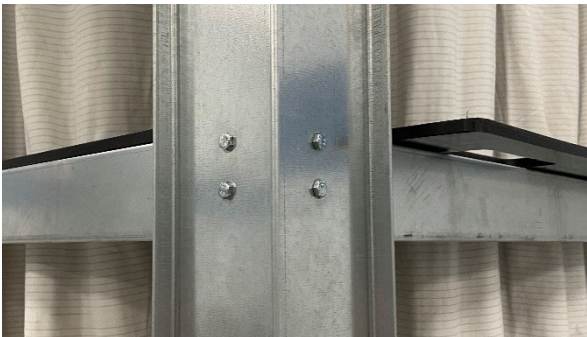
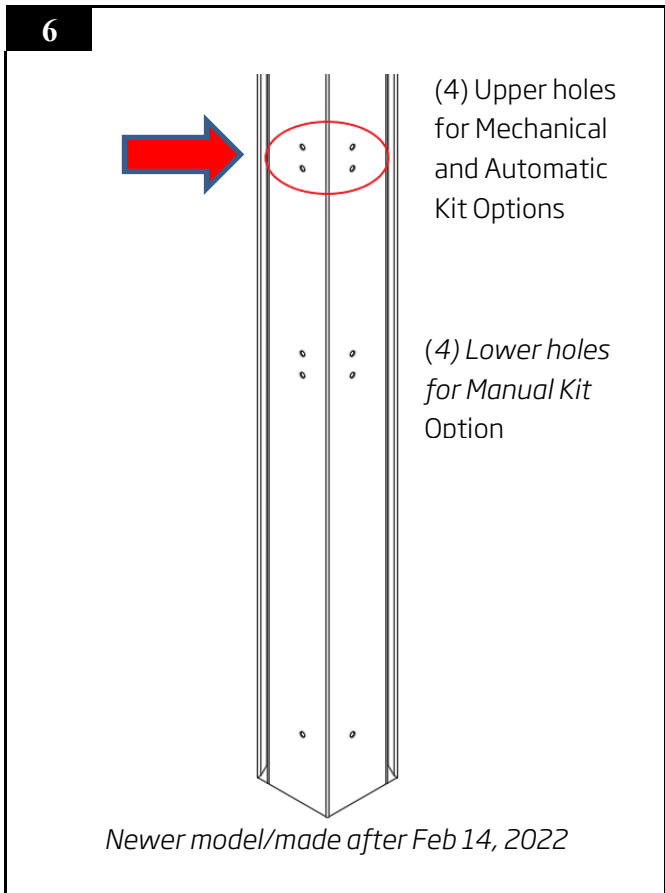
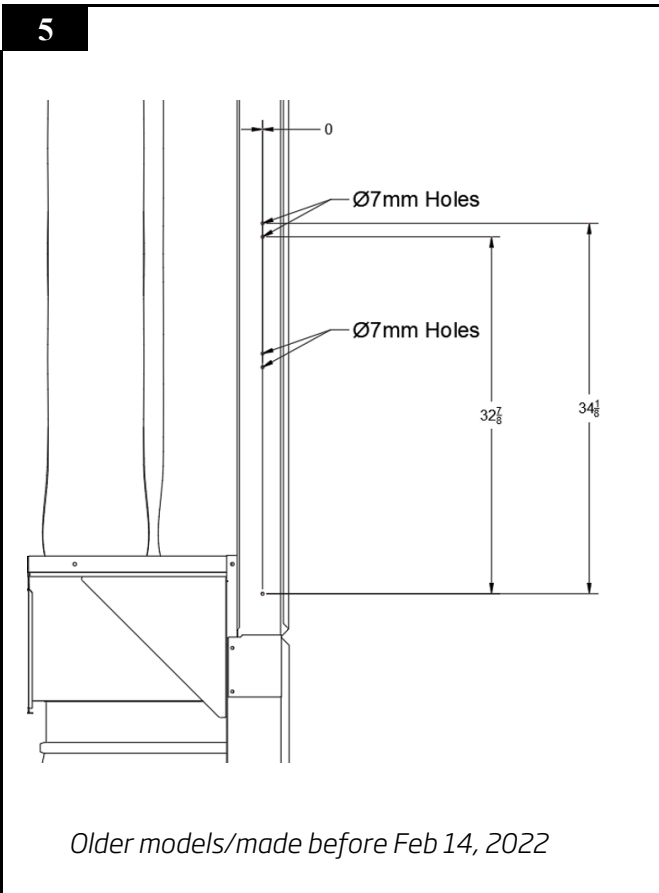
Raise the shaker plate to top of unit (bag house roof) and suspend in place (ex. using *ratchet straps*).

4



Reattach all the filter bags at the bottom (snap band end) making sure the snap band snaps into place and bag is securely fastened

Installation Figures Continued – Bag House Corners



Models manufactured after Feb. 14, 2022, have (2) sets of holes drilled in each side of the baghouse corners for shaker rails. (**Figure 6**)
The lower holes are to be used for the Manual S-Shaker Kit. (Note: Upper holes are used for the Mechanical and Automatic shaker options)

Older models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and require (4) Ø7mm [9/32"] holes drilled into each baghouse corner. (**Figure 5**)
Note: Total of (16) holes are required to be drilled

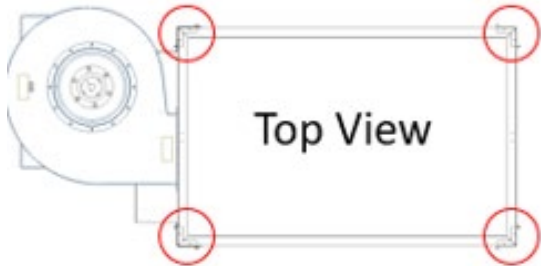


Figure 7 - Installation of End rails

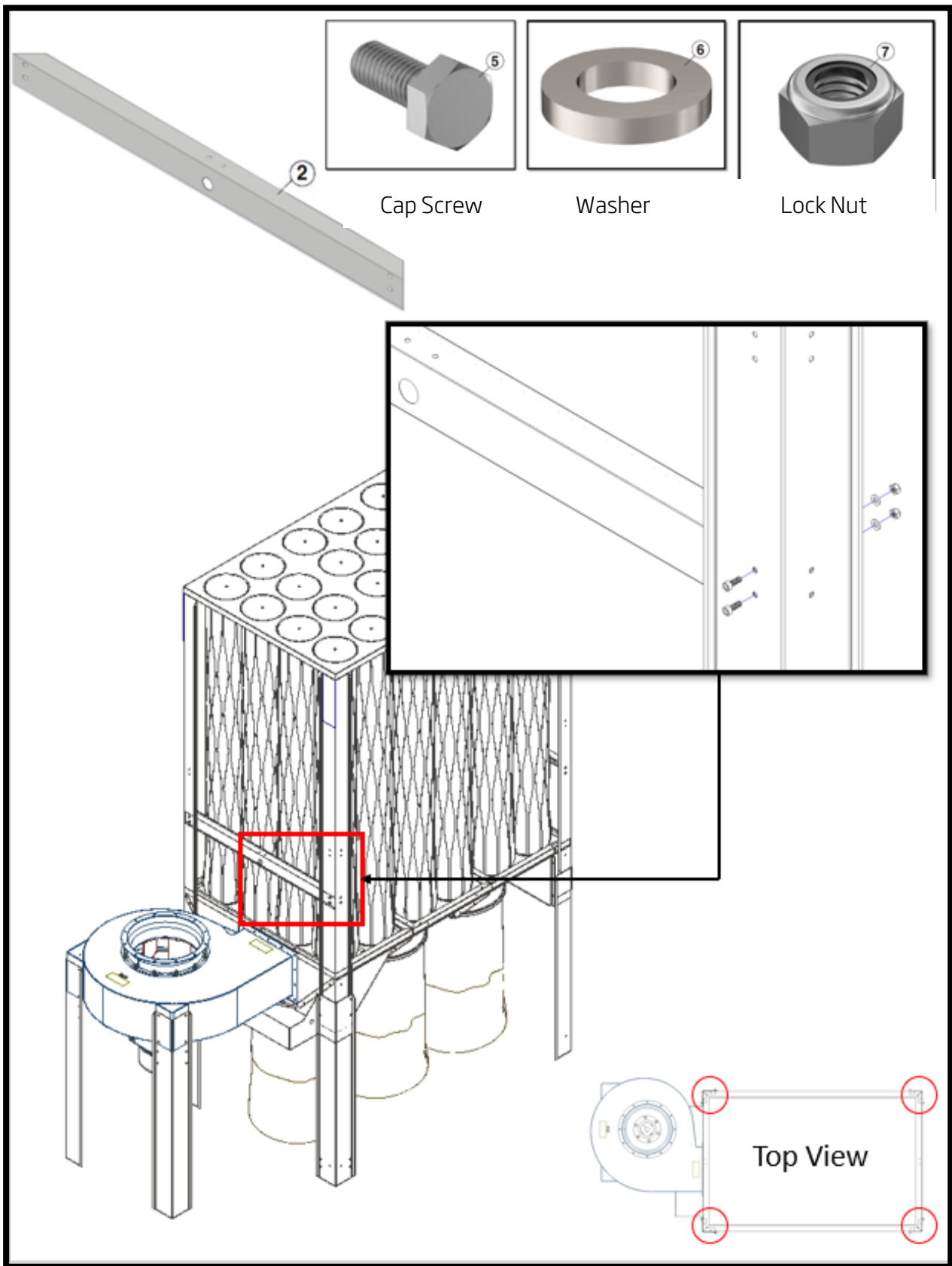
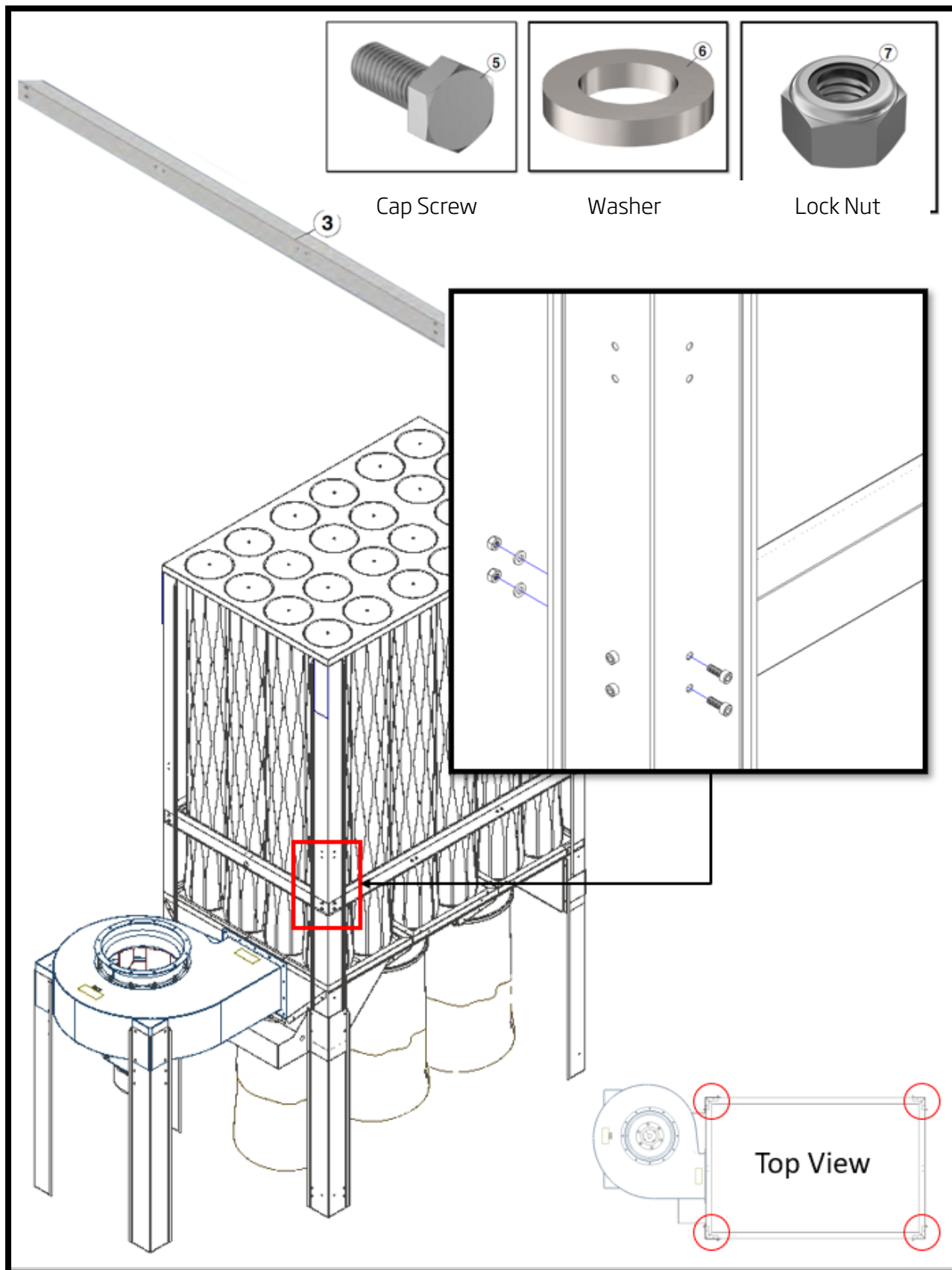
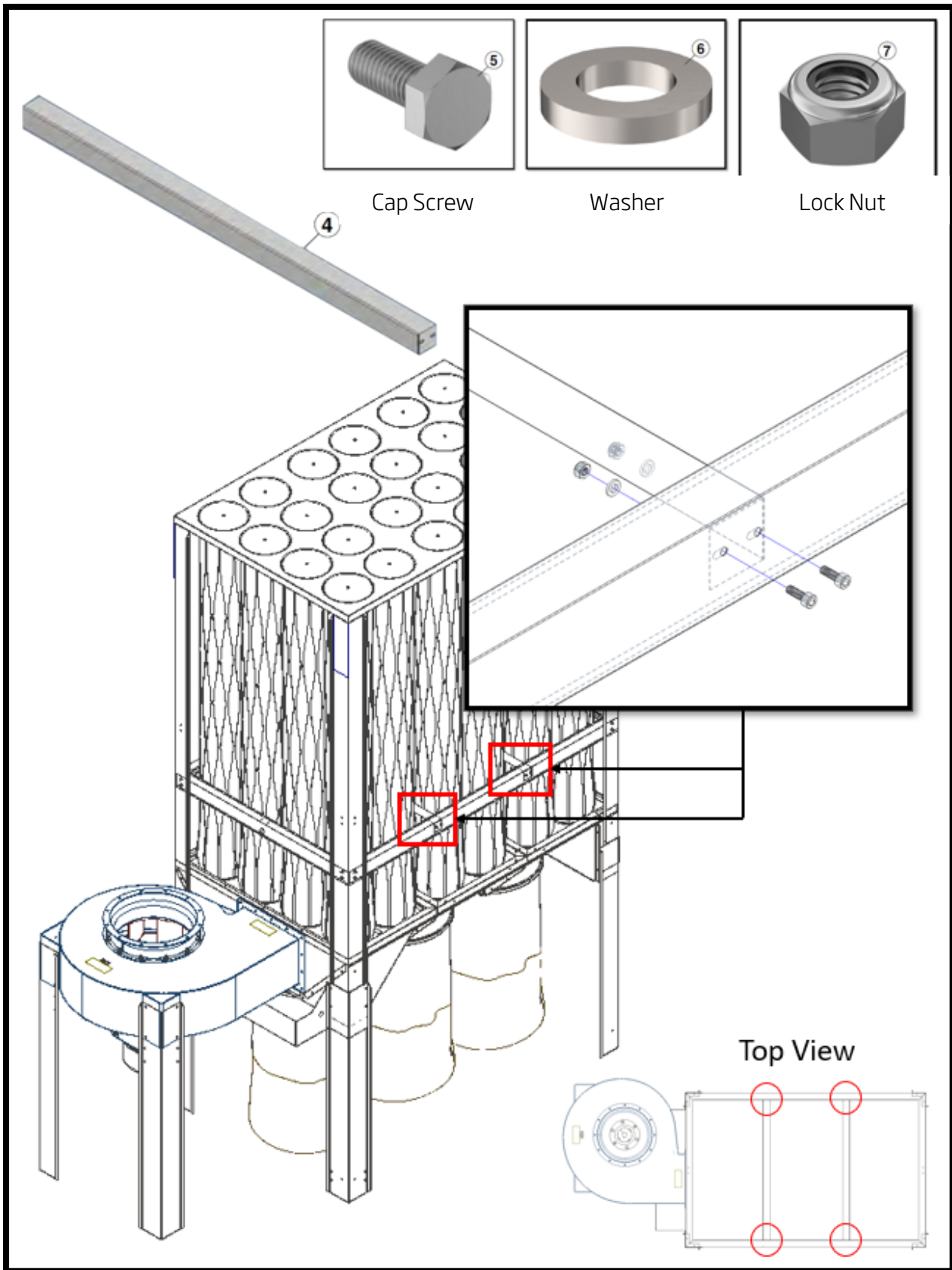


Figure 8 - Installation of Side Rails



Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails

Figure 9 - Installation of Cross Rails



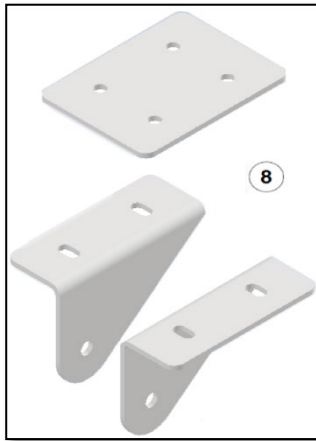
Note: S-500 kit utilizes a single cross rail while S-750 & S-1000 kits utilize (2) cross rails

Figure 10 - Shaker Plate

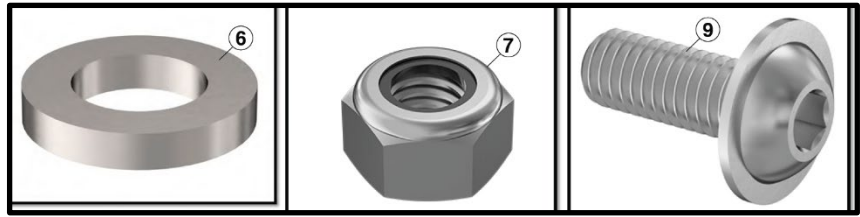


Lower the UHMW shaker plate onto the rails

Figure 11 - Installation of Air Cylinder Mounting Brackets



Shaker Plate Air
Cylinder Brackets



Washer

Lock Nut

Button Head Screw

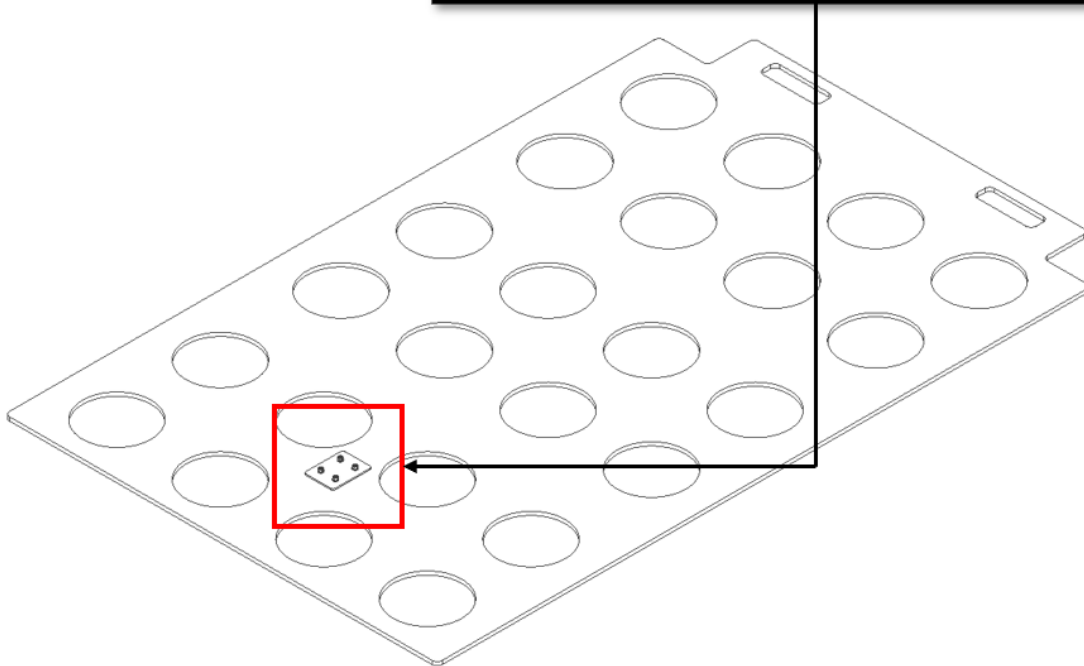
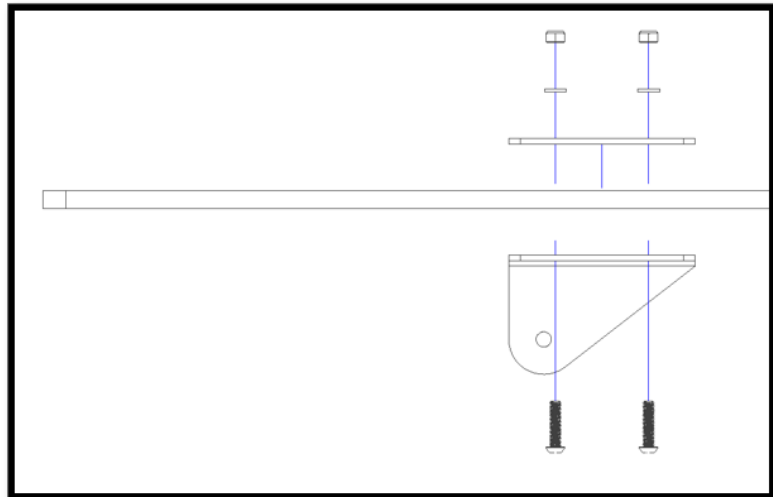


Figure 12 - Installation of Air Cylinder

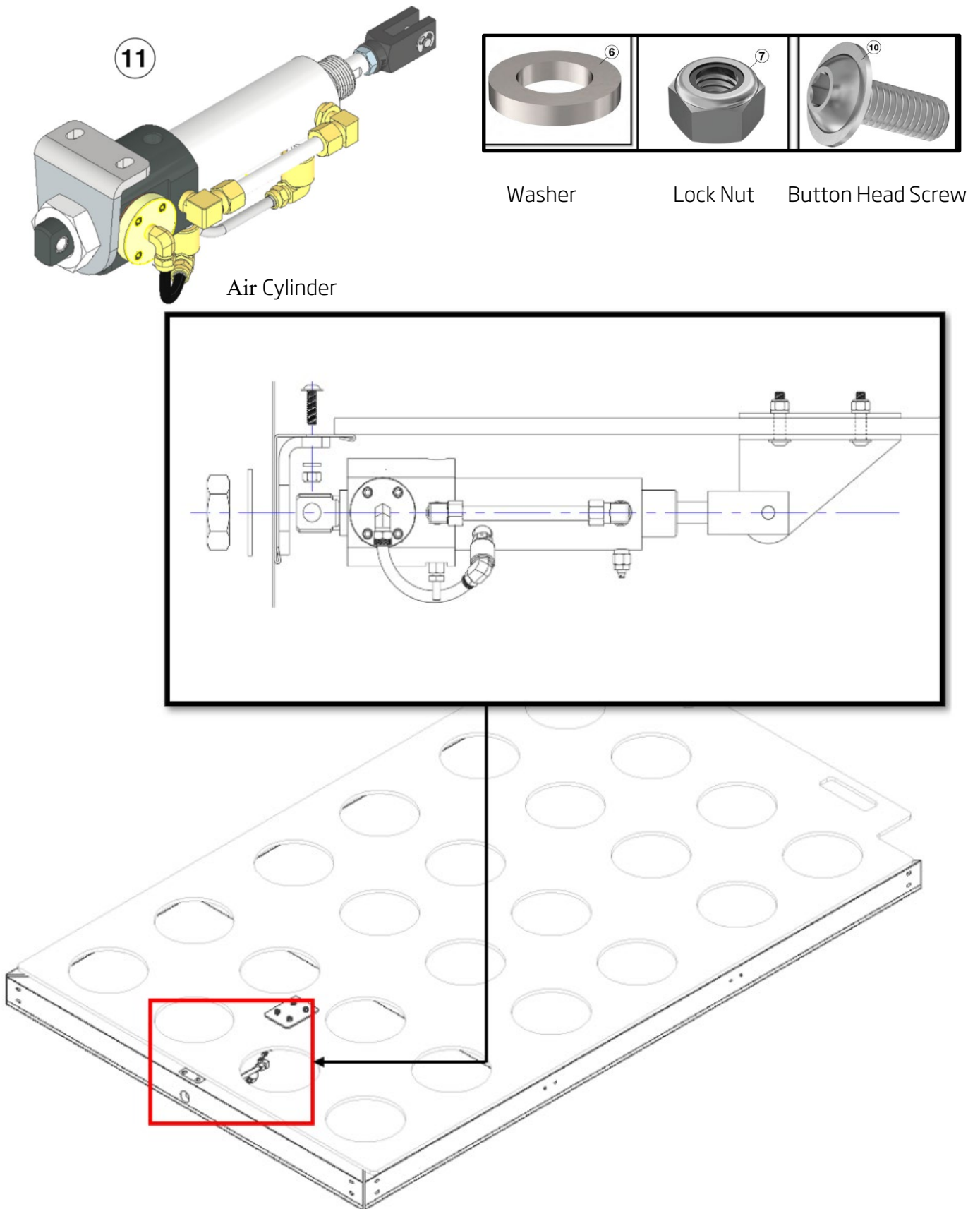
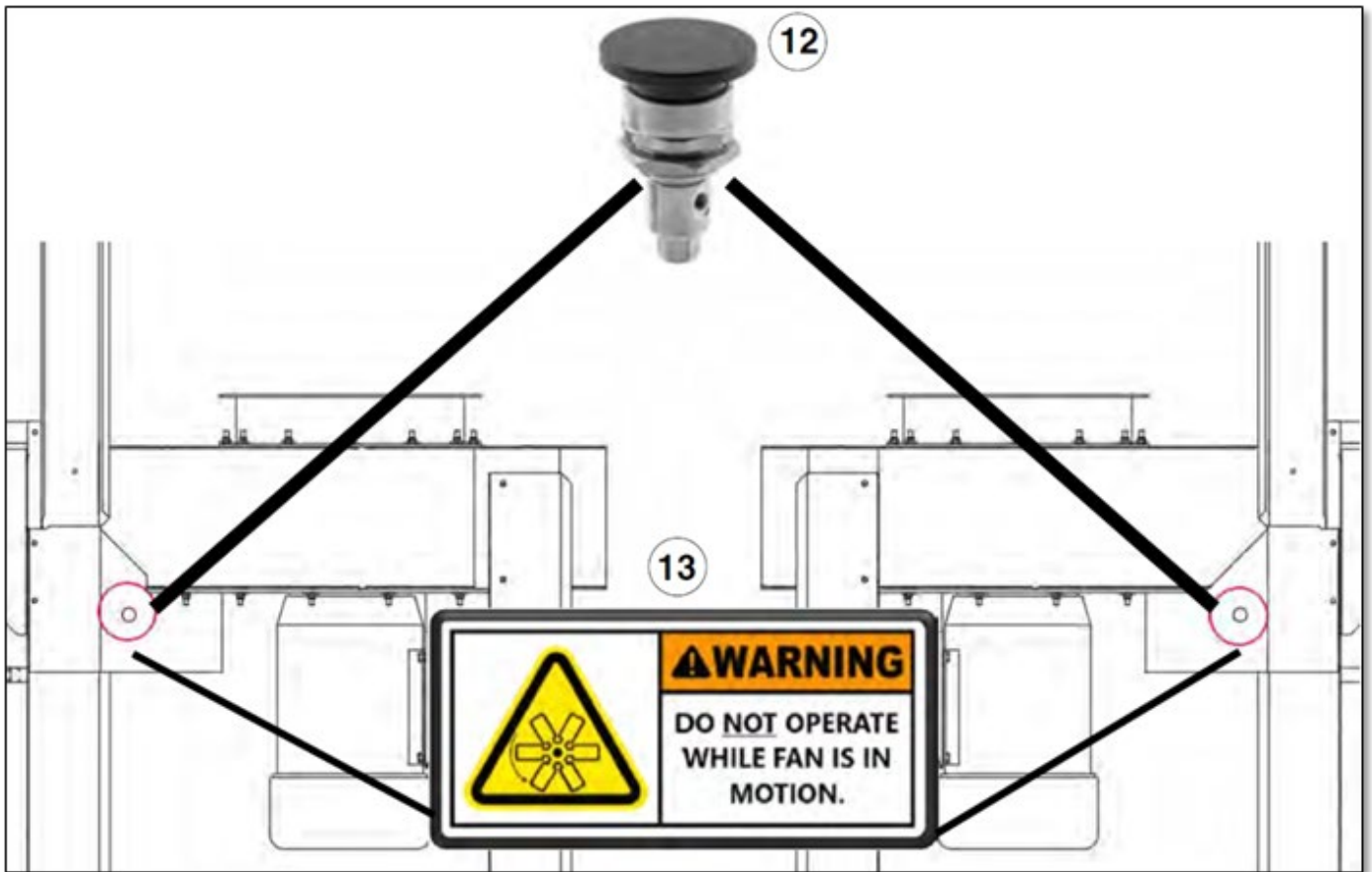


Figure 13 - Installation of Air Cylinder Actuator



Secure the S-Shaker Mechanical Actuator in the hole circled (located on either side of the fan assembly). Locate the self-adhesive warning sticker just below the S-Shaker Mechanical Actuator.

Mechanical Shaker Kit Installation Instructions:

>> Filter bag section must be raised and secure/bolted prior to installation of shaker kit <<

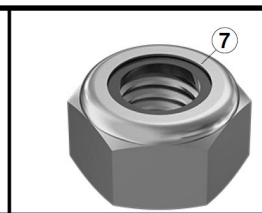
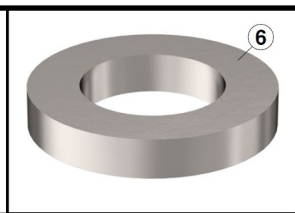
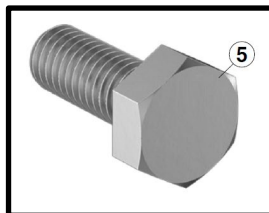
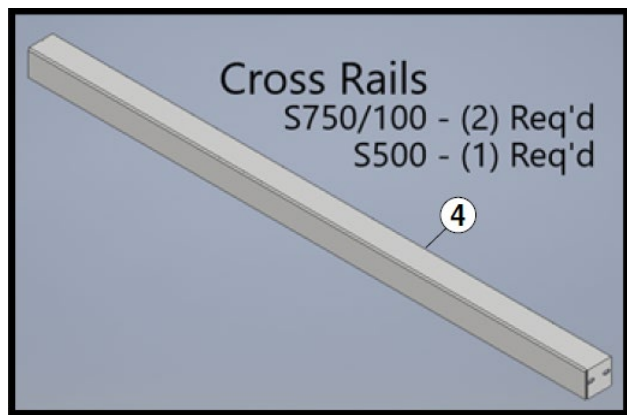
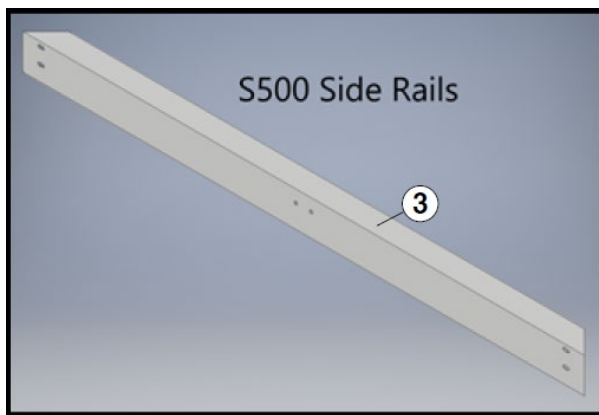
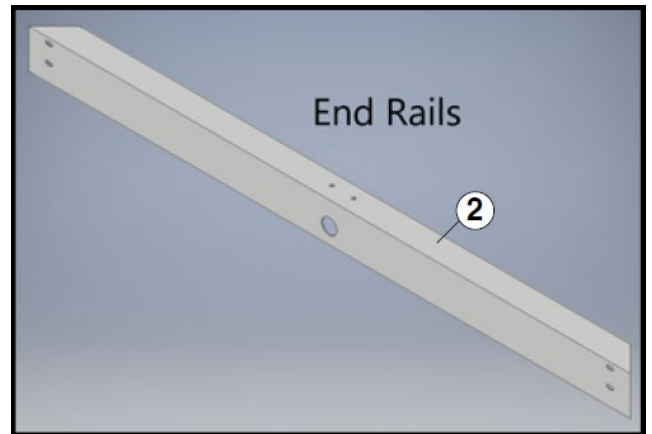
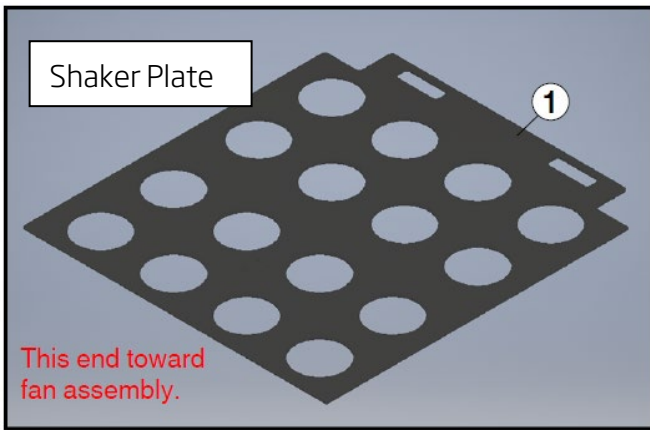
1. Disconnect the bottom of all filter bags from the hopper (snap band end) (*Figure 1*).
2. Place the UHMW shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes (*Figure 2*).
3. Raise the shaker plate to top of unit and suspend in place (*Figure 3*). (*ratchet straps are an option*)
4. Reattach all the filter bags at the bottom (snap band end) (*Figure 4*).
5. Older S-Series Models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and require (4) Ø7mm [9/32"] holes drilled into each baghouse corner (*Figure 5*).
Note: A total of (16) holes are required to be drilled.
6. S-Series Models manufactured after Feb. 14, 2022, will have (2) sets of holes drilled in each side of the baghouse corners. The lower set of holes should be used for the Manual S-Shaker Kit (*Figure 6*).
7. Install the (2) end rails (end rails are identical for the S-500, S-750 & S-1000) (*Figure 7*).
Note: All fasteners should be left loose until final assembly.
8. Install the (2) side rails. Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails. Regardless of model, side rails attach to the baghouse corners as per *Figure 8*.
Note: All fasteners should be left loose until final assembly.
9. Install the Cross Rail(s) (*Figure 9*)
(S-500 kit utilizes a single Cross Rail and S-750 & S-1000 kits utilize (2) Cross Rails)
Note: All fasteners should be left loose until final assembly
10. Once all the rails are in place, tighten all nuts (making sure the tops of the angles are flush)
11. Lower the UHMW Shaker Plate onto the Rails (*Figure 10*).
12. Install the Shaker Plate Bracket Set on the shaker plate (*Figure 11*). Leave the fasteners slightly loose
13. Secure the Air Cylinder Mounting Bracket (included in the air cylinder box) to the End Rail nearest the fan assembly using (2) M6x20 Button Head Screws, Flat Washers and Lock Nuts. (*Figure 11*). Secure the Air Cylinder to the Air Cylinder Mounting Bracket with the 1" Nut and Flat Washer (included in the air cylinder box). Attach the Air Cylinder to the S-Shaker Plate Bracket Set. Align the hole in the rod clevis with the hole on the S-Shaker Plate Bracket Set, inserting the Ø5/16" pin and using cotter pins (included in the air cylinder box) to lock the pin in place. (*Figure 12*)
14. Tighten the fasteners on the S-Shaker Plate Bracket Set.
15. Secure the Shaker Mechanical Actuator in the hole circled (located on either side of the fan assembly). Locate the self-adhesive warning decal below the Shaker Mechanical Actuator. (*Figure 13*)
16. Connect the S-Shaker Mechanical Actuator to the Air Cylinder using the fittings and tubing supplied in the kit. Secure tubing to unit using Cable Ties and Adhesive Cable Tie Mounts.
17. Connect supply air to the S-Shaker Mechanical Actuator.
Note: Supply air must have *a shut off valve (part no. 89101082), be regulated to 90 PSI and filtered to 5 microns (part no. 89101083) with a minimum throughput of 50 CFM.*
Note: This completes the installation for the mechanical shaker kit.

Mechanical Shaker Operation: (ONLY when the fan is off).

- 1) Press the unit stop button to stop fan and allow 30 seconds for the fan to completely stop.
- 2) Push the mechanical actuator button to activate shaker and allow shaker to run for 20-30 seconds.
 - We recommend cleaning during lunch break and at shift end at a minimum.

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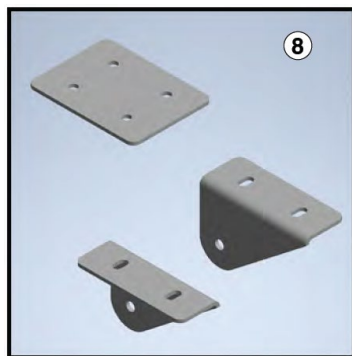
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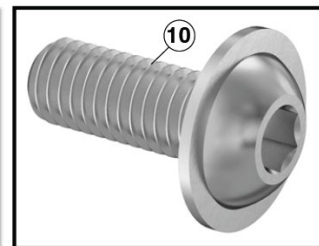
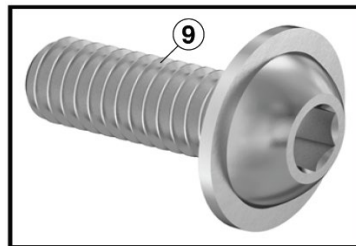
Washer

Lock Nut

Button Head Screw



Shaker Plate Brackets



Button Head Screws

S-500 Automatic Shaker Kit (89101073) Contents:



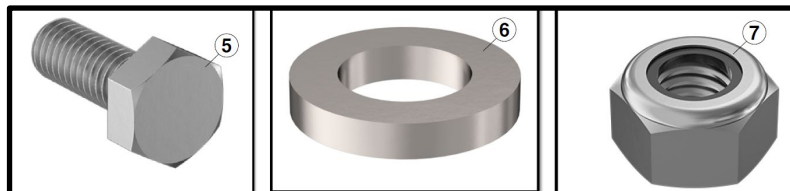
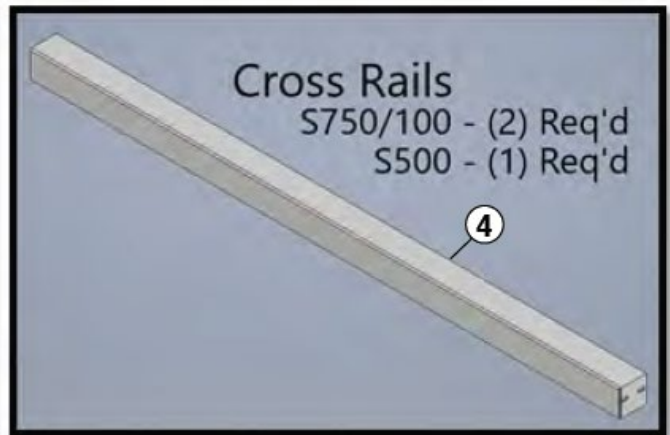
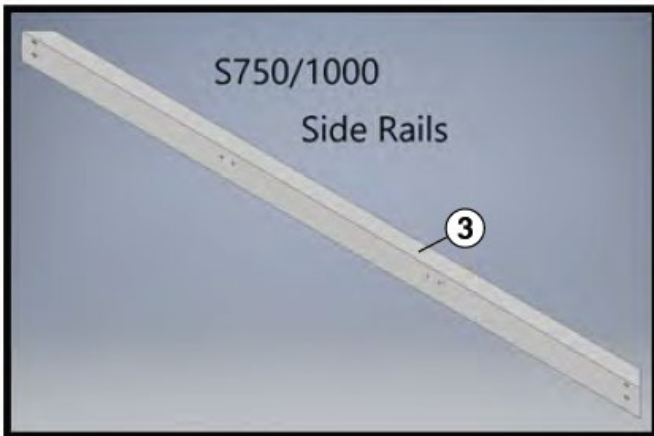
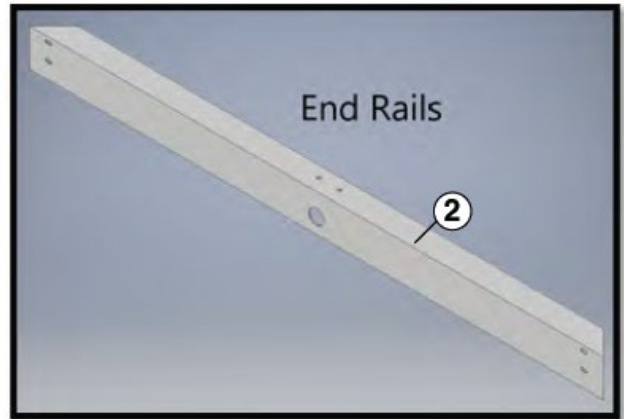
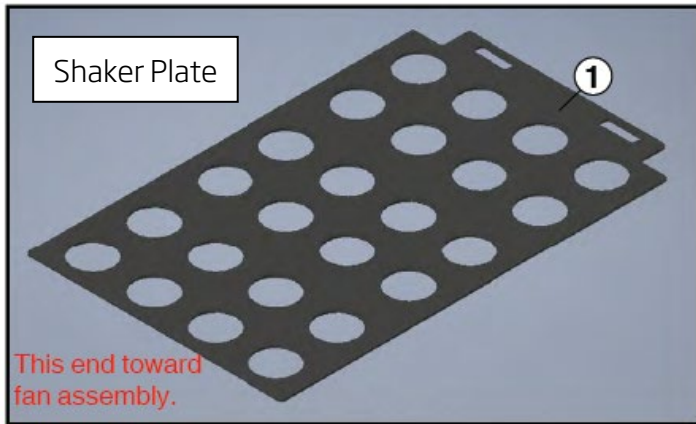
Air Cylinder Kit



Automatic Shaker Air Cylinder Control

S-500 Automatic Shaker Kit 208-460 V			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD -3/8" x 44-3/8" x 48-7/8" (9.5 mm x 1127 mm x 1242 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 45-7/8" (51 mm x 76 mm x 1165 mm)
4	Cross Rail	1	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	20	M6 x 1mm x 16 mm
6	Washer Zp M6	26	M6
7	Lock Nut Zp M6	26	M6
8	S-Shaker Grid Bracket Set (All)	1	10 ga galv. 4" x 3" x 2-9/16" (102 mm x 76 mm x 65 mm)
9	Button Head Screws	4	M6 x 1mm x 25 mm
10	Button Head Screws	2	M6 x 1mm x 20 mm
11	Air Cylinder Kit (All)	1	
12	Automatic Control (208-230/460V)	1	

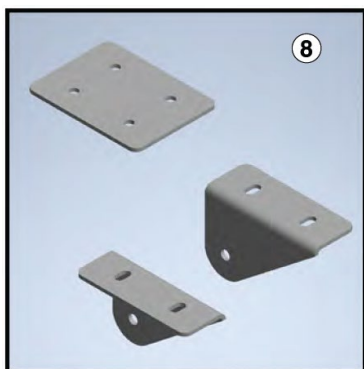
S-750/1000 Automatic Shaker Kit (89101077) Contents:



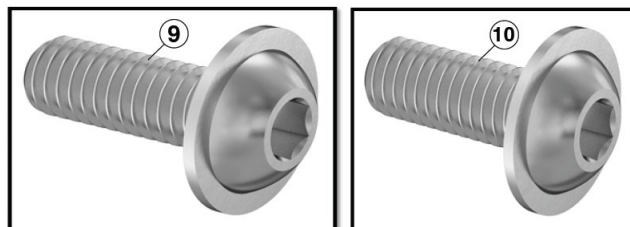
Cap Screw

Washer

Lock Nut



Shaker Plate Brackets



Button Head Screws

S-750/1000 Automatic Shaker Kit (89101077) Contents:



Air Cylinder Kit



Automatic Shaker Air Cylinder Control

S-750&1000 Automatic Shaker Kit 208-460 V			
Item	Item Name	Qty	Description
1	UHMW Shaker Grid	1	Black UHMW ESD - 3/8" x 44-3/8" x 71-7/8" (9.5 mm x 1127 mm x 1826 mm)
2	End Rails	2	18 ga galv. - 2" x 3" x 44-1/4" (51 mm x 76 mm x 1124 mm)
3	Side Rails	2	18 ga galv. - 2" x 3" x 68-7/8" (51 mm x 76 mm x 1749 mm)
4	Cross Rail	2	18 ga galv. - 2" x 2" x 44-1/4" (51 mm x 51 mm x 1124 mm)
5	Cap Screw Zp M6X16	24	M6 x 1mm x 16 mm
6	Washer Zp M6	30	M6
7	Lock Nut Zp M6	30	M6
8	S-Shaker Grid Bracket Set (All)	1	10 ga galv. 4" x 3" x 2-9/16" (102 mm x 76 mm x 65 mm)
9	Button Head Screws	4	M6 x 1mm x 25 mm
10	Button Head Screws	2	M6 x 1mm x 20 mm
11	Air Cylinder Kit (All)	1	
12	Automatic Control (208-230/460V)	1	

Installation Figures

1



Disconnect the bottom (snap band end) of all the filter bags from the hopper by squeezing in on the snap band.

2



Place the shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes.

3



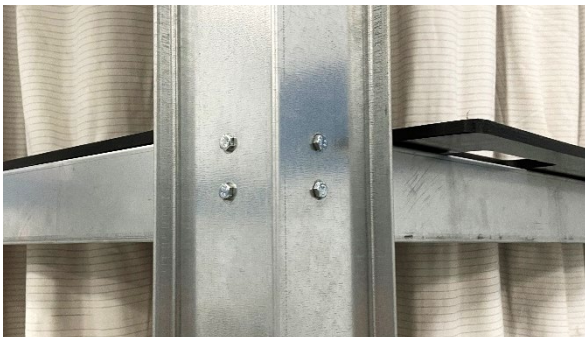
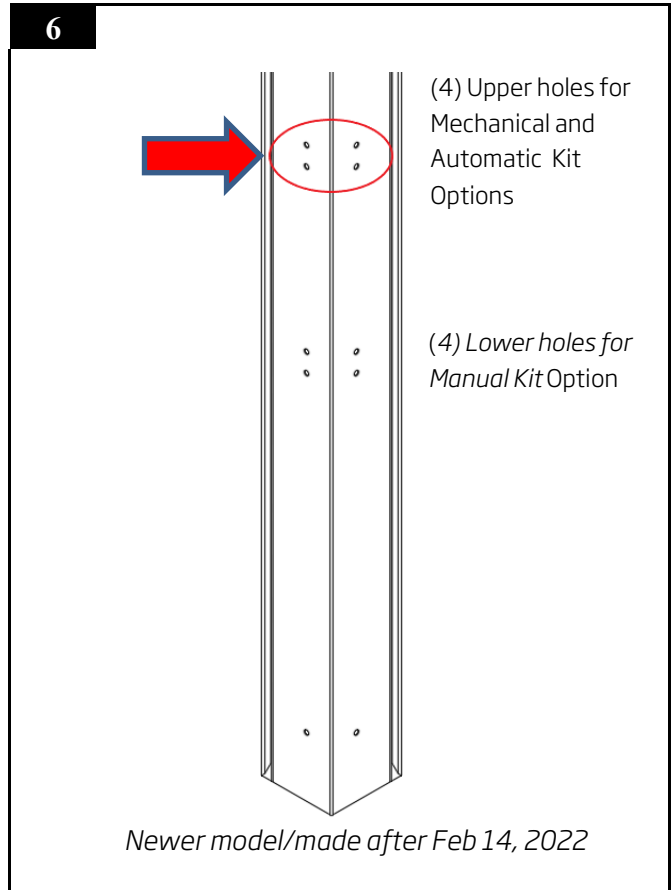
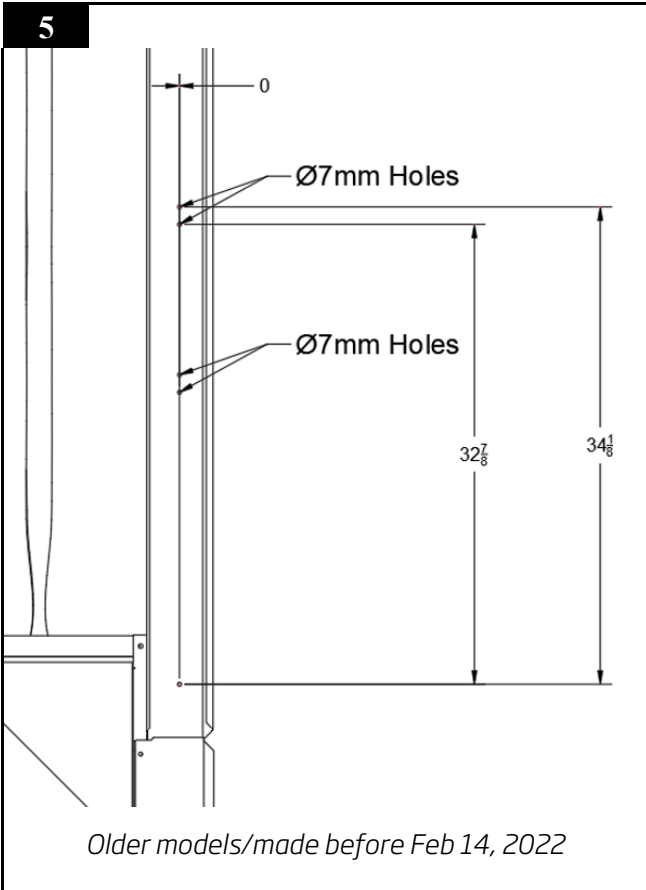
Raise the shaker plate to top of unit (bag house roof) and suspend in place (ex. using *ratchet straps*).

4



Reattach all the filter bags at the bottom (snap band end) making sure the snap band "snaps" into place and bag is securely fastened.

Installation Figures Continued – Bag House Corners



Models manufactured after Feb. 14, 2022, have (2) sets of holes drilled in each side of the baghouse corners for shaker rails. (**Figure 6**)
 The lower holes are to be used for the Manual S-Shaker Kit. (Note: Upper holes are used for the Mechanical and Automatic shaker options)

Older models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and require (4) Ø7mm [9/32"] holes drilled into each baghouse corner. (**Figure 5**)
 Note: Total of (16) holes are required to be drilled

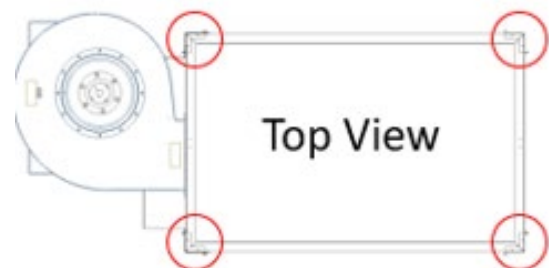


Figure 7 - Installation of End Rails

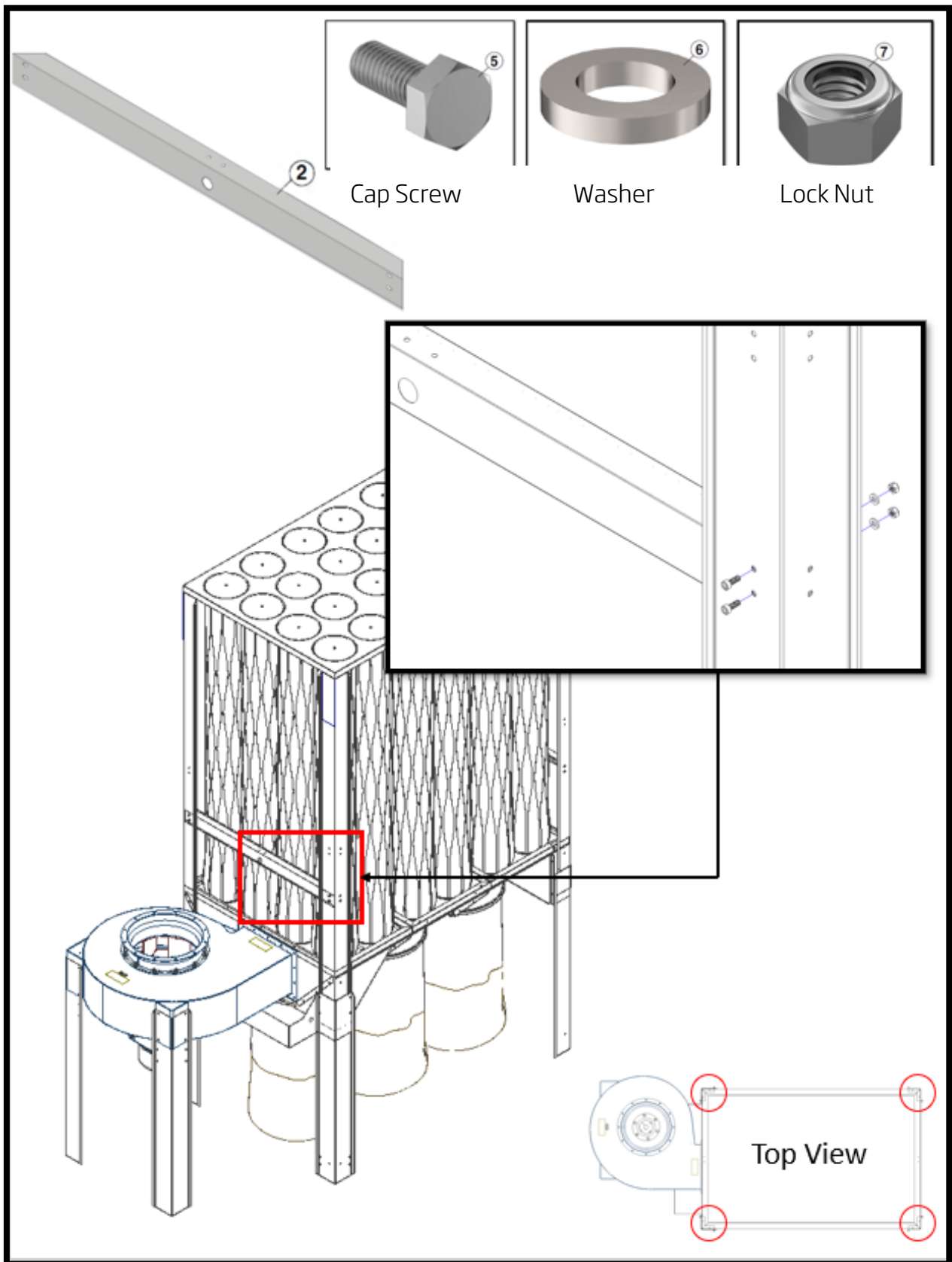
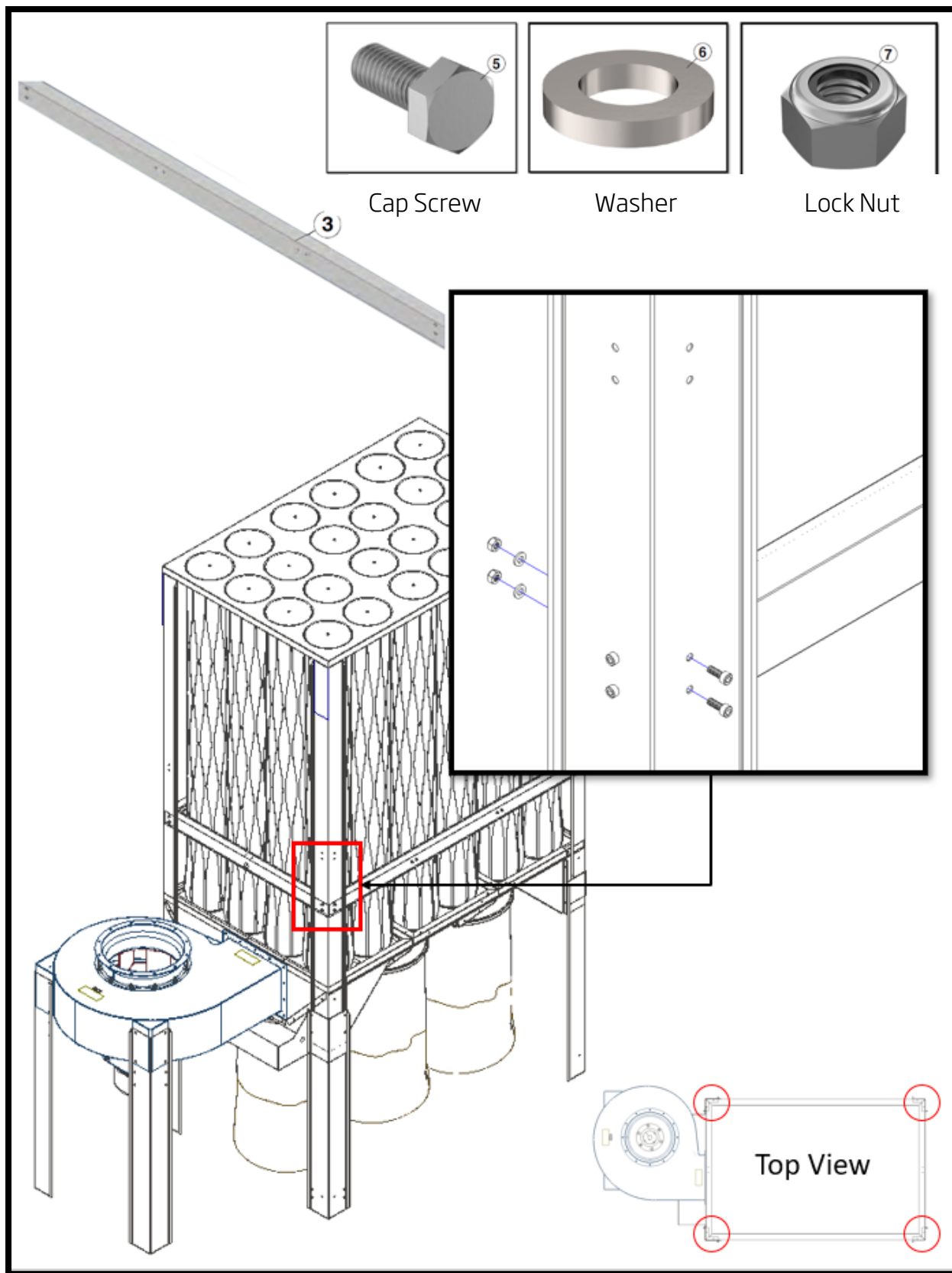


Figure 8 - Installation of Side Rails



Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails

Figure 9 - Installation of Cross Rails

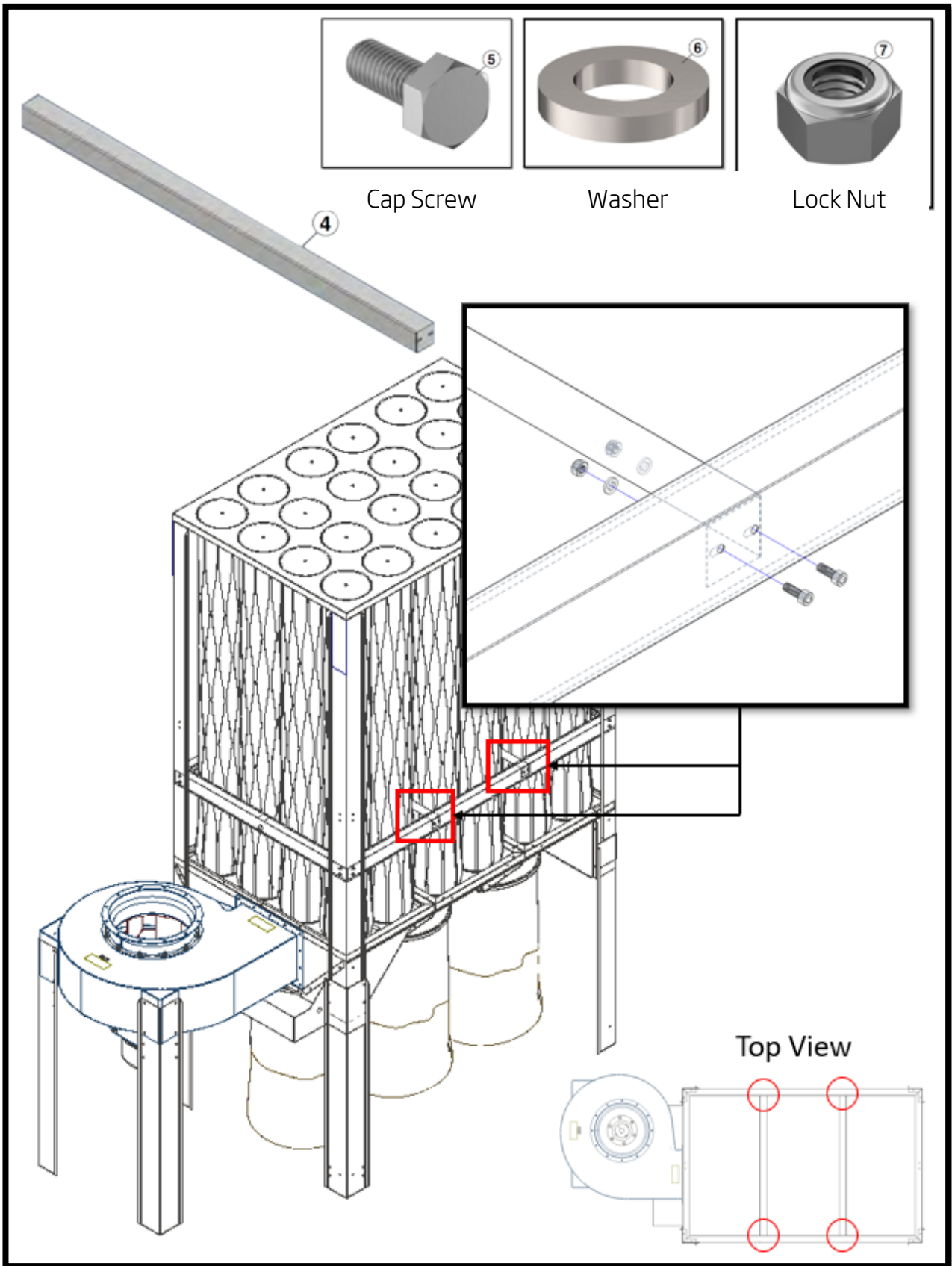
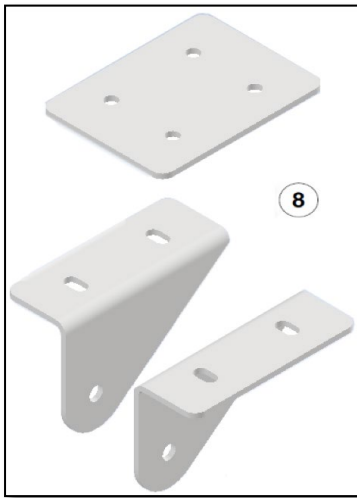


Figure 10 - Shaker Plate

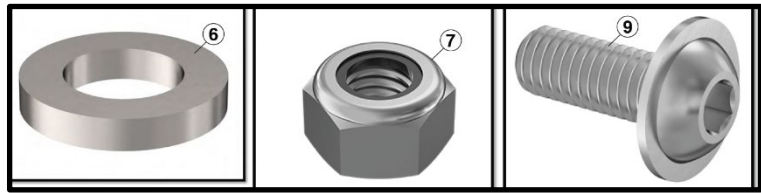


Lower the UHMW shaker plate onto the rails

Figure 11 - Installation of Air Cylinder Mounting Bracket



Shaker Plate Air
Cylinder Brackets



Washer

Lock Nut

Button Head Screw

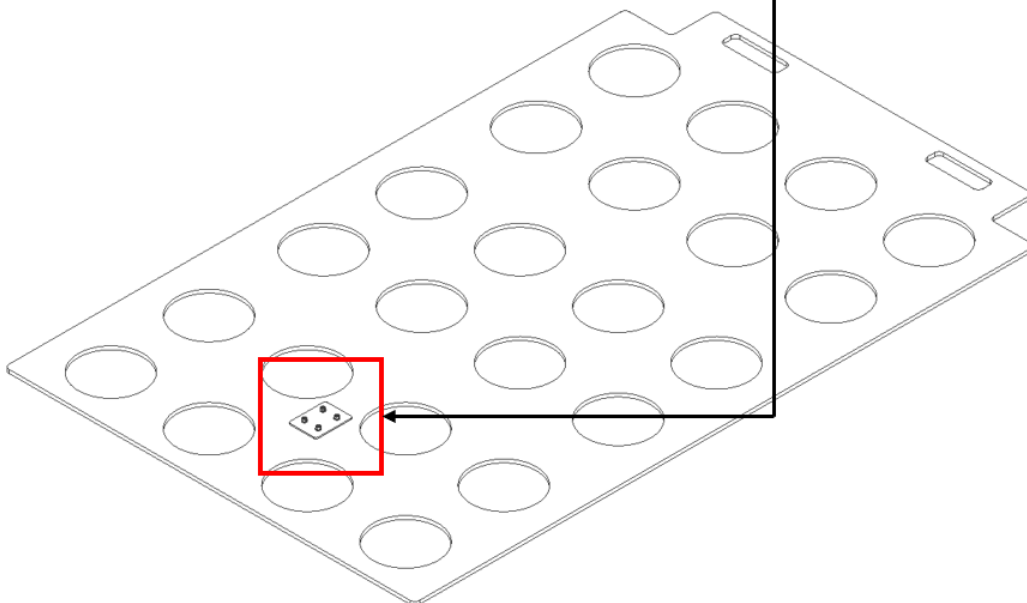
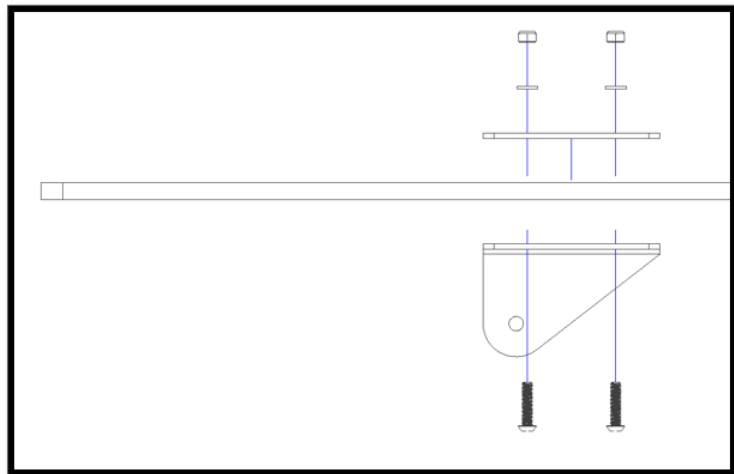
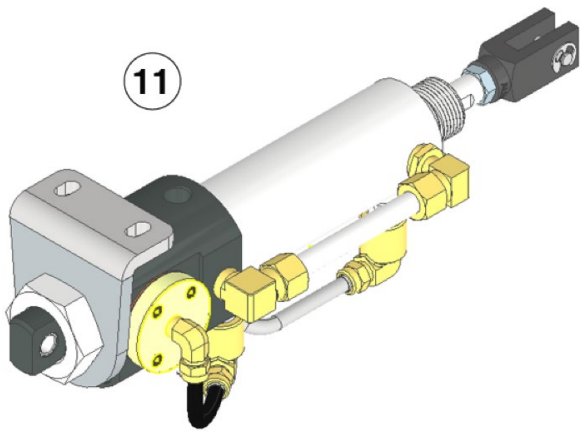
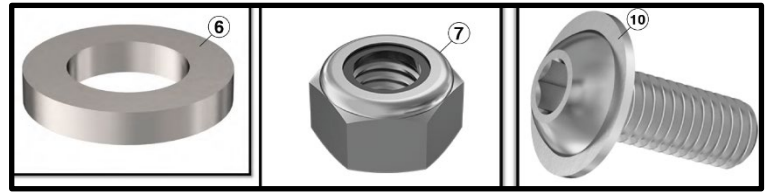


Figure 12 - Installation of Air Cylinder



Air Cylinder



Washer

Lock Nut

Button Head Screw

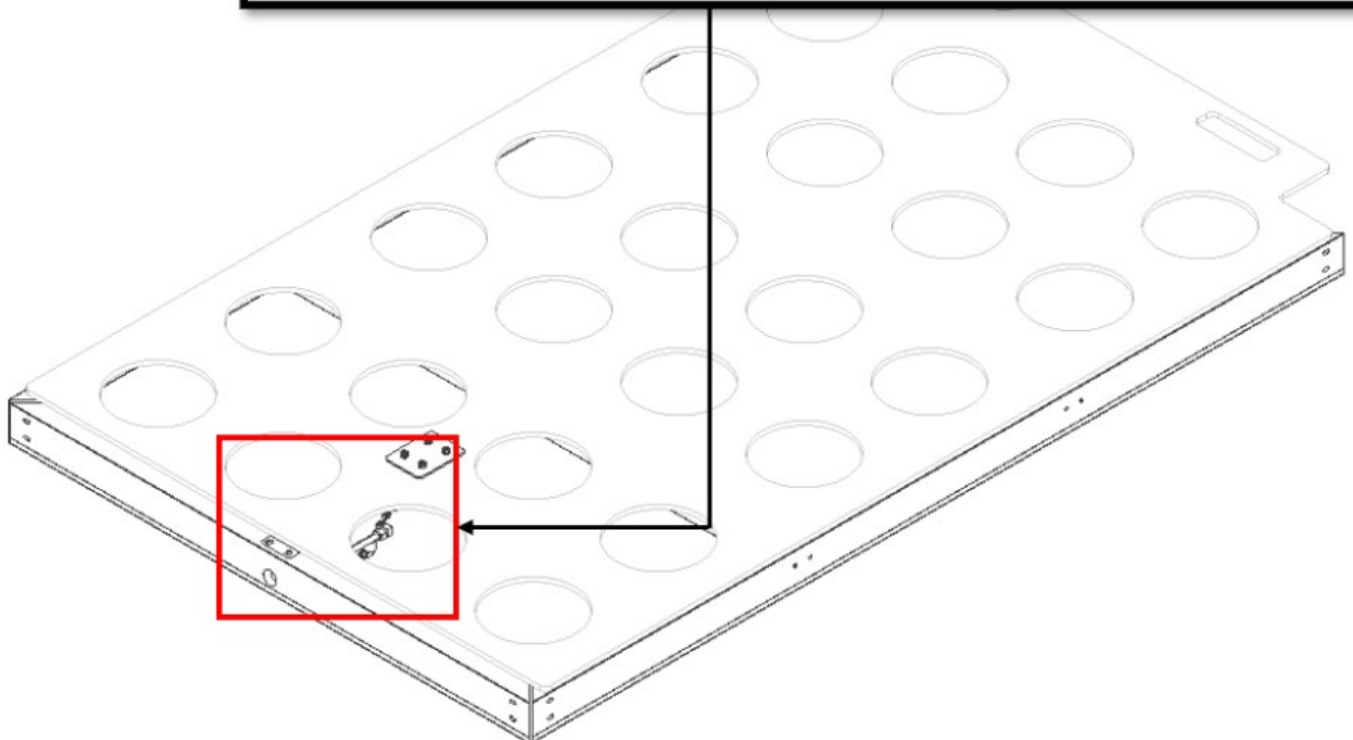
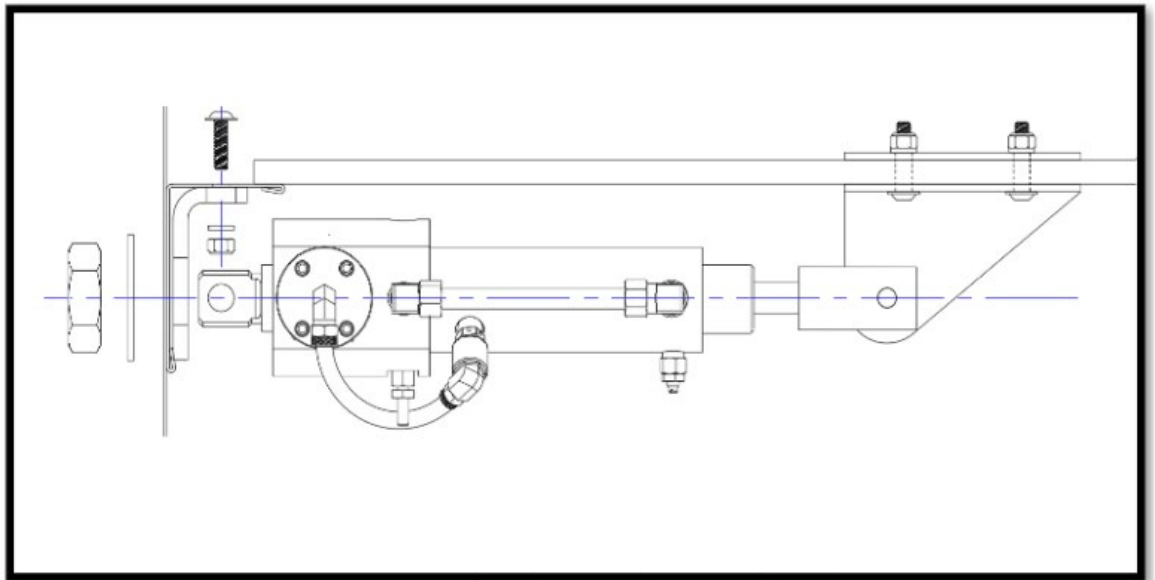
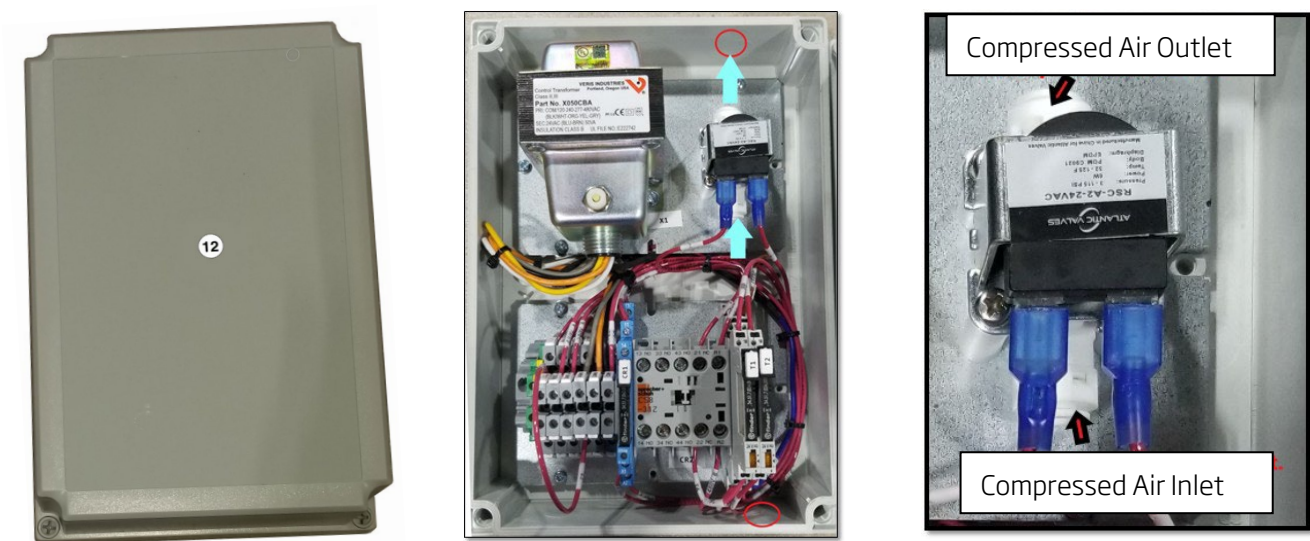
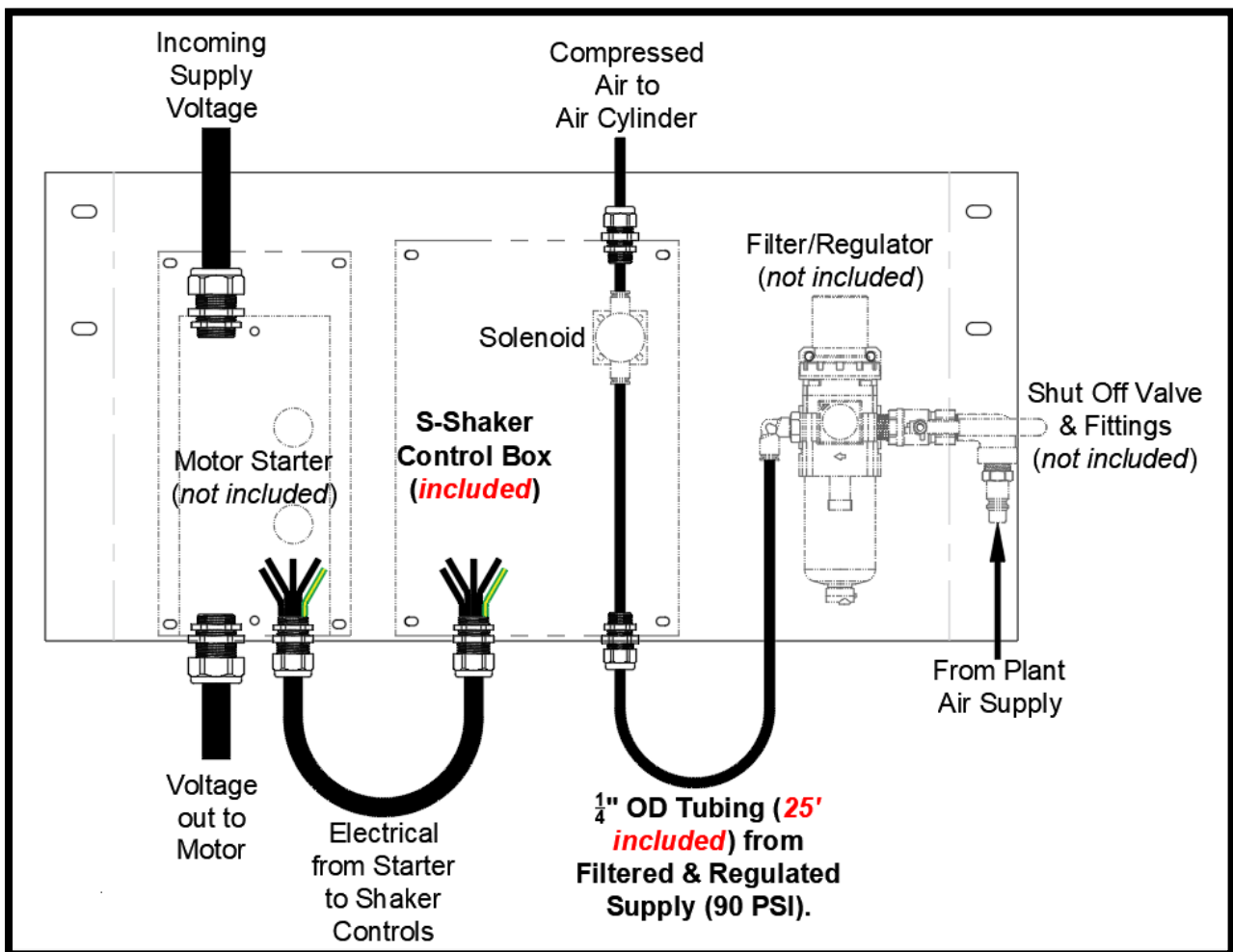


Figure 13 - Installation of Mechanical Actuator



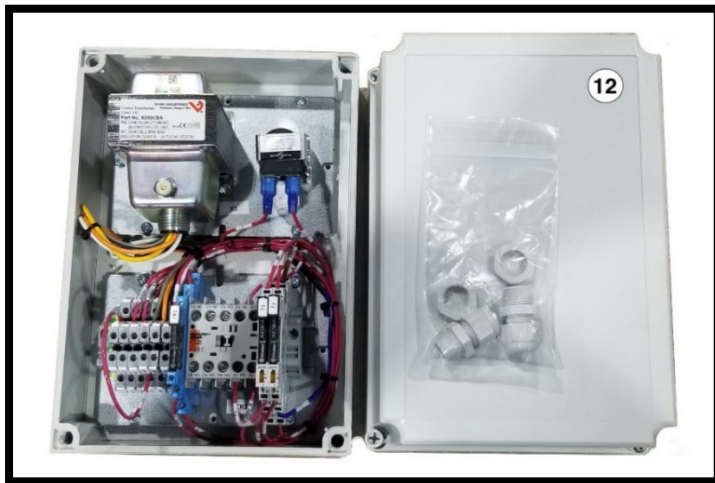
Mount the Automatic Control (near the S-Series starter) and a Filter/Regulator with Shut-off Valve



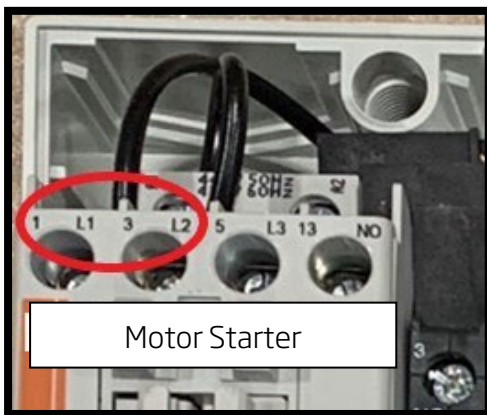
Connect supply air to the Compressed Air Solenoid Valve.

Note: Supply air must have a shut off valve (part no. 89101082), be regulated to 90 psi (0.6 MPa) and filtered to 5 microns (part no. 89101083) with a minimum throughput of 50 cfm (85 m³/hr)

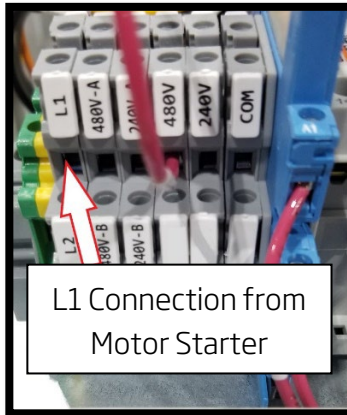
Figure 14 - Motor Starter 480 V / 3 Phase / 60 Hz



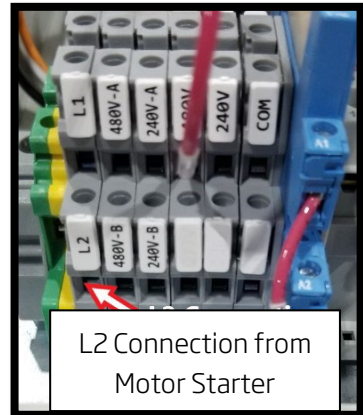
L1 & L2, from the customer's motor starter, correspond to L1 & L2 on the S-Shaker Automatic Control Box. A-B correspond to A1 & A2 of the customer's motor starter



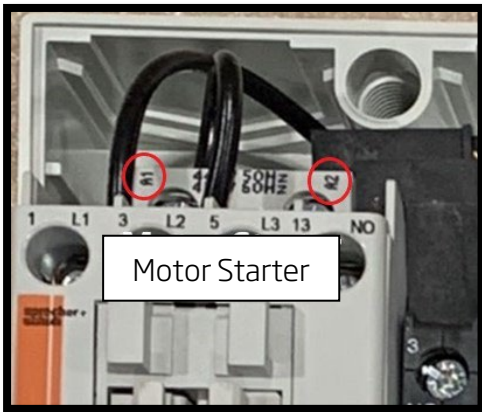
Motor Starter



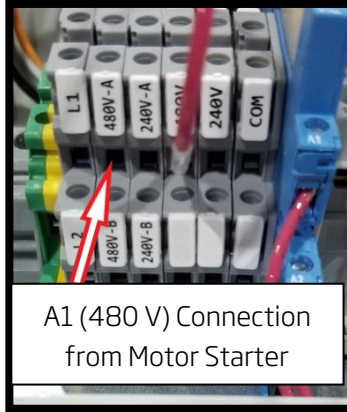
L1 Connection from Motor Starter



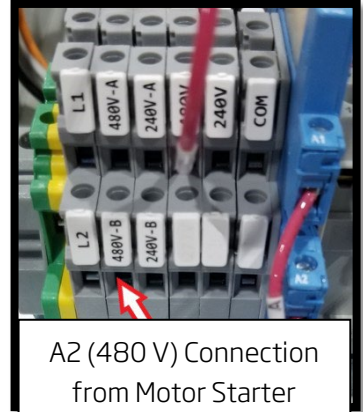
L2 Connection from Motor Starter



Motor Starter



A1 (480 V) Connection from Motor Starter



A2 (480 V) Connection from Motor Starter

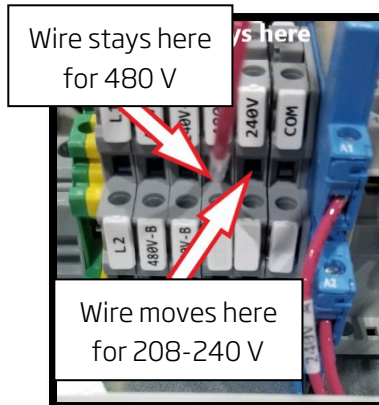
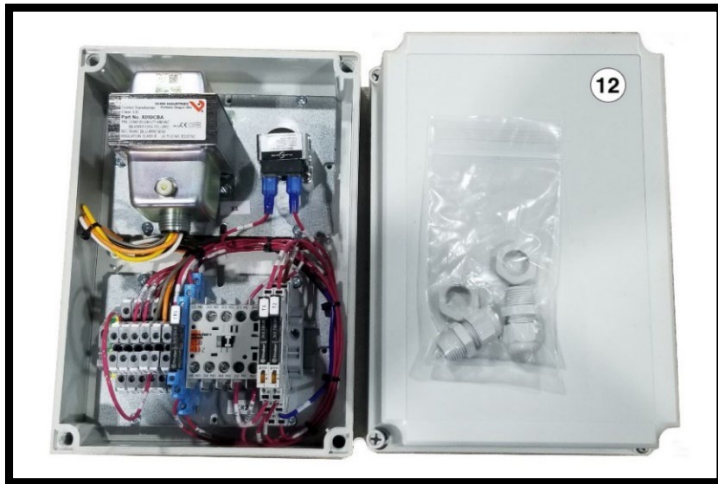
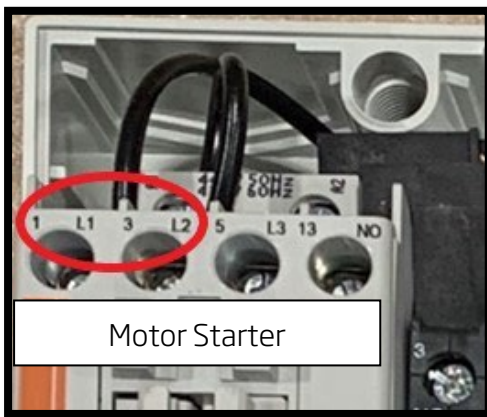


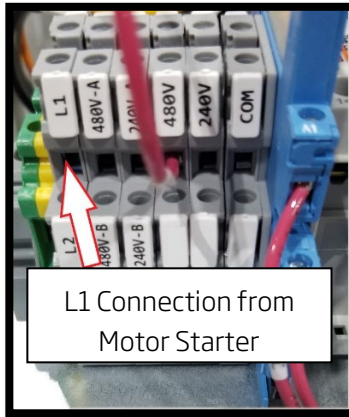
Figure 15 - Motor Starter 208-240 V / 3 Phase / 60 Hz



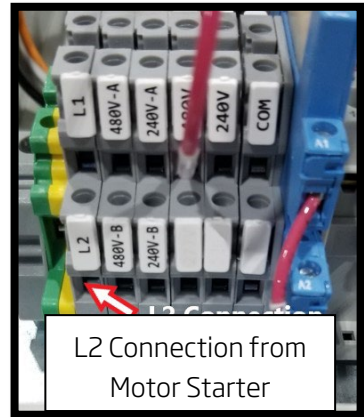
L1 & L2, from the customer's motor starter, correspond to L1 & L2 on the Automatic Control Box.
A-B correspond to A1 & A2 of the customer's motor starter



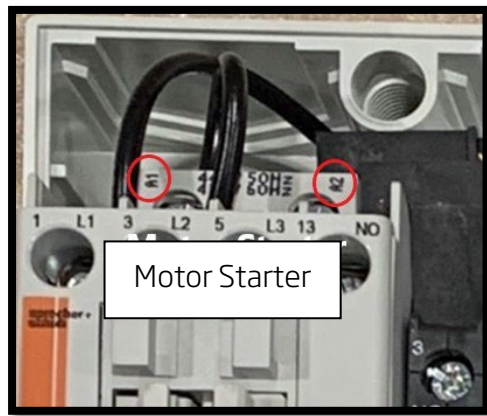
Motor Starter



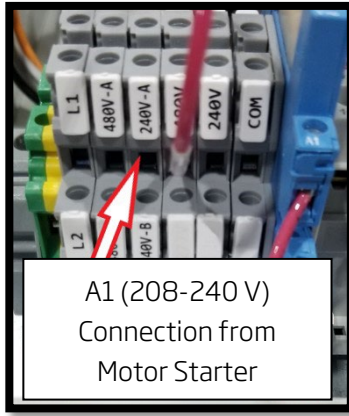
L1 Connection from Motor Starter



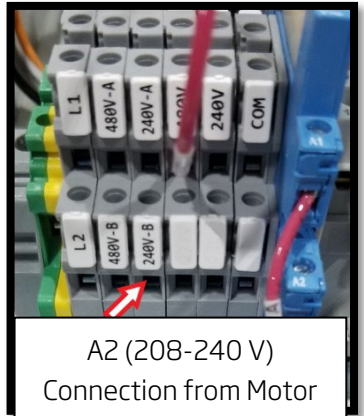
L2 Connection from Motor Starter



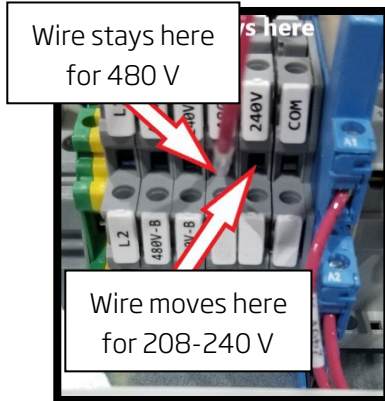
Motor Starter



A1 (208-240 V) Connection from Motor Starter



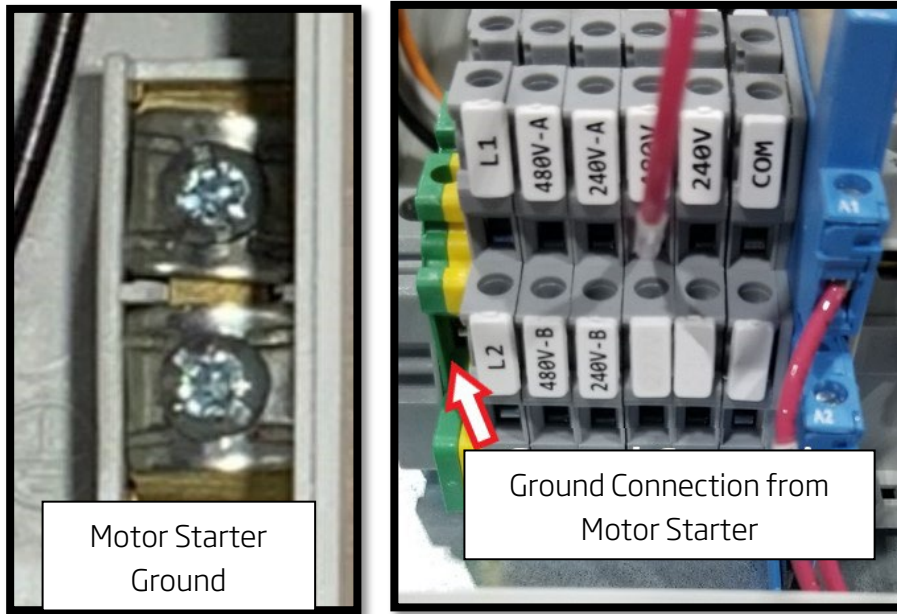
A2 (208-240 V) Connection from Motor Starter



Wire stays here for 480 V

Wire moves here for 208-240 V

Figure 16 - Motor Starter Ground (to Control Box)



Connect the ground from the motor starter to the S-Shaker Automatic Control Box

Automatic Shaker Kit Installation Instructions:

>> Filter bag section must be raised and secured/bolted prior to installation of shaker kit <<

1. Disconnect the bottom of all filter bags from the hopper (snap band end) (*Figure 1*).
2. Place the UHMW shaker plate inside the unit (with cut-out handles opposite the fan assembly) and feed the filter bags through the pre-cut shaker plate holes (*Figure 2*).
3. Raise the shaker plate to top of unit and suspend in place (*Figure 3*). (*ratchet straps are an option*)
4. Reattach all the filter bags to the hopper at the bottom (snap band end) (*Figure 4*).
5. Older S-Series Models (made before Feb 2022) do not have predrilled holes in the baghouse corners for shaker rails and require (4) Ø7mm [9/32"] holes drilled into each baghouse corner (*Figure 5*).
Note: A total of (16) holes are required
6. S-Series Models manufactured after Feb. 14, 2022, will have (2) sets of holes drilled on each side of the baghouse corners. The lower set of holes should be used for the Manual S-Shaker Kit (*Figure 6*).
7. Install the (2) end rails (end rails are identical for the S-500, S-750 & S-1000) (*Figure 7*).
Note: All fasteners should be left loose until final assembly.
8. Install the (2) side rails. *Note: S-500 Side Rails are shorter than S-750 and S-1000 side rails.*
Regardless of model, side rails attach to the baghouse corners as per *Figure 8*.
Note: All fasteners should be left loose until final assembly.
9. Install the Cross Rail(s) (*Figure 9*) (S-500 has (1) Cross Rail & S-750 & S-1000 utilize (2) Cross Rails)
Note: All fasteners should be left loose until final assembly
10. Once all the rails are in place, tighten all nuts (making sure the tops of the angles are flush)
11. Lower the UHMW shaker plate onto the Shaker Rails (*Figure 10*).
12. Install the Shaker Plate Bracket Set on to the shaker plate (Figure 11).
Note: Leave the fasteners slightly loose.
13. Secure the air Cylinder Mounting Bracket (included in the air cylinder box) to the End Rail nearest the fan assembly using (2) M6x20 Button Head Screws, Flat Washers and Lock Nuts. Secure the Air Cylinder to the Air Cylinder Mounting Bracket with the 1" Nut and Flat Washer (included in the air cylinder box). Attach the Air Cylinder to the S-Shaker Plate Bracket Set. Align the hole in the rod clevis with the hole on the S-Shaker Plate Bracket Set, inserting the Ø5/16" pin and using cotter pins (included in the air cylinder box) to lock the pin in place. (*Figure 12*)
14. Tighten the fasteners on the S-Shaker Plate Bracket Set.
15. Mount the S-Shaker Automatic Control (near the S-Series starter) and a Filter/Regulator with Shut-off (ball) Valve (*Figure 13*).
16. Connect the Compressed Air Solenoid (compressed air outlet) to the Air Cylinder using the fittings and tubing supplied in the kit. Secure tubing using Cable Ties and Adhesive Cable TieMounts (*Figure 13*).
17. Connect supply air to the Compressed Air Solenoid Valve.

Note: Supply air must have a shut off valve (*part no. 89101082*), be regulated to 90 psi (0.62 MPa) and filtered to 5 microns (*part no. 89101083*) with a minimum throughput of 50 cfm (85 m³/hr).

18. **480V** - L1 & L2, from the motor starter, correspond to L1 & L2 on the S-Shaker Automatic Control Box. 480V A-B correspond to A1 & A2 of the motor starter (*Figure 14*).
- 240V** - L1 & L2, from the motor starter, correspond to L1 & L2 on the S-Shaker Automatic Control Box. 240 V A-B correspond to A1 & A2 of the motor starter (*Figure 15*)
19. Unit is prewired to 480 V / 3 Phase / 60 Hz from the factory and should only be changed if running the motor in 208-240 V / 1 Phase / 60 Hz (bottom photo of Figures 15 and 16).
20. Connect the ground from the motor starter to the S-Shaker Automatic Control box (*Figure 16*).
Note: This completes the installation for the automatic shaker kit.



Automatic Shaker Operation Instructions:

Note: Operation of shaker is done, ***ONLY*** when the fan is off/not moving.

- 1) Press the dust collector stop button which turns off the fan.
- 2) After an approximate 30 seconds delay to allow- the fan to stop, the shaker will automatically start.
- 3) The shaker system will operate a cleaning cycle for approximately 20 seconds.
- 4) Once the cleaning cycle is complete, press the start button to resume operation of the dust collector.

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Maintenance:

Daily:

- Check compressed air filter/regulator for debris. Empty and clean as necessary.
- Check compressed air filter/regulator for water. Drain as required.

Weekly:

- Visual inspection of filter bags for wear around edges of the shaker plate and at the bottom (snap-bands) where they attach to filter hopper.
- Set compressed air filter/regulator to min. **The regulator must be set 90 psi (0.62 MPa)**
- Check pressure while shaker is in operation to see that the pressure does *not* drop below 75 psi (0.52 MPa)
- If the pressure drops below 75 PSI (0.52 MPa), increase the incoming air pressure to maintain 75 psi (0.52 MPa) while shaker is in operation.

Monthly:

- Inspect entire unit for loose or missing hardware and replace as necessary.
- Inspect filter bags for wear and "blinding" (dust particles become trapped inside filter fabric, reducing air flow and filtration). Replace filter bags as a set if damaged or blinded.

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Troubleshooting:

Issue:	Potential Cause:	Solution:
Low Suction	Bags may be blinded	Check filter bags and replace as a complete SET
	Waste bags, barrels or bin full	Check and replace or empty as required
	Motor rotation incorrect	Check and have a qualified, licensed, industrial electrician correct wiring for proper rotation
Shaker is not shaking	Low air supply	Check supply lines for leaks. Replace as necessary
		Check the Filter/Regulator for debris. Empty and clean as necessary.
		Check that the Filter/Regulator is adjusted to 90 psi (0.62 MPa)
		Grasp shaker plate by handles and shake vigorously while air is applied to cylinder
Dusty operation	Broken filter bag	Inspect and replace
	Improperly seated snap-band	Inspect and reseal/replace as necessary
	Improperly sealed or broken waste bag	Inspect and re-clamp/replace as necessary
Shakes Continuously	Push Button Plumbed Backwards	Remove the inlet and outlet air hoses and switch them on the push button



Service and Spare Parts:

Nederman has certified service partners trained extensively in servicing our machinery. Make sure to choose a certified technician to service your Nederman equipment as they have the correct tools and knowledge to solve any machinery issue and improve its performance. Be sure to ask if your technician is certified by Nederman.

Nederman Service Capabilities

Our services for dust collection systems are customized to your particular needs. We work with you to understand your needs, then develop a program to meet your specific needs. Our services include: (not all services available in all locations)

- Bag Change-outs
- Bag Selection Recommendations
- Collector Re-builds
- Dye Testing for Leakage
- Electrical Tests - Current, Voltage
- Emergency Call-outs
- Filter Media Analysis
- Mechanical Survey and Repair
- Multi-year Contracts
- New Collector Start-up Service
- On-going Technical Support
- Preventative Maintenance Programs
- Repair and Replace
Gauges/Timers/Valves
- Stack Emission Testing
- Training Programs
- Troubleshooting / Auditing
- Velocity, Pressure and Temperature Tests
- Written Service Reports

Item	Description	Part #	Qty
Filter Bag	S-500/S-750 Superbag XT15 - 8.66" x 54.13" (22 mm x 1375 mm)	89251020	1
Filter Bag	S-1000 Superbag XT15 - 8.66" x 77.16" (22 mm x 1960 mm)	89251021	1
Clamp	500 mm QF Clamp (bags, barrels or bin)	89201003	1
Waste Bag	8 mil Plastic Collection Bag Roll (90 pcs)	89201024	1
Dump Bin	230 gal (871 L) - 33" x 70.5" x 36.5" (838 mm x 1790 mm x 927 mm)	89101011	1
Barrel	45 gal (170 L) Collection Barrel	89201004	1

Shaker Upgrade Kits

Shaker Kit	Manual to Mechanical	89101079	1
Shaker Kit	Manual to Automatic - 208-230 V/460 V/3 Phase	89101080	1
Shaker Kit	Manual to Automatic - 575 V	89101081	1
Valve	Shut Off Valve (Shaker Kit replacement)	89101082	1
Reg/Filter	Regulator & Filter Combo (Shaker Kit replacement)	89101083	1

Nederman

The Nederman Group is one of the World's leading suppliers of products and solutions within the environmental technology sector focusing on industrial air filtration and recycling. These products and solutions reduce the environmental impact of industrial production and create safe and clean working environments while boosting production efficiency.

The group's offering covers the design stage through installation, commissioning and servicing with subsidiaries in 29 countries and agents and distributors in over 30 countries.

Nederman is ISO 9001 and 14001 certified and develops and produces in its own manufacturing and assembly facilities in Europe, North America and Asia

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