



Guardian Seal Kit Installation Instructions

Section 1: Installation Preparation

CAUTION

EYE AND HAND PROTECTION MUST BE WORN IN THIS AREA

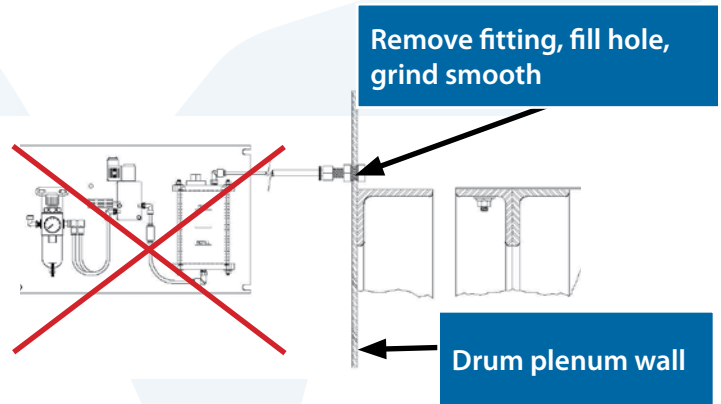
NOTE – Eye and hand protection must be worn when installing the Guardian Seal.



NOTE – Ensure drum cage angle ring and plenum wall angle ring are in good condition with no burrs or sharp edges. Grind smooth if necessary.



NOTE – The Guardian Seal Kit includes a primary seal, secondary seal, seal reinforcements, holding brackets, elastic holding band, seal retainer, hot glue applicator, and flexible seal stops.



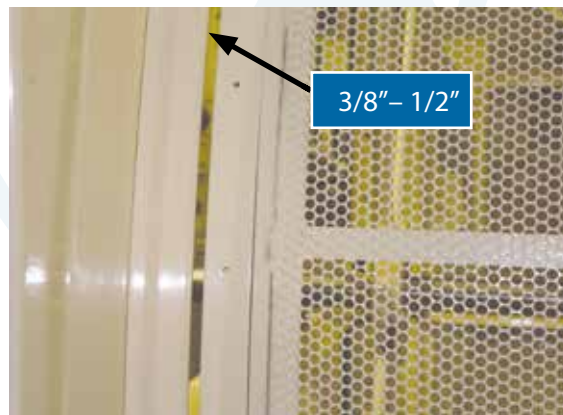
NOTE – If Auto-Lube assembly is installed on filter, disable and remove. Ensure fitting on plenum wall is removed and remaining hole is filled with liquid steel and ground smooth.

STEP 1.1



Install drum cage section(s), drum shaft, and drum drive. (If applicable)

STEP 1.2



Align Drum Cage to plenum wall to obtain UNIFORM 3/8" - 1/2" [10 mm - 13 mm] gap.

NOTE: This is CRITICAL for seal performance.

Section 1: Installation Preparation

Rigid Seal Stops

Flexible Seal Stops

Uninstalled



Installed



NOTE – Rigid seal stops are supplied with new drum filters. The rigid seal stops are pre-installed on the plenum cage section prior to shipping. Proceed to Section 2 for rigid seal stop installation instructions.

NOTE – Flexible seal stops are supplied for use in retro fit applications. The flexible seal stops are not pre-installed prior to shipment. Proceed to Section 3 for flexible seal stop installation instruction.

Section 2: Rigid Seal Stop Installation

NOTE - If your drum is equipped with rigid seal stops, follow the steps below to complete the initial setting of the stops. If your drum does not have rigid seal stops, proceed to section 3.

STEP 2.1



Rigid seal stops are pre-installed flush with the outside of the plenum cage before shipping. They must be adjusted before installing seals.

STEP 2.2



Loosen the bolts on the plenum cage section that are holding the rigid seal stops in place.

STEP 2.3



Adjust the height of the rigid seal stops by tapping them with a rubber mallet from the inside of the drum.

STEP 2.4



Continue adjusting the height of the rigid seal stops until they protrude 5/8" (16mm) from the outer surface of the drum cage section.

STEP 2.5

After rigid seal stops have been adjusted to the correct height, tighten the bolts on the plenum cage section to secure them.

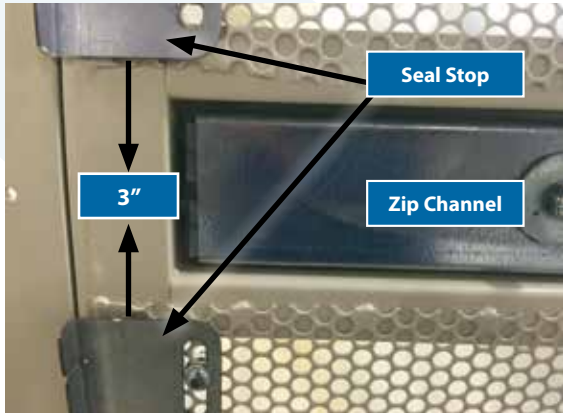
NOTE – Proceed to Section 4 for primary and secondary seal installation instructions.



Section 3: Flexible Seal Stop Installation

NOTE – If your drum does not have rigid seal stops, follow the below steps to install the flexible seal stops on the cage section. (For rigid seal stops, see section 2).

STEP 3.1



Begin installing the flexible seal stops by placing (2) of them adjacent to the zip channel which must not be covered. This will leave a gap of approximately 3".

STEP 3.2

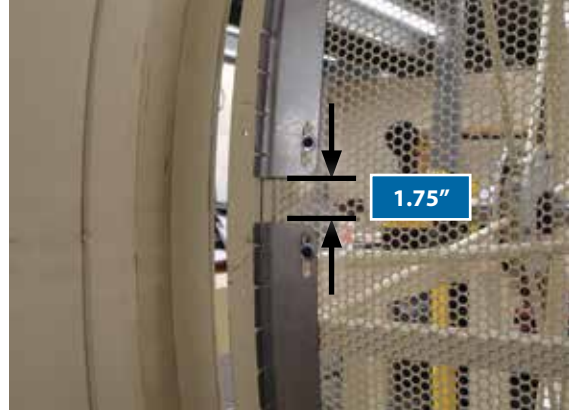


Attach flexible seal stops to drum cage with supplied hardware, bolted through the second available row of perforated holes in the drum cage.

STEP 3.3

There should be a gap channel of approximately 1.75" (45mm) between seal stops not adjacent to zip channel.

NOTE – Proceed to Section 4 for primary and secondary seal installation instructions.



Section 4: Primary and Secondary Seal Installation

STEP 4.1



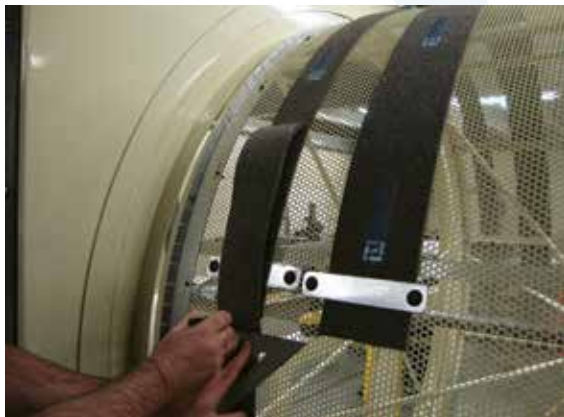
Attach one end of the primary and secondary seal to drum cage using supplied holding brackets and plastic rivets.

STEP 4.2



Rotate drum cage(s) and wrap primary seal around circumference of drum cage until seal overlaps. Pull seal tight.

STEP 4.3



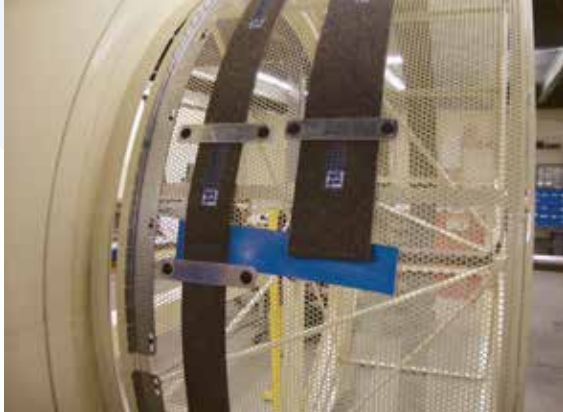
Mark the location of overlap.
NOTE: Primary and secondary seals are delivered longer than needed and must be cut to length during installation.

STEP 4.4



Using the supplied shears, cut seal at overlap mark ensuring that the cut is perpendicular to the sides of the seal.

STEP 4.5



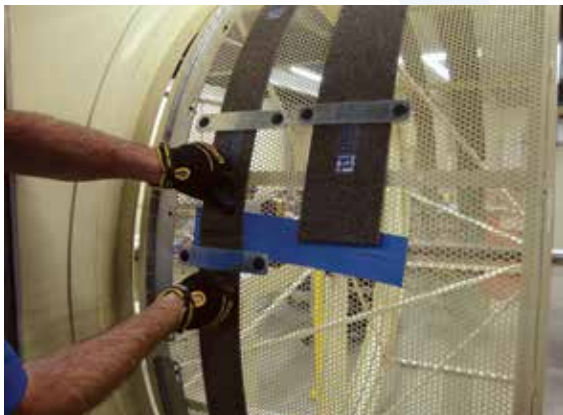
Butt primary seal ends together and attach remaining end to drum cage with holding bracket. Place non-stick backing material under seal ends.

STEP 4.6



Apply a generous amount of hot glue to one end of primary seal.

STEP 4.7



Quickly align primary seal ends and hold together for 1 minute to allow hot glue to dry. Allow an additional 15 minutes of curing time before moving to next step.

STEP 4.8



After hot glue has fully cured, center seal reinforcement over seal joint and mark the perimeter of the seal reinforcement.

STEP 4.9



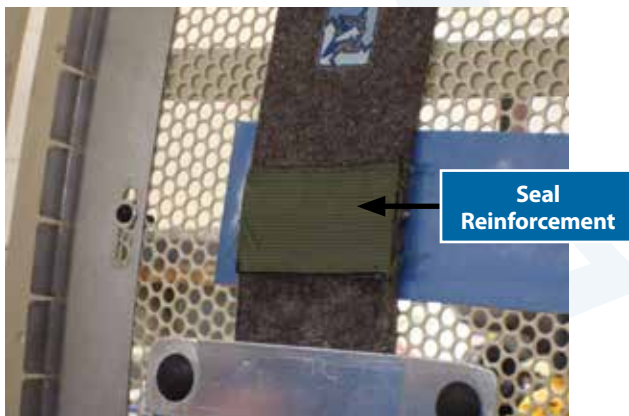
Apply hot glue to seal surface between seal reinforcement perimeter marks.

STEP 4.9



Continued...

STEP 4.10



Quickly place seal reinforcement over the area covered with hot glue.

STEP 4.11



Apply pressure to seal reinforcement with supplied press tool for 1 minute and then let hot glue cure for an additional 15 minutes.

STEP 4.12



While the primary seal reinforcement hot glue is curing, rotate drum cage(s) and wrap secondary seal around circumference of drum cage until seal overlaps. Mark the location of overlap.

STEP 4.13



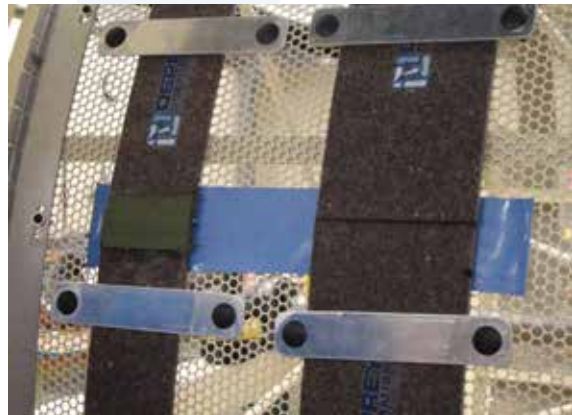
Add an additional 1 1/2" [38 mm] to overlap mark to account for primary seal thickness. Make new mark.

STEP 4.14



Cut secondary seal at new mark ensuring that the cut is perpendicular to the sides of the seal.

STEP 4.15



Butt secondary seal ends together and attach remaining end to drum cage with holding bracket.

STEP 4.16



Apply a generous amount of hot glue to one end of secondary seal.

STEP 4.17



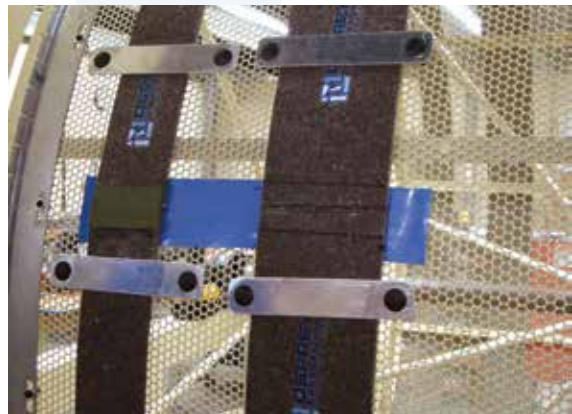
Quickly align secondary seal ends and hold together for 1 minute to allow hot glue to dry. Allow an additional 15 minutes of curing time before moving to next step

STEP 4.18



After hot glue has fully cured, center seal reinforcement over seal joint.

STEP 4.19



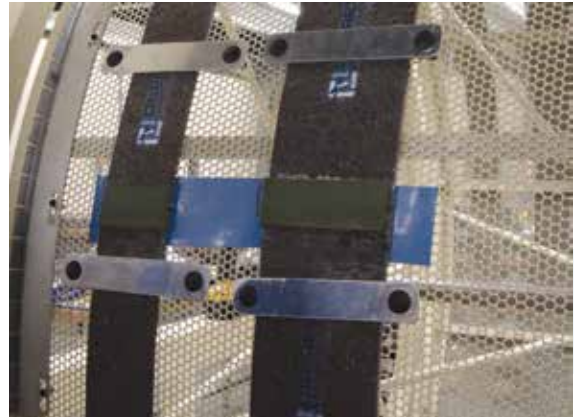
Mark the perimeter of the seal reinforcement.

STEP 4.20



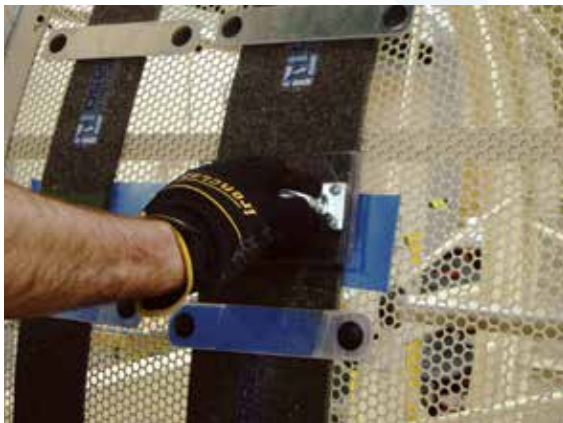
Apply hot glue to seal surface between seal reinforcement perimeter marks.

STEP 4.21



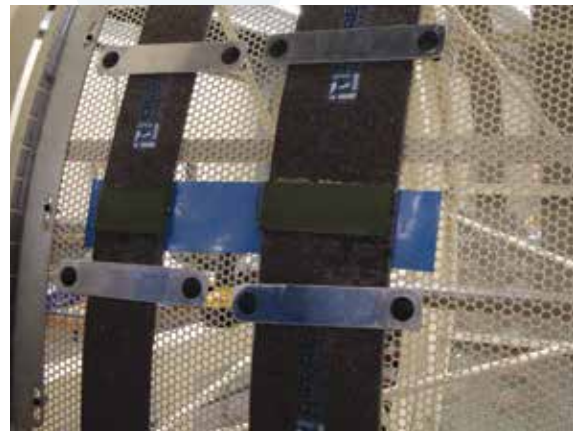
Quickly place seal reinforcement over the area covered with hot glue.

STEP 4.22



Apply pressure to seal reinforcement with supplied press tool for 1 minute.

STEP 4.23



Let hot glue cure for 15 minutes before moving secondary seal.

STEP 4.24



Remove holding brackets and non-stick backing material and work primary seal over seal stops towards plenum wall while manually rotating the drum cage(s).

STEP 4.25



Primary seal is in correct position when entire seal is between seal stops and plenum wall, and one side of seal is in contact with seal stops.

STEP 4.26



Temporarily attach one end of elastic retainer to outside of drum cage.

STEP 4.27



Rotate drum cage(s) and wrap elastic retainer around circumference of drum.

STEP 4.28



Using integrated hook and loop material, join ends of elastic retainer.

STEP 4.29



Work elastic seal retainer over seal stops towards plenum wall.

STEP 4.30



Align leading edge (closest to plenum wall) of elastic retainer on leading edge of primary seal.

STEP 4.31



Work secondary seal over seal stops towards plenum wall while manually rotating the drum cage(s).

STEP 4.32

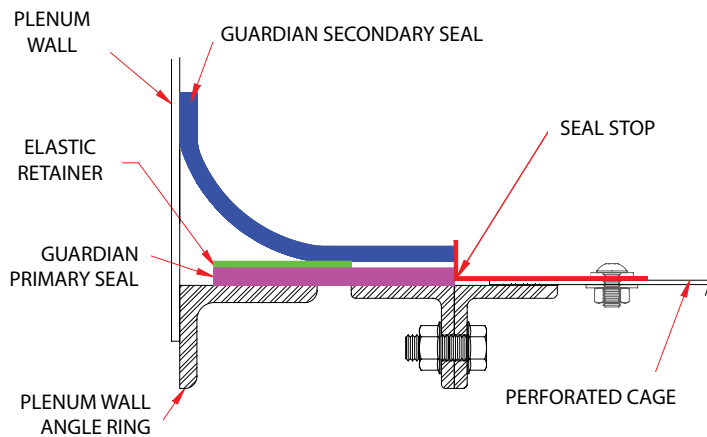


Secondary seal is in correct position when one side of seal is in contact with seal stops, opposite side of seal will be in contact with plenum wall.

STEP 4.33



Pull back the outer edge of the secondary seal from the plenum wall and verify the correct position of the primary seal elastic retainer.



NOTE – Secondary seal will be curved when installed properly.

STEP 4.34



Install drum media.

STEP 4.35



Wrap seal retainer holding band around circumference of drum cage section.

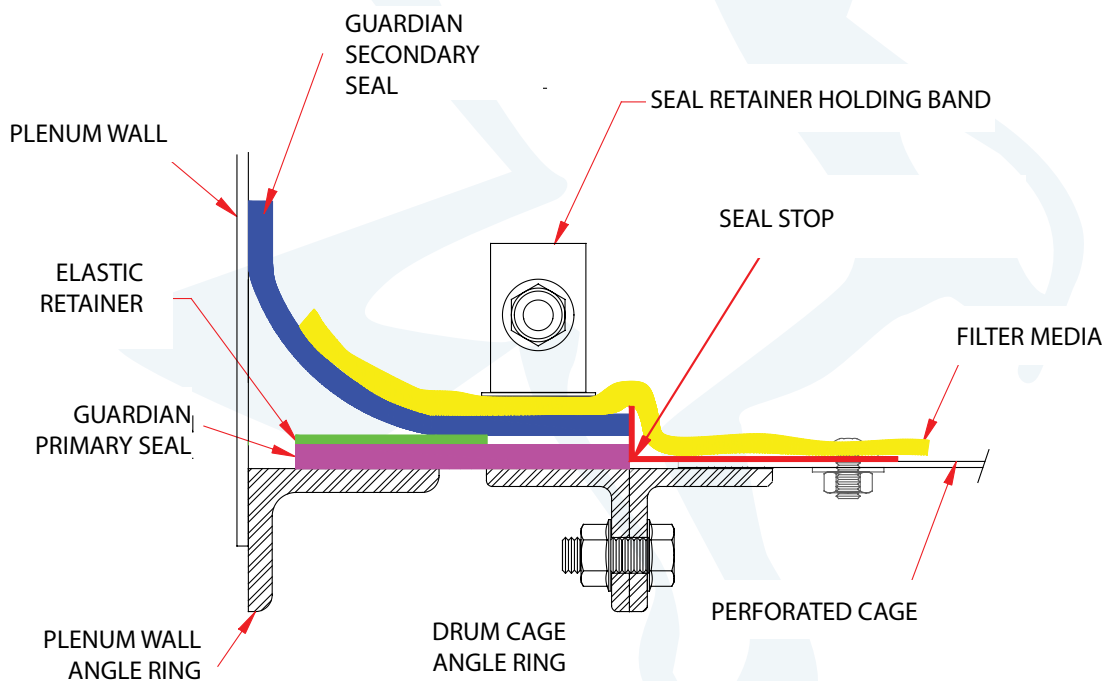
STEP 4.36



Install seal retainer holding band between plenum wall and seal stops. Seal retainer holding band should clamp around the drum cage angle ring, not the plenum wall angle ring (see drawing below).

RESULT

When complete, the cross section of the Guardian seal assembly should match the drawing below..





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