

 **BHA**®

# Instruction and Operation Procedures

BHA® Preveil® Filter Bags for Shaker and Reverse Air Collectors



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# Installation and Operation Procedures: BHA Preveil Filter Bags for Shaker and Reverse Air Collectors

## Installation and Operation Procedures for Shaker and Reverse Air Collectors

BHA Preveil filter bags are extremely delicate and should be handled with care. Allowing the filter bags to become excessively wrinkled or mishandled causes abrasion, broken yarns, permanent stress points, possible snagging and ultimately, premature bag failure. The following guidelines, both general and specific should be followed to ensure optimum performance and bag life.

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**NOTE:** Please follow all general baghouse entry procedures as outlined by OSHA and your specific plant.

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## General Bag Removal and Compartment Inspection Procedures:

- Maintenance personnel should avoid bringing sharp metal objects in the baghouse such as sharp working tools, belt buckles or watch bands.
- Ensure tools, used clamps and other items do not fall into the hopper to avoid equipment damage. However, the hopper should be empty to allow easier retrieval of fallen items if it occurs.
- Remove old bags and clamps from collector as reuse of clamps is not recommended.
- Vacuum dust from tubesheet. Scrape and remove hardened buildup.
- Inspect structure for leaks between tubesheet, walls and for damage to bag support structure. Most baghouses can be checked for leaks using BHA Visolite® Leak Detection System. This involves the injection of specially formulated fluorescent tracer compound in the dirty air stream, and using an ultraviolet light to check for leaks. This is an important test method to ensure bags are free from installation damage and are sealing properly before startup. Refer to the Instruction Sheet for detailed instructions.
- Inspect each thimble for corrosion and leaks. Wire brush the contact surface of the thimbles to remove rust, burrs and dust buildup.
- Inspect tensioning assemblies for wear, corrosion or other damage to avoid breakage, which often results in filter bag damage.
- Inspect door seal and the door's ability to seal properly around the perimeter when closed. Door leakage can result in excess corrosion and moisture damage to bags near the door. Replace door seal and repair door leaks if necessary.
- Perform all repairs and welding prior to new bag installation.

## General Installation Procedures:

- To protect Preveil bags from damage, ensure bags are handled with care. Remove jewelry with sharp edges and do not step or kneel on bag during the installation.
- Stage the cartons of bags inside of the compartment at the tubesheet level.
- Open the cartons carefully so bags are not cut during opening.

## **Specific Installation Procedures for Shaker Baghouses:**

- Vertical seams on bags on each side of the walkway should face the walkway where possible.
- Vertical bag seams are to be straight and plumb from top to bottom. Seams should not be spiraled (cork-screwed).
- Tension setting to be made while the shaker assembly is in the upward (maximum) amplitude. Tension is to be equal to the bag's own weight. Tension in a neutral position should exhibit little or no slack over the thimble orifice.
- Shake cycle duration should be not longer than 20 seconds initially and increases should vary directly to “creeping” pressure drop across the cell plate. Shake cycle duration should be determined prior to startup. The shake cycle duration should take into consideration inlet grain loading, tackiness of particulate. The minimum null period after the shake cycle is one minute. If higher than acceptable differential pressure drops occur due to upset conditions or the inherent nature of the particulate being collected, then increased shake cycle duration should be considered.

## **Specific Installation Procedures for Reverse Air Collectors:**

- Attach a rope to the bag cap and pull the bag to the upper level and hook the cap onto the tensioning assembly.
- Make sure the bag does not contact the side of the collector, walkway or other object which could damage the fabric. The bag seams should be straight and plumb and should be at a 45° to the main walkway, facing the access door.

## **Installing Bag Bottom if using cord bottom design:**

### **(Shaker or Reverse Air):**

- Install the bag bottom over and onto the thimble, ensuring the bag sits evenly around the thimble.
- Install the clamp right below the thimble bead, tight enough so the bag cannot slide up the thimble.
- Apply enough tension on the bag to ensure the clamp sits tightly between the thimble bead (above the clamp) and the cord sewn into the bag cuff (below the clamp).

## **Installing bag bottom if using snapband design:**

### **(Shaker or Reverse Air):**

- Form the snapband into a kidney shape. The vertical seam in the cuff should be on the outer radius of the kidney shape.
- Seat the seam of the cuff into the hole first.
- Release the band so the groove in the band springs securely into the cell plate floor to create an airtight seal or seats in all thimbles. Inspect for proper seating of bead.

## Tensioning Procedures for Reverse Air and Shaker:

- After all bags have been installed in a reverse air unit, they should be tensioned with Parker Hannifin AC Tensioning Tool System to the specified tension. This procedure is performed by inserting the tool on each tensioning assembly, activating the tool and installing the pin in the hole closest to the top of the spring. Refer to the Instruction Sheet for details on tool operation.
- When the AC Tensioning Tool cannot be used in reverse air collectors, tension should be enough to provide a visual tautness on the fabric surface. Bag tensioning in reverse air designs is critical in order to produce good operating results. Undertensioning will inhibit cleaning and cause premature flex failure in the filter bags.
- In shaker collectors, the tension applied while the shaker beam is at the top of its stroke will result in visual looseness when the shaker mechanism is returned to its neutral position. This looseness is necessary to prevent additional loads on the shaker drive components and the filter bags themselves. Undertensioning results in poor cleaning and flex fatigue failure in the bottom 6" to 8" of the filter bag.
- After the tensioning is complete, walk through the compartment to visually inspect each bag for proper clamp and cuff installation. Also verify that seams are straight and properly oriented to the walkway. Each tensioning assembly should also be visually inspected to verify the springs are of uniform height and all hitch pin or clevis pins have been installed.
- Recommended bag tensioning

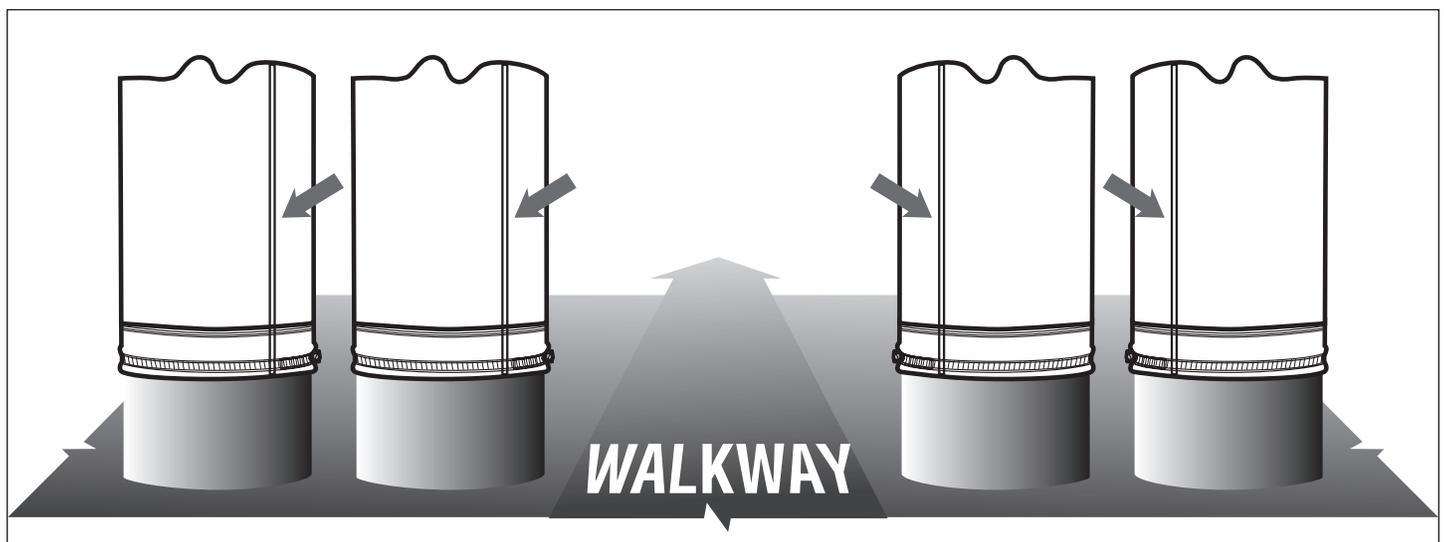
2 lbs - 2-1/2 lbs tension / circumferential (crl) inch.

5" bag	15" c	30-40 lbs
8" bag	24" c	48-60 lbs
12" bag	36" c	72-90 lbs

## General Retensioning Procedures:

After one to two months of operation, bags should be retensioned for optimum bag life. The vertical (warp) yarns straighten during the initial use period, causing a slight increase in bag length which reduces the spring preload tension. Retension to the original tension. If excess dustcake weight causes the bag to sag at the bottom cuff, retensioning to higher preloads may be advisable.

Use the illustration below for important installation check points:



## **General Bag Precoat and Startup Procedures:**

The proper bag precoating and startup procedures are critical to protect against chemical attack on the fabric and fine particulate bleedthrough or blinding that can occur during initial startup. Refer to the Instruction Sheet for BHA Neutralite Powder Injection Guidelines. Parker Hannifin representatives are available to provide additional information to assist you in developing specific startup procedures.

If you have any questions regarding the previous procedures or any other Parker Hannifin product or service, call your representative at 800-821-2222.



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