FARM FOOD SAFETY

Cleaning Produce Washing Equipment: Conveyor Washing System

As we learn more about reducing microbial risk on the produce farm, more emphasis is being placed on cleaning food contact surfaces. Accessing the hard to reach spaces in wash line equipment is challenging. Most of the equipment was not made to come apart very easily or in an economically efficient manner. The checklist provided here has been developed through hands-on research cleaning equipment as thoroughly as can be measured without doing microbial testing. That level of cleaning is still being researched but, from our work, the level of cleanliness provided here appears to be sufficient.

Tools and Estimated Costs

These tools do not represent all other types of tools that could be used.

- Bottle Brush Set (Dxg 8.2” nylon tube brush cleaning set 1/16” – 1” diameter) $7.99
- Silicone Bottle Cleaning Brush (Kitchiny 12.5”) $10.49
- Rotary Dryer Vent Cleaning Kit (Gardus expandable flexible brush attaches to cordless drill) $30.00
- Dryer Vent Cleaning Brush (Flexible brush) $10.00
- 7-in-1 Multi-Purpose Paint Tool (Red Devil) $6.00
- Stiff Bristle Kitchen/Floor or Bath Brush $5.00
- 2-in-1 Scrub Sponges (pack) $4.00
- Pump Sprayer
- Wrenches
- Socket Set
- Needle Nose Pliers or Vise Grips
- Ruler
- Floor Squeegee (17” blade 51” handle, heavy duty)

Assortment of tools. From left to right: multi-purpose paint tool, bottle brushes 1/16” – 1”, longer handle bottle brushes, scrub sponge on a stick, and dryer vent flex brush. Multi-purpose paint tool is used for getting into tight spaces on the absorber.

A pump sprayer is ideal for delivering low pressure to specific points that need cleaning. A high pressure washer would splash debris deeper into the equipment, splatter debris onto food contact surfaces all over the facility, and can atomize contaminates that can cross contaminate elsewhere.
Getting Started

IMPORTANT: Unplug the equipment while cleaning it to avoid injury.

To better reach into washer to clean, first remove top covers. Replace rivets with machine screws. For safety reasons, replace covers when equipment is in operation.

Cleaning the Brush Washer

Use 1/4” bottle brush to clean between the bristle bundles.

Close-up of bristle cleaning.

Dryer vent brush with flex handle proved to be good tool for going between brush sets, between bristle bundles, and, to some extent, between bristles.

Homemade long-handle scrub sponge can be used to clean dried debris from wall.

Scrubber sponge should be used for wiping inside and outside walls, wherever reachable.
Cleaning the Absorber

Cleaning the absorber is challenging. It's important to clean between the donut set and the housing wall, trying not to scratch the foam donuts. Debris gets lodged down into these areas regularly and requires scrubbing to remove.

Debris can get wedged between absorber donuts. The paint tool has a curved edge that neatly fits between donuts to pick out debris. Place tool between donuts being careful not to scratch foam. Despite best efforts when cleaning donuts, damage can occur: scratches in the foam or widening spaces between donuts. Plan to replace donuts yearly.

Cleaning the Conveyor

To clean conveyor, wrenches are needed to remove the end cap plate.

To best clean the conveyor belt, the splicing rod has to be removed. Measure where the nut is on the tension bolt to speed up the process for putting it back together later. Loosen nut with wrench.
Cleaning the Conveyor (continued)

Turn the power on, temporarily, to run belt to move splice so it’s lined up with opening on side of housing. Unplug the machine.

Needle nose pliers or vise grips can be used to grab the splicing rod and start to slide it out.

Once the rod clears the housing, grab it with pliers and pull it all the way out. This then opens up the belt for easier cleaning.

The underside of the belt gets caked-on debris. The support rods and axles also can get messy. Scrub brushes and sponges work well for the interior cleaning.

Reassemble and Clean Up

Reassemble the conveyor and replace covers to the unit. Use a squeegee to move water off floors throughout the cleaning process. Use sanitizer in pump sprayer to spray down equipment after cleaning.