



TITLE: CHI and SPH- Operation and Maintenance of Rack Washer, Tunnel Washer, Bedding Dispenser

SOP Category: Facilities

RUAC SOP #: 2.11

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Effective Date: 11/9/2021

Approval: *Lisa Antonucci*

Revisions: 10/15/24

SCOPE:

This SOP applies to all Animal Care Staff (ACS), ACS Supervisors (ACSS), Veterinary Staff (VS), and Research Staff members (RS) at the Rutgers University facilities.

This SOP covers the operation of the following CHI and SPH cage wash equipment:

Tunnel washer

Rack washer

Bedding Dispenser

OBJECTIVE:

The objective is to establish the procedures for operation of the cage wash equipment at Children Health Institute (CHI) and School of Public Health (SPH).

PROCEDURES:

Tunnel washer - CHI Tunnel washer is a Basil 6000. The tunnel washer is primarily used for washing rodent caging (shoe box bottoms, wire bars, MI tops, water bottles, and accessories). The tunnel washer is a cage washer that moves cages automatically on a conveyor from the entrance to the exit exposing the cages to a pre-rinse, wash, rinse, and drying. At the end of the tunnel washer a Steris bedding dispenser is connected.

Starting Tunnel washer in CHI

- Dirty side Animal Care Technician
 - Open control panel located at front of tunnel washer and press the power button.
 - washer will automatically Tunnel fill and heat.
 - Press the “Start” button; the conveyor will automatically advance allowing cages to be washed
 - The tunnel washer has a “Stop” button on both the clean and dirty side if necessary to stop the machine while washing cages.



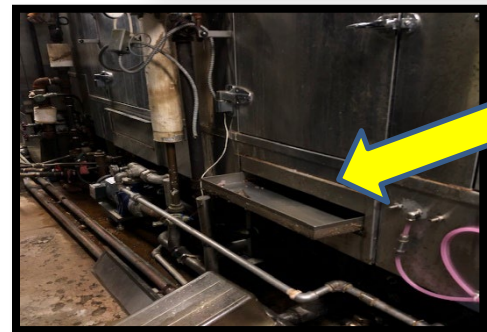
Shutting off tunnel washer

- Clean or Dirty side Animal Care Technician
 - Press the “Stop” button.



End of day procedures:

- To drain the tanks can be done automatically by the machine or press the “manual” button. Using the “up and down buttons scroll to “dump tanks”.
- From dirty side hose down the inside of the tunnel washer located in the service area.
- Remove trays from tunnel washer; clean and replace.



Maintenance of the tunnel washer

- RV Industries performs preventative maintenance (PM) on the tunnel washers.
- Repairs are scheduled and coordinated with RV Industries through the RUAC supervisors, manager and the Assistant Director of Operations.

Emergency stops



There is an emergency Stop push-button (red) that will stop the Tunnel washer if necessary.



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Starting Tunnel Washer in SPH

Clean and dirty side Animal Care Technician

- Press the "Power" button to start the machine
- Tunnel washer will automatically fill and heat



- Press the
- The cages to be



"Start" button
conveyer will automatically advance allowing wash

- The Tunnel Washer has a dirty side cage wash you stop the machine.
- Pressing the "Stop" button on the end of the day.



"Stop" button on the clean and
can press the button anytime to
you can **Shut** the tunnel washer



- In case of emergency Press the **Red** Emergency button which is located on the clean and dirty side of the cage wash

Reset the emergency stop

- Go to the **dirty cage** wash
- Press the "Safety Reset" button

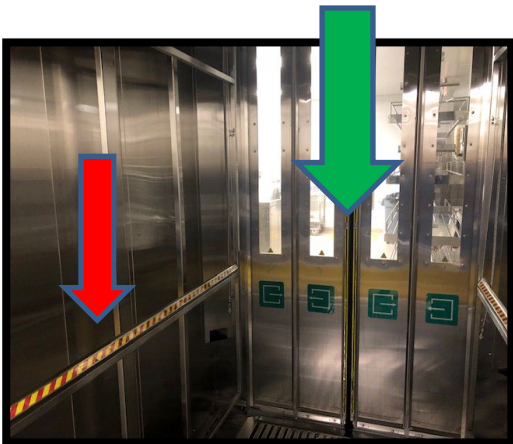


The drain of the tanks will be done automatically by the machine

Rack Washer - CHI Rack washer is Basil 9500. The rack washer is primarily used for washing racks, carts and larger items. The rack washer can also be used for washing rodent caging shoebox bottoms, wire bars, MI tops, and water bottles by using a special rack made for washing those items in the rack washer. The rack washer is a contained washer that has a mechanical arm that moves over the items being washed. Each cycle washes with a pre-rinse, wash, final rinse and drying.

Do not operate the rack cage washer until you have received training in the operation of the washer, and the safety features specific to the machine. Training covers:

1. How to exit the machine should you be accidentally trapped inside



2. Use of emergency shut off safety devices for the machine. Training will be conducted and documented by the manager or supervisor.



Starting Rack Washer

- On dirty side open control panel and turn power on.
- Green light will indicate rack washer is on and ready to be loaded.
- Press “**open door**” button. Doors will slide open.
- Push/roll/place item to be washed in rack washer.
- Press “**door close**” button. Door will slide shut.



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- Press “**select cycle**” button and choose from the cycle options.
 - Rodent – for shoe box cages
 - Bottle Wash –for water bottles
 - Carts – for carts
 - Descale to clean machine



- Press “**cycle start**” – Green light will turn red while cycle is on.
- Once cycle is complete light will turn green.
- On clean side press “door open” button and remove item(s) from rack washer.
 - Start procedure from top until all items are washed.



To maximize washing, a center manifold can be placed in the rack washer. The manifold has two rotating sprayer arms. When this piece is in place it allows for two racks to be washed providing water to be dispersed in-between the racks.

Installing Manifold

- The manifold is on wheels and is rolled into the rack washer.
- Release the locking pin and lift the manifold off the wheel. Place the manifold over the center hole and drop into the center pipe.
- Attached to the manifold is a locking handle that is moved upward and connected to the ceiling of the rack washer.

Removing Manifold

- To remove manifold, reverse the order and unlock the locking handle from the ceiling.
- Lift the manifold off the center pipe
- Replace the manifold onto the cart locking it back on with the pin and wheel it from the machine.

When the tunnel washer is not usable the rack washer can be used for washing smaller items like water bottles, shoe box cages, MI tops, wire bars and misc items. This can be accomplished by using additional equipment- the bottle washing cart and rodent cage rack.

Bottle washing cart - Using Bottle washing cart

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- Load bottle washing cart
- Place bottle washing cart in the center pipe of rack washer.
- Closed rack washer door and start cycle.

Rodent cage rack

- Load rodent cage rack.
- Wheel rack into rack washer.
- Close door and start cycle.

Shutting Off Rack Washer

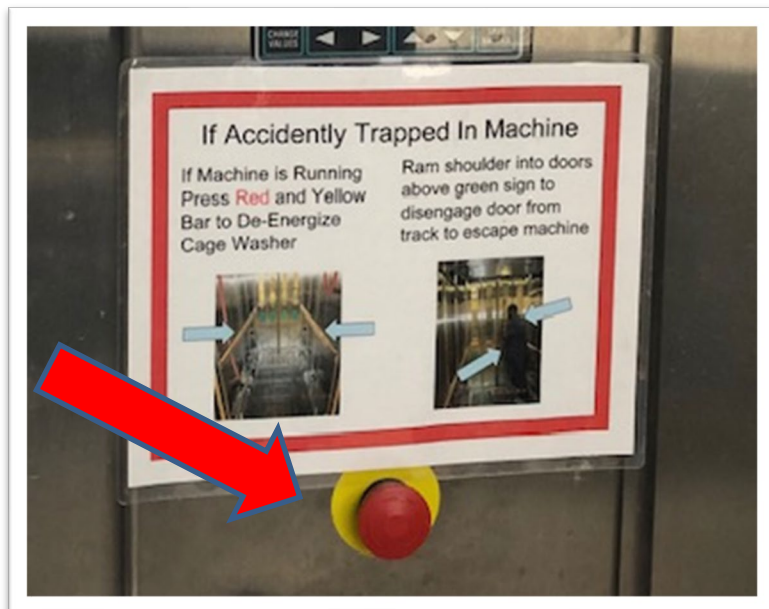
- Rack washer automatically empties at 7:00 pm.
- Hose down inside of rack washer.

Maintenance of Rack Washer

- RV Industries performs preventative maintenance (PM) on the rack washers.
- Repairs are scheduled and coordinated with RV Industries through the RUAC supervisors, manager and the Assistant Director of Operations.

Emergency stops

There is an emergency Stop push-button (red) that will stop the Rack washer if necessary.



Basil 3600 Bedding Dispenser.

The bedding dispenser is attached to the end of the conveyer system of the tunnel washer. The bedding dispenser has a cage flip system that allows the cages coming out of the system to be turned over so bedding can be filled in the cages. In addition, there is an electric eye at the end of the system so the conveyer will stop when the conveyer is full, preventing caging from falling on the ground.



Operating the Bedding Dispenser.

- Power on:
 - Bedding dispenser
 - Dust collector
 - Both units will run when the tunnel washer is operating
- Set the bedding Dispenser Adjustment Knob. This may need to be adjusted to increase or decrease bedding while cages are being washed and bedded.
- Make sure bedding hopper is full. This will need to be filled throughout the operation.
- There is an emergency Stop push-button (red) that will stop the conveyer and bedding dispenser if necessary.
- Indicator Lights on the control panel will show when you have power, when the conveyer is full, and if the dust collector is running.
- At the end of cage wash operation turn off bedding dispenser and dust collector.

Bedding dispenser in SPH



Bedding dispenser in SPH

TBJ BD 3600



- Is not connected to the tunnel washer.

One person must remove the cages from the conveyer and place them on the drive roller on the bedding dispenser to be filled with the bedding

- The cages must be removed from the Drive Roller and place on the cart.

To start the bedding dispenser

- Turn the **power valve** to the right
- Press the **“Start”** button

For emergency

- Press **the Red** button
- To reset Pull **the Red** button out



Maintenance of Bedding Dispenser

Repairs are scheduled and coordinated with RV Industries through the RUAC supervisors, manager and the Assistant Director of Operations.