

DUST CONTROL

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Dust Control

Dust control is accomplished by spraying water at locations where the dust is being created, in front of the gutter brooms and between the elevator and main broom. The water tank capacity varies between 200 gallons and 350 gallons depending on which model. The spray nozzles used are 120° pattern at ¼ gallons per minute (gpm). There are many different patterns and gpm that can easily be changed to match customer preferences. The standard water pump is an electric 3.6 gpm diaphragm. This pump can be run dry indefinitely without harming the pump. There are many different combinations and sizes of pumps depending on options and customer preference.

The gutter brooms each have a 2 nozzle spray bars, the main broom has a 4 nozzle spray bar. There is also a spray bar under the front bumper. The bumper spray bar has very little effect on dust control but it is preferred by many customers because it wets the pavement making it look swept.



The primary dust control is done between the main broom and the elevator. This is where approximately 80% of the dust is being created. All spray bars have hand valves to regulate or turn off individual spray bars. Approximately 20% of dust is being created at the gutter brooms. Where the spray is directed is important, the spray should be pointed as close as possible to the point where the dust is being created. This is difficult to do on the main broom spray bar. On the gutter brooms it would be at the point of contact with the road surface. This point changes little as the gutter brooms wear.



Filling the water tank

To fill the water tank open the back door on the passenger side. There is a basket that holds the hydrant hose. Pull the hose out of the basket and connect to the hydrant. Open the hydrant slightly to let some water flow to the tank. This washes off any dirt that might be sitting on top of the tank door as well as cleaning the grit out of the hydrant itself. It will only take a few seconds to do this and then pull the tank door lever to the full open position. This will start the water flowing into the tank. Open the hydrant for more flow. The tank will fill very quickly.

Flushing/cleaning the elevator

If the main broom has been left down and rotating slowly, with the hydrant running, close the water tank lever, be careful that you don't get wet, flushing the elevator. As the elevator is cleaned the dirt that is flushed from the elevator goes into the hopper leaving the surface wet. Flushing the elevator might not be allowed in some locations, so check before doing this.



Cleaning nozzles

The nozzles are a quick release type, ¼ gpm, 120° pattern to remove the nozzles push in and turn. The water filter should be cleaned daily but depending on water quality there may be particles that do not get trapped by the filter and the particles may plug the nozzles. If this happens then remove the nozzle and blow air backwards through the nozzle which should clear the obstruction. Sometimes the obstruction cannot be removed in which case it must be replaced.

Winterizing Water System

In cold weather (below 32°F) the water system must be drained if leaving the sweeper outside. To drain the water system, remove the water filter and place it in the cab of the sweeper. This will drain the water tank. With the filter off the water pump should be run to remove any water in it. The connections to the water pump should have air blown through them to remove any water in them. By blowing air in the lines at the pump will also remove the water to the nozzles.



Algae in the Tanks

When a sweeper is being parked for an extended period of time the water should be drained. If water sets for a long time it may begin to grow algae. If this occur the water filter may become continually clogged. If this happens the solution is to use chlorine tables that are used in swimming pools. This kills the algae and will eventually clear the tank after several flushing's.

Cold Weather Sweeping

If sweeping with temperatures below freezing be careful water does not freeze in tank, water lines or freeze to the surface that is being swept. Biodegradable antifreeze may be used to lower the temperature that the water will freeze. Check if that is acceptable in that area prior to doing so.