Floor Switches

1) Description

a) Commonly used as a **Tire Switch** and Entrance Management switch (Auto Roller-Up switch).

b) Can be saw cut into concrete or ramped style (saw cut more prevalent)

c) Floor switches are activated by the pressure of approximately 10-15 lbs. when the tire of a vehicle rolls over it.

d) The signal can be used to turn on specific equipment directly, such as tire applications, prep stations, and Roller-Up equipment.

e) The signal could also be used by the tunnel controller to calculate the position of the tires in relation to the front of a vehicle, thus allowing the tunnel controller to turn equipment on/off throughout the tunnel as the tires pass by the equipment.

2) Preventive Maintenance Requirements

a) DAILY

(1) Perform general examination of operation. Check to ensure proper cleaning of wheels and tires.

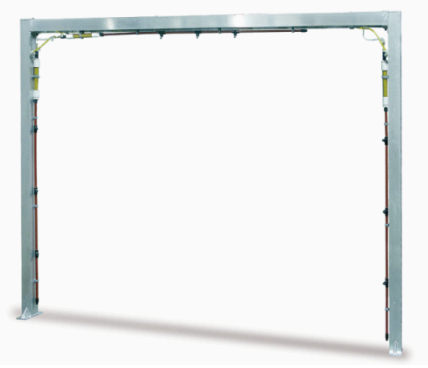
b. Foaming Applicator Arch

1) Description

a) The Foaming Applicator Arch is to provide complete coverage of the vehicle with foaming presoak solution prior to entering the wash cycle.

b) Foaming presoak solution pulls dirt from the vehicle and provides lubrication for cloth.

c) Utilizes **compressed air** to produce the foaming action.



2) Adjustments

a) Pump Station Adjustment

(1) Adjustment is made at the air regulators on the pump station for the arch.

b) Foamer Adjustment

(1) **Fine adjustment to the consistency of the foam can be accomplished at the individual foamers**. Each has an air and solution adjustment.

(2) **Wet foam** is desired so it will hit the vehicle and start to run, pulling the sand and dirt with it.

3) Preventive Maintenance Requirements

a) DAILY

(1) Operational Checks

(a) Check for leaks around hoses and fittings. Repair any serious leaks immediately.

(b) Perform general examination of operation, listening for any unusual noises.

(c) Check spray pattern from nozzles. Clean any dirty nozzles.

b) WEEKLY

(1) Check all nozzles for wear and replace if necessary.

(2) Remove, clean and reinsert the foamer pad(s).

c) MONTHLY

(1) Check all hardware and fittings for tightness and clean thoroughly.

d) ANNUALLY

(1) Replace all nozzles to prevent excessive chemical usage and uneven application.

e. Liquid Applicator Arch

1) Description

a) The Liquid Dual Applicator Arch provides complete coverage of the vehicle with liquid presoak solution prior to entering the wash cycle.

b) Some presoak chemicals work best when they are applied as a liquid rather than foam.

c) Is needed to apply heated solutions that may be required in a touch-free tunnel.

2) Adjustments

Pump Station Adjustment

a) Adjustment is made at the air regulators on the pump station for the arch.

b) The air pressure to the pump is set around 40PSI.

3) Preventive Maintenance Requirements

a) DAILY

(1) Operational Checks

(a) Check for leaks around hoses and fittings. Repair any serious leaks immediately.

(b) Perform general examination of operation, listening for any unusual noises.

(c) Check spray pattern from nozzles. Clean any dirty nozzles.

b) WEEKLY

(1) Check all nozzles for wear and replace if necessary.

c) MONTHLY

(1) Check all hardware and fittings for tightness and clean thoroughly.

d) ANNUALLY

(1) Replace all nozzles to prevent excessive chemical usage and uneven application.

f. Tire and Wheel Chemical Applicators

1) Description

a) These applicators apply cleaning solution to tires or wheels to ensure a completely clean vehicle is achieved. If more than one applicator is installed, there should be 40” in between them.

b) Compressed air and cleaning solution are combined at the applicator and may be adjusted by needle valves to fine tune the coverage and strength.

c) Activation Methods

(1) Treadle Activated; will apply the solution as the vehicle passes without the need of an attendant. It is activated by a floor switch/treadle.

(2) Controller Activated; may be positioned anywhere in the tunnel and will be turned on/off by the tunnel controller as the wheel/tire passes the applicator. This reduces labor, chemical waste, and equipment requirements for multiple applications.

2) Adjustments

a) Pump Station Adjustment

(1) Adjustment is made at the air regulators on the pump station for the applicator.

(2) Fine adjustment to the consistency of the foam can be accomplished at the individual foamers. Each has an air and solution adjustment.

(3) **Wet foam is desired** so it will hit the tires and start to run, pulling the sand and dirt with it.

3) Preventive Maintenance Requirements

a) DAILY

(1) Operational Checks

(a) Check for leaks around hoses and fittings. Repair any serious leaks immediately.

(b) Perform general examination of operation, listening for any unusual noises.

(c) Check spray pattern from nozzles, clean any dirty nozzles.

b) WEEKLY

(1) Check all nozzles for wear and replace if necessary.

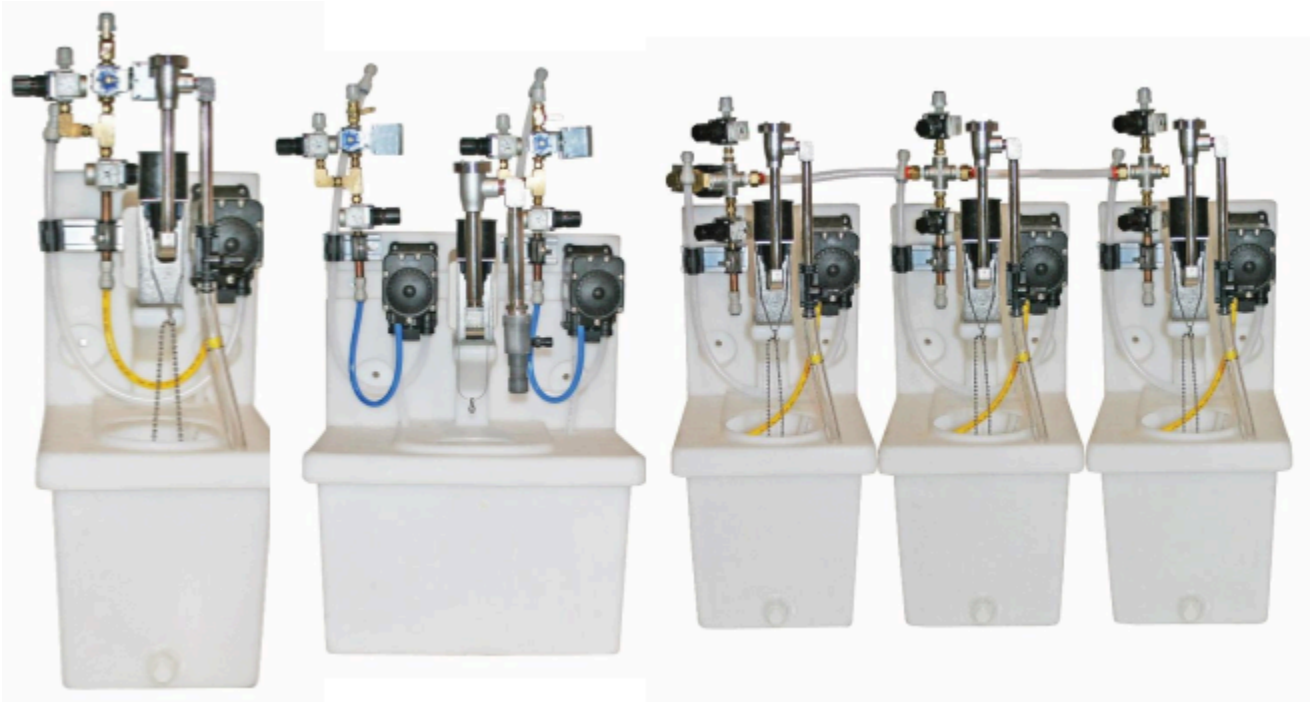
c) MONTHLY

(1) Check all hardware and fittings for tightness and clean thoroughly.

d) ANNUALLY

(1) Replace all nozzles to prevent excessive chemical usage and uneven application.

g. Foaming Pump Stations



1) Description
   a) Has a frame, making installation easier.
   b) Tank(s) hold solutions of water mixed with desired chemical.
   c) **Hydrominders** are used to mix chemical with water.
      (1) Different models available to meet requirements.
      (2) Float assembly controls the level in the solution tank(s) by closing and opening the supply valve.
      (3) Eductor draws chemical from the barrel and mixes it with water using a Venturi.
      (4) Siphon breaker prevents chemicals from entering water system.

   d) Dema solenoid(s) to activate the system.
      (1) May be 24VAC or 110VAC. If 110VAC, a licensed technician should be called to replace coil when defective.

(2) Valve body is easily replaced separately if it fails.

e) Air valves, regulators, and pressure gauges are used to control the volume of solution delivered and air delivery for foaming if required.

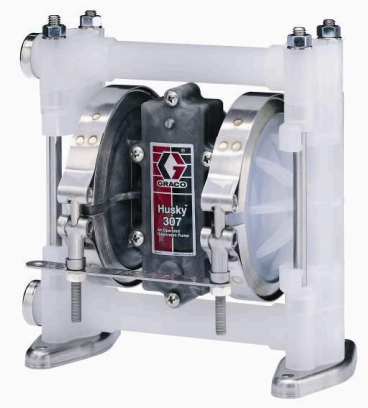
f) **Air driven pumps** are used to deliver solution to applicator or arch.

(1) G57V Viton pumps are used for wheel and tire cleaning products and deliver a maximum of 5 GPM.

(2) G57 Flojet pumps (Santoprene) are used for most other products.

(3) Both G57 pumps are air driven

(4) Air driven Graco pumps made from Teflon or Santoprene deliver up to 15 GPM for high volume tunnels, which want to run more than 120 cars per hour.



(5) Air driven ARO pumps made from Teflon or Santoprene may be used in some instances.

2. Adjustments
   a) Tank Level
      (1) Tank level can be adjusted by changing the length of chain on the Hydrominder float assembly.
      (2) Level should be within 2” to 3” of the rim of the tank.
   b) Solution Mixture
      (1) The ratio of chemical concentrate to water is adjusted by changing the metering tip size.
      (2) The dilution rate does not normally require adjustment, unless the chemical being used is changed.
3. Preventive Maintenance Requirements
   a) DAILY
      (1) Opening Checks
         (a) Check chemical draw from drum and level in tank and drum.
         (b) Check for sufficient chemical supply for the day’s use.
         (c) Inspect for liquid and air leaks and check chemical draw line to make sure chemical is not draining back into barrel.

(1) Operational Checks

(a) Check for leaks around hoses and fittings. Repair any serious leaks immediately.

(b) Perform general examination of operation, listen for any unusual noises.

(c) Check pressure gauges. They should come up to pressure and remain steady.

b) MONTHLY

(1) Check all hardware and fittings for tightness and clean thoroughly.

(2) Clean sediment and dirt from storage/solution tank.

c) ANNUALLY

Replace all nozzles and metering tips to prevent excessive chemical usage and uneven application.

h. Direct Inject Panels

1) Description

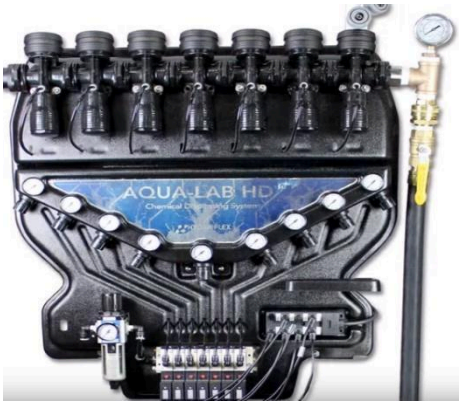
a) These panels have no mixing tanks and pull chemistry from the drum and mix with water inline.

b) They rely on a single pump, generally, to supply entire wash with chemistry. Redundancy is therefore suggested.

i. Water Driven Pumps

1) Description

a) A chemical dispensing system utilizing Dosatron pumps (water driven) and a booster pump with VFD to ensure consistant water pressure.



Wall Mounted

Stand Mounted