

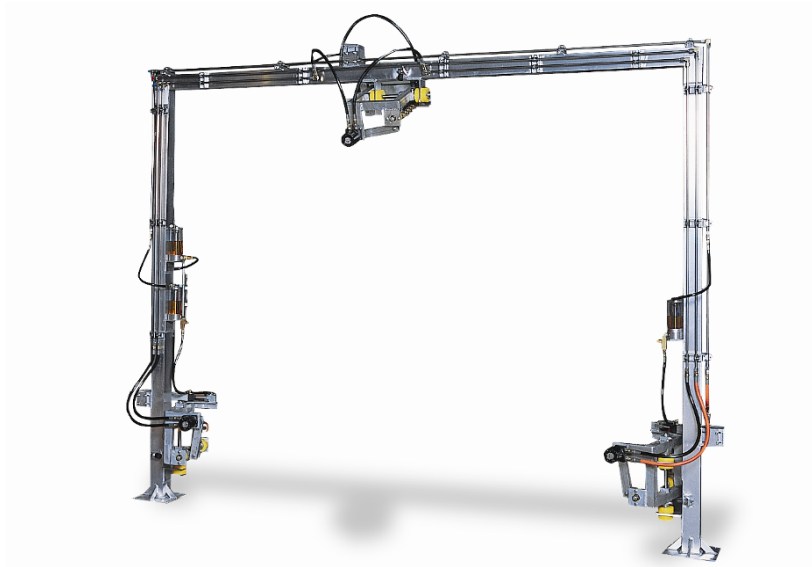


Light Touch & High-Pressure Wash Equipment Overview

High-pressure Wash

a) Omni Arches

1) Description



- a) Uses high-pressure water to clean the vehicle without the use of friction materials. Can be used in a touch-free wash or in conjunction with friction equipment to get better cleaning in hard-to-reach areas.
- b) Uses **multiple high-pressure nozzles** mounted on a manifold that oscillates to increase cleaning zone and pivots to track problem areas, such as wheels, as the vehicle passes to extend cleaning time.
- c) Hydraulic motors are used to oscillate the manifolds, and air over oil-controlled cylinders are used to accomplish tracking of the vehicle.
- d) Greaseless UHMW plastic bearings are used to reduce maintenance.
- e) Styles
 - a) The water pressure to the nozzles is adjusted at the high pressure (HP) bypass valve on the water pump station to approximately 800PSI.
 - b) Oscillating Speed Adjustment
 - (1) The oscillating speed of the manifolds can be adjusted at the flow control valve on the hydraulic power pack.



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- (2) Speed should be set to 60-70 RPM as viewed at the hydraulic motor shaft.

c) Tracking Speed Adjustment

- (1) Each manifold has two air pressure regulators on the air manifold to control tracking. Each should be set to 60PSI.
- (2) Each manifold has a **brass flow control valve** to regulate how fast the manifold tracks the vehicle as it passes and a plastic flow control to control how quickly it returns to the ready position, facing the tunnel entrance.

(3) Lower Level Manifolds

- (a) The manifolds should be aimed at the oncoming car as it approaches the Omni arch. This will clean the front grill/bumper area.
- (b) As the front wheel/tire area comes into target range, the tracking speed should keep the manifold aimed at the wheel/tire area as it passes.
- (c) When the front wheel/tire area is out of target range, the manifold should return to the ready position prior to the rear wheel/tire area entering the target range, but not so quickly that it doesn't perform any cleaning in the rocker panel area.
- (d) As the rear wheel/tire area comes into target range the tracking speed should keep the manifold aimed at the wheel/tire area as it passes.
- (e) As the vehicle passes beyond target range, the manifold should return to the ready position for the next vehicle.

d) Upper Level and Roof Manifolds

- (a) The manifolds should be aimed at the oncoming car as it approaches the Omni arch. This will allow the manifold to clean the front grill/bumper area.
- (b) As the front windshield passes beyond the target range, the tracking speed should cause the manifold to rotate to within a couple of feet to the rear aim position.
- (c) As the vehicle passes beyond target range, the manifold should return to the ready position for the next vehicle.

2) Preventive Maintenance Requirements



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a) DAILY

- (1) During Opening Checks, check for leaks around hydraulic hoses and fittings. Repair any hydraulic leaks immediately.
- (2) Operational Checks
 - (a) Check for leaks around hoses and fittings. Repair any serious water or air leaks immediately.
 - (b) General of operation, listening for any unusual noises.
 - (c) Observe fluid level in reservoir. If low, add fluid or if contaminated, drain, and replace.

b) WEEKLY

- (1) Check all nozzles for wear and replace if necessary.
- (2) Perform a close inspection of operating mechanisms and hoses for problems.
- (3) Spray lubricant on cylinder rod ends and clevises.

c) MONTHLY

- (1) Inspect all UHMW bearings for wear. Replace if necessary.
- (2) Inspect all hardware and fittings for tightness and clean the entire assembly thoroughly.

d) ANNUALLY

- (1) Inspect spray nozzles for wear.
- (2) Inspect cylinder rod ends and clevises for wear and lubricate.
- (3) Change fluid in reservoir.
- (4) Have a licensed electrician measure and record, full load current readings from each of the three legs of each of the three phase electric motors.
 - (a) If the differential of current load exceeds 10% between the legs, or the balanced load current of all three legs has increased over 10% since the most recent measurements, order a replacement motor.
 - (b) Record readings in the annual log.
 - (c) Grease all electric motors per manufacturers specifications.