



AW160 – AUTOMATIC IN-LINE VIAL CLEANING SYSTEM

The AW160 washer is a sanitary streamlined, low profile design with programmable controller management of all machine logic functions. This machine uses a Universal vial carrier for 13mm through 32mm necks, eliminating time-consuming carrier changes. This machine offers a smooth and refined way of handling glass vials and bottles through its system. The AW160 uses a PLC to control the wash cycle. The user can precisely determine wash parameters for each specific container, which allows for WFI savings.



WASHING PRINCIPLE

The carriers pick up and hold containers by the outside of the neck throughout the entire washing process. Containers are held securely in the inverted upright position while cleaning solutions impinge directly onto the center of the container's base, allowing a uniform cascading flow pattern.

The glassware is directed into the washing tunnel via a moving mesh conveyor, which channels containers into rows for acceptance.

Before the washing process takes place, the first two internal stations remove loose particles with a jet stream of air from the stainless steel cleaning nozzles.

The cleaning stations inside the washing area then sanitize the containers through a user-defined series of cleaning media. Up to eleven cleaning stations are available. Upon exiting the washing area, the containers are automatically removed from the carriers and placed open end up, ready for sterilizer, tray loading or conveyor transporting to downstream equipment.

FEATURES

- Speeds up to 160 BPM
- Nozzle penetration of containers
- Segregated wash stations to prevent cross-contamination
- Vials held securely upright
- Nozzles do not contact vial interior
- Low WFI Consumption
- No retaining cups
- Flexible wash sequence
- Air-vacuum pre-cleaning
- Wash Time control for customizing wash media flow time
- Discharge System that protects against particle recontamination
- Exterior and vial finish is unobstructed for effective washing



AW160 SPECIFICATIONS

Vials per carrier	8
*Min./Max. Container Diameter	½" to 3 ⅝" 13mm to 86.1mm
Washing Needle Centers	3 ½" (88.9mm)
*Max. Container Height	7" (177.8mm)
Machine Speed	6 to 20 cycles per minute
Max. Hourly Production	9600
Wash Time Per Station	Programmable
Processing Line Connections	1 ½" O.D. Tri-Clover Clamps
Drain Connection	1 ½" Tri-Clover clamps and 2 ⅜"

AIR VACUUM CLEAN-2 STATIONS-EACH STATION

Max. Air Consumption at 50 p.s.i. (3.5 kg/cm²)	80 C.F.H. 2264 L.P.H.
Air Flow Rate At 50 p.s.i. (3.5 kg/cm²)	5.6 C.F.M. 158 L.P.M.
Vacuum Requirements At 3.5" Hg. (89mm Hg.)	100 C.F.M. 2832 L.P.M.

INTERNAL WASH-6 STATIONS (3 WATER, 3 AIR)-20 P.S.I. (1.4kg/cm²)-EACH STATION

**Water Consumption	83 G.P.H. 296 L.P.H.
Water Flow Rate	2.1 G.P.M. 8 L.P.M.
Air Consumption	80 C.F.H. 2264 L.P.H.
Air Flow Rate	5.6 C.F.M. 158 L.P.M.

EXTERNAL WASH-2 STATIONS-20 P.S.I. (1.4kg/cm²)

***Water Consumption (Water Flow Rate)	38 G.P.H. 144 L.P.H.
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EXTERNAL AIR BLOW-1 STATION-20 P.S.I. (1.4kg/cm²)

Air Consumption	129.6 C.F.H. 5184 L.P.H.
Air Flow Rate	8.64 C.F.M. 352 L.P.M.
Liquid Contact Parts	Stainless Steel
Electricals	1 ½ and ½ h.p.; D.C. Drive PLC Controlled, includes message center

*Larger containers may be handled with optional change parts—please consult.

**Based on full speed of 20 cycles per minute. Actual spray times can be adjusted up or down.

***Based on continuous flow. Intermittent flow available.

ABBREVIATION KEY

G.P.H.=gallons per hour

L.P.H.=liters per hour

G.P.M.=gallons per minute

L.P.M.=liters per minute

C.F.H.=cubic feet per hour

C.F.M.=cubic feet per minute

SYSTEM DESCRIPTION

PROCESS CONTROL

The AW240 is equipped with two stations for air/vacuum cleaning, six stations of internal cleaning and two external wash stations.

VIAL CARRIERS

The machine comes equipped with 38 Universal vial carriers for 13mm through 32mm necks.

VALVES

All valves are ITT diaphragm type with Teflon seals.

MATERIALS OF CONSTRUCTION

- 316L stainless steel nozzles
- 316L stainless steel piping with sanitary connections, sloped to drain
- 304 stainless steel exterior surfaces and frame.

UTILITIES, CONTROLS & ELECTRICAL

- 230lt, 60 hertz, 3 phase, NEMA 4X
- An Allen Bradley SLC series programmable controller to run all machine logic functions is placed in control panel on washer.
- Machine plumbing is entirely sanitary, using 316 stainless steel Tri-Clover fittings, sanitary piping, sanitary ITT diaphragm valves and a free draining design.
- Instrument air: needed 80 psi. min.

DIMENSIONS

Width	156"
Depth	56.5"
Height	76.5"

