

## ***NKAC-120P Automatic Pick And Place Airjet Cleaning Machine***



N.K. Industries, a trusted name in packaging automation, proudly presents the Automatic Pick and Place Airjet Cleaning Machine, designed to streamline pre-filling operations by removing particulate contaminants from bottles with unmatched precision. As a reputed manufacturer, supplier, and exporter, we bring to market this high-efficiency machine engineered to meet the rigorous demands of the pharmaceutical, cosmetic, food, and chemical industries.

This innovative cleaning solution ensures bottles are meticulously cleaned before filling, thereby upholding product integrity and ensuring regulatory compliance. The machine is suitable for containers made of glass, plastic, or tinfoil, making it a versatile and indispensable part of your production line.

### **Efficient Bottle Cleaning with Pick & Place Precision**

At the heart of this system lies an advanced pick and place bottle inverter assembly, which gently grips, rotates, and inverts each bottle before cleaning. Once inverted, the bottle is aligned precisely over a series of strategically positioned air nozzles. High-pressure, filtered air is then blown into the bottle, dislodging and removing internal particulates effectively.

This contact-free cleaning process ensures the bottle's internal surfaces are cleaned without risking physical abrasion or damage—perfect for industries that demand hygienic, contamination-free packaging.

Key Features of the Automatic Pick and Place Airjet Cleaning Machine

✔cGMP-Compliant Construction

The machine complies fully with Current Good Manufacturing Practice (cGMP) standards. It is built to deliver hygienic operation, ease of cleaning, and reliability in continuous production environments.

✔Rugged Frame & Durable Design

The main body and top plate are built from high-grade AISI 304 stainless steel, offering resistance to corrosion and chemicals. The top surface is further protected with stainless steel cladding for added durability and cleanliness. The machine body is enclosed with stainless steel covers for side protection and structural stability.

✔High-Precision Conveyor Assembly

The conveyor, constructed using a stainless steel slat belt, feeds bottles into the cleaning chamber with consistent spacing. Pneumatically controlled cylinders along the conveyor securely hold the bottles in place for precise pick-up by the inverter unit.

✔Bottle Inverter Mechanism

This core system gently picks each bottle from the conveyor, rotates it 180 degrees, and places it above the airjet nozzle block assembly. Once in position, a pulse of clean, pressurized air is directed inside the bottle to remove dust and debris.

✔Internally Routed Electrical Connections

All electrical cables are neatly routed within the machine for improved safety, organization, and maintenance access. Each cable is clearly ferruled for identification, reducing troubleshooting time and the risk of wiring errors.

✔Integrated Combo Control Panel

The combo operating and control panel, fabricated from AISI 304, is mounted on the machine for ease of access. Inside the panel, you'll find critical components like:

- AC Drives
- Programmable Logic Controller (PLC)
- Extension modules
- 8-channel & 4-channel relay cards
- MCBs, Contactors, and SMPS

Technical Specifications

Parameter	Specification
Machine Model	Automatic Pick and Place Airjet Cleaning Machine
Operating Direction	Left to Right
Speed	Up to 50–60 bottles per minute (varies by size)
Bottle Diameter Range	40 mm to 80 mm
Bottle Height Range	55 mm to 200 mm
Machine Dimensions (L x W x H)	2750 mm x 1150 mm x 1520 mm
Power Consumption	1 kW
Electrical Requirements	230V, 1 Phase, 50 Hz, Proper Earthing (3-wire system)
Air Pressure Required	6 Bar
Air Consumption	100 LPH