

### Unique Optional feature implementation



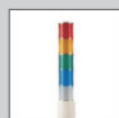
#### Separate Operating & Control Panel

Consist of PLC-HMI Interface for production management, interlock management and can be equipped with Audit trail facility.



#### Toughened Glass Safety cabinet with Door open and machine stop

Imported Aluminium Profile Toughened Glass Safety cabinet with Specially designed safety switch mounted on each Door. Machine will stop and give alarm if any of doors is opened.



#### Tower Light Showing Machine Status

Tower Light indication system for showing the status of Machine, it can give status during the online operation, Standby mode or Error mode for ease of operator or supervisor away from the machine.

#### In feed rejection system for pop up and without rubber stopper vials

This is a Camera Based system which can reject the pop up and without rubber stopper vials on in feed conveyor and can be collected in to the collection tray. So instead of stopping the machine, By rejecting the vial without stopper continuity of operation will remain.



#### Out feed rejection system

This is camera based vision system at out feed rejection system for no cap on vial after sealing, different color seal, no seal on vial, cap quality checking and rejection track for collecting the rejected vial



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## AUTOMATIC VIAL SEALING



**N. K. INDUSTRIES**

*Leadership through innovation*



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#### Operation of Machine

Aluminum caps kept in vibratory bowl automatically orient caps in right direction before entering the delivery chute. Vial during its rotation movement with in feed star wheel, its picks up aluminum seal from the retaining finger of delivery chute and correctly position on the vial before entering sealing turret. Vial now moves on the spring loaded sealing platform, where free spinning sealing rollers moves gradually inside to complete the sealing operation during rotational movement of sealing platform turret. Then sealed vials are transferred to exit star wheel pocket and further moves out on to the flat conveyor belt.

## AUTOMATIC MULTI HEAD VIAL SEALING MACHINE

#### Salient Features

- ⇒ Total cGMP model.
- ⇒ Parts coming in contact with the vial / aluminum cap exposed to the atmosphere are made out of stainless steel, good house keeping and good manufacturing practice.
- ⇒ Single motor synchronizes conveyor, star wheels and platform turret and speed can be varied by the % speed pot on operating panel.
- ⇒ A Special clutch device is incorporated on the in feed worm and Star wheel system for stoppage of machine in the event, vial is over turned or over diameter.
- ⇒ A photo sensing device stops machine automatically in the event, there is no aluminum cap in delivery chute.
- ⇒ No Stopper on Vial, Machine Stops System", eliminates chances of sealing of vial without rubber stopper on sealing machine.
- ⇒ Spring loaded free spinning sealing rollers eliminates any damage to aluminum caps and also allows greater flexibility of variation in the container neck diameter.
- ⇒ Sealing Pressure can be varied to suit different gauges and sizes of aluminum caps.
- ⇒ Gear Motor for Main drive.
- ⇒ A.C. Frequency drives for Main drive.



**NKCS - 450**

#### Technical Specification

Model	NKCS-150	NKCS-250	NKCS-350	NKCS-450
Direction	Left to Right	Left to Right	Left to Right	Left to Right
No. of Sealing Head	Four Heads	Six Heads	Eight Heads	Twelve Heads
Production Rate	Up to 120 Vials/Min.	Up to 200 Vials/Min.	Up to 300 Vials/Min.	Up to 400 Vials/Min.
Electric Supply	1 HP for Main Drive	1 HP for Main Drive	1 HP for Main Drive	1 HP for Main Drive
Power Requirement	230 Volts, 1 Phase (3 Wire System) 50Hz. 230 V Single			
Height of Conveyor	Adjustable from 800 to 850 mm			
Dimensions	1530 mm (L) X 768 mm (W) X 1530 mm (H)	1530 mm (L) X 768 mm (W) X 1530 mm (H)	2830 mm (L) X 768 mm (W) X 1600 mm (H)	2130 mm (L) X 915 mm (W) X 1800 mm (H)
Net Weight	450 Kgs. (Approx)	500 Kgs. (Approx)	600 Kgs. (Approx)	750 Kgs. (Approx)
Gross Weight	650 Kgs. (Approx)	700 Kgs. (Approx)	800 Kgs. (Approx)	1000 Kgs. (Approx)

Note : Conveyor length can be adjustable as per requirement



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#### Machine Working

- ⇒ NKCS 60 is a compact model used for sealing of aluminum caps on vials.
- ⇒ Duly Stopper Vials are continuously fed from the turntable of filling machine to the flat conveyor belt of sealing machine and move further through in feed worm for correct spacing and transferred to the in feed star wheel.
- ⇒ Aluminum caps kept in vibratory bowl automatically orient caps in right direction before entering the delivery chute.
- ⇒ Vial during its rotation movement within feed star wheel, its picks up aluminum seal from the retaining finger of delivery chute and correctly position on the vial before entering sealing turret.
- ⇒ Vial now moves on the spring loaded sealing platform, where free spinning sealing rollers moves gradually inside to complete the sealing operation during rotational movement of sealing platform turret.
- ⇒ Then sealed vials are transferred to the out feed conveyor for further processing.

#### Technical Specification

Model	NKCS-60
Production Rate	1800 to 3600 Containers Per Hour
Power	0.5 HP, 415 Volt, (4 Wire system) & 3 Phase
Net Weight	350 Kgs.
Gross Weight	550 Kgs.
Overall Dimension	1220 (L) X 635 (W) X 1700 (H)

## SINGLE HEAD VIAL CAP SEALING MACHINE

#### Salient Features

- ⇒ Entirely cGMP model.
- ⇒ Parts coming in contact with the vial / aluminum cap /exposed to the atmosphere are made out of stainless steel, good housekeeping and good manufacturing practice.
- ⇒ Single motor synchronizes conveyor, star wheels and platform turret and speed can be varied by the % speed pot on operating panel.
- ⇒ A Special clutch device is incorporated on star wheel system for stoppage of machine in the event; vial is over turned or over diameter.
- ⇒ A photo sensing device stops machine automatically in the event, there is no aluminum cap in delivery chute.
- ⇒ Spring loaded free spinning sealing rollers eliminates any damage to aluminum caps and also allows greater flexibility of variation in the container neck diameter.
- ⇒ Quick & Very Easy Change Over and setting possible from one size of Container to another by a Single Ratchet
- ⇒ Unique Single Sealing Roller imparts uniform, scratch free, fit tight and reliable skirting and sealing
- ⇒ Sealing Pressure can be varied to suit different gauges and sizes of aluminum caps.
- ⇒ Bongfingoli make Gear Motor for Main drive.
- ⇒ A.C. Frequency drives for Main drive.
- ⇒ Digital Counter for counting number of sealed vials.
- ⇒ "No Seal in Chute, Machine Stops System"
- ⇒ "No Stopper on Vial before Sealing, Machine Stops System"

#### PLC & Touch Screen HMI with control Panel & Tower Light Showing Machine Status:

Tower Light indication system for showing the status of machine, it can give status during the online operation, standby mode or error mode for ease of operator or supervisor away from the machine.

#### Acrylic / Toughened Glass Safety cabinet with Door open and machine stop:

Whole machine can be cover with safety cabinet made from aluminum profile or stainless steel structure with acrylic sheets or toughened glass to meet current safety needs

#### Online Bottle Ejection System:

This is plate / Air ejector which automatically eject the bottle from conveyor after getting signal from any safety control provided with machine such as system which find the bottle without flip off seal. Bottle ejection system prevents the uncapped bottle entering into the packing conveyor.



**NKCS - 60**