

# NP

SERIES

ENGLISH

## 2DIE 3BLOW PART FORMERS



Nakashimada Engineering Works, Ltd.



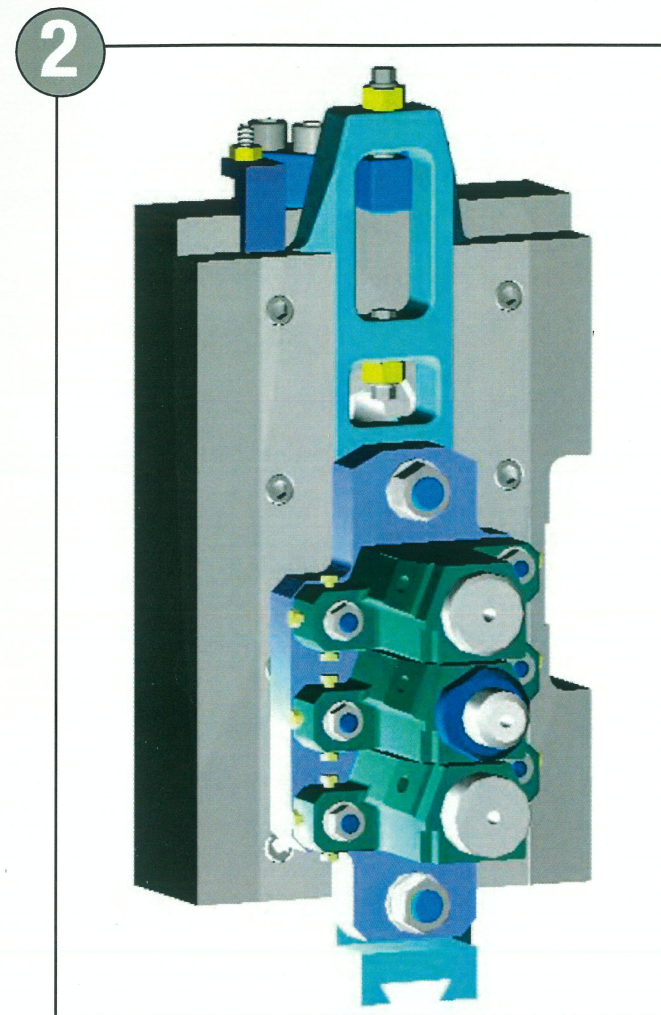
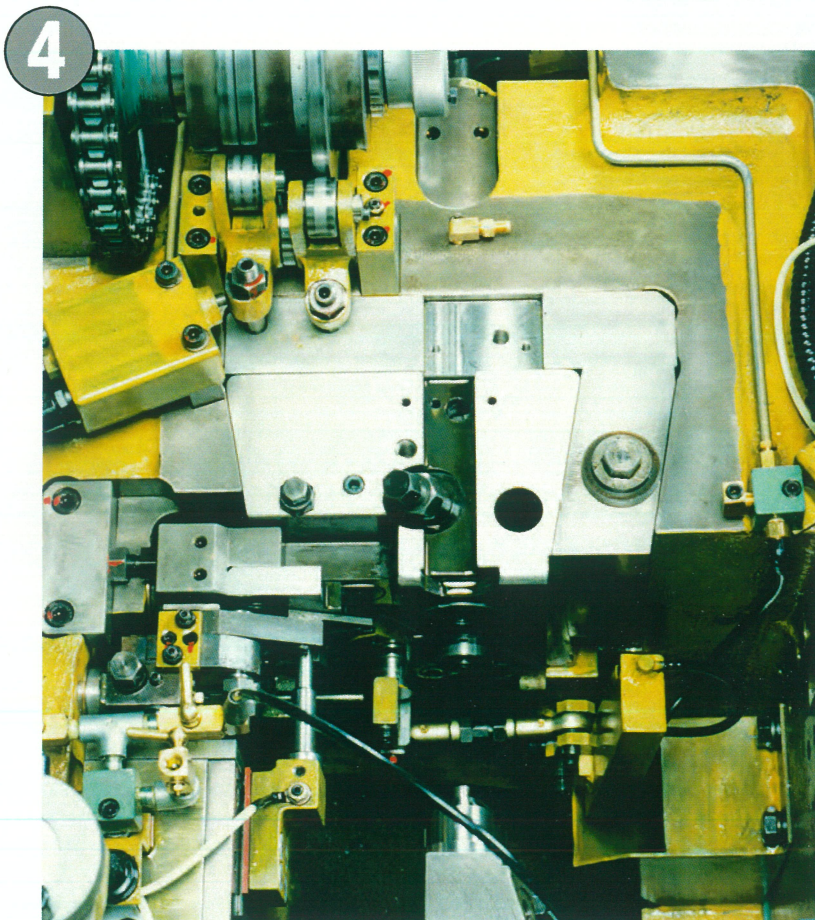
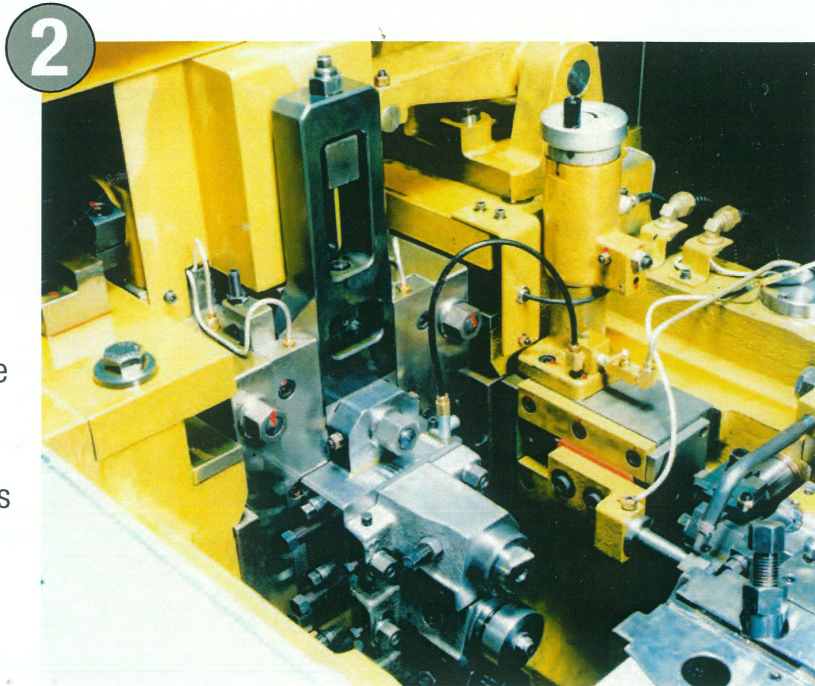
# NP SERIES 2 DIE 3 BLOW PART FORMERS

Nakashimada NP Series 2 Die 3 Blow Part Formers are developed for manufacturing high-precision components. With over 30 years of continuous improvement, we have already delivered more than 1200 sets of NP machines to major automotive, electrical, electronics and aircraft parts manufacturers worldwide.

Newly designed rigid machine frame ensures greater stability at high speed, allowing for longer machine life and enhanced performance. Available for wire diameter from 2.5 mm to 18 mm, and shank length from 30 mm to 135 mm, the NP Series presents a flexible choice for manufacturers of a wide variety of precision components.



Our original 2 Die 3 Blow transfer system overcomes the difficulties found in finger transfer machines such as setting the critical timing and alignment issues for complex shape, short and difficult to transfer parts. Since the second punch strikes both the first and the second die, this configuration enables 2 Die 4 Blow capabilities. NP Series is for a variety of applications and particularly useful for tubular and trimmed parts.



## 1 Bush Cutter

Bush Cutter and heavy duty shearing cam provide a clean and square cutoff, avoiding burrs and irregularities. All NP machines are equipped with Bush Cutters.

## 2 Vertical Punch Slider and Individual Punch Blocks

Punch blocks are securely mounted on a vertical punch slider. All three punches are locked and can be adjusted separately for better alignment and timing which would not be affected by production speed. This vertical punch shift mechanism ensures higher production speed, accurate and concentric parts production.

## 3 Ram Slider

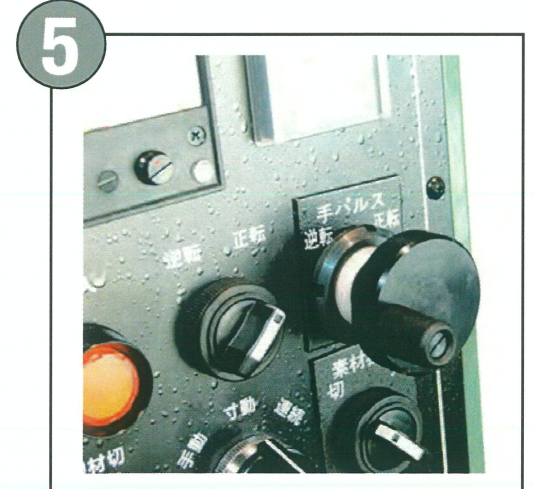
In order to maintain high accuracy in sliding movement, the ram slider is equipped with the tapered liner guide for clearance adjustment. In addition, all sliding parts are handscraped to micron level for high tolerance, durability and prevention of part wearing after long use.

## 4 Easy Operation

Tool changes and fine adjustment of all parts can be done at operator side, ensuring repeatable accurate setup and efficient trouble-free changeover.

## 5 Pulse Dial (standard for Ø8 mm or above)

Ram can be moved back and forth by turning a small dial (Nakashimada Patent) on the control panel. Useful and safe for critical timing adjustment and efficient setup.





## Major Standard Features

### Wire Feed Auto On/Off Device

A switch on control panel to start or stop wire feed.

### End of Coil Detector

Limit switch placed between the main machine and the wire straightener, detects the end of wire coil and stops the machine automatically.

### Wire Short Feed Detector

When wire does not reach the sensor, machine stops immediately to avoid defects and mixing with good parts.

### Vertical Wire Straightener

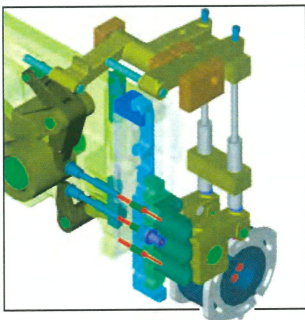
Pairing with horizontal straightener, it makes correction of wire more reliable for production. Roll positions can be adjusted by adjuster.

### Variable Speed Drive (Inverter)

With the control by an inverter, speed of the main motor can easily be changed by simply turning a dial on the control panel.

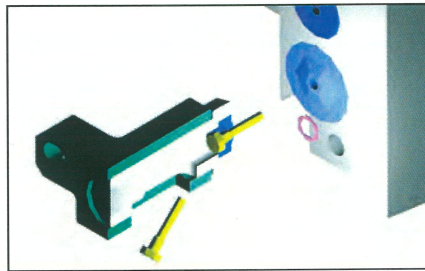
### Timed PKO

Timing type PKO device that reliably holds the blank on the die side during the forging process. Knock-out timing is fixed according to the movement of the machine. Stroke can also be adjusted by changing the PKO cam.



## DKO Relief + Stripper

An individual DKO Relief is installed to the standard DKO mechanism. Since position of DKO pin can be changed freely, tubular and trimmed parts can now be produced with much ease. Equipped with Stripper Device, tubular parts in the last die can be accurately discharged.



## Signal Tower

Error light mounted on top of the machine to inform the operator that an anomaly had occurred and the machine had stopped.

## Preset Counter

An easy production management tool that counts the quantity of parts produced up to 6 digits. When total output reaches the preset amount, machine stops automatically.

## Warning Light

Error indicator system warns of overload, end of wire, short feed, low air pressure and other anomaly.

## Jam-Release Hydraulic Pump

When blank is jammed between punch and die during forming operation in bigger machines, at the flick of a switch the hydraulic jack will force the ram to go backward releasing quickly punch and die.

## Major Optional Accessories

Total Counter

Separate Lubrication with Tank

Trimming Device

Slug Separator

Phillips Punch Checker

#1 Punch Pin Checker

Catch Chute

Dead Point Checker (DM Monitor)

Second Transfer Finger

Oil Micro Separator

Segment DKO

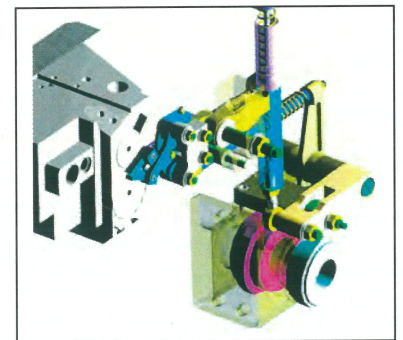
Wire Cutter

Wire Power Loader

Pulse Dial (Standard for Ø8 mm or above)

NCS III

Die Block Hook



Standard and optional accessories vary depending on machine model.

Please contact our Sales Rep for details.