# SHIMAZU NUT TAPPING MACHINE MODEL LR-120 CONTINUOUS OPERATION BY STRAIGHT TAP!

# FOR LONG NUTS



LONG NUTS SHOWN ON THE PHOTO ABOVE CAN
BE TAPPED CONTINUOUSLY BY USING STRAIGHT TAP!

## **HOW IS IT POSSIBLE? BECAUSE IT IS SHIMAZU!**

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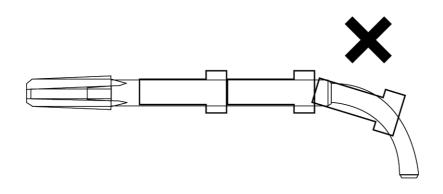
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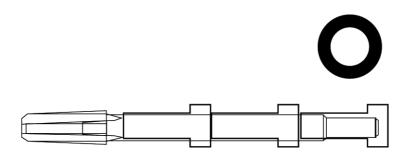


# **MODEL LR-120**

NOT THE REVERSE TYPE MACHINE, YET CONTINUOUS OPERATION BY USING STRAIGHT TAP

**HOW IS IT POSSIBLE? BECAUSE IT IS SHIMAZU!** 





# CONCEPT OF DEVELOPMENT

ong nuts could not be tapped by conventional tapping machine using bent shank taps because the nuts can not go through the bent part of the taps. This is a special tapping machine developed for long nuts using straight taps. Continuous tapping by straight tap is realized just like using bent taps. Because of non-reversing operation, high quality threads are ensured.

Tap is attached to the main spindle when the tapping operation is actually done. When discharging the tapped nuts, the tap is separated from the main spindle automatically. This enables continuous tapping operation without reversing the revolution.

Further more newly developed hydraulic chucking mechanism is equipped which is capable of tapping any nuts such as hex, square, flange and round nuts. The change parts for round nuts is dramatically simplified compared to the conventional machine and the cost and speed for changing the parts is reduced.

Also, taking workability and environment into consideration, the operation area is designed to be around 1000 mm from the floor, so the maintenance is easily done. Covers for prevent the cutting oil splash is improved and less splash oil eject nozzle is adapted.





# **BASIC SPECIFICATIONS**

Figure of the products to be tapped

Max. outside diameter ø50 mm

Max. length 120 mm

Max thread size M16

Max chuck dia. ø30

Length of the tap 450 mm



Chucking mechanism (change parts for the guide part)

The nuts can be chucked very strongly by hydraulic and lever.

Fixed side chuck (Lower passive side): R shaped ... 2 pcs.

Moving side chuck (Upper active side): V shaped ... 1 pc.

Size change can be done quite easily as both of the chucks can be removed easily. Also, the shape of the parts became simpler compared to the conventional machine, which means the parts is less expensive.

#### Main Motor

Max rotation of the main spindle 1500 rpm by 2.2 kw induction motor (inverter control)

\*Depending on the material and the figure of the nuts, 3.7 kw motor can be adopted and software of the touch panel can be changed.

## REMARKS

#### Tap change

Speedy tap change is realized as the removal of sleeve can be done easily. Removing the fix plate only enable you to remove the sleeve.

### Oil shortage detect function

Floating switch is equipped inside the oil tank. Machine can be stopped automatically when low oil shortage is detected in case of a long time operation.

# **EXAMPLE OF CURRENT APPLICATION**

Nut: Round flange nut (flange dia. ø36, Body ø22, length 88 mm)

Tap: M14 X 1.5 pitch (6 flutes)

Thread length: About 24 mm (thread size M14 X 1.5)

Rotation: 840 rpm (thread setting 43)

Output: 18 pcs. /minute (total of two spindle)

