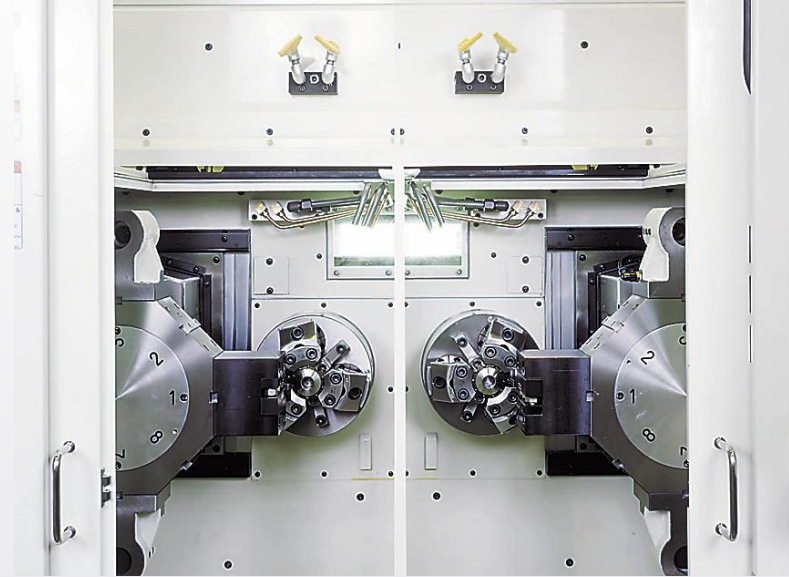


TMW

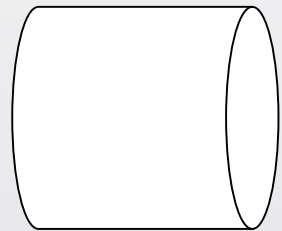
# TAKAHASHI Machinery



Parallel 2-SPINDLE PRECISION TURRET LATHE

# Merit for Parallel & Dual spindle!!

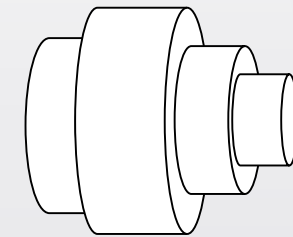
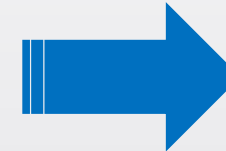
complete finished products can be output by one machine



Material



L20T-W-NCL&3-axis loader



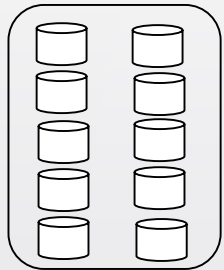
Complete finished product

OP-10 & OP-20

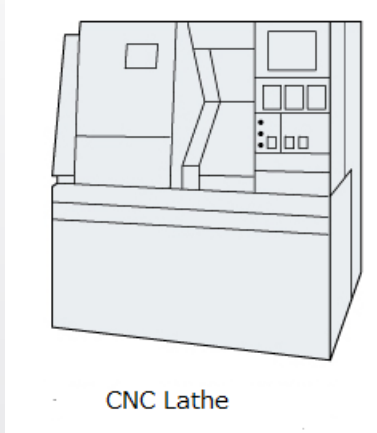
# Merit for Parallel & Dual spindle!!

Less error, and not obtain a higher manufacturing yield!!

OP-10: Turning

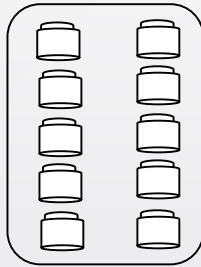


Material stock

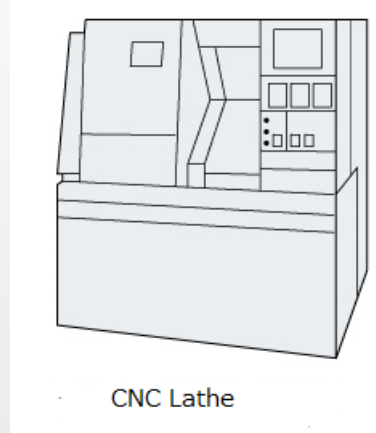


CNC Lathe

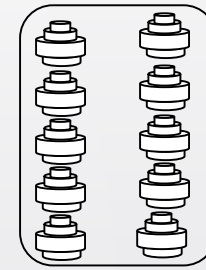
OP-20: Turning



Stock for OP-20

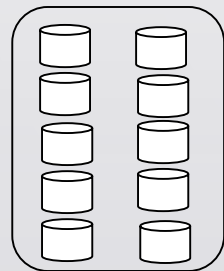


CNC Lathe



Finish products

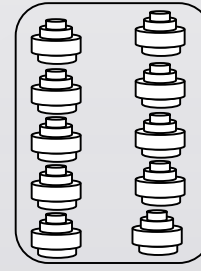
You need **20**-stocks to finish



Material stock



L20T-W-NCL&3-axis loader



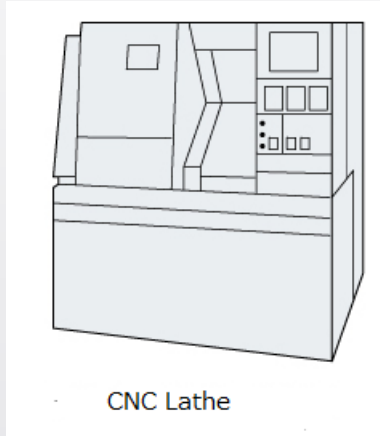
Finish products

You need only **10**-stocks to get final products

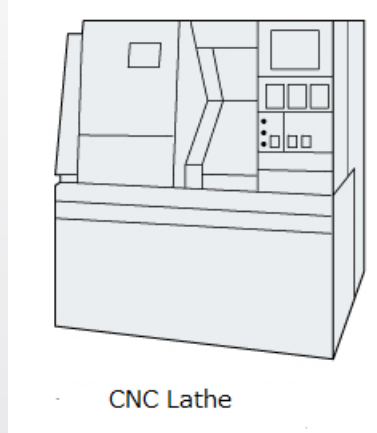
# Merit for Parallel & Dual spindle!!

Save floor space, save operator and save cost!!

OP-10: Turning



OP-20: Turning



2-machines + 2-operators



L20T-W-NCL&3-axis loader



1-machine & 1-operator



# Sample parts for Parallel & Dual spindle!!

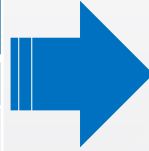
Various parts for automobile!!

L20T-W-NCL&3-axis loader



L20T-W (PARALLEL TWIN SPINDLE TWIN TURRET)

Chuck dia.	8+8
Turret	8+8
Spindle speed	4000
Spindle motor(Kw)	11/7.5



Gear



Gear



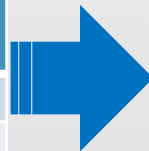
Washer

L5T-W-NCL&3-axis loader

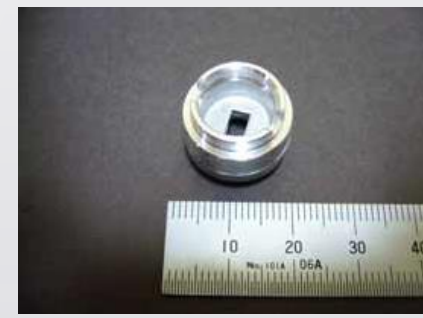


L5T-W (PARALLEL TWIN SPINDLE TWIN TURRET)

Chuck dia.	6+6
Turret	8+8
Spindle speed	6000
Spindle motor(Kw)	5.5/2.2



Valve sleeve



Air bag



Oil Port

# Sample parts for Parallel & Dual spindle!!

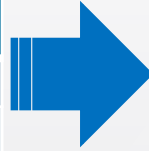
## Various parts for automobile!!

L20T-W-NCL&3-axis loader



L20T-W (PARALLEL TWIN SPINDLE TWIN TURRET)

Chuck dia.	8+8
Turret	8+8
Spindle speed	4000
Spindle motor(Kw)	11/7.5



Gear



Gear



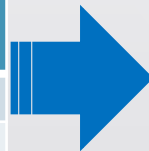
Washer

L5T-W-NCL&3-axis loader

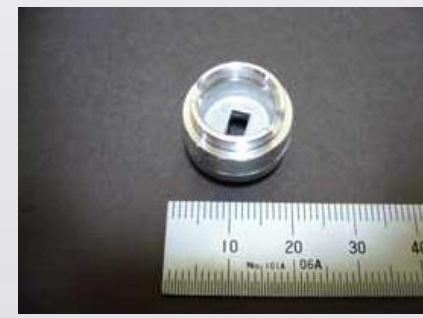


L5T-W (PARALLEL TWIN SPINDLE TWIN TURRET)

Chuck dia.	6+6
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Spindle speed	6000
Spindle motor(Kw)	5.5/2.2



Valve sleeve



Air bag



Oil Port



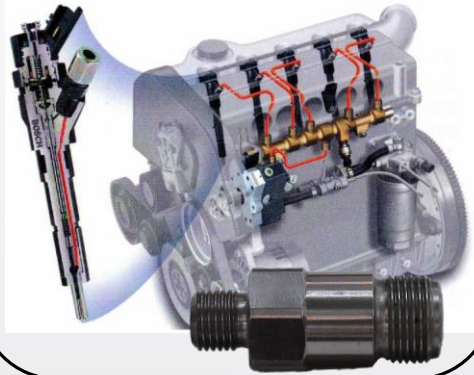
# Type of machines we can serve for Automobile



## WT50 (PARALLEL TWIN SPINDLE TWIN TURRET )

Chuck dia.	6+6
Turret	8+8
Spindle speed	6000
Spindle motor(Kw)	5.5/2.2
Milling speed	10000/5000
Milling motor	2.2/1.5

## Common rail



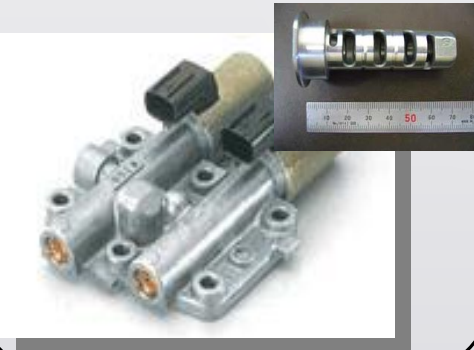
## L20T-W (PARALLEL TWIN SPINDLE TWIN TURRET )

Chuck dia.	8+8
Turret	8+8
Spindle speed	4000
Spindle motor(Kw)	11/7.5

## CV Joint Gear



## Solenoid valve



## Turbo impeller



# Automation for Parallel & Dual spindle!!



L3 II -W-NCL&3-axis loader



L20T-W-NCL&3-axis loader

	L5T-W-NCL	WT-50NCL	L20T-W-NCL	L3 II -W-NCL	L60FB-NCL	L70FB-NCL
2-axis robot		◎				
3-axis robot	◎		◎	◎	◎	◎
W-gantry		△		△		
Loader chuck size	φ75mm	φ50mm	Φ75mm	Φ50mm	φ38mm	Φ75mm



# L20T-W-NCL: Heavy duty work



L20T-W-NCL

## ■ Future:

1. Spindle & Headstock: Rugged & rigid construction ensure heavy duty cutting (**max. 8 inch chick** is available)
2. Configured by twin turret type tool post and twin powerful rigid spindle (**11.0/7.5Kw motor**).
3. 8-station Turret: High rigidity & High precision **“Three piece coupling”** system
4. X & Z axis slideway: Precision Liner guide on X axis. **Box way with Turcuite sheet on Z axis** for high repeatability.
5. The 3-axis gantry loader enables continuous production of auto parts

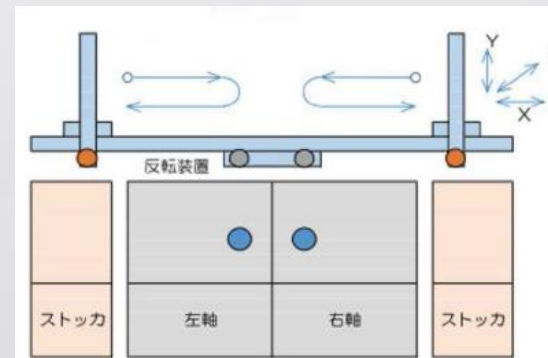


# L3 II-W-NCL: High accurate gang type



## Future;

1. Spindle & Headstock: Built-in motor with oil chiller keep stable accuracy at all speed. **8000rpm spindle speed** is available as options.
2. **Gang type tooling** ensure high accuracy and higher productivity.
3. **Dovetail groove** ensures high rigidity.
4. **Sub micron control** provide ensured high accuracy machining
5. Two loaders operation is available as options.



Options

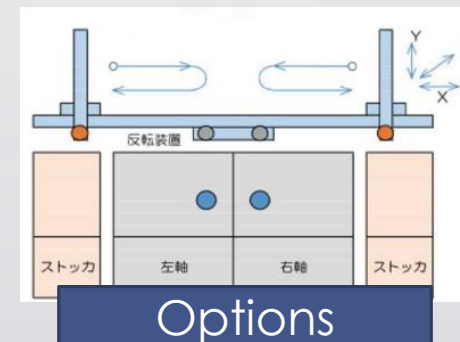


# WT50-NCL: Live tools are equipped



## Future:

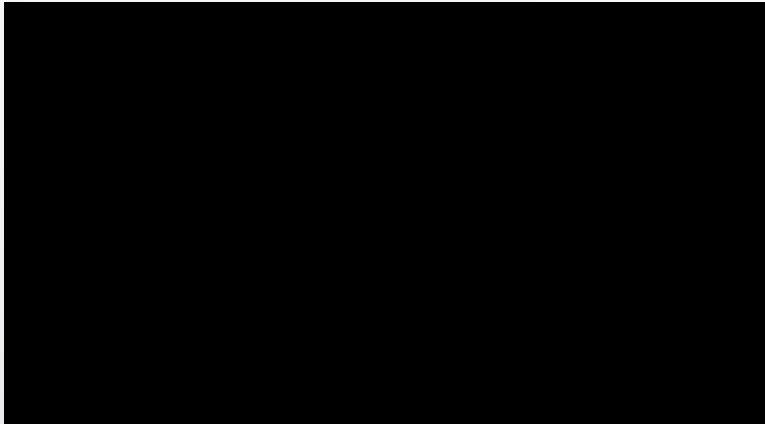
1. **Live tools are standard** for both turret (Max 8-tools).
2. **Y-axis ( $\pm 25\text{mm}$ )** ensure the off-set work.
3. **Max 10000rpm milling spindle** is standard
4. Roundness: **below  $0.3\ \mu\text{m}$** , Surface roughness: **below  $0.8\text{s}$** , Cold starts: **below  $5\ \mu\text{m}$**  can be achieved (In case test piece in factory).
5. Two gantry is available as option for short cycle work.





# Movies

L3 II -W-NCL



WT50



L20T-W-NCL

