

# TS120

Twin Spindle Chucker with Gantry Robot



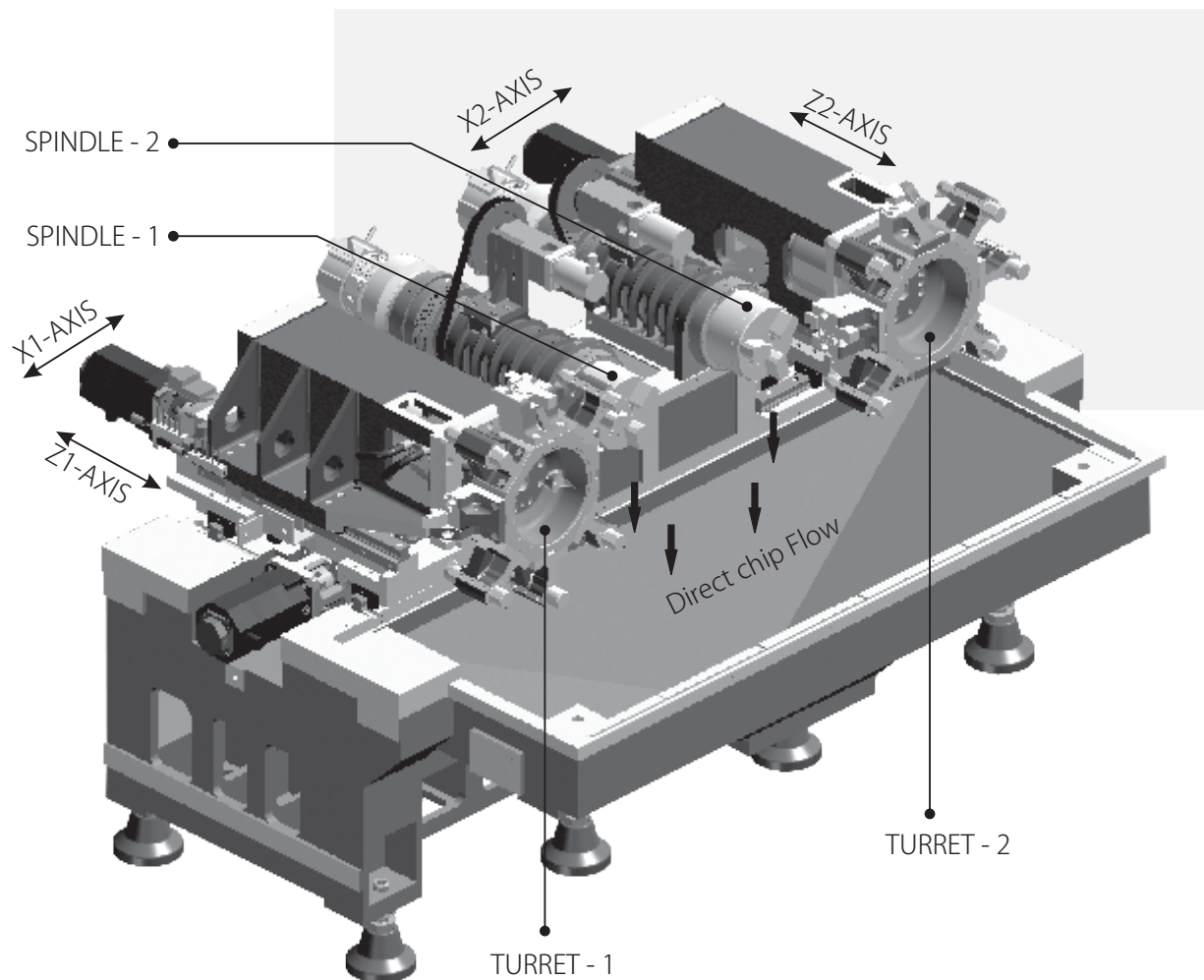
# TS 120

## Twin Spindle Chucker with Gantry Robot

### OVERVIEW

Maximum automation is the only solution for mass production components. The production line with long unattended operations shall require machines like TS 120, a perfect production line Twin Spindle Chucker with complete automation. TS 120 Twin Spindle Chucker is quite suitable for component diameter up to 120mm. This machine is equipped with integral gantry loading & unloading system with a changeover station for job set up change.

The standard TS 120 is equipped with gantry robot which helps instant and accurate automated loading & unloading which enables long hours of unmanned operation.





## THE UNMATCHABLE TWIN SPINDLE CHUCKER WITH GANTRY ROBOT

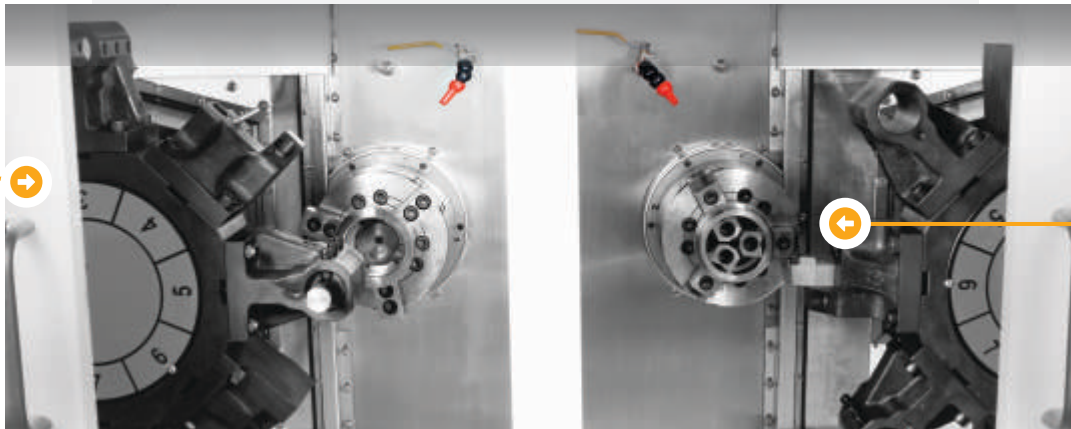
The structure consists of two headstocks with twin turret configuration and an efficient gantry robot. The basic design of the machine allows direct falling of chips in the chip removal tray / conveyor as shown in structure.

### TWIN SERVO TURRET

High Torque Servo turrets placed in quite proximity to the spindles and in parallel to the job holding provides extreme favorable conditions for smooth cutting performance.

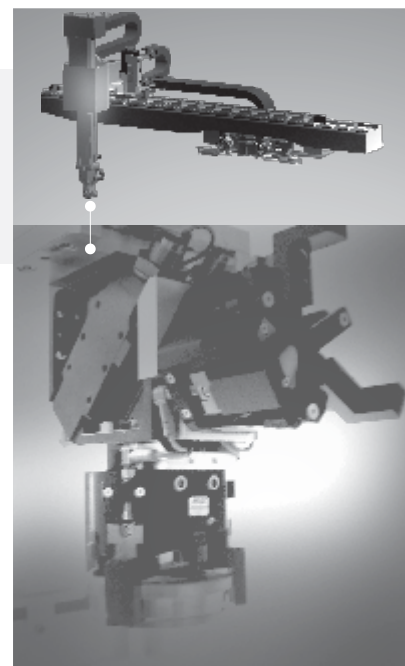
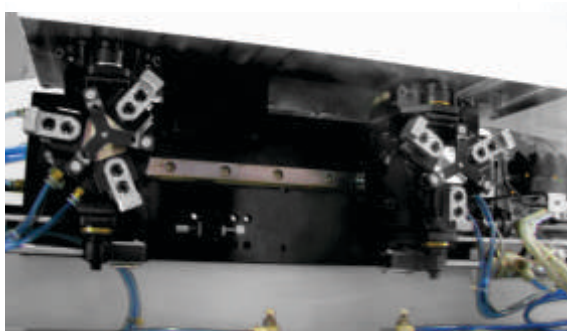
### TWIN HEAD STOCK

The symmetrical headstocks with high speed spindles provide perfect cutting environment. The identical Spindles are having a Spindle purge feature to prevent coolant and chips entering the precision parts and thus protecting the life of Spindles.



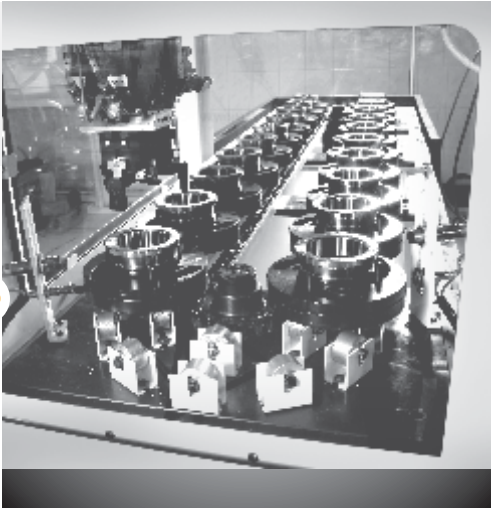
### INTEGRAL 3-AXIS GANTRY ROBOT

The unique feature of TS 120 is its unmanned loading and unloading operation. The machine is equipped with a Gantry Robot with a Dual Gripper Swivel Head and a Change over station for 2nd Operation. (Option)

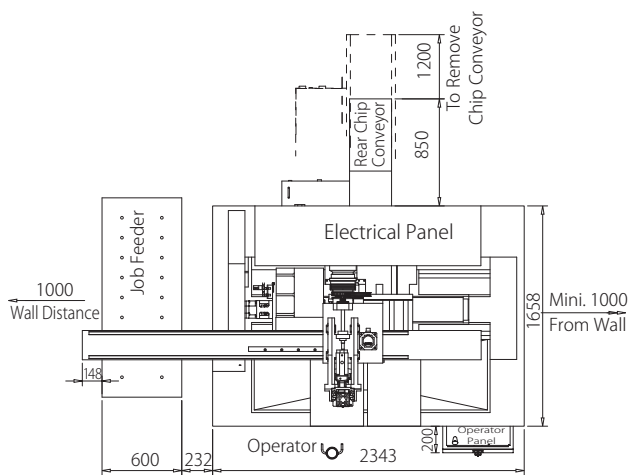


## AUTO FEEDER OPTION

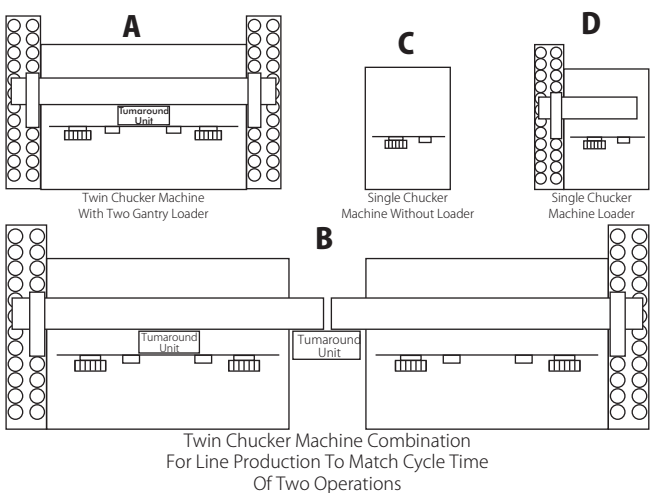
Auto Feeder is an essential option for TS 120 spindle chucker with gantry robot and could be customized as per application.



## TS 120 LAYOUT

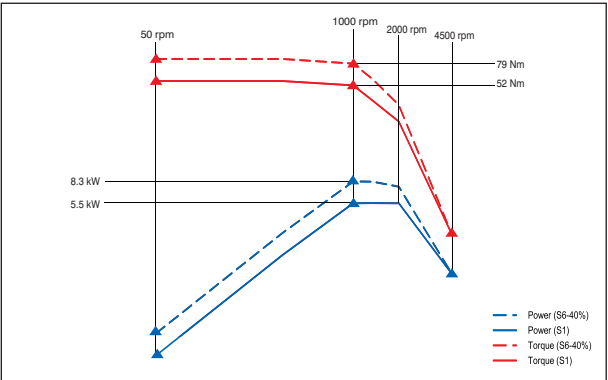


## POSSIBLE LAYOUT

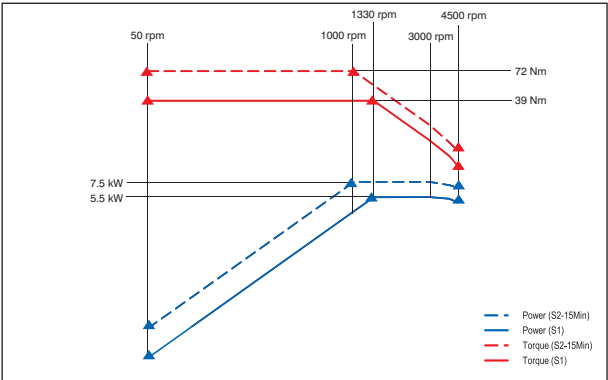


## POWER-TORQUE DIAGRAM

8.3 / 5.5 kW, 4500 rpm (Siemens)



7.5 / 5.5 kW, 4500 rpm (Fanuc)





## TECHNICAL SPECIFICATION

TS 120		
<b>Spindles</b>		
No. of Spindles		2
Spindle Speed	rpm	4500
Spindle Motor Power (Siemens)	kW	8.3 / 5.5
Spindle Motor Power (Fanuc)	kW	7.5 / 5.5
Spindle Nose		A <sub>2</sub> 5
Distance Between Two Spindles	mm	420
<b>Slide Stroke</b>		
X-Axis	mm	75
Z-Axis	mm	145
Rapid Traverse (X & Z Axis)	m/min	24
<b>Turret</b>		
No. of Turret [Station]		2 [16 (8+8)]
Index Time	Sec	0.5
<b>Capacity</b>		
Chuck Size	mm	Ø170
Work Piece Dimension (Loader Capacity)	mm	Ø120 X 80
<b>Automated Gantry Robot</b>		
Max Part Weight (No. of Parts)	kg	3 (2)
Loader X (left/right) Axis Stroke	mm	1850
Max Speed (X)	m/min	120
Loader Y (up/down) Axis Stroke	mm	560
Max Speed (Y)	m/min	90
Loader Z (front/rear) Axis Stroke	mm	150
Max Speed (Z)	m/min	50
Standard Loading Time	Sec	7
<b>Accuracy</b> (as per VDI / DGQ3441)		
Positioning Uncertainty (P)	mm	0.007
Repeatability (Ps medium)	mm	0.005
<b>Other Data</b>		
Weight (approx)	Kg	4500
Machine Dimension (approx) (Without Job Feeder)	mm	2150 x 2000 x 2450

## STANDARD ACCESSORIES / FEATURES

- Dual Channel CNC Controller
- Hydraulic Chucking on both Spindles
- 3-Axis Programmable Gantry Robot
- High Speed Twin Servo Turret
- Chip Removal Tray
- Air Nozzle for Work piece Cleaning
- Auto & Manual Coolant System
- Centralized Programmable Lubrication
- Linear Motion Guide ways
- Electrical Cabinet with Controlled Temperature

## POSSIBLE OPTIONS

- Customized Auto Feeder (Essential Option with Gantry Robot)
- Air Seat Sensing for Job Clamping
- Turn Around station for 2nd Operation
- Auto Job Measuring
- Tool Probing
- Rear/Front Chip Conveyor
- Coolant Through Spindle
- Customized Line with Single/Double Configuration
- Two CNC Controller for Independent Operations

Note : •All above information is subject to change arising out of continuous product improvement.  
 • The description 'standard accessories / feature' conforms to its list; not the photo of machine shown in the catalogue.

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Note: Specified information are subject to change arising out of continuous product improvement without notice. The description standard accessories/feature conforms to its list; not the photo of machine show in the catalogue. Other controller will have different configuration. Machine images are shown with option.



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