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## **TS 120**

Twin Spindle Chucker  
with Gantry Robot



# TS 120

## Twin Spindle Chucker with Gantry Robot

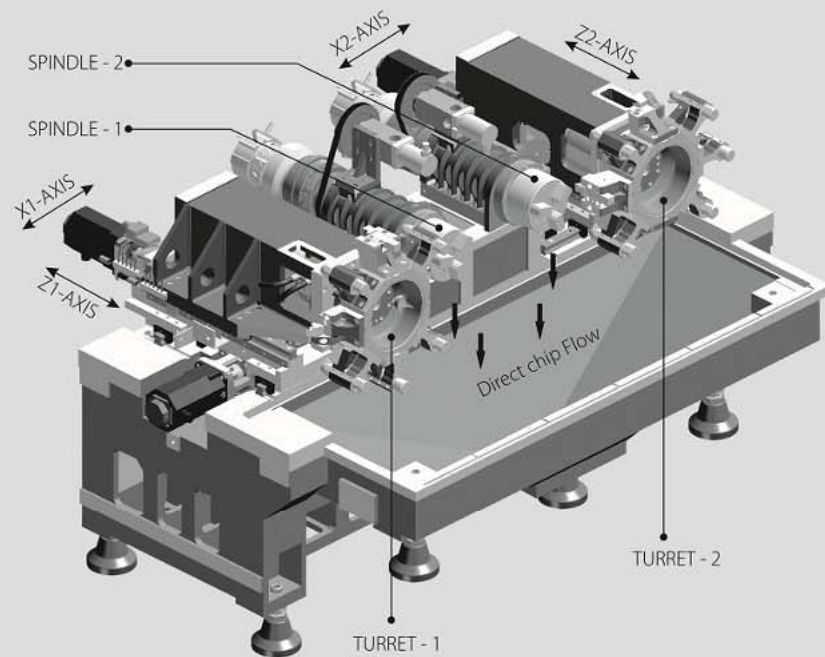
### Overview

More and more automation is the only solution for mass production components. The production line with long unattended operations shall require machines like TS120, a perfect production line Twin Spindle Chucker with complete automation. TS120 Twin Spindle Chucker is quite suitable for component diameter up to 120mm. These machines are equipped with integral Gantry loading & unloading 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 enabling long hours of unmanned operation.

### The unmatched TWIN SPINDLE Chucker with Gantry Robot

The structure of TS 120 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.



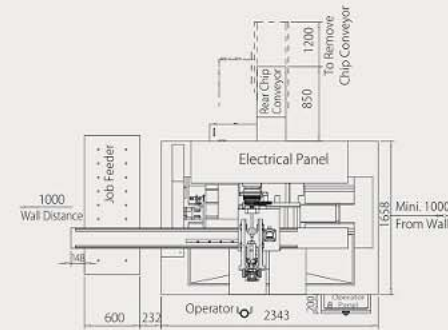
### Twin Head Stock

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.

### 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.

### TS 120 Layout with Options



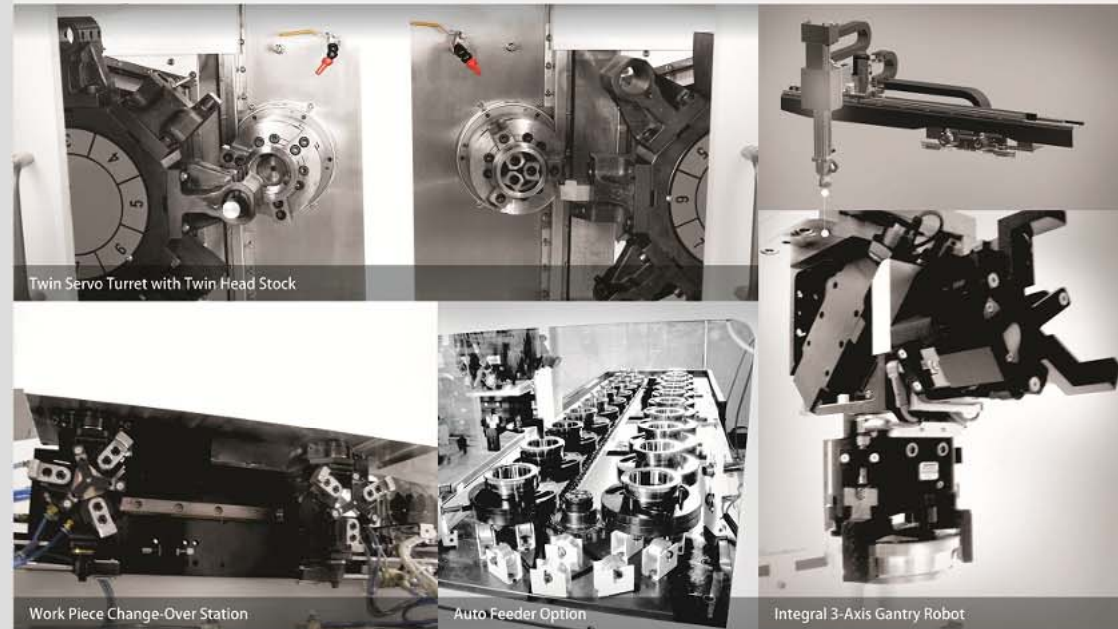
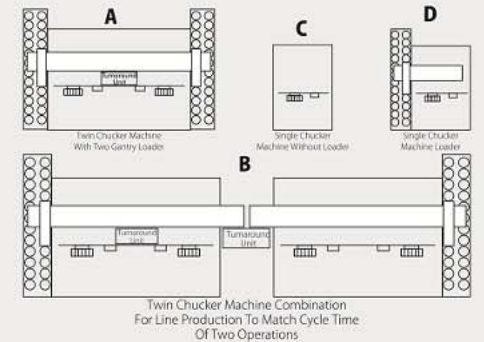
### Auto Feeder Option

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

### 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)

### Possible Layout (Opt.)





## Technical Specification

### TS 120

#### Spindles

No. of Spindles		2
Spindle Speed	(rpm)	4500
Spindle Motor Power (15 min / Cont.)	kW	7.5 / 5.5
Spindle Nose		A2-5
Distance Between Two Spindles	mm	420

#### Slide Stroke

X - axis	mm	75
Z - axis	mm	145
Rapid Traverse (X & Z)	m/min	24

#### Turret

No. of Turret [Station]		2 [16 (8+8)]
Index Time	Sec	0.5

#### Capacity

Chuck Size	mm	Ø170
Work piece Dimension (Loader Capacity)	mm	Ø120 X 80

#### Automated Gantry Robot Loader/Unloader

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

#### Accuracy (As per VDI / DGQ3441)

Positioning Uncertainty (P)	mm	0.007
Repeatability (Ps medium)	mm	0.005

#### Other Data

Weight (approx)	Kg	4500
Machine Dim (approx) without Job Feeder	mm	2150 x 2000 x 2450

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.

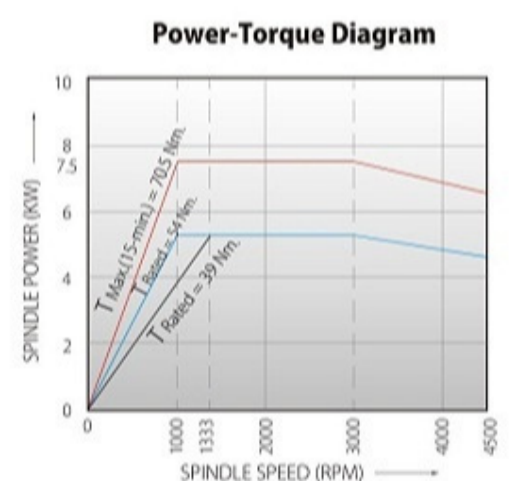
#### Standard Accessories /

##### Features

- Fanuc 0i TD
- 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
- Siemens system



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