



TS120

Twin Spindle Chucker with Gantry Robot



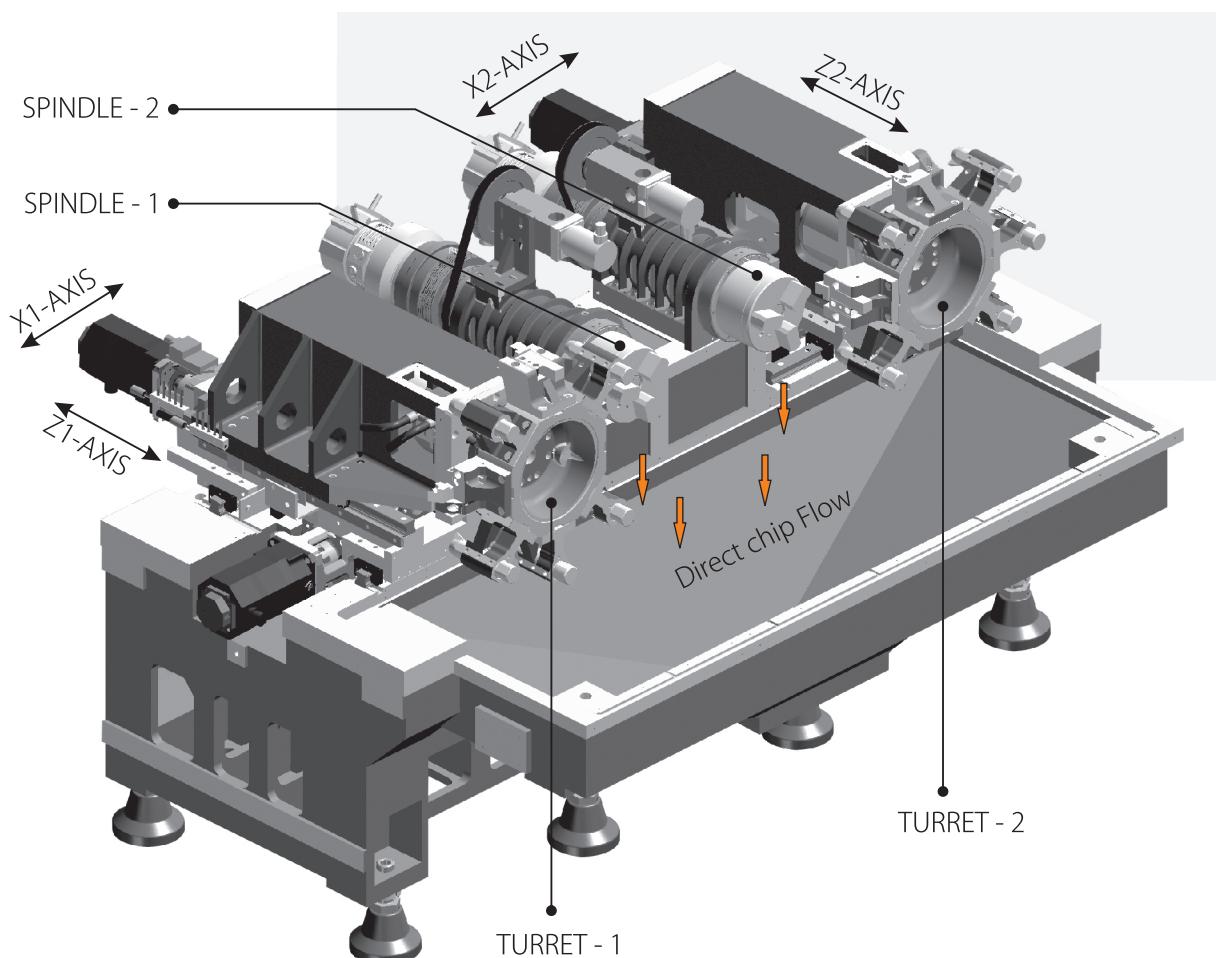
TS 120

Twin Spindle Chucking with Gantry Robot

OVERVIEW

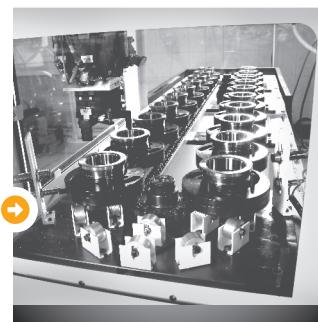
Maximum automation is the only solution for mass components manufacturing. The production line with long unattended operations shall require machines like TS 120, a perfect production line Twin Spindle Chucking with complete automation. TS 120 Twin Spindle Chucking is quite suitable for component diameter 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 unmanned operation.



AUTO FEEDER

Auto Feeder is to accommodate input workpiece in quantity for autoloading, saving space and proper sorting of completed work piece. Such option could be customized as per application.





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.

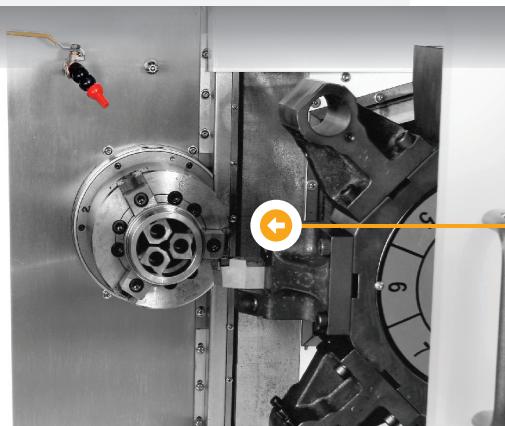
TWIN SERVO TURRET

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.



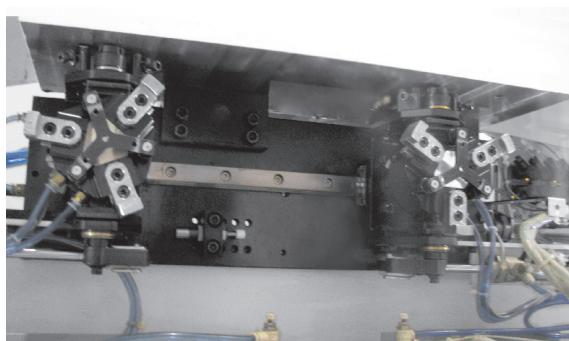
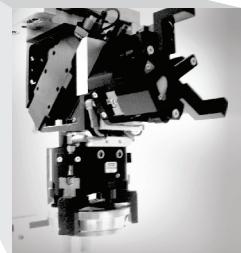
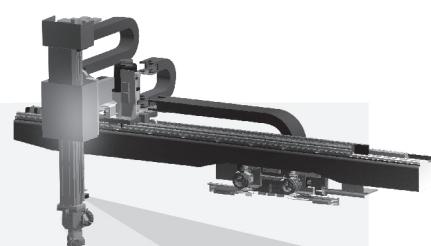
TWIN SPINDLE

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.

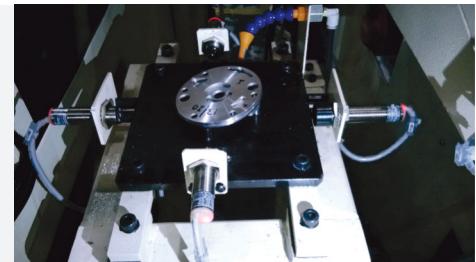


TS 120

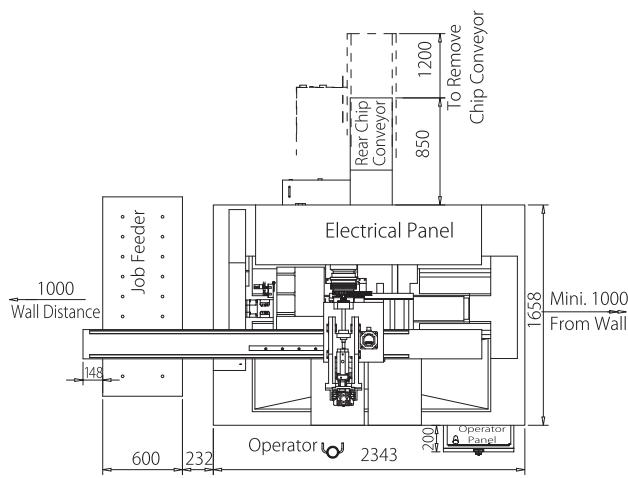
Twin Spindle Chucking with Gantry Robot

PRODUCTIVITY IMPROVING OPTIONS

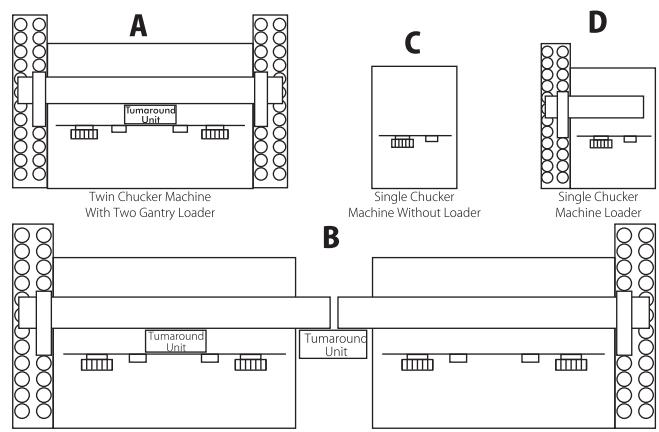
Auto job measuring with job cleaning station and separate output conveyor options available to support complete automation thus boosting production, process and reduces delay.



TS 120 LAYOUT

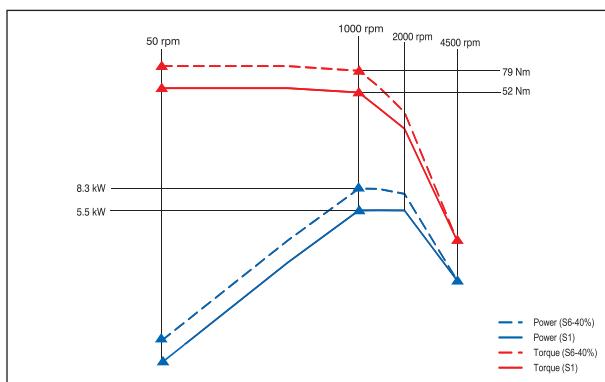


POSSIBLE LAYOUT

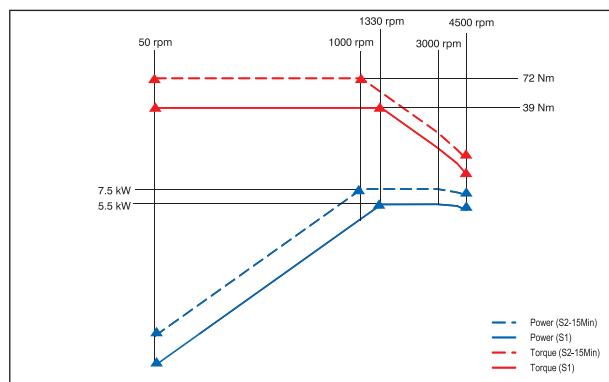


POWER-TORQUE DIAGRAM

8.3 / 5.5 kW, 4500 rpm (Siemens)



7.5 / 5.5 kW, 4500 rpm (Fanuc)





TECHNICAL SPECIFICATION

TS 120		
Spindles		
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		A5
Distance Between Two Spindles	mm	420
Slide Stroke		
X-Axis	mm	75
Z-Axis	mm	145
Rapid Traverse (X & Z Axis)	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		
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 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
- Job Measuring Station
- Tool Offset Measurement System
- Rear/Front Chip Conveyor
- Coolant Through Spindle
- Customized Line with Single/Double Configuration
- Job Washing Unit
- Separate Job Output Conveyor
- Linear Glass Scale

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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ISO 9001 : 2008