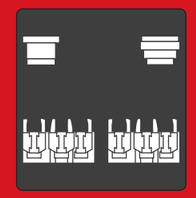
TT42

Double Spindle
Gang Tool High Speed
Automation Lathe



- Aerospace
- Automotive
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- Medical
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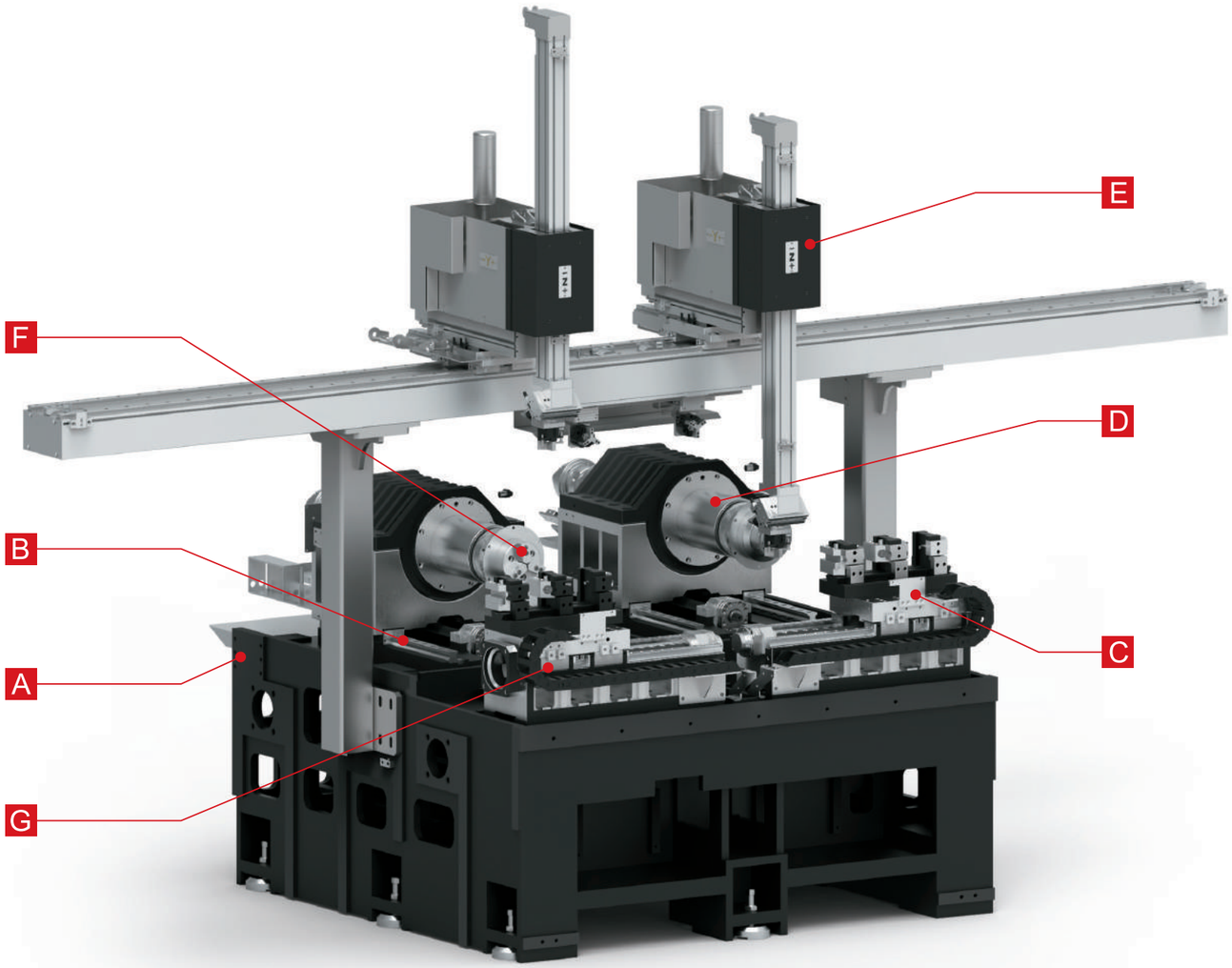
Turning Precision
Into Perfection

TT42 Machine Highlights

Automated High Speed Production

- Front and back machining can be completed in one setup. Max. 5 tools for each side.



Capabilities

This machine is for mass production of components and is integrated with gantry robots to reduce operator inputs. Custom automation configurations can be made for specific workpieces and output requirements.

Key Features

A The machine base is designed as a 1 piece structure for high rigidity, less deformation and with unique coolant channels to limit thermal growth.

B Linear Roller guide way for fast feed rates & roller guides for increased rigidity.

C Gang tool with dove tail design. It can be adjusted to match to the center of the spindle so the precision of the tool center can be guaranteedand increases turning precision and tool life.

D Built-in spindle with max. 8000rpm, provides faster acceleration and cycle times, less vibration, and better workpiece finish.

E Integrated gantry robot, provides smaller footprint, easy adjustment and maintenance.

F 4”3 jaw chuck , collet chuck, pneumatic or diaphragm chuck can be installed.

G The slide way applied grease lubrication to ensure less thermal growth due to heat and save the cost while refill the lubrication oil(grease lubrication only need to refill approximately 6 month).

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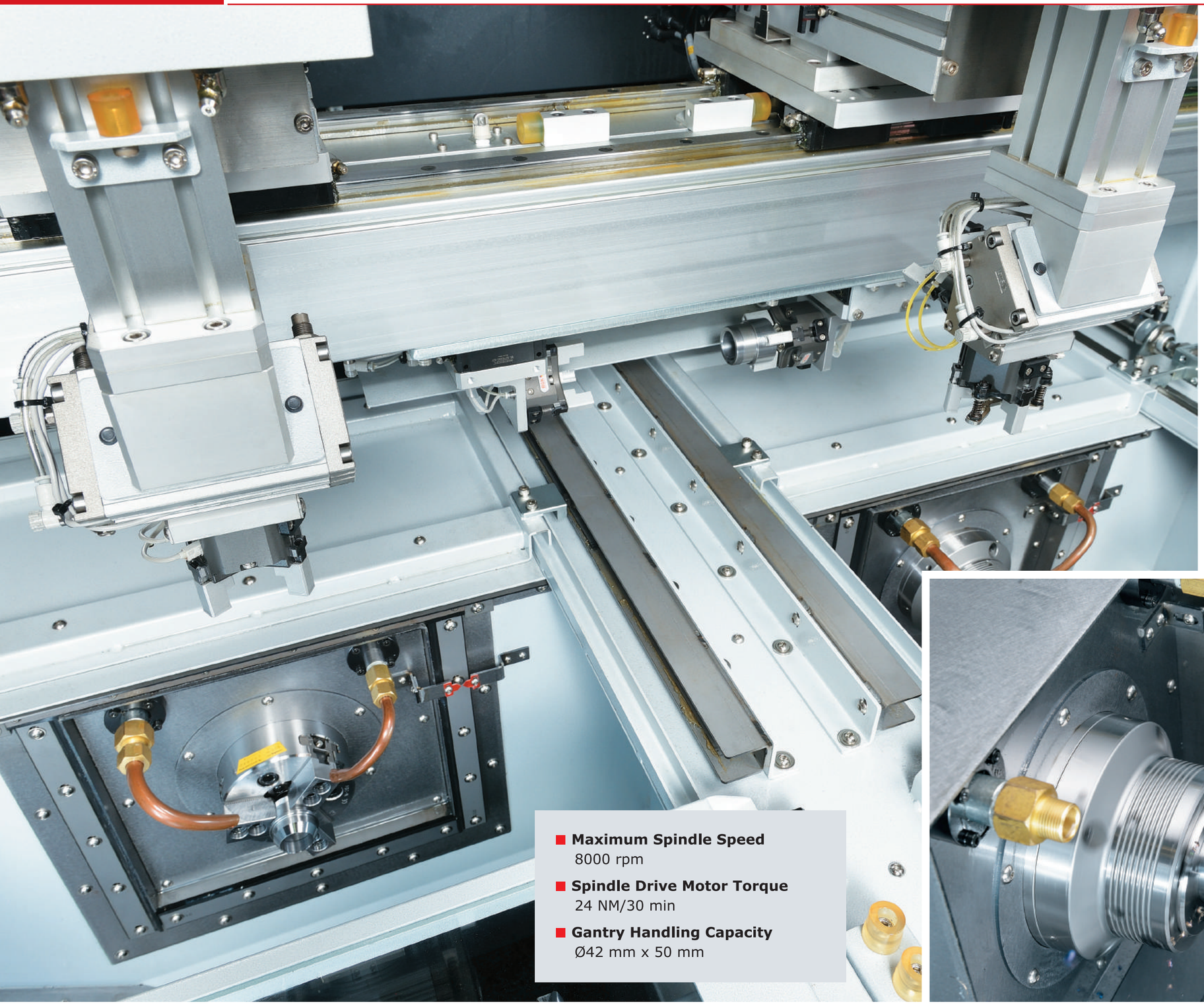
Parallel Dual Spindles & Automation



- **Maximum Spindle Speed**
  8000 rpm
- **Spindle Drive Motor Torque**
  24 NM/30 min
- **Gantry Handling Capacity**
  Ø42 mm x 50 mm

Mylas can design different loading and unloading systems. Depending on your workpiece design and the output required we can help you to increase your efficiency and save on manpower input.

Automation System Highlights

- **High Speed 3-Axis Gantry Loader**

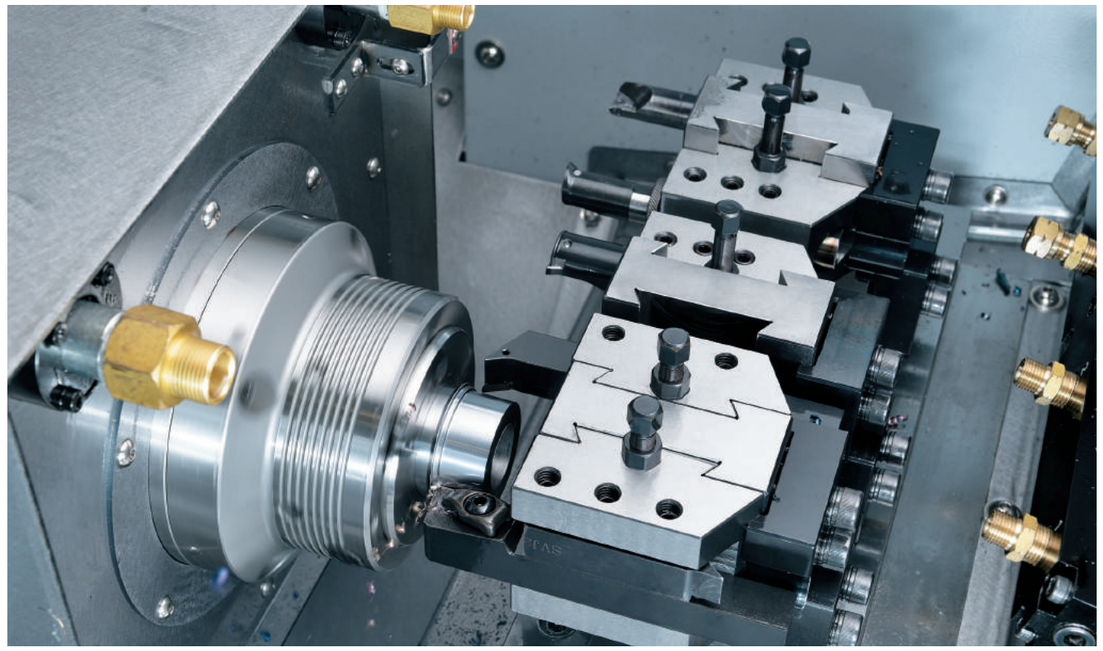
  Flexible Machine Utilization. This machine offers flexible machine configurations for two simultaneous processes, as well as turnaround applications for backmachining.

- **Reduced Cycle Times**

  Available with single or twin gantry high speed robot loaders, this machine has the capability for flexible machine utilization and fast production times. Can be customized for specific workpieces.

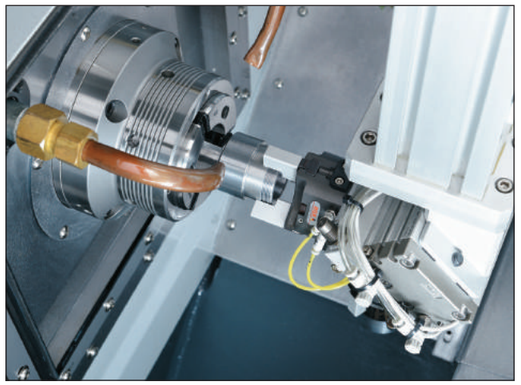
- **Added Versatility**

  Gang type tools and built-in spindles offer the ultimate in precision, speed and production machining versatility.



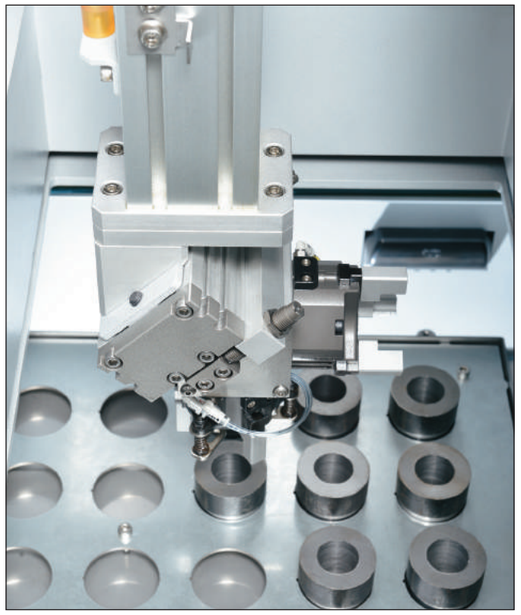
Machining Applications

Robot Load/Unload



The robot can perform automatic loading and unloading reducing operator input.

Parts Tray and Storage System

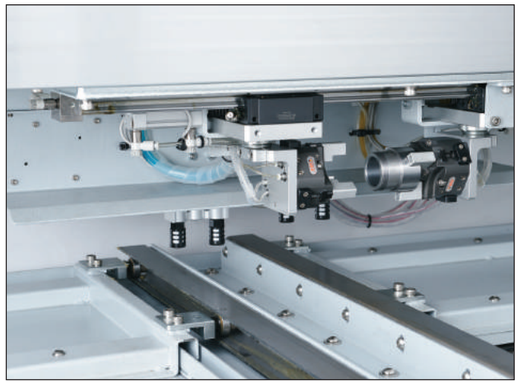


Raw materials or finished products are placed on the tray by robots. Custom trays and stacking requirements can be made for space saving and max storage of up to 12 trays.

Finished Parts Conveyor System

Machine can be equipped with a conveyor

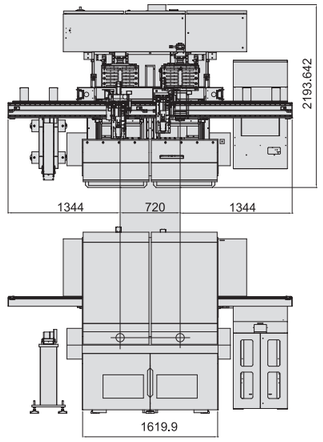
Parts Turnover Unit For Back maching



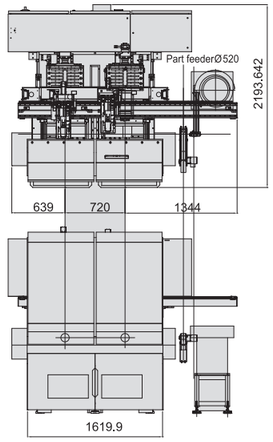
Back machining is achieved by the turnover unit quickly and efficiently.

Unit:mm

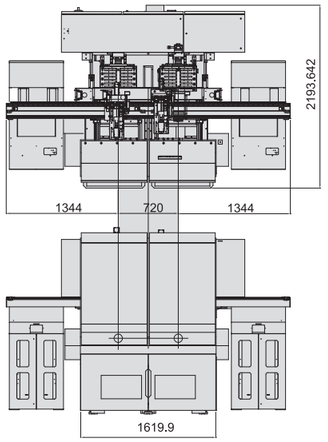
IN workpiece stocker / OUT conveyor



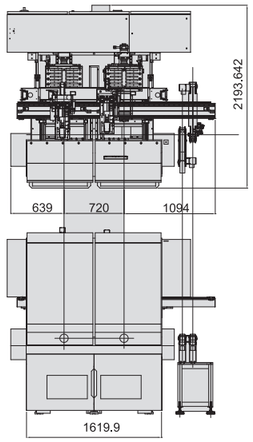
IN workpiece feeder / OUT conveyor



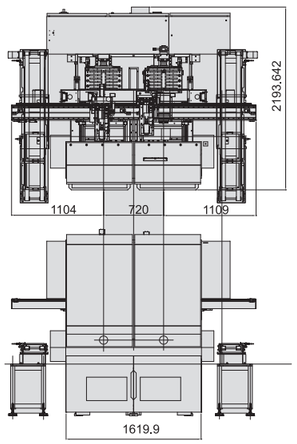
IN workpiece stocker / OUT workpiece stocker



IN conveyor / OUT conveyor



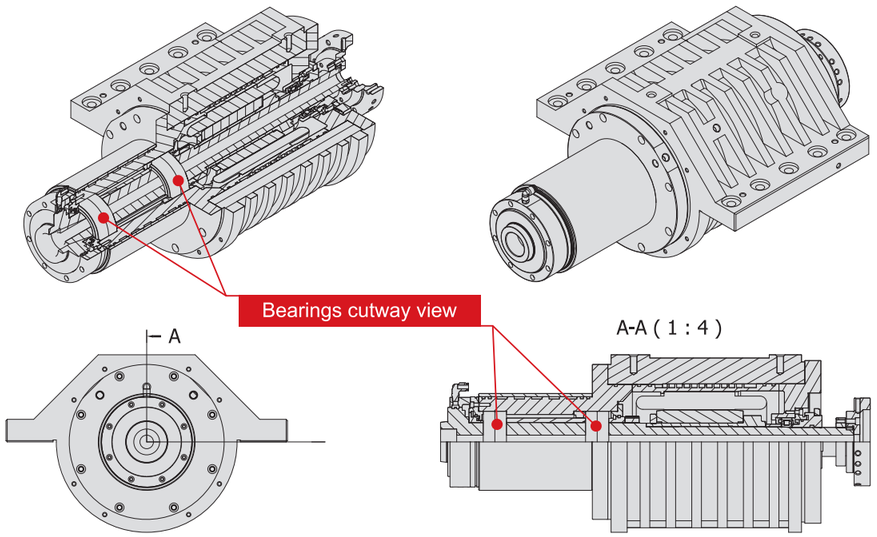
IN pallet conveyor / OUT pallet conveyor



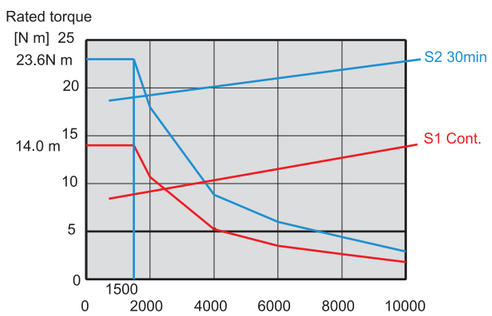
Highly Reliable Built-in Spindles

Thermally Stable Spindles

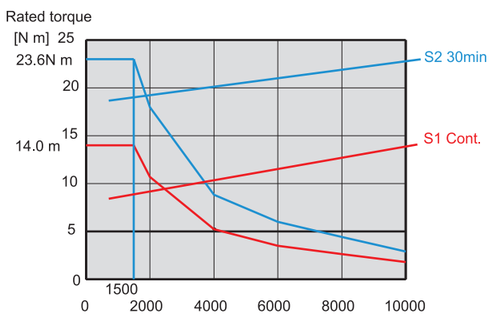
The TT42 has built-in spindles for reliability, speed and precision. The main spindle is using wing system to prevent thermal growth, and heat can not be transfer to headstock. Superb design to reduce thermal issues and chip and coolant intrusion. This configuration is suitable for lights out non-stop mass-production. The max RPM's is 8000. Specially designed headstock to prevent overheating and maintain precision cutting.



Spindle (L) Torque



Spindle (R) Torque

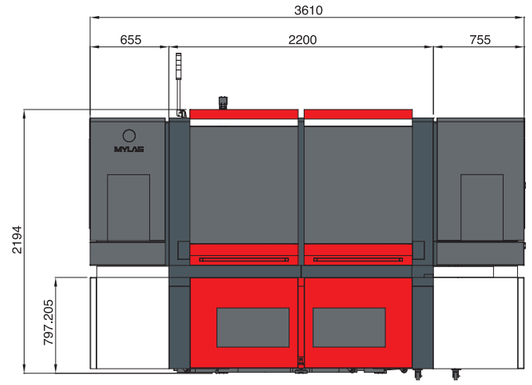


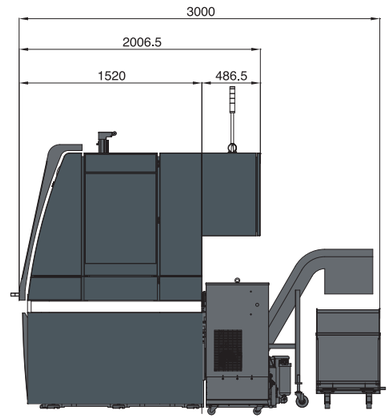
Machine Details

Machine Dimensions

Unit:mm

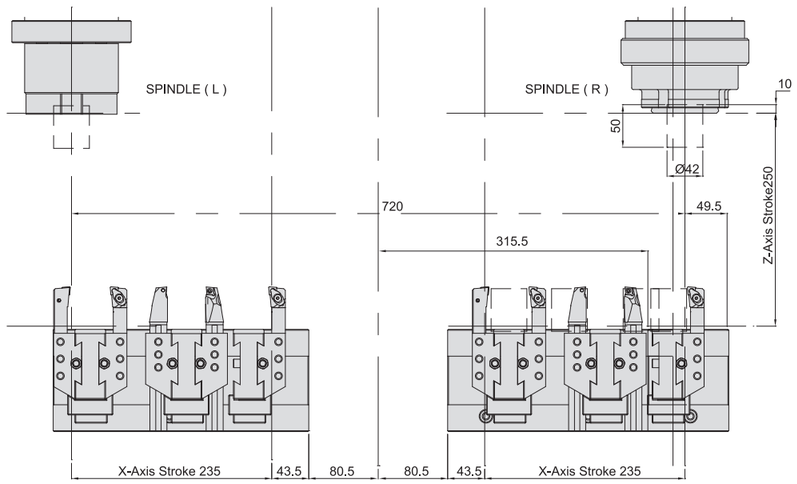
Example
Workpiece Stocker In / Conveyor Out.





Tool Interference Diagrams

Tooling Area



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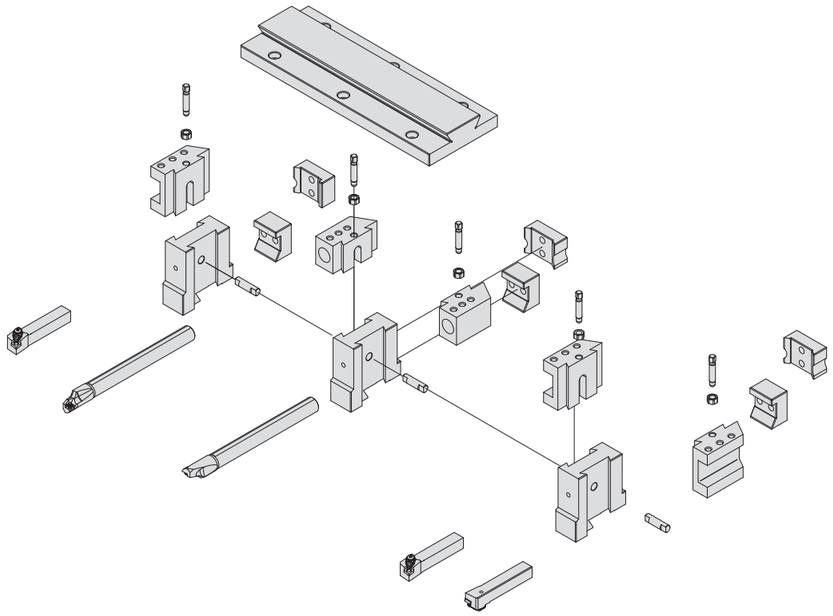
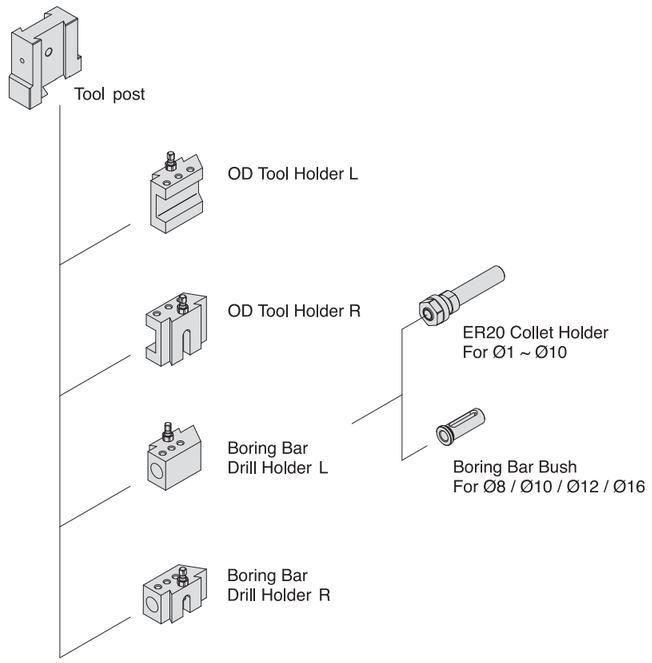
Tooling System

Unit:mm





Specifications

	Item	Unit	TT42 Main Spindle (L)	TT42 Main Spindle (R)
Capacity	Swing Over Saddle	mm	150	150
	Chuck Dia	mm	4" / RD42	4" / RD42
	Bar Capacity	mm	42	42
	Max. Turning Length	mm	50	50
	Max. Turning Diameter	mm	42	42
Travel	X Axis Travel	mm	235	235
	Z Axis Travel	mm	250	250
	X(R) 、Z(R) Axis Rapid Traverse	M/min	18 / 24	18 / 24
	X(L) 、Z(L) Axis Rapid Traverse	M/min	18 / 24	18 / 24
Spindle	Spindle Nose	type	A2-4	A2-4
	Hole Trough Spindle	mm	Ø21	Ø21
	Spindle Speed	rpm	50 - 8000	50 - 8000
	Spindle Motor Type	type	βil / 100S	βil / 100S
	Spindle Motor Torque (Cont / 30 min)	N.M	14 / 24	14 / 24
Tool Post	Tool Station Type	type	Gang tool	Gang tool
	No.of Tool Station	set	5	5
	D.D Tool Holder	mm	16	16
	I.D Tool Holder	mm	20	20
Motor	Spindle Motor (Cont / 30 min)	kW	2.2 / 3.7	2.2 / 3.7
	Axis Motor	kW	1.2 / 1.2	1.2 / 1.2
	Hydraulic Pump Motor	kW	0.75	
	Coolant Pump Motor	kW	0.9	
Coolant Tank Capacity		L	200	
Machine Length x Depth x Height		mm	3610 x 3000 x 2194	
Weight		kgs	3800	

Standard Accessories:

- Fanuc Controller
- Collet Chuck
- Gang Tool System
- Auto Lubrication System
- Coolant System
- SP1/SP2 Inner Coolant & Air Blow
- Coolant Level Sensor
- Auto Power Shut-Off
- Signal Tower
- Gantry Robot x 1

Optional Accessories:

- Chip Conveyor
- Oil Mist Collector
- Transformer
- Regulator
- Mitsubishi Controller
- Chip Box
- 3 Jaw Chuck Prenematic Chuck
- Diaphragm Chuck
- Air Blow for SP1/SP2
- High Pressure Coolant System
- 2nd Robot
- Workpiece Stocker System
- Workpiece Rotary Stacker
- Workpiece Matrix Rotary Tray
- Parts Turnover Unit

We reserve the right to modify the above specifications without notice.