



TAKISAWA[®]
TAIWAN

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LA-150 Series

LA-150 · LA-150L · LA-150M · LA-150ML

LA-200 · LA-200L · LA-200M · LA-200ML

LA-200 Series

TAKISAWA[®]
TAIWAN

LA-150 | LA-200 Series

Variety of model configurations, Box guide way for all guide rails

Taiwan Takisawa home-made turret and spindle provide high rigidity and high accuracy Minimum footprint, maximum working space

Ready for automation and customisation, Your best choice for high productivity with low investment.



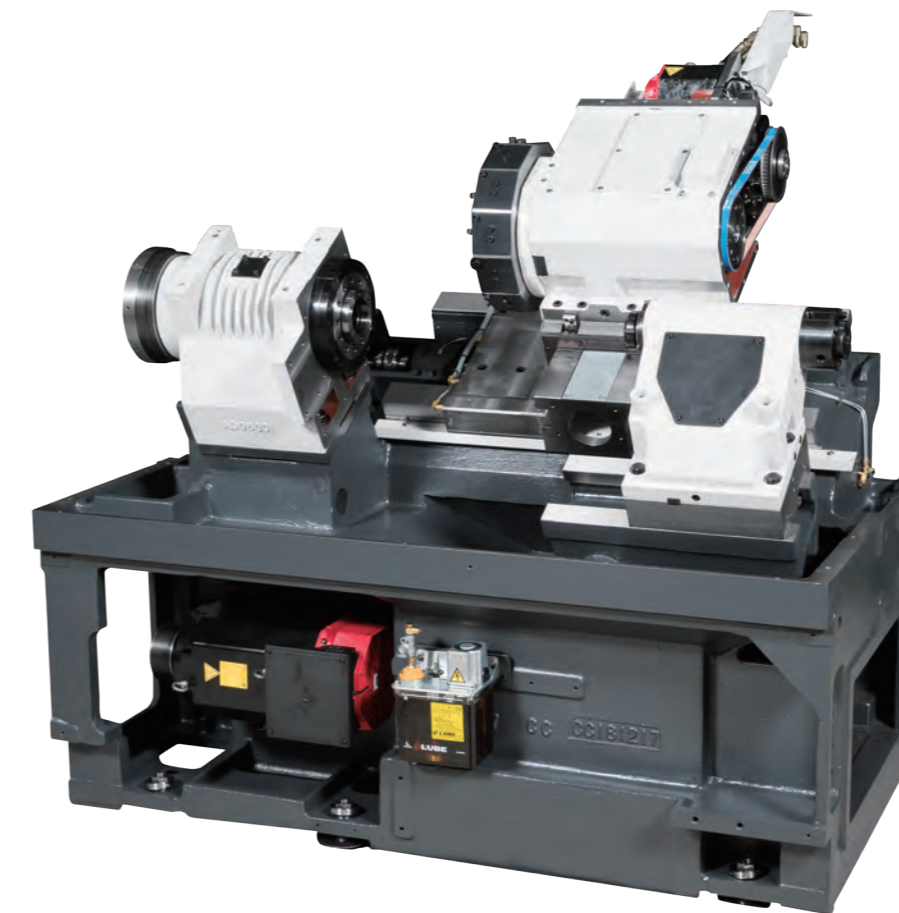
Workpiece Size

※ Specifications are subject to change without notice.

	LA-150[L]	LA-150M[L]	LA-200[L]	LA-200M[L]	
Max. Turning Diameter	12.6	9.84	12.6	9.84	inch
Max. Turning Length	12.91[24.72]	12.32[24.13]	11.81[23.62]	11.18[22.99]	inch
Max. Bar Work Capacity Diameter	1.65	1.65	2/2.6	2/2.6	inch



30 degree slant bed design supports high rigidity and less footprint.



Spindle motor and lubrication tank are located in front of machine, easy to service.



Box guide way design for X and Z axis ensures dynamic rigidity with vibration attenuation to maintain good accuracy in heavy cutting process.

Specification Options

	LA-150[L]	LA-150M[L]	LA-200[L]	LA-200M[L]
T8 Turning Turret	●	---	●	---
T10 Turning Turret	◎	---	◎	---
T12 Turning Turret	◎	---	◎	---
T12 Milling Turret	---	●	---	●
Pin Carry Tailstock	◎	◎	◎	◎
Manual Tailstock	◎	◎	◎	◎

●:Standard ◎:Optional ---:None

Travel & Rapid Traverse

	LA-150[L]	LA-150M[L]	LA-200[L]	LA-200M[L]	
X-Axis Travel	6.89	6.89	6.89	6.89	inch
X-Axis Rapid Traverse	944.88	944.88	944.88	944.88	ipm
Z-Axis Travel	14.76[26.57]	14.76[26.57]	14.76[26.57]	14.76[26.57]	inch
Z-Axis Rapid Traverse	944.88	944.88	944.88	944.88	ipm

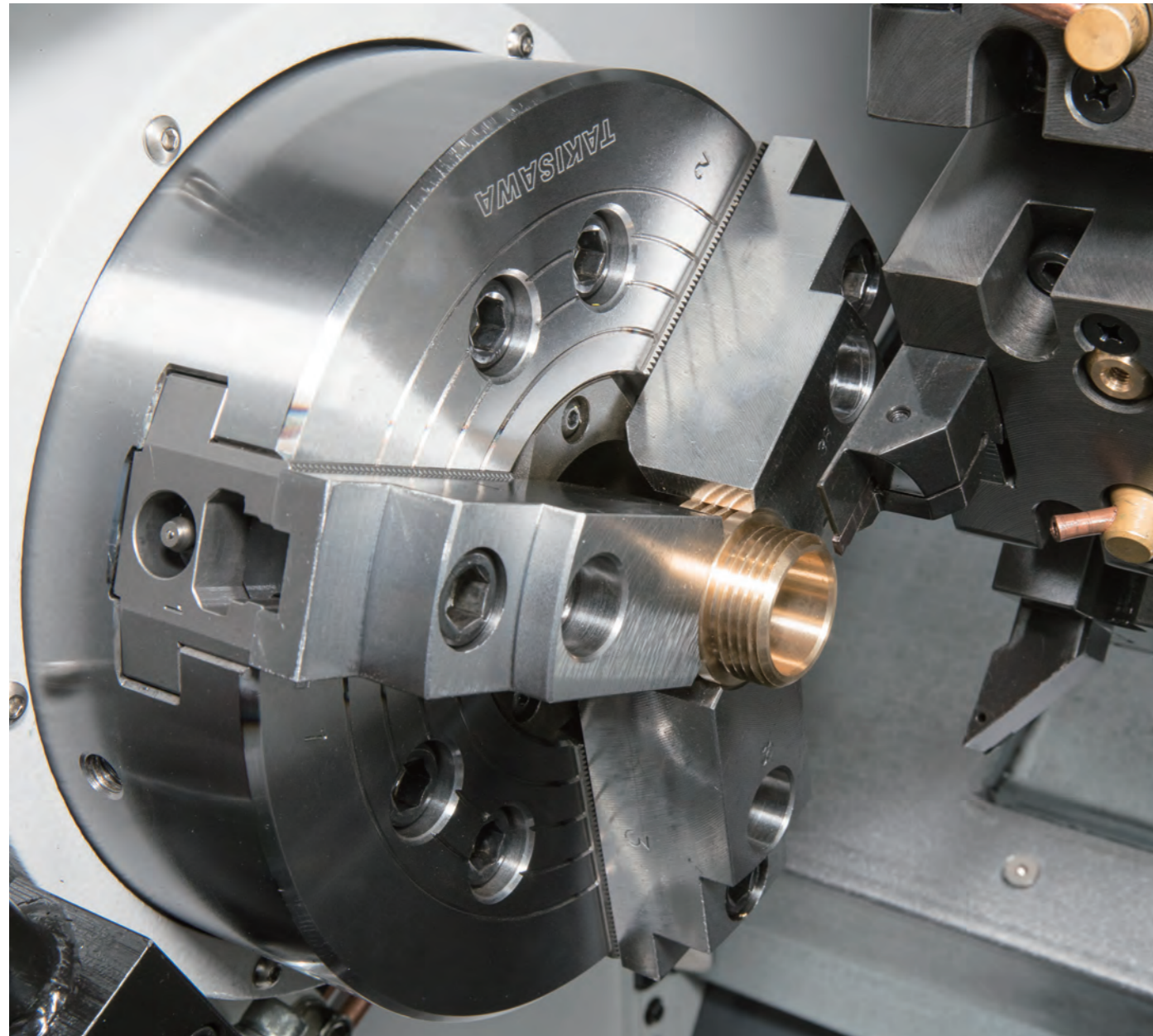
※ Specifications are subject to change without notice.

Spindle

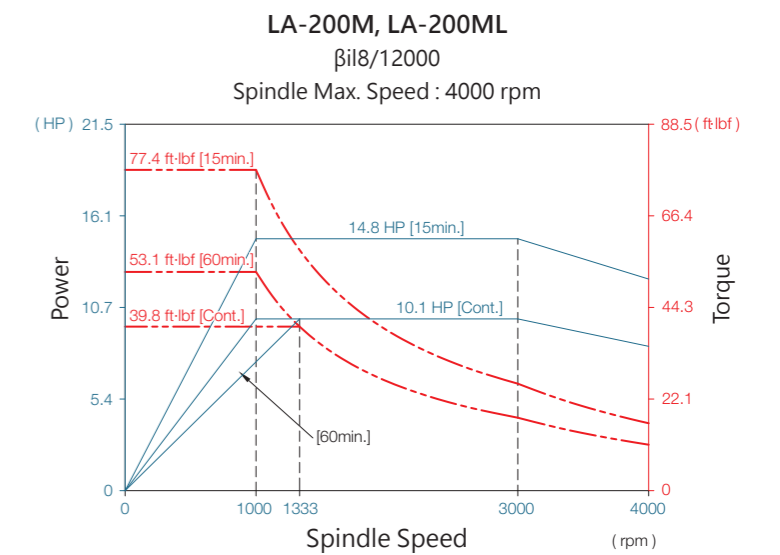
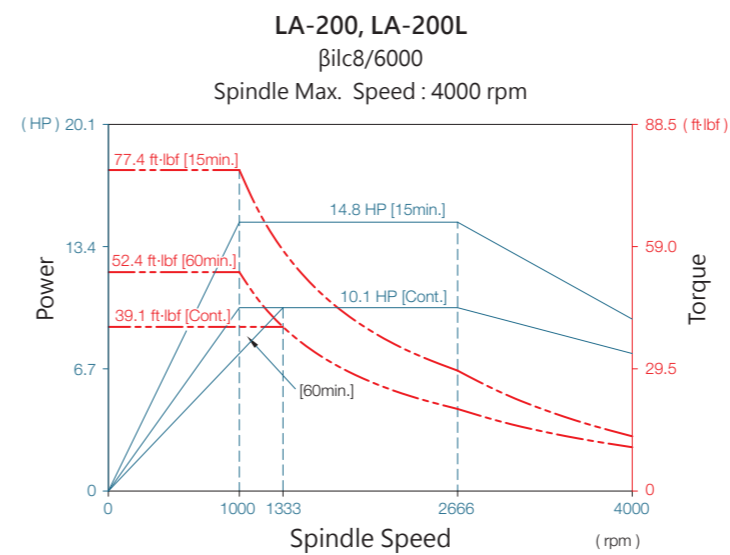
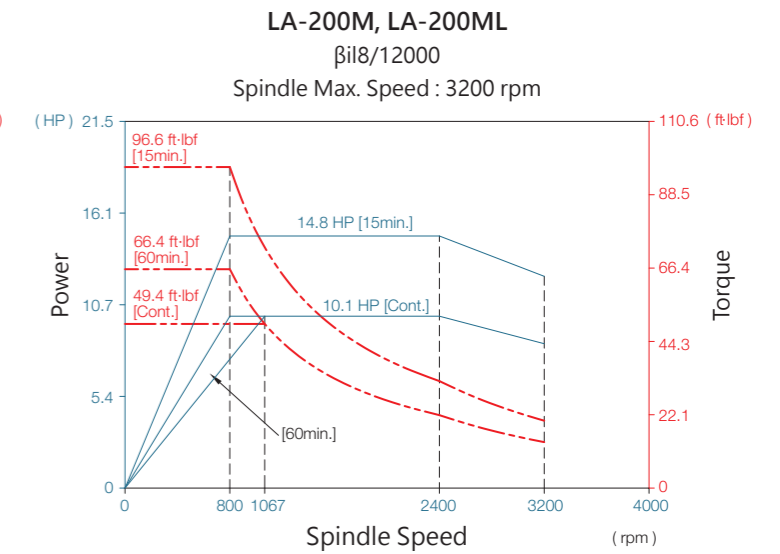
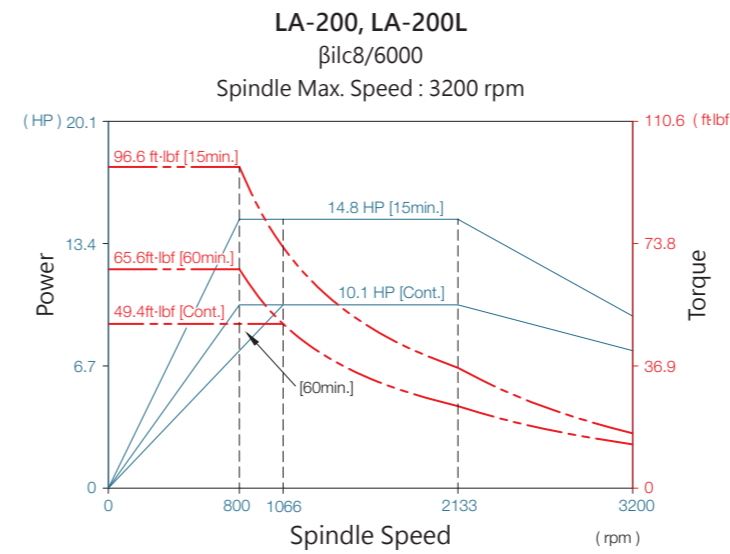
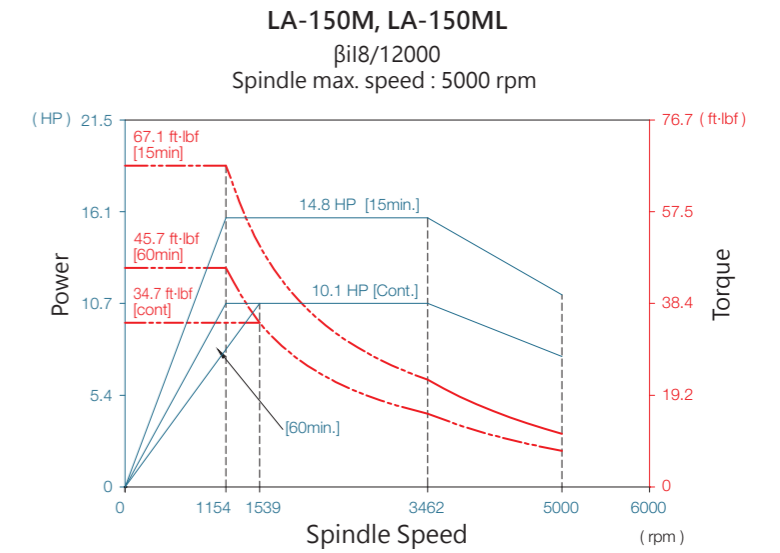
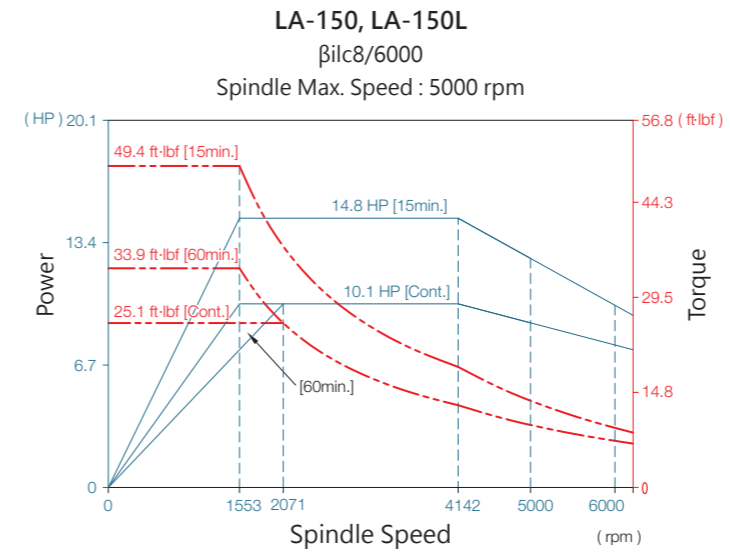
The spindle is made in house to ensure highest quality and reliability, spindle type can be selected according to the requirement of accuracy, torque and cost effective from customer. Motor, through-hole size, spindle speed ratio and spindle nose can be customised according to the requirement from customer.



Belt driven spindle design is economic and easy to maintain.

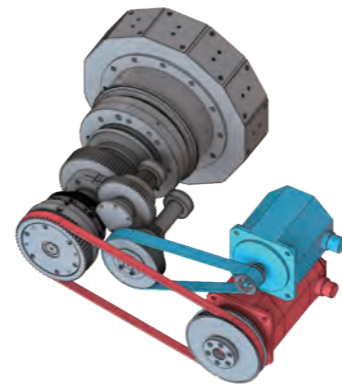


Spindle Output Diagram

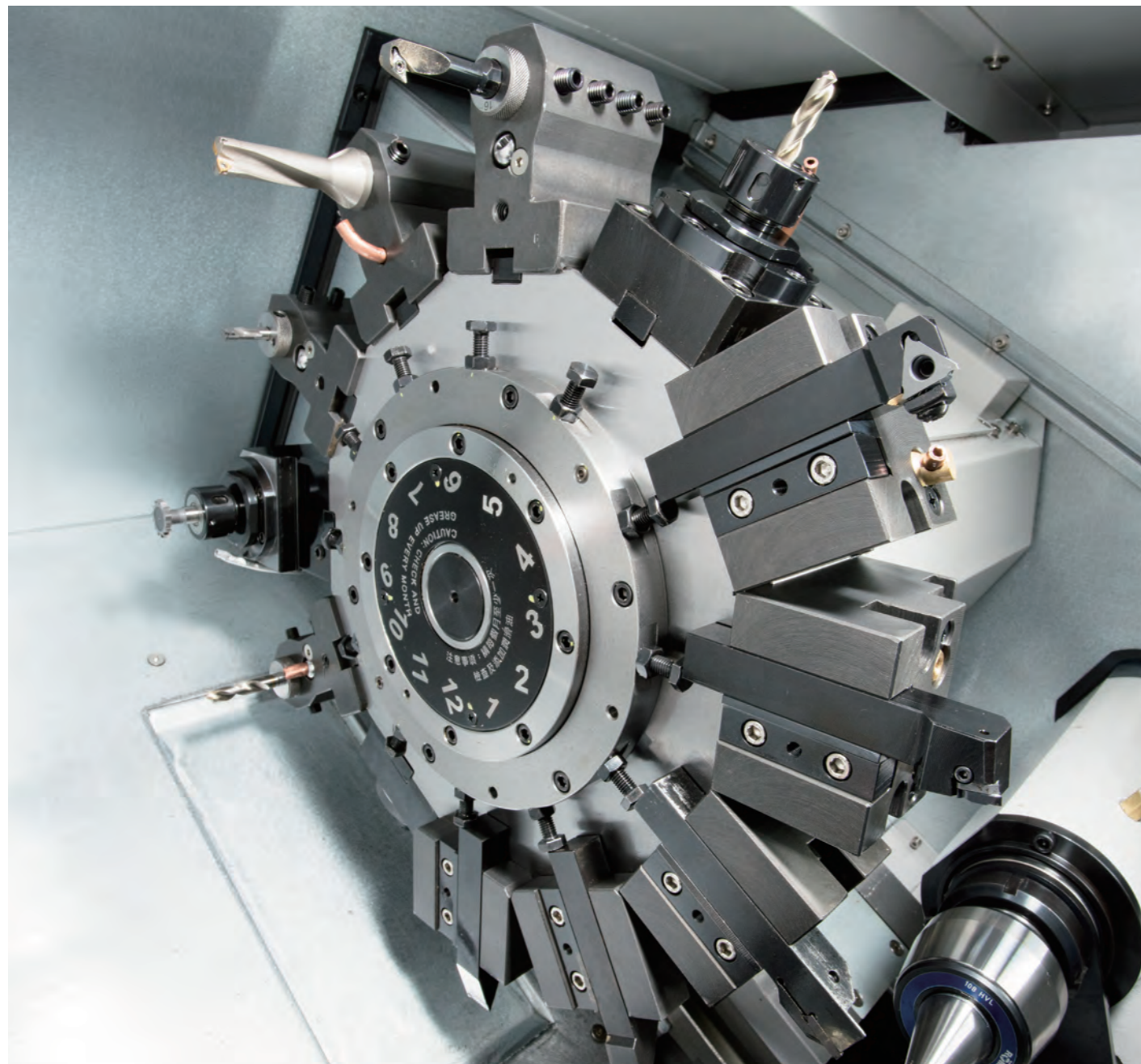


Turret

The T12 Milling Turret is a tested in house design that enables combined machining such as milling, drilling and tapping in addition to conventional turning. This allows complex and highly accurate machining in a single cycle for mass production of parts. We can provide a customised needs assessment for special needs regarding numbers of tools, tool holders, milling cutters etc.

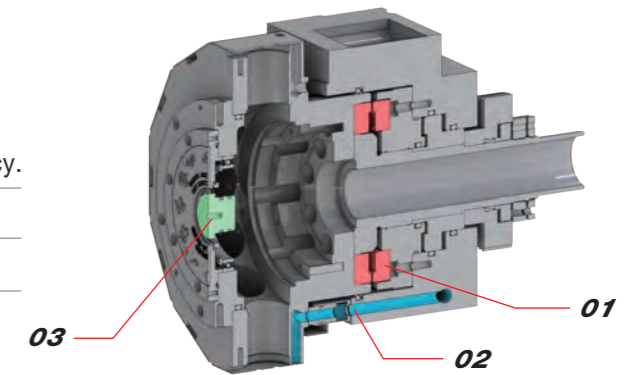


The milling motor is driven by a spindle motor and the tool changer is driven by a servo motor.



Turret Structure

- 01** Curvic coupling OD 180mm performs high rigidity and accuracy.
- 02** Ready for 70 bar hi-pressure coolant.
- 03** Easy to grease up.



T12 Milling Turret

Number of Tools	12	
OD Tool Shank Dimension	3/4	inch
ID Tool Shank Diameter	1	inch
Milling Shank Diameter	1/2	inch
Milling Spindle Speed	4000	rpm
Motor Output	3	HP
Max. Torque	38.4	ft-lbf

T12 Turning Turret (Option)

Number of Tools	12	
OD Tool Shank Dimension	1	inch
ID Tool Shank Diameter	1-1/2	inch

T10 Turning Turret (Option)

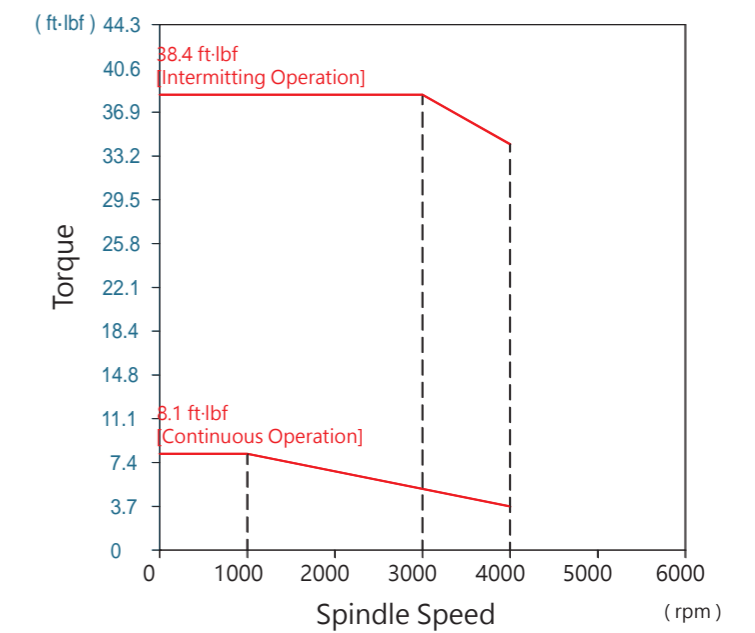
Number of Tools	10	
OD Tool Shank Dimension	1	inch
ID Tool Shank Diameter	1-1/2	inch

T8 Turning Turret (Standard)

Number of Tools	8	
OD Tool Shank Dimension	1	inch
ID Tool Shank Diameter	1/1/2	inch

Spindle Output Diagram

Milling Spindle Motor : αiS12/6000
Spindle max. speed : 4000 rpm



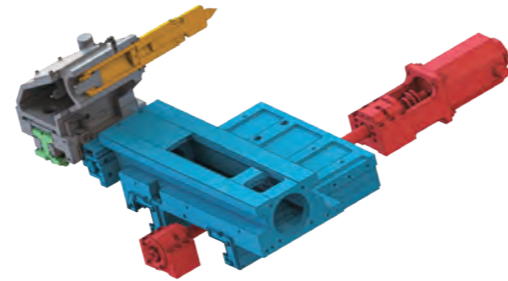
Special Tool Holders

- 01** Gear Hobbing
- 02** Broaching
- 03** Power Skiving
- 04** Adjustable Angle Milling

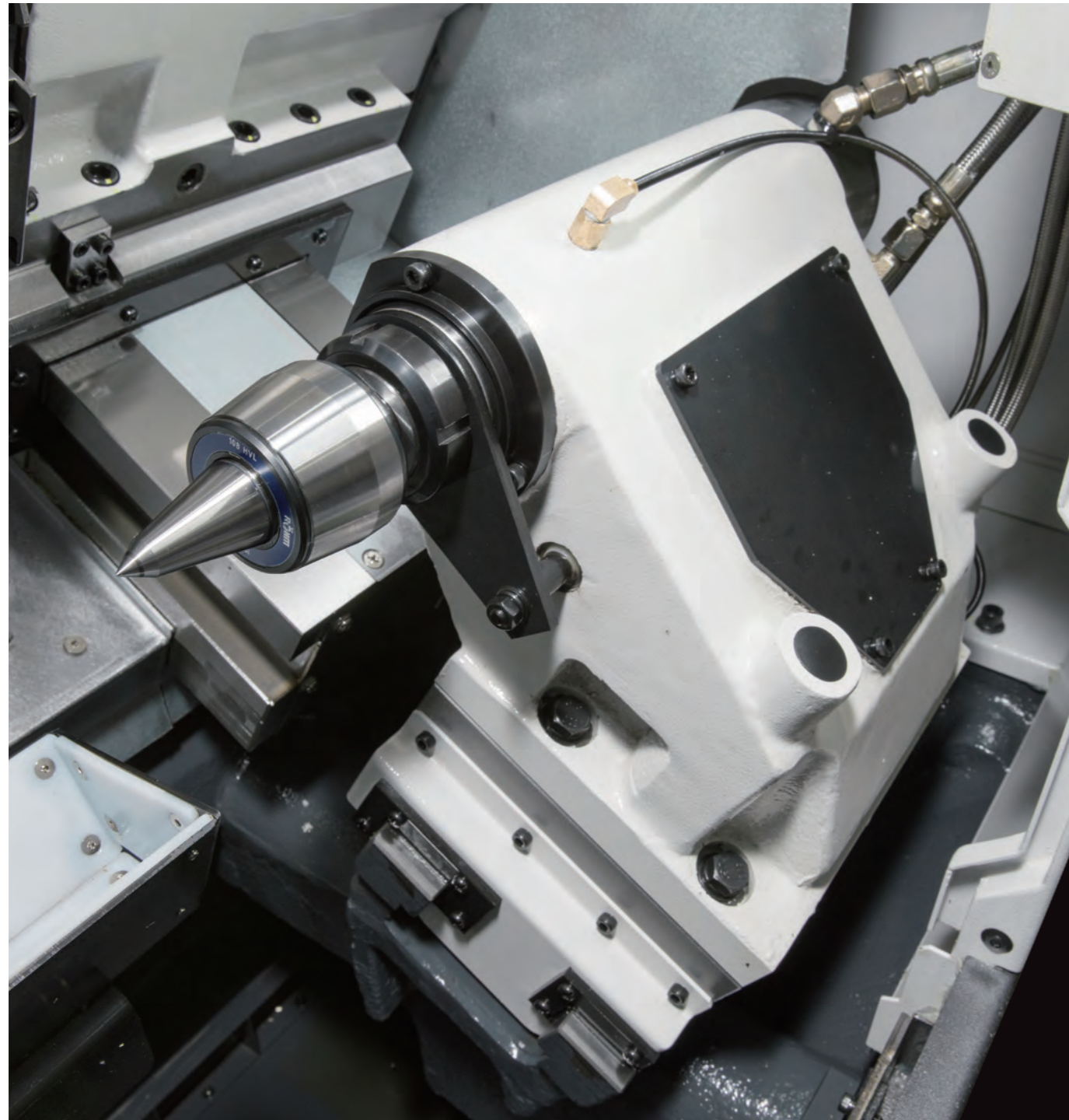


Tailstock

High rig tailstock body with hydraulic driven quill, various driven types can be selected according to the requirement of user. High thrust or quill type can be customized according to the requirement of customer.



PIN carried tailstock can be quick positioned by Z axis servo motor, working cycle time can be reduced.

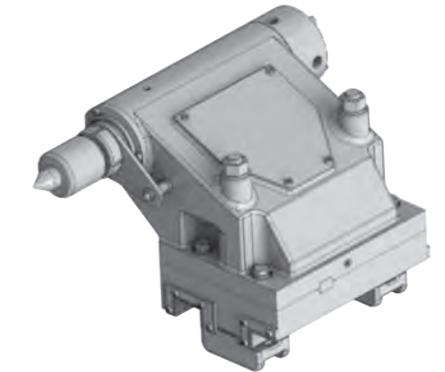
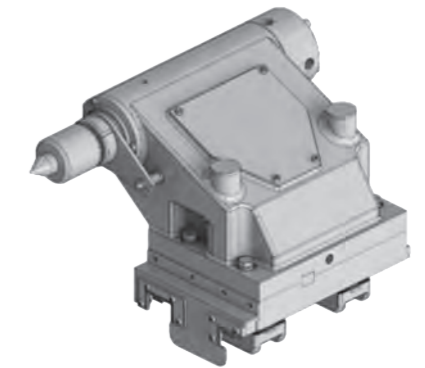


Manual Tailstock (Option)

Tapered Bore Type	MT.4	
Tailstock Spindle Diameter	2.95	inch
Tailstock Spindle Travel	3.94	inch
Max. Thrust of Tailstock Spindle	1303.89	lbf

Pin Carry Tailstock (Option)

Tapered Bore Type	MT.4	
Tailstock Spindle Diameter	2.95	inch
Tailstock Spindle Travel	3.94	inch
Max. Thrust of Tailstock Spindle	1303.89	lbf



01 Steady Rest

Maintain stable centering for long workpiece machining, optimum machining accuracy.

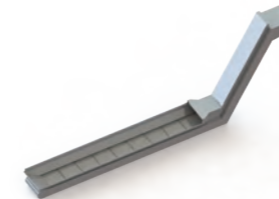
Hydraulic Steady Rest

SMW SLU-Z-1	Ø0.16~Ø2.52	inch
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02 Chip Conveyor

To assist with factory layout right and rear side chip conveyors are available.

Hinge Type
Chip Conveyor

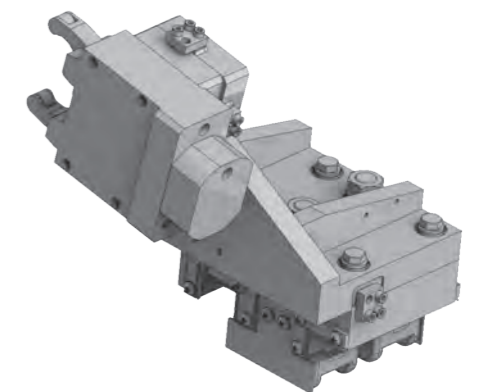


Scraper Type
Chip Conveyor

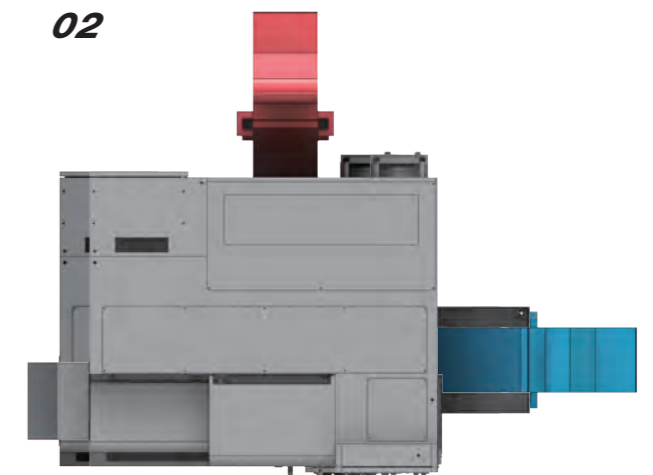


Chip Type	Curly Metallic Chip Steel /Aluminum	Power Metallic Chip Foundry /Aluminum /Brass	Non- Metallic
Hinge Type	○	X	○
Scraper Type	X	○	X

01

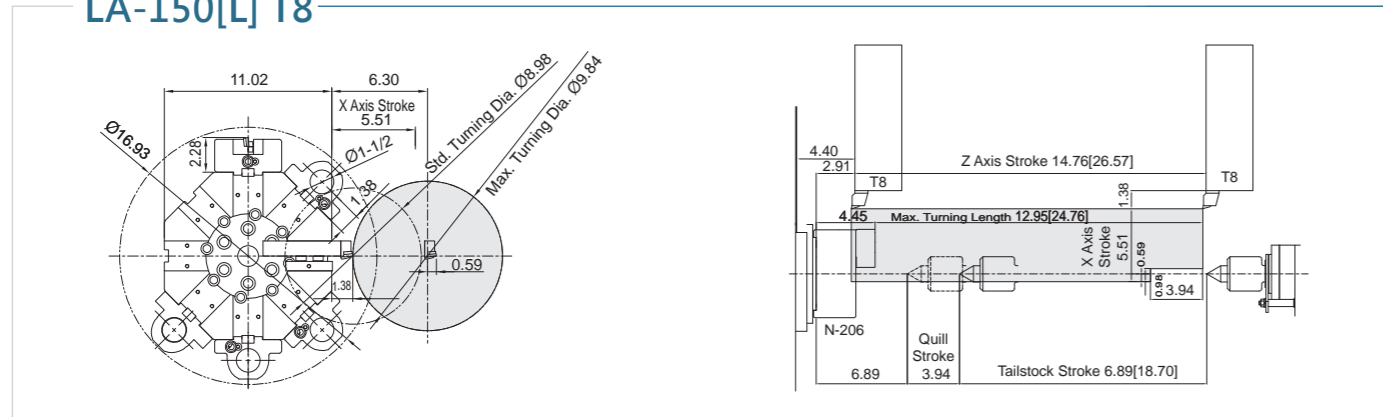


02

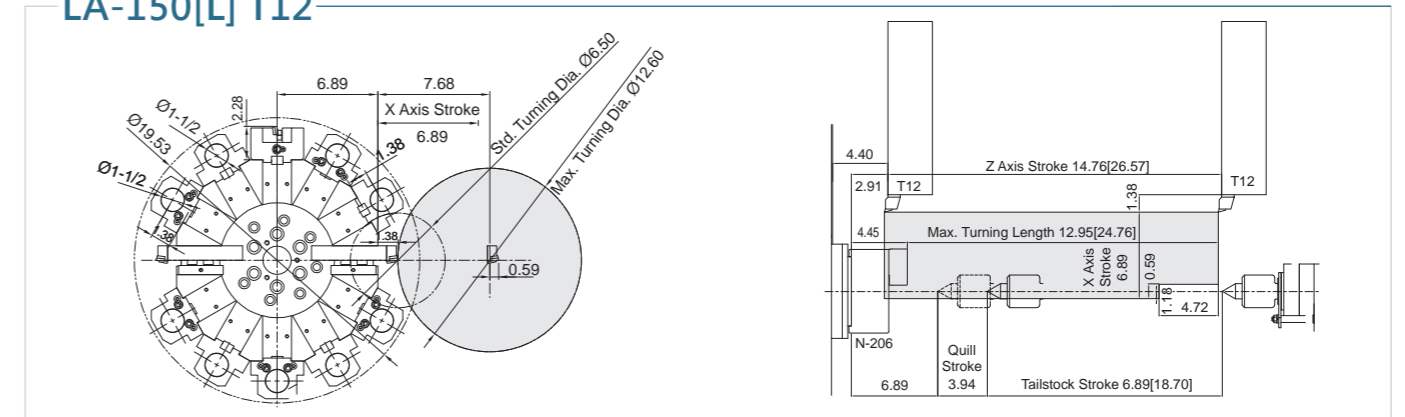


Working Range I Interference Diagram

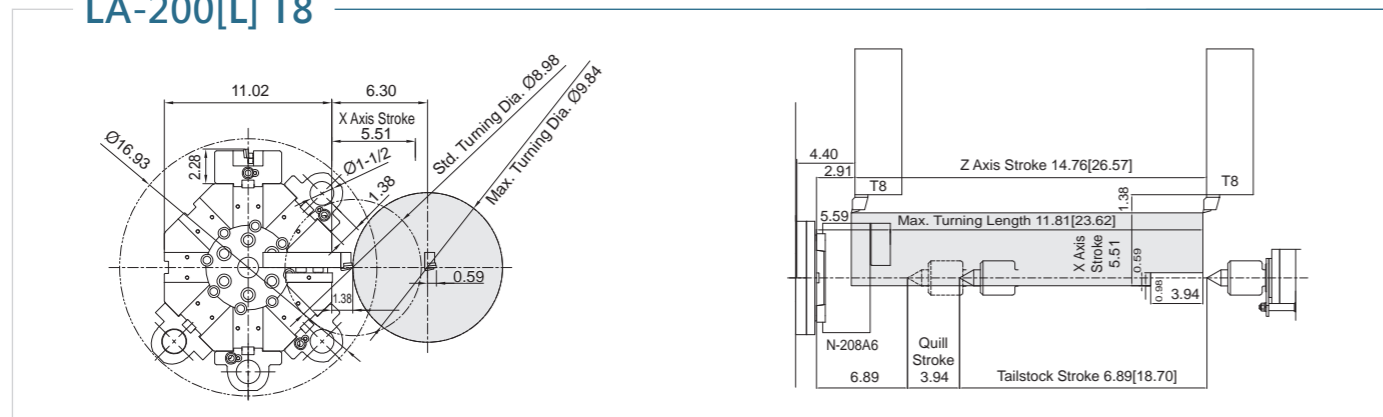
LA-150[L] T8



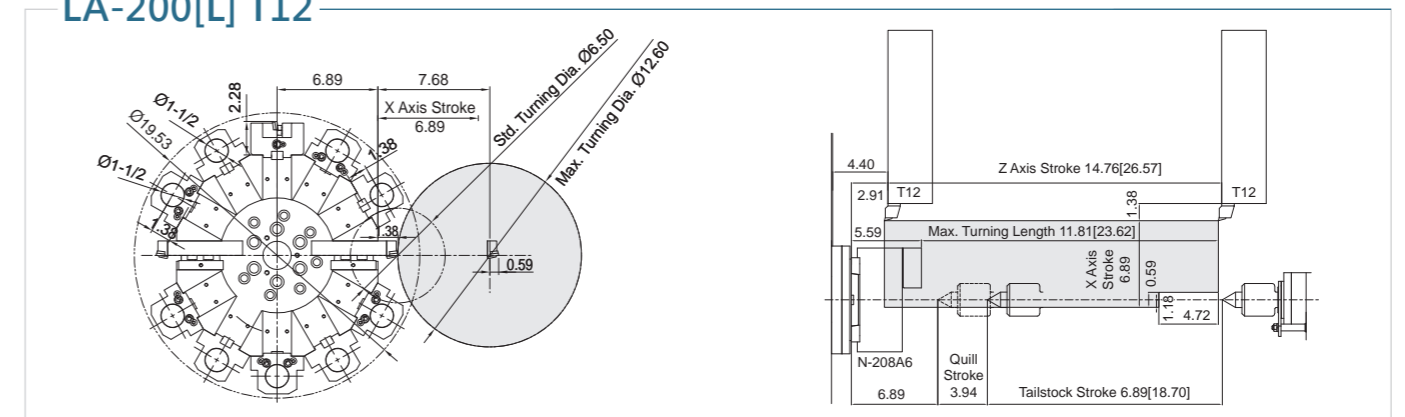
LA-150[L] T12



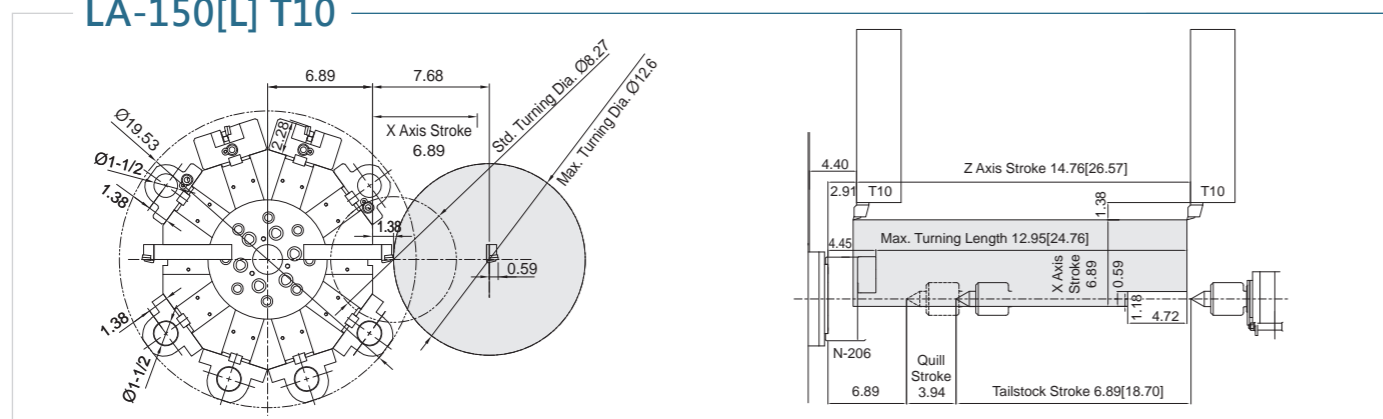
LA-200[L] T8



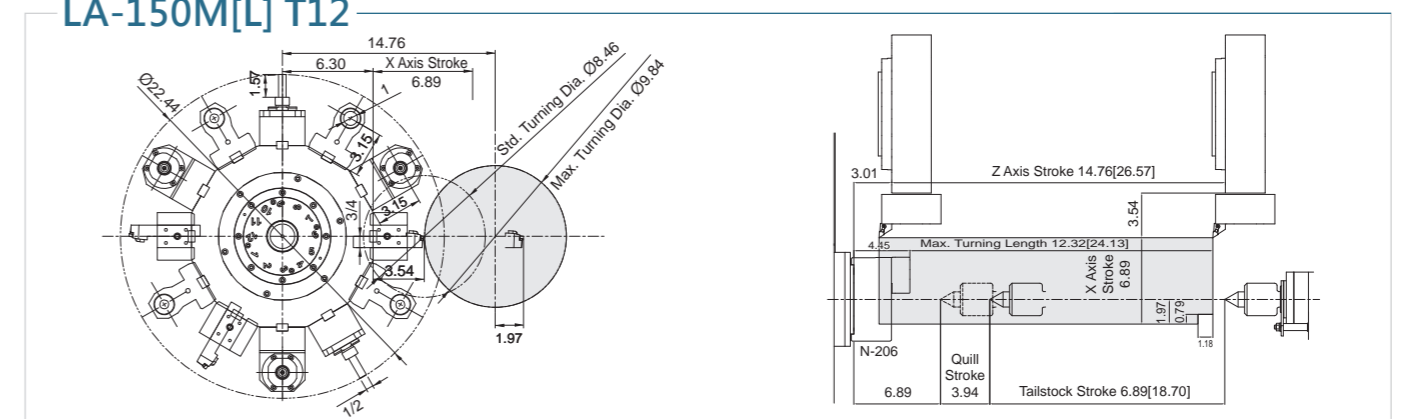
LA-200[L] T12



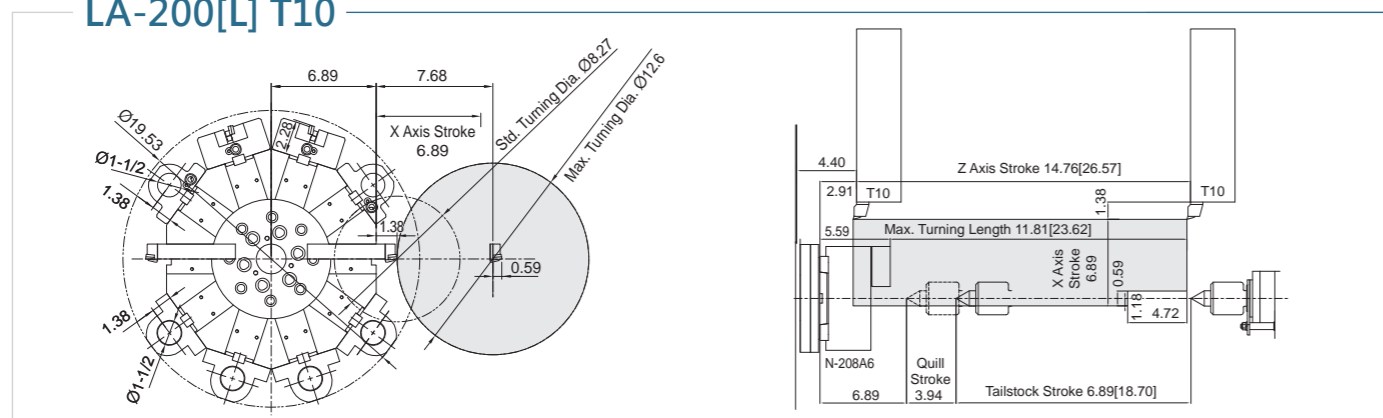
LA-150[L] T10



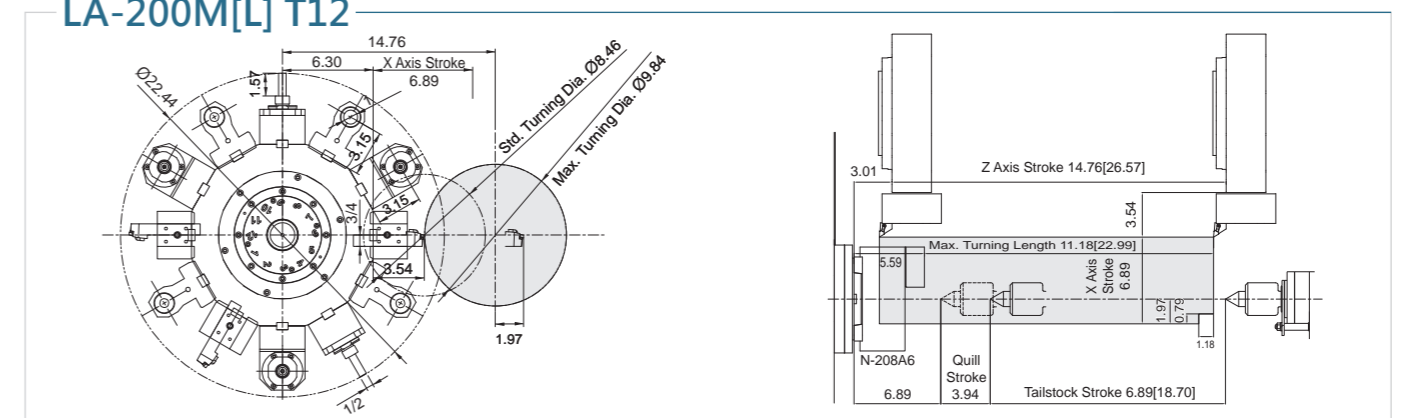
LA-150M[L] T12



LA-200[L] T10

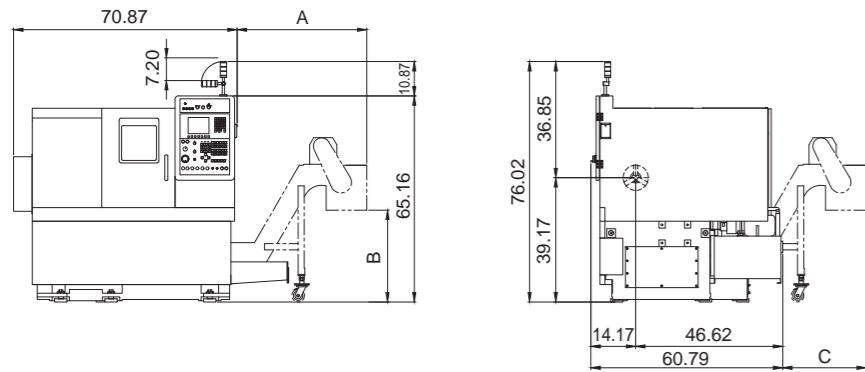


LA-200M[L] T12



Machine Dimensions

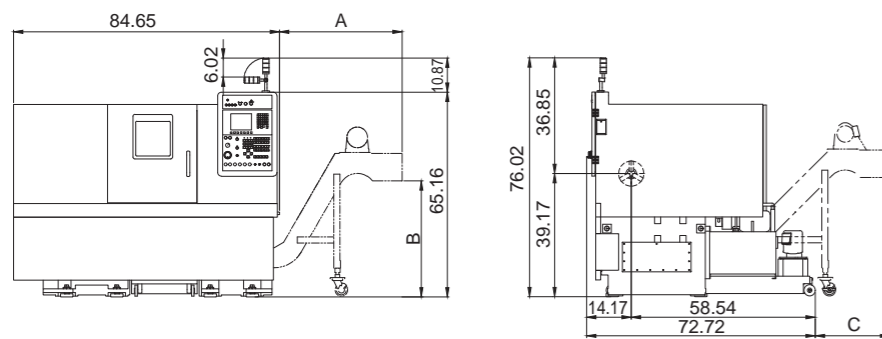
LA-150 / LA-200



Chip Conveyor Dimension

	A	B	C
Standard	41.10	35.43	26.50
CE	41.10	29.13	26.50
Italy	46.02	31.73	31.42
Switzerland	49.96	44.45	35.35

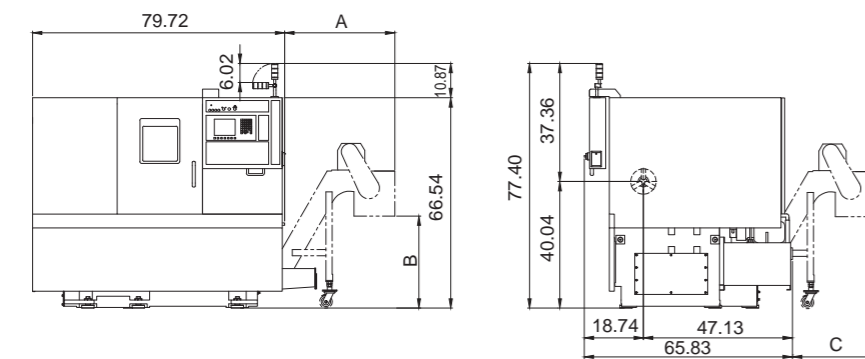
LA-150L / LA-200L



Chip Conveyor Dimension

	A	B	C
Standard	38.98	36.93	23.74
CE	38.98	36.93	23.74
Italy	44.92	39.31	29.69
Switzerland	44.92	44.21	29.69

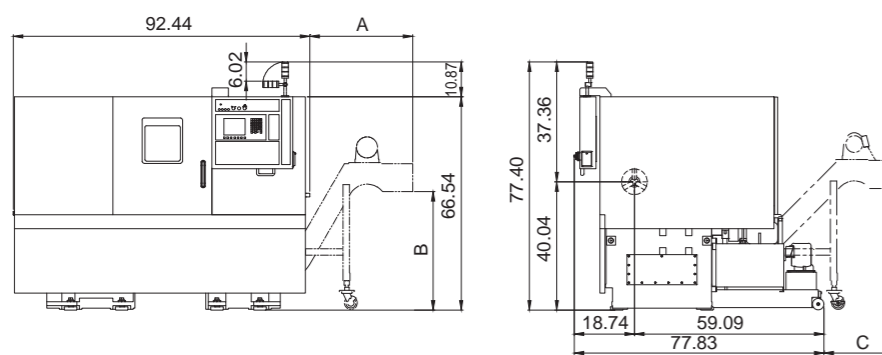
LA-150M / LA-200M



Chip Conveyor Dimension

	A	B	C
Standard	34.80	35.43	26.50
CE	34.80	29.13	26.50
Italy	39.72	31.73	31.42
Switzerland	43.66	44.45	35.35

LA-150ML / LA-200ML

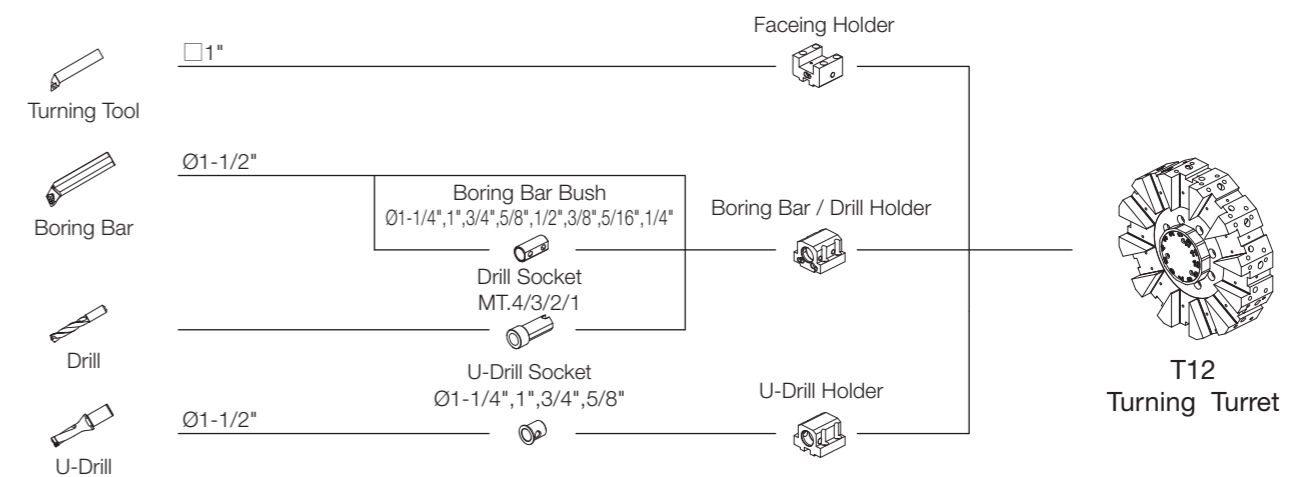


Chip Conveyor Dimension

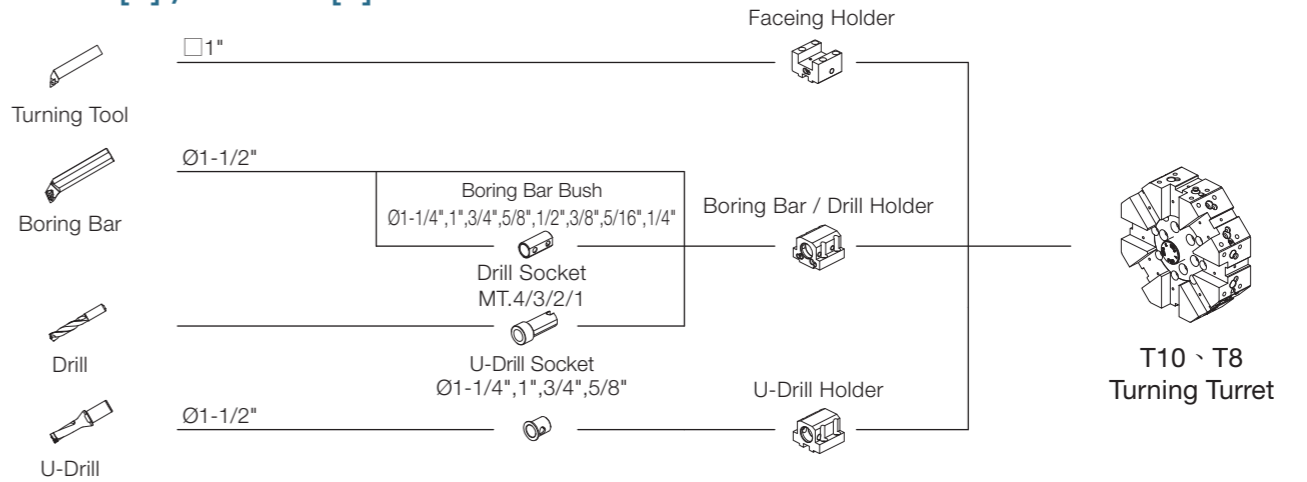
	A	B	C
Standard	32.13	38.07	23.74
CE	32.13	38.07	23.74
Italy	38.07	38.31	29.69
Switzerland	38.07	44.21	29.69

Tooling System

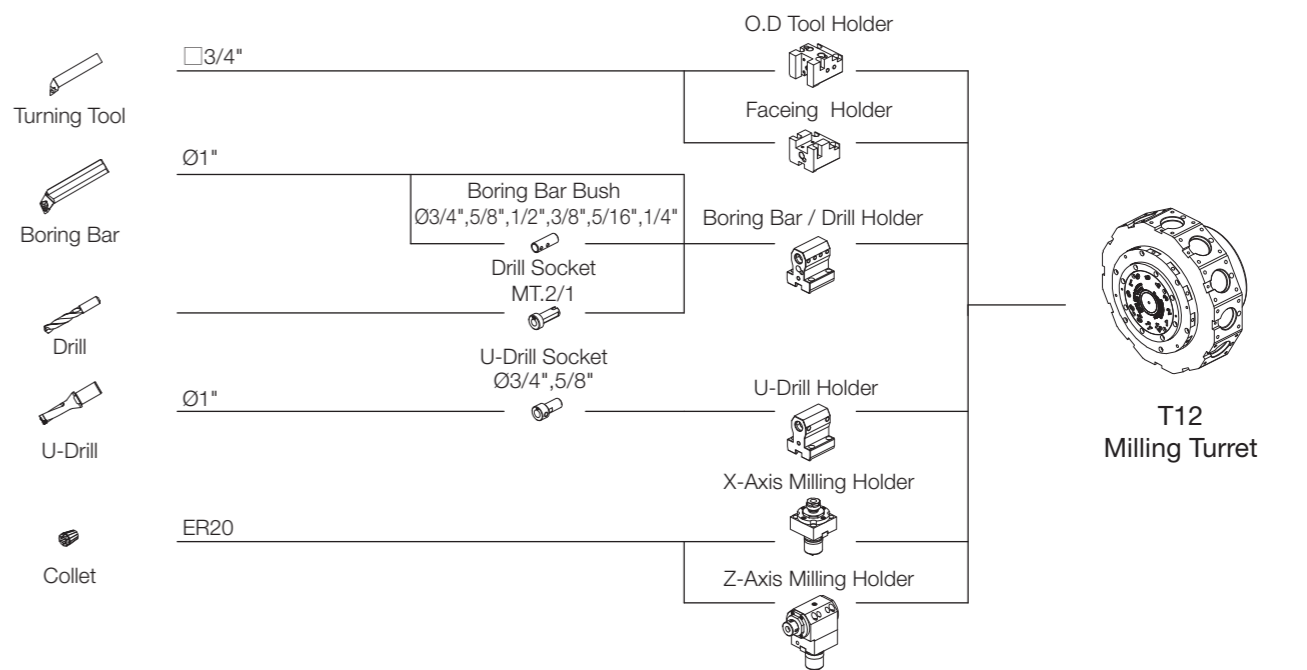
LA-150[L] / LA-200[L]



LA-150[L] / LA-200[L]



LA-150M[L] / LA-200M[L]



Machine Specification

Model		LA-150[L]	LA-150M[L]	LA-200[L]	LA-200M[L]
Item	Unit				
Capacity					
Max. Swing	inch	18.50	18.50	18.50	18.50
Standard Turning Diameter	inch	6.50 T12 Turret	8.46	6.50 T12 Turret	8.46
		8.27 T10 Turret		8.27 T10 Turret	
		8.98 T8 Turret		8.98 T8 Turret	
Max. Turning Diameter	inch	12.60 T12 Turret	9.84	12.60 T12 Turret	9.84
		12.60 T10 Turret		12.60 T10 Turret	
		9.84 T8 Turret		9.84 T8 Turret	
Max. Turning Length	inch	12.91[24.72]	12.32[24.13]	11.81[23.62]	11.18[22.99]
Max. Bar Work Capacity	inch	1.65	1.65	2.05	2.05
				2.60	2.60
Travel					
X-Axis Travel	inch	6.89 T12 Turret	6.89	6.89 T12 Turret	6.89
		6.89 T10 Turret		6.89 T10 Turret	
		5.51 T8 Turret		5.51 T8 Turret	
Z-Axis Travel	inch	14.76[26.57]	14.76[26.57]	14.76[26.57]	14.76[26.57]
Spindle					
Spindle Speed	rpm	5000	5000	3200	3200
Spindle Nose		FLAT140	FLAT140	4000	4000
				A2-6	A2-6
Through Hole Diameter	inch	2.09	2.09	2.48	2.48
Bearing Inside Diameter	inch	3.15	3.15	2.99	2.99
				3.94	3.94
Turret				3.94	3.94
				4.33	4.33
Number of Tools			T12	T12	T12
				T10	T10
				T8	T8
OD Tool Shank Dimension	inch	1	3/4	1	3/4
ID Tool Shank Diameter	inch	1-1/2	1	1-1/2	1
Milling Shank Diameter	inch	-	13 (ER20)	-	13 (ER20)
Milling Spindle Speed	rpm	-	4000	-	4000
Tailstock					
Tailstock Travel	inch	6.89[18.70]	6.89[18.70]	6.89[18.70]	6.89[18.70]
Tailstock Spindle Travel	inch	3.94	3.94	3.94	3.94
Tapered Bore Type		MT.4	MT.4	MT.4	MT.4
Tailstock Spindle Diameter	inch	2.95	2.95	2.95	2.95
Feedrate					
X-Axis Rapid Traverse	ipm	944.88	944.88	944.88	944.88
Z-Axis Rapid Traverse	ipm	944.88	944.88	944.88	944.88
Motor					
Spindle Motor	HP	14.8/10.1	14.8/10.1	14.8/10.1	14.8/10.1
Milling Spindle Motor	HP	-	3.0	-	3.0
Index Motor	HP	1.6	1.6	1.6	1.6
X-Axis Servo Motor	HP	1.6	1.6	1.6	1.6
Z-Axis Servo Motor	HP	3.4	3.4	3.4	3.4
Machine Size					
Height	inch	65.16	66.54	65.16	66.54
Width	inch	70.87[84.65]	79.72[92.44]	70.87[84.65]	79.72[92.44]
Depth	inch	60.79[72.72]	65.83[77.83]	60.79[72.72]	65.83[77.83]
Weight	lb	6945[8267]	7165[8598]	7055[8378]	7275[8708]

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Standard and Optional Accessories

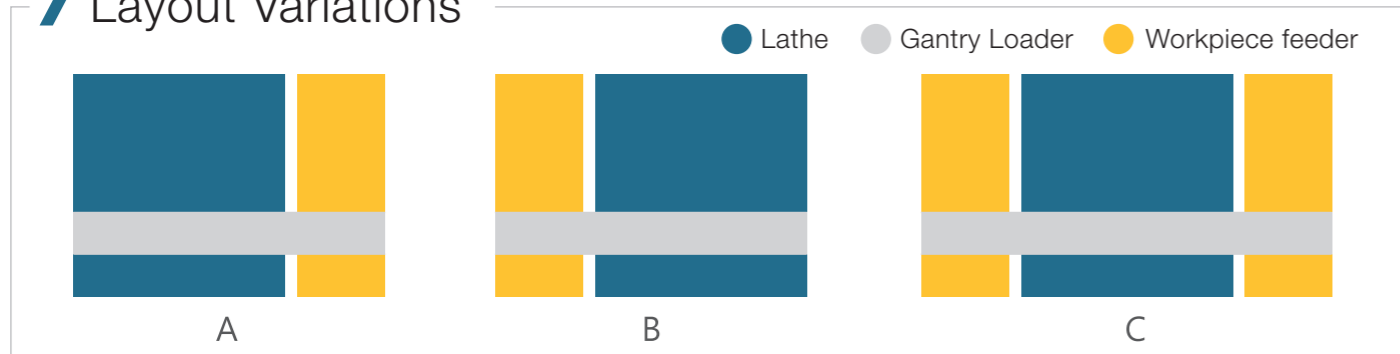
● : Standard ○ : Optional --- : N/A

Item	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Variable Speed Spindle	●	●
Pin Carry Tailstock with Live Center	○	○
Manual Tailstock with Live Center	○	○
T8 Turning Turret	●	---
T10 Turning Turret	○	---
T12 Turning Turret	○	---
T12 Milling Turret	---	●
O.D Tool Holder	---	●
Face Tool Holder	●	●
U-Drill Tool Holder	●	●
Boring Bar Tool Holder	●	●
Boring Bar Bush (Ø1/4"、Ø5/16"、Ø3/8"、Ø1/2"、Ø5/8"、Ø3/4")	●	●
Boring Bar Bush (Ø1"、Ø1-1/4")	●	---
U-Drill Bush (Ø5/8"、Ø3/4")	●	●
U-Drill Bush (Ø1"、Ø1-1/4")	●	---
Drill Bush (MT.1、MT.2)	○	○
Drill Bush (MT.3)	○	---
X-Axis Milling Holder	---	●
Z-Axis Milling Holder	---	●
Automatic Tool Setter	○	○
Manual Tool Setter	○	○
Linear Scales	○	○
Coolant Pump(1/2HP)	●	●
Coolant Pump(3/4HP、1HP)	○	○
Cutting Fluid Cooling	○	○
Hydraulic System	●	●
Nut Cooling Ball Screw	○	○
High Pressure Coolant	○	○
Hydraulic Oil Cooling	○	○
Hydraulic Pressure Sensor	●	●
Lubrication System	●	●
Lubricating Oil Recycling Box	●	●
Hydraulic Chuck	●	●
Collet Chuck	○	○
Foot Switch	●	●
LED Interior Light	●	●
LED Signal Tower	●	●
Hydraulic Steady Rest	○	○
Manual Steady Rest	○	○
Right Side Chip Conveyor	○	○
Rear Side Chip Conveyor	○	○
Chip Cart	●	●
Parts Catcher	○	○
Parts Conveyor	○	○
Automatic Bar Feeder and Interface	○	○
Electrical Auto Door	○	○
Pneumatic Auto Door	○	○
Safety Door Switch	○	○
Safety Light Curtain	○	○
Air Blow	○	○
Oil Skimmer	○	○
Oil Mist Collector	○	○
Parts Counter	○	○
Automatic Power-Off	○	○

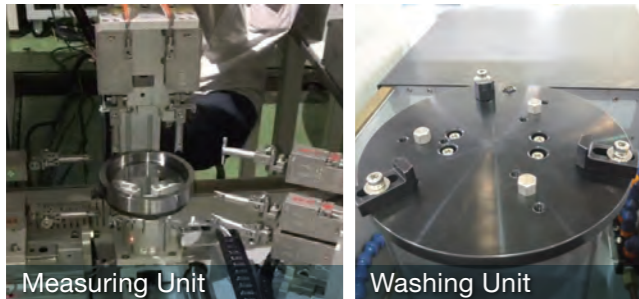
※ Specifications are subject to change without notice.

High Speed Gantry Loder System

Layout Variations



Peripheral Equipment



Gantry Loader Specifications

Feedrate		
X axis	7086.61	ipm
Z axis	5905.51	ipm
Working Size		
OD	6.3	inch
Length	3.94	inch
Weight	6.6(x2)	lb

Work Feeder Specifications

Pallet	16	pcs
Loading weight	88	lb
Max. Height	17.72	inch
Work feeder width	24.02	inch

Turn-Key Solution

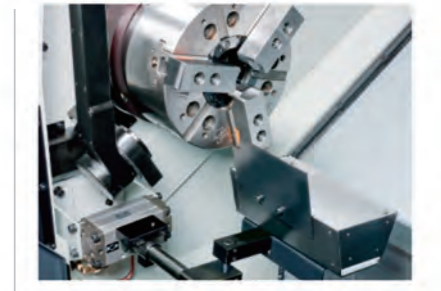


Customization

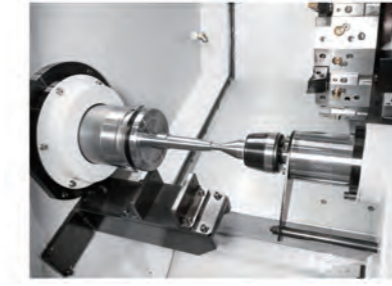
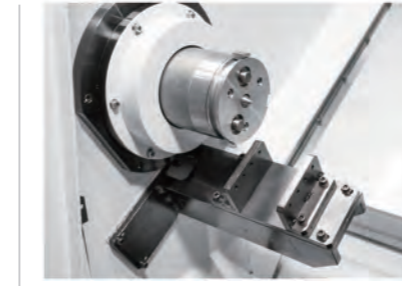
Side-in Gantry Loader



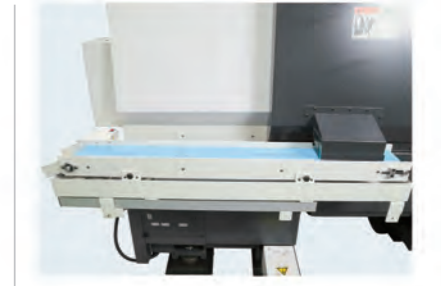
Parts Catcher



Customized Chuck



Parts Catcher & Conveyor



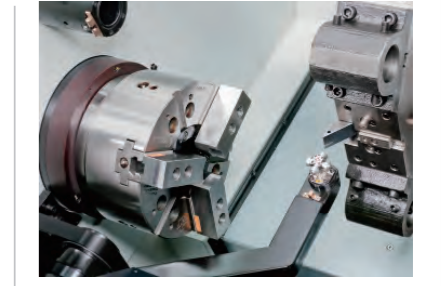
Twin Pneumatic Chuck



Automatic Tool Setter



Manual Tool Setter



Highly Accurate Optional Equipment

There are special requirements for precise machining accuracy and it is necessary to use approved high-precision optional equipment.

Please contact us for advice on these options.

- 01 Linear Scales
- 02 Automatic & Manual Tool Setter
- 03 Nut Cooling Ball Screw
- 04 Cutting Fluid Cooling
- 05 High Pressure Coolant
- 06 Hydraulic Oil Cooling



NC Unit Specification

Controller	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
0i-TF	●	●
NC Unit	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
8.4" Color LCD	●	●
10.4" Color LCD	○	○
Safety Device	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Front Door Interlock	○	○
Front Door Locking Mechanism	○	○
Safety Relay	○	○
Control Panel Breaker with Tripper	○	○
Controlled Axes	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Least Input Increment	●	●
Maximum programmable Dimension(±999999.999)	●	●
Least Input Increment C	▲	▲
Inch/Metric Selection	●	●
Interlock	●	●
Machine Lock	○	○
Emergency Stop	●	●
Stored Stroke Check 1	●	●
Stored Stroke Check 2,3	●	●
Stroke Limit Check Before Movement	▲	▲
Chuck Tailstock Barrie	▲	▲
Mirror Image (Each Axis)	▲	▲
Chamfering ON/OFF	●	●
Overload Detection	▲	▲
Position Switch	●	●
Operation	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Auto Run (Memory)	●	●
MDI Run	●	●
DNC Run	●	●
DNC Run with Memory Card	●	●
Program Number Search	●	●
Sequence Number Search	●	●
Sequence Number Collation and Stop	●	●
Wrong Operation Preventive	▲	▲
Buffer Register	●	●
Dry Run	●	●
Single Block	●	●
Jog Feed	●	●
Manual Reference Point Return	●	●
Dogless Reference Point Setting	●	●
Manual Handle Feed, 1 Unit	●	●
Interpolating Functions	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Positioning (G00)	●	●
Exact Stop Mode (G61)	●	●
Tapping Mode (G63)	●	●
Cutting Mode (G64)	●	●
Exact Stop (G09)	●	●
Linear Interpolation (G01)	●	●
Circular Interpolation (G02/03)	●	●
Dwell (G04)	●	●
Polar Coordinate Interpolation	---	●
Cylindrical Interpolation	---	●
Thread Cutting	●	●
Multiple Thread Cutting	●	●
Thread Cutting Cycle and Retraction	●	●
Continuous Thread Cutting	●	●
Variable Lead Thread Cutting	●	●
Reference Point Return (G28)	●	●

Interpolating Functions	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Reference Point Return Check (G27)	●	●
2nd Reference Point Return (G30)	●	●
3rd, 4th Reference Point Return	●	●
Feed Function	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Rapid Traverse Override (F0,25%,50%,100%)	●	●
Feed Per Minute	●	●
Feed Per Revolution	●	●
Constant Tangential Speed Control	●	●
Cutting Feedrate Clamp	●	●
Automatic Acceleration/Deceleration	●	●
Rapid Traverse Bell-Shaped Accel/Decel	●	●
Linear Accel/ Decel	●	●
After Feedrate Interpolation	●	●
Feedrate Override (15 Steps)	●	●
Jog Override (15 Steps)	●	●
Override Cancel	●	●
Manual Feed Per Revolution	▲	▲
Program Input	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Tape Code (EIA/ISO Auto Recognition)	●	●
Label Skip	●	●
Parity Check	●	●
Control In/Out	●	●
Optional Block Skip, 1 Piece	●	●
Optional Block Skip (2 to 9 Pieces)	⊕	⊕
Program Number 04 Digits	●	●
Program File Name 32 Characters	●	●
Sequence Number N8 Digits	●	●
Absolute/Incremental Command	●	●
Decimal Point Input/Pocket Calculator Type Decimal Point Input	●	●
Diameter / Radius Programming (X-Axis)	●	●
Coordinate System Setting (G50)	●	●
Auto coordinate System Setting	●	●
Drawing Dimension Direct Input	●	●
G-Code System A	●	●
G-Code System B/C	▲	▲
Chamfering/Corner R Programming	●	●
Programmable Data Input	●	●
Sub Program Call (10 Levels)	●	●
Custom Macro	●	●
Additional Custom Macro	●	●
Common Variables	●	●
Single Canned Cycle	●	●
Combined Canned Cycle	●	●
Combined Canned Cycle II	●	●
Drilling Canned Cycle	●	●
Arc Radius Programming	●	●
Macro Executor	○	○
Coordinate System Shift	●	●
Coordinate System Shift Direct Input	●	●
Miscellaneous Function/ Spindle Functions	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
M Function (M3 Digits)	●	●
Second Miscellaneous Function (B Function)	○	○
Spindle Functions (S4 Digits)	●	●
Constant Surface Speed Control	●	●
Spindle Orientation	●	●
Rigid Tap (Spindle Center)	●	●
Rigid Tap (Rotary Tool)	---	●

Data I/O	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
RS-232C Interface for 1 ch	●	●
Fast Data Server	⊕	⊕
External Message	●	●
External Workpiece Number Search	○	○
Memory Card I/O	●	●
Tool Functions/Tool Offset Functions	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
T Function (T2+2 Digits)	●	●
Tool Offsets, 99 Pieces	●	●
Tool Offsets, 200 Pieces	○	○
Tool Geometry Size Data, 100 Pieces	○	○
Tool Position Offset	●	●
Tool Diameter /Nose R Compensation	●	●
Tool Geometry /Wear Compensation	●	●
Tool Offset Counter Input	●	●
Tool Offset Measured Value Direct Input	●	●
Tool Offset Measured Value Direct Input B	○	○
Tool Life Management	▲	▲
Accuracy Offset Functions	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Backlash Compensation	●	●
Backlash Compensation by Rapid Traverse / Feedrate	●	●
Editing	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Part Program Memory Capacity 512Kbyte (1280m)	●	●
Part Program Memory Capacity 2Mbyte	○	○
Registrable Programs, 400 Programs	●	●
Registrable Programs, 1000 Programs	○	○
Program Editing	●	●
Program Protection	●	●
Extended Program Editing	●	●
Background Editing	●	●

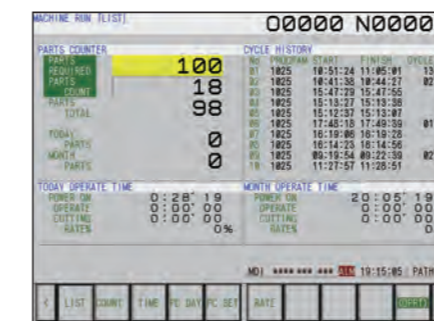
Setting/Display	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
Status Display	●	●
Clock Function	●	●
Current Position Display	●	●
Program Comment Display (31 Characters)	●	●
Parameter Setting and Display	●	●
Alarm Display	●	●
Alarm Log Display	●	●
Operator Message Log Display	●	●
Operation Message Log Display	●	●
Run Hours and Parts Count Display	●	●
Actual Speed Display	●	●
Actual Spindle Speed and T Code Display	●	●
Floppy Cassette Directory Display	●	●
Grouped Directory Display and Punching	●	●
Servo Adjustment Screen	●	●
Maintenance Information Screen	●	●
Data Protection Key, 1 Kind	●	●
Help Function	●	●
Self Diagnostic Function	●	●
Scheduled Maintenance Screen	●	●
Hardware & Software System Configuration Display	●	●
Graphic Display	●	●
Dynamic Graphic Display	○	○
Display Languages	LA-150[L] LA-200[L]	LA-150M[L] LA-200M[L]
English	●	●
Japanese (Kanji)	▲	▲
Other Language	▲	▲
Display Language Dynamic Switching	●	●

●:Standard ○:Optional ⊕:Special
▲:Parameter setting is required ---:Nope

Smart Work Manager (option)

It provides simple operation and convenient function.

01



Tool Life Manager

This function can set tool life and wear limit to manage all tools.

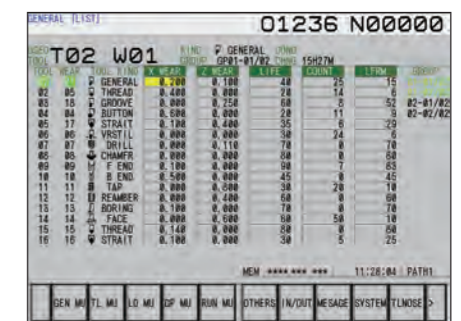
02



Load Monitor

Detecting max load to check tool status.

03



Parts and Machine Manager

It offer parts counter, program history, operate time for today or this month.