Machinery
CHIAH CHYUN



SY2-42E

SWISS-TYPE CNC LATHES

Solve your bar machining problem.
+ Removable Rotary Guide Bush
+ Y2 Axis for Back Machining

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CE

SY2-42E

Best Machining Performance!

The newly designed SY2-42E Swiss-type lathe, with superior machining performance, can be extensively used in precision parts machining.

+ *Removable Rotary Guide Bush*
+ *Multi-Function Tooling System*
+ *Y2-Axis Sub Spindle Tooling System*

SY2-42E can install with or without rotary guide bush to process whether it is a long or short workpiece. The tooling system can equip 6 O.D. tools, 5 I.D. tools, and up to 18 live tools, with double Y-axis, which gives you the ability to process multiple complex components.



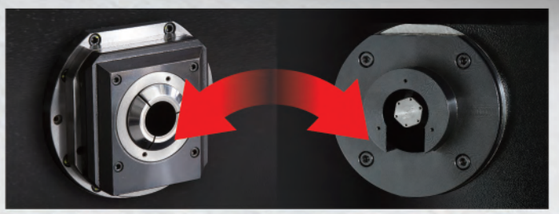
Removable Rotary Guide Bush

Select the most suitable machining method

You can select between guide bush or without guide bush, to find the most suitable way to process the long or short workpiece. Not only can reduce the material costs, and also decrease the amount of material you have to consume at all times while machining on di° erent parts.

Remnant Length

+ Machining with Rotary Guide Bush Remnant Length is 194mm.
+ Machining without Rotary Guide Bush Remnant Length is 54mm.



Rotary Guide Bush **Without Rotary Guide Bush**

Applications

+ Automotive, motorcycle and bicycle parts
+ Electronic and electrical parts
+ Instrument parts
+ Pneumatic and hydraulic parts
+ Sanitary and toilet wares
+ Hardware accessories



Ø40X80mm



Ø27X280mm



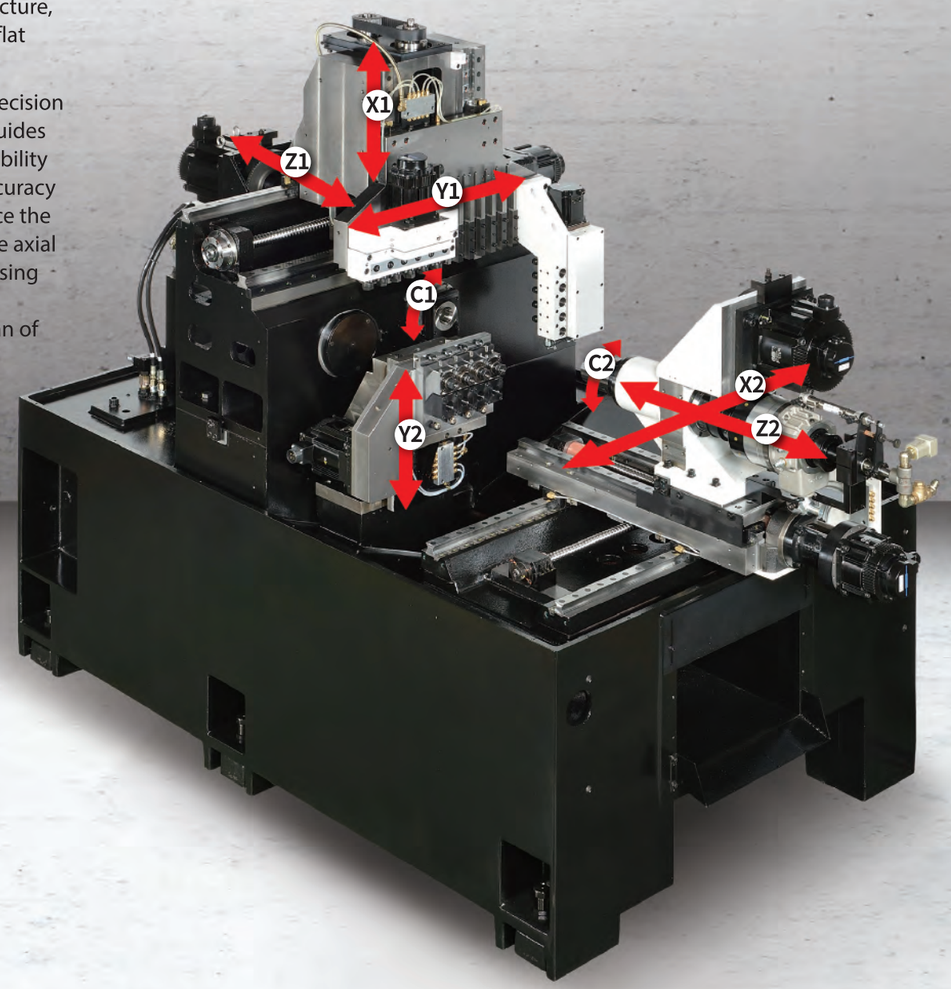
Ø30x300mm

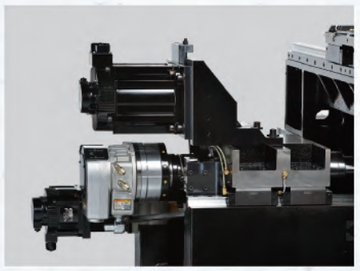
EXCELLENT MACHINING ACCURACY

High Stability Construction

Accuracy of machine changes significantly when the heat generated, through the overall enhanced structure, it can still maintain cutting accuracy.

+ Rigid machine structure, one-piece casting flat bed design.
+ All axes use two precision roller type linear guides to achieve high stability movement and accuracy machining. Enhance the load capacity of the axial structure by increasing the width of linear guides and the span of carriage bed.





Belt Type Spindles with Powerful Motor Driven

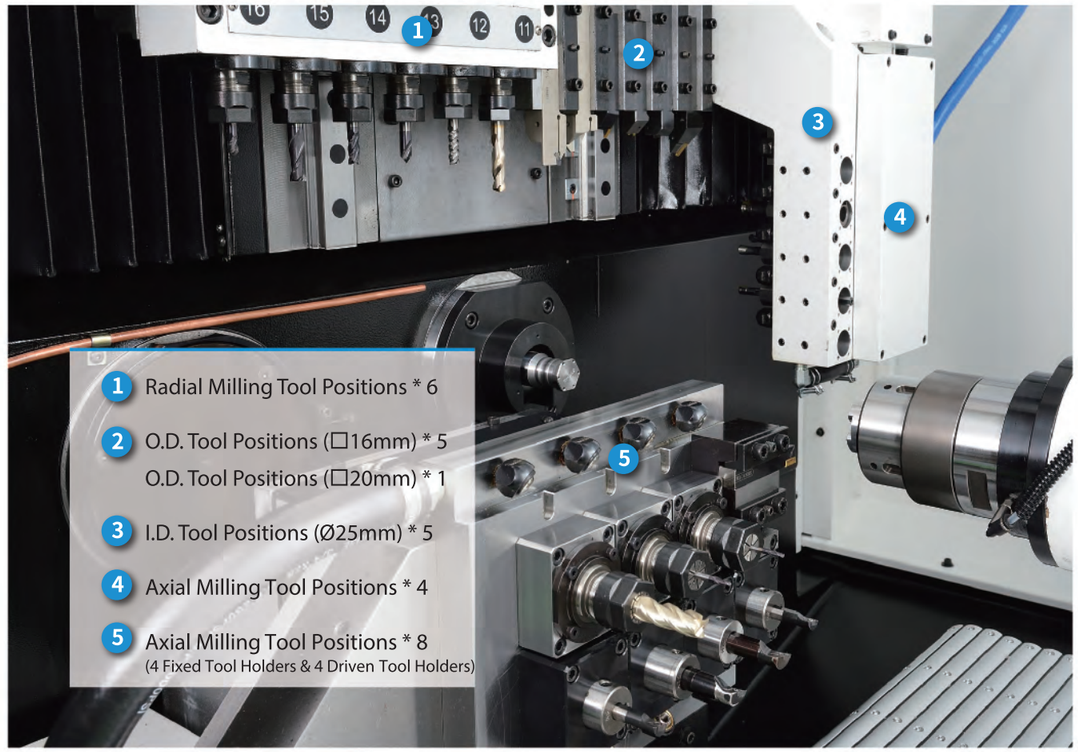
+ Spindle maximum bar capacity is Ø42mm, spindle speed up to 6,000 rpm, driven by a 7.5 kW servo motor to provide the bigger power and higher torque.
+ The SY2-42E can provide the same machining capacity on main and sub spindles.

EFFICIENT MACHINING CAPABILITY

Multi-Functional Tooling System

The Front Side Tooling System

Front side tooling system provides multiple turning and milling tool positions. You can install di° erent types of tools in one setup, reduce tool change times so you can quickly and easily complete a variety of front side processing.



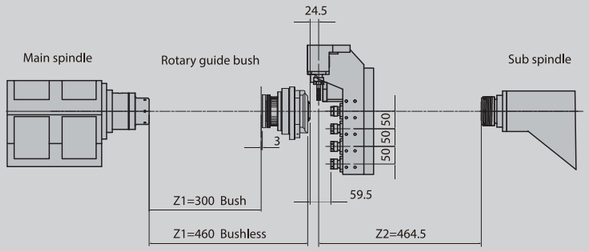
Sub Spindle Tooling System

Sub spindle tooling system may be fitted with up to 8 ER-20 live tools, combines with the Y2 linear axis and C2 rotating axis to perform the more complex turning and milling process.
According to machining requirement, sub spindle tooling system can exchange with 4 O.D. tool holder.

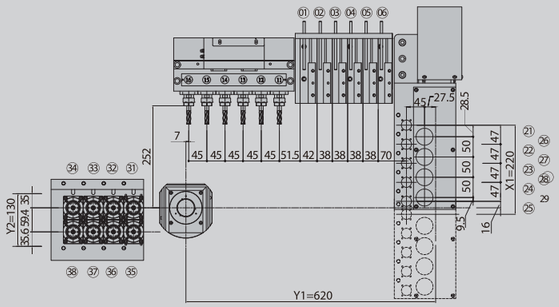
+ Live tooling is driven by a 3.0 kW servo motor.
+ Maximum live tooling speed is 6,000 rpm.

Interference Diagram

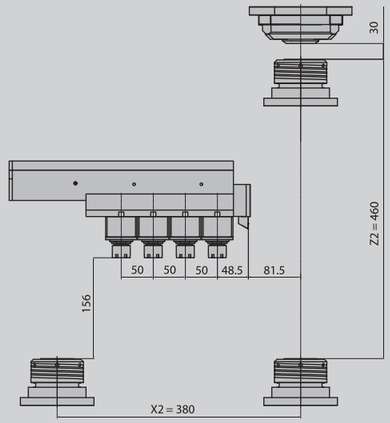
+ View A



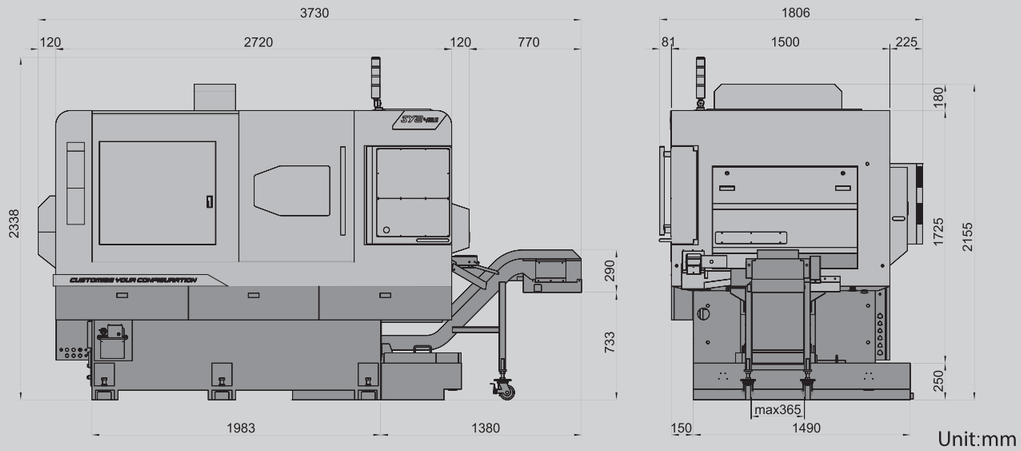
+ View B



+ View C



Machine Dimensions



Unit:mm

Machine Specifications

	SY2-42E
Controller	
Capacity	Syntec
Max. cutting length per chuck	320 mm (Guide bush) / 110 mm (Without guide bush)
Axes Specification	
X1/Y1-axes travel	220 / 620 mm
Z1-axis travel	320 mm (Guide bush) / 460 mm (Without guide bush)
X1/Y1/Z1-axes servo motor	1.3kw / 1.3kw / 0.85kw
X2/Y2/Z2-axes travel	380 / 130 / 460mm
X2/Y2/Z2-axes servo motor	0.85kw / 0.75kw / 0.85kw
X1/X2/Y1/Z1/Z2-axes rapid traverse	30 m/min
Y2-axis rapid traverse	5 m/min
Min. input unit	0.001 mm
Spindle	
Max. bar feeding dia.	Ø42 mm (Guide bush) / Ø51 mm (Without guide bush)
Spindle servo motor	7.5 kw
Max. spindle speed	St : 4500 rpm / Op : 6000rpm
Collet of spindle	TRB-42
C-axis index positioning	0.001°
No. of O.D. tool	6 pcs
O.D. tool size	□ 20 mm *1 + □ 16 mm *5
No. of I.D. tool	5 pcs
I.D. tool size	Ø25 mm
Spindle center height	1100 mm
Sub Spindle	
Max. bar feeding dia.	Ø42 mm
Sub spindle servo motor	4.4 kw
Max. sub spindle speed	St : 4500 rpm / Op : 6000rpm
Collet of sub spindle	TRB-42
C-axis index positioning	0.001°
I.D. tool size	Ø25 mm
Spindle Live Tooling	
No. of radial live tooling	6 pcs
Radial live tooling size	ER-20
Radial live tooling servo motor	1.5kw
Max. radial live tooling speed	6000 rpm
No. of axial live tooling	4 pcs
Axial live tooling size	ER-20
Axial live tooling servo motor	0.75kw
Max. axial live tooling speed	6000 rpm
Sub Spindle Live Tooling	
No. of tool positions	8 pcs
Axial live tooling size	ER-20
Axial live tooling servo motor	3.0kw
Max. axial live tooling speed	6000 rpm
Hydraulic & Coolant Motor	
Hydraulic motor	1 HP/0.75kw
Spindle upper flush pump	1 HP/0.75kw
Tool coolant pump	1 HP/0.75kw
Tank Capacity	
Hydraulic tank	46 L
Coolant tank	240L
Machine Specification	
Voltage stabilizer / transformer	220 V/30 KVA
Machine size (LxWxH) (includes chip conveyor)	3730 x 1806 x 2155 mm
Machine N.W. (includes chip conveyor)	5000 kg

※ Design and specs subject to change without notice.

Standard Accessories

+ Tool Kit & Box
+ Rotary Guide Bush
+ Main Spindle - Radial Live Tooling Device
+ Main Spindle - Axial Live Tooling Device
+ Sub Spindle - Fixed Tool Holders x 4
+ Sub Spindle - Driven Tool Holders x 5
+ Air Conditioner for Electrical Cabinet
+ Auto Bar Feeder Interface
+ Auto Power Breaker
+ Front Door Interlock
+ Sub Spindle Air Through & Parts Ejector
+ Finished Parts Catcher & Conveyor
+ Main & Sub Spindle External Air Blowing Device
+ Main & Sub Spindle Hydraulic Clamping System
+ Cutting Fluid Pump
+ Cutting Fluid flowenser
+ Steel Belt Chip Conveyor & Cart

Optional Accessories

+ CE Marking
+ Oil Mist Extractor
+ Voltage Stabilizer/ Transformer
+ Auto Bar Feeder
+ Screw Type Chip Conveyor & Cart
+ 70 Bar High Pressure Coolant Through Device with Cutting Liquid Cooling
+ Collet Sleeve Device 42# to 52#