CHIAH CHYUN

Machinery

CT Series

CT3 Mill Turn

CT2 Mill Turn

Done-In-One

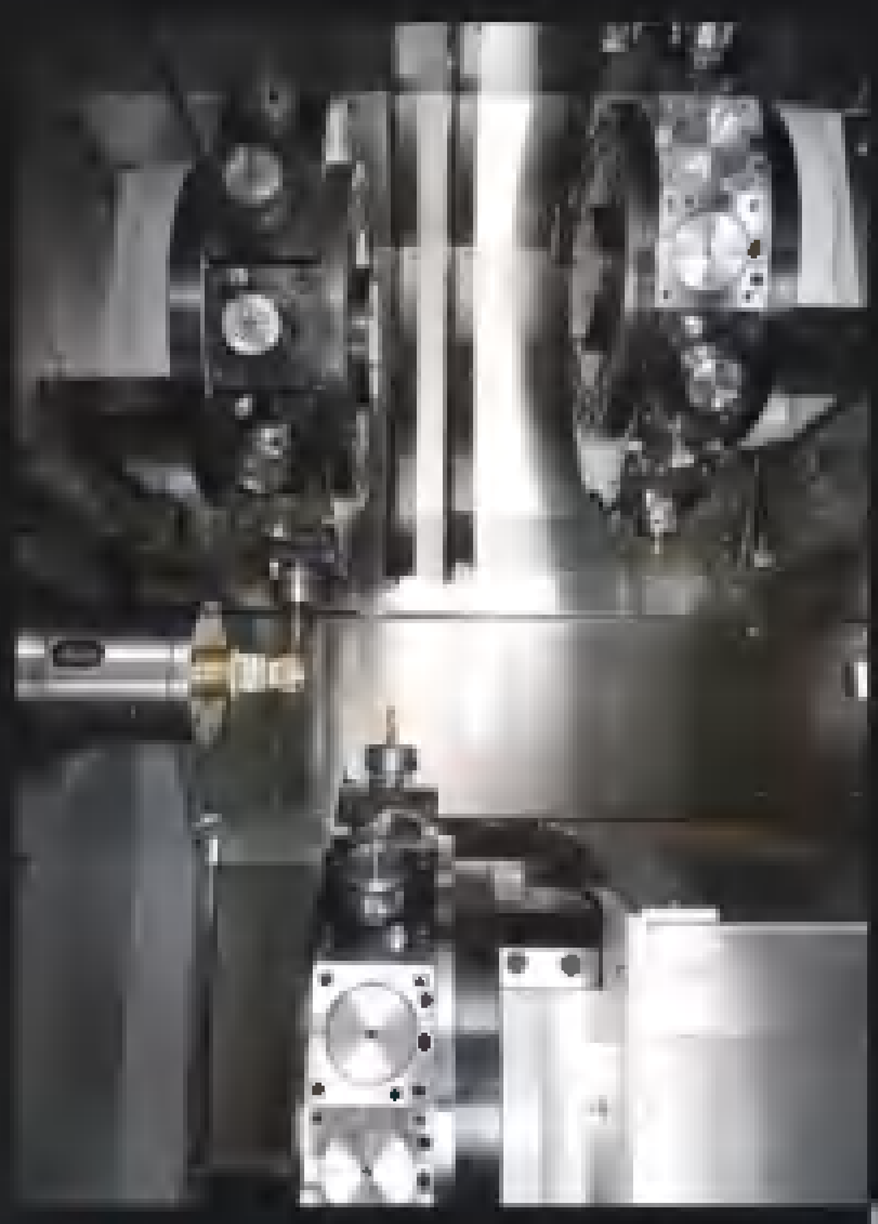
Increase Productivity

cutting@any angle

CT Mill Turn

The newly redesigned CT series have all of the cutting versatility to complete all of your complex parts machining in a single set up in record time.

Customize your configuration



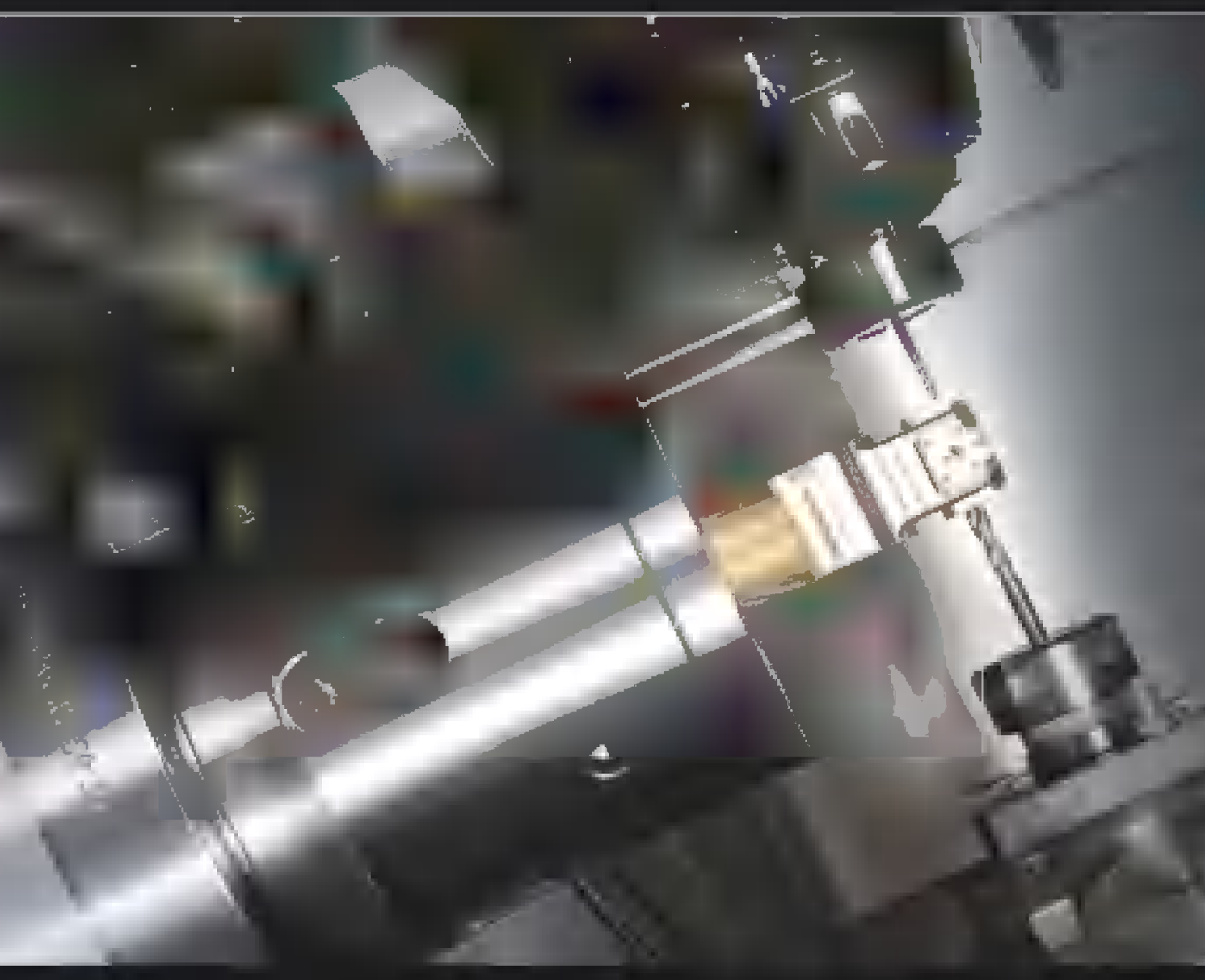
Whole Video

CT Structure

Structure

45° Carriage Bed Structure

CT Multi-Axis Turning Center

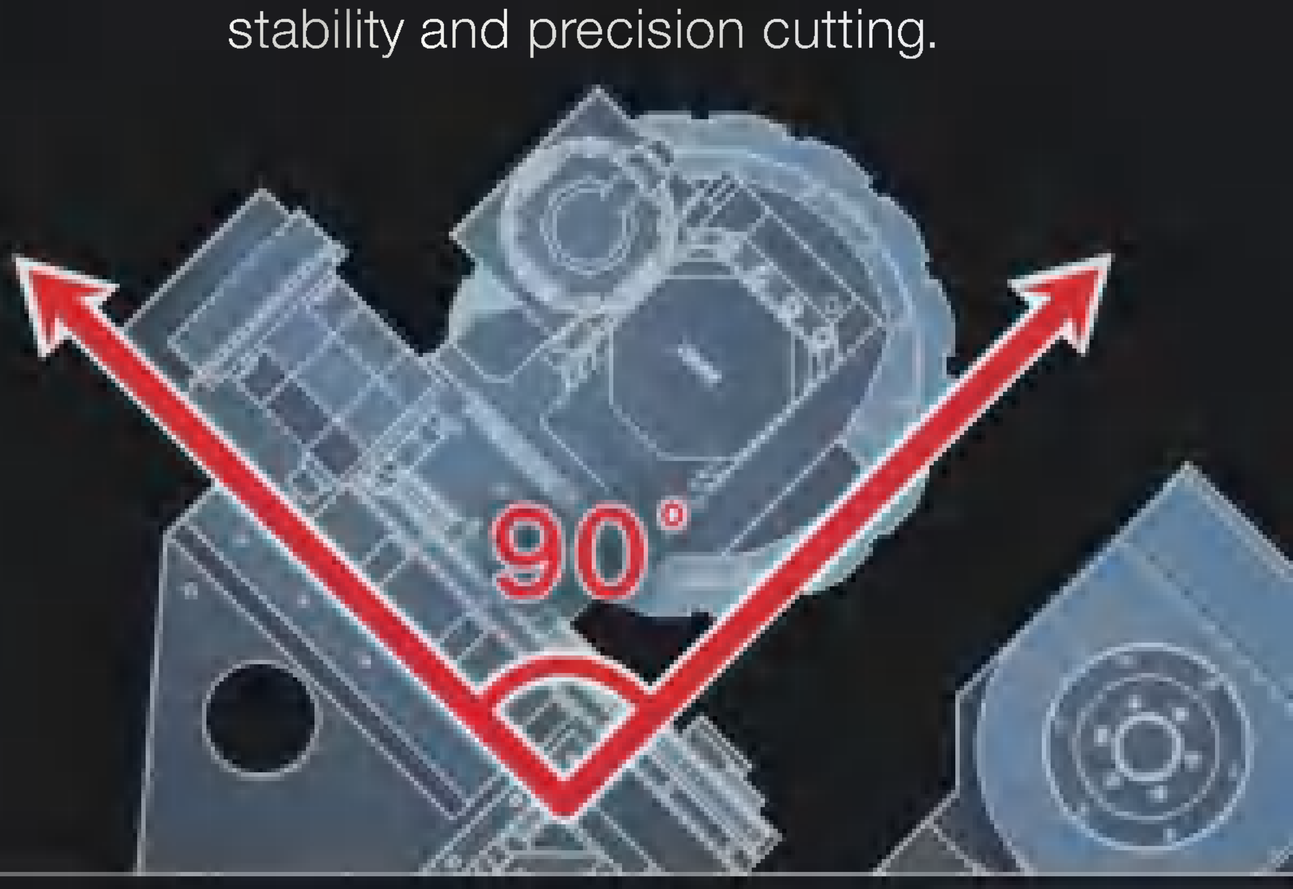


76 mm Large Size Spindle Capability

With both the CT2 and CT3 CC Machinery offers customers the choice of an extra large 65mm diameter spindle to handle even larger work pieces, providing customers with enhanced versatility and machining capabilities.

The main structure is horizontally assembled on a jig to maintain the highest precision, with all components thoroughly certified before final assembly.

CC Machinery's unique double turret design for the CT series puts the Y axis on the X axis block, saving space and simplifying control whilst delivering increased stability and precision cutting.



These machines go through a combination of laser inspection, motion simulation and calibration testing so that each of these CC Machinery Machines will deliver optimum performance from day one.

Unique **Y** Axis Design

Simplified Control

Increased Stability

Double Spindle

Double Turret

90° Structure

The special structure design of the CT3 uses a rigid 90° angle for the turret carriage so you maintain superb rigidity and stability in machining. Additionally, this allows you to use a more simple controller specification, reducing programming complexity and saving you money at the same time.

Quality

CT Features

Turrets

48 Fully Driven Tool Positions

" Massive Range of Tooling Options "

Desina

Distribut**E**d and **S**tandardised **IN**st**A**llation

CC Machinery is unique in being one of the very first manufacturers in Taiwan to fully adopt the international standard Desina specification for cabling and interconnections. This is vital, as it allows for fast, easy maintenance for all of the machines, reducing your downtime and keeping your engineers happy.

CC Machinery also provides a customer friendly design for the relay panel, with clearly marked spares, so that in the event of a relay failure, your engineer can simply plug in one of the spares and you are back up and running straight away.

Turret

- Efficient Chiller System
- Avoids Thermal Deformation

With the CT Series you get the benefit of 2-3 servo Turrets to make all of your complex parts easy to complete. All positions on these turrets are fully driven to give you a huge range of tooling options to suit your work piece requirements.

The servo turrets are designed and built by CC machinery especially for the CT series and combine rapid positioning with an efficient chiller system to avoid thermal deformation and an oil mist lubrication system to make sure the turrets run smoothly for years.

Integrated Oil Mist Lubrication

- No Heating Issues
- Low Maintenance

The integrated oil mist lubrication system constantly renews the oil which is a significant advantage over older grease based lubrication that causes heating issues and needs to be regularly cleaned and replaced

Desina

UL, CSA, CE, CCC certified Cables

Fast Problem Discovery & Maintenance

CT3

CT3 Video

Double **Y** Axis Machining

Vastly Reduced Cycle Times

Increase Your Productivity

Independent **Front / Back** Y axis

No Turret Sharing

Y_1

Y2

Z

CT3-65Y2M

2 Separate Y Axes

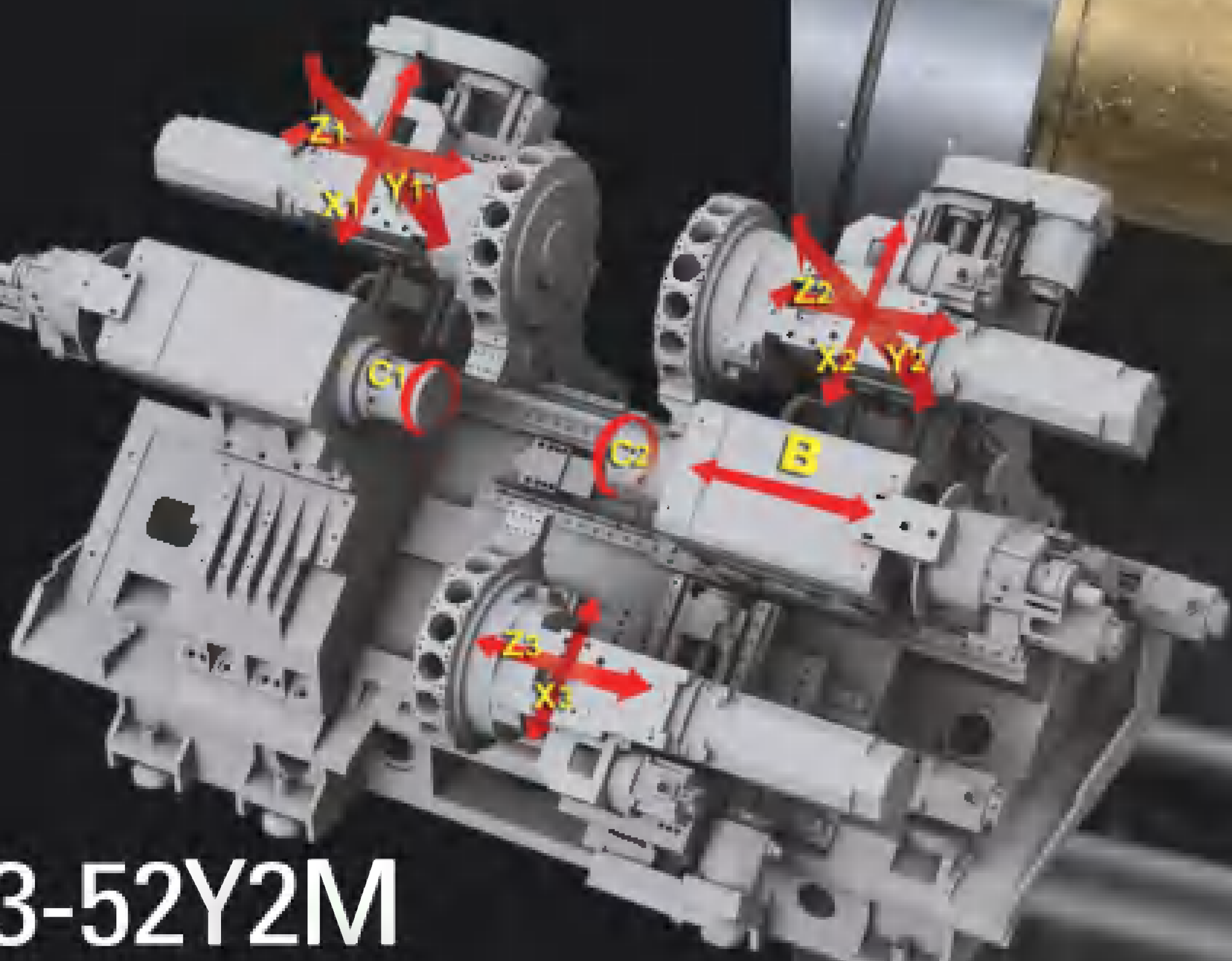
"For customers needing the most complex component machining CC Machinery offers the new CT3 Mill Turn center, the amazing machine."

CT3 Structure

3 Servo Turrets

2 Built in Spindles

The CT series all use a single piece casting for the base to enhance rigidity and precision as well as ensuring an excellent surface finish. This casting is stress relived to ensure long term, deformation free performance. The casting is also heavily ribbed to minimize vibration and increase structural strength.



CT3-52Y2M

XYZB Axes

Roller Type Linear **Guideways**

Smooth Performance

Excellent Repeatable Accuracy

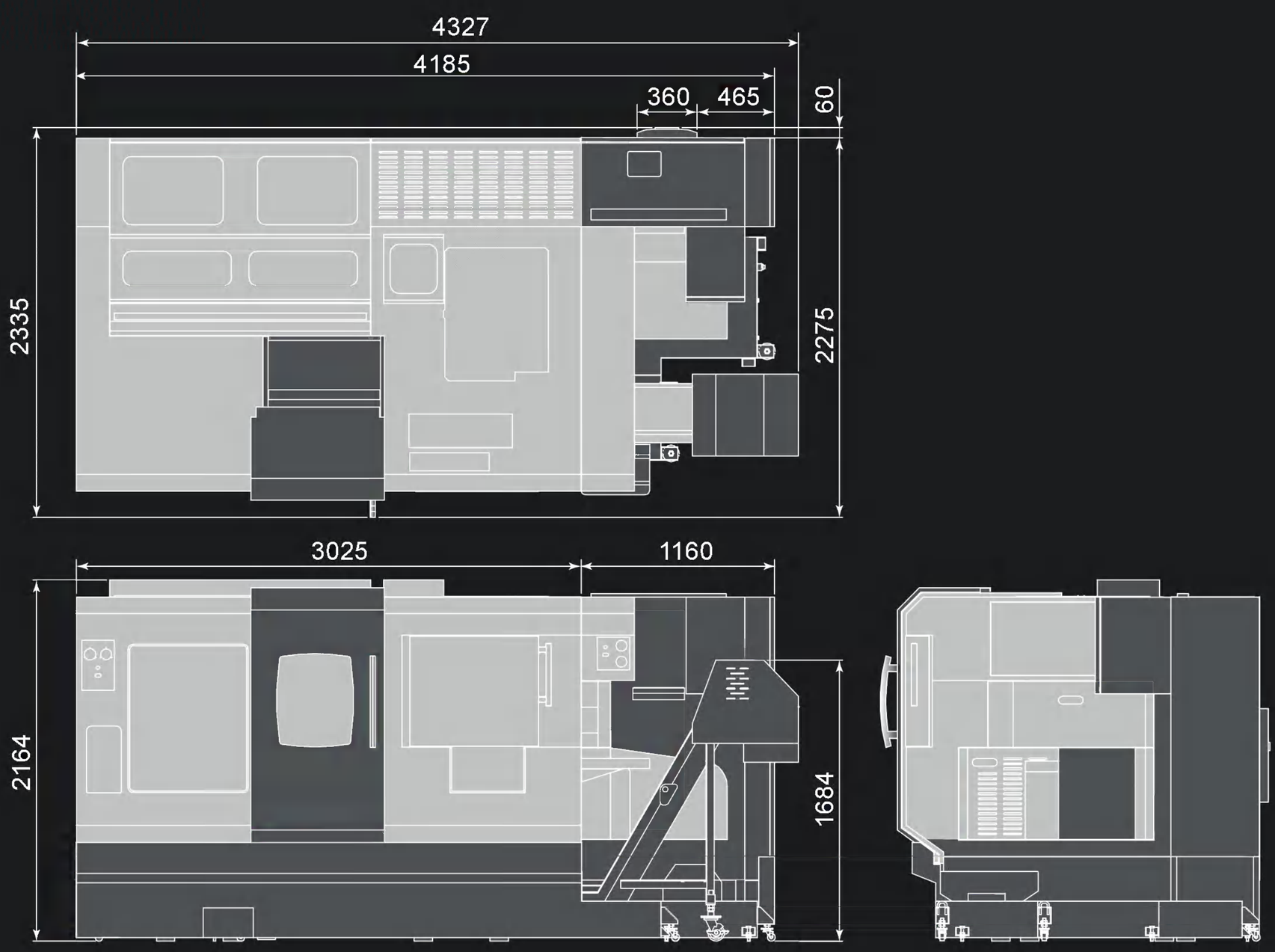
For complex component manufacturers, the CT3 delivers doubleYaxis machining, so you can have complexYaxis cutting for both front and back machining without the need to share a turret.This dramatically decreases your cutting cycle time, increasing your production efficiency.

cutting@any angle

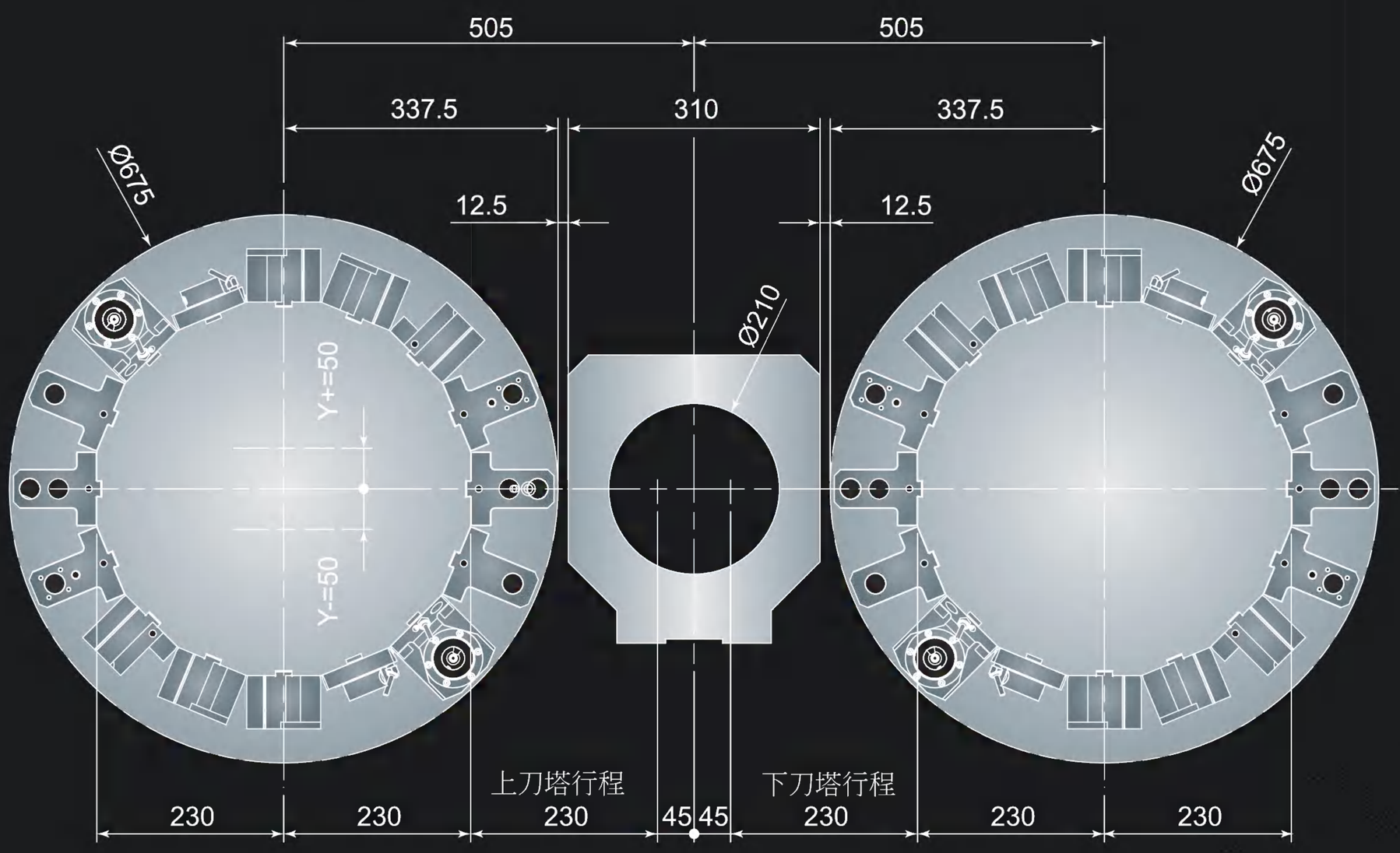
CT3 Diagram

Machine Dimensions

CT3-52Y2M

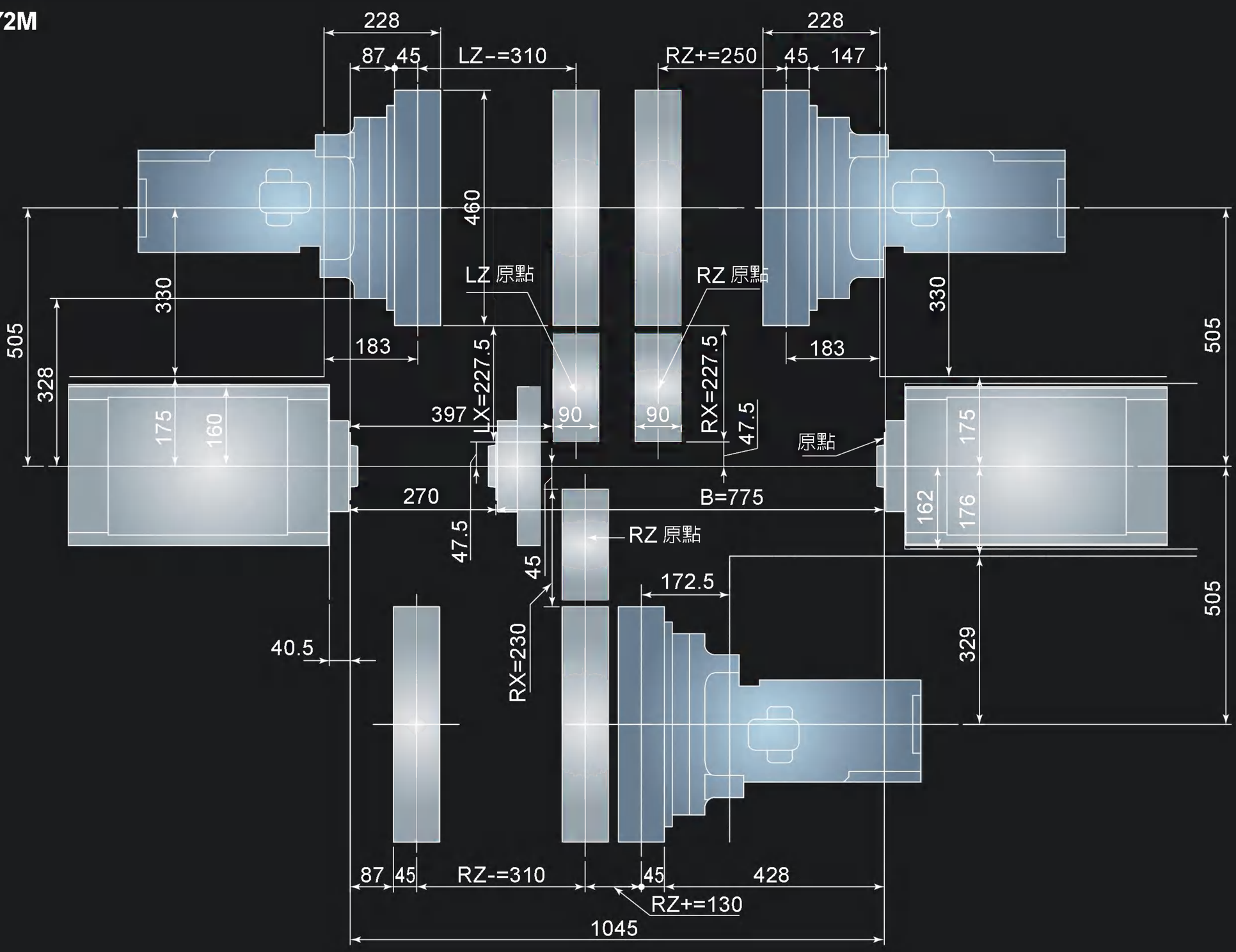


Tool Interference Diagram

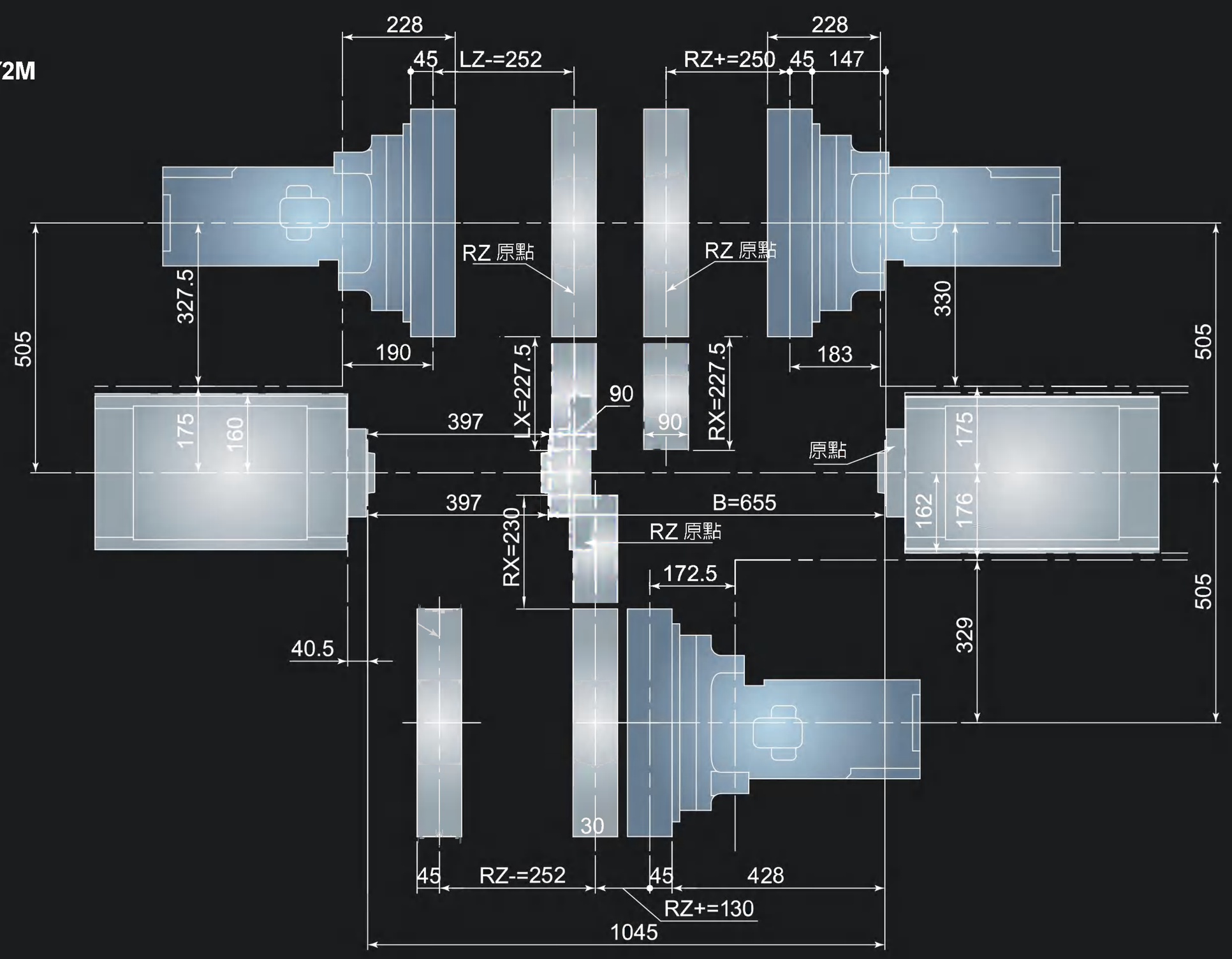


Axes Travel Diagram

CT3-52Y2M



CT3-75Y2M



CT2 Structure

YAxis Machining

Front / Back

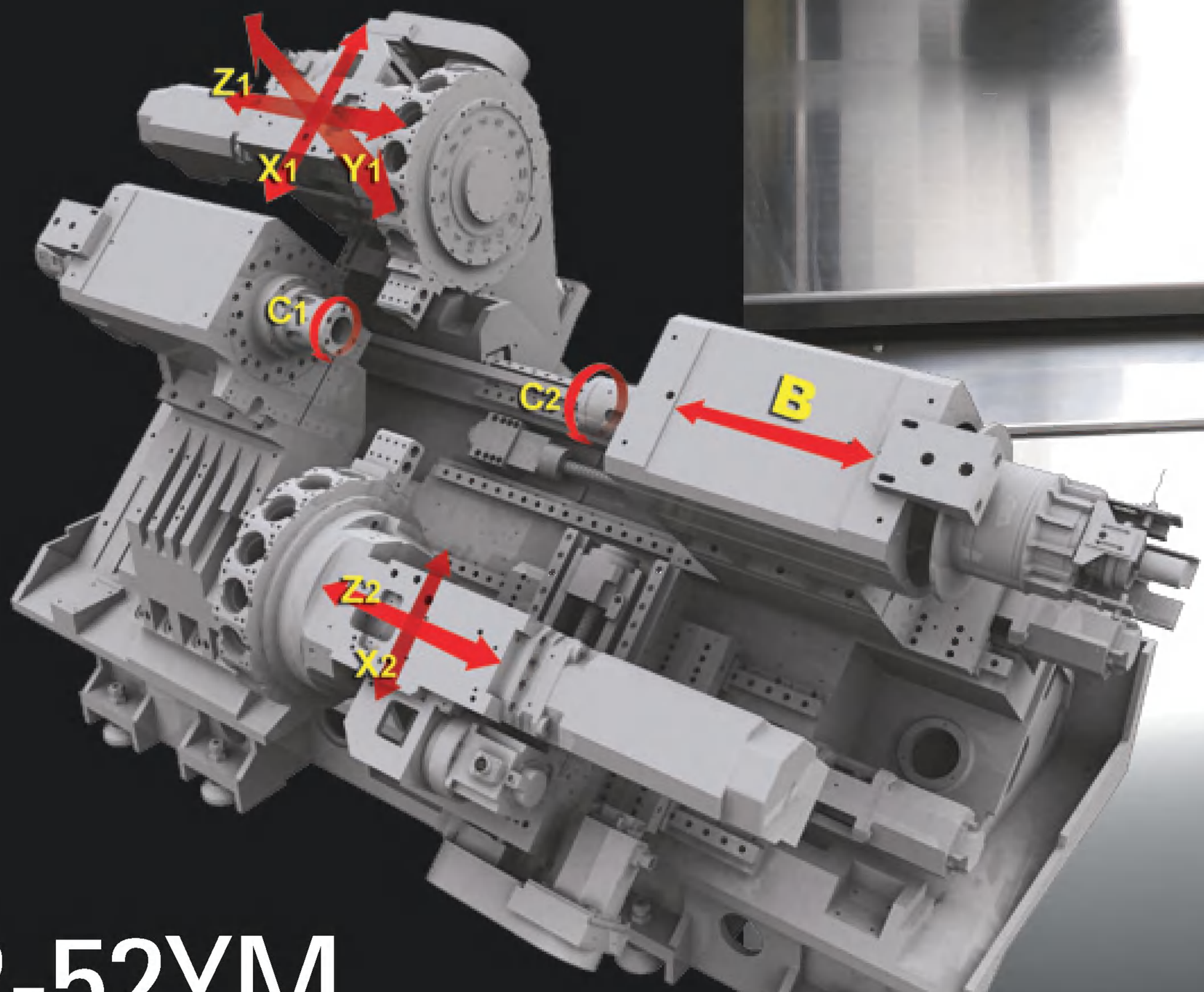
XYZB Axes

Roller Type Linear Guideways

Smooth Performance

Excellent Repeatable Accuracy

CT2 Section



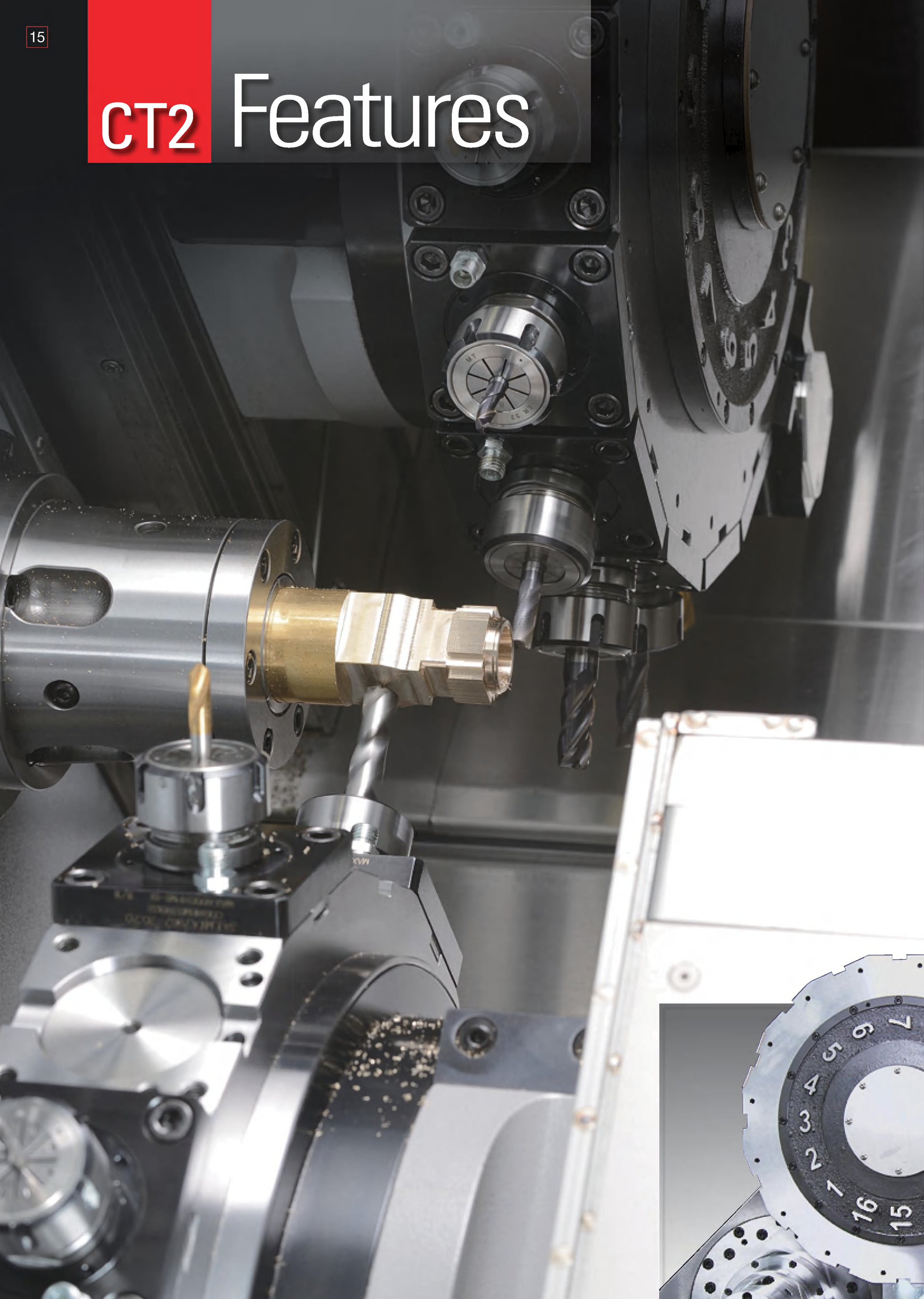
CT2-52YM

Tailstock Option

With the CT2-52Y2MS both turrets are located at the top of the machine to allow customers the option of a central tailstock for longer work piece stability.

"The shareable Y Axis on the CT2 delivers amazing performance at an affordable price for customers needing efficient complex parts machining."

CT2 Features



Main Spindle – Top Turret

C Axis Machining

Front Machining

Indexing to **0.001** mm

CT2 Section

2 Spindles

Sub Spindle – Bottom Turret

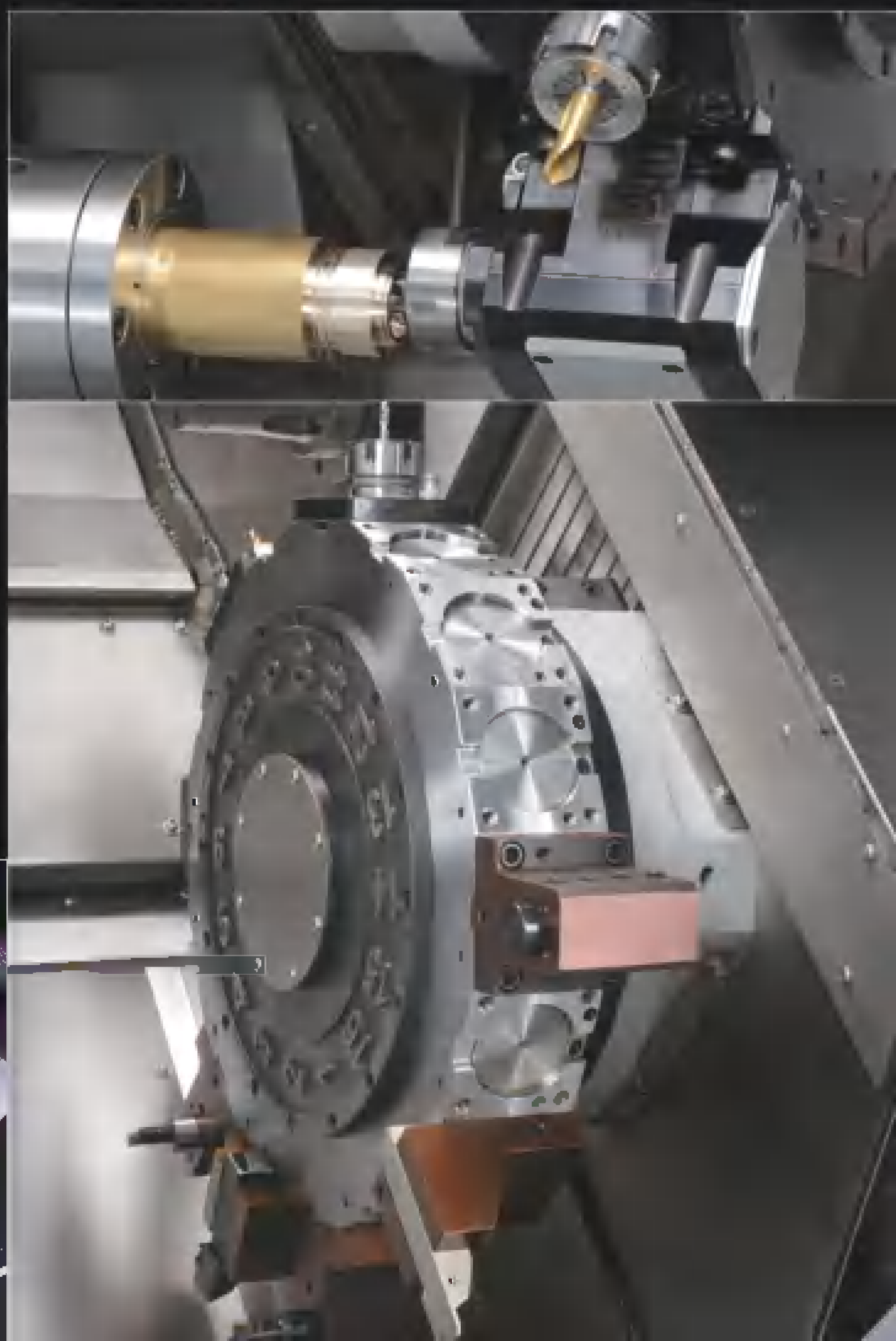
Back Machining

Indexing to **2-3** microns

2 Turrets

The CT2 features a built in main spindle working with the **16** position upper servo turret and another built in sub spindle working with a lower 16 position servo turret so you can complete all of your complex components cutting in a single operation.

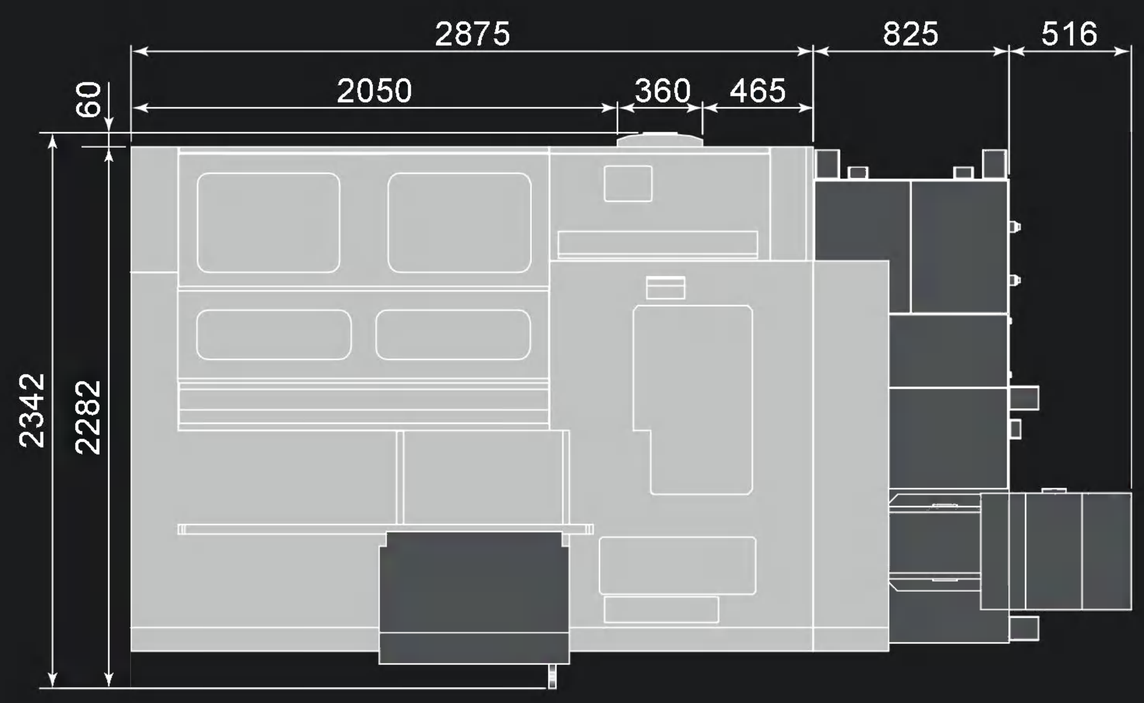
These 16 position fully driven servo turrets are produced in house by CC Machinery to precisely match the performance requirements of these machines, and are all tested and tested again to guarantee performance in operation.

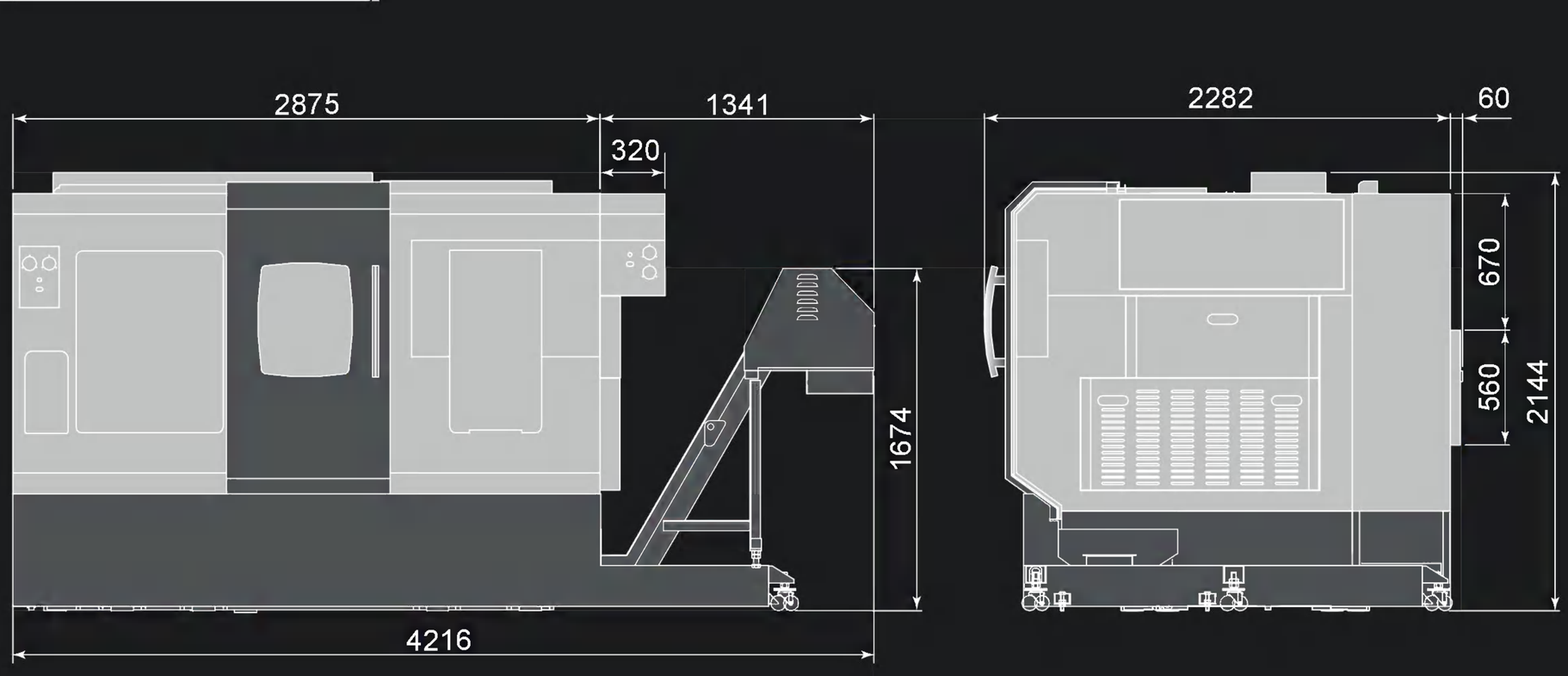


CT2 Diagram

Machine Dimensions

CT2-52YM

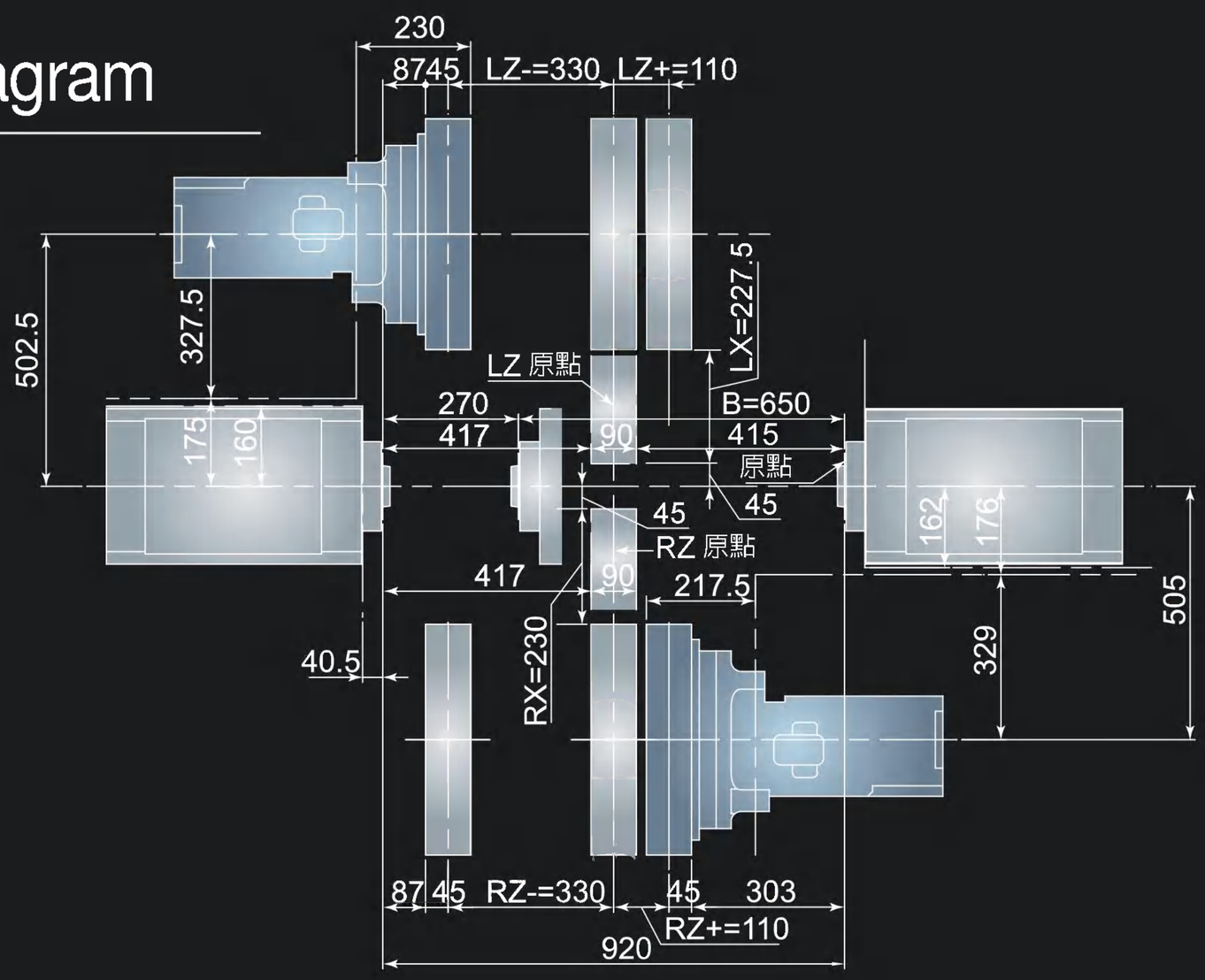




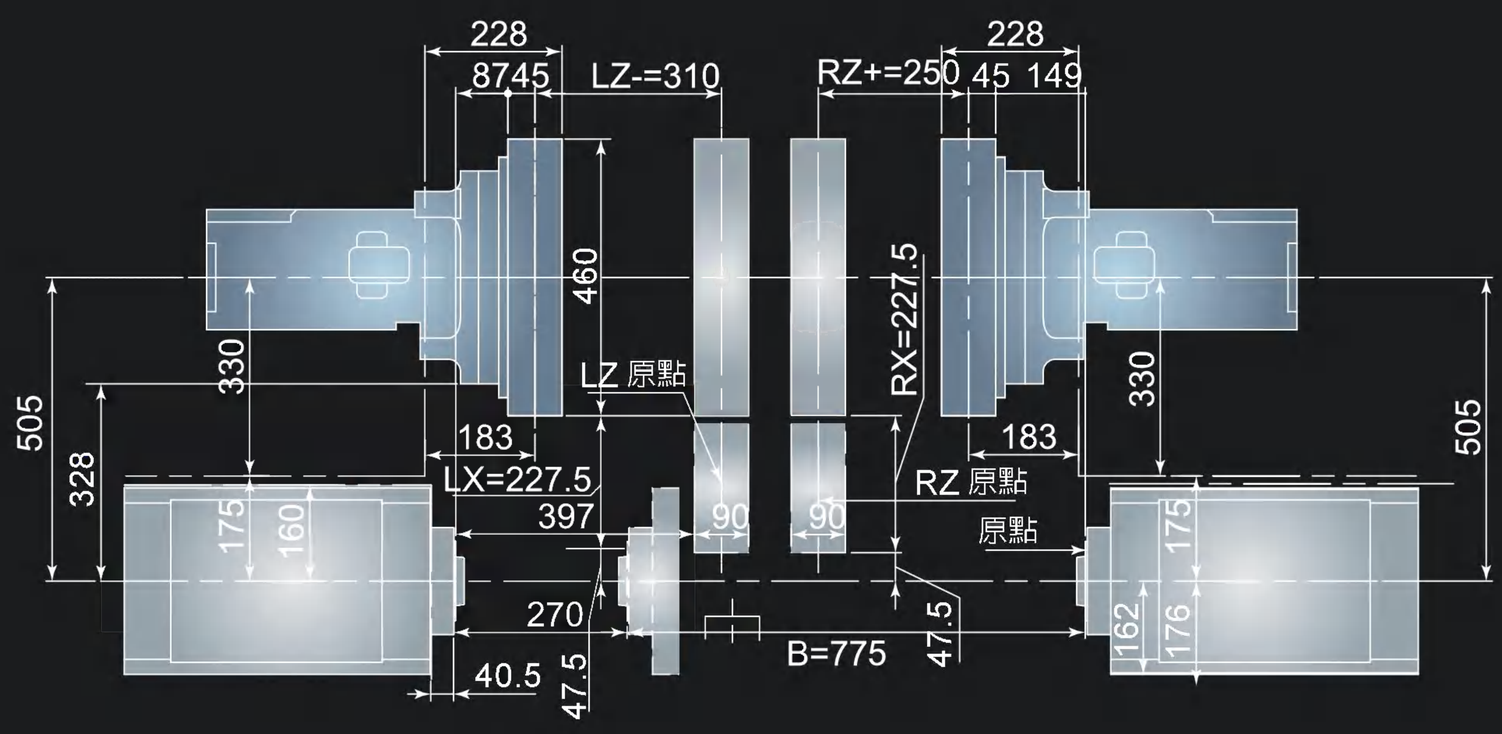
CT2-52Y2M

Axes Travel Diagram

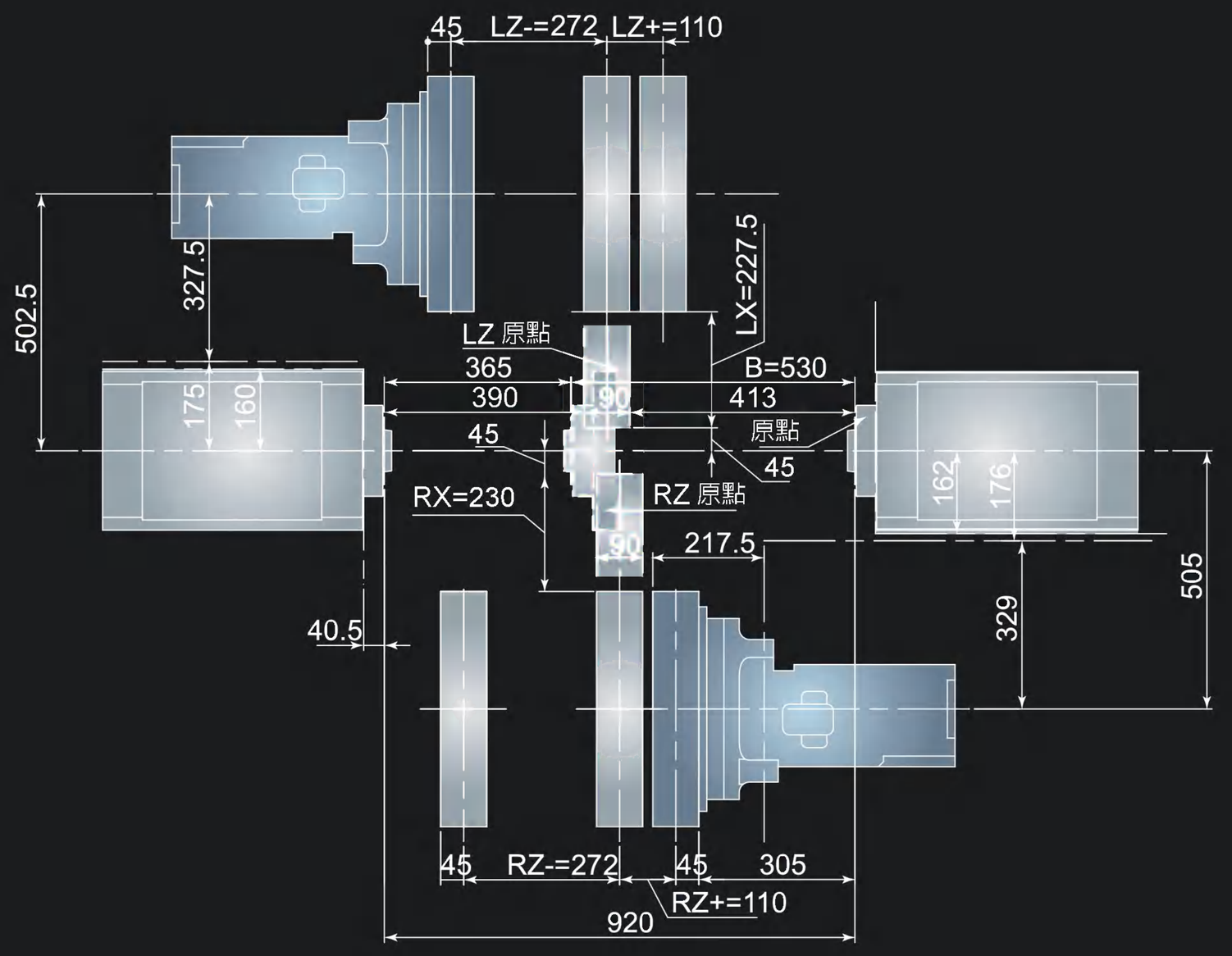
CT2-52YM



CT2-52Y2M



CT2-75YM



CT Robots

Cell Automation Options

This Mitsubishi RV-3SD delivers maximum freedom of movement to suit the most complex geometry requirements.This type of robot offers the highest rewards in unattended production. The arm feeds a new piece into the chuck, then goes to the back spindle to remove the finished work piece, takes it to the out feed and then returns to pick up another blank ready to feed in.

You optimize your production output and minimize operator intervention.The operator just makes sure there are plenty of blanks available and removes the completed units from the tray once full. This could of course be integrated with an out-feed conveyor to further increase automation.

Mitsubishi RV-3SD

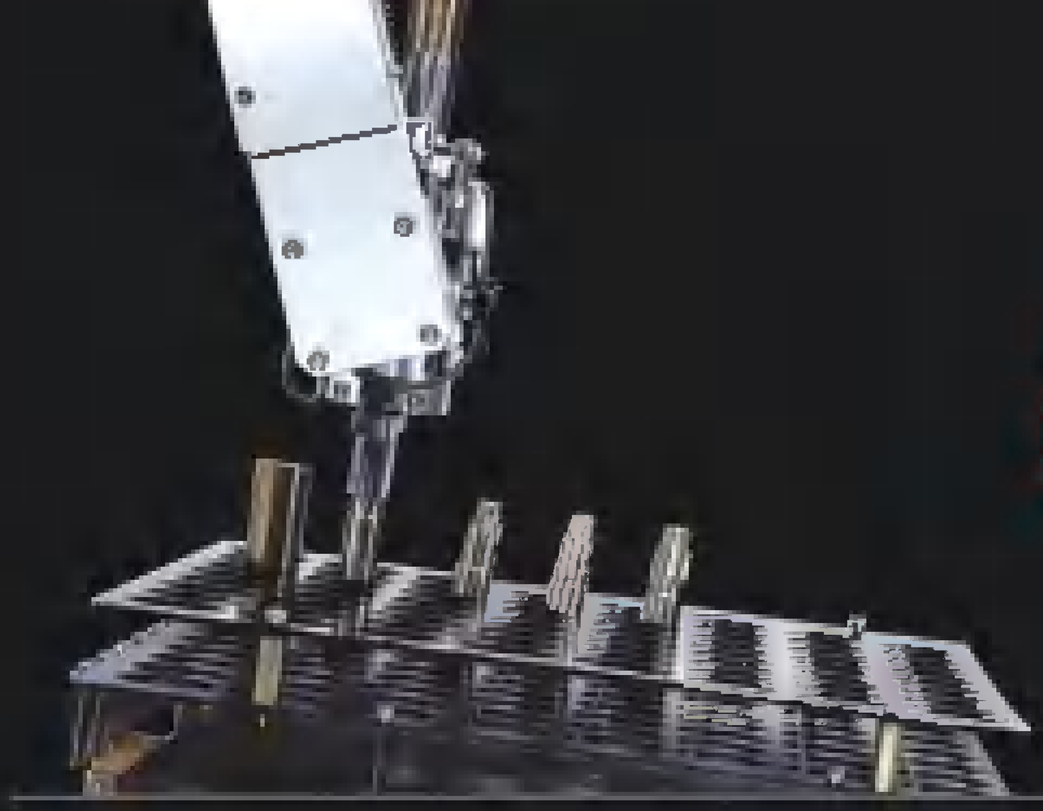
"This type of robot offers the highest rewards in unattended production"

This robot can an also be removed and located to another machine if required so you are not tied to replacing the robot if you decide to upgrade the machine it is installed on to another model in the series.

8.3 m/sec Rapid Positioning

0.02 mm Repeatable Accuracy

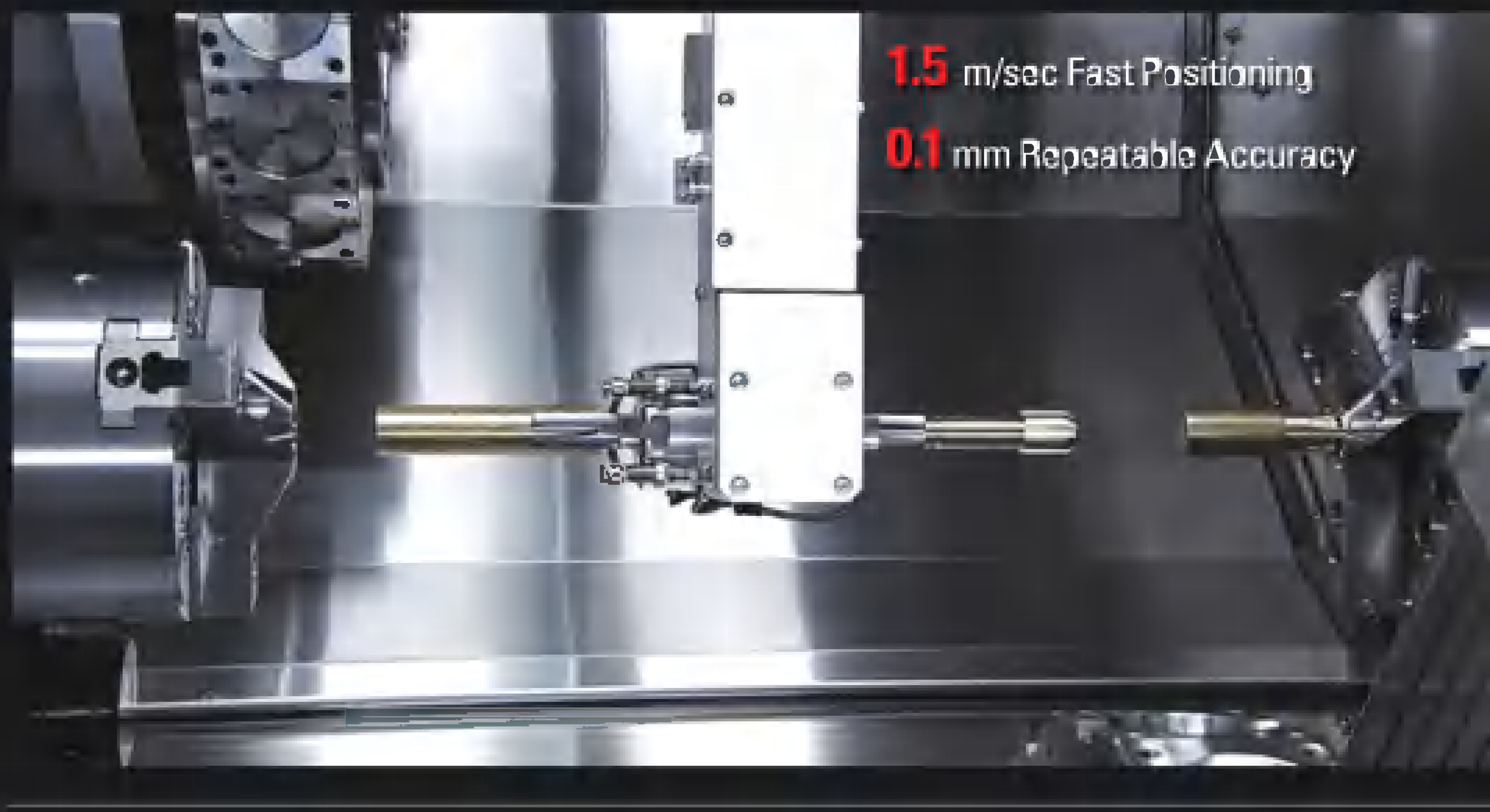
Robot Arm



Gantry Type System

"The most economical solution for production automation"

The gantry system loader / unloader delivers the most economical solution for production automation and is especially suitable for multi cell environments.The machine features a double gripper to securely hold the parts as well as servo drive to ensure positional accuracy and smooth movement.



CC Machinery now offers two options for cell automation in the CT series machines. So for customers operating in multi cell environments you can choose either a gantry type loader / unloader or a fully robotic arm.

Gantry Robot

CT Specifications

		CT2-52	CT2-52YM	CT2-52Y2M(S)	CT3-52Y2M
Capacity	Controller	Mitsubishi	Mitsubishi / Fanuc		Mitsubishi
	Max. Manu. Dia.	Ø360			
	Standard Manu. Dia.	Ø210			
	Swing over Bed Dia.	Ø830			
	Distance Between Two Center	920 mm		1045 mm	
	Max. Manu. Length	400 mm	440 mm	310 mm	
	Bar Capacity	Ø51			
Axis Specifications	X1, X2, X3 Axis Travel	227.5 / 232 mm	227.5 / 230 mm	227.5 / 227.5 mm	227.5 / 227.5 / 230 mm
	Z1, Z2, Z3 Axis Travel	440 / 440 mm		310 / 250 mm	310 / 250 / 440 mm
	Y1, Y2 Axis Travel	-	± 50 mm	± 50 / ± 50 mm	
	B Axis Travel	650 mm		775 mm	
	X, Y, Z Axis Rapid Travel Speed	16 / 6 / 40 m/min			
	B Axis Rapid Travel Speed	40 m/min			
	Min. Input Unit	0.001 mm			
Spindle	Spindle Max. rpm	6000 rpm			
	Spindle Motor	M: 7.5 / 11 kw, F :11 / 15 kw			
	Center Height	1188 mm			
	Spindle Nose	A2-5			
	Spindle Bore	Ø60.5			
	Spindle Bearing Dia.	Ø90			
	Spindle Bar Capacity	Ø51			
	Chuck Size	6”(Option 8”)			
Sub Spindle	Spindle Max. rpm	6000 rpm			
	Spindle Motor	M: 7.5 / 11 kw F: 11 / 15 kw			
	Spindle Nose	A2-5			
	Spindle Bore	Ø60.5			
	Spindle Bar Capacity	Ø51			
	Chuck Size	6”(Option 8”)			
L.R.C	Min. Moving Unit	0.001°			
	C Axis Rapid Travel Speed	600 min^{-1}			
Live Tool Turret	Turret Station	16-station			
	Square Tool	□ 25			
	Round Tool	Ø25			
	Rotating Mode	-	Single Tool Transmission		
	Live Tool rpm	-	60~6000 min^{-1}		
	Live Tool Motor	-	M: 3.7 / 5.5 kw, F: 4.5 kw		3.7 / 5.5 kw
	No. of Live Tool	-	16 × 2		16 × 3
	Collet Size	ERØ32			
	Tool Holder & Tool Size	-	BMT65		
Machine	Size (LxWxH) (Includes Chip Conveyor)	4216 x 2342 x 2144		4185 x 2085 x 2154	4327 x 2335 x 2164
	Machine N.W.(includes chip conveyor)	10200 kg			11100 kg
Power	Power	63KVA	M: 77KVA F: 88KVA	M: 80KVA F: 92KVA	93KVA
	Hydraulic motor	5HP / 3.7kw			
	Coolant Motor	1HP / 0.75kw			
Tank Capacity	Hydraulic Tank	48 L			
	Coolant Tank	360 L			305 L

M: Mitsubishi Controller F: Fanuc Controller Design and specs subject to change without notice.

		CT2-76YM	CT2-76Y2M CT3-76Y2M
Capacity	Controller	Mitsubishi / Fanuc	
	Max. Manu. Dia.	Ø360	
	Standard Manu. Dia.	Ø210	
	Swing over Bed Dia.	Ø830	
	Distance Between Two Center	920 mm	1045 mm
	Max. Manu. Length	415 mm	285 mm
	Bar Capacity	Ø76mm	
Axis Specifications	X1, X2, X3 Axis Travel	227.5 / 230 mm	CT2:227.5/227.5 mm CT3:227.5/227.5/230 mm
	Z1, Z2, Z3 Axis Travel	382 / 382 mm	CT2:252/250 mm CT3:252/250/382 mm
	Y1, Y2 Axis Travel	± 50 mm	± 50 / ± 50 mm
	B Axis Travel	530 mm	655 mm
	X, Y, Z Axis Rapid Travel Speed	16 / 6 / 40 m/min	
	B Axis Rapid Travel Speed	40 m/min	
	Min. Input Unit	0.001 mm	
Spindle	Spindle Max. rpm	4000 rpm	
	Spindle Motor	M: 15 / 22 kw, F: 18 / 22 kw	
	Center Height	1188 mm	
	Spindle Nose	A2-6	
	Spindle Bore	Ø88 mm (Op:Ø86 mm)	
	Spindle Bearing Dia.	Ø120 mm	
	Max. Bar Feeding Dia.	Ø76 mm	
	Chuck Size	8"(Op: 10")	
Sub Spindle	Spindle Max. rpm	4000 rpm	
	Spindle Motor	M: 7.5 / 11 kw, F: 18 / 22 kw	
	Spindle Nose	A2-6	
	Spindle Bore	Ø88	
	Max. Bar Feeding Dia.	Ø65 (option Ø70)	
	Chuck Size	8"(Option 10")	
L.R.C	Min. Moving Unit	0.001°	
	C Axis Rapid Travel Speed	600 min^{-1}	
Live Tool Turret	Turret Station	16-station	
	Square Tool	□ 25	
	Round Tool	Ø25	
	Rotating Mode	Single Tool Transmission	
	Live Tool rpm	60~6000 min^{-1}	
	Live Tool Motor	M: 3.7 / 5.5 kw, F: 4.5 kw	
	No. of Live Tool	16 × 2	CT2:16×2, CT3:16 × 3
	Collet Size	ERØ32	
	Tool Holder & Tool Size	BMT65	
Machine	Size (LxWxH) (Includes Chip Conveyor)	4216 x 2342 x 2144	4327 x 2335 x 2164
	N.W. (Includes Chip Conveyor)	10300 kgs	11200 kgs
Power	Power	M: 88KVA F:102KVA	CT2(M:92,F:106)KVA CT3(M:107,F:120)KVA
	Hydraulic Motor	5 HP / 3.7 kw	
	Coolant Pump	1HP / 0.75kw	
Tank Capacity	Hydraulic Tank	48 L	
	Coolant Tank	CT2: 360L , CT3: 305 L	

M: Mitsubishi Controller F: Fanuc Controller Design and specs subject to change without notice.

Standard Accesseries

- Tool Kit & Box
- Collet Chuck Device
- Auto Bar Feeder Interface
- Finished Parts Gripper & Conveyor
- Chip Washing Coolant Device & Air Blowing Device
  -Cutting Fluid Pump
  -Cutting Fluid Inspection Device
  -Coolant Through Sub Spindle
- Auto Power Breaker
- Air Conditioner For Electrical Cabinet
- Steel Belt Chip Conveyor
- Double Boring Bar Holder (CT2 x 2 / CT3 x 3)

  Single Boring Bar Holder (CT2 x 8 / CT3 x 12)

  Cut Off Tool Holder x 1
  OD Tool Holder (CT2 x 10 / CT3 x 14)

  Radial Slotting Tool Holder (CT2 x 2 / CT3 x 3)

  Tool Sleeve (Ø6, 8, 10, 12, 16, 20) (CT2: 4 Pcs of Each / CT3: 6 Pcs of Each)

More Detail

Optiens

- 6" / 8" Hydraulic Chuck
- Axial And Radial Live Tool Holder
- Voltage Stabilizer
- 15-Bar High Pressure Coolant Device With Filter
- Spindle Chiller Device
- Bar Feeder
- Oil Mist Collector
- Automatic Door Device
- Mitsubishi Robot
- Gantry System

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Machinery

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