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ENGINEERING AUS DEUTSCHLAND



blue  
technology

*the art of turning*



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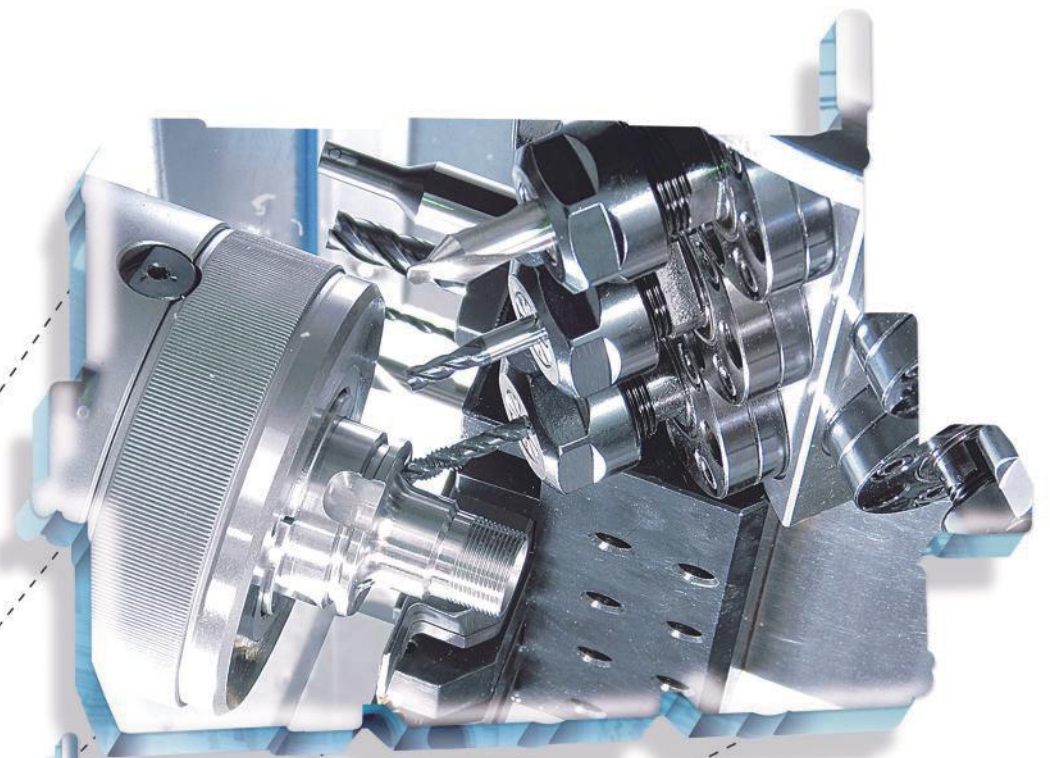
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2017.11



*Intention to make Engineering Technology*



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**CNC MACHINE  
TOOLS  
MANUFACTURING**

# i series High-efficient intelligent complex lathe

**I-series** from Quicktech this year are being seen an advanced innovation in automation industry. Combined more unique and reliable design create the greater value and performance. These universal turning and milling complex machines open a new area of precision and reliability in workshops. They are ideal for producing complicated, small, and single parts in high production demands.

Every second counts and we hope our new series can satisfy all application needs and offers the perfect solution for various bar mass production!

## Feature :

- Flexible gantry type tooling system
- Mitsubishi M80 high-end controller
- Live tools with powerful motor
- Free angle B axis 360° for all the angular tapping and drilling for some specific models



### i-42 Eco

A2-5 main spindle 2 sets static tools

**Option**

C axis milling B axis 360° for angular milling Hydraulic Tailstock

**i-42 Eco M i-42 Eco B**

### i-42 Plus

A2-5 main spindle 2 sets static tools gantry tooling system

**Option**

C axis milling B axis 360° for angular milling

**i-42 Plus M i-42 Plus B**

### i-42 Robo

A2-5 main spindle C axis milling Robo arm

**Option**

B axis 360° for angular milling

### i-42 Twin

A2-5 main spindle B axis 360° for angular milling A2-5 sub spindle

### i-42 Ultimate

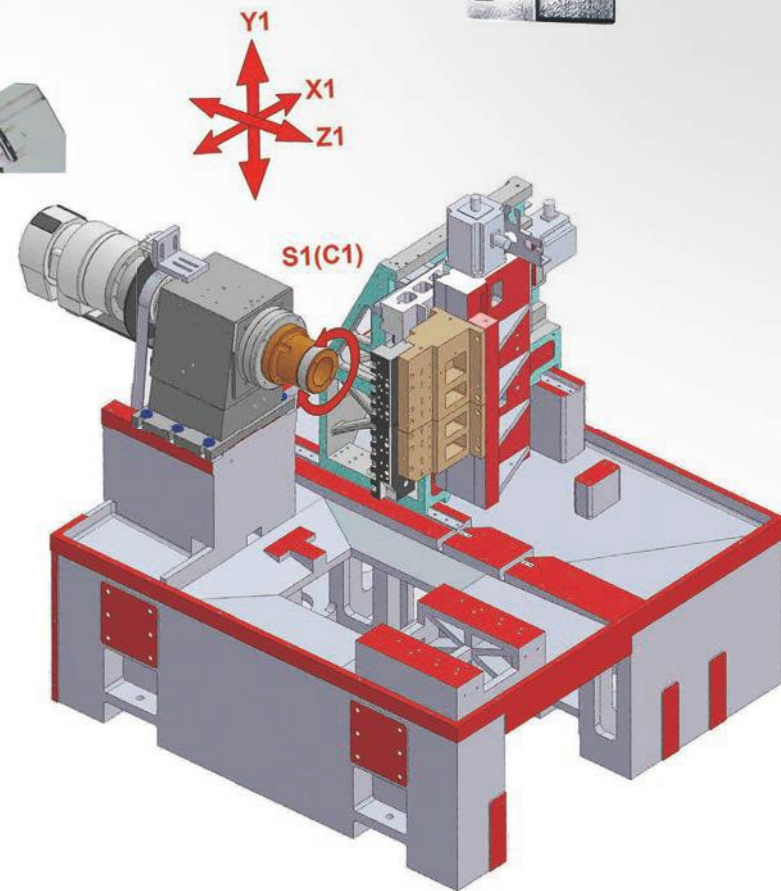
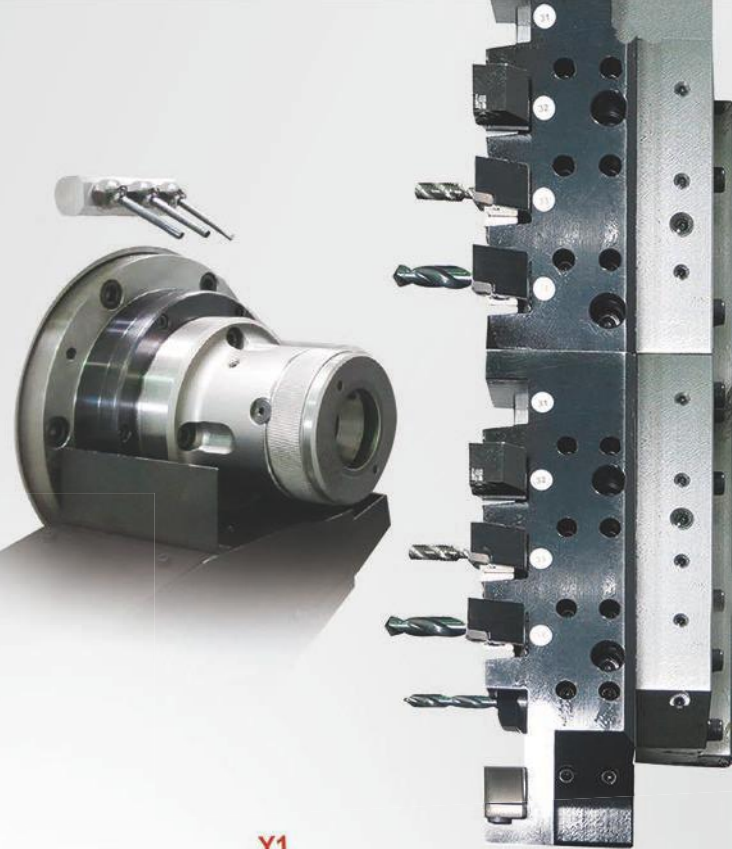
A2-5 main spindle B1 axis 360° for angular milling B2 axis 360° for angular milling A2-5 sub spindle

quicktech



# i-42 Eco

This 4 axis gang tooling lathe is an affordable alternative to a turret type, C-axis lathe.



The standard i42-Eco is comes with 42mm spindle, 11 OD and 9 ID tool turning to achieve the job shop mass production.

# i-42 Eco M

Standard machine packed with 6 live tools and C-Axis control, many complex contours can be machined, providing a variety of options to our customers.



# i-42 Eco B

The milling head with 12 motorized tools and 360 degrees continuous rotating is significantly efficient productivity for small and medium lot size pieces.

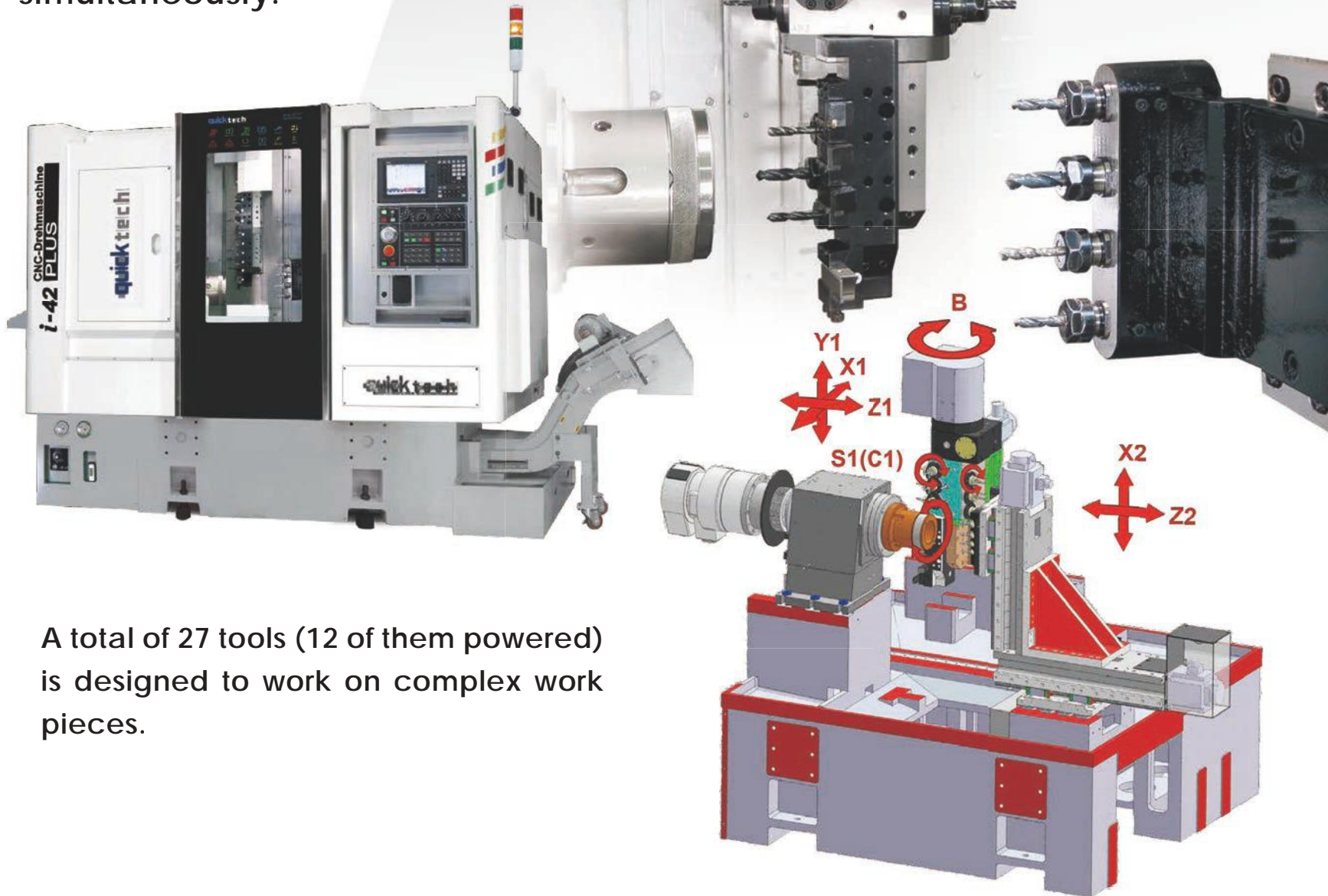


Machine Type		<i>i-42 Eco</i>		
Mitsubishi Controller		M80		
Spindle Capacity	Max. Bar Working Dia	42.0mm (60.0mm)		
	Spindle Max. Turning Length.	300.0 mm		
	Spindle Collet Chuck Type	KK5-173E42B (KK6-185E60B)		
	Spindle Nose	ISO (DIN) A2-5 / A2-6		
	Spindle Bore	44.0(62.0mm)		
Sub-Spindle Capacity	Spindle Speed Range	4000rpm (6000rpm)		
	Max. Turning Dia.	----		
	Max. Bar Working Dia	----		
	Max. Turning Length.	----		
	Collet Chuck Type	----		
C Axis	Nose	----		
	Bore	----		
	Speed Range	----		
	Positioning Accuracy	0.001°		
	Travel & Feed	X1 / Y1 / Z1 axis Travel	150.0 / 415.0 / 300.0 mm	
X2 / Y2 / Z2 axis Travel		----		
Mitsubishi Motor	Main-spindle	AC Spindle 7.5kw(11.0kw)		
	Sub-spindle	----		
	X1 / Y1 / Z1 axis spindle	AC Servo 1.0 / 1.5 / 1.5 kw		
	X2 / Y2 / Z2 axis	----		
	Motorized Tool	AC Servo 1.5kw		
A.T.C System	OD / ID Tools Main Spindle (1st)	<i>i-42 Eco</i>	<i>i-42 Eco M</i>	<i>i-42 Eco B</i>
	OD / ID Tools Sub Spindle (2nd)	11 / 9	6 / 5	6 / 5
	Tool Shank Size	20.0 mm		
	Boring Bar (main)	ER-20 / 20.0mm		
	Boring Bar (sub)	----		
Motorized Tool	Index Time	0.3sec(one) / 0.6(full)		
	Number of motorized tools	<i>i-42 Eco</i>	<i>i-42 Eco M</i>	<i>i-42 Eco B</i>
	B axis	( B : 360° )		
	Speed	4000rpm(Max.)		
	Size	ER-20		
Hydraulic System	Max.Drilling Dia.	12.0 mm		
	Max. Tapping capacity	M10 X P1.5		
	Hydraulic Motor / Tank Capacity	1HP / 50L		
Lubrication	Max. Pressure	50 kg / cm <sup>2</sup>		
	Lubricant Motor / Tank Capacity	25W / 2 Liter		
Coolant System	Max. Pressure	15kg / cm <sup>2</sup>		
	Coolant Motor Type	TPH4T5K high pressure coolant pump		
	Hydraulic Motor Type	-----		
Machine Size	Coolant Tank Capacity	240L		
	Length / Width / Height	3050 / 1700 / 1900mm		
	Weight	3780kg		

( ) Option

# i-42 Plus B

This CNC turning machine is capable of running two NC programs simultaneously.



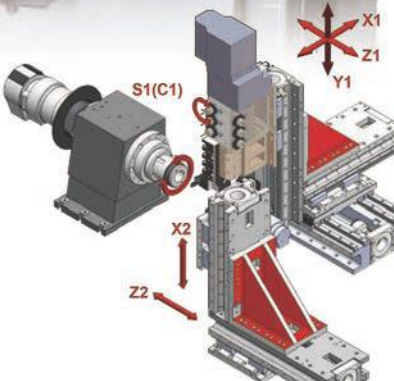
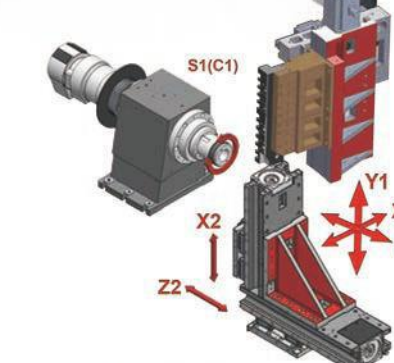
A total of 27 tools (12 of them powered) is designed to work on complex work pieces.

# i-42 Plus

Simultaneous machining is possible from the outside as well as from the inside. Depending on the work piece, the working time can be reduced up to 48%.

# i-42 Plus M

Standard machine packed with 6 live tools and C-Axis control, many complex contours can be machined, providing a variety of options to our customers.

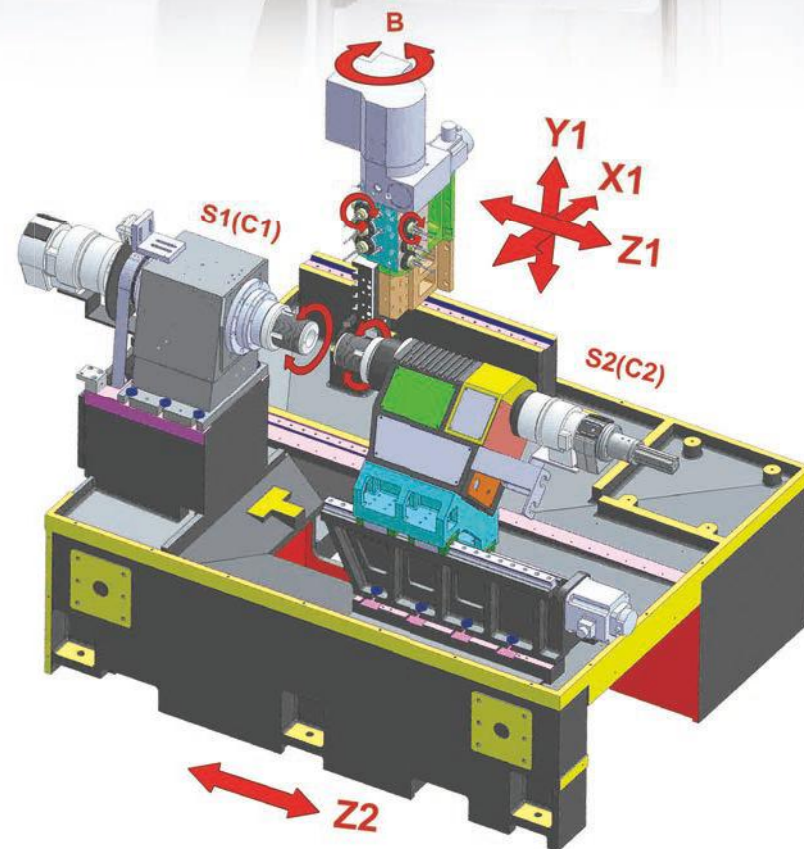


Machine Type		i-42 Plus			
Mitsubishi Controller		M80			
Spindle Capacity	Max. Bar Working Dia	42.0mm (60.0mm)			
	Spindle Max. Turning Length.	300.0 mm			
	Spindle Collet Chuck Type	KK5-173E42B (KK6-185E60B)			
	Spindle Nose	ISO (DIN) A2-5 / A2-6			
	Spindle Bore	44.0(62.0mm)			
Sub-Spindle Capacity	Spindle Speed Range	4000rpm (6000rpm)			
	Max. Turning Dia.	----			
	Max. Bar Working Dia	----			
	Max. Turning Length.	----			
	Collet Chuck Type	----			
C Axis	Nose	----			
	Bore	----			
	Speed Range	----			
	Positioning Accuracy	0.001°			
Travel & Feed	X1 / Y1 / Z1 axis Travel	150.0 / 415.0 / 300.0 mm			
	X2 / Y2 / Z2 axis Travel	X2 235.0mm / Z2 335.0mm			
Mitsubishi Motor	Main-spindle	AC Spindle 7.5kw(11.0kw)			
	Sub-spindle	----			
	X1 / Y1 / Z1 axis spindle	AC Servo 1.0 / 1.5 / 1.5 kw			
	X2 / Y2 / Z2 axis	AC Servo 1.0kw(X2 Z2)			
A.T.C System	Motorized Tool	AC Servo 1.5kw			
	OD / ID Tools Main Spindle (1st)	i-42 Plus	i-42 Plus M	i-42 Plus B	
	OD / ID Tools Sub Spindle (2nd)	11 / 9	6 / 5	6 / 5	
	Tool Shank Size	20.0 mm			
	Boring Bar (main)	ER-20 / 20.0mm			
	Boring Bar (sub)	ER-20 / 20.0mm			
	Index Time	0.3sec(one) / 0.6(full)			
	Motorized Tool	Number of motorized tools	i-42 Plus	i-42 Plus M	i-42 Plus B
			0	6	12
		B axis	( B : 360° )		
Speed		4000rpm(Max.)			
Size		ER-20			
Max.Drilling Dia.		12.0 mm			
Max. Tapping capacity		M10 X P1.5			
Hydraulic System		Hydraulic Motor / Tank Capacity	1HP / 50L		
		Max. Pressure	50kg / cm <sup>2</sup>		
Lubrication		Lubricant Motor / Tank Capacity	25W / 2 Liter		
	Max. Pressure	15kg / cm <sup>2</sup>			
Coolant System	Coolant Motor Type	max.pressure:5bar flow:75L / min			
	Hydraulic Motor Type	max.pressure:25bar flow:30L / min			
	Coolant Tank Capacity	240L			
Machine Size	Length / Width / Height	3050 / 1700 / 1900mm			
	Weight	4780kg			

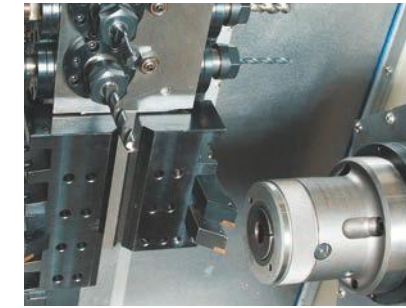
( ) Option

# i-42 Twin

The series is a combination of cost effective and highly productive for complex work piece!



Not only having 30 tools to make it possible to process complex work piece from inside, outside and outline, it also marks the integration of the driven tools having a powerful B- axis milling for simultaneous and efficient machining. Due to this enhancement, the tools application becomes more fast and flexible for sophisticated parts. The great tool arrangement and big work area, make this outstanding, all purpose machine.



## TILTING MOTORIZED TOOLS

This milling head comprises of 12 motorized tools from 360° continuous leads to even greater flexible tools arrangement and significantly efficient productivity for small and medium lot sizes.

## ROLLER GUIDEWAYS

The machine is equipped with high precision, HIWIN roller guideways.

The use of 35mm rails throughout the machine increases stability and accuracy, and allows heavier cuts to be achieved.

All axes are equipped with digital drives that deliver feed velocities of 30m/min.



Machine Type		<i>i-42 Twin</i>
Mitsubishi Controller		M80
Spindle Capacity	Max. Bar Working Dia	42.0mm (60.0mm)
	Spindle Max. Turning Length.	300.0mm
	Spindle Collet Chuck Type	KK5-173E42B (KK6-185E60B)
	Spindle Nose	ISO(DIN) A2-5 / A2-6
	Spindle Bore	44.0(62.0mm)
Sub-Spindle Capacity	Spindle Speed Range	4000rpm (6000rpm)
	Max. Turning Dia.	100.0mm
	Max. Bar Working Dia	42.0mm
	Max. Turning Length.	155.0mm
	Collet Chuck Type	KK5-173E42B
	Nose	ISO(DIN) A2-5
C Axis	Bore	30.0mm
	Speed Range	4000rpm (6000rpm)
	Positioning Accuracy	0.001°
Travel & Feed	X1 / Y1 / Z1 axis Travel	150.0 / 415.0 / 300.0mm
	X2 / Y2 / Z2 axis Travel	450.0mm(Z2)
Mitsubishi Motor	Main-spindle	AC Spindle 7.5kw(11.0kw)
	Sub-spindle	AC Spindle 3.7kw
	X1 / Y1 / Z1 axis spindle	AC Servo 1.0 / 1.5 / 1.5 kw
	X2 / Y2 / Z2 axis	AC Servo 1.0kw(Z2)
	Motorized Tool	AC Servo 1.5kw
A.T.C System	OD / ID Tools Main Spindle (1st)	6 / 5
	OD / ID Tools Sub Spindle (2nd)	3 / 4
	Tool Shank Size	20.0mm
	Boring Bar (main)	ER-20 / 20.0mm
Motorized Tool	Boring Bar (sub)	ER-20 / 20.0mm
	Index Time	0.3sec(one) / 0.6(full)
	Number of motorized tools	12 tools
	B axis	360°
	Speed	4000rpm(Max.)
Hydraulic System	Size	ER-20
	Max.Drilling Dia.	12.0mm
	Max. Tapping capacity	M10xP1.5
	Hydraulic Motor / Tank Capacity	1HP / 50L
Lubrication	Max. Pressure	50kg / cm <sup>2</sup>
	Lubricant Motor / Tank Capacity	25W / 2 Liter
Coolant System	Max. Pressure	15kg / cm <sup>2</sup>
	Coolant Motor Type	max.pressure:5bar flow:75L / min
	Hydraulic Motor Type	max.pressure:25bar flow:30L / min
Machine Size	Coolant Tank Capacity	240L
	Length / Width / Height	3500 / 1900 / 1900mm
	Weight	5300kg

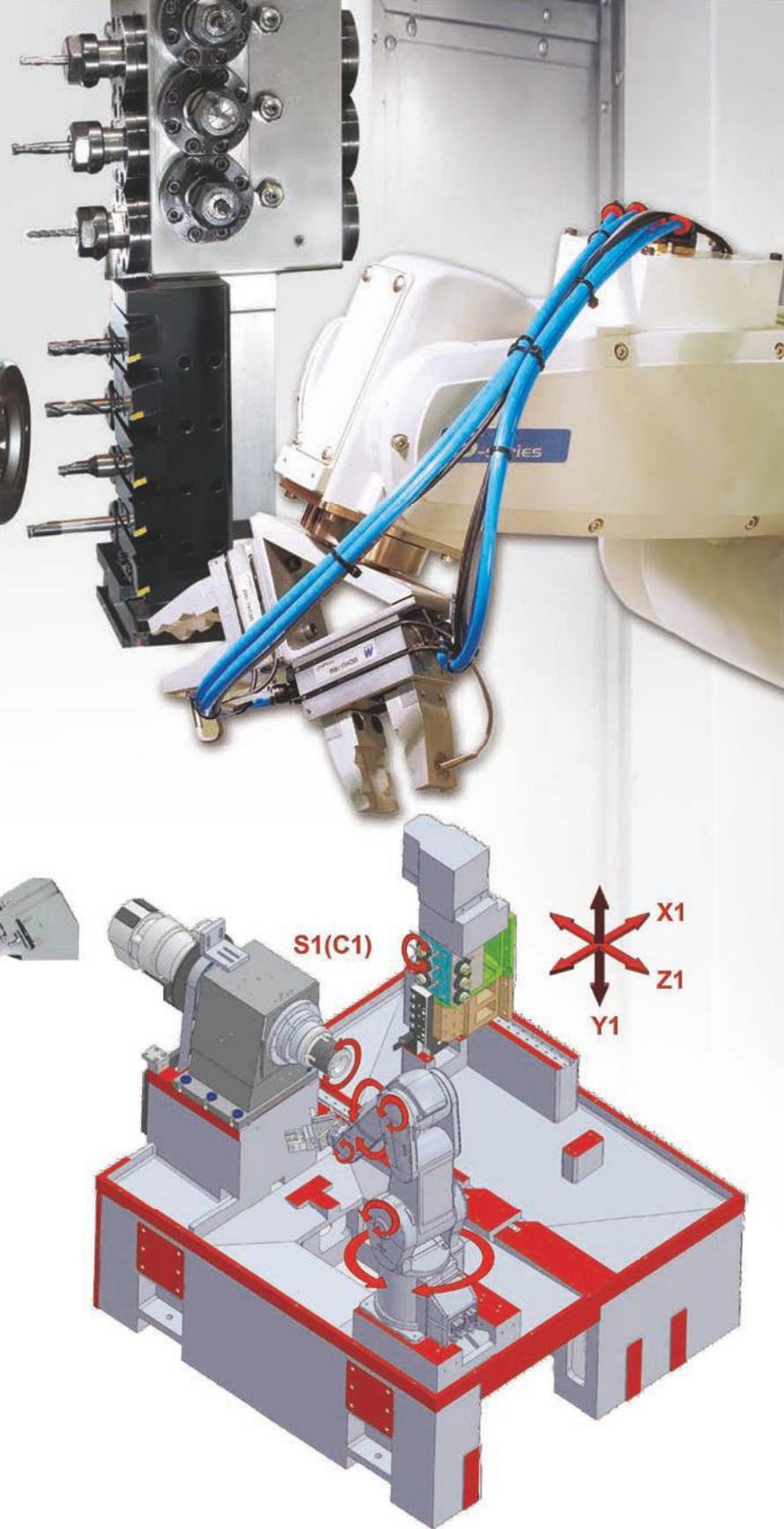
( ) Option

# i-42 Robo

This 4 axis lathe with C-axis and live tooling provides the added advantage of robotic loading for unmanned chucking operations.



This machine is a modified version of the I-42 with internal integration of a Mitsubishi 6 axis articulated robot. This requires no additional floor space, and is positioned so it will not hinder the machine operator while setting the machine, or operating the Mitsubishi M80 control system.



## INTELLIGENT ROBOT

Complimenting the standard I-42 lathe, is a fully integrated high speed, high precision 6 axis robot.

This intelligent robot has a total of 512 programs, and can easily maneuver around tooling and other obstacles within the work area.

It can handle work pieces of up to 6kg, and is ideal for billets, castings and forgings.

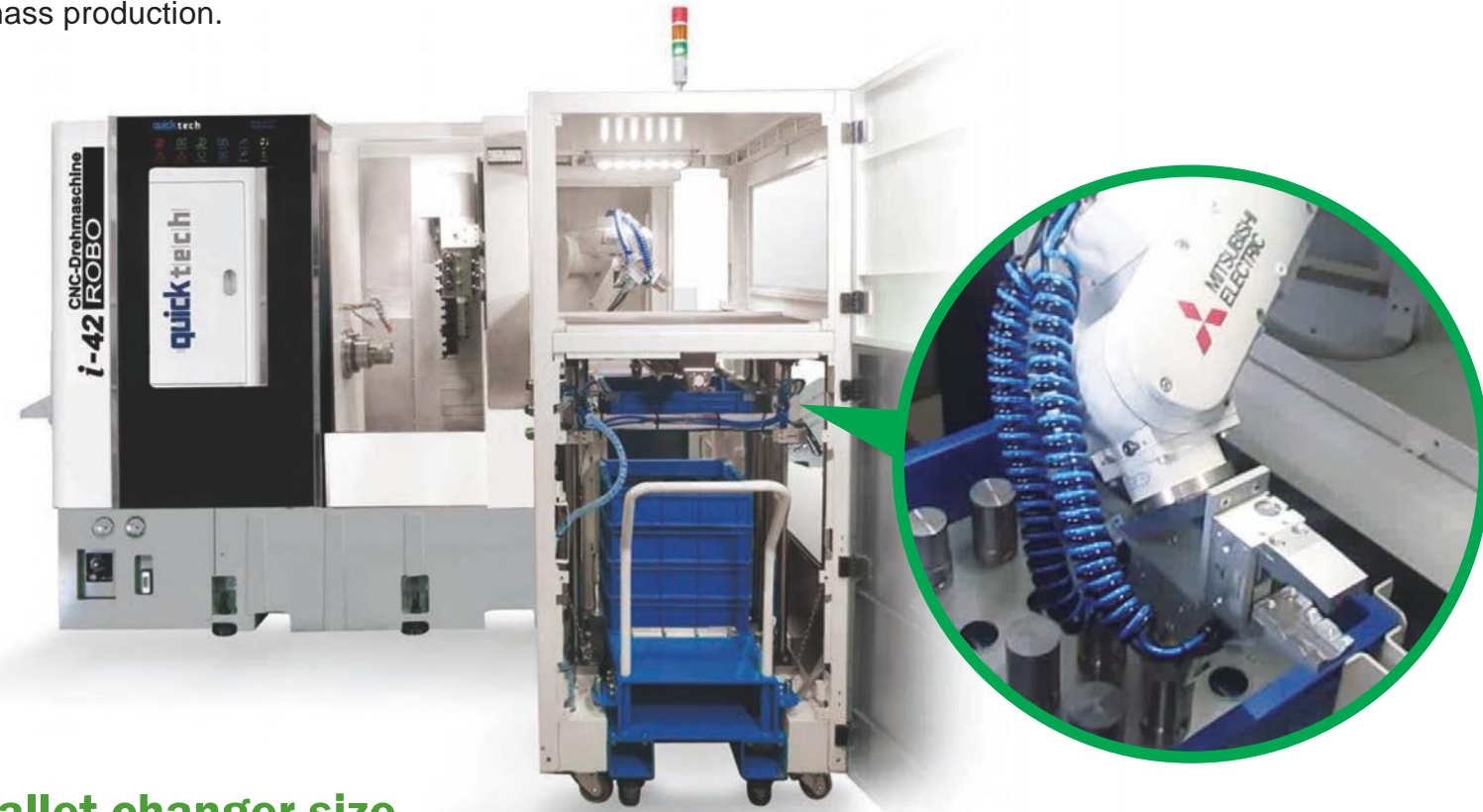


Machine Type		<i>i-42 Robo</i>
Mitsubishi Controller		M80
Spindle Capacity	Max. Bar Working Dia	42.0mm (60.0mm)
	Spindle Max. Turning Length.	300.0 mm
	Spindle Collet Chuck Type	KK5-173E42B (KK6-185E60B)
	Spindle Nose	ISO (DIN) A2-5 / A2-6
	Spindle Bore	44.0(62.0mm)
Sub-Spindle Capacity	Spindle Speed Range	4000rpm (6000rpm)
	Max. Turning Dia.	----
	Max. Bar Working Dia	----
	Max. Turning Length.	----
	Collet Chuck Type	----
C Axis	Nose	----
	Bore	----
	Speed Range	----
	Positioning Accuracy	0.001°
	Travel & Feed	X1 / Y1 / Z1 axis Travel
X2 / Y2 / Z2 axis Travel		----
Mitsubishi Motor	Main-spindle	AC Spindle 7.5kw(11.0kw)
	Sub-spindle	----
	X1 / Y1 / Z1 axis spindle	AC Servo 1.0 / 1.5 / 1.5 kw
	X2 / Y2 / Z2 axis	----
A.T.C System	Motorized Tool	AC Servo 1.5kw
	OD / ID Tools Main Spindle (1st)	6 / 5
	OD / ID Tools Sub Spindle (2nd)	----
	Tool Shank Size	20.0 mm
Motorized Tool	Boring Bar (main)	ER-20 / 20.0mm
	Boring Bar (sub)	----
	Index Time	0.3sec(one) / 0.6(full)
	Number of motorized tools	6 (B : 12)
	B axis	(B : 360°)
	Speed	4000rpm(Max.)
	Size	ER-20
Hydraulic System	Max. Drilling Dia.	12.0 mm
	Max. Tapping capacity	M10 X P1.5
Lubrication	Hydraulic Motor / Tank Capacity	1HP / 50L
	Max. Pressure	50 kg / cm <sup>2</sup>
Coolant System	Lubricant Motor / Tank Capacity	25W / 2 Liter
	Max. Pressure	15kg / cm <sup>2</sup>
	Coolant Motor Type	TPH4T5K high pressure coolant pump
Machine Size	Hydraulic Motor Type	-----
	Coolant Tank Capacity	240L
	Length / Width / Height	3050 / 1700 / 1900mm
	Weight	4300kg

( ) Option

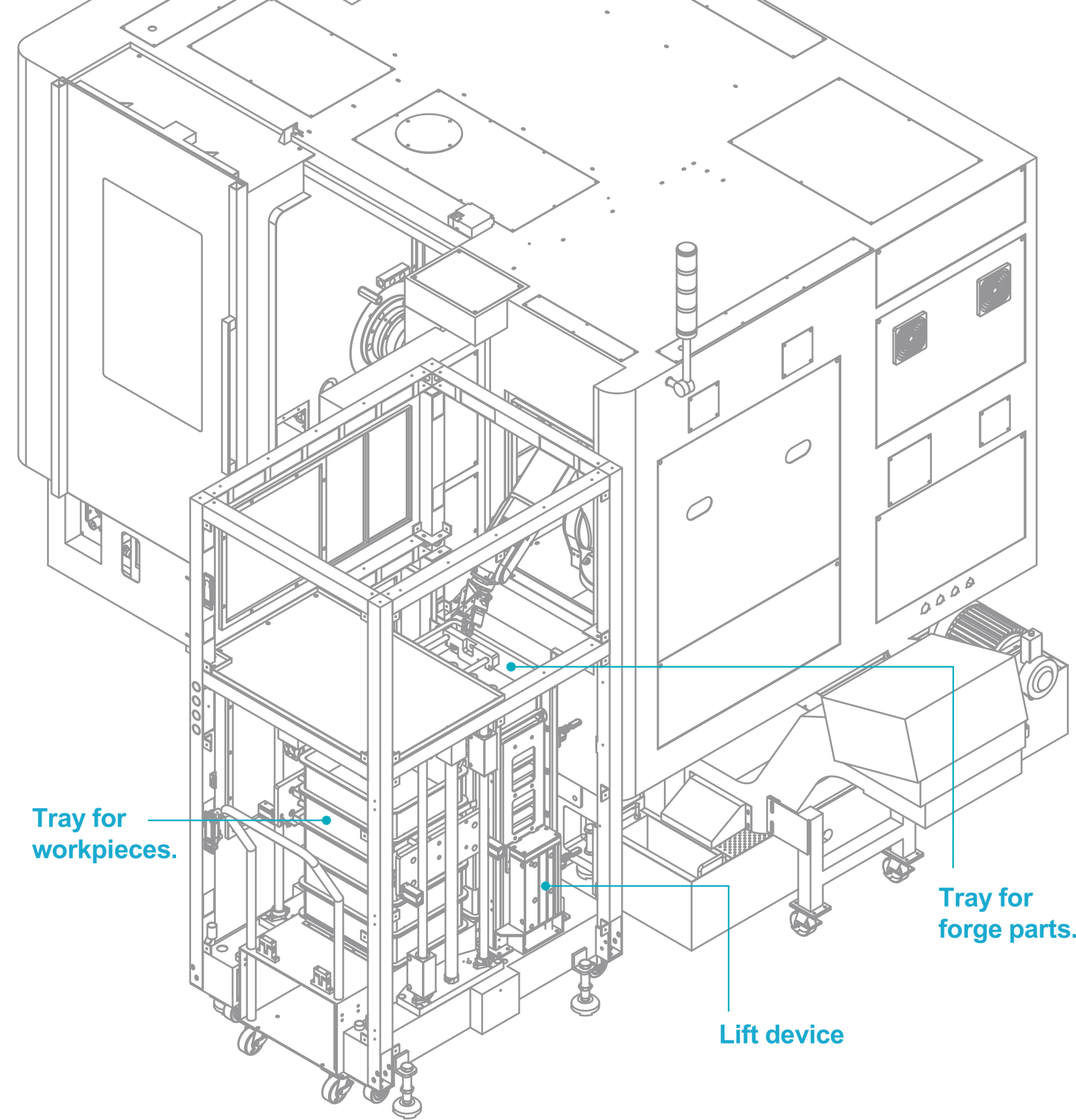
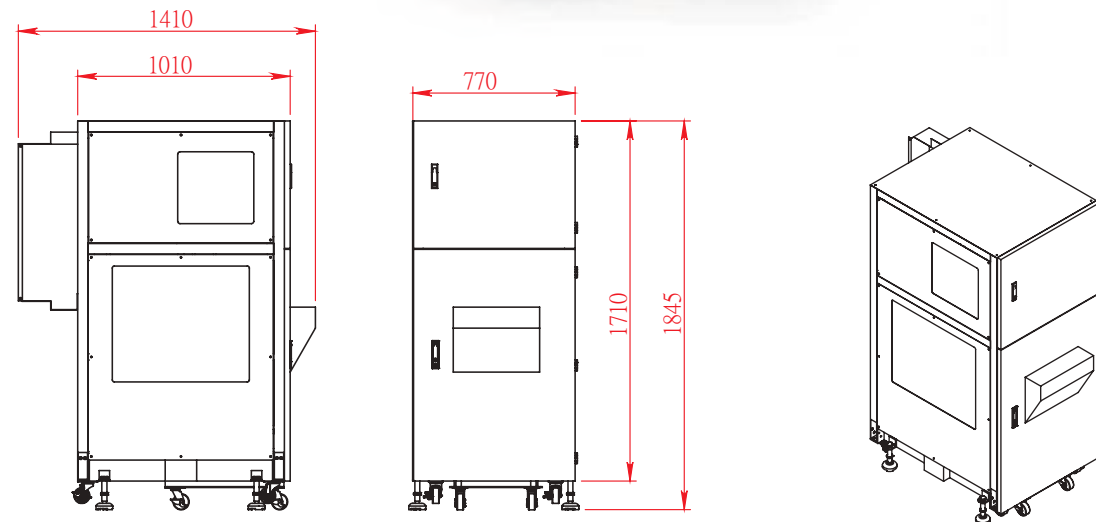
## Robot with Flexible pallet changer

This efficient auto-pallet has equipped 5 trays and moveable cart for easy loading and unloading. No any human operation required. The operator can easily use and maintain this auto-pallet while the lathe is under mass production.



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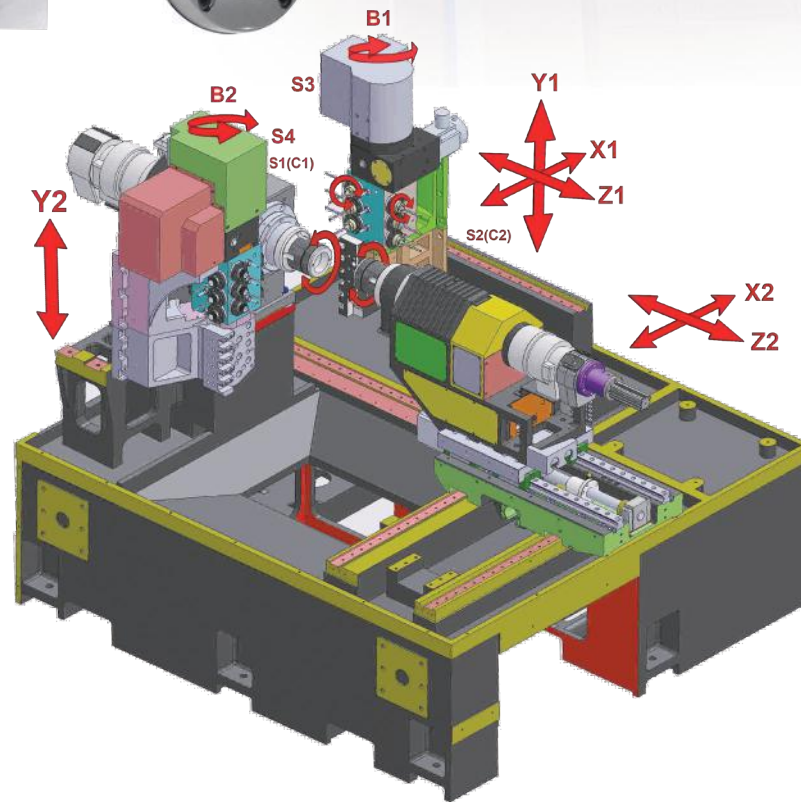
## Pallet changer size



12

# i-42 Ultimate

Flexible duo system simultaneous  
Cycle time can be saved up to **48%**



With the system allows running 2 programs simultaneously, flexible gantry tools for main and sub spindle and C-axis capabilities, milling and turning applications are completed in one single machine. They are ideal for producing complicated and single parts in high production demand.



Machine Type		<b>i-42 U</b>
Mitsubishi Controller		M830
Spindle Capacity	Max. Bar Working Dia	42.0mm (60.0mm)
	Spindle Max. Turning Length.	250.0mm
	Spindle Collet Chuck Type	KK5-173E42B (KK6-185E60B)
	Spindle Nose	ISO(DIN) A2-5 / A2-6
	Spindle Bore	44.0 (62.0mm)
Sub-Spindle Capacity	Spindle Speed Range	4000rpm / (6000rpm)
	Max. Turning Dia.	120.0mm
	Max. Bar Working Dia	42.0mm
	Max. Turning Length.	100.0mm
	Collet Chuck Type	KK5-173E42B
	Nose	ISO(DIN) A2-5
C Axis	Bore	30.0mm
	Speed Range	4000rpm (6000rpm)
	Positioning Accuracy	0.001 °
Travel & Feed	X1 / Y1 / Z1 axis Travel	150.0 / 385.0 / 250.0mm
	X2 / Y2 / Z2 axis Travel	450.0 / 385.0 / 300.0mm
Mitsubishi Motor	Main-spindle	AC Spindle 7.5kw (11.0kw)
	Sub-spindle	AC Spindle 3.7kw
	X1 / Y1 / Z1 axis spindle	AC Servo 1.5kw
	X2 / Y2 / Z2 axis	AC Servo 1.5kw
	Motorized Tool	AC Servo 1.5kw
A.T.C System	OD / ID Tools Main Spindle (1st)	6 / 5
	OD / ID Tools Sub Spindle (2nd)	5 / 9
	Tool Shank Size	20.0mm
	Boring Bar (main)	ER-20 / 20.0mm
Motorized Tool	Boring Bar (sub)	ER-20 / 20.0mm
	Index Time	0.3sec(one) / 0.6(full)
	Number of motorized tools	First rack 12 tools / Second rack 12 tools
	B axis	360 °
	Speed	4000rpm(Max.)
Hydraulic System	Size	ER-20
	Max. Drilling Dia.	12.0mm
	Max. Tapping capacity	M10xP1.5
Lubrication	Hydraulic Motor / Tank Capacity	1HP / 75L
	Max. Pressure	50kg / cm <sup>2</sup>
Coolant System	Lubricant Motor / Tank Capacity	25W / 2 Liter
	Max. Pressure	15kg / cm <sup>2</sup>
	Coolant Motor Type	max.pressure : 5bar flow : 75L / min
Machine Size	Hydraulic Motor Type	max.pressure : 25bar flow : 30L / min
	Coolant Tank Capacity	240L
Machine Size	Length / Width / Height	3500(2900) / 1900 / 1900mm
	Weight	5600kg

( ) Option





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- Machine Character
  - Main spindle / Sub spindle
  - Tooling system
  - External view / Machining applications
  - Gantry Tooling interference

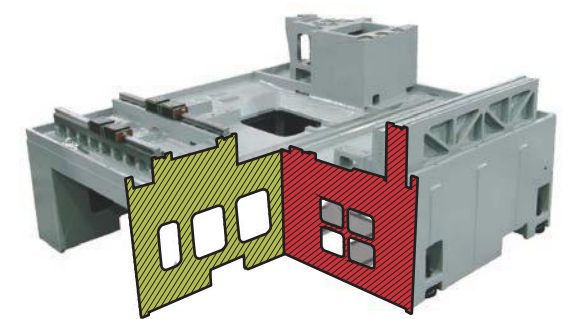
# Flexible, Fast and High production Smart lathe in one setup



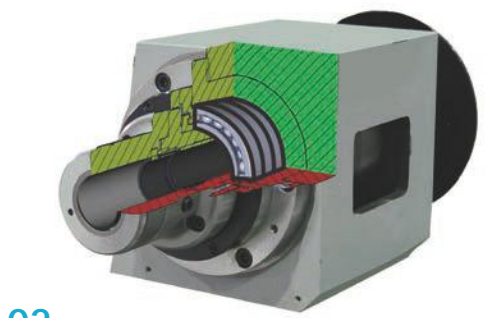
**High pressure Coolant**  
High pressure with 25 Bar with filter



**Simple Visual Monitor**  
Transparent window for the lubrication and solenoid status check.



**01 Robust FC35 Meehanite Castings**  
Harden to over HRB 190 and tempered to relieve stress.



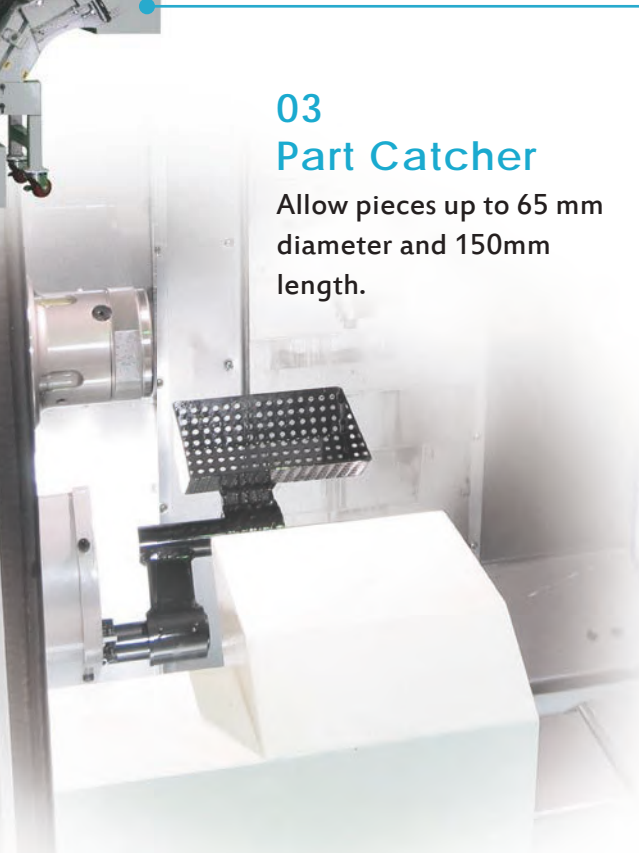
**02 P4 class preload spindle bearing**  
Preload bearings are offered for the maximum attachment effect



**Linear Guideways**  
The machine is equipped with high precision HIWIN 35mm Linear guideways. Increase the stability and accuracy, allows heavier cut to be achieved.



**LED Extended display**  
Help you to monitor easily status of the machine



**03 Part Catcher**  
Allow pieces up to 65 mm diameter and 150mm length.

Mitsubishi controller    Fanuc controller

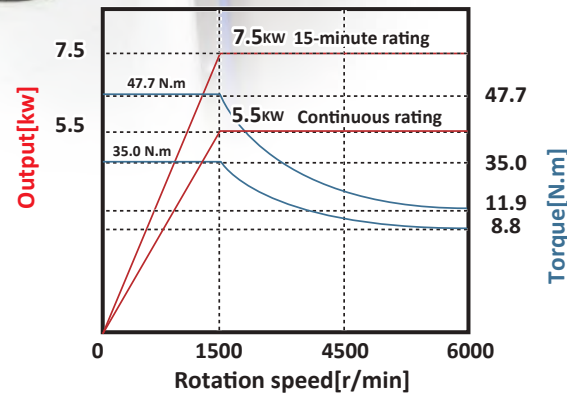
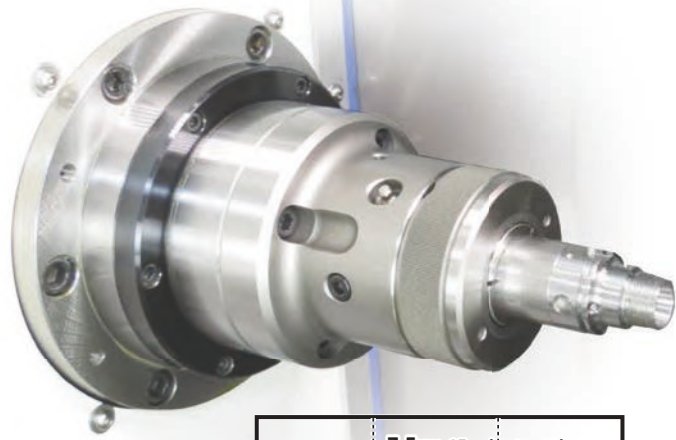


**Bar Feeder**  
Short and Long Bar Feeder are available

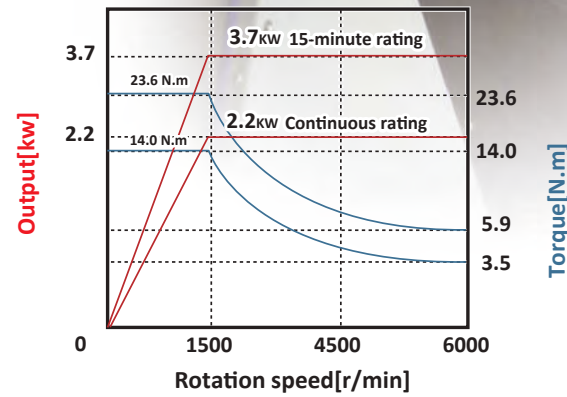


**Chip Conveyor**  
Standard and high type depends on your production request

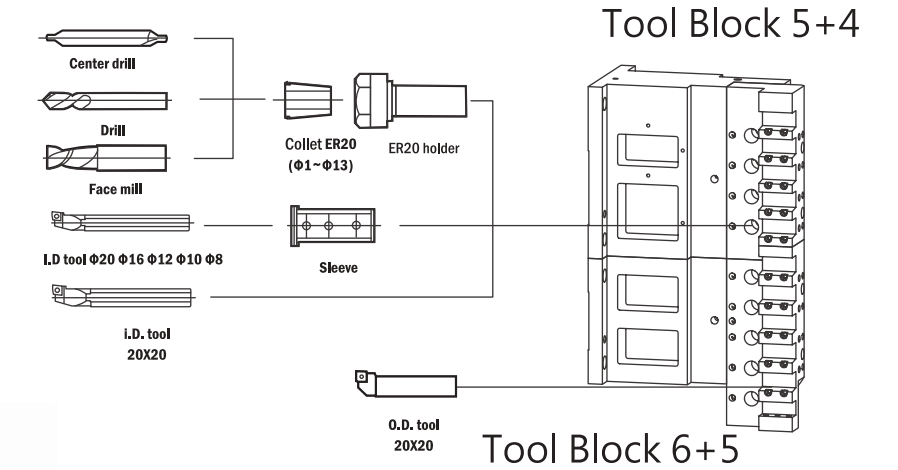
Mitsubishi AC Servo **7.5 kw**  
A2-5 spindle with **44 mm** bore



Mitsubishi AC Servo **3.7 kw**  
A2-5 sub spindle with **32 mm** bore

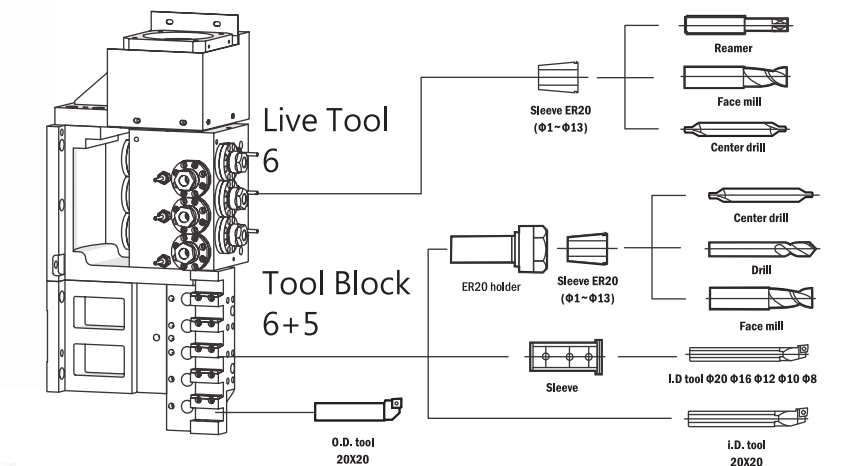


the standard i42-Eco is coming with 42mm spindle, 11 OD and 9 ID tool turning to achieve the job shop mass production.



C axis

Standard machine packed with 6 live tools and C-Axis control, many complex contours can be machined, providing a variety of options to our customers.

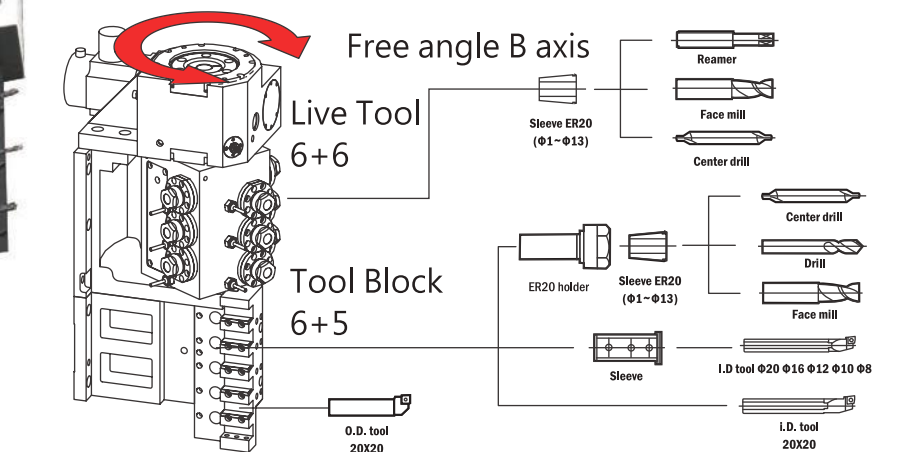


B axis

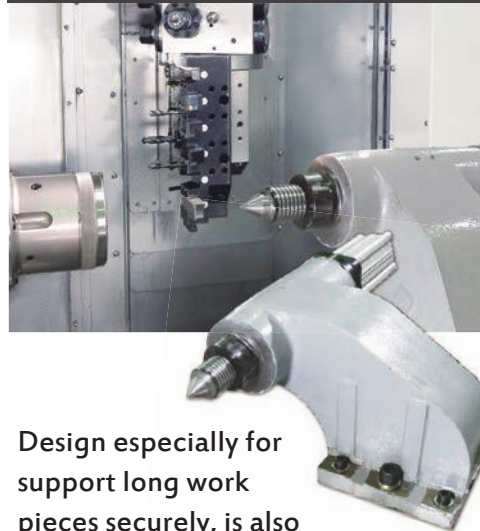
Live tools with B Axis

Index Time	0.3sec(one)/0.6(full)
Number of motorized tools	12 tools
B axis	360°
Speed	4000rpm(Max.)
Size	ER-20
Max. Drilling Dia	12.0mm
Max. Tapping capacity	M10xP1.5

The milling head comprises of 12 motorized tools for 360° continuous leads to even greater flexible tools arrangement and significantly efficient productivity for small and medium lot sizes.

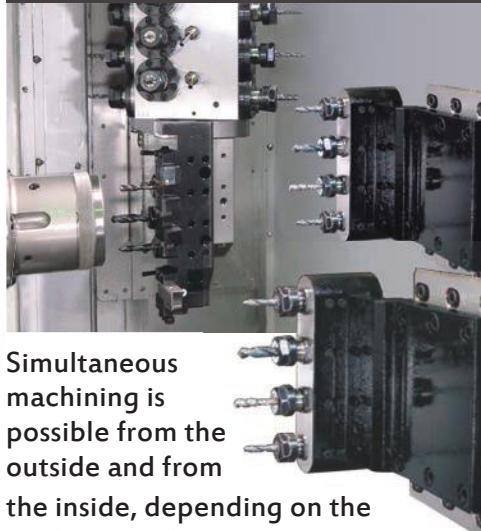


Hydraulic Tailstock



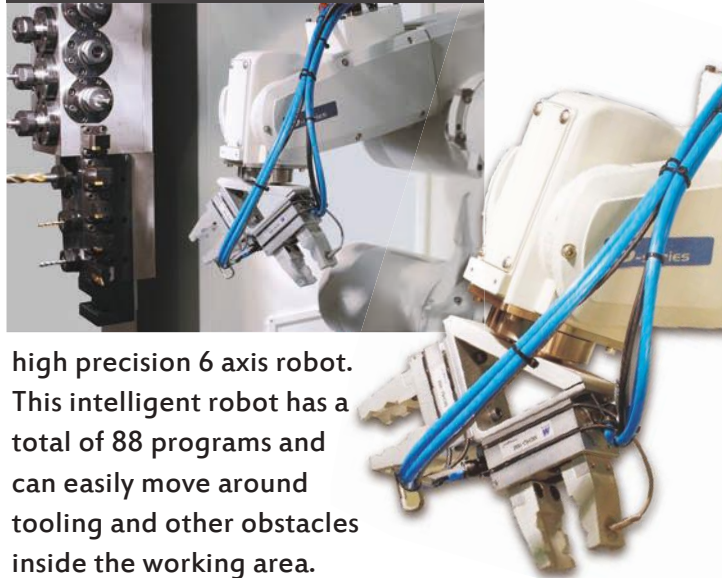
Design especially for support long work pieces securely, is also provided.

Second rack ID Tools



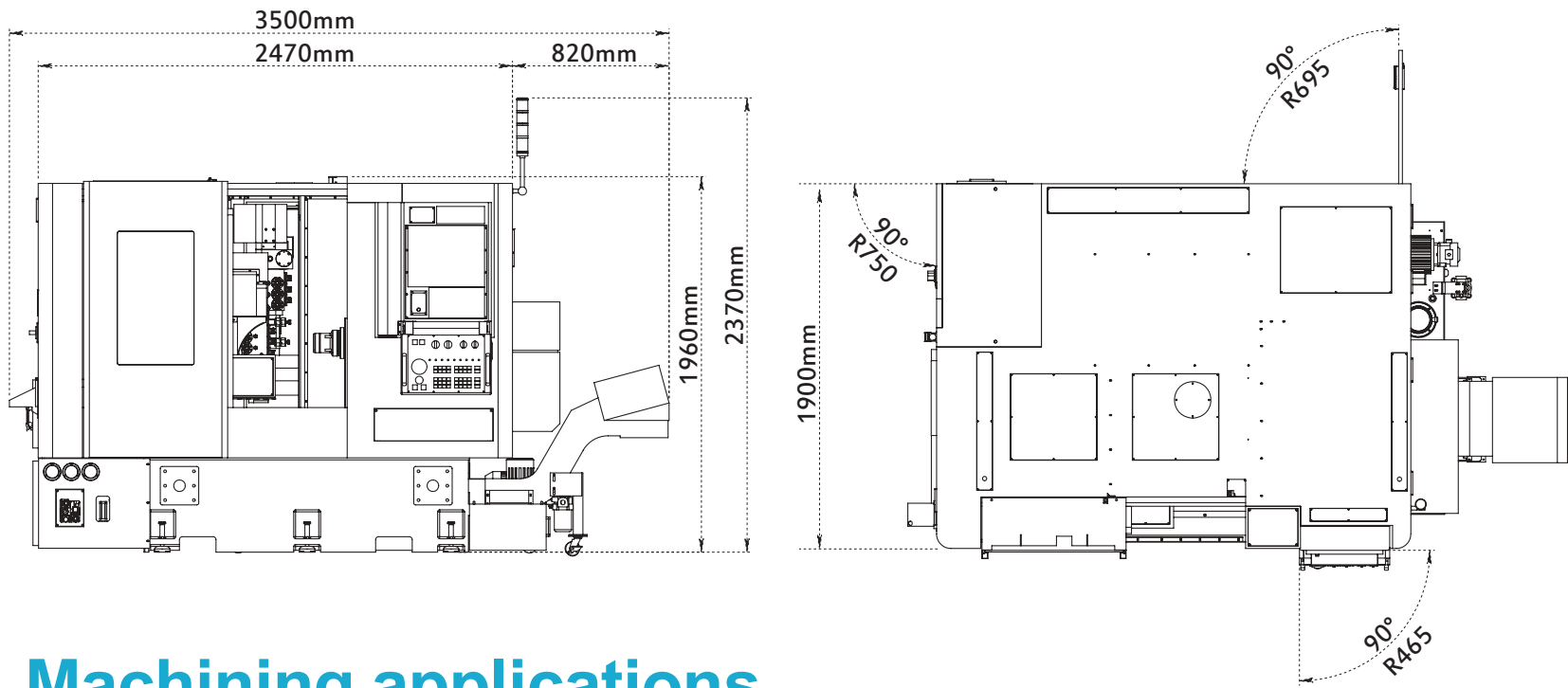
Simultaneous machining is possible from the outside and from the inside, depending on the work piece, the working time can be reducing up to 48%.

Intelligent Robot

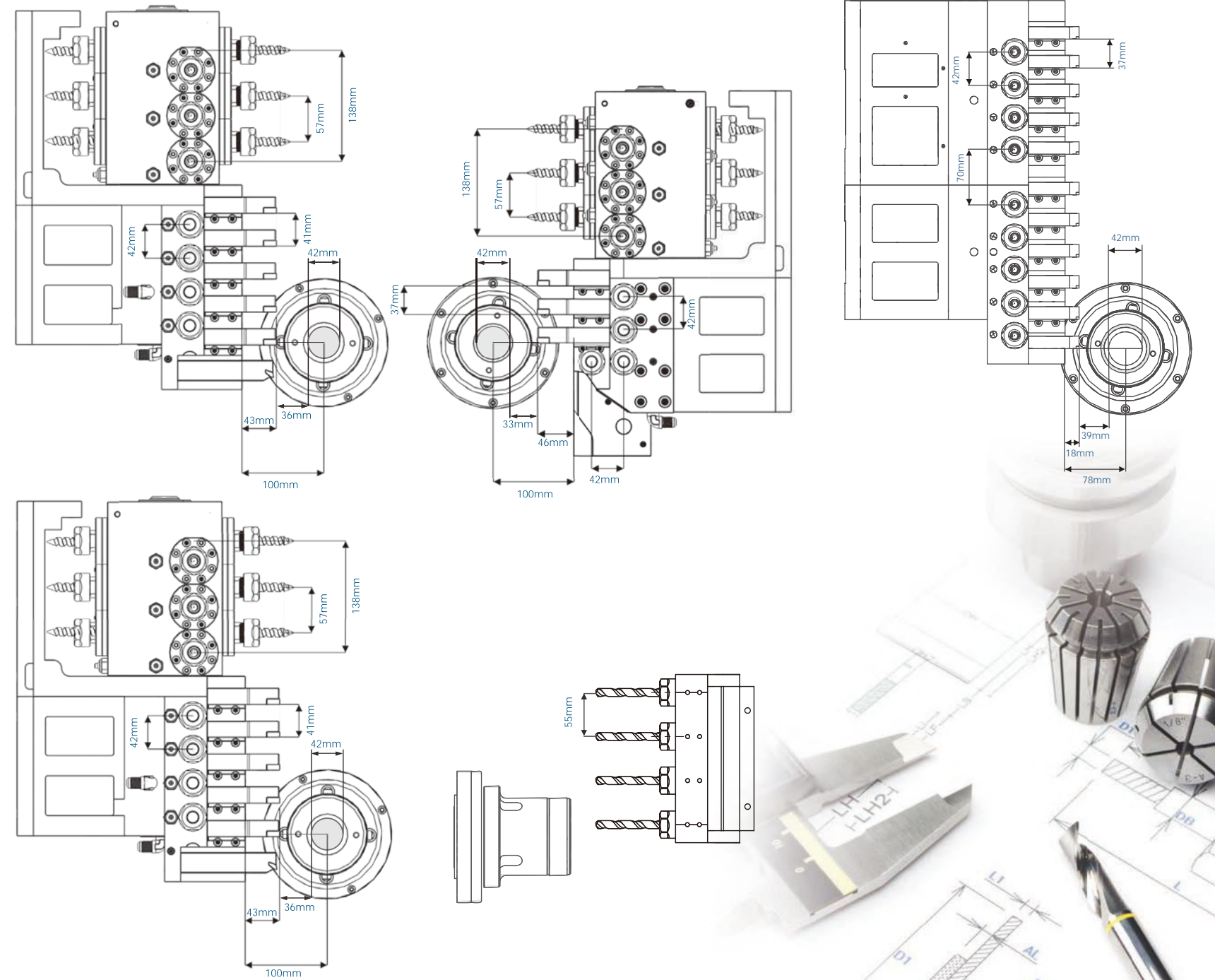


high precision 6 axis robot. This intelligent robot has a total of 88 programs and can easily move around tooling and other obstacles inside the working area.

# External view



# Gantry Tooling interference



# Machining applications

- 1/ Long work-piece machining**
- 2/ Twin Spindle superimposed machining**
- 3/ Live tool milling on main/sub spindle**
- 4/ Double Process Running Simultaneously**
- 5/ Off-Center machining**
- 6/ Tapping or drilling by free angle B axis on main/sub spindle**
- 7/ Polygon Generating Cutting**

