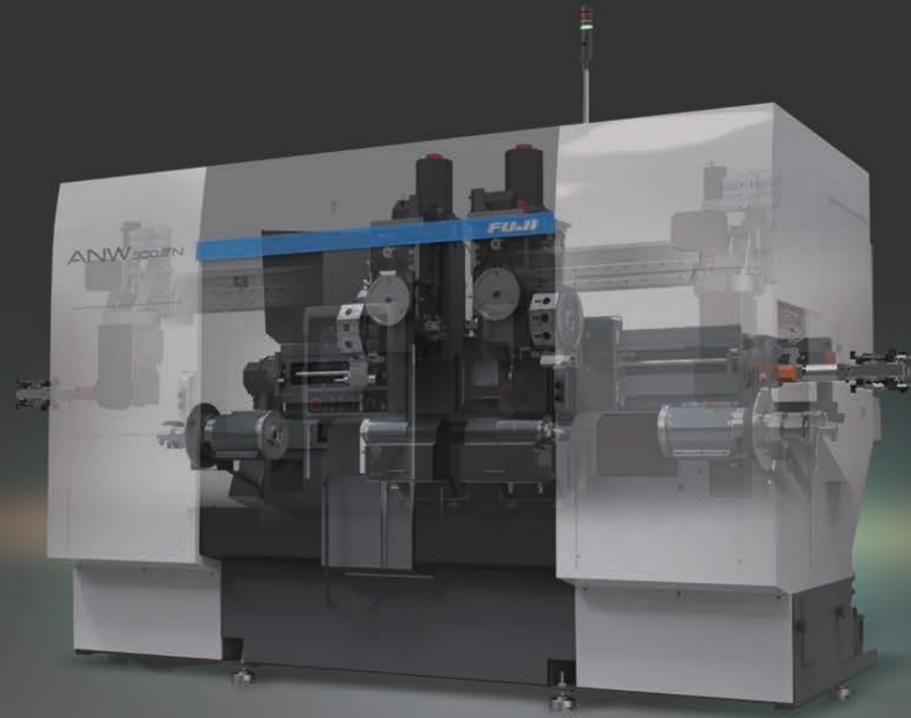




# ANW III SERIES

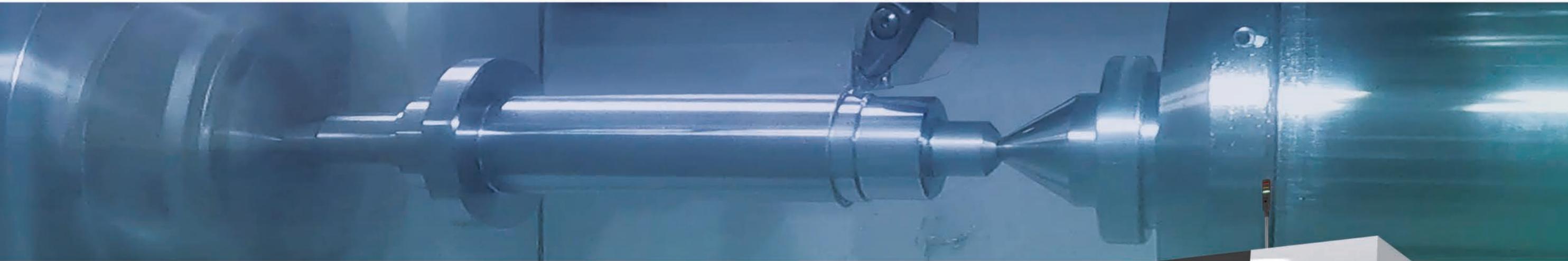




## ANW III SERIES

Flexible Machining Operations on one machine with built in Fuji Robot Automation.

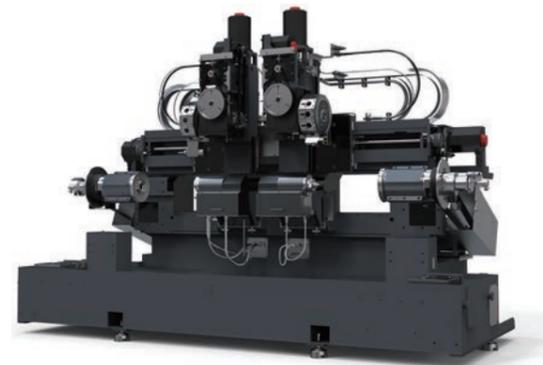
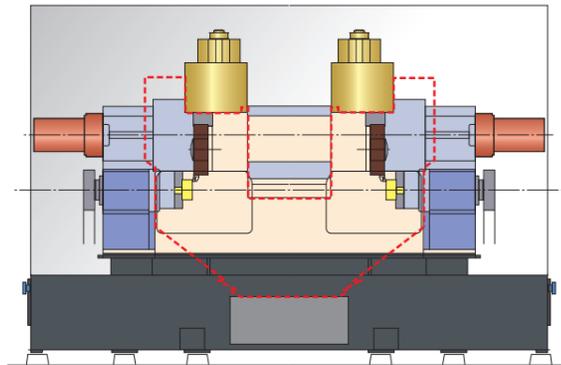
Fully Automated Machine with High Accuracy for Front and Back Machining or Multiple Machining Operations. Further evolution of Fuji's original multi-functional cell with improved efficiency and working environment.



### High level of rigidity that achieves high accuracy

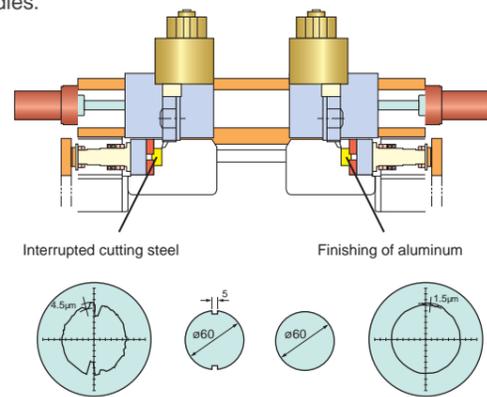
#### Vertical bed for effective chip disposal

The ANW III series features a vertical column with the cutting point directly above the chip disposal chute at the bottom of the cutting area. Combined with Fuji's hinge-type chip conveyor (standard equipment) chips are cleared quickly and thoroughly from the cutting area.



#### Rough and finish cutting

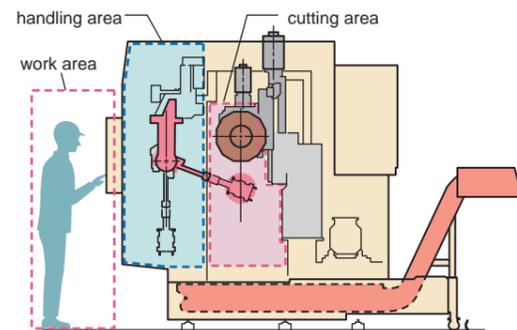
Dual opposed spindles are mounted on the rock-solid column designed through CAE structural analysis. Light and heavy machining is possible simultaneously on both spindles.



	Interrupted cutting steel	Finishing of aluminum
Spindle speed	min <sup>-1</sup> 825	1,100
Feed	mm / rev 0.1	0.03
Depth of cut	mm / side 2	0.1
Insert material	Cermet	Diamond compax Aluminum

#### Safe and clean environment with dual covers

Dual covers separate the robot parts transport and machining areas to minimize chip, coolant and noise outside of the machine.



#### Tail stock

The built-in type tailstock is suitable for heavy machining. The tailstocks can be equipped at both sides on the ANW III machines.



Type	Built-in center MT.4
Quill stroke	130 [mm]( 5.1 [inch] )

#### Machining ability

### ANW300 III N

Max. Grooving width : 13 mm

Max. O.D. cutting stock : 9 mm

(Grooving and cutting conditions)		(Outer diameter and cutting conditions)	
Spindle speed	min <sup>-1</sup> 580	Spindle speed	min <sup>-1</sup> 1191
Feed	mm / rev 0.1	Feed	mm / rev 0.3
Material	S45C	Material	S45C

※This above-mentioned data is actual values, but not a performance guarantee.

### Advanced operability

#### FANUC 0i-TF Plus

Enhanced productivity with version up NC. Improved program process speeds up to 57% results in faster parts cycle times.

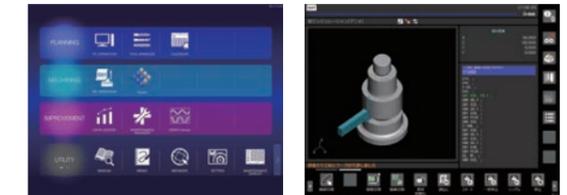
	0i-TD	0i-TF Plus
Program memory	512K byte	2M byte
Program quantity	400	1000
Tool offset quantity	64	128



15 inch monitor

#### iHMI standard feature

Interactive programming enhances productivity and supports flexible parts production. Understanding the operation by simulation in advance reduces reworking during actual machining.



#### Comparison of setup work time

	NC program	Machining adjustment	Total
HMI	2	2	4
iHMI	0.25	0.5	0.75

Note: Based on Fuji's proven results

**Drastically reduces the work setup and programming time**

#### Fuji designed operation panel and HMI that promotes ease of use for the machine operator

New Control Panel and Design improves operator efficiency. Intuitive operation with integrated status lamp and button. Multi language system : 7 available languages.

#### Screen for tools



Displaying counters and wear offsets in the same screen makes it possible to input offsets while checking the count-up values during operation.

#### Alarm message screen



Quick recovery for the machine is supported just by the screen display without checking instruction manuals because operation navigation is guided when an error occurs.

#### Digital type seating screen

\*option



The digital type seating screen can be selected in addition to the conventional type. Threshold values can be specified on the screen by using the digital type, and the attachment position of seating sensors can be flexible, leading to improvements in responsiveness.

#### SLM

\*option



Abnormal loads due to tool damage during machining can be detected. It is possible to specify threshold values by referring to the maximum load and average load based on each cutting path instance displayed on the screen.

### A Fuji robot that can handle heavy workpieces is equipped as standard

#### Fuji Swing Arm Robot with FANUC Control

The 4-axis control swing-arm robot can access the peripheral devices at the front, back, left, and right of the machine, minimizing the distance between machines.



#### Compact teach pendant

The conventional robot teach pendant and manual pulse generator are integrated into one, and the main machine and robot can be easily operated by changing the screen on the pendant. Ease of use and operation is further improved by graphical user interface and compact design that fits in one hand.



#### Automatic point display function

It is possible to reduce the time taken to search for points in the program by searching for points that are being used from the program and displaying these points in the screen.



#### Robot operation setting function

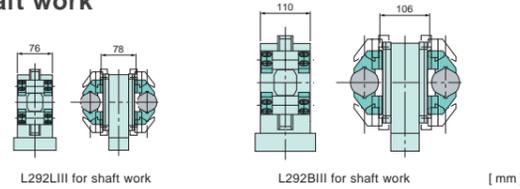
Standard operation of the robots - loading from the entrance unit to the main machine, and unloading to the exit unit - can now be changed easily by selecting buttons on the operation panel. In addition, it is also possible to support a wide range of variations, such as when setting the unloading destination when a chute is installed as optional specifications and when quality checks are performed while leaving a workpiece in the machine.



#### Robot chuck

Interchangeable robot hands permit both chuck work and shaft work to be processed with FUJI's flexible workpiece handling system.

##### Shaft work

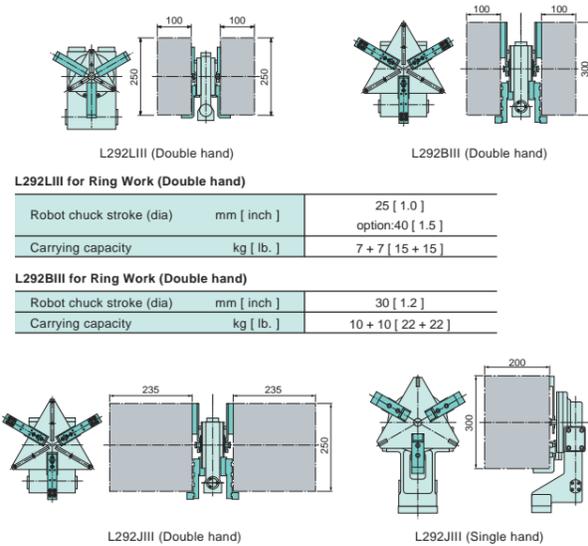


L292LIII for shaft work		
Robot chuck stroke (dia)	mm [inch]	28 [1.1]
Carrying capacity	kg [lb.]	7 + 7 [15 + 15]

L292BIII for shaft work		
Robot chuck stroke (dia)	mm [inch]	50 [2.0]
Carrying capacity	kg [lb.]	10 + 10 [22 + 22]

##### Chuck work



L292LIII for Ring Work (Double hand)		
Robot chuck stroke (dia)	mm [inch]	25 [1.0] option:40 [1.5]
Carrying capacity	kg [lb.]	7 + 7 [15 + 15]

L292BIII for Ring Work (Double hand)		
Robot chuck stroke (dia)	mm [inch]	30 [1.2]
Carrying capacity	kg [lb.]	10 + 10 [22 + 22]

L292JIII for Ring Work (Double hand)		
Robot chuck stroke (dia)	mm [inch]	30 [1.2]
Carrying capacity	kg [lb.]	15 + 15 [33 + 33]

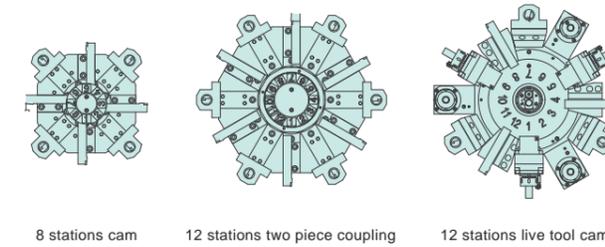
  

L292JIII for Ring Work (Single hand)		
Robot chuck stroke (dia)	mm [inch]	50 [2.0]
Carrying capacity	kg [lb.]	30 [66]

### Selectable turrets

#### 8 station cam turret / 12 station two piece coupling turret

Turrets can be selected according to the type of machining.



8 stations cam      12 stations two piece coupling      12 stations live tool cam

### Live tool specifications

Live tools can also be supported.



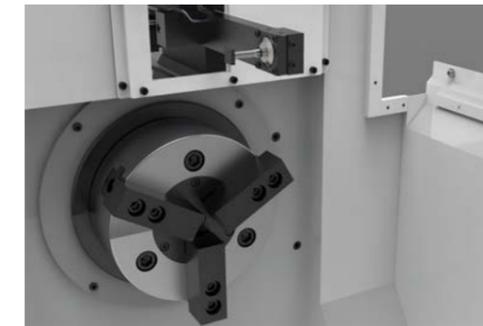
Specifications	
Max. clamping tool dia.	φ20 [mm]
Number of station	12 [position]
Spindle speed	Max. 4000 [min <sup>-1</sup> ]
Spindle motor	4.5kw [6.0HP]

Performance (Drill / Tapping)		
	Drill	Tapping
Max. Cut dia (φ)	φ20 [mm]	M16 x 2.0 [mm]
Spindle speed	65 [m / min]	10 [m / min]
Cutting speed	1035 [min <sup>-1</sup> ]	199 [min <sup>-1</sup> ]
Cutting feed	0.22 [mm / rev]	398 [mm / min]

### Variety of options resulting in increased productivity

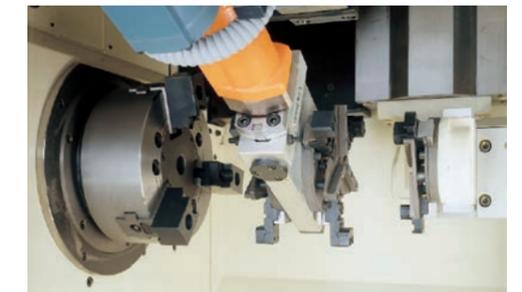
#### Tool detector

This single unit performs three tasks : automatic tool compensation, broken tool detection and tool setting. An air blow off is provided near the sensor to prevent inaccuracies due to cutting chips and coolant.



#### Auxiliary loader

The auxiliary loader, which is mounted on the Z-axis slide, automatically removes the machined workpiece from the chuck so that the robot can load a new workpiece to the chuck and pick up the machined workpiece from the auxiliary loader.

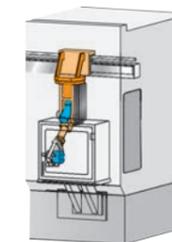


### Various optional devices

Flexible machine configuration with various optional devices. With the use of various optional devices highly productive fully automated lines are developed.

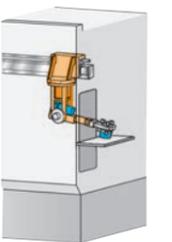
#### Front-mounted devices:

- Measurement device
- Quality check drawer
- Reject chute
- Orientation device



#### Side-mounted devices:

- Work stocker
- Out chute
- Out conveyor
- Measurement device
- Work shifter
- Work nest

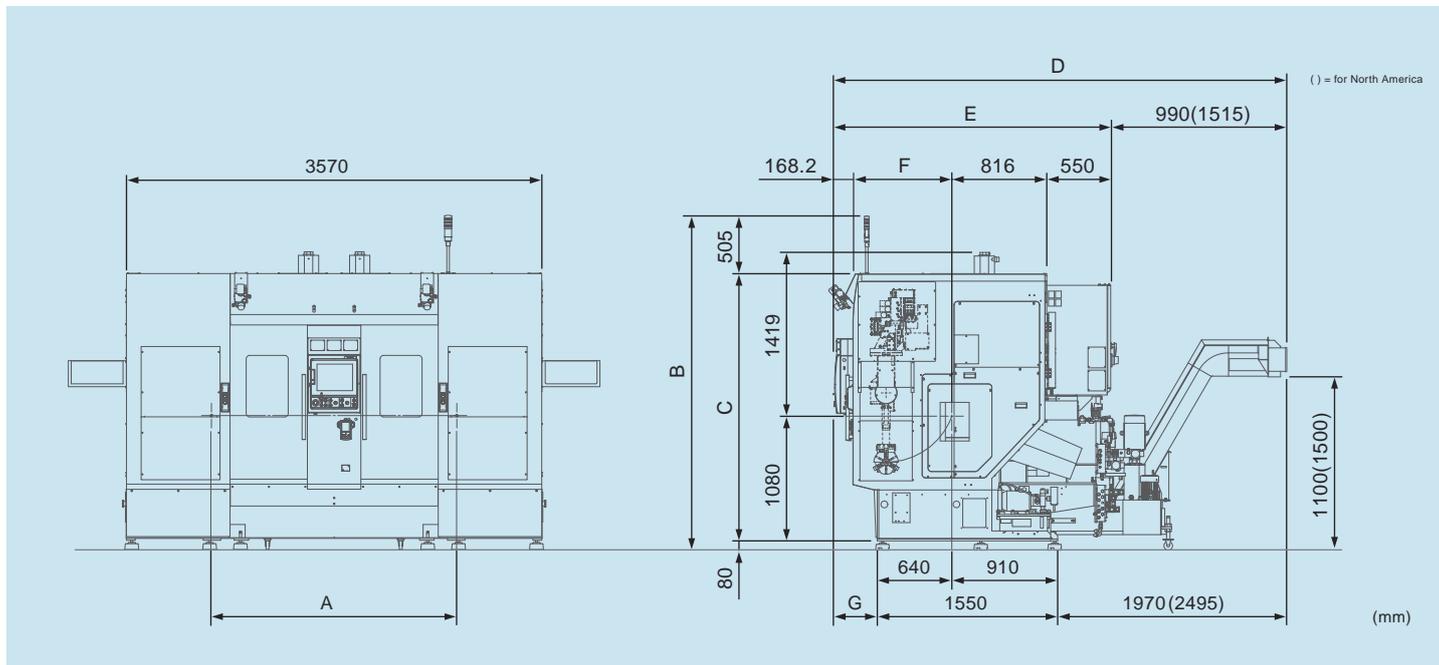


## Specifications

Machine specifications		ANW300III		ANW400III		ANW400IIH	
Spindle dia	mm [ inch ]	φ100 [ φ3.9 ]		φ120 [ φ4.7 ]		φ120 [ φ4.7 ]	
Spindle nose		A2-6		A2-8		A2-8	
Spindle bore	mm [ inch ]	φ56 [ φ2.2 ]		φ67 [ φ2.6 ]		φ67 [ φ2.6 ]	
Spindle speed	min <sup>-1</sup>	MAX 3500		MAX 3000		MAX 3000	
Spindle motor	kw [ hp ]	15 / 18 [ 20 / 25 ]		15 / 18 [ 20 / 25 ]		18.5 / 22 [ 25 / 30 ]	
Number of tool stations		8O	12 ☆ 12 O※	8O	12 ☆ 12 O※	12 ☆ 12 O※	
Chuck size	inch	8~10		10~12		10~12	
CNC control		FANUC Oi-TF Plus		FANUC Oi-TF Plus		FANUC Oi-TF Plus	
Slide stroke	X-axis	270 [ 10.6 ]		270 [ 10.6 ]		270 [ 10.6 ]	
	Z-axis	455 [ 17.9 ]	455 [ 17.9 ] 385 [ 15.2 ] ※	455 [ 17.9 ]	455 [ 17.9 ] 385 [ 15.2 ] ※	455 [ 17.9 ] 385 [ 15.2 ] ※	
Servo motor	X-axis	4 [ 5.4 ]		4 [ 5.4 ]		4 [ 5.4 ]	
	Z-axis	4 [ 5.4 ]		4 [ 5.4 ]		4 [ 5.4 ]	
<b>Robot Specifications</b>							
Robot		292L III	292B III	292L III	292B III	292B III	292J III
Carrying capacity size	mm [ inch ]	φ250 x 100 [ φ9.8 x 3.9 ]	φ300 x 100 [ φ11.8 x 3.9 ]	φ250 x 100 [ φ9.8 x 3.9 ]	φ300 x 100 [ φ11.8 x 3.9 ]	φ300 x 100 [ φ11.8 x 3.9 ]	φ300 x 115 [ φ11.8 x 4.5 ]
Carrying capacity weight	kg [ lb. ]	7 + 7 [ 15 + 15 ]	10 + 10 [ 22 + 22 ]	7 + 7 [ 15 + 15 ]	10 + 10 [ 22 + 22 ]	10 + 10 [ 22 + 22 ]	15 + 15 [ 33 + 33 ]
Robot controller		FANUC		FANUC		FANUC	
<b>Machine size</b>							
Footprint	mm x mm [ feet,inch x feet, inch ]	3570 x 2235 [ 11'9" x 7'4" ]	3570 x 2385 [ 11'9" x 8'0" ]	3570 x 2235 [ 11'9" x 7'4" ]	3570 x 2385 [ 11'9" x 8'0" ]	3570 x 2385 [ 11'9" x 8'0" ]	3570 x 2570 [ 11'9" x 8'5" ]
Height	mm [ feet,inch ]	2895 [ 9'6" ]		2895 [ 9'6" ]		2895 [ 9'6" ]	
Weight	kg [ lb. ]	10000 [ 22046 ]		10000 [ 22046 ]		10000 [ 22046 ]	
With Tailstock							
Max. work length	mm [ inch ]	315 [ 12.4 ]		300 [ 11.8 ]		300 [ 11.8 ]	
Center built-in type		MT.4		MT.4		MT.4	
Quill stroke	mm [ inch ]	130 [ 5.1 ]		130 [ 5.1 ]		130 [ 5.1 ]	
Quill dia	mm [ inch ]	φ100 [ φ3.9 ]		φ100 [ φ3.9 ]		φ100 [ φ3.9 ]	

※ Live tool spec  
O Cam  
☆ Two piece coupling

## Machine Overview



Model	Robot	A	B	C	D	E	F	G
ANW300 III	292L III	2110	2895	2390	3749 (4274)	2235	700	229
ANW400 III	292L III	2080	2895	2390	3749 (4274)	2235	700	229
ANW300 III	292B III	2110	2895	2390	3899 (4424)	2385	850	379
ANW400 III	292B III	2080	2895	2390	3899 (4424)	2385	850	379
ANW400 III	292J III	2080	3000	2495	4084 (4609)	2570	1035	564

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■ Specifications are subject to change without notice.  
■ The photos include options.  
■ The mentioned data on this catalog is actual value, but not a performance guarantee.

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