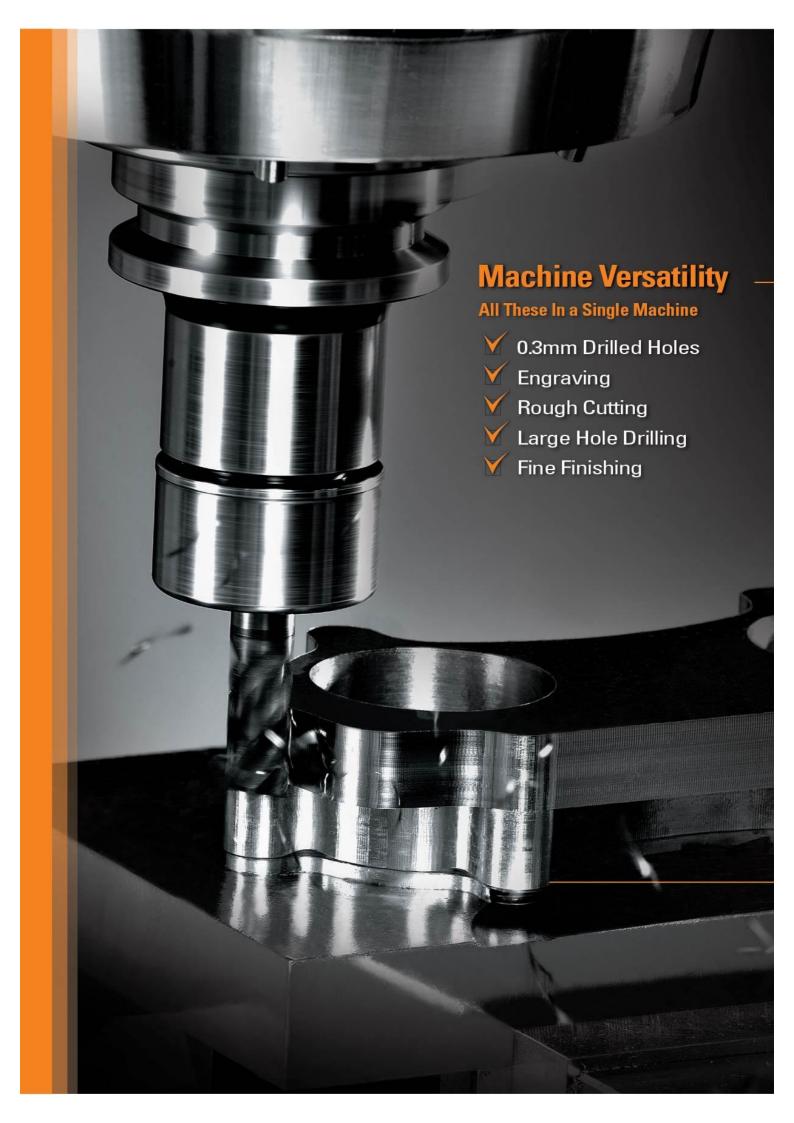
www.maximart.com.tw

Rapido

Excellence series

HIGH SPEED Machining Centers





High Precision Machining

Powerful Rough Cutting

> Maximart High Speed VMC Versatility

The extreme rigidity and precision of assembly in the Maximart Rapido excellence machines, coupled with the positional accuracy of the C3 ball screws allows you to easily perform the finest drilling operations and also the hardest rough cutting, with maximum efficiency.

> Fine Drilling

Excellent Spindle Stability

With the extreme precision and stability of the Maximart Rapido excellence spindle, even the drilling of multiple fine holes down to 0.3mm diameter and smaller is no issue.

> Large Hole Drilling

Reduce Machining Times

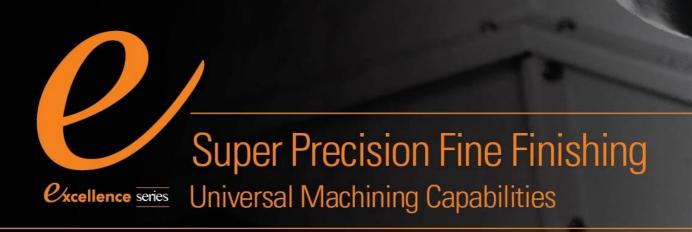
The rigidity and power of the machine and spindle allows for Rapido excellence deep drilling of large diameter holes to shorten cycle times.

> Engraving

Reduce Machining Times

From heavy cutting to engraving, the Rapido excellence VMC can handle all aspects of the cutting cycle with ease.





> 3 Axis Simultaneous

Complex Contour Machining

With complex 3D geometry components simultaneous 3 axis machining is the real test of the assembled machine's quality. The smooth positioning and rigidity of each axis in the Rapido excellence machines delivers excellent surface finish and also surface precision.

> Block Metal → Finished Part

Single Set Up - Avoid Additional Processing

This is key for this type of component as this allows you to take it from block metal to finished component in a single step for maximum accuracy. The high quality C3 ball screws and linear guideways on this series of machines deliver the positioning accuracy you can rely on every time.

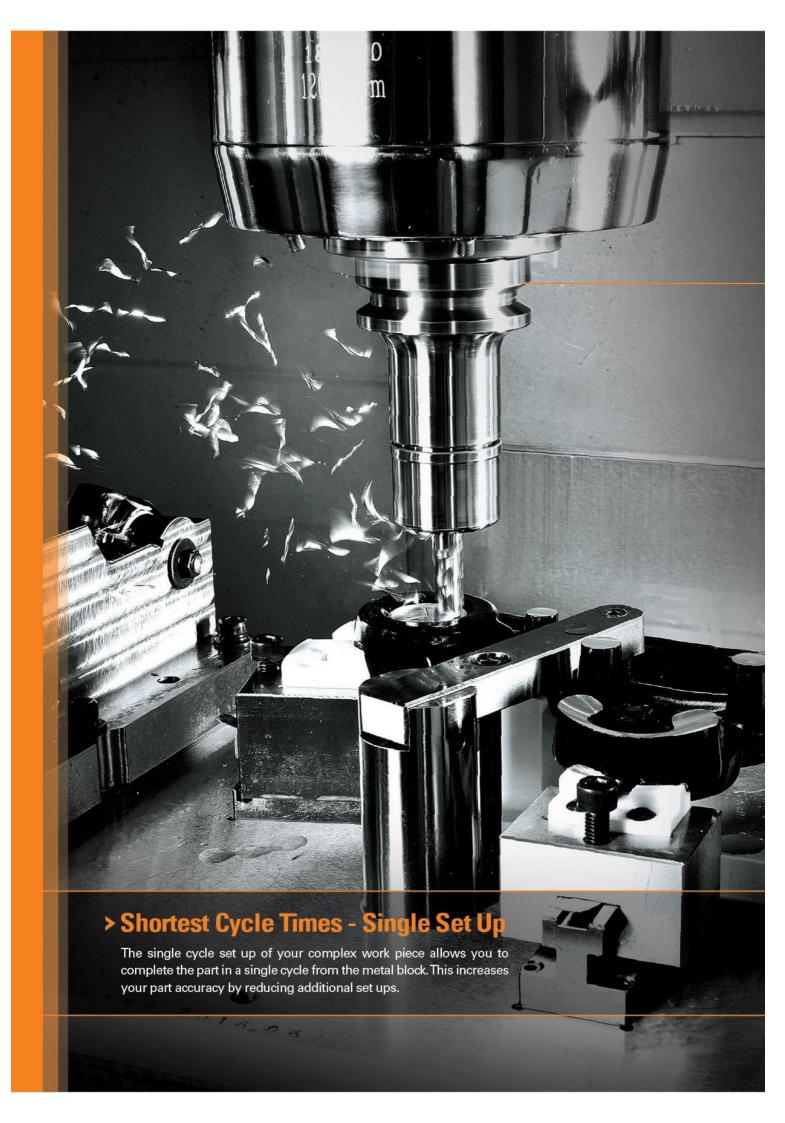
> Material Removal

High Removal Rates

The power of the spindle couples with the machines rigidity allow for high material removal rates through increased cut depth and infeed. For block metal cutting this is key to reducing the length of time for the initial rough cut, saving on your overall cycle time.









> Total Process Service

Our expertise at Maximart is in telling you the most efficient way to hold and cut your workpiece. Through a detailed workpiece analysis, we can determine the very best solution that will reduce your process steps and minimize your cycle times.

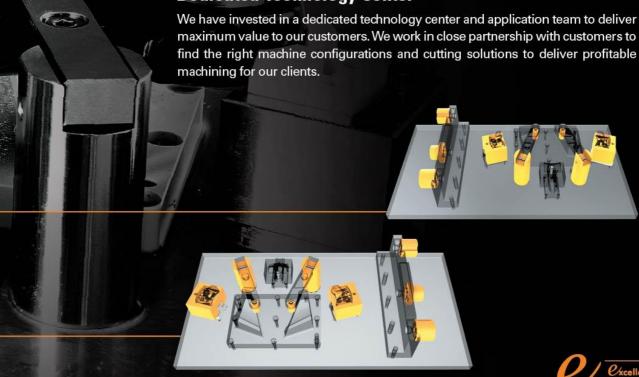
> Reduced Process Steps

The addition of the Jig design for this workpiece has reduced the process steps from 4 to 2. This is key in high volume components as the step reduction allows you to maximize workpiece quality whilst also minimizing cycle time.

Smart Machining Accessories

For this component we have added a 4th axis to the machine that allows the customer to machine more complex geometries in a single set up.

Application Expertise Dedicated Technology Center





Maximart Technology Center

Illence series Investing In Quality







We have accumulated enormous application experience over the years and our machining experts can rapidly understand and design the perfect machining set up for your product.

Our technology center provides a range of services for our customers including

- Workpiece & Cycle Analysis
- Clamping & Jig Design
- Application Design

- Test Production Machining
- Small Batch Test Production



Machine Assembly & Testing

All of the Rapido machines are assembled by our skilled technicians in our temperature controlled production facility. We follow rigorous inspection and testing procedures to ensure that each component and also the final, assembled machine will delight customers with exceptional performance.

> Machining Test

As a part of our standard service for all customers, we perform a series of rigorous machining tests on each machine before it is packaged for shipping. The results of each machines performance along with the workpiece are labelled and stored for reference. Customers with special requirements may also perform additional proof of concept machining within the technology center before shipping.



Excellence Series

High Speed / High Rigidity

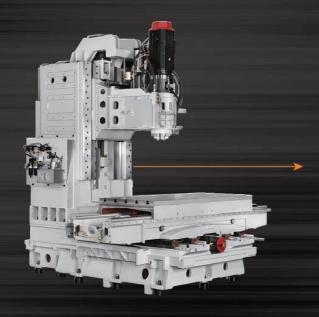


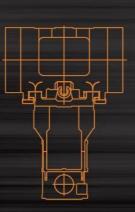


additional span of 2 auxiliary linear guideways between, that allows this machine to handle heavy loading and maintain outstanding stability.



> Dual-side Opening Machine Guard (Optional)







> Oil Air Spindle

The oil air combination lubrication for this system extends the service life of the spindle.

> Direct Coupled Transmission

The motor and gearbox in this model of Rapido machine are directly coupled to ensure a smooth and stable gear shifting process.

> Hydraulic Gear Shift

Constant, stable hydraulic power enables smooth and stable gear shifting for the machine.

> High precision Gears

The gears in this machine are manufactured from Chrome-Molybdenum Alloy steel (SCM415) and are treated to a hardness of HRC55 for superior wear resistance.



> e/-1300G5



>2 Speed Gearbox

The high torque gearbox on this model delivers High Speed 1:1, Low Speed 1:4 Ratios that are perfect for heavy cutting on larger work pieces.

> FEA Analyzed Structure

Optimum Performance & Rigidity





> Easy Loading

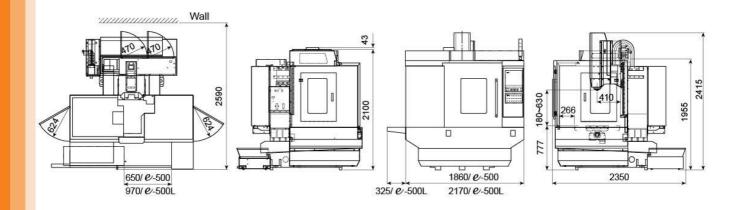
- Hydraulic top Guard for Easy Access Loading & Unloading
- Sealed Working Area for Clean Working Environment

Machine Overall Dimensions

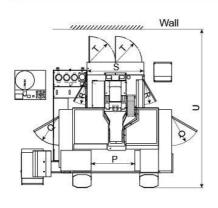
e-500, e-500L

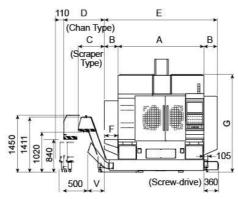
unit: mm

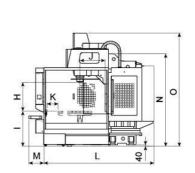
unit: mm



e/-850, *e*/-1000, *e*/-1100, *e*/-1300





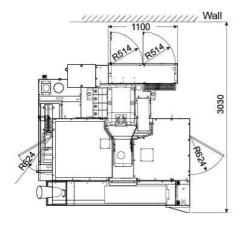


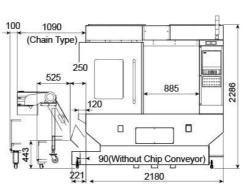
ITEM	A	В	C	D	E	F	G	Н	1	J	K
MODEL										Î	
<i>e</i> -850	2180	135	781	975	2450	325	2374	130~740	890	585	260~780
<i>e</i> -1000	2180	300	616	975	2780	325	2374	130~740	890	585	260~780
<i>e</i> -1100	2180	345	651	1035	2870	325	2374	120~730	900	630	200~810
e/-1300	2180	530	687	982	3240	325	2374	120~730	900	630	200~810

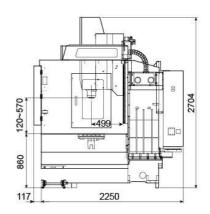
ITEM	L	M	N	0	P	Q	R	S	T	U	V
MODEL											
<i>e</i> /-850	2900	380	2352	2890	1080	624	R645	1450	R675	4000	625
<i>e</i> -1000	2900	380	2352	2890	1080	624	R645	1450	R675	4000	460
<i>e</i> -1100	2965	380	2352	2890	1080	744	R645	1450	R675	4050	425
<i>e</i> -1300	2965	380	2352	2890	1080	744	R645	1450	R675	4050	240

e/-600, *e*/-750

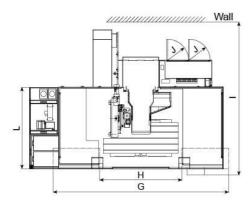
unit: mm

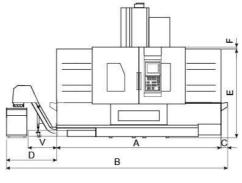


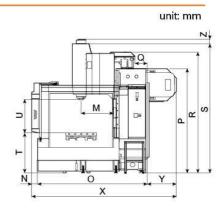




e/-1800







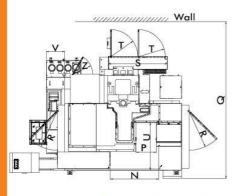
ITEM	A	В	C	D	E	F	G	Н	I	J	L	M
MODEL												
40#-24/32T 50#-24T	4400	5925	178	1350	2370	50	4690	2200	3810	574	2180	860
50#-32T	4400	5925	178	1350	2370	50	4690	2200	3810	574	2180	860
50#-40T	4400	5925	178	1350	2370	50	4690	2200	4090	574	2180	860

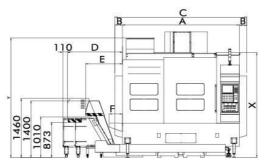
ITEM	N	0	P	Q	R	S	T	U	V	X	Y	Z
MODEL												
40#-24/32T 50#-24T	152	2935	2795	330	3235	3455	1072	900	775			130
50#-32T	152	2935	2795	330	3235	3455	1072	900	775	3370	280	130
50#-40T	152	2935	2795	330	3235	3455	1072	900	775	3875	785	130

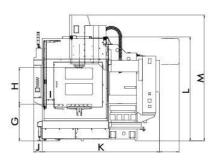
Machine Overall Dimensions

e-1300G5

unit: mm



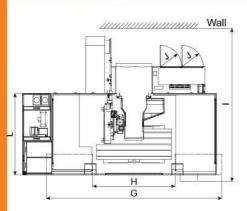


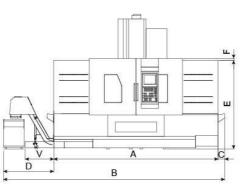


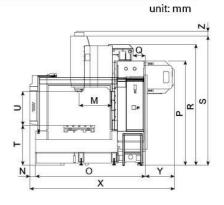
ITEM	A	В	C	D	E	F	G	Н		J	K	L
MODEL												
<i>e</i> -1300G5	2880	185	3250	1360	910	325	900	200-900	190-800	210	2890	2570

ITEM	M	N	P	Q	R	S	T	U	V	X	Y	Z
MODEL												
€-1300G5	3100	1200	500	3870	R1200	1450	R675	1170	455	2590	2955	R500

e-1800G5







ITEM	A	В	C	D	E	F	G	Н		J	L	M
MODEL												
50#-24T	4400	5925	178	1350	2370	50	4690	2200	3810	574	2180	860
50#-32T	4400	5925	178	1350	2370	50	4690	2200	3810	574	2180	860
50#-40T	4400	5925	178	1350	2370	50	4690	2200	4090	574	2180	860

ITEM	N	0	P	Q	R	S	T	U	V	X	Y	Z
MODEL												
50#-24T	152	2935	2795	330	3235	3455	1072	900	775		10000	130
50#-32T	152	2935	2795	330	3235	3455	1072	900	775	3370	280	130
50#-40T	152	2935	2795	330	3235	3455	1072	900	775	3875	785	130

ITEM / MODEL	<i>e-</i> 1300G5	€⁄-1800G5
WORK TABLE		
Table Size	1400 x 610 (mm)	2000 x 820 (mm)
T-slot	18 x 5 x 100 (mm)	22 x 5 x 160 (mm)
Max. table load	900kgs	2200kg
MOVEMENT & RANGE		1 ¹
X.Y.Z axis travel	1300 x 610 x 700(mm)	1800 x 800 x 700(mm)
Positioning accuracy	0.003 mm / 300(mm)	0.003mm / 300(mm)
X.Y.Z. axis repeatability	±0.003 mm	±0.003mm
3 axes ball screws	X/Y: Ø40mm / C3 Z: Ø45mm / C3	X/Y/Z: Ø50mm / C3
V.V.	X: 45mm x 6 pcs self-lube type block	X: 55mm x 6 pcs self-lube type block
X.Y axes RollerType Linear Ways	Y: 45mm x 6 pcs self-lube type block	Y: 55mm x 6 pcs self-lube type block Y:Supporting slide 45mm x 4 pcs self-lube type block
Zaxis	Embraced Z axis boxway	Embraced Z axis boxway
3 axes transmission	Direct drive	Direct drive
SPINDLE		
Spindle nose taper	BT#50	BT#50
Spindle speed	Gear drive 6000rpm	Gear drive 6000rpm
Spindle diameter	Ø90mm	Ø100mm
Distance from spindle nose to table	200-900mm	200-900mm (opt. 200-1200mm)
Distance from spindle center to column	628mm	860mm
FEED	Î	
Cutting feed rate (mm/min.)	1-12000mm/min	1-12000mm/min
Rapid traverse rate (mm/min)	X/Y=32M/min Z=20M/min	X/Y=24M/min, Z=16M/min
3 axes linear scale	opt., absolute 0.1µ resolution	opt., absolute type 0.1µ resolution
AUTO TOOL CHANGER		
Tool storage capacity	Arm type 24 tools opt. 30,40 tools	Arm type 24 tools opt. 32,40 tools
Max. tool diameter	Ø105mm(Ø127mm)	Ø105mm(Ø127mm)
Tool selection	Bi-direction random shortest path	Bi-direction random shortest path
Max. tool weight	15kgs/pc	15kgs/pc
Max. tool length	300mm	350mm
GENERAL INFORMATION		
Coolant motor	50Hz, 0.85kw, 2kg/cm ²	50Hz, 0.85kw, 2kg/cm ²
Coolant motor	60Hz, 1.27kw, 3kg/cm ²	60Hz, 1.27kw, 3kg/cm ²
Coolant tank capacity	300 Liters.	350 Liters.
Chip conveyor motor	0.18kw x 2 0.37kw x 1	0.18kw x 2 0.37kw x 1
air pressure required	6kg/cm ²	6kg/cm ²
Power consumption	35 KVA	45 KVA
Machine weight	10000kgs	16800kgs

[•] Above specifications are subject to change without prior notice.

Standard Accessories

- Full enclosure machine guard.
- Spindle cooling unit.
- · Automatic lubrication system.
- Arm type BT#50, 24 tools ATC.
- Spindle mose coolant jet flushing.
- Spindle side air blow nozzle & coolant nozzle.
- Spindle air curtain.
- Coolant gun & air gun.
- · Machine window with safety glasses.
- Rigid tapping (two times tool retract).
- · Auto power off.
- 3-colors warning lamp.
- Tool & tool box.
- · Leveling bolts & pads.
- Fluorescent work lamp (2 sets)
- Ethernet port
- Front side chain type chip conveyor

Optional Accessories

- Chip cart.
- Arm type BT#50, 30 or 40 tools ATC (sports field type) for e-1300G5
- Arm type BT#50, 32 or 40 tools ATC (sports field type) for e-1800G5
- Tool length measurement system (BLUM).
- Heidenhain absolute type linear seals on 3 axes with airblow protection.
- Wiring & connectors preparation for 4th axis (with servo motor).
- 4th axis CNC rotary table with tailstock.
- Oil mist coolant system.
- Oil mist filtering & recycle system.
- Coolant through spindle (8 or 22 bar).
- Coolant / oil skimmer.
- Transformer.



ITEM / MODEL	e -500	e/-500L	<i>e</i> /-600	e-750			
WORK TABLE							
Table Size	650 x 400 (mm)	850 x 400 (mm)	750 x 420 (mm)	850 x 420 (mm)			
T-slot	14 x 3 x 1	125 (mm)	14 x 5 x	65 (mm)			
Table Load Capacity	200kg	300kg	400kg	450kg			
MOVEMENT & RANGE	· · · · · · · · · · · · · · · · · · ·			d. oter			
X.Y.Z AxisTravel (mm)	500 x 400 x 450	700 x 400 x 450	600 x 420 x 450	750 x 420 x 450			
Positioning Accuracy	0.003mm	/ 300mm	0.003mn	n / 300mm			
Repetition X.Y.Z. Axis	±0.00	3mm	±0.00	03mm			
3 Axes Ballscrew	X/Y/Z: Ø2	5mm / C3	X/Y: Ø32mm / C	3, Z: Ø40mm / C3			
3 Axes Precision –	X: 25mm x 4 pcs s	elf-lube type block	X: 30mm x 4 pcs	self-lube type block			
Linear Guideway =	Y: 30mm x 4 pcs s	elf-lube type block	Y: 35mm x 4 pcs s	self-lube type block			
Elliear Guideway =	Z: 30mm x 6 pcs s	elf-lube type block		self-lube type block			
3 Axes Transmission		drive		t drive			
SPINDLE							
Spindle Taper	BT#	¥30	BT#40 / CA	T#40 / DIN#40			
Spindle Speed	60-12000rpm(c	pt. 20000rpm)	60-10000rpm (op	t. 12000/15000rpm)			
Spindle Cooling Unit		dard		ndard			
Spindle Transmission	Direct	Drive	Direct Drive				
Spindle Diameter	Ø40	mm	Ø60)mm			
Spindle Nose to Work Table	180-63	30mm	120-5	70mm			
Spindle Center to Column	410	mm	450	mm			
FEEDS							
Feed Rate (mm/min)	1-12000	mm/min	1-12000	mm/min			
RapidTraverse (m/min)		8M/min		32M/min			
3 Axes Optical Linear Scale		ailable		pe 0.1µ resolution			
A.T.C.	Hotav	aliable	pay associate ty	po 011 µ 1 000 1 4 1 0 1 1			
Tool Storage Capacity	ArmType	e 20 Tools	Armless ty	/pe 16 tools pe 20/30 tools			
Max.Tool Diameter	Ø76	mm	Ø100mm(Armless typ				
Tool Selection	Bi-direction rande	om shortest path		lom shortest path			
Max.ToolWeight	Max 4			s/pc			
Max.Tool Length	200)mm			
GENERAL INFORMATION							
Coolant Motor	50Hz, 0.65 kV 60Hz, 0.96 k		50 Hz, 0.65 kW, 1.3 kg/cm² 60 Hz, 0.96 kW, 2 kg/cm²				
Coolant Tank Capacity		iters.	300 Liters.				
Chip Conveyor Motor		(opt. 0.2kw) 0.2kw					
Air Pressure Required		/cm²	6kg/cm ²				
Power Consumption		KVA	15 KVA				
Machine Weight	3000kgs	3150kgs	4500kgs	4700kgs			

Above specifications are subject to change without prior notice.

Standard Accessories

- Full enclosure machine guard.
- Spindle nose coolant jet flushing.
- Spindle side air blow nozzle & coolant nozzle.
- Spindle air blast before tool-changing.
- Spindle all-time air curtain.
- Spindle cooling system (2000BTU) for e-500 / 500L.
- Spindle cooling system (4000BTU) for e-600 / 750 / 850 / 1000 / 1100 / 1300.
- Spindle cooling system (8000BUT) for e-1800.
- 3 axes precision ballscrews C3 grade.
- 3 axes linear guideway with self-lube device.
- e-1800X/Y linear quideway with self lube device. Z axis Boxway.
- Z axis brake motor.
- Automatic central lubrication system with alarm.
- Z axis auto ascend when power failure (with Fanuc CNC and MITSUBISHI CNC).
- Arm-type 20 tools ATC tool change device (For ex-500 / 500L).

- Armless 16 tools ATC (inverter drive) (For e-600 / 750).
- Armless 20 tools ATC (inverter drive) (For e-850 / 1000 / 1100 / 1300).
- Arm-type 24 tools ATC (e-1800 only).
- Single side screw-drive chip conveyor, at machine frontside (except e-500 / 500L).
- Frontside chain type chip conveyor (e-1800 only).
- Air gun & coolant gun.
- Machine window with safety glasses.
- \bullet Fluorescent worklamp (1 sets) (For e-500 / 500L / 600 / 750).
- Fluorescent worklamp (2 sets) (For e-850 / 1100 / 1300 / 1800).
- Leveling pads & bolts.
- Operation/Parts manuals.
- Tools & tool box.
- Rigid tapping.
- Auto power off.
- 3-colors warning lamp.

<i>e/-</i> 850	<i>e</i> /-1000	<i>e</i> -1100	<i>e-</i> 1300	0.1	1800		
Ø-030	Ø-1000	Ø-1100	€⁄-1300	<i>O</i> -	1000		
1000 520 /	1100 x 520 (mm)	1050 010 /	1400 x 610 (mm)	2000 0	20 (mm)		
1000 x 520 (mm)	100 x 520 (mm)	1250 x 610 (mm)	100 (mm)		160 (mm)		
700			Okg		160 (mm) 10kg		
700	жg	900	ukg	220	lokg		
850 x 520 x 610	1000 x 520 x 610	1100 x 610 x 610(out Y=710mm)	1300 x 610 x 610(opt.Y=710mm)	1800 x 8	00 x 700		
	1/300 mm	0.003 mm			/ 300mm		
	3 mm		3 mm)3mm		
	10mm / C3		10mm / C3		210mm / C3		
	self-lube type block		self-lube type block		self-lube type block		
	self-lube type block		self-lube type block	Y: 55mm x 6 pcs s	No. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10		
	self-lube type block		self-lube type block		x 4 pcs self-lube type block		
	t drive		t drive		drive		
BT#40 / CAT	Γ#40/ DIN#40	BT#40 / CA	T#40/ DIN#40	BT#40	BT#50		
60-10000rpm (opt	. 12000/15000rpm)	60-10000rpm (opt	. 12000/15000rpm)	Belt-drive 60-10000rpm	Belt-drive 60-6000rpm		
Stan	dard	Star	ndard	Stand	dard		
Direct	Drive	Direc	t Drive	opt. Direct Drive 12000-15000rpm	opt. Direct Drive 10000-12000rpm		
Ø70)mm	Ø70	Omm	Ø70mm	Ø100mm (opt. Ø90mm)		
130-74	40mm	120-7	30mm	200-9	00mm		
585	imm		Omm		mm		
1-12000	mm/min	1-12000	mm/min	1-12000	mm/min		
	32M/min	X/Y/Z=3			n, Z=16M/min		
opt., absolute tyr	oe 0.1µ resolution	opt., absolute	0.1µ resolution		pe 0.1µ resolution		
				ser, absolute typ	o on procordion		
Armless ty	pe 20 tools 20/30/48/60 tools		/pe 20 tools 20/30/48/60 tools	Arm type 24 tools opt., Arm type 40 tools	Arm type 24 tools opt., Arm type 32 tools		
	e) / Ø76mm (Arm type)	Ø100(Armless type)	/ Ø76mm(Arm type)	Ø90mm(Ø75mm)	Ø105mm (Ø127mm)		
Bi-direction rand	lom shortest path	Bi-direction rande	om shortest path	Bi-direction rand	om shortest path		
7kg	s/pc	7kg	s/pc	7kgs/pc	15kgs/pc		
300)mm		mm	350	mm		
50Hz, 0.85k 60Hz, 1.27k	w, 2kg/cm² kw, 3kg/cm²		kw, 2kg/cm² kw, 3kg/cm²	50Hz, 0.85k	kw, 2kg/cm²		
	iters.	420 Liters.		350 Liters.			
0.2 kw x 2	0.2 kw x 2 / 0.4 kw x 1		2 0.4kw x 1	0.2kw x 2 0.4kw x 1			
	6kg/cm ²		g/cm²	6kg/cm²			
201	KVA	101	KVA	35 KVA	45 KVA		
7300kgs	7500kgs	8000kgs	8350kgs	1680	0kgs		

Optional Accessories

- CE / EMC conformity machine.
- Transformer to suit local power supply.
- Fanuc CNC 0i-Mate-MF AICC I / 8.4"TFT upgrade to 0i-MF AICC II/ 10.4"TFT with DATA SERVER + ETHERNET + JERK.
- HeidenhainTNC 620 / 15.1"TFT upgrade to iTNC 530 / 640 / 15.1"TFT
- e-850 / 1000 / 1100 / 1300 spindle 10000rpm upgrade to 12000 / 15000rpm with spindle cooling system.
- Arm-type 20 / 30 tools ATC with inverter tool change device for e-600 / 750.
- Arm-type 20 / 30 / 48 / 60 tools ATC with inverter tool change device for e-850 / 1000 / 1100 / 1300.
- "ZF" gearbox + oil cooling system for e-850 / 1000 / 1100 / 1300 / 1800 with belt-drive spindle.
- CTS 8bar or 22bar for e-850 / 1000 / 1100 / 1300 / 1800 (For Mitsubishi CNC only belt-drive spindle available).
- Wiring + connectors preparation for 4th axis (without driver without motor).

- 4th axis AC servo package complete (withwiring / connectors / driver / motor / PLC).
- 4th axis CNC rotary table with or without tailstock.
- Tool length / diameter measurement system.
- Workpiece measurement system.
- Single side chain type chip conveyor, at machine front side for e-600 / 750 / 850 / 1000 / 1100 / 1300.
- Single side screw-drive chip conveyor, at machine backside for e-500 / 500L.
- Single side chain type chip conveyor, at machine backside for e-500 / 500L.
- Chip cart.
- 3 axes optical linear scale, absolute type 0.1u resolution (except e-500 / 500L).
- CNC system overseas warranty fee.
- Coolant / Oil skimmer.

