



2VS
NST#30/R8
(NST#40 Optional)



2TM

NST#30/R8 (NST#40 Optional)



2TM

MODEL	2TM	2VS
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.

2TM 2VS

STANDARD — NOT AVAILABLE

<input type="radio"/>	<input type="radio"/>	Spindle material made from SCM440 Cr-Mo steel alloy with tempering treatment.
<input type="radio"/>	<input type="radio"/>	Centralized one shot lubrication system for ways, nuts and leadscrews of axes.
<input type="radio"/>	<input type="radio"/>	Precise angular contact spindle bearing.
<input type="radio"/>	<input type="checkbox"/>	8 speeds step-pulley drive (16 speeds is optional).
<input type="checkbox"/>	<input type="radio"/>	Variable speed drive up to 4500 rpm/60Hz, 3750 rpm/50Hz.
<input type="radio"/>	<input type="checkbox"/>	Unique design on Hi-Low gear speed commutation, bearings support on both sides of spindle pulley.
<input type="radio"/>	<input type="checkbox"/>	Adjustable brake handle increases the life of break shoe.
<input type="checkbox"/>	<input type="radio"/>	Patented special copper alloy SAM214 for vari-disc keys with precise ground grease and lubrication system.
<input type="checkbox"/>	<input type="radio"/>	Bearing support at the end of motor shaft.
<input type="checkbox"/>	<input type="radio"/>	Double sided vari-disc belt provides lower noise level.
<input type="checkbox"/>	<input type="radio"/>	Motor shaft material made from steel alloy, diameter 28mm.

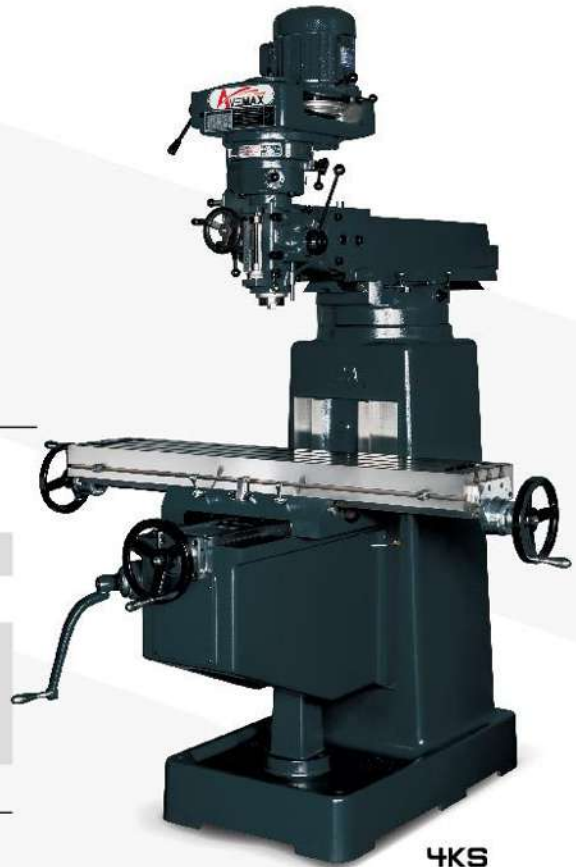
PROFESSIONAL



4KV
NST#30/R8
(NST#40 Optional)

4KS

NST#30/R8 (NST#40 Optional)



4KS

MODEL	4KS	4KV
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.

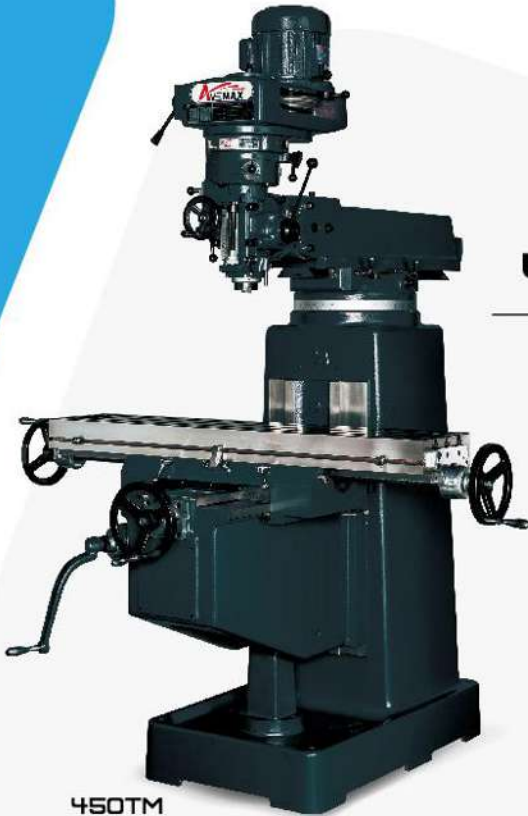
4KS 4KV

STANDARD NOT AVAILABLE

<input type="radio"/>	<input type="radio"/>	Spindle material made from SCM440 Cr-Mo steel alloy with tempering treatment.
<input type="radio"/>	<input type="radio"/>	Centralized one shot lubrication system for ways, nuts and leadscrews of axes.
<input type="radio"/>	<input type="radio"/>	Precise angular contact spindle bearing.
<input type="radio"/>	<input type="checkbox"/>	8 speeds step-pulley drive (16 speeds is optional)
<input type="checkbox"/>	<input type="radio"/>	Variable speed drive up to 4500 rpm/60Hz 3750rpm/50Hz
<input type="radio"/>	<input type="checkbox"/>	Unique design on Hi-Low gear speed commutation, bearings support on both sides of spindle pulley.
<input type="radio"/>	<input type="checkbox"/>	Adjustable brake handle increases the life of brake shoe.
<input type="checkbox"/>	<input type="radio"/>	Patented special copper alloy SAM214 for vari-disc keys with precise ground and grease lubrication system.
<input type="checkbox"/>	<input type="radio"/>	Bearing support at the end of motor shaft.
<input type="checkbox"/>	<input type="radio"/>	Double sided vari-disc belt provides lower noise level.
<input type="checkbox"/>	<input type="radio"/>	Motor shaft material made from steel alloy, diameter 28mm.



450VS
NST#30/R8
(NST#40 Optional)



450TM

450TM

NST#30/R8 (NST#40 Optional)

MODEL	450TM	450VS
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.

450TM 450VS ○ STANDARD — NOT AVAILABLE

○	○	Spindle material made from SCM440 Cr-Mo steel alloy with tempering treatment.
○	○	Centralized one shot lubrication system for ways, nuts and leadscrews.
○	○	Precise angular contact spindle bearing.
○	—	8 speeds step-pulley drive (16 speeds is optional)
—	○	Variable speed drive up to 4500 rpm/60Hz 3750rpm/50Hz
○	○	Unique design on Hi-Low gear speed commutation, bearings support on both sides of spindle pulley.
○	—	Adjustable brake handle increases the life of brake shoe.
—	○	Patented special copper alloy SAM214 for vari-disc keys with precise ground and grease lubrication groove design to prevent overheating.
—	○	Bearing support to the end of motor shaft.
—	○	Double sided vari-disc belt provides lower noise level.
—	○	Motor shaft material made from SAM425 Cr-Mo steel alloy, diameter 28mm.
○	○	Lifting screw diameter 38mm.
○	○	Longer saddle (650mm) support to the table provides high accuracy and rigid machining.
○	○	Turcite-B coated on X Y ways.
○	○	Square way design on Y.

HIGH QUALITY



SKV
NST#40

SKS

NST#40



SKS

MODEL	SKS	SKV
HEAD	10 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 54~330 High 475~2875 60HZ: Low 65~400 High 570~3450	50HZ: Low 50~415 High 415~3600 60HZ: Low 60~500 High 500~4300
QUILL TRAVEL	127mm	127mm

OPTIONAL :

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.

SKS SKV ○ STANDARD — NOT AVAILABLE

○	○	Spindle material made from SCM415 (SAE4115) Cr-Mo steel alloy with tempering treatment, fully hardened and ground. Spindle run out: 0.005mm.
○	○	Centralized one shot lubrication system for ways, nuts and leadscrews.
○	○	Precise angular contact spindle bearing.
○	○	10 speeds step-pulley drive.
—	○	Variable speed drive up to 4300 rpm/60Hz 3600rpm/50Hz
○	—	Unique design on Hi-Low gear speed commutation, bearing support on both side of spindle pulley.
○	—	Adjustable break handle increases the life of brake shoe.
—	○	Patented special copper alloy SAM214 for vari-disc keys with precise ground and grease lubrication groove design to prevent overheating.
—	○	Bearing support at the end of motor shaft.
—	○	Double sided vari-disc belt to provides noise level.
—	○	Motor shaft material made from SCM425 Cr-Mo steel alloy, diameter 28mm.
○	○	Lifting screw diameter 38mm.
○	○	Longer saddle (650mm) support to the table provides high accuracy and rigid machining .
○	○	Turcite-B coated on X Y ways.
○	○	Square way design on Y and column slideway.



6KS

6KV
NST#40



6KS

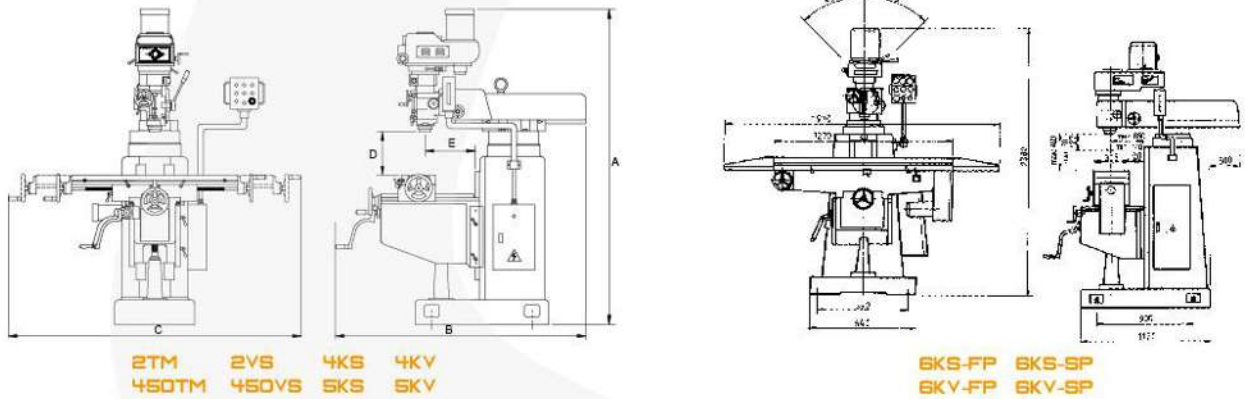
NST#40
FP: XY axis driven by inverter motor
SP: XY axis driven by servo motor

MODEL	6KS	6KV
HEAD	10 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 54~330 High 475~2875 60HZ: Low 65~400 High 570~3450	50HZ: Low 50~415 High 415~3600 60HZ: Low 60~500 High 500~4300
QUILL TRAVEL	127mm	127mm

6KS 6KV ○ STANDARD — NOT AVAILABLE

○	○	Spindle material made from SCM415 (SAE4115) Cr-Mo steel alloy with tempering treatment, fully hardened and ground. Spindle run out: 0.005mm.
○	○	Quill diameter 105mm.
○	○	Centralized one shot lubrication for ways, nuts and leadscrews.
○	—	10 speeds step-pulley drive.
—	○	Variable speed drive up to 4300rpm/60Hz 360rpm/50Hz
○	○	Precise angular contact spindle bearing, P47210 for high accuracy and heavy duty cutting.
○	—	Unique design on Hi-Low gear speed commutation, bearing support on both side of spindle pulley.
○	—	Adjustable brake handle increases the life of brake shoe.
—	○	Patented special copper alloy SAM214 for vari-disc key with precise ground and grease lubrication groove design to prevent overheating.
—	○	Bearing support to the end of motor shaft.
—	○	Double sided vari-disc belt provides lower noise level.
—	○	Motor shaft material made from SCM425 Cr-Mo steel alloy, diameter 33mm.
○	○	Precise ballscrews on X and Y.
○	○	Lifting screw diameter 38mm.
○	○	Turcite-B coated on X Y ways.
○	○	Square way design on Y and column slideway.
○	○	Lifting motor for knee up-down. Electric box and panel.

VERTICAL TURRET MILLING MACHINE



SPECIFICATION		2TM 2VS	4KS 4KV	450TM 450VS	5KS 5KV	6KS-FP 6KV-FP	6KS-SP 6KV-SP
Table size		230x1067mm(9"x42")	254x1270mm(10"x50")			305x1270mm (12"x50")	
T-slot of table(Q'ty x size)		3x16mm(3x0.629")					
X Travel	Manual	745mm(29.3")	894mm(35.2")	875mm(34.5")		890mm(35")	
	Auto	682mm(26.85")	696mm (27.4")			850mm(33.464")	
Y Travel		313mm(12.3")	406mm(15.984")	410mm(16.141")		365mm(14.4")	
Z Travel		430mm(16.9")	417mm(16.4")	450mm(17.716")		435mm(17.1")	
Ram travel		390mm(15.354")	560mm(10.236")			510mm(20")	
Quill travel		127mm(5")					
Spindle nose to table surface (D)		34 ~ 440mm (1.338" ~ 17.322")	100 ~ 506mm (3.937" ~ 19.921")		85 ~ 535mm (3.346" ~ 21.063")	85 ~ 485mm (3.346" ~ 19.094")	
Over swivel on turret		360°					
Head swivel (R&L)		±45°					
Head tilt(up & down)		±45°				Option	
Spindle center to column front surface (E)		154 ~ 544mm (6" ~ 21.4")	159 ~ 719mm (6.26" ~ 28.307")		178 ~ 738mm (7.007"~ 29.055")	140 ~ 650mm (5.511" ~ 25.59")	
Spindle motor		3HP				5HP	
X axis motor		None				1/2HP Inverter motor	
Lifting motor		None		1/2HP(Option)	1HP gear type motor		
Spindle taper		NST#30 (or R8 & NST#40)				NST#40	
Quill Feed (mm/rpm)		0.04mm ~ 0.08mm ~ 0.14mm(0.0015" ~ 0.003" ~ 0.006") /rpm					
X axis rapid speed		Nil				2000mm/rpm	3750mm/rpm
Lifting motor speed		Nil		Option		430mm/rpm	
Spindle Speed (rpm)	Step Head	50Hz Low:66 ~ 270 High:550 ~ 2270 60Hz Low:80 ~ 325 High:660 ~ 2720			50Hz Low:54 ~ 330 High:470 ~ 2875 60Hz Low:65 ~ 400 High:570 ~ 3450		
	Variable Step Head	50Hz Low:50 ~ 420 High:420 ~ 3900 60Hz Low:60 ~ 500 High:500 ~ 4500			50Hz Low:40 ~ 415 High:415 ~ 3600 60Hz Low:60 ~ 500 High:500 ~ 4300		
Overall height(A)		2105mm (82.874")	2120mm (83.464")	2120mm (83.464")	2360mm (92.913")	2380mm (93.7")	
Overall depth(B)		1618mm(63.7")	1984mm(78.11")	2073mm(81.614")	2120mm(83.464")	2120mm(83.464")	
Overall width(C)		1497mm (58.937")	1666mm (65.59")	1680mm (66.141")	1790mm (70.472")	1790mm (70.472")	
Net weight		950kgs (2200lbs)	1200kgs (2625lbs)	1250kgs (2730lbs)	1600kgs (3500lbs)	1800kgs (3938lbs)	

We reserve the right to modify and improve the specification without notice, the specification shown above is for reference only.

STANDARD ACCESSORIES	FOR	STANDARD ACCESSORIES	FOR
Draw bar/Tools box/Rubber chip cover	All models	X axis feed (by inverter or servo)	6KS / 6KV
Lifting motor & Electric box	5K / 6K	Ball screws on X & Y axis/ Coolant system/ Automatic lubrication	6KS / 6KV



V200VS
NST#40



V200

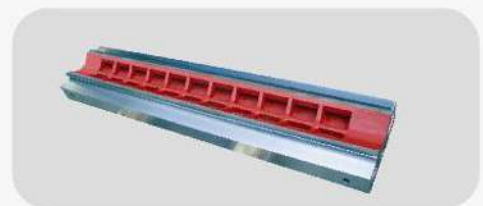
NST#40

MODEL	V200	V200VS
HEAD	16 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 62.5~416 High 458~3000 60HZ: Low 75~500 High 550~3600	Low: 0~480 High: 0~3600
QUILL TRAVEL	140mm	140mm

V200/V200VS FEATURES

- NST#40 spindle, quill diameter 110mm.
- 5HP heavy duty head and Hi-Low speed changed by gear transmission (without timing belt).
- Spindle is made from SCM-415 (SAE4115) with tempering treatment and precise ground.
- Spindle bearing - P4 angular contact bearings.
- Meehanite casting with annealing and stress relieving treatment.
- Ram can be moved directly on heavy duty designed column without turret.
- Hardened and ground on the XYZ slideways and table T-slot.
- Rubber wipers installed on all slideways (column, ram and knee).

Hardened and Ground double-nut ballscrews are pre-tensioned to minimize backlash, providing high-accuracy movement and reducing heat deformation on all axes.



Strengthened table ribs ensure the stability during heavy duty machining.



1. Spindle made from SCM415 steel, through both carburizing harden and precise ground.
2. P4 angular contact spindle bearings limit temperature variations.

PROFESSIONAL



V250VS
NST#40

V250

NST#40



MODEL	V250	V250VS
HEAD	16 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 62.5~416 High 458~3000 60HZ: Low 75~500 High 550~3600	Low: 0~480 High: 0~3600
QUILL TRAVEL	140mm	140mm

V250-FP/V250-SP FEATURES

- Meehanite casting with annealing and stress relieving treatment.
- Rubber wipers installed on all slideways (column, ram and knee).
- Square way designed on Y and column slideways.
- Longer saddle ensures working stability.
- Turcite-B coated on X and Y ways.
- Precision ballscrews on X and Y ways.
- 5HP heavy duty head, and Hi-Low speed changed by gear transmission (without timing belt).
- Inverter or servo motor on X and Y with variable speed change, providing high working efficiency.
- Electromagnetic clutch on X and Y, protecting workpieces or tools from damage.

DESCRIPTION	V250-FP	V250VS-FP	V250-SP	V250VS-SP	VH250VS-FP	VH250VS-SP
5HP horizontal spindle motor	—	—	—	—	○	○
XY inverter motor	○	○	—	—	○	—
XY servo motor	—	—	○	○	—	○



VH-250VS

NST#40



MODEL	VH-250VS
HEAD	Variable speed
MOTOR	5HP
SPINDLE SPEED	Low: 0~480 High: 0~3600
QUILL TRAVEL	140mm

VH-250-FP/SP FEATURES

- Meehanite casting with annealing and stress relieving treatment.
- Rubber wipers installed on all slideways (column, ram and knee).
- Square way designed on Y and column slideways.
- Longer saddle ensures the working stability.
- Turcite-B coated on X and Y ways.
- Precision ballscrews on X and Y ways.
- 5HP heavy duty head, Hi-Low speed change by gear transmission(without timing belt).
- Inverter or servo motor on X and Y with variable speed change, both offer high working efficiency.
- Electromagnetic clutch on X and Y, protect workpieces or tools from damage.

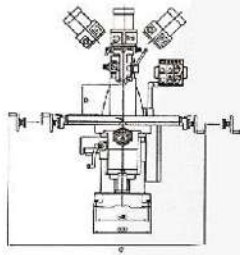


5HP heavy cutting milling head transmitted by gears

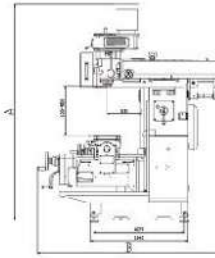
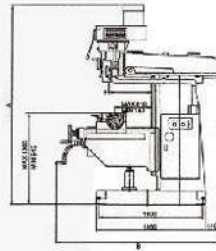
RIGID DESIGNED ON SPINDLE AUTO-FEED

1. One piece design on overload clutch
2. Spline support on pinion shaft and clutch

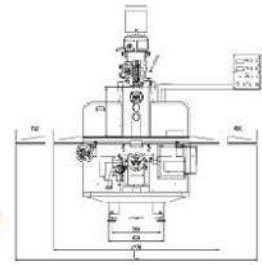




V200



VH-250
V-250



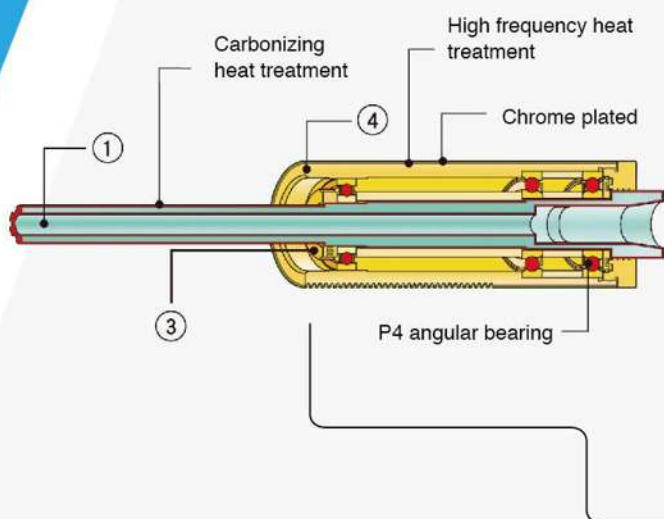
SPECIFICATION		V200 V200VS	V-250 V-250VS	VH-250VS
Table				
Table size(L x W)		280x1320mm(11"x52")	305x1270mm(12"x50")	
T-slot(Q'ty x Size)		3x16mm(3 x 0.63")		
X Travel	Manual	768mm(30.2")	—	
	Auto feed	840mm(33")	880mm(34.6")	
Y Travel		378mm(14.9")	385mm(15.2")	
Z Travel		375mm(14.8")	450mm(17.6")	
Max. table load		350kgs	600kgs	
Ram travel		485mm(19")	600mm(24")	
Vertical spindle				
Taper		NST#40		
Spindle speed (rpm)	Step head	50Hz Low:62.5 ~ 416 High:458 ~ 3000 60Hz Low:75 ~ 500 High:550 ~ 3600		—
	Variable speed head	Low 0 ~ 480 High 0 ~ 3600		
Quill stroke		140mm		
Quill feed rate		0.035/0.007/0.14mm/rev		
Head swivel		45°		
Spindle nose to table surface		60-466mm (2.362" ~ 18.346")	130-580(Opt.650)mm (5.118" ~ 22.835")	
Spindle center to column front surface		190-675mm (7.48" ~ 26.575")	185-685mm (7.283" ~ 26.989")	
Horizontal spindle				
Taper		—		NST#40
Spindle speed (rpm)		—	—	50Hz Low:40~200 Hi:200~980 60Hz Low:48~240 Hi:240~1180
Feed rates				
X/Y Cutting Speed		—	0~1500 mm/min	
Rapid traverse X,Y axes		—	3000 mm/min	
Motor				
Vertical spindle		5HP	5HP	5HP Inverter motor
Horizontal spindle		—	—	5HP Inverter motor
XY axes motor		—	1/2 HP lifting motor	
Lifting motor		1HP lifting motor		
Coolant pump		1/8 HP	1/6 HP	
Overall height (A)		2245mm(88")	2550mm(100")	
Overall depth (B)		2080mm(82")	2150mm(85")	
Overall width (C)		1775mm(70")	1970mm(78")	
Net weight		1700kgs	2500kgs	

We reserve the right to modify and improve the specification without notice, the specification shown above is for reference only.

STANDARD ACCESSORIES	FOR	STANDARD ACCESSORIES	FOR
Tool box/Rubber chip cover (Front & Rear)	All models	Lifting motor & Electrical box	All models
Auto lubrication pump	All models	XY Ballscrew	All models
Leveling screws & pads	All models	Simple tapping function	All models
Coolant system	V250 / VH-250	Quartz work light	V250 / VH-250

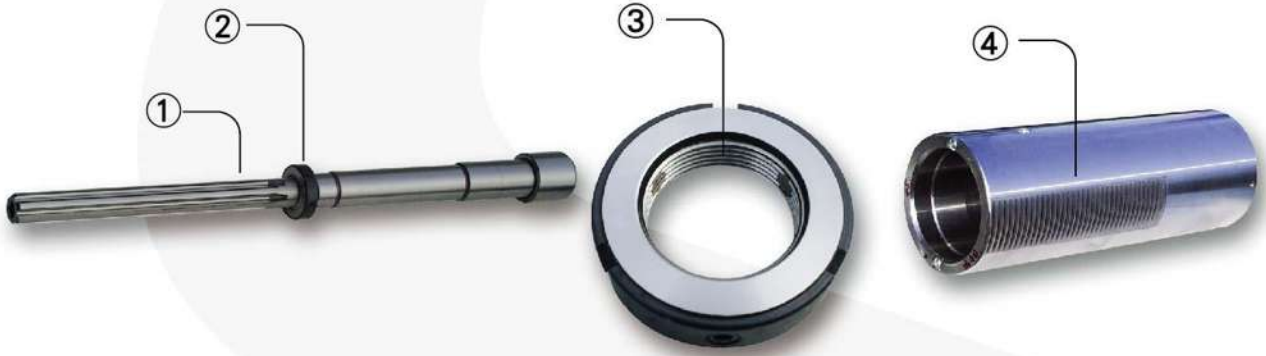


DETAILS OF SUPER PRECISION SERIES

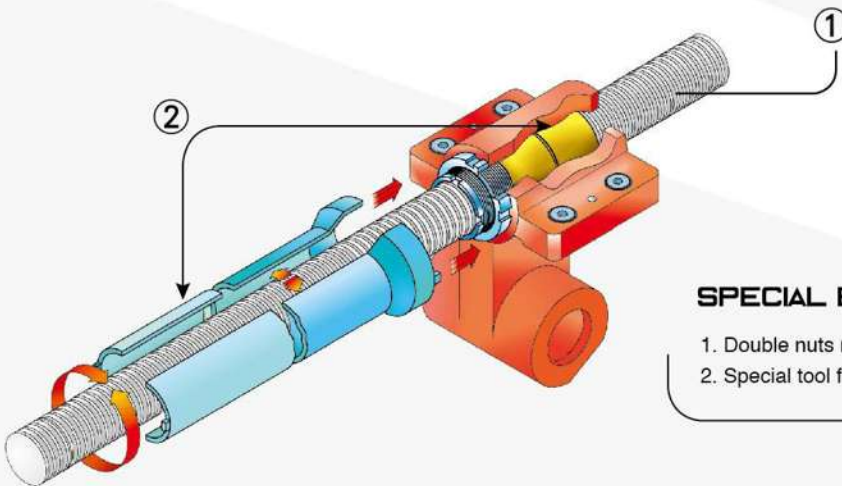


Leveling screws and pads are included in standard accessories

PROFESSIONAL, EFFICIENT AND HIGH QUALITY



1. Spindle material is SAE4115 full hardened through carbonizing heat treatment
2. Ground spindle thread
3. Hardened and ground spindle internal thread
4. Quill material is S45C (SAE1045) steel bat with induction hardened, chrome plated and precision ground



SPECIAL BACKLASH ADJUSTMENT

1. Double nuts made of PBC 2 phosphor bronze
2. Special tool for nut backlash adjustment



Turcite-B coated on X and Y ways.



Strict hand scraping (16 point per square inch)
Turcite-B coated on X and Y gibs



SP-150TM

SP-150VS
NST#30/R8



SP-150TM

NST#30/R8

MODEL	SP-150TM	SP-150VS
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.

SP-150TM/SP-150VS FEATURES

- 9"x49" table.
- R8 (NST#30) spindle material SCM415 (SAB4115) with hardened and ground.
- Turcite-B on X Y ways, slideways and gibs.
- Hardened and ground table with ground T-slots.
- Electroless nickel-phosphorus plating process on X and Y leadscrews.
- Patented FA381 keys are used for vari-speed head.
- 1-1/4"(32mm) diameter lifting screw.
- Leveling screws and pads on base.
- Strict with hand scraping for high precise accuracy.



HIGH IMPROVEMENT IN VARI-SPEED HEAD

1. Roller bearing support on motor shaft
2. Patented vari-disc keys FA381

PROFESSIONAL



SP-460VS
NST#30/R8



SP-460TM

SP-460TM

NST#30/R8

MODEL	SP-460TM	SP-460VS
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

SP-460TM/SP-460VS FEATURES

- 10"X54" table.
- Hardened and ground on X Y slideways.
- Hardened and ground table with ground T-slots.
- 1-1/2"(38mm) diameter lifting screw.
- Leveling screws and pads on base.
- Turcite-B on X Y ways, slideways and gibs.
- R8 (NST#30) spindle material SCM415 (SAB4115) with hardened and ground.
- Electroless nickel-phosphorus plating process on X and Y.
- Highly improved vari-speed head.
- Strict with hand scraping for high precise accuracy.



OPTIONAL:
EVS 5000 rpm inverter head /
3HP inverter motor with 3HP inverter drive.

RIGID DESIGN ON SPINDLE AUTO-FEED

1. One piece design on overload clutch.
2. Spline support on pinion shaft and clutch.





SP-500VS
NST#30/R8



SP-500TM

SP-500TM

NST#30/R8

MODEL	SP-500TM	SP-500VS
HEAD	8 Steps	Variable speed
MOTOR	3HP	3HP
SPINDLE SPEED	50HZ: Low 66~270 High 550~2270 60HZ: Low 80~325 High 660~2720	50HZ: Low 50~420 High 420~3750 60HZ: Low 60~500 High 500~4500
QUILL TRAVEL	127mm	127mm

OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.



Fix screws on the rear of hand, more stability for the connection of head and ram (SP-520TM/VS)

SP-500TM/SP-500VS FEATURES

- 10"X54" table.
- R8 spindle material SAE4115 (SCM415) with hardened and ground.
- Turcite-B on X Y ways, slideways and gibs.
- Hardened and ground X Y slideways.
- Hardened and ground table with ground T-slots.
- Electroless nickel-phosphorus plating process on X and Y leadscrews.
- Square ways on Y and Column ways.
- Patented FA381 keys are used for vari-speed.
- Diameter 1 1/2"(38mm) lifting screw.
- Leveling screws and pads on base.
- Strict with hand scraping for high precise accuracy.

EFFICIENT



SP-520VS
NST#40



SP-520TM

SP-520TM

NST#40

MODEL	SP-520TM	SP-520VS
HEAD	10 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 54~330 High 475~2875 60HZ: Low 65~400 High 570~3450	50HZ: Low 50~415 High 415~3600 60HZ: Low 60~500 High 500~4300
QUILL TRAVEL	127mm	127mm

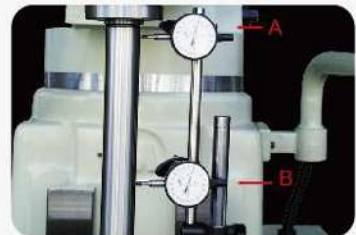
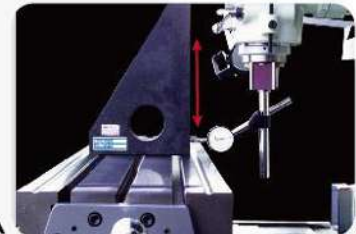
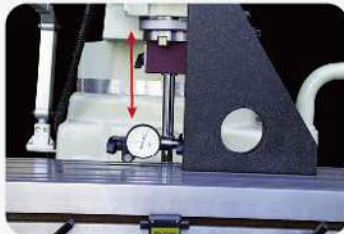
SP-520TM/SP-520VS FEATURES

- 10"X54" table.
- NST#40 spindle material SAE4115 (SCM415) full piece by hardened and ground.
- Turcite-B on X Y ways , sideways and X Y gibs.
- Hardened and ground on X Y Z sideways and table.
- Electroless nickel-phosphorus plating process on X and Y leadscrews.
- Grinding on table T-slot.
- Square ways on Y and column ways.
- Patented FA381 keys are used for vari-speed head.
- Diameter 1 1/2" (38mm) lifting screw.
- Lifting motor and electric box.
- Strict with hand scraping for high precise accuracy.



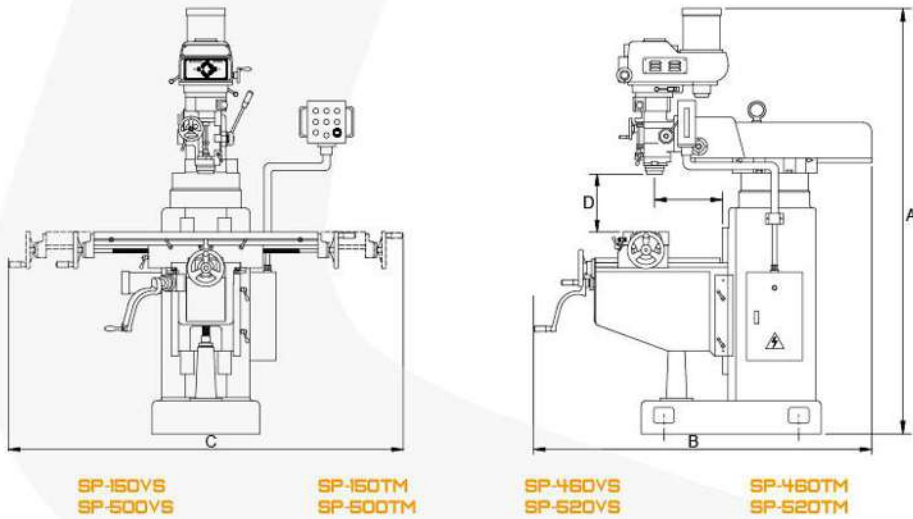
OPTIONAL:

EVS 5000 rpm inverter head / 3HP inverter motor with 3HP inverter drive.



SP SERIES ACCURACY REQUIREMENT

NO	INSPECTION ITEMS	SP SERIES REQUIREMENT	STANDARD OF KNEE TYPE MILLS
1	Run-out of the spindle taper	0.003mm(0.00012")	0.005mm(0.0002")
2	Parallelism of the table top with (A) Traverse movement (B) Longitudinal movement	(A) 0.015mm in any 300mm (0.0006" in any 12" length) (B) 0.02mm in any 500mm (0.0008" in any length 20")	(A) 0.02mm in any 300mm (0.0008" in any 12" length) (B) 0.03mm in any 500mm (0.0012" in any length 20")
3	Perpendicularity of the table top Way to the saddle movement	0.01mm(0.0004") in any 300mm (12") length	0.02mm(0.0008") in any 300mm(12")length
4	Parallelism of the table central Groove in the longitudinal direction	0.02mm(0.0008") in any 500mm(20") length	0.03mm(0.0012") in any 500mm (20") length
5	Traverse of the column, Perpendicularity in A and B planes	(A) 0.015mm(0.0006") (B) 0.015mm(0.0006") in any 300mm(12")	(A) 0.025mm(0.0009") (B) 0.025mm(0.0009") in any 300mm(12")
6	Perpendicularity of the spindle With the table top (sweeping)	(A) 0.015mm (0.0006") (B) 0.015mm(0.0006") in any 300mm(12")	(A) 0.02mm(0.0008") (B) 0.02mm(0.0008") in any 300mm (12")
7	Parallelism of the traverse movement of the ram with table top (the width of the table is within 300mm)	0.015mm(0.0005") in any 300mm (12") length	0.02mm(0.0008") in any 300mm(12")length
8	Rounout of the spindle (A) Next to spindle nose (B) 1500mm(6") down from spindle nose	(A) 0.01mm(0.0004") (B) 0.02mm(0.0008")	(A) 0.01mm(0.0004") (B) 0.02mm(0.0008")



SPECIFICATION		SP-150TM SP-150VS	SP-460TM SP-460VS	SP-500TM SP-500VS	SP-520TM SP-520VS
Table size(L x W)		230X1245mm(9"x49")	254x1270mm(10"x50")	245x1370mm(10"x54")	
T-slot(Number x Size)		3 x 16 mm (3 x 0.63")			
X Travel	Manual	915mm(36")	875mm(34.4")	1080mm(42.5")	
	Auto feed	850mm(33.7")	775mm(30.5")		
Y Travel		318mm(12.5")	395mm(15.6")	410mm(16")	
Z Travel		420mm(16.5")		445mm(17.5")	440mm(17.3")
Ram travel		356mm(14")	560mm(22")		
Quill travel		127mm(5")			
Spindle nose to table surface(D)		34 ~ 440mm (1-3/8" ~ 17-3/8")	100 ~ 506mm (4" ~ 20")	85 ~ 535mm(3.3" ~ 21")	
Over swivel on turret		360°			
Head swivel (R & L)		±45°			
Head tilt (up & down)		±45°			Option
Spindle to column (E)		154 ~ 544mm (6" ~ 21.4")	159 ~ 719mm (6.25" ~ 28.3")	170 ~ 730mm (6.6" ~ 28.7")	178 ~ 738mm (7" ~ 29")
Spindle motor		3HP			5HP
Spindle taper		NST#30 (R8)			NST#40
Quill feeds		0.04mm ~ 0.08mm ~ 0.14mm(0.0015" ~ 0.003" ~ 0.006")			
Spindle speed (rpm)	Step head	50Hz Low : 66 ~ 270 High : 550 ~ 2270 60Hz Low : 80 ~ 325 High : 660 ~ 2720			50Hz Low : 54 ~ 330 High : 475 ~ 2875 60Hz Low : 65 ~ 400 High : 570 ~ 3450
	Variable speed head	50Hz Low : 50 ~ 420 High : 420 ~ 3750 60Hz Low : 60 ~ 500 High : 500 ~ 4500			50Hz Low : 50 ~ 415 High : 415 ~ 3600 60Hz Low : 60 ~ 500 High : 500 ~ 4300
Overall height (A)		2140mm(84")	2011mm(87")	2262mm (90")	2375mm(93-1/2")
Overall depth (B)		1618mm(63-5/8")	2087mm(82")	2120mm(83-1/2")	2120mm(83-1/2")
Overall width (C)		1670mm(65.7")		1840mm(72.4")	
Net weight		950kgs(2200lbs)	1300kgs(3000lbs)	1500kgs(3360lbs)	1600kgs(3500lbs)

We reserve the right to modify and improve the specification without notice, the specification shown above is for reference only.

STANDARD ACCESSORIES	FOR	STANDARD ACCESSORIES	FOR
Drawbar/Tool box/ Rubber chip cover (Front & Rear)	All models	Leveling screws & pads	All models
XY Leadscrews	All models	Lifting motor & Electric box	SP-520TM / VS



B180VS
NST#40

B180

NST#40



B180

MODEL	B180	B180VS
HEAD	10 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 54~330 High 475~2875 60HZ: Low 65~400 High 570~3450	50HZ: Low 50~415 High 415~3600 60HZ: Low 60~500 High 500~4300
QUILL TRAVEL	127mm	127mm

B180 FEATURES

- X,Y power feed by option.
- XY axes double nut ACME leadscrews.
- Table size: 10"X50" with longer saddle 650mm (25.6").
- Rigid square ways on cross and column.
- Licensed Meehanite casting.
- Hardened and ground on X,Y,Z slideways and table.
- Turcite-B coated on X,Y,Z axes slideways and gibs.
- Head can be tilted 90 degrees right and left for angular machining.
- Counter-balance weight device for milling head.

HIGH QUALITY



B185VS
NST#40

Column splash guard is optional



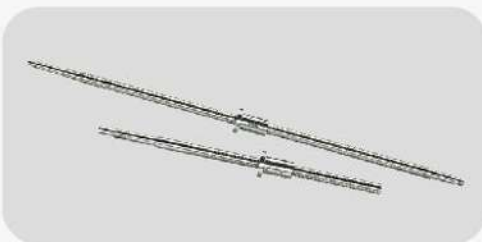
B185

B185

NST#40

MODEL	B185	B185VS
HEAD	10 Steps	Variable speed
MOTOR	5HP	5HP
SPINDLE SPEED	50HZ: Low 54~330 High 475~2875 60HZ: Low 65~400 High 570~3450	50HZ: Low 50~415 High 415~3600 60HZ: Low 60~500 High 500~4300
QUILL TRAVEL	127mm	127mm

B185 FEATURES



Precision ground ballscrews on X and Y (B185 and B410)

- X auto feed vari-speed by servo motor (Y auto feed vari-speed by AC servo motor by option).
- XY axes high precision ballscrews.
- Heavy duty widen saddle length 1016mm (40") full support to table.
- Rigid square ways on X and Y.
- Licensed Meehanite casting.
- Hardened and ground on X,Y,Z slideways and table.
- Turcite-B coated on X,Y,Z axes slideways and gibs.
- Head can be tilted 90 degrees right and left for angular machining.
- Counter-balance weight device for milling head.
- Telescopic steel cover to protect the slideways and ball screw from dust (option). Counter-balance weight device for milling head.

STANDARD ACCESSORIES	FOR	STANDARD ACCESSORIES	FOR
Tool & Tool box	All models	Rubber chip cover (Front & Rear)	B180
Leveling screws & pads	All models	Rear rubber cover	B185 / B410
Auto lubrication pump	B185 / B410	Telescopic cover (metal) in front of saddle	B185 / B410
Coolant system & chip tray	B185 / B410	XY Ballscrew	B185 / B410
Electrical box & Lifting motor	B185 / B410	Quartz work light	B185 / B410



B410VS
NST#40



B410

NST#40



B410

MODEL

B410

B410VS

HEAD	16 Steps	Variable speed by Inverter system
MOTOR	5HP	5HP inverter motor
SPINDLE SPEED	50HZ: Low 62.5~416 High 458~3000 60HZ: Low 75~500 High 550~3600	Low: 0~480 High: 0~3600
QUILL TRAVEL	140mm	140mm

B410VS FEATURES

- 5HP strong head can be swiveled 90 degrees right and left for angular machining.
- Quill diameter 110mm(4.3"), NST#40 spindle.
- XY axes high precision ballscrews, Z axis leadscrew (Z axis ballscrew by option).
- Heavy duty saddle length 1200mm (47.2") support to table.
- Rigid square ways on cross and column.
- Licensed Meehanite casting.
- Hardened and ground on X,Y,Z slideways and table.
- Turcite-B coated on X,Y and Z axes slideways and gibs.
- Counter-balance weight device for milling head.
- Telescopic steel cover to protect the slideways and ballscrew from dust.



Large quill diameter 110mm (4.33") material S45C(SAE1045) with high-frequency induction hardening and chrome plated



NST#40 spindle material SCM415 (SAE4115) fully hardened and precise ground



Strong back gear transmitting instead of timing belt for Hi-Low speed

MODEL

X/Y/Z AUTO FEED

B410/B410VS-FP

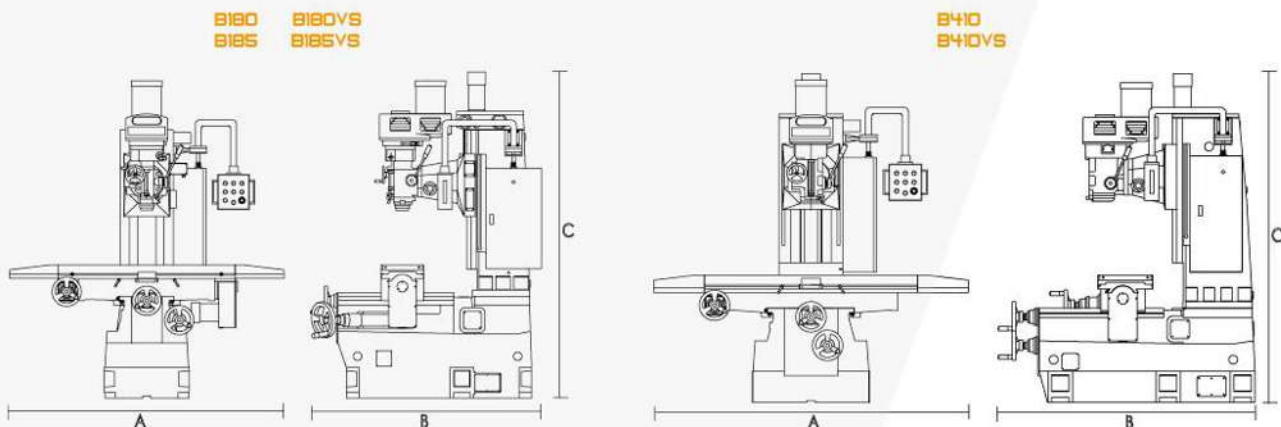
XYZ Variable speed by inverter system

B410/B410VS-SP

XYZ Variable speed by servo motor

SPECIFICATION		B180 B180VS	B185 B185VS	B410 B410VS
Table				
Table size(L x W)		1270x250mm(50"x10")	1270x305mm(50"x12")	1270x380mm(50"x15")
T-slot(Number x Size)		3x16mm(3x0.63")		
X Travel	Manual	776mm(30.55")	840mm(33")	1000mm(40")
	Auto feed	696mm(27.4")	840mm(33") Option:1000mm(40")	1000mm(40") Option: 1200mm(47")
Y Travel		530mm(20.9")	470mm(18.5")	495mm(19.5")
Z Travel		460mm(18.1")	450mm(17.7")	480mm(18.9")
Spindle nose to table surface (D)		95 ~ 540mm(3.74" ~ 21.26")		140 ~ 600mm(5.512" ~ 23.622")
Spindle				
Spindle taper		NST#40		
Spindle speed (rpm)	Step head	50Hz Low: 54 ~ 330 High: 475 ~ 2875 60Hz Low: 65 ~ 400 High: 570 ~ 3450		50Hz Low: 62~416 Hi: 458~3000 60Hz Low: 75~500 Hi: 550~3600
	Variable speed head	50Hz Low: 50 ~ 415 High: 415 ~ 3600 60Hz Low: 60 ~ 500 High: 500 ~ 4300		Low : 0 ~ 480 High : 0 ~ 3600
Quill travel		127mm(5")		140mm(5.51")
Quill feeds rate		0.04mm ~ 0.08mm ~ 0.14mm (0.0015"-0.003"-0.006")		0.035mm~0.07mm~0.14mm (0.0013"-0.0027"-0.0055")
Head swivel (R&L)		45°		
Spindle center to column front surface		565mm(18.3")		490mm(19.3")
Feed rates				
XYZ axes feed rates (per min)		Manual (Power feed by option)	0-1800 mm (0-71") adjustable steplessly	
Rapid traverse X, Y axes (per min)		Manual (Power feed by option)	1800mm(71")	1800mm(71")
Rapid traverse of Z axes (per min)		Lifting motor by option	900mm(35.4")	900mm(35.4")
Motor				
Spindle drive motor		5HP		5HP(B410) 5HP inverter motor (B410VS)
Drive on X axis		Manual (Power feed by option)	1HP servo motor	1HP servo motor for B410(VS)-SP 1/2HP reduction motor with inverter driver for B410(VS)-FP
Drive on Y axis		Manual (Power feed by option)	Servo motor (by option)	
Drive on Z axis		Manual (1/2HP lifting motor by option)	1/2HP lifting motor	
Coolant pump		By option (1/8HP)		1/6HP
Overall width (A)		1800mm(70.87")	2230mm(87.80")	2250mm(88.58")
Overall depth (B)		1600mm(63")	1750mm(68.90")	2050mm(80.71")
Overall height (C)		2050mm(80.71")	2050mm(80.71")	2090mm(82.28")
Net weight		2000kgs(4480lbs)	2600kgs(5732lbs)	3100kgs(6834lbs)

We reserve the right to modify and improve the specification without notice, the specification shown above is for reference only.





MBG-1300

[GEAR HEAD]

10HP, 6 STEPS, NT#50

- High-rigidity spindle completed with cylindrical roller bearing designed for accuracy cutting. No chatter happens during cutting process.
- Gears, spindle shaft and key are made from chrome molybdenum steel SCM415H, Grade JIS 1 carburizing harden and precise grinding to ensure running precision and long duration.
- Gear box is lubricated by forced lubrication system.



MBG-1300 FEATURES

- High grade casting is annealed and stress-released, providing high rigidity and wear resistance.
- Hardened and ground double-nut ballscrews on 3 axes, providing high precision movement, and reducing heat deformation.
- XYZ slideways, table and T-slot are hardened and ground.
- 3 ways are coated with turcite-B.
- Dovetail on X slideway, box ways on Y and Z.
- 1:2 ratio timing belt boxes on XYZ increase drive torque and save cost for axes motors.
- XYZ axes are driven by servo motor, standard with pendant control box showing individual buttons for each function allows operator to work with ease.
- YZ steel way covers protecting slideways and ballscrews from dust and coolant.

MBGH-1600
Horizontal Milling Attachment
(Optional)



MBG-1600

[GEAR HEAD]

10HP, 6 STEPS, NT#50



MBG-1600

MBG-1600 FEATURES

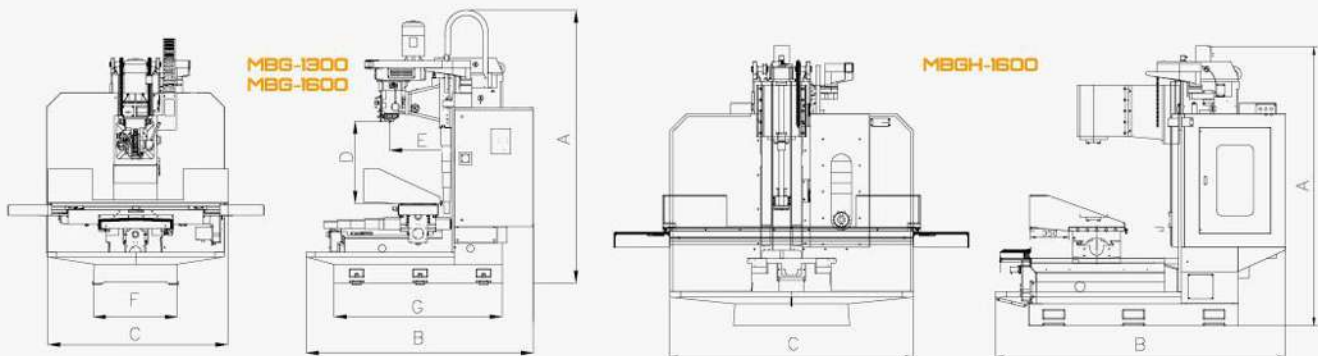
- Gear box is lubricated by forced lubrication system.
- Gears, spindle shaft and key are made from chrome molybdenum steel SCM415H. Grade JIS 1 carburizing harden and precise grinding to ensure running precision and long duration.
- High grade casting is annealed and stress-released, providing high rigidity and wear resistance.
- Hardened and ground double-nit ballscrews on 3 axes, providing high precision movement, and reduce heat deformation.
- XYZ slideways, table and T-slot are hardened and ground.
- Dovetail on X slideways, box ways on Y and Z.
- 3 ways are coated with turcite-B.
- 1:2 ratio timing belt boxes on XYZ to increase drive torque and save cost for axes motor.
- XYZ axes driven by servo motor, standard with pendant control box, and individual buttons for each function allows the operator to work with ease.
- YZ steel way covers protecting slideways and ballscrew from dust and coolant.



SPECIFICATION	MBG-1300	MBG-1600/MBGH-1600
Table size(L x W)	1800x450mm(70.87"x17.72")	2200x500mm(86.61"x19.69")
T-slot(Number x Size)	5x18mm(5x0.07")	
X Travel	1300mm(51.18")	1600mm(62.99")
Y Travel	600mm(23.62")	700mm(27.56")
Z Travel	700mm(27.56")	700mm(27.56")
Max. table load	1200kgs	1500kgs
Spindle nose to table surface	100~800mm(39.37" ~ 31.50")	70~770mm(2.76" ~ 30.31")
Spindle		
Spindle taper	NST#50 Gear head	
Spindle speed	50Hz Low: 104 ~ 466 Hi: 308 ~ 1400 60Hz Low: 125 ~ 560 Hi: 370 ~ 1100	
Spindle speed step	6 steps	
Spindle to column surface	610mm(24.02")	700mm(27.56")
Feed rates		
XYZ axes feed rate	0-750mm/min(0" ~ 29.53")	
Rapid traverse XYZ axes	12M	
Motor		
Spindle motor	10HP (2P / 4P)	
XYZ axis motor	DC Motor 1200W	
Coolant pump	1/6HP	
Air press	6kg / cm ²	
Power needed	12kw	
Overall height (A)	2930mm(115.35")	2930mm(115.35")
Overall depth (B)	2750mm(108.27")	3200mm(125.98")
Overall width (C)	2435mm(95.87")	2530mm(99.61")
Net weight	3960kgs(8730lbs)	4500kgs(9921lbs)

We reserve the right to modify and improve the specification without notice, the specification shown above is for reference only.

STANDARD ACCESSORIES	FOR	STANDARD ACCESSORIES	FOR
Tool/Tool box	All models	Spindle drawbar	All models
Auto lubrication pump	All models	XYZ Ballscrew & Telescopic way cover	All models
Leveling screws & Pads	All models	Base splash guard (both side)	All models
Coolant system & Chip tray	All models	Quartz work light	All models



OPTIONAL ACCESSORIES



Power Feed



Gear Type Power Feed



Auto Feed By Servo System



Air Power Drawbar



Digital Readout



Auto Lubrication Pump



Quartz Work Light



Milling Chuck



Clamping Kit



K-Type Vise



Angle Locked Vise



Mechanical Hydraulic Vise

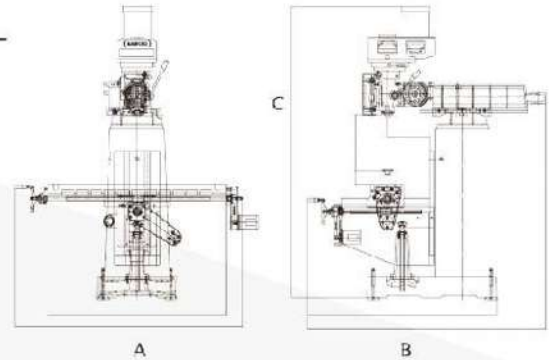
Other accessories are also available, please contact us for more information.



CV-400

Airpower drawbar (Option)

Fagor 8055i is available for option



FEATURES

- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#30/R8 spindle with 3HP variable speed motor (inverter motor option is available).
- Spindle quill drive box is transmitted by ballscrew for better precision.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precision ground to exact tolerance.
- Precision ballscrews are equipped on X and Y axes.
- X and Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- 1:2 ratio timing belt pulleys on XY axes to increase drive torque.

SPECIFICATIONS	CV-400
Travel	
Longitudinal travel	830mm(32.7")
Cross travel	380mm(15")
Knee travel	355mm(14")
Quill travel	127mm(5")
Ram travel	560mm(22")
Table	
Table size	1370x250mm(54"x10")
T-slot (No. x Size)	3x16mm(3x5/8")
Max. table load	350 Kgs(771Lbs)
Spindle nose to table surface	150~505 mm(5.9"~20")
Spindle	
Spindle motor	3 HP
Spindle taper	NST#30 (Optional: NST#40)
Over swivel on turret	360°
Head swivel (L&R)	45°
Head tilt (Up&Down)	45°
Spindle center to column surface	159~719mm(6.2"~28")
Speed	
Quill feed	0.04~0.08~0.14 mm (0.0015"~0.003"~0.006")
Spindle speed	60HZ 60~4500rpm 50HZ 50~3750rpm
XY feed rates	0~3M/min
XY rapid traverse	5M/min
Machine Dimension	
Overall width (A)	1650mm(65")
Overall depth (B)	1500mm(60")
Overall height (C)	1800mm(70.9")
Net weight (Approx.)	1400Kgs(3080 Lbs)

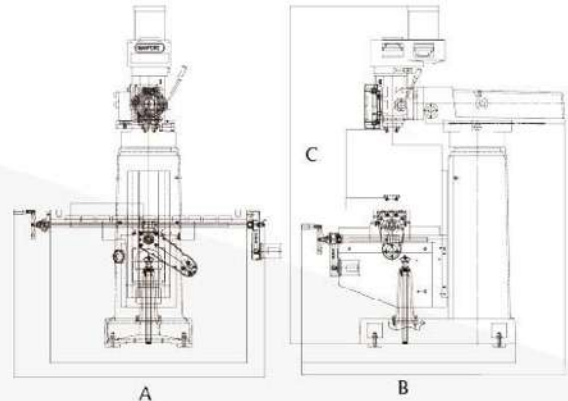
We reserve the right to modify and improve the specifications without any prior notice. The specifications shown above are for reference only.

PROFESSIONAL

CV-520

Airpower drawbar (Option)

Fagor 8055i is available for option



FEATURES

- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#40 spindle with 5HP variable speed motor (inverter motor option is available).
- Spindle quill drive box is transmitted by ballscrew for better precision.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed, relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precision ground to exact tolerance.
- Box way design on Y and Z axes leads to better rigidity.
- Lifting screw diameter 38mm assures the stability while machining.
- Precision ballscrews are equipped on X and Y axes.
- X and Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- 1:2 ratio timing belt pulleys on XY axes to increase drive torque.

SPECIFICATIONS	CV-520
Travel	
Longitudinal travel	712mm(28.0")
Cross travel	342mm(13.5")
Knee travel	378mm(15")
Quill travel	102mm(4")
Ram travel	560mm(22")
Table	
Table size	1370x250mm(54"x10")
T-slot (No. x Size)	3x16mm(3"x5/8")
Max. table load	350Kgs(771Lbs)
Spindle nose to table surface	150~528mm (5.9"~20.7")
Spindle	
Spindle motor	5 HP
Spindle taper	NST#40
Over swivel on turret	360°
Head swivel (L&R)	45°
Head tilt (Up&Down)	Nil (Optional: 45°)
Spindle center to column surface	168~730mm(6.6"~29")
Speed	
Quill feed	0.04~0.08~0.14 mm (0.0015"~0.003"~0.006")
Spindle speed	0~5000rpm
XY feed rates	0~3M/min
XY rapid traverse	5M/min
Machine Dimension	
Overall width (A)	1650mm(65")
Overall depth (B)	1500mm(60")
Overall height (C)	1950mm(76.8")
Net weight (Approx.)	1800Kgs(3960 Lbs)



Standard with Mitsubishi control system

CB-170
CB-180

CNC BED TYPE
MILLING MACHINE

FEATURES

- CB-170: NST#30/R8 spindle with 3HP variable speed motor (inverter motor option is available).
- CB-180: NST#40 spindle (material SCM415 full hardened through carbonizing heat treatment) with 5HP variable speed motor (inverter motor option is available).
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precision ground to exact tolerance.
- Precision ballscrews are equipped on X and Y axes.
- X and Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- XYZ slideways are hardened and ground for wear resistance and excellent longevity.

THE BEST WAY TO EXCELLENCE



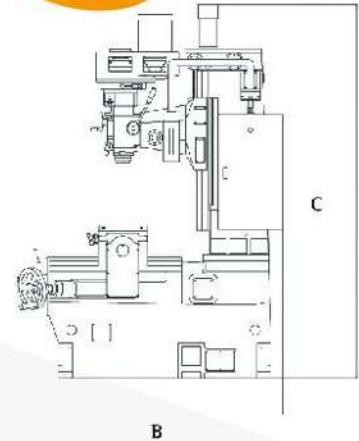
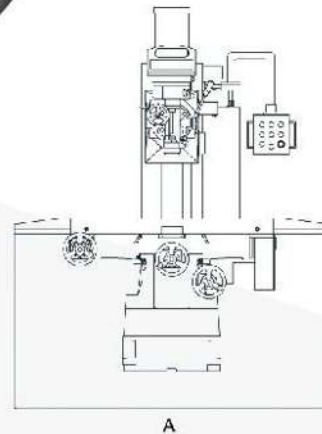
Fagor 8055i is available for option

CB-185

CNC BED TYPE
MILLING MACHINE

FEATURES

- NST#40 spindle with 5HP inverter motor.
- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precise ground for precise tolerance.
- Precise ballscrews are equipped on X and Y axes.
- X Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- XYZ slideways are hardened and ground for wear resistance and excellent longevity.
- Equipped with 1:2 ratio timing belt pulleys on XY axes to increase drive torque.



SPECIFICATIONS	CB-170	CB-180	CB-185
Travel			
XYZ travel	830/500/450mm (33"/20"/18")	830/500/450mm (33"/20"/18")	985/450/450mm (39"/18"/18")
Spindle nose to table surface	100~550mm (4"~22")	100~550mm (4"~22")	100~530mm (4"~21")
Spindle center to column surface	465mm(18")	500mm(20")	500mm(20")
Table			
Table size	1370x250mm (54"x10")	1370x250mm (54"x10")	1470x305mm (58"x12")
T-slot (No.x Size)	3x16mm(3x5/8")	3x16mm(3x5/8")	3x16mm(3x5/8")
Max. table load	500Kgs(1102Lbs)	500Kgs(1102Lbs)	500Kgs(1102Lbs)
Spindle			
Taper	NST#30(Opt. NST#40)	NST#40	NST#40
Speed	4500rpm(60HZ)	4300rpm(60HZ)	5000rpm(60HZ)
Quill feed	0.04~0.08~0.14 mm (0.0015"~0.003"~0.006")	0.04~0.08~0.14 mm (0.0015"~0.003"~0.006")	0.04~0.08~0.14 mm (0.0015"~0.003"~0.006")
Transmission	Variable speed (mechanic)		Variable speed (Inverter controlled EVS)
Quill travel	127mm(5")	127mm(5")	127mm(5")
Head swivel (R&L)	45°	45°	45°
Feed rate			
Rapid feed of XYZ	5M/min	5M/min	5M/min
Cutting feed rate	0~3M/min	0~3M/min	0~3M/min
CNC control and motor			
CNC control	Mitsubishi/Fanuc/Fagor		
Spindle motor	3HP	5 HP	5 HP
Axes motor	1Kw	1Kw	1Kw
Coolant			
Coolant pump	1/6HP	1/6HP	1/6HP
Machine size			
Overall width (A)	1900mm(75")	1900mm(75")	1900mm(75")
Overall depth (B)	2200mm(87")	2200mm(87")	2200mm(87")
Overall height (C)	2550mm(100")	2580mm(102")	2600mm(102.4")
Net weight (Approx.)	2000kgs(4400 Lbs)	2100kgs(4600 Lbs)	2300kgs(5000 Lbs)

We reserve the right to modify and improve the specifications without any prior notice. The specifications shown above are for reference only

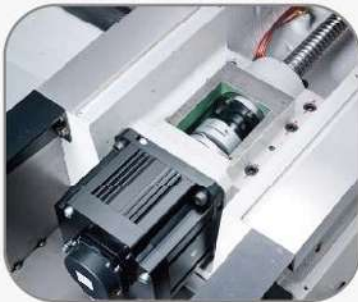
THE BEST WAY TO EXCELLENCE

CB-610S

CNC BED TYPE
MILLING MACHINE



Box way design on all slideways



Axes motors are direct coupled with ballscrews, featuring high efficient motion control, high response and low noise.



FEATURES

- Box way design on all slideways.
- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#30/R8 spindle with 3HP inverter motor.
- Meehanite licensed castings are annealed and stress relieved to ensure maximum precision and vibration absorption.
- Hardened and ground C5 grade ballscrews pre-tensioned to minimize backlash, providing high precision movement and reducing heat deformation on all axes.
- Positioning accuracy: $\pm 0.008\text{mm}/300\text{mm}$.
- Repeatability accuracy: $\pm 0.005\text{mm}/300\text{mm}$.
- Telescopic steel way covers on three axes to protect ways and ballscrews from chips and coolant.
- High grade Turcite-B is coated and with precise hand scrapping to maximize wear resistance.



Precision ballscrews are used on X and Y axes



Comes standard with EVS head



1:2 ratio timing belt pulleys on XYZ axes increase drive torque, and reduce the cost for axes motors.

CB-850

CNC BED TYPE MILLING MACHINE

FEATURES

- NST#40 spindle with 5HP inverter motor.
- Spindle material is SCM415 full piece by hardened and ground.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed, relieved to provide a rigid machine structure.
- Dovetail design on X slideway, and box way design on YZ slideways.
- Precise ballscrews are equipped on X and Y axes. XY slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- XYZ slideways, table and T-slot are hardened and ground for wear resistance and excellent longevity.
- Equipped with 1:2 ratio timing belt pulleys on XYZ axes to increase drive torque and reduce the cost of axes motors.
- YZ slideways are protected by high grade steel covers.

PROFESSIONAL, EFFICIENT AND HIGH QUALITY



Strong back gear transmission instead of timing belt for Hi-Low speed

CB-1000/1300/1600

CNC BED TYPE MILLING MACHINE



Dovetail design on X axis



FEATURES

- NST#40 spindle with 5HP inverter motor.
- Headstock is transmitted by strong back gears instead of timing belt for Hi-Low speeds.
- Spindle material SCM415 (SAE4115) fully hardened and precision ground.
- High grade of Meehanite cast iron is used on column, saddle, base and table, which are stressed relieved to avoid any distortion.
- Dovetail design on X slideway, and box way construction on YZ slideways.
- Precise ballscrews are equipped on X and Y axes. X and Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- XYZ slideways, table and T-slot are hardened and ground for wear resistance and excellent longevity.
- Equipped with 1:2 ratio timing belt pulleys on XYZ axes to increase drive torque.
- YZ slideways are protected by high grade steel covers.

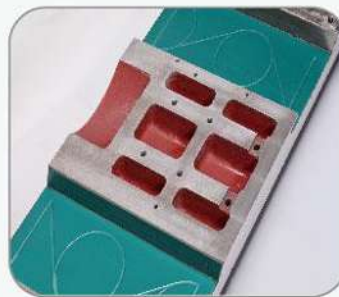


CNC BED TYPE MACHINING CENTER

MCB-850/1000 1300/1600



MCB-850



All slideways are coated with Turcite-B and precisely hand scrapped.



MCB-1000



MCB-1300



Dovetail design on X axis



MCB-1600

FEATURES

- VMC rigid headstock moves directly on column without extra bracket to ensure heavy cutting accuracy.
- BT40 spindle is fully balanced for low chatter and high performance machining.
- All essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- All three axes are driven by high precision ballscrews with double nuts which leads less play and backlash.
- Dovetail design on X, and box way design on YZ.
- All slideways have been hardened and ground for longer longevity. It also provides high rigidity for heavy and discontinuously cutting.
- All contacting surfaces are precisely hand scrapped.
- YZ slideways are protected by high grade steel covers.
- Equipped with 1:2 ratio timing belt pulleys on XYZ axes to increase drive torque and save the cost of axes motors.

THE BEST WAY TO EXCELLENCE



MCB-850
(Standard with semi guarding)



MCB-1000
(Standard with semi guarding)



Standard with Mitsubishi CNC control system



Umbrella type 16 tools ATC (Option)



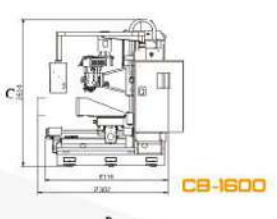
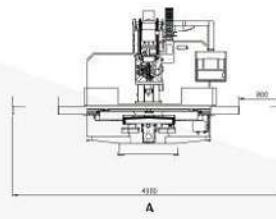
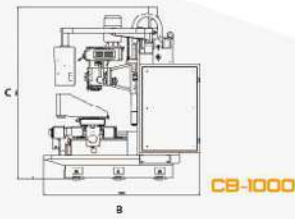
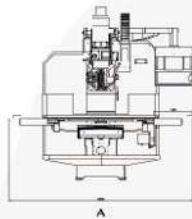
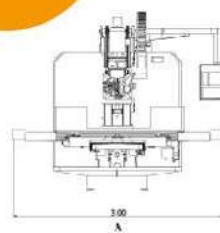
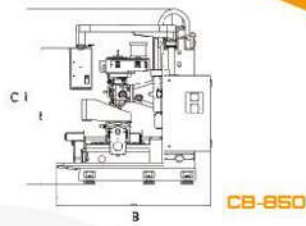
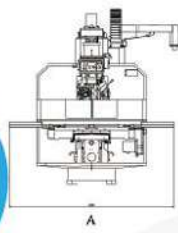
Umbrella type 16 tools ATC (Option)



MCB-1300
(Full guarding & ATC are available for Option)

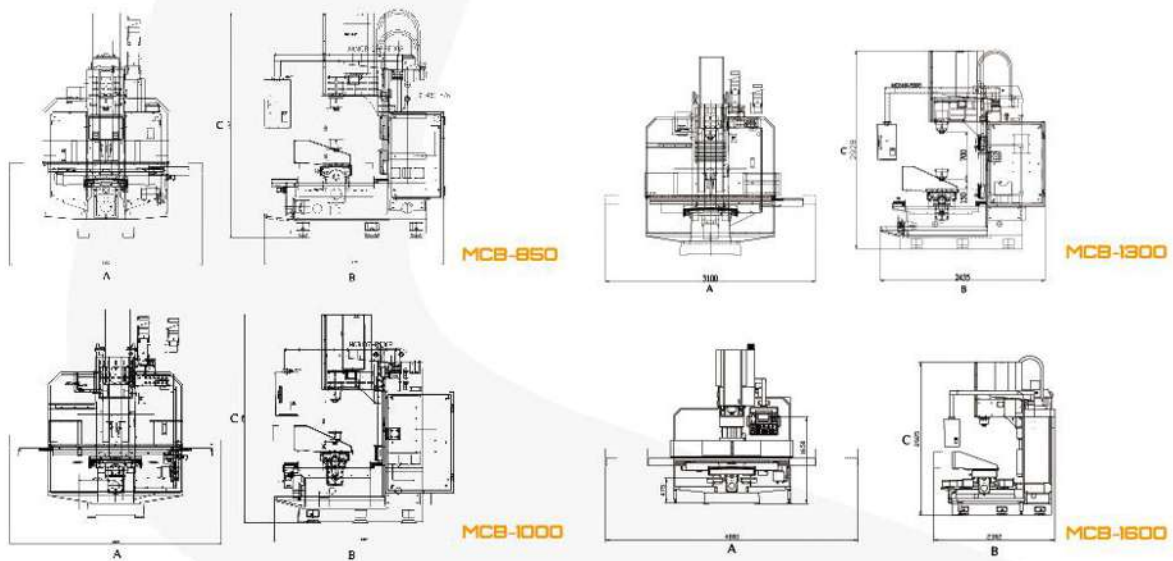


MCB-1600
(Full guarding & ATC are available for Option)



SPECIFICATIONS	CB-610S	CB-850	CB-1000	CB-1300	CB-1600
Travel					
XYZ travel	610/350/460mm (24"/14"/18")	850/450/450mm (33"/17.7"/17.7")	1070/510/510mm (42"/20"/20")	1300/600/700mm (51"/24"/27.6")	1600/700/700mm (63"/27.6"/27.6")
Spindle nose to table surface	100~560mm (4"~22")	85~585mm (3.3"~23")	85~585mm (3.3"~23")	85~585mm (3.3"~23")	85~585mm (3.3"~23")
Spindle center to column surface	430mm(17")	510mm(20")	525mm(21")	580mm(22.8")	670mm(26.4")
Table					
Table size	710x350 mm (28"x14")	1270x305mm (50"x12")	1520x400mm (60"x16")	1800x450mm (71"x17.7")	2200x500mm (86.6"x20")
T-slot (No.x Size)	5x16mm (5x0.63")	3x16mm (3x0.63")	3x18mm (3x0.7")	5x18mm (5x0.7")	5x18mm (5x0.7")
Max. table load	350Kgs (770 Lbs)	400kgs (880lbs)	500kgs (1100lbs)	800kgs (1760lbs)	1000kgs (2200lbs)
Spindle					
Taper	NST#30/R8	NST#40	NST#40	NST#40	NST#40
Speed	5000rpm(60HZ)	5000 rpm(60HZ)	3600 rpm(60HZ)	3600 rpm(60HZ)	3600 rpm(60HZ)
Quill feed	0.04~0.08~0.14mm (0.0015"~0.003"~0.0055")		0.035~0.07~0.14mm/min (0.0014"~0.003"~0.0055")		
Transmission	Variable speed (Inverter controlled)				
Quill travel	127mm(5")	127mm(5")	140mm(5.5")	140mm(5.5")	140mm(5.5")
Head swivel (R&L)	45°	45°	45°	45°	45°
Feed rate					
Rapid feed of XYZ	12M/min	7.5M/min	12M/min	12M/min	12M/min
Cutting feed rate	0~10M/min	0~5M/min	0~10M/min	0~10M/min	0~10M/min
CNC control and motor					
CNC control	Mitsubishi/Fanuc/Fagor				
Spindle motor	3HP	5HP	5HP	5HP	5HP
Axes motor	1Kw	1Kw	1Kw	2Kw	2Kw
XYZ transmission	Direct coupling	Timing belt pulley 1:2			
Coolant					
Coolant pump	1/6HP	1/6HP	1/6HP	1/6HP	1/6HP
Machine size					
Overall width (A)	2200mm(87")	2110mm(83")	2590mm(102")	3100mm(122")	4800mm(189")
Overall depth (B)	1700mm(67")	1975mm(78")	2200mm(67")	2435mm(96")	2302mm(91")
Overall height (C)	2050mm(81")	2230mm(88")	2420mm(95")	2615mm(103")	2614mm(103")
Net weight	2600kgs (5732 Lbs)	2100kgs (4400 Lbs)	2600kgs (5732 Lbs)	3960kgs (8730 Lbs)	3960kgs (9920 Lbs)

We reserve the right to modify and improve the specifications without notice, the specification shown above is for reference only.



SPECIFICATIONS	MCB-850	MCB-1000	MCB-1300	MCB-1600
Travel				
XYZ travel	850/450/450mm (33"/17.7"/17.7")	1070/510/510mm (42"/20"/20")	1300/600/700mm (51"/24"/27.6")	1600/700/700mm (63"/27.6"/27.6")
Spindle nose to table surface	150-600mm (5.9"~23.6")	100-610mm (4"~24")	150-850mm (5.9"~33")	120-820mm (4.7"~32.3")
Spindle center to column surface	510mm(20")	525mm(21")	580mm(22.8")	670mm(26.4")
Table				
Table size	1270x305mm (50"x12")	1520x400mm (60"x16")	1800x450mm (71"x17.7")	2200x500mm (86.6"x20")
T-slot (No. x Size)	3x16mm (3x0.63")	3x18mm (3x0.7")	5x18mm (5x0.7")	5x18mm (5x0.7")
Max. table load	400kgs(880lbs)	500kgs(1100lbs)	800kgs(1760lbs)	1000kgs(2200lbs)
Spindle				
Speed	8000rpm	8000rpm	8000rpm	8000rpm
Taper	BT40	BT40	BT40	BT40
Transmission	Belt drive	Belt drive	Belt drive	Belt drive
Feed rate				
Rapid feed of XYZ	12M/min	12M/min	12M/min	12M/min
Cutting feed rate	0~10M/min	0~10M/min	0~10M/min	0~10M/min
CNC control and motor				
CNC control	Mitsubishi/Fanuc/Fagor			
Spindle motor	7.5 HP	10 HP	10 HP	10 HP
Axes motor	1Kw	1Kw	2Kw	2Kw
XYZ transmission	Timing belt pulley 1:2			
Coolant				
Coolant pump	1/6HP	1/6HP	1/4HP	1/4HP
Machine size				
Overall width (A)	2120mm(83")	2590mm(102")	3100mm(122")	4800mm(189")
Overall depth (B)	1975mm(78")	2200mm(87")	2435mm(96")	2302mm(91")
Overall height (C)	2474mm(95")	2551mm(100")	2928mm(115")	2925mm(115")
Net weight	2100 Kgs (4400 Lbs)	2600 Kgs (5732 Lbs)	3960 Kgs (8730 Lbs)	4500 Kgs (9920 Lbs)

We reserve the right to modify and improve the specifications without notice, the specification shown above is for reference only.



STANDARD FOR MCB SERIES



BALLBAR TEST

Every machine is inspected by a ballbar test to ensure machining accuracy.



SPINDLE NOISE & VIBRATION CHECK



LASER INSPECTION SYSTEM

All 3 axes are checked by Laser test to ensure positioning and repeating accuracy

STANDARD ACCESSORIES

- RS-232 interface
- Auto lubrication
- Programming light (3 colors)
- Coolant system
- Semi guarding (includes: Base splash guard/Column guard (L&R)/Head guard/Table guard/Electrical box/Swiveling arm operation panel)
- Halogen work light
- Leveling bolts & plate
- Tools & box
- Operational manual

OPTIONAL ACCESSORIES

- BT40 10000/12000rpm belt type spindle
- Spindle oil cooler
- Air conditioner for electrical box
- Coolant through spindle center close loop 30/70BAR
- Screw type chip conveyor with chip bucket (for full guarding)
- Steelbelt type chip conveyor with chip bucket (for full guarding)
- CE
- 4th axis
- Transformer

PROFESSIONAL, EFFICIENT AND HIGH QUALITY

- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#30/R8 spindle with 3HP variable speed motor (inverter motor option is available).
- Spindle quill drive box is transmitted by ballscrew for better precision.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precision ground to exact tolerance.
- Precision ballscrews are equipped on X and Y axes.
- X and Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- 1:2 ratio timing belt pulleys on XY axes to increase drive torque.



iV-400

CONVERSATIONAL
CONTROL
SYSTEM MILLING
MACHINE

IPRO Series - Conversational Machine Interface



iPRO INTELLIGENT CONVERSATIONAL CONTROL SYSTEM FEATURES:

- Intelligently integrates the control, machine and person.
- Optimized HMI + PLC + Motion + COMM .
- iPRO system enables you to program conventional machining operations right at your machine in an easy programming way.
- iPRO system was designed for users where manual and automated operation are both needed.
- Built in functions: DXF file input, part view graphics, simulation, parameter memory, visual communication, USB connectivity, coaching program and coordinate adjustment record.
- Powerful, easy and user-friendly. Great for your daily milling work.

iV-500

CONVERSATIONAL CONTROL SYSTEM MILLING MACHINE



- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#40 spindle with 5HP variable speed motor (inverter motor option is available).
- Spindle quill drive box is transmitted by ballscrew for better precision.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed and relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precision ground to exact tolerance.
- Box way design on Y and Z axes leads to better rigidity.
- Lifting screw diameter 38mm assures the stability while machining.
- Precision ballscrews are equipped on X and Y axes.
- X&Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- 1:2 ratio timing belt pulleys on XY axes to increase drive torque.

IPRO.

iv-520

CONVERSATIONAL
CONTROL
SYSTEM MILLING
MACHINE



WORK SMARTER



SPECIFICATIONS	iV-400	iV-500	iV-520
Travel			
XYZ travel	830/380/355mm(32.7"/15"/14")	830/405/378mm(32.7"/15"/14")	830/405/378mm(32.7"/15"/14")
Spindle nose to table surface	100-506mm(4"-20")	85-535mm(3.3"-21")	85-535mm(3.3"-21")
Spindle center to column surface	159-719mm(6.2"-28")	170-730mm(6.7"-28.7")	178-738mm(7"-29")
Ram travel	560mm(22")	560mm(22")	560mm(22")
Table			
Table size	1370x250mm(54"x10")	1370x250mm(54"x10")	1370x250mm(54"x10")
Table T-slot (No. x Size)	3x16mm(3x0.63")	3x16mm(3x0.63")	3x16mm(3x0.63")
Max. table load	350kgs(771 Lbs)	500kgs(1,102 Lbs)	500kgs(1,102 Lbs)
Spindle			
Spindle taper	NST#30/R8	NST#30/R8	NST#40
Spindle speed	5000rpm(60Hz)		
Quill feed	0.04mm-0.08mm-0.14mm(0.0015"-0.003"-0.006")		
Transmission	Variable speed (inverter)		
Quill travel	127mm(5")		
Over swivel on turret	360°		
Head swivel (R&L)	+/- 45°		
Head swivel (Up & down)	+/- 45°		
XY feed rate	0-3(M/min) (0-0.12")		
Rapid feed rate XYZ	5mm/min (0.2"/min)		
Motor			
Spindle motor	3HP	3HP	5HP
XYZ motor	1Kw AC servo motor		
XYZ transmission	1:2 Belt		
Coolant pump	1/8HP	1/8HP	1/8HP
Machine size			
Overall width (A)	1900mm(75")	1900mm(75")	1900mm(75")
Overall depth (B)	2087mm(82")	2120mm(83.5")	2120mm(83.5")
Overall height (C)	2120mm(83.5")	2262mm(89")	2375mm(93.5")
Net weight (approx.)	1400kgs(3,087 Lbs)	1700kgs(3,748 Lbs)	1800kgs(3,969 Lbs)

iV and iB series mills feature the iPRO system

STANDARD ACCESSORIES

- Stepless spindle head by inverter motor & inverter driver
- Tapping switch bottom
- XYZ C3 ground ballscrews
- XY axis motor mounting brackets, timing belts, pulleys
- Z-axis quill drive casting
- XY hand mechanical hand wheels
- Remote hand wheel
- 1 Kw AC servo motors on X/Y, 0.6Kw for quill
- Electric control box & swiveling control panel
- Intelligent control panel (Touch screen monitor with conversation operation)
- Rubber chip cover on front and rear of saddle
- Auto lubrication
- Coolant system
- Quartz work light
- Base splash guard & column guard R & L
- Tools & box

OPTIONAL ACCESSORIES

- Air power draw bar NST#30 or R8 (iV-400, iV-500)
- Air power draw bar NST#40 (iV-520)
- CE
- Safety guarding on spindle
- Electrically interlocked table guard
- 4th axis rotary table
- Milling chuck R8/NST#30/NST#40
- Angle-fix lock vise 6"
- Transformer

We reserve the right to modify and improve the specifications without any prior notice. The specifications shown above are for reference only

WORK SMARTER

iB-610

CONVERSATIONAL CONTROL SYSTEM MILLING MACHINE

- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- NST#30/R8 spindle with 3HP inverter motor.
- Meehanite licensed castings are annealed and stress relieved to ensure maximum precision and vibration absorption.
- Hardened and ground C5 grade ballscrews pre-tensioned to minimize backlash, providing high precision movement and reducing heat deformation on all axes.
- Positioning accuracy: $\pm 0.008\text{mm}/300\text{mm}$.
- Repeatability accuracy: $\pm 0.005\text{mm}/300\text{mm}$.
- Telescopic steel way covers on three axes to protect ways and ballscrews from chips and coolant.
- High grade Turcite-B is coated and with precise hand scrapping to maximize wear resistance.



Box way design on all slideways.



Axes motors are direct coupled with ballscrews, featuring high efficient motion control, high response and low noise.

CONSCIENTIOUS AND ACCURATE INSPECTION IS A MUST-DO FOR AVEMAX AFTER EVERY ASSEMBLY



Ball Bar Test

Each machine is inspected by ball bar test to ensure the circular accuracy.



Laser Inspection System

All 3 axes are checked by laser test to ensure positioning and repeating accuracy.



Spindle Noise & Vibration Check



IPRO.

- NST#40 spindle with 5HP inverter motor.
- Spindle material is SCM415 full hardened through carbonizing heat treatment.
- Essential castings are made of high grade of Meehanite cast iron, which has been stressed, relieved to provide a rigid machine structure.
- Standard with 10"X54" table with hardened and ground.
- Table T-slot is precise ground for precise tolerance.
- Precise ballscrews are equipped on X and Y axes.
- X Y slideways and gibs are coated with Turcite-B to provide smooth and wear resistant surface.
- XYZ slideways are hardened and ground for wear resistance and excellent longevity.
- 1:2 ratio timing belt pulleys on XY axes to increase drive torque.



iB-800

**CONVERSATIONAL
CONTROL
SYSTEM MILLING
MACHINE**

SKILLED HAND-SCRAPPING TECHNIQUE

Every contact sliding surface is applied with high grade Turcite-B that maximizes the durability of slideways and features optimum damping coefficient. The mating surface is precision hand scrapped to increase the flatness and improve geometric accuracy of the whole assembly.



Large quill diameter 110mm (4.33") material S45C (SAE1045) with high-frequency induction hardening and chrome plated



NST#40 spindle material SCM415 (SAE4115) fully hardened and precise ground



Strong back gear transmitting instead of timing belt for Hi-Low speed

- 5HP strong head can be swiveled 90 degrees right and left for angular machining.
- Quill diameter 110mm(4.3") NST#40 spindle.
- XY axes high precision ballscrews, Z axis leadscrew (Z axis ballscrew by option).
- Heavy duty saddle length 1200mm (47.2") support to table.
- Rigid square ways on cross and column.
- Licensed Meehanite casting.
- Hardened and ground on X Y Z slideways and table.
- Turcite-B coated on X Y Z axes slideways and gibs.
- Counter-balance weight device for milling head.
- Telescopic steel cover to protect the slideways and ballscrew from dust.

IB-1000

CONVERSATIONAL CONTROL SYSTEM MILLING MACHINE



PROFESSIONAL, EFFICIENT AND HIGH QUALITY



IB-1300/IB-1600

CONVERSATIONAL
CONTROL
SYSTEM MILLING
MACHINE

- High grade casting is annealed and stress-released, providing high rigidity and wear resistance.
- Hardened and ground double-nut ballscrews on 3 axes, providing high precision movement, and reducing heat deformation.
- XYZ slideways, table and T-slot are hardened and ground.
- 3 ways are coated with turcite-B.
- Dovetail on X slideway, box ways on Y and Z.
- 1:2 ratio timing belt boxes on XYZ increase drive torque and save cost for axes motors.
- XYZ axes are driven by servo motor, standard with pendant control box showing individual buttons for each function allows operator to work with ease.
- YZ steel way covers protecting slideways and ballscrews from dust and coolant.

IPRO.



IB-1300G / IB-1600G (GEAR HEAD)

CONVERSATIONAL CONTROL
SYSTEM MILLING MACHINE



- * High-rigidity spindle complete with cylindrical roller bearing designed for accuracy cutting. No chatter happen, during the cutting process.
- * Gears splined shaft and key are made from chrome molybdenum steel SCM415H, through both carburizing harden and precise grinding to ensure excellent running precision and long duration.
- * Gear box is lubricated by forced lubrication system, and all leadscrews are covered by telescopic spring.

- High grade casting is annealed and stress-released, providing high rigidity and wear resistance.
- Hardened and ground double-nut ballscrews on 3 axes, providing high precision movement, and reducing heat deformation.
- XYZ slideways, table and T-slot are hardened and ground.
- 3 ways are coated with turcite-B.
- Dovetail on X slideway, box ways on Y and Z.
- 1:2 ratio timing belt boxes on XYZ increase drive torque and save cost for axes motors.
- XYZ axes are driven by servo motor, standard with pendant control box showing individual buttons for each function allows operator to work with ease.
- YZ steel way covers protecting slideways and ballscrews from dust and coolant.



WORK SMARTER



Series - Conversational Machine Interface



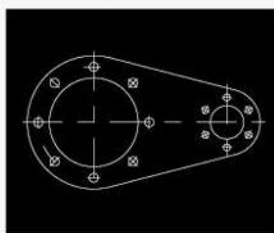
iPRO INTELLIGENT CONVERSATIONAL CONTROL SYSTEM FEATURES

- Intelligently integrates the control, machine and person.
- Optimized HMI + PLC + Motion + COMM .
- iPRO system enables you to program conventional machining operations right at your machine in an easy programming way.
- iPRO system was designed for users where manual and automated operation are both needed.
- Built in functions: parameter memory, visual communication, USB connectivity, coaching program and coordinate adjustment record.
- Powerful, easy and user-friendly. Great for your daily milling work.

WORK SMARTER

SELECT DIFFERENT TASKS BY TOUCHING THE ICONS ON TOUCH SCREEN

Easy to learn, operate and remember !



DRO mode

Built in DRO mode provides DRO functions for your milling work. With this feature, you are no longer have to spend extra money on DRO equipments for your machine.

CAD/CAM input

Easily transfer your 2D CAD/CAM codes into the system by using USB flash drive. Allow you to do milling work by following your 2D CAD/CAM design.

HELP PAGES

Help pages are available for you to check different useful information quickly.

LEARNING

Even if you have never used a CNC before, you will be able to learn the iPRO in just a few hours. It is easier to operate with an iPRO than to use manual machining methods. You'll quickly find out having the iPRO will pay off in job satisfaction.

TASK SCHEDULING

You are able to schedule 999 different machining tasks.



PROGRAMMING

Program the iPRO by making simple selections and inputting parameters in numbers.

PROGRAM STORAGE

An internal drive lets you save hundreds of typical programs. A USB port on iPRO is available to plug in a storage device for backing up programs and moving programs between iPRO and computers.



iPRO WORK SMARTER

SPECIFICATIONS	iB-610	iB-800	iB-1000	iB-1300	iB-1300G	iB-1600	iB-1600S
Travel							
XYZ travel	610/350/460	820/420/360	1000/440/400	1300/600/700	1300/600/700	1600/700/700	1600/700/700
Spindle nose to table surface(mm)	100-560	100-530	85-585	150-585	150-850	70-770	85-585
Spindle center to column surface(mm)	430	565	490	580	610	670	670
Table							
Table size(mm)	710x350	1270x305	1270x380	1800x450	1800x450	2200x500	2200x500
T-slot (No.x Size)(mm)	5x16	3x16	3x16	5x18	5x18	5x18	5x18
Max. table load(kgs)	350	500	800	1000	1000	1200	1200
Spindle							
Spindle taper	NST#30/R8	NST#40			NST#50	NST#40	NST#50
Spindle speed (rpm)	3600 (60Hz)				Low:125-560 Hi:370-1100	3600 (60Hz)	Low:125-560 Hi:370-1100
Quill feed (mm)	0.04/0.08/0.14		0.035/0.07/0.14		—	0.035/0.07/0.14	—
Transmission	Variable speed (inverter)						
Quill travel (mm)	127	127	140	140	—	140	—
Head swivel (R&L)	+/- 45°			—	—	+/- 45°	—
Rapid feed rate XYZ (M/Min)	12	5	5	8			
Motor							
Spindle motor	3HP	5HP	5HP	5HP	10HP	5HP	10HP
XYZ motor	1Kw AC servo motor			2Kw AC servo motor			
XYZ transmission	Direct coupling	1 : 2 Belt					
Coolant pump	1/6 HP			1/4 HP			
Machine size							
Overall width (A)	220	155	259	310		480	
Overall depth (B)	170	138	220	242		230	
Overall height (C)	205	203	242	262		261	
Net weight (approx.)(kgs)	2600	2360	3100	3960		4500	

iV and iB series mills feature the iPRO system

STANDARD ACCESSORIES

- Variable speed spindle head by inverter motor & inverter driver
- Tapping switch bottom
- XYZ C3 ground ball screws
- XYZ axis motor mounting brackets, timing belts, pulleys
- XY mechanical hand wheels (iB-800/iB-1000)
- W/O hand wheel, but c/w 3 MPG (iB-1300/iB-1600)
- 1Kw AC servo motors on X/Y/Z
- Electric control box and swiveling control panel
- Intelligent control panel (Touch screen monitor with conversation operation)
- Remote hand wheel one piece (iB-800 and iB-1000)
- Telescopic steel chip cover on front of saddle
- Auto lubrication
- Coolant system
- Quartz work light
- Base splash guard and column guard R and L
- Tools and box

OPTIONAL ACCESSORIES

- Air power drawbar NST#30 or R8 (iB-610)
- Air power drawbar NST#40 (iB-800/iB-1000/iB-1300/iB-1600)
- CE
- Safety guarding on spindle
- Electrically interlocked table guard
- 12"x58" table & longer saddle (X travel 1000mm) for iB-800
- 15"x58" table & longer saddle (X travel 1200mm) for iB-1000
- Longer column (150mm higher) (iB-1000)
- 4th axis rotary table
- Milling chuck R8/NST#30/NST#40
- Angle-fix lock vise 6"
- Transformer

We reserve the right to modify and improve the specifications without any prior notice. The specifications shown above are for reference only

EH-610 EH-760/EH-1000



Arm type is available for options



Standard with Armless type ATC



Box way design on all slideways



FEATURES

- Meehanite licensed castings are annealed and stress relieved to ensure maximum precision and vibration absorption.
- Hardened and ground C5 grade ballscrews pre-tensioned to minimize backlash, providing high precision movement and reducing heat deform providing.
- BT40 belt type 8000rpm spindle is standard (10000/12000/15000rpm are available for option).
- Positioning accuracy : $\pm 0.008\text{mm}/300\text{mm}$.
- Repeatability accuracy: $\pm 0.005\text{mm}/300\text{mm}$.
- Telescopic steel way covers on three axes to protect ways and ballscrews from chips and coolant.
- Box way design on X/Y/Z axis is hardened and ground .
- High grade TURCITE-B is coated with precision handscrapping giving maximum wear resistance.



1:2 ratio timing belt pulleys on XYZ axes increase drive torque.(EH-760/EH-1000)

THE BEST WAY TO EXCELLENCE

EH-760



The swivel panel is easy for operation

EH-1000



High quality electrical components and circuits are fully protected. Neat wiring arrangement is easy for maintenance.

Coolant tank design is easy for maintenance.
(Screw type chip conveyor is optional)



SPECIFICATIONS	EH-610	EH-760	EH-1000
Travel			
Table size	710x350mm	900x400mm	1200 x410mm
T-slot of table(SizexQ'ty)	16mmx5	18mmx3	18mmx5
Longitudinal travel (X axis)	610mm	760mm	1020mm
Cross travel (Y axis)	350mm	450mm	510mm
Vertical travel (Z axis)	460mm	460(☆600)mm	510(☆650)mm
Spindle nose to table surface	100-560(☆100-700)mm	120-570(☆120-700)mm	100-610(☆100-750)mm
Spindle center to column surface	430mm	510mm	525mm
Max. table load	350Kgs	500Kgs	700Kgs
Spindle			
Taper	BT#40 (☆CAT#40/DIN#40)		
Speed	8000rpm(☆10000/12000/15000rpm)		
Transmission	Belt		
Feed Rate			
Rapid feed rate of XYZ	15M/min	12M/min	12M/min
Cutting feed rate	1-10M/min	1-10M/min	1-10M/min
Motor			
Spindle motor	3.5/5.5Kw(*)	5.5/7.5Kw(*)	5.5/7.5Kw(*)
XYZ motors	1.5Kw(*)	1.5Kw(*)	1.5Kw(*)
XYZ transmission	Direct coupling	Timing belt pulley 1:2	
Automatic Tool Changer			
Tool storage capacity	Armless 10	Armless 16	Armless 16
Max. tool diameter	Full : 100mm Next empty : 150mm	Full : 100mm Next empty : 150mm	Full : 100mm Next empty : 150mm
Max. tool length	300mm	300mm	300mm
Max. tool weight	6Kgs	6Kgs	6Kgs
Miscellaneous			
Coolant pump	1/6 HP		
Lubrication pump	75W		
Air source	6Kgs/cm ²		
Power requirement	12KVA	12KVA	15KVA
Machine dimension (L x W x H)	2050x1700x2200mm	2700x2085x2470mm	3200x2200x2550mm
Machine weight (Approx.)	2600Kgs	3000Kgs	4000Kgs
CNC controller	Mitsubishi E70		

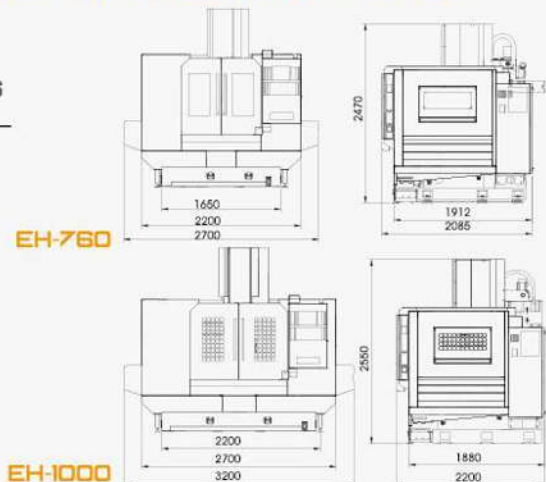
We reserve the right to modify and improve the specifications without notice. ☆Option (*)Depends on CNC controller choice

STANDARD ACCESSORIES

- Tool box and tools
- Leveling screws and bolts
- Auto lubrication
- Spindle air blast
- Quartz work light
- Fixed handwheel on control panel
- Full guarding
- Operation manual

OPTIONAL ACCESSORIES

- Arm type 20/24 tools ATC
- Spindle speed
10000/12000/15000rpm
- Screw type chip conveyor
- Spindle oil cooler
- Heat exchanger for electrical cabinet
- Coolant through spindle
- Transformer
- Portable MPG



TOOL ACCESSORIES



Pull Stud



Setter-Z-Zero



Face Mill Cutter



Edge Finder



Spring Collet Chuck



Straight Shank



Collet



Bearing Wrench



Spring Collet Set



Mechanical Power Vise



Universal Power Tilting Vise



Convenience Hydraulic Vise

Other accessories are also available, please contact us for more information.