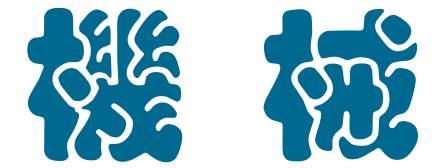
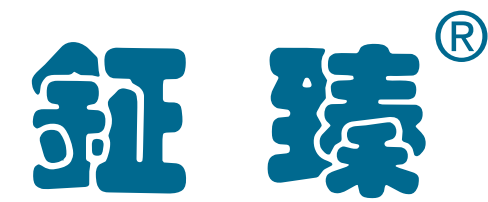




Taizheng Machine Tool Union



**SM & X SERIES
TURRET MILLING MACHINE**



**BM SERIES
BED-TYPE MILLING MACHINE**



**KM SERIES
CNC TURRET MILLING MACHINE**



**KBM SERIES
CNC BED-TYPE MILLING MACHINE**



HEAD OFFICE

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MANUFACTURING BASE

Add 1: IT Industry Base, National Economic & Technology
Development Zone, Kunming City, Yunnan

Add 2: CNC Machine Industry Park, Yanhe Town, Tuxi City, Yunnan

Add 3: Bi Town, Lufeng County, Yunnan.

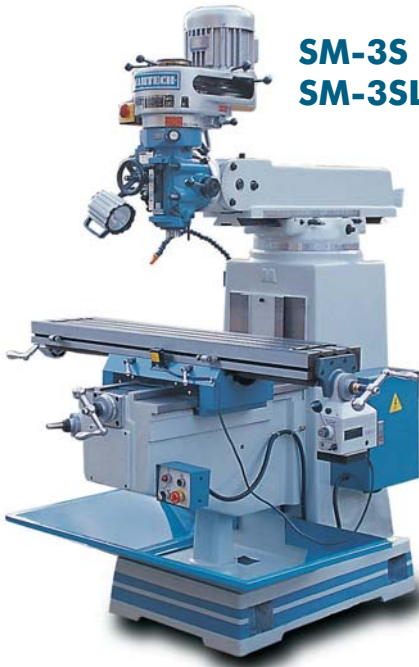
Add 4: Daxiuchang, Gucheng Town, Jingning County,
Kunming City, Yunnan

SMARTTECH MACHINERY & EQUIPMENT CO., LTD.
www.zzsmartech.com

SPECIFICATION		2S	2SL
Slideways Structure		Y/Z: ▲	Y: ■, Z: ▲
Table Size		1245x230mm(49"x9")	
Travel	X	920mm(36")	
	Y	330mm(13")	360mm(14")
	Z	406mm(16")	
	Quill	127mm(5")	
	Ram	380mm(15")	
Quill Diamenter		86mm(3 3/8")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		2.25kw (3HP)	
Spindle Taper		R8/NT30/NT40 (3 optional choose)	
Spindle Speed	S	16 steps: 80-5440rpm	
	V	Variable: 60-4200rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45°, Right & Left: ±90°	
Distance from Table to Spindle		0-460mm(0-18")	
Distance from Column to Spindle		107-487mm(4 1/2"-19")	
Machine Weight		1000kg	1100kg
Dimension (LxWxH)		1600x1450x2100mm	1600x1700x2100mm



SM-2S



SM-3S
SM-3SL

SPECIFICATION		3S	3SB	3SL	3SLB
Slideways Structure		Y/Z: ▲	Y: ■, Z: ▲	Y/Z: ▲	Y: ■, Z: ▲
Table Size		1272x254mm(50"x10")		1372x305mm(54"x12")	
Travel	X	914mm(36")		1000mm(40")	
	Y		406mm(16")		
	Z		406mm(16")		
	Quill		127mm(5")		
	Ram		520mm(20")		
Quill Diamenter			86mm(3 3/8")		
Quill Feed rate			0.04,0.08,0.15mm (0.0015",0.003",0.006")		
Spindle Motor			2.25kw (3HP)		
Spindle Taper			R8/NT30/NT40 (3 optional choose)		
Spindle Speed	S		16 steps: 80-5440rpm		
	V		Variable: 60-4200rpm		
	F		Infinity: 50-5000rpm		
Milling Head Tilt Angle			Back & Forward: ±45°, Right & Left: ±90°		
Distance from Table to Spindle			0-460mm(0-18")		
Distance from Column to Spindle			155-665mm(6"-26")		
Machine Weight		1200kg		1400kg	
Dimension (LxWxH)		1750x1700x2200mm		1850x1700x2200mm	



SM-4S

SPECIFICATION		4S	4SB
Slideways Structure		Y/Z: ■	
Table Size		1372x254mm(54"x10")	
Travel	X	1000mm(40")	
	Y	420mm(16 1/2")	
	Z	420mm(16 1/2")	
	Quill	127mm(5")	
	Ram	580mm(22.8")	
Quill Diamenter		86mm(3 3/8")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		2.25kw (3HP)	
Spindle Taper		R8/NT30/NT40 (3 optional choose)	
Spindle Speed	S	16 steps: 80-5440rpm	
	V	Variable: 60-4200rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45°, Right & Left: ±90°	
Distance from Table to Spindle		0-420mm(0-16.5")	
Distance from Column to Spindle		105-685mm(4"-27")	
Machine Weight		1650kg	1720kg
Dimension (LxWxH)		2000x1700x2300mm	2000x1700x2400mm



SM-4SL

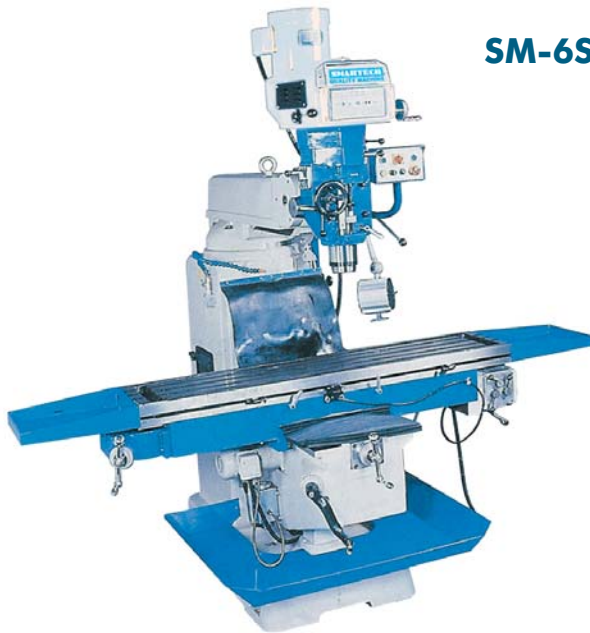
SPECIFICATION		4SL	4SLB
Slideways Structure		Y/Z: ■	
Table Size		1372x305mm(54"x12")	
Travel	X	1000mm(40")	
	Y	420mm(16 1/2")	
	Z	420mm(16 1/2")	
	Quill	127mm(5")	
	Ram	580mm(22.8")	
Quill Diamenter		105mm(4")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		3.75kw (5HP),option: 5.5kw(7.5HP)	
Spindle Taper		NT40	
Spindle Speed	S	10 steps: 60-3600rpm	
	V	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°	
Distance from Table to Spindle		0-420mm(0-16.5")	
Distance from Column to Spindle		105-685mm(4"-27")	
Machine Weight		1680kg	1750kg
Dimension (LxWxH)		2000x1700x2350mm	2000x1700x2450mm

SPECIFICATION		5S	5SB
Slideways Structure		Y/Z: ■, X axis wide saddle	
Table Size		1370x330mm(54"x13")	
Travel	X	850mm(33")	1014mm(40")
	Y	380mm(15")	420mm(16 1/2")
	Z		360mm(14.2")
	Quill		127mm(5")
	Ram		600mm(24")
Quill Diamenter		105mm(4")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		3.75kw (5HP) Option: 5.5kw(7.5HP)	
Spindle Taper		NT40	
Spindle Speed	S	10 steps: 60-3600rpm	
	V	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°	
Distance from Table to Spindle		0-420mm(0-16.5")	
Distance from Column to Spindle		172-772mm(6.8"-30.4")	
Machine Weight		2000kg	2100kg
Dimension (LxWxH)		2200x1800x2350mm	2350x1840x2350mm



SM-5S

SPECIFICATION		6S	6SB
Slideways Structure		Y/Z: ■, X axis wide saddle	
Table Size		1370x330mm(54"x13")	
Travel	X	850mm(33")	1014mm(40")
	Y	380mm(15")	420mm(16 1/2")
	Z		460mm(18")
	Quill		127mm(5")
	Ram		600mm(23 3/4")
Quill Diamenter		105mm(4")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		3.75kw (5HP),option: 5.5kw(7.5HP)	
Spindle Taper		NT40	
Spindle Speed	S	10 steps: 60-3600rpm	
	V	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°	
Distance from Table to Spindle		100-560mm(4"-22")	
Distance from Column to Spindle		172-772mm(6.8"-30.4")	
Machine Weight		2200kg	2300kg
Dimension (LxWxH)		2200x1800x2550mm	2350x1840x2550mm



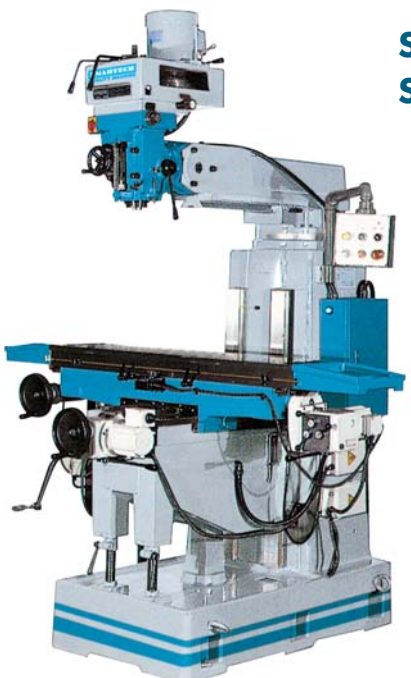
SM-6SL

SPECIFICATION		6SL
Slideways Structure		Y/Z: ■, X axis wide saddle
Table Size		1520x330mm(60"x13")
Travel	X	1200mm(48")
	Y	420mm(16 1/2")
	Z	460mm(18")
	Quill	127mm(5")
	Ram	600mm(24")
Quill Diamenter		105mm(4")
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")
Spindle Motor		3.75kw (5HP) Option: 5.5kw(7.5HP)
Spindle Taper		NT40
Spindle Speed	S	10 steps: 60-3600rpm
	V	Variable: 50-3750rpm
	F	Infinity: 50-5000rpm
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°
Distance from Table to Spindle		100-560mm(4"-22")
Distance from Column to Spindle		172-772mm(6.8"-30.4")
Machine Weight		2450kg
Dimension (LxWxH)		2550x1840x2550mm



SM-6S

SPECIFICATION		7S	8S
Slideways Structure		Y/Z: ■, X axis wide saddle	
Table Size		1372x360mm(54"x14")	1524x360mm(60"x14")
Travel	X	1014mm(40")	1200mm(48") Ball Screw
	Y	500mm(20")	500mm(20") Ball Screw
	Z		500mm(18")
	Quill		150mm(6")
	Ram		660mm(26")
Quill Diamenter		105mm(4") option:110mm(4.3")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		3.75kw (5HP) Option:5.5kw (7.5HP)	
Spindle Taper		NT40	
Spindle Speed	S	10 steps: 60-3600rpm	
	V	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°	
Distance from Table to Spindle		100-600mm(4"-23.6")	
Distance from Column to Spindle		100-770mm(4"-30")	
Machine Weight		2700kg	2900kg
Dimension (LxWxH)		2400x1900x2650mm	2600x1900x2700mm



SM-7S
SM-8S

X SERIES TURRET MILLING MACHINE

SPECIFICATION		X3	X4
Slideways Structure		Y: ▲▲, Z: ▲	
Table Size		1270x254mm(50"x10")	1470x320mm(58"x12")
Travel	X	800mm(31")	920mm(36")
	Y	400mm(15")	410mm(16")
	Z	350mm(13")	400mm(15")
Quill		127mm(5")	
Ram		380mm(15")	360(14")
Quill Diamenter		86mm(3 3/8")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		2.25kw (3HP)	
Spindle Taper		R8/NT30/NT40 (3 optional choose)	
Spindle Speed	S	16 steps: 80-5440rpm	
	V	Variable: 60-4200rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45°, Right & Left: ±90°	
Distance from Table to Spindle		75-405mm(3"-16")	50-455mm(2"-18")
Distance from Column to Spindle		172-756mm(6.8"-30")	
Machine Weight		1200kg	1300kg
Dimension (LxWxH)		1750x1700x2100mm	2050x1700x2200mm



X3



X5

SPECIFICATION		X4L	X5
Slideways Structure		Y ■■, Z: ■	Y ▲▲, Z: ▲
Table Size		1372x305mm(54"x12")	1470x320mm(58"x12")
Travel	X	1000mm(39")	920mm(36")
	Y	440mm(17")	410mm(16")
	Z	410mm(16")	400mm(15")
Quill		127(5")	
Ram		380mm(15")	350(13")
Quill Diamenter		105mm(4")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")	
Spindle Motor		3.75kw (5HP) Option:5.5kw (7.5HP)	
Spindle Taper		NT40	
Spindle Speed	S	10 steps: 60-3600rpm	
	V	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°	
Distance from Table to Spindle		0-420mm(0-16.5")	100-500mm(4"-20")
Distance from Column to Spindle		172-756mm(6.8"-30")	
Machine Weight		2000kg	2100kg
Dimension (LxWxH)		2200x1800x2350mm	2350x1840x2350mm



VH4



VH SERIES

VERTICAL & HORIZONTAL TURRET MILLING MACHINE.

SPECIFICATION		VH-4	VH-5	VH-6
Slideways Structure		Y: ■■, Z: ▲	Y: ■■, Z: ▲	Y: ■■, Z: ▲
Table Size		1270x254mm(50"x10")	1372x305mm(54"x12")	1370x330mm(54"x13")
Travel	X	914mm(36")	1000mm(40")	1000mm(40")
	Y		400mm(15.7")	420mm(16.5")
	Z		420mm(16")	460mm(16")
Quill		127mm(5")		
Ram		520mm(21")	600mm(24")	
Quill Diamenter		86mm(3 3/8")	105mm(4")	
Quill Feed rate		0.04,0.08,0.15mm (0.0015",0.003",0.006")		
Spindle Motor		2.25kw (3HP)	3.75kw (5HP)	
Spindle Taper		NT30/NT40	NT40	
Spindle Speed	S	16 steps: 80-5440rpm	10 steps: 60-3600rpm	
	V	Variable: 60-4200rpm	Variable: 50-3750rpm	
	F	Infinity: 50-5000rpm	Infinity: 80-5000rpm	
Milling Head Tilt Angle		Back & Forward: ±45° or fixed, Right & Left: ±90°		
Distance from Table to Spindle		0-420mm(0"-16.5")	100-560mm(4"-22")	
Distance from Column to Spindle		105-685mm(4"-27")	127-772mm(6.8"-30.4")	
Quill Diamenter		86mm(3 3/8")	105mm(4")	
Spindle Motor		2.25kw(3HP)		
Spindle Taper		NT30/NT40	NT40	
Spindle Speed		9 steps: 60, 110, 200, 275, 400, 500, 735, 900, 1320rpm		
Spindle quill travel		152.5-270mm(6"-10.6")		
Center Height of Bracket		200mm(8")	365mm(14.3")	
Machine Weight		1600kg	1800kg	2600kg
Dimension		1800x1900x1800mm	2000x1900x1900mm	2000x1950x2100mm

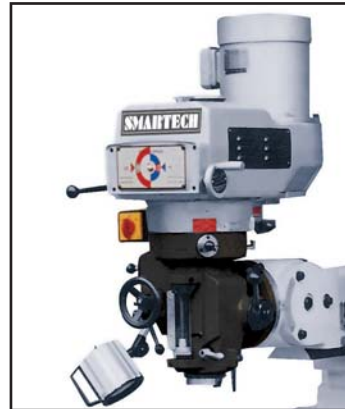
OPTIONAL MILLING HEADS



3S (3HP) Step-pulley.



3J (3HP) Rigid Step-pulley.



3V (3HP) Variable.



5S (5HP) Step-pulley



5J (5HP) Rigid Step-pulley



5V (5HP) Variable



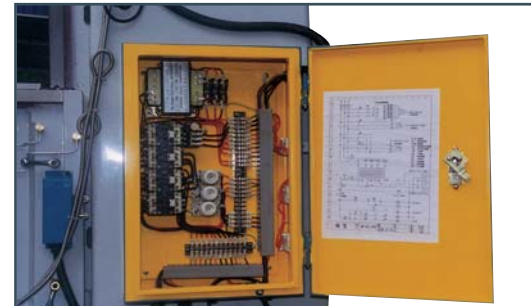
3FS, 5FS & 7FS(7.5HP)
Inverter Controlled



5FV(5HP) & 7.5FV(7.5HP)
Inverter Controlled

STANDARD COMPONENTS & ACCESSORIES

- 1) Draw bar;
- 2) Luxury Electric control box;
- 3) Way rubber cover (front & back);
- 4) Halogen Working Lamp
- 5) Rapid Power Table Elevating System
(For Model: 4L, 5, 6, 7,8, X4 & X5)
- 6) Tools & Tool box;
- 7) Operation manual.



OPTIONAL COMPONENTS & ACCESSORIES



1



2



3



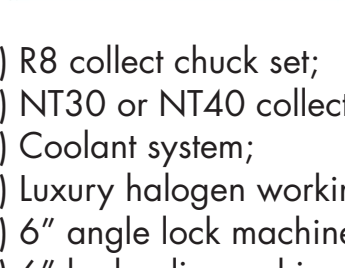
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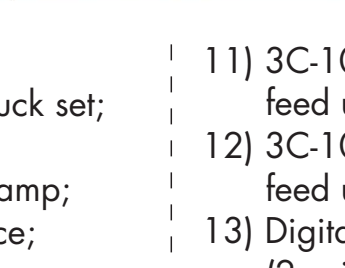
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6



7



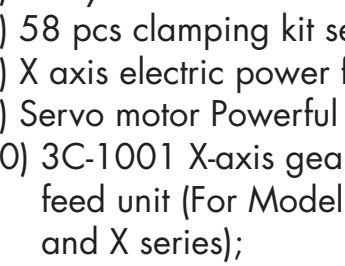
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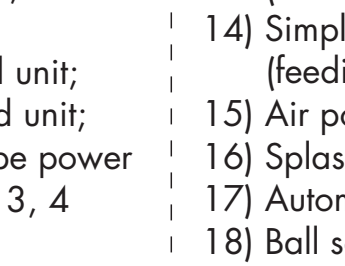
9



10



11



12



13



14



15

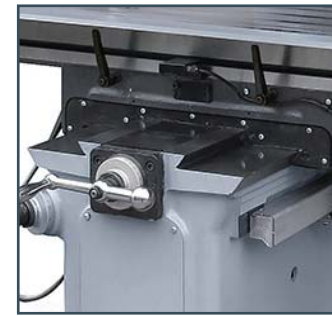


16

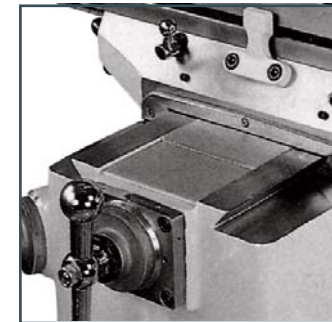


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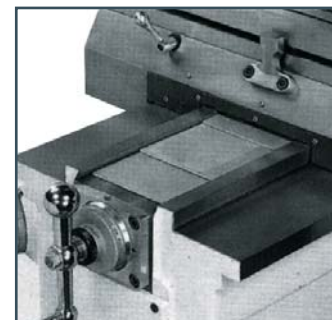
MAJOR FEATURES OF TURRET MILLING MACHINE



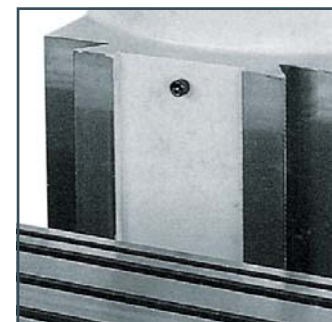
Double ▲ shape cross slideways (For Model X)



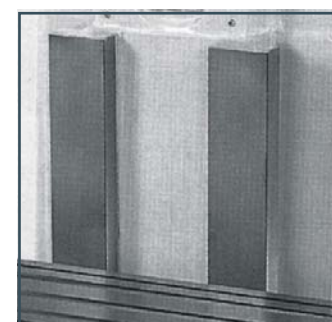
▲ shape cross slide ways (For Model: 2 & 3)



■ shape cross slide ways (For Model: 2B, 3B, 3LB, 4, 4L, 5, 6, 7 & 8)



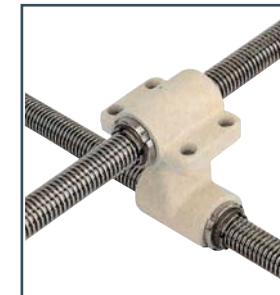
▲ shape column slide ways (For Model: 2 & 3)



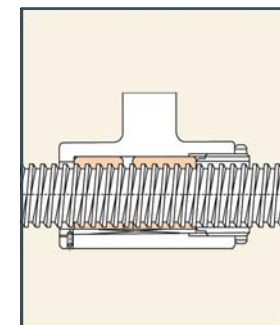
■ shape column slide ways (For Model: 4, 4L, 5, 6, 7 & 8)



Wide saddle with screws inside with better table supporting (For Model: 5, 6, 7 & 8)



High class precision screws



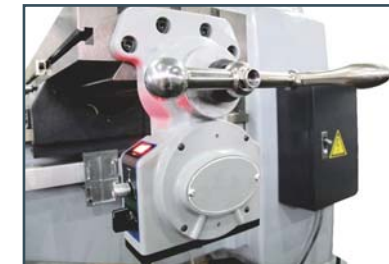
Double Nuts compensation with less backlash



Inner Motor driven Knee Table Rapid elevating system (For Model: 4, 4L and X series)

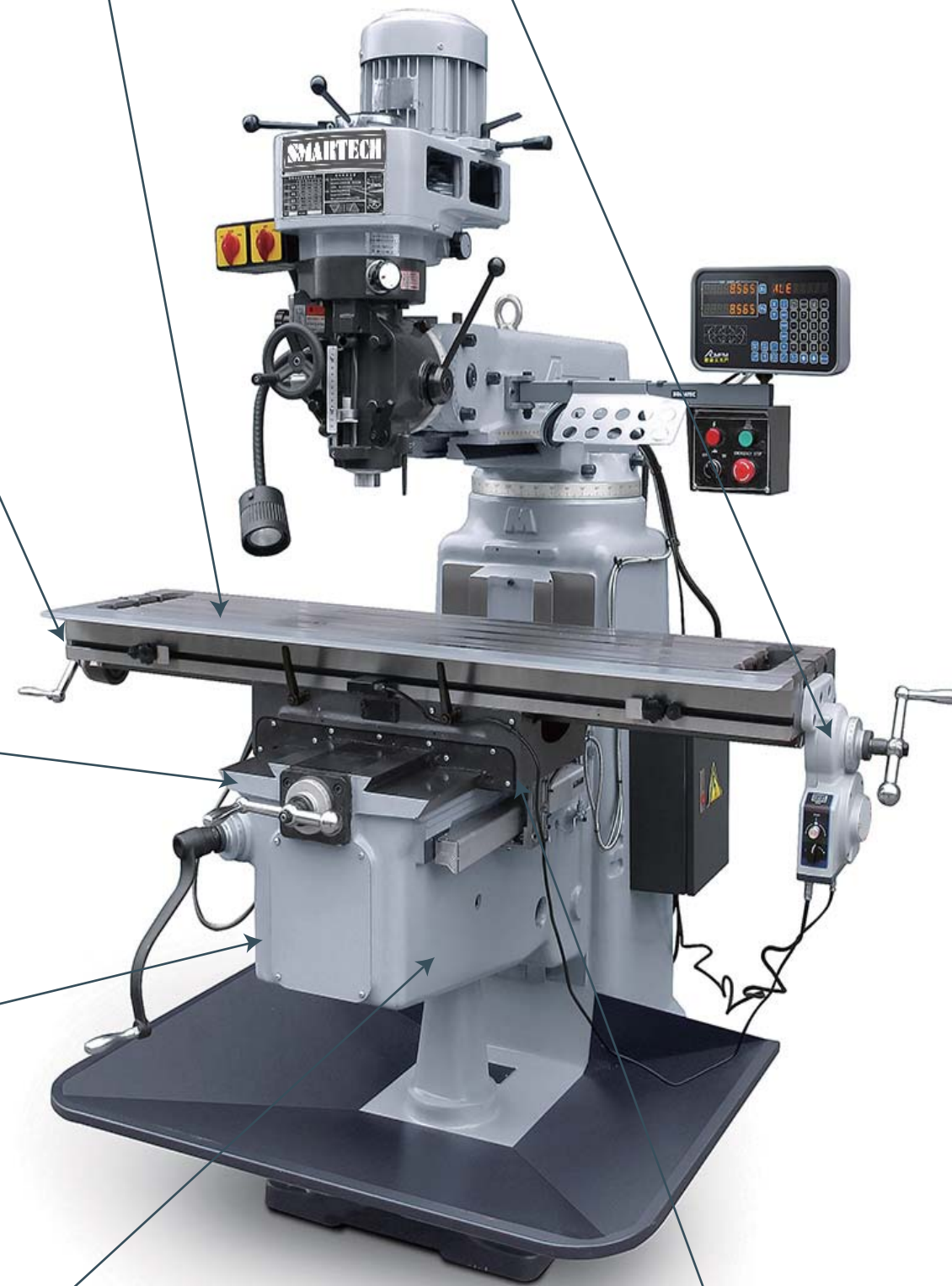


Outside motor driven Table Rapid elevating system (For Model: 5, 6, 7 & 8)



New Servo Motor Power Feed Unit.

- Full range voltage.
- PC controlled variable feed control with speed read-out.
- Accelerator & Speed control integrated in one button.
- Intelligent over-load protection with Auto Zero speed reset when power re-powered on.
- Super Powerful Servo Motor with max torque 20Nm.



Rapid Power Table Elevating System



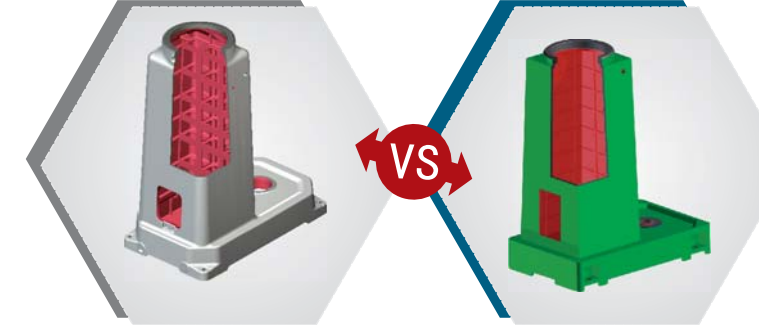
High quality meehanite cast iron by resin mould then with annealing treatment to release stress, well designed inner structure, all for high strength and minimal deformation. Table and all slideways surface are harden and ground.



Superior Turcite-B coated on the adjunction surfaces to the slideways and with precise scraping.

X SERIES SPECIAL FEATURE

Column



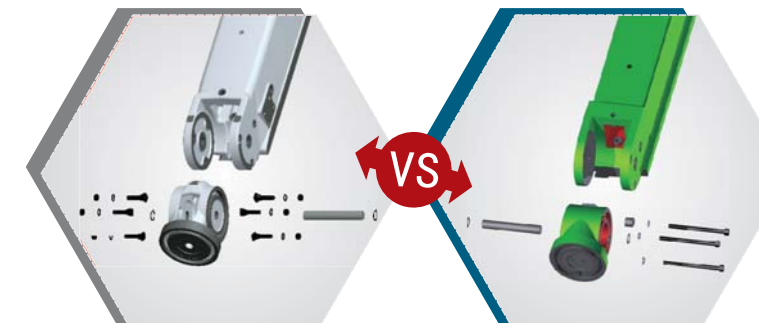
X Series

Additional inner ribs stiffeners design to improve the rigidity of column

Traditional

Single inner ribs stiffeners

Ram & ram adapter



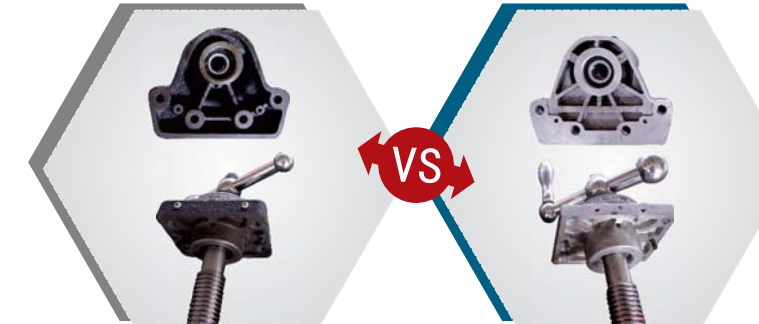
X Series

Double side 6 pcs lock screws (8 pcs for X5) between ram and adapter provide double lock force

Traditional

Only single side 3 pcs lock screws

Bearing Housing



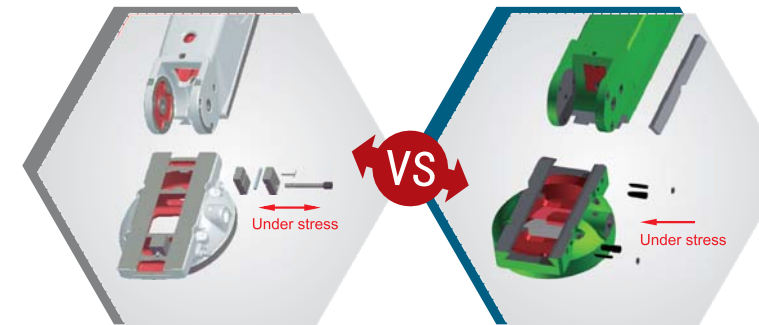
X Series

Casting Iron Bearing Housing with better rigidity and less deformation

Traditional

Aluminum Bearing Housing with more deformation due to temperature change.

Turret & Ram



X Series

Inner Turret twin-sides expending type locking device with less deformation

Traditional

One-side screws Locking from outside of turret.

Support Pedestal



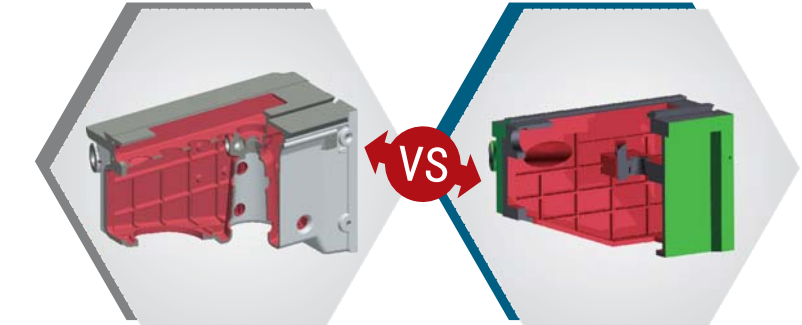
X Series

Ø35mm Screw together with 2 sets of axial bearings and one radial bearing provide much better support capacity.

Traditional

Ø32mm screw with only one set bearing.

Knee



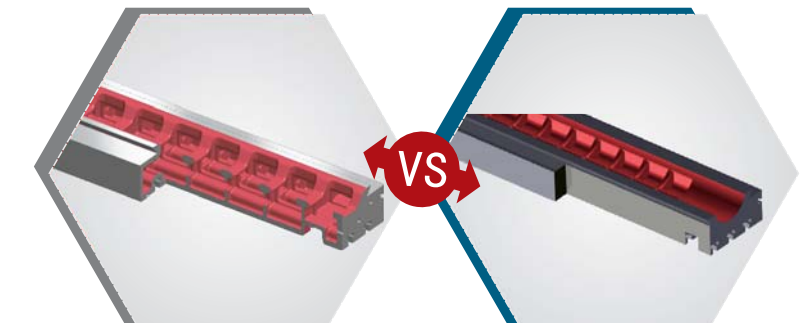
X Series

Y axis and Z axis device integrated strengthened design to increase the knee rigidity

Traditional

Z axis Elevating device separated

Working table



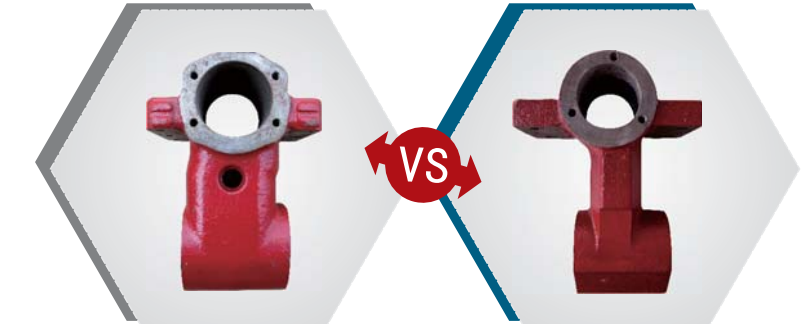
X Series

Better rib stiffeners inside provide the better rigidity with less weight, also less error in long travel.

Traditional

No well rib design with heavier weight and easier shape change due to inner stress release.

X & Y axis Feed Angle Nut Bracket



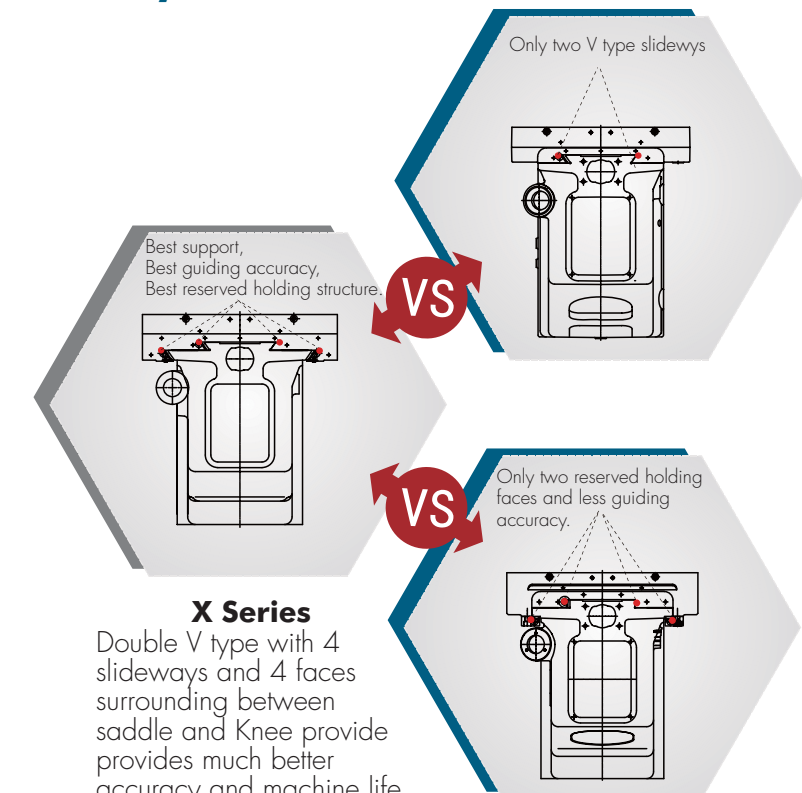
X Series

Improved Stronger structure with 5 times strength than before

Traditional

Thinner structure

Slideways structure between Saddle and Knee



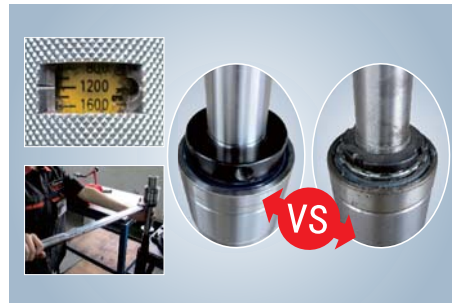
X Series

Double V type with 4 slideways and 4 faces surrounding between saddle and Knee provide much better accuracy and machine life than other type.

Traditional

Single V type slideways or double square type slideways with less surrounding and less accuracy

Spindle Lock Nuts



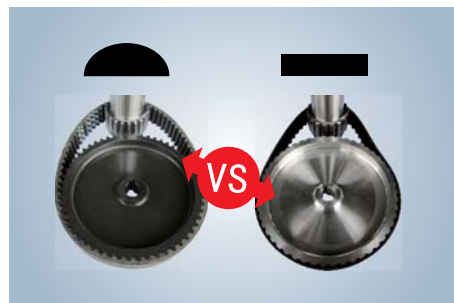
Precision nut assembled with Japanese torque spanner
Vs
Nut and shower assembled with ordinary spanner

Quill movement positioning (For J series Head)



Quill up & down movement with quick slide positioning device.

Teeth Gear Belt (For J series Head)



Round teeth type belt: more powerful transferring and less noise
Vs
Square teeth type belt: unsmooth and higher noise.

Spindle Body



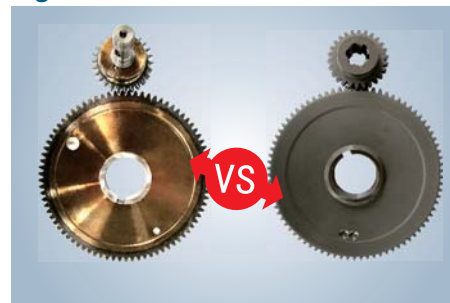
Casted Body made of GG25 by Resin model with metal pattern and with well- designed inner ribs
Vs.
Casted Body made of GG20 with wooden pattern

Small Gear inside Gear Box (For J series Head)



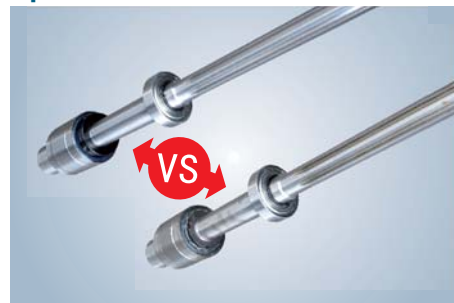
Small gear made of 20 CrMoTi, carburizing deep with 0.5~0.8 mm, high-frequency induction hardening to HRC 52~56. Drive shaft and gear in one piece design to strengthen rigidity with less noise and longer lifetime.
Vs.
Small gear made of S45C, high-frequency induction hardening to HRC 48~52. Drive shaft and gear separated.

Big Gear inside Gear Box.



Big gear made of 20 CrMoTi, carburizing deep with 0.5~0.8 mm, high-frequency induction hardening to HRC 52~56.
Vs.
Big gear made of S45C, high-frequency induction hardening to HRC 48~52.

Spindle



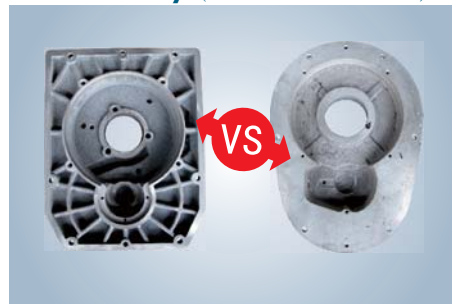
Whole Spindle made of 40 Cr with high frequency induction hardened and 20-24°C conditioning treated to HRC52~56. 6 multiple keys groove well grinded.
Vs
Spindle made of S45C, high-frequency induction hardening to HRC48~52 only.

Brake Seat (For J series Head)



Brake pulley made of casting Iron with precise machined, locked by precise nut, bearing cap prepressed without gaps with more rigidity. Drive Pulley made of casting Iron with more stable.
Vs
Brake pulley made of casting Aluminum, locked by nut and washer without prepressed. Drive Pulley made of casting Aluminum.

Gear Box Body (For J series Head)



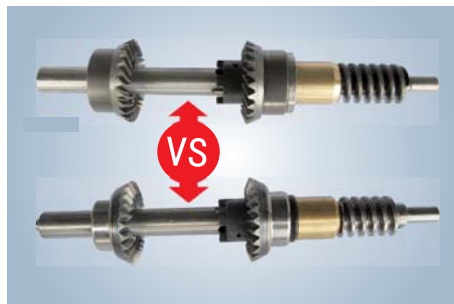
Casted Body made of GG25 casting Iron by Resin model with metal pattern and with well- designed inner ribs
Vs.
Casted Body made of casting Aluminum without ribs.

Auto-Feed Clutch.



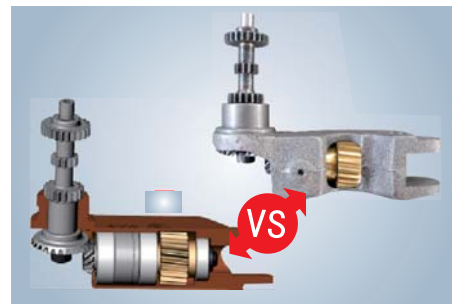
Shaft of auto-feed clutch connected with spline key, both ends supported by two bearings to make quill feeding smoothly.
Vs.
Shaft of auto-feed clutch connected with two round keys, with one end supported by one bearing only.

Feed Worm Gear



Feeding worm gear and shaft in one-piece structure, spiral bevel type gear with better running and less noise
Vs.
Feeding worm gear and shaft separated structure, straight bevel gear

Auto-Feed Drive Seat



With three bearings supported, worm gear made of phosphor bronze. Drive spiral bevel type gear with carburizing treatment with less noise and better wear resisting.
Vs.
With Bronze sleeves supported only

Main Motor Lock device

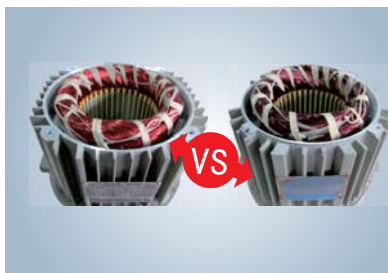


Locking motor with handle, easy to use
Vs.
Locking motor with nuts.

Auto-Feed Operate(For J series Head)



Change Auto-feed rate of quill by round handle and with ball positioning
Vs.
Change Auto-feed rate of quill by switching and with spring pin positioning.



Main Motor
Copper coil with enough power output and lower heat increase
Vs.
Aluminum coil



Variable Speed Control Plate (For V series Head)
With 360° flexible shaft support with smooth speed change with better balancing.

Belt Slide Shaft Structure (For V series Head)



Shaft for Belt slide wheels with both ends supported to ensure belt up & down moving smoothly.

Milling Head Motor



Spindle assembling use Austrian SKF brand bearing oil

Gear Oil



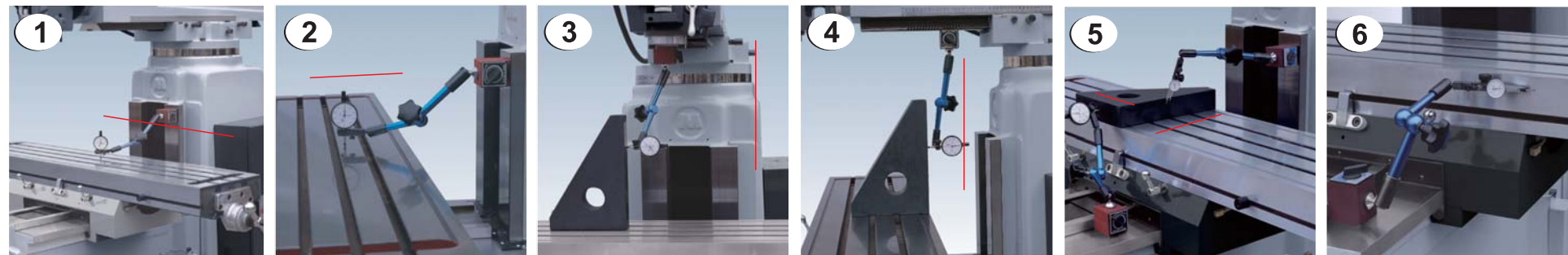
Gear assembling use American LE brand gear oil.

Test Room

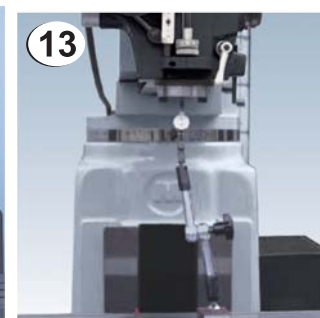
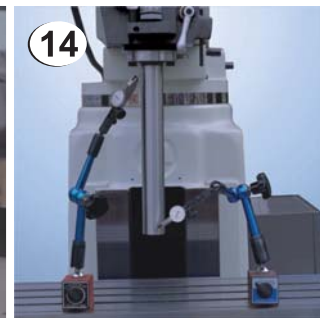
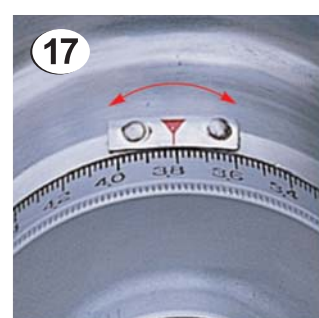


Under 41 dB environment enclosed room for milling head running testing

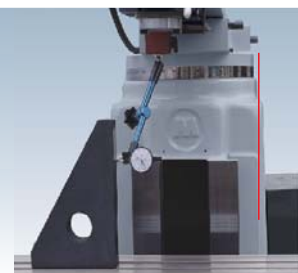
INSPECTION ITEMS & STANDARD



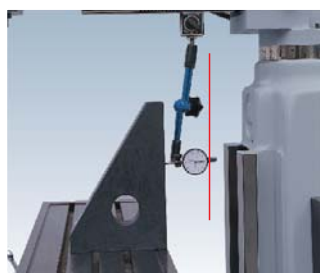
NO.	ITEMS	SM & X SERIES
1	Parallelism of worktable	X axis 0.02/300mm
2		Y axis 0.02/300mm
3	Perpendicularity between Table and Column Slideway	X axis 0.02/300mm
4		Y axis 0.02/300mm
5	Perpendicularity between Cross travel (Y axis) and longitudinal Travel (X axis) of table	0.02/300mm
6	Backlash on X and Y by gibs.	≤ 0.12mm
7	Parallelism between ram moving and table	0.035/300mm
8	Parallelism between turret rotating and worktable	0.035mm/30°
9	Noise of milling head	≤ 70dB
10-12	Hardness of table and slideways	≥ 48HRC
13	Radial skip of the spindle bore	On the nose < 0.01mm
14	Radial skip of the spindle bore	300mm to the nose < 0.02mm
15-16	Manual feeding force	Model: X axis < 1.5kg 2,3,4 Y axis < 2.0kg Z axis < 5.0kg Model: X axis < 1.5kg 5,6,7,8 Y axis < 2.5kg Z axis < 5.0kg
17	Scale error by screws backlash (Cross and Longitudinal)	≤ 0.09mm
18	Max Thermo Increase of spindle	< 60°
	Max Thermo Increase of spindle except of environment temperature change	≤ 30°



INSPECTION TOOLS



▲ USA Covina: Right Angle Gauge



▲ Japan Mitutoyo: Dial indicator



▲ Switzerland GIROD-TAS: Micrometer



▲ Japan Nhtonic: Weight Detector



▲ Japan TES: Noise Detector



▲ Leeb Hardness tester

CERTIFICATE





BM-1000



BM-1300

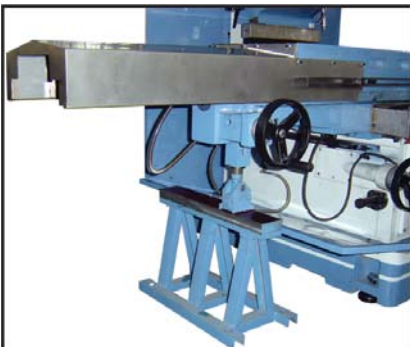
SPECIFICATION	BM-800	BM-900	BM-1000	BM-1300
Table Size	1270x405mm(54"x16")	1370x405mm(54"x16")	1372x405mm(54"x16")	1570x405mm(62"x16")
T-slot(No.-size×distance)	3-16x68mm	3-16x68mm	5-16x60mm	5-16x60mm
Travel	X 800mm (31")	950mm(37.4")	1050mm (42")	1300mm (51")
Travel	Y 500mm (20")	500mm(20")	508mm (20")	508mm (20")
Travel	Z 510mm (20")	510mm(20")	630mm (25")	630mm (25")
Travel	Quill		127mm (5")	
Quill Diameter			105mm (4")	
Quill Feed Rate		0.04, 0.08, 0.15mm (0.0015", 0.003", 0.006")		
Spindle Motor Power		3.75kw(5HP) option: 5.5kw(7.5HP)		
Spindle Taper		NT40		
Spindle Speed	S	10 step: 60-3600 rpm		
Spindle Speed	V	Variable: 50-3750 rpm		
Spindle Speed	F	Infinity: 50-5000 rpm		
Milling Head Tilt Angle		Right & Left: ±45°		
Distance from Table to Spindle	110-680mm(4"-27")	110-680mm(4"-27")	110-740mm(4"-29")	
Distance from Column to Spindle	460mm(18")	460mm(18")	480mm(19")	
X/Y/Z Rapid Feed Rate		4000mm/min		
Cutting Feed Rate		0-2000mm/min		
X/Y/Z Servo Motor		1KW/1.36HP		
Machine Weight	2250kg	2500kg	3000kg	3900kg
Dimension (LxWxH)	2250x2000x2400mm	2250x2000x2400mm	2300x2000x2400mm	3050x2000x2355mm

Standard Accessories

- 1) X/Y/Z axis servo motor feed system or Gear Type Power Feed Unite
- 2) X/Y/Z axis Ball Screws
- 3) Built-in 3-axis Digital Dead Out System.
- 4) Pneumatic Power Draw Bar System
- 5) Y-axis Telescopic Protection Cover
- 6) Z-axis Chip Protection Cover
- 7) Coolant System
- 8) Central AutomaticLubrication System
- 9) Compact Control Panel with all key on.
- 10) Extension tables on each end of working table or stainless steel cover.
- 11) Sub-support Slideways for the Saddle(For Model: BM-1300)
- 12) Working Lamp.
- 13) Base Chip Pan and Side Gurad
- 14) Tool Box
- 15) Operation Manual

Optional Accessories

- 1) Collect Chuck sets (NT40 OZ or NT40 ASC).
- 2) Machine vise
- 3) Hydraulic Machine Vise
- 4) 58 pcs Clamping Kit set
- 5) Table Splash Guard.



KM SERIES CNC TURRET-TYPE MILLING MACHINE



KM-3NC



Optional Milling Head Structure

Optional Accessories

- 1) Milling Head lower body in one piece box type (as per picture)
- 2) Collect Chuck sets (R8, NT30 or NT40).
- 3) Machine vise
- 4) Hydraulic Machine Vise
- 5) 58 pcs Clamping Kit set
- 6) Table Splash Guard.

Standard Accessories

- 1) X/Y/Z axis servo motor
- 2) X/Y/Z axis Ball Screws
- 3) CNC System with options: GSK, Siemens, Fanuc etc.
- 4) Pneumatic Power Draw Bar System
- 5) Front and Back rubber Chip Protection Cover
- 6) Coolant System
- 7) Central AutomaticLubrication System
- 8) Power table elevating system
- 9) Working Lamp.
- 10) Base Chip Pan and Side Gurad
- 11) Tool Box
- 12) Operation Manual

SPECIFICATION	KM-3NC	KM-4NC	KM-5NC	KM-6NC
Slideways Structure	Y/Z: ■	Y: Double▲ Z: ▲	Y/Z: ■ X axis wide saddle	Y/Z: ■ X axis wide saddle
Table Size	1270x254mm(50"x10")	1370x320mm(54"x12.5")	1372x330mm(54"x13")	1372x330mm(54"x13")
Travel	X 800mm (31.5")	780mm (30.7")	800mm (31.4")	1000mm (31.4")
	Y 380(15")	380(15")	380(15")	400(15.7")
	Z (Quill) 125mm(5")	125mm(5")	125mm(5")	125mm(5")
	Knee 360mm(14")	400mm(15.7")	380mm(15")	460mm(18")
	Ram 380mm(15") or Fixed	50-435mm(2"-18")50-465mm(2"-18")50-465mm(2"-18")	480mm(18") or Fixed	50-560mm(2"-18")
Spindle Nose to Table		86mm(3 3/8")	105mm(4")	
Quill Diamenter		2.25kw (3HP)	3.75kw (5HP) or 5kw (7.5HP)*	
Spindle Motor		R8/NT30/NT40 (3 optional choose)	NT40	
Spindle Taper		16 steps: 80-5440rpm	10 steps: 60-3600rpm	
Spindle Speed	S	Variable: 60-4200rpm	Variable: 50-3750rpm	
	V	Infinity: 50-5000rpm	Infinity: 50-5000rpm	
	F	5000mm/min	5000mm/min	
Rapid Feed Rate		0-1000mm/min	0-1000mm/min	
Cutting Feed Rate		1.5kw/2HP	1.5kw/2HP	
X/Y/Z Motor		0.02mm	0.02mm	
Positioning Accuracy		0.01mm	0.01mm	
Repeatability				
Machine Weight	1750kg	1800kg	2400kg	2600kg
Dimension	1950x2150x2200mm	1950x2150x2200mm	2350x1840x2350mm	2350x2150x2550mm

KBM SERIES CNC BED-TYPE MILLING MACHINE

Standard Accessories

- 1) X/Y/Z axis servo motor
- 2) X/Y/Z axis Ball Screws
- 3) CNC System with options: GSK, Siemens, Fanuc etc.
- 4) Pneumatic Power Draw Bar System
- 5) Y-axis Telescopic Protection Cover
- 6) Z-axis Chip Protection Cover
- 7) Coolant System
- 8) Central AutomaticLubrication System
- 9) Extension tables on each end of working table or stainless steel cover.

- 10) Sub-support Slideways for the Saddle (For Model: KBM-1300)
- 11) Working Lamp.
- 12) Base Chip Pan and Side Gurad
- 13) Tool Box
- 14) Operation Manual



Optional VMC type Spindle Head-stock



KBM-1000NC

SPECIFICATION	KBM-800NC	KBM-900NC/II	KBM-1000NC	KBM-1300NC
Table Size	1270x405mm(54"x16")	1370x405mm(54"x16")	1372x405mm(54"x16")	1570x405mm(62"x16")
T-slot(No.-size×distance)	3-16x68mm	3-16x68mm	5-16x60mm	5-16x60mm
Travel	X 800mm (31")	950mm(37.4")	1050mm (40")	1300mm (51")
	Y 500mm (20")	500mm(20")	500mm (20")	500mm (20")
	Z 500mm (20")	510mm(20")	560mm (22")	560mm (22")
Quill			127mm (5")	
Quill Feed Rate		0.04, 0.08, 0.15mm (0.0015", 0.003", 0.006")		
Spindle Motor Power		3.75kw(5HP) option: 5.5kw(7.5HP)		
Spindle Taper		NT40		
Spindle Speed	S	10 steps: 60-3600rpm		
	V	Variable: 50-3750rpm		
	F	Infinity: 50-5000rpm		
Milling Head Tilt Angle		Right & Left: ±45°		
Distance from Table to Spindle	110-680mm(4"-27")		110-740mm(4"-29")	
Distance from Column to Spindle	460mm(18")		480mm(19")	
X/Y/Z Rapid Feed Rate	4000mm/min		4000mm/min	
Cutting Feed Rate	0-2000mm/min		0-2000mm/min	
X/Y/Z Servo Motor	1.5KW/2HP		1.5KW/2HP	
Positioning Accuracy	0.02mm		0.02mm	
Repeatability	0.01mm		0.01mm	
Machine Weight	2250kg	2500kg	3000kg	3900kg
Dimension (LxWxH)	2250x2000x2400mm	2250x2000x2400mm	2300x2000x2400mm	3050x2000x2355mm

Optional Accessories

- 1) Collect Chuck sets (NT40 OZ or NT40 ASC).
- 2) Machine vise
- 3) Hydraulic Machine Vise
- 4) 58 pcs Clamping Kit set
- 5) Table Splash Guard.
- 6) VMC type spindle headstock
- 7) Drum type ATC (only available together with above item 6).