

# Internationally Recognized Machine Tools From FineTech

From its beginnings in 1979, Finetech has been one of the top machine tool manufacturers in the world. Finetech manufactures a wide range of CNC vertical machining centers. Finetech's machines are built to deliver high speed with more accuracy, efficiency and durability with more standard features, high-tech innovations and solid engineering.

Every Finetech machine is designed to provide more flexibility and productivity, making for a very sound investment.



## Extensive Quality Control

Before shipping, each machining center from FINETECH is subject to rigorous quality inspections during assembly. If it does not measure up to our standards, it does not leave our factory. Our objective is to ensure that each machine will provide optimum performance and fully satisfy customers.



### SPINDLE THERMAL GROWTH TESTING

Each spindle is tested through the complete speed range and thermal growth is measured to ensure the spindle is within normal values.

### FINAL TEST CUT

Dynamic cutting process test ensures precision and performance of machine.

### SPINDLE DYNAMIC BALANCE TESTING

After machine assembly, the spindle is re-balanced to ensure smooth operation.



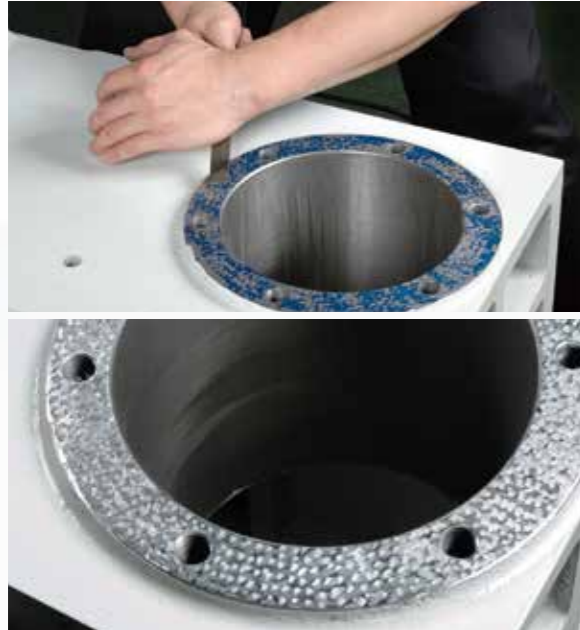
### CALIBRATION

Every Finetech machine is laser calibrated for pitch error compensation and backlash.

### BALL BAR TESTING

Every machine is put through a Dynamic Ballbar test to test circularity and reversal spike errors.

# Extensive Quality Control During Assembly



## SPINDLE TRAM

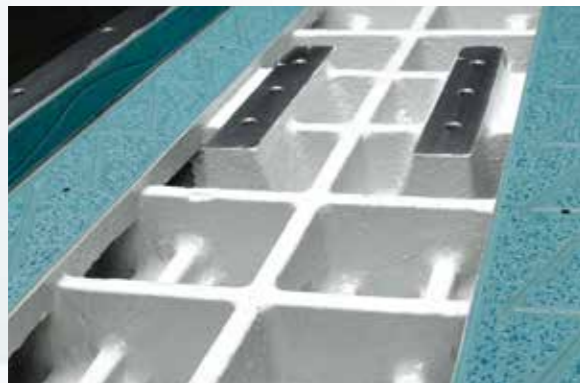
Every spindle mount is hand scraped to ensure accurate alignment of the spindle to worktable.



## BALLSCREW ALIGNMENT

The ballscrew bearing mounts are aligned using a precision test mandrel.

The mounting surface is hand scraped to ensure a highly precision alignment.



## GUIDEWAYS ARE FITTED WITH "TURCITE B"

Box way type machines are hand scraped and set matched to ensure high geometric accuracy.



## STRAIGHTNESS

Every linear guideway has a precision ground mounting surface and is checked using a high precision Granite straight edge.



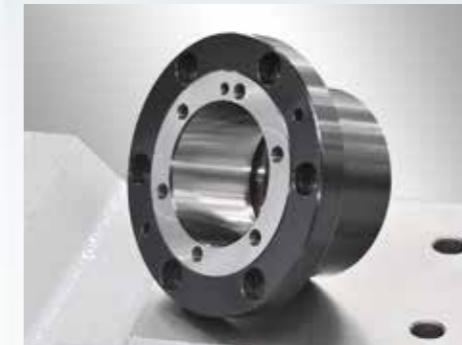
## LEVEL

The machine level is continuously checked through each stage of the assembly process using precision levels.



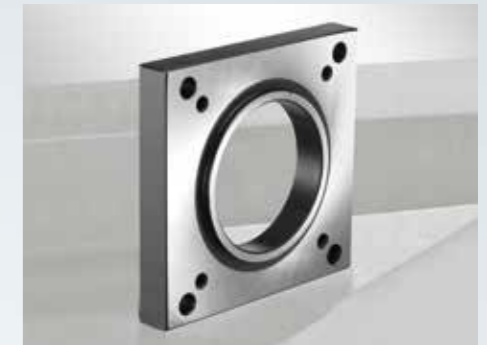
## SCREW AND LINEAR RAIL PARALLEL TEST

The straightness of the ballscrew is measured against the straightness of the linear guideway to ensure both components are parallel to each other.



## THRUST BEARING ASSEMBLY

The thrust bearing housings are inspected and ground for proper clearances to allow the ballscrew to be properly supported.



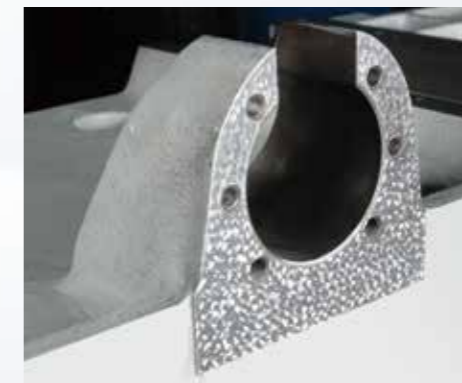
## SERVO MOTOR MOUNT

Each servo motor mounting surface is ground to ensure the motor is correctly aligned to the ballscrew.



## EFFICIENT AXES LUBRICATION

Each axis uses volumetric oil distribution to ensure even and efficient lubrication.



## BALLSCREW MOUNT

The ball nut is hand scraped and aligned using a precision test mandrel.



## Z AXIS ALIGNMENT TEST

The Z axis is tested for accuracy using a high precision granite square in X, Z and Y, Z directions.

## Excellent Mechanical Features



### COOLANT-THROUGH-SPINDLE (CTS) 20-70 BAR (Optional)

Coolant-Through-Spindle provides coolant directly to the machining process through the center of the spindle. CTS may extend the life of the cutting tool and improve the evacuation of chips, especially when used for deep hole drilling and pocket milling.



### SPINDLE CHILLER (Oil or Water)

The spindle chiller will help maintain a stable spindle temperature and will reduce the effects of thermal expansion of the spindle main shaft as well as extend the life of the spindle.



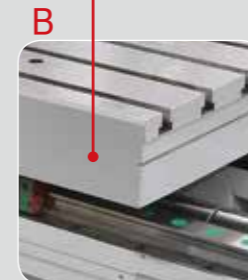
### IN HOUSE CIRCUIT DESIGN

The Finetech R&D team can design both hardware and software components for the machine tools and allows for better quality control and quick response to customers requests.



### Ø63mm EXTRA LARGE BALLSCREW

Finetech's model 1890 and larger use ø63mm ball screws to handle heavier cutting and table loads while still providing smooth motion.



### LINEAR SCALE MOUNTING SURFACE

A precision ground surface can be added to each axis to allow for easy installation of linear scales by ensuring a straight and parallel surface.



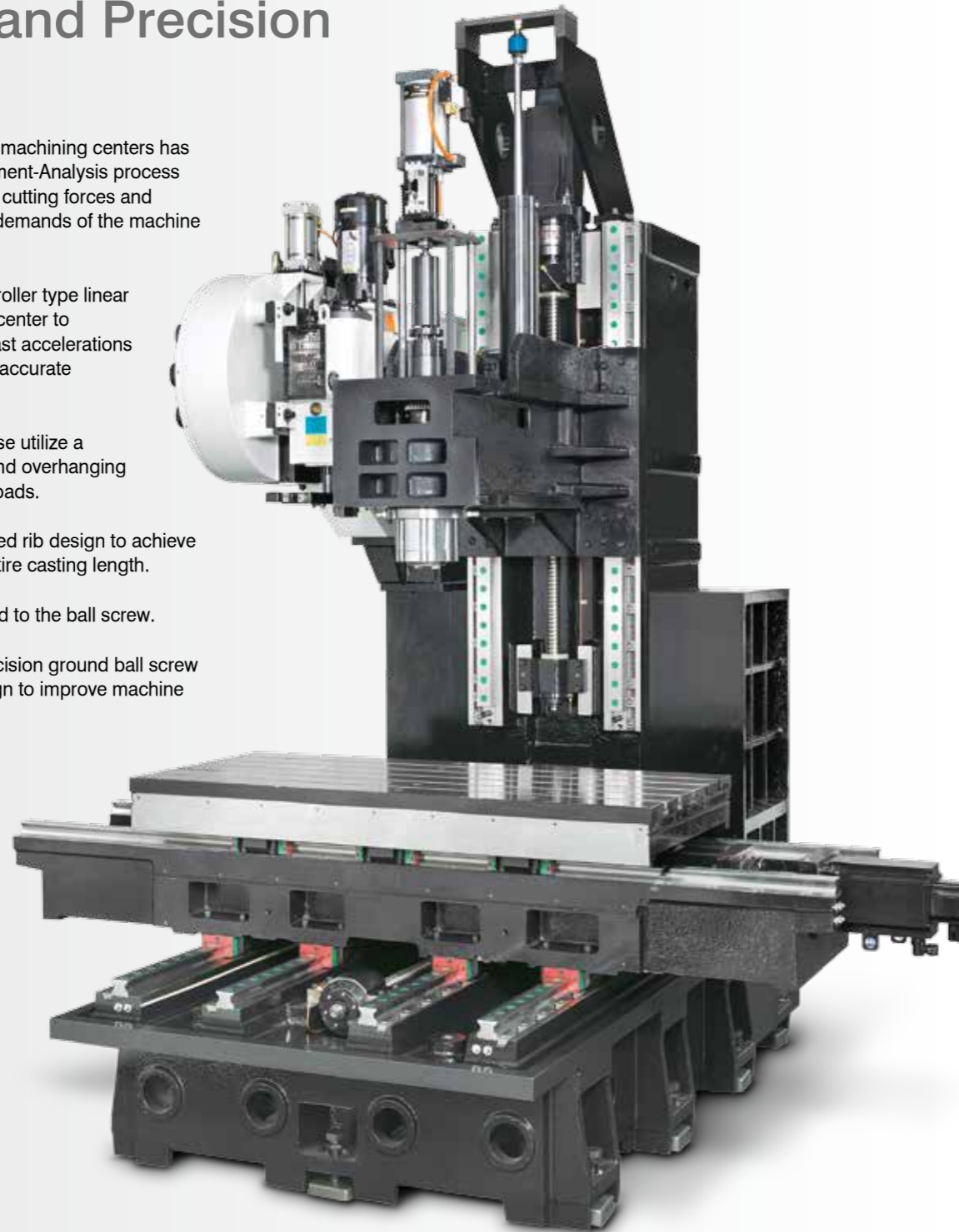
### T-SLOT GRINDING

Each T-Slot is ground to a H8 tolerance to provide an accurate datum surface allowing for easy and precise machine setup.

CNC Vertical **Machining Center**

## High Speed and Precision

- The casting assembly of the SMV machining centers has been designed using a Finite-Element-Analysis process to ensure the machine will handle cutting forces and weight loads associated with the demands of the machine specifications.
- All axes use an extra wide 45mm roller type linear guideway to allow the machining center to accommodate heavy loads with fast accelerations and low friction while maintaining accurate positioning.
- The machine base and saddle base utilize a wide design to prevent sagging and overhanging concerns with heavy work piece loads.
- The Z axis casting uses a reinforced rib design to achieve structural strength through the entire casting length.
- Each axis motor is directly coupled to the ball screw.
- Each axis will use a grade C3 precision ground ball screw and will use a pre-tensioned design to improve machine performance.



▲ **SMV-1270-H3L**

## LINEAR WAY SERIES



▲ **560-H3L**  
• Travel : X560 Y350 Z380 mm  
• Table : L600×W350 mm



▲ **610-H3L**  
• Travel : X610 Y400 Z450 mm  
• Table : L650×W400 mm



▲ **710-H3L**  
• Travel : X710 Y450 Z460 mm  
• Table : L760×W420 mm



▲ **850-H3L**  
• Travel : X850 Y600 Z560 mm  
• Table : L1000×W500 mm



▲ **1060-H3L**  
• Travel : X1000 Y600 Z560 mm  
• Table : L1100×W500 mm



▲ **1270-H3L**  
• Travel : X1200 Y700 Z650 mm  
• Table : L1350×W600 mm



▲ **1370-H3L**  
• Travel : X1300 Y700 Z650 mm  
• Table : L1450×W700 mm



▲ **1570-H3L**  
• Travel : X1500 Y700 Z650 mm  
• Table : L1650×W700 mm



▲ **1670-H3L**  
• Travel : X1600 Y700 Z650 mm  
• Table : L1750×W700 mm



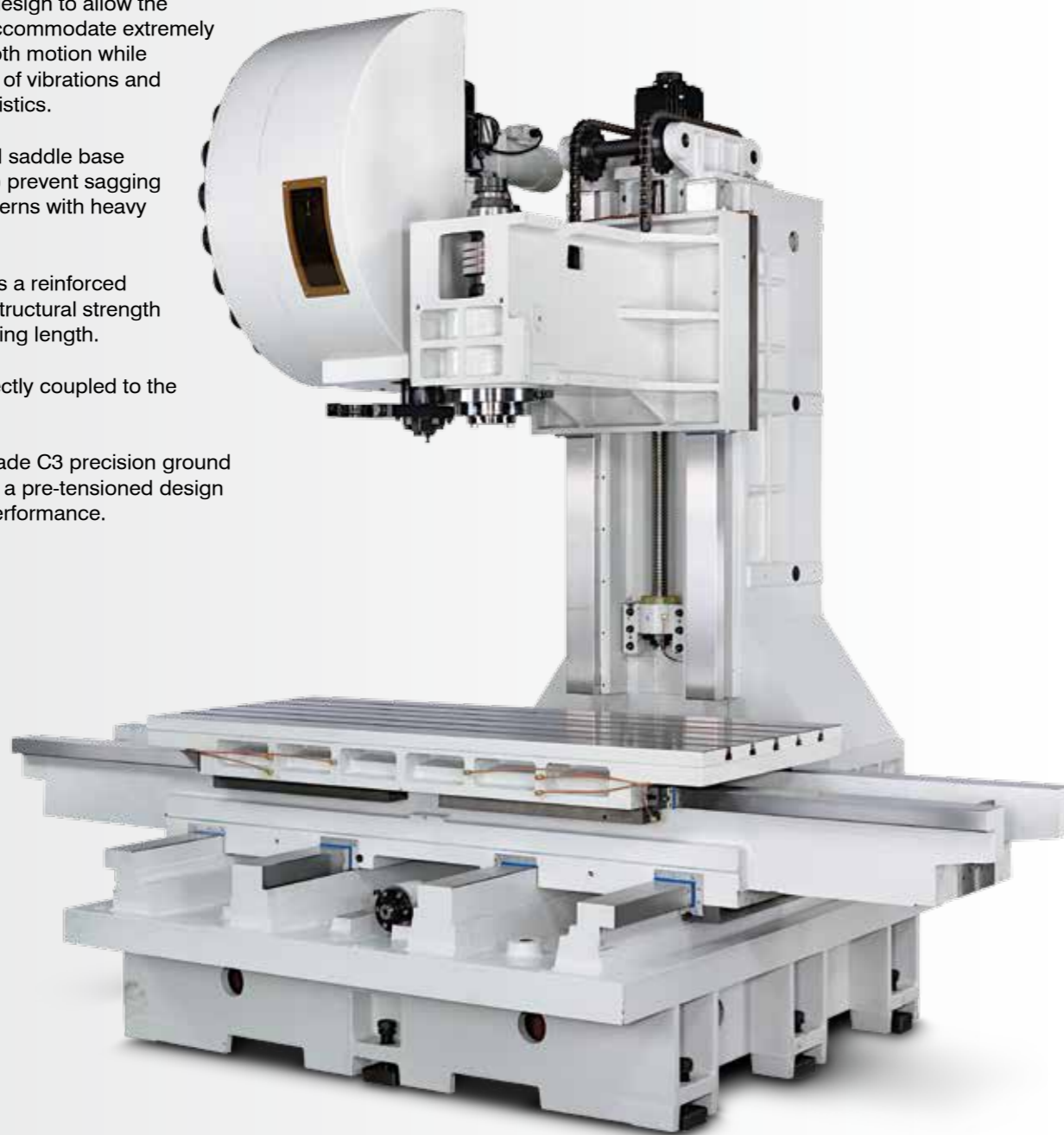
▲ **1485-H3L**  
• Travel : X1400 Y850 Z850 mm  
• Table : L1500×W800 mm



▲ **1685-H3L**  
• Travel : X1600 Y850 Z850 mm  
• Table : L1600×W800 mm

## Heavy Cutting Vertical **Machining Center**

- The casting assembly of the SMV machining centers has been designed using a Finite-Element-Analysis process to ensure the machine will handle cutting forces and weight loads associated with the demands of the machine specifications.
- All axes use box way design to allow the machining center to accommodate extremely heavy loads with smooth motion while increasing dampening of vibrations and cutting force characteristics.
- The machine base and saddle base utilize a wide design to prevent sagging and overhanging concerns with heavy work piece loads.
- The Z axis casting uses a reinforced rib design to achieve structural strength through the entire casting length.
- Each axis motor is directly coupled to the ball screw.
- Each axis will use a grade C3 precision ground ball screw and will use a pre-tensioned design to improve machine performance.



▲ **SMV-2590-3B**

## BOX WAY SERIES



▲ **650-3B**  
 • Travel : X650 Y500 Z500 mm  
 • Table : L800×W470 mm



▲ **1060-3B**  
 • Travel : X1000 Y600 Z560 mm  
 • Table : L1100×W500 mm



▲ **1270-3B**  
 • Travel : X1200 Y700 Z650 mm  
 • Table : L1300×W700 mm



▲ **1570-3B**  
 • Travel : X1500 Y700 Z650 mm  
 • Table : L1650×W700 mm



▲ **1670-3B**  
 • Travel : X1600 Y700 Z650 mm  
 • Table : L1750×W700 mm



▲ **1485-3B**  
 • Travel : X1400 Y850 Z850 mm  
 • Table : L1500×W800 mm



▲ **1685-3B/1690-3B**  
 • Travel : X1600 Y900 Z900 mm  
 • Table : L1800×W840 mm



▲ **1890-3B**  
 • Travel : X1800 Y900 Z900 mm  
 • Table : L1950×W900 mm



▲ **2090-3B**  
 • Travel : X2000 Y900 Z900 mm  
 • Table : L2150×W900 mm



▲ **2290-3B**  
 • Travel : X2200 Y900 Z900 mm  
 • Table : L2350×W1000 mm

## Combination Type Vertical **Machining Center**

- The casting assembly of the SMV machining centers has been designed using a Finite-Element-Analysis process to ensure the machine will handle cutting forces and weight loads associated with the demands of the machine specifications.
- The X and Y axes utilize roller type linear guideways to allow the machining center to accommodate heavy work piece loads with fast accelerations and low friction while maintaining accurate positioning.
- The Z axis uses box way design to allow the machining center to dampen heavier cutting forces.
- The machine base and saddle base utilize a wide design to prevent sagging and overhanging concerns with heavy work piece loads.
- The Z axis casting uses a reinforced rib design to achieve structural strength through the entire casting length.
- Each axis motor is directly coupled to the ball screw.
- Each axis will use a grade C3 precision ground ball screw and will use a pre-tensioned design to improve machine performance.



▲ **SMV-2090-2LB**

## COMBINATION WAY SERIES



▲ **1060-2LB**  
 • Travel : X1000 Y600 Z560 mm  
 • Table : L1100×W500 mm



▲ **1270-2LB**  
 • Travel : X1200 Y700 Z650 mm  
 • Table : L1300×W600 mm



▲ **1570-2LB**  
 • Travel : X1500 Y700 Z650 mm  
 • Table : L1650×W700 mm



▲ **1670-2LB**  
 • Travel : X1600 Y700 Z650 mm  
 • Table : L1750×W700 mm



▲ **1485-2LB/1685-2LB**  
 • Travel : X1400 Y850 Z850 mm  
 • Table : L1500×W800 mm



▲ **1890-2LB**  
 • Travel : X1800 Y1000 Z900 mm  
 • Table : L1950×W900 mm



▲ **2090-2LB/2290-2LB**  
 • Travel : X2000 Y900 Z900 mm  
 • Table : L2150×W1000 mm



▲ **2590-2LB**  
 • Travel : X2500 Y1000 Z900 mm  
 • Table : L2600×W1000 mm

# GEAR-DRIVE SPINDLE HEAD

CNC Vertical **Machining Center**

- The casting assembly of the SMV machining centers has been designed using a Finite-Element-Analysis process to ensure the machine will handle cutting forces and weight loads associated with the demands of the machine specifications.
- All axes use box way design to allow the machining center to accommodate extremely heavy loads with smooth motion while increasing dampening of vibrations and cutting force characteristics.
- The machine base and saddle base utilize a wide design to prevent sagging and overhanging concerns with heavy work piece loads.
- The Z axis casting uses a reinforced rib design to achieve structural strength through the entire casting length.
- Each axis motor is directly coupled to the ball screw.
- Each axis uses a grade C3 precision ground ball screw and a pre-tensioned design to improve machine performance.
- Spindle can be built-in heavy duty gearbox or GTA gearbox type.



▲ **SMV-1670-3B**

## GEARED HEAD SERIES



▲ **1060-2LB/3B**  
 • Travel : X1000 Y600 Z560 mm  
 • Table : L1100×W500 mm



▲ **1270-2LB/3B**  
 • Travel : X1200 Y700 Z650 mm  
 • Table : L1350×W600 mm



▲ **1370-3B**  
 • Travel : X1300 Y700 Z650 mm  
 • Table : L1450×W700 mm



▲ **1485-2LB**  
 ▲ **1685-2LB**  
 • Travel : X1400 Y850 Z850 mm  
 • Table : L1500×W800 mm



▲ **1570-2LB/3B**  
 ▲ **1670-2LB/3B**  
 • Travel : X1500 Y700 Z650 mm  
 • Table : L1650×W700 mm



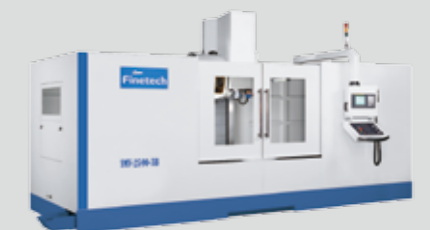
▲ **1690-3B**  
 ▲ **1890-2LB/3B**  
 • Travel : X1600 Y900 Z900 mm  
 • Table : L1800×W840 mm



▲ **2090-2LB/3B**  
 • Travel : X2000 Y900 Z900 mm  
 • Table : L2150×W900 mm



▲ **2290-2LB/3B**  
 • Travel : X2200 Y900 Z900 mm  
 • Table : L2350×W1000 mm



▲ **2590-3B**  
 • Travel : X2500 Y1000 Z900 mm  
 • Table : L2450×W900 mm



▲ Built-in heavy duty gear box



▲ GTA gear box

# LINEAR WAY CNC Vertical Machining Center

## SMV Specifications

MODEL	unit	560-H3L	610-H3L	710-H3L	850-H3L	1060-H3L	1270-H3L	1370-H3L	1485-H3L	1570-H3L	1670-H3L	1685-H3L		
<b>TRAVEL</b>	X-axis	mm	560	610	710	850	1000	1200	1300	1400	1500	1600		
	Y-axis	mm	350	400	450	600	600	700	700	850	700	700		
	Z-axis	mm	380	450	460	560 (650)	560 (650)	650	650	850	650	650		
	Spindel center to column	mm	380	390	514	598	598	730	730	850	730	730		
	Spindle nose to table surface	mm	120~500	130~580	130~590	150~710	130~690	150~800	150~800	130~980	150~800	150~800	130~900	
<b>TABLE</b>	Table (L x W)	mm	600 x 350	650 x 400	760 x 420	1000 x 500	1100 x 500 (1160 x 600)	1350 x 600 (1350 x 700)	1450 x 700	1500 x 800	1650 x 700	1750 x 700		
	T-slot (No. x Width)	mm	3 x 14 x 100	3 x 18 x 100	3 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	7 x 18 x 100	5 x 18 x 100	5 x 18 x 100		
	Max. table load	kgs	300	400	500	700	800	900	800	1200	1200	1200		
<b>MAX. TRAVERSE SPEED</b>	X / Y / Z-axis	M/min	36 / 36 / 30	36 / 36 / 32	36 / 36 / 32	36 / 36 / 32	36 / 36 / 32	30 / 30 / 25	25 / 25 / 25	25 / 25 / 20	25 / 25 / 25	25 / 25 / 25		
<b>ATC</b>	Carousel type (Opt.)	T	16	16 / 20	16 / 20	20 / 24	20 / 24	20 / 24	20 / 24	N / A	20 / 24	20 / 24		
	Swing Arm type BT-40 (Opt.)	T	20	20 / 24	20 / 24	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30		
	Chain type BT-50 (Opt.)	T	N / A	N / A	N / A	N / A	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40		
<b>SPINDLE</b>	Type-CAT/BT/DIN (Opt. HSK)		40	40	40	40	40	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50		
	Motor (Other power options)	kW	5.5~7.5	5.5~7.5	5.5~7.5 (7.5~11)	7.5~11 (11~15)	7.5~11 (11~15)	7.5~11 (11~15)	11~15 (15~18.5)	15~18.5 (18.5~22)	11~15 (15~18.5)	11~15 (15~18.5)		
	Belt-drive BT-40 (Opt.)	rpm	8000 rpm (10000 / 12000 rpm)						8000 rpm (10000 / 12000 rpm)					
	Direct-drive BT-40 (Opt.)	rpm	10000 / 12000 / 150000 rpm						10000 / 12000 / 150000 rpm					
	Build-in spindle (Opt.)	rpm	20000 / 30000 rpm (BT-40/ HSK-E40/50/63)						20000 / 30000 rpm (BT-40/ HSK-E40/50/63)					
	Belt-drive BT-50 (Opt.)	rpm	N / A						6000 / 8000 rpm					
	Direct-drive BT-50 (Opt.)	rpm	N / A						8000 / 10000 rpm					
<b>MISCELLANEOUS</b>	Power consumption	KVA	25	30	30	35	35	35	45	55	45	45		
	Pneumatic supplier	kg/cm <sup>2</sup>	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5		
	Coolant tank capacity	L	256	256	256	350	367	501	510	560	560	560		
	Machine weight	kg	4000	4500	4800	6500	6800	7800	9000	14000	11000	12000		
	Floor space requirement (LxW)	mm	2100 x 1800	2180 x 1852	2180 x 2040	2620 x 2090	2900 x 2090	3398 x 2221	3650 x 2220	4600 x 3200	4150 x 2221	4400 x 2221		
	Floor space requirement (with conveyor) (LxW)	mm	3100 x 1800	3283 x 1852	3282 x 2040	3650 x 2090	3735 x 2090	4500 x 2221	4620 x 2220	5800 x 3200	5131 x 2221	5400 x 2221		
	Packaging size	(LxW)	mm	2270 x 2200	2460 x 2290	2460 x 2290	2460 x 2290	3180 x 2310	3500 x 2310	3800 x 2310	5100 x 3500	4200 x 2320	4600 x 2320	
(H)		mm	2470	2560	2560	2560	2560	2560	2560	3600	2560	2560		

## STANDARD EQUIPMENT

- 8,000rpm belt type #40 taper spindle
- Spindle chiller
- Rigid tapping
- Spindle bearing air purge
- Z axis motor with brake system
- Guideway covers (X,Y,Z)
- Central lubrication system
- Fully enclosed machining area
- Wash down system
- Safety Door
- Mechanical oil/coolant separator
- LED work light
- Heat exchanger for electrical cabinet
- Coolant pump
- Spindle coolant nozzle system
- Auxiliary coolant gun
- Cutting air blast
- Auxiliary air gun
- Tool kit
- 3-color beacon light
- Leveling blocks & bolts
- Auto interrupt & power off system (M30)
- Portable hand wheel
- CNC control manuals, Operation manual, Maintenance manual
- Inspection report (CD format)

## OPTIONAL ACCESSORIES

- Coolant Through Spindle (20-70Bar)
- Paper-type filter for CTS system
- Linear scale
- Programmable cutting coolant nozzle
- Oil mist coolant system
- Oil mist collector
- Chain type chip conveyor with chip cart
- Screw type chip auger with chip cart
- Laser type tool length measurement system
- Contact type tool length measurement system
- Workpiece measurement kinematic system
- 4th axis rotary table
- 4th/5th axis tilt/rotary table
- CE Certification
- Disk type oil Skimmer
- Air conditioner for electrical cabinet
- Transformer



# ▶ BOX WAY Heavy Cutting Machining Center

## SMV Specifications

MODEL	unit	650-3B	1060-3B	1270-3B	1570-3B	1670-3B	1690-3B	1890-3B	2090-3B	2290-3B	
TRAVEL	X-axis	mm	650	1000	1200	1500	1600	1600	1800	2200	
	Y-axis	mm	500	600	700	700	700	900	900 (1000)	900 (1000)	
	Z-axis	mm	500	560 (650) (BT-50: 630)	650	650	650	900 (1000)	900	900	900
	Spindel center to column	mm	530	598	705	730	730	1055	1055	1055	1055
	Spindle nose to table surface	mm	125~620	130~690	130~780	150~800	150~800	250~1050	250~1150	250~1150	250~1150
TABLE	Table (L x W)	mm	800 x 470	1100 x 500 (BT-50: 1100 x 600)	1300 x 700	1650 x 700	1750 x 700	1800 x 840	1950 x 900	2150 x 900	2350 x 1000
	T-slot (No. x Width)	mm	5 x 14 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100	5 x 22 x 150	5 x 22 x 160	5 x 22 x 150	5 x 22 x 160
	Max. table load	kgs	500	700	1000	1400	1500	1500	2000	2000	2000
MAX. TRAVERSE SPEED	X / Y / Z-axis	M/min	25 / 25 / 25	25 / 25 / 25	25 / 25 / 20	20 / 20 / 15	20 / 20 / 15	15 / 15 / 15	15 / 15 / 12	15 / 15 / 12	15 / 15 / 12
ATC	Carousel type (Opt.)	T	16 / 20	20 / 24	20 / 24	20 / 24	20 / 24	N / A	N / A	N / A	N / A
	Swing Arm type BT-40 (Opt.)	T	24	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30
	Chain type BT-50 (Opt.)	T	N / A	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40 / 48	32 / 40 / 48
Type-CAT/BT/DIN (Opt. HSK)		40	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	
Motor (Other power options)	kW	5.5~7.5 (7.5~11)	7.5~11 (11~15)	7.5~11 (11~15)	11~15 (15~18.5)	11~15 (15~18.5)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	
SPINDLE	Belt-drive BT-40 (Opt.)	rpm	8000 rpm (10000 / 12000 rpm)				8000 rpm (10000 / 12000 rpm)				
	Direct-drive BT-40 (Opt.)	rpm	10000 / 12000 / 150000 rpm				10000 / 12000 / 150000 rpm				
	Build-in spindle (Opt.)	rpm	20000 / 30000 rpm (BT-40/ HSK-E40/50/63)			20000 rpm (BT-40/ HSK-E63)					
	Belt-drive BT-50 (Opt.)	rpm	N / A	6000 / 8000 rpm			6000 / 8000 rpm				
	Direct-drive BT-50 (Opt.)	rpm	N / A	8000 / 10000 rpm			8000 / 10000 rpm				
MISCELLANEOUS	Power consumption	KVA	25	35	35	45	45	55	55	55	55
	Pneumatic supplier	kg/cm <sup>2</sup>	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5
	Coolant tank capacity	L	256	367	480	501	510	630	650	650	650
	Machine weight	kg	4800	6800	7800	11000	12000	18000	20000	23000	27000
	Floor space requirement (LxW)	mm	2180 x 2040	2900 x 2090	3600 x 2244	4400 x 2244	4520 x 2244	4800 x 3312	4900 x 3312	5420 x 3475	5700 x 3500
	Floor space requirement (with conveyor) (LxW)	mm	3280 x 2040	3735 x 2090	4759 x 2244	4560 x 2244	5680 x 2244	5950 x 3312	6058 x 3312	6578 x 3475	6900 x 3500
	Packaging size	(LxW)	mm	2460 x 2290	3100 x 2310	3500 x 2310	4400 x 2320	5400 x 2320	5400 x 3700	5500 x 3700	5700 x 3700
(H)		mm	2560	2560	2560	2560	2560	3800	3800	3800	3700

## STANDARD EQUIPMENT

- 8,000rpm belt type #40 taper spindle
- Spindle chiller
- Rigid tapping
- Spindle bearing air purge
- Z axis motor with brake system
- Guideway covers (X,Y,Z)
- Central lubrication system
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- LED work light
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- Oil mist collector
- Chain type chip conveyor with chip cart
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- Contact type tool length measurement system
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- 4th axis rotary table
- 4th/5th axis tilt/rotary table
- CE Certification
- Disk type oil Skimmer
- Air conditioner for electrical cabinet
- Transformer

# LINEAR WAYS + BOX WAYS Complex Type Vertical Machining Center

## SMV Specifications

MODEL	unit	1060-2LB	1270-2LB	1485-2LB	1570-2LB	1670-2LB	1685-2LB	1890-2LB	2090-2LB	2290-2LB	2590-2LB	
<b>TRAVEL</b>	X-axis	mm	1000	1200	1400	1500	1600	1600	1800	2000	2500	
	Y-axis	mm	600	700	850	700	700	850	1000	900 (1000)	1000	
	Z-axis	mm	560 (650) (BT-50: 630)	650	850	650	650	850	900	900	900	900 (1000)
	Spindel center to column	mm	598	709	900	730	730	900	1055	1055	1055	1055
	Spindle nose to table surface	mm	130~690	150~800	130~980	150~800	150~800	130~980	250~1150	250~1150	250~1150	250~1150
<b>TABLE</b>	Table (L x W)	mm	1100 x 500	1300 x 600	1500 x 800	1650 x 700	1750 x 700	1600 x 800	1950 x 900	2150 x 1000	2350 x 1000	2600 x 1000
	T-slot (No. x Width)	mm	5 x 14 x 100	5 x 18 x 100	7 x 18 x 100	5 x 18 x 100	5 x 18 x 100	7 x 18 x 100	5 x 22 x 160	5 x 22 x 165	5 x 22 x 165	5 x 22 x 165
	Max. table load	kgs	700	700	1200	1200	1200	1000	2000	2000	2000	2500
<b>MAX. TRAVERSE SPEED</b> X / Y / Z-axis	M/min	30 / 30 / 25	30 / 30 / 25	25 / 25 / 20	25 / 25 / 20	25 / 25 / 20	20 / 20 / 15	20 / 20 / 15	15 / 15 / 15	15 / 15 / 12	15 / 15 / 12	
<b>ATC</b>	Carousel type (Opt.)	T	20 / 24	20 / 24	N / A	20 / 24	20 / 24	N / A	N / A	N / A	N / A	
	Swing Arm type BT-40 (Opt.)	T	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	24 / 30	
	Chain type BT-50 (Opt.)	T	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40	32 / 40 / 48	
Type-CAT/BT/DIN (Opt. HSK)		40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	
Motor (Other power options)	KW	7.5~11 (11~15)	7.5~11 (11~15)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	15~18.5 (18.5~22)	
Belt-drive BT-40 (Opt.)	rpm	8000 rpm (10000 / 12000 rpm)						8000 rpm (10000 / 12000 rpm)				
Direct-drive BT-40 (Opt.)	rpm	10000 / 12000 / 150000 rpm						10000 / 12000 / 150000 rpm				
Build-in spindle (Opt.)	rpm	20000 rpm (BT-40/ HSK-E40/50/63)						20000 / 30000 rpm (BT-40/ HSK-E40/50/63)				
Belt-drive BT-50 (Opt.)	rpm	6000 / 8000 rpm						6000 / 8000 rpm				
Direct-drive BT-50 (Opt.)	rpm	6000 / 8000 rpm						8000 / 10000 rpm				
<b>MISCELLANEOUS</b>	Power consumption	KVA	35	30	55	45	45	55	55	55	60	
	Pneumatic supplier	kg/cm <sup>2</sup>	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	5.5~6.5	
	Coolant tank capacity	L	367	256	560	501	501	580	650	650	650	
	Machine weight	kg	6800	4500	14000	11000	12000	15000	20000	23000	27000	30000
	Floor space requirement (LxW)	mm	2900 x 2090	2180 x 1852	4700 x 3200	4400 x 2250	4520 x 2250	4800 x 3200	4900 x 3312	5420 x 3470	5700 x 3500	6000 x 3700
	Floor space requirement (with conveyor) (LxW)	mm	3750 x 2090	3283 x 1852	5800 x 3200	4400 x 2250	5800 x 2250	6000 x 3200	6059 x 3312	6578 x 3475	6900 x 3500	7300 x 3700
	Packaging size	mm	3100 x 2310 x 2560	3500 x 2310 x 2560	5100 x 3500 x 3600	4600 x 2310 x 2560	4800 x 2320 x 2560	5400 x 3500 x 5100	5200 x 3700 x 3700	5700 x 3700 x 3800	5900 x 3700 x 3800	6300 x 3900 x 3800

## STANDARD EQUIPMENT

- 8,000rpm belt type #40 taper spindle
- Spindle chiller
- Rigid tapping
- Spindle bearing air purge
- Z axis motor with brake system
- Guideway covers (X,Y,Z)
- Central lubrication system
- Fully enclosed machining area
- Wash down system
- Safety Door
- Mechanical oil/coolant separator
- LED work light
- Heat exchanger for electrical cabinet
- Coolant pump
- Spindle coolant nozzle system
- Auxiliary coolant gun
- Cutting air blast
- Auxiliary air gun
- Tool kit
- 3-color beacon light
- Leveling blocks & bolts
- Auto interrupt & power off system (M30)
- Portable hand wheel
- CNC control manuals, Operation manual, Maintenance manual
- Inspection report (CD format)

## OPTIONAL ACCESSORIES

- Coolant Through Spindle (20-70Bar)
- Paper-type filter for CTS system
- Linear scale
- Programmable cutting coolant nozzle
- Oil mist coolant system
- Oil mist collector
- Chain type chip conveyor with chip cart
- Screw type chip auger with chip cart
- Laser type tool length measurement system
- Contact type tool length measurement system
- Workpiece measurement kinematic system
- 4th axis rotary table
- 4th/5th axis tilt/rotary table
- CE Certification
- Disk type oil Skimmer
- Air conditioner for electrical cabinet
- Transformer

# Optional Equipment



RENISHAW (OMP 40/60)



BLUM (TC 50)



HEIDENHAIN (TS 640)



RENISHAW (TS 27R)



BLUM (Z3D)



HEIDENHAIN (TT 140)



RENISHAW (NC-4)



BLUM (NT)



CTS-Coolant Through Spindle



20/40/60/70 BAR



Spindle Oil Cooler



Oil Skimmer

Work Piece Measuring System	Tool Measuring System	CTS-Coolant Through Spindle
RENISHAW (OMP 40/60)	RENISHAW (TS 27R)	20 BAR
BLUM (TC 50)	BLUM (Z3D)	50 BAR
HEIDENHAIN (TS 640)	HEIDENHAIN (TT 140)	60 BAR
	RENISHAW (NC-4)	70 BAR
	BLUM (NT)	120 BAR



Transformer



HEIDENHAIN Linear Scale



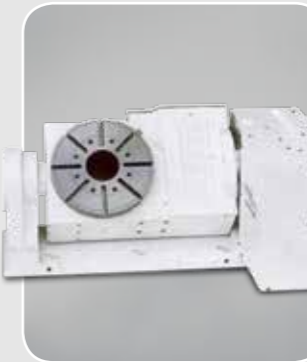
HEIDENHAIN Rotary Encoder



Built-in Heavy Duty Gear Box



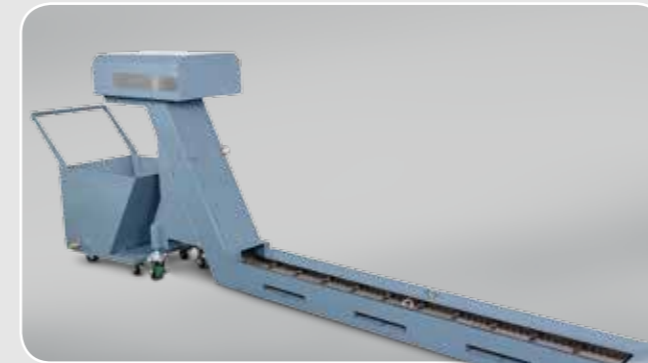
4th Axis Rotary Table



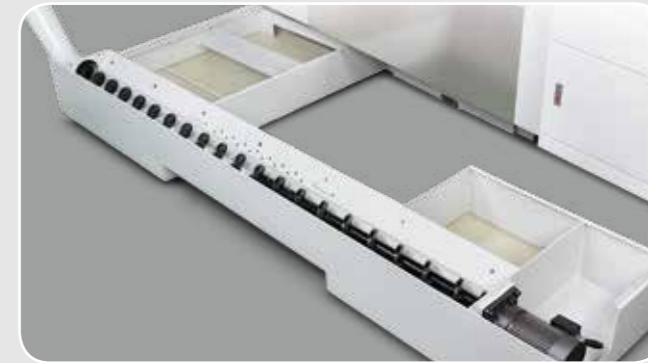
4/5th Axis Rotary Table



4/5th Axis Rotary Table

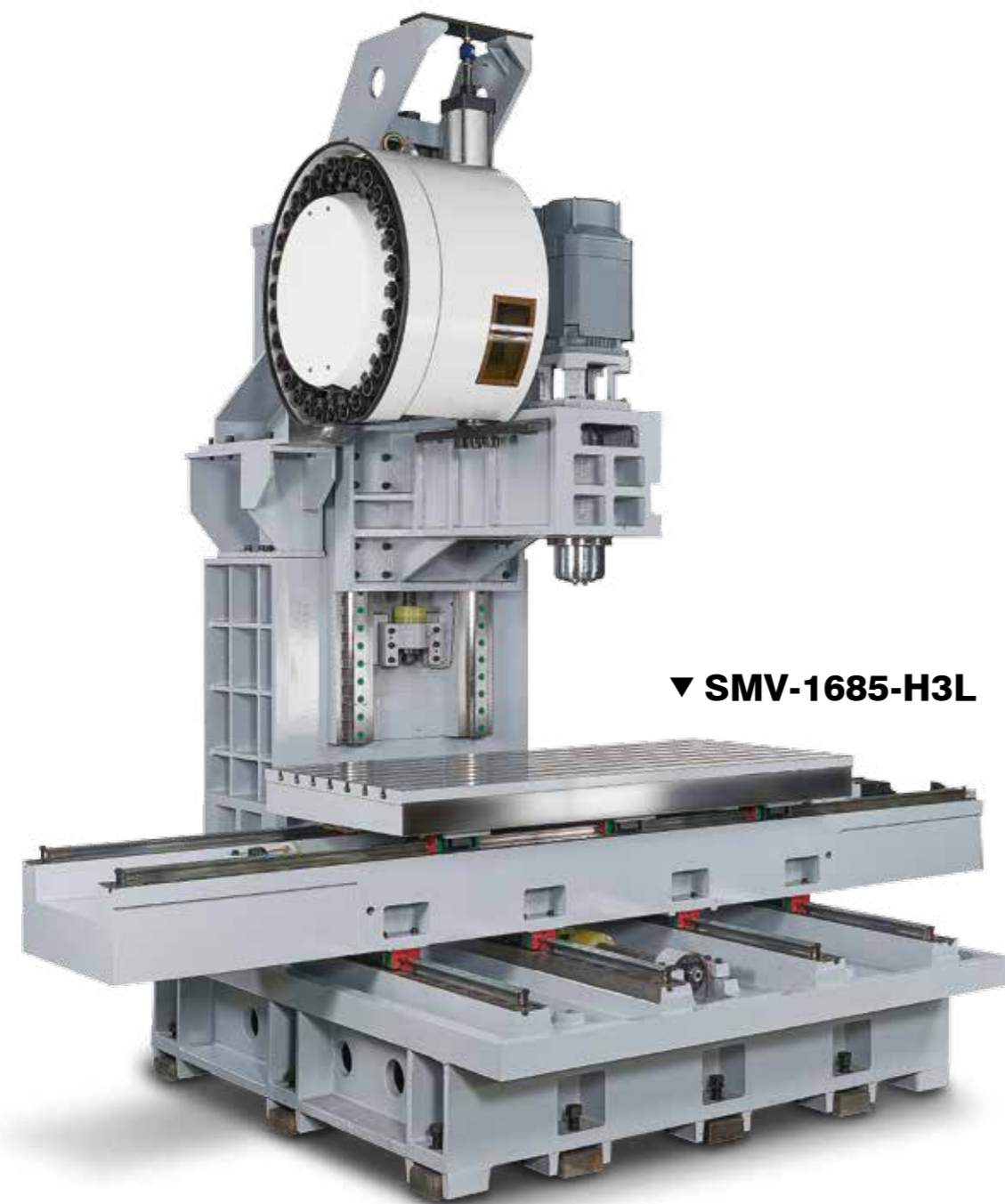


Chain Type Chip Conveyor



Screw Type Chip Auger

All Of Matching Checklist		
HEIDENHAIN Linear Scale	4/5th Axis Rotary Table	Chain Type Chip Conveyor
Built-in Coolant Nozzles	HEIDENHAIN Rotary Encoder	Screw Type Chip Auger
Oil Skimmer	GTA Gearbox	
Spindle Oil Cooler	Built-in Heavy Duty Gear Box	
4th Axis Rotary Table	Transformer	



▼ **SMV-1685-H3L**

**Finetech**<sup>®</sup>

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## **SMV Series**

### CNC VERTICAL MACHINING CENTERS

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