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CNC BED TYPE UNIVERSAL MILLING MACHINE

CE



SBM-2000L / 2600L / 3000L / 3500L



"DIE & MOLD" BEST SOLUTION- SANCO BED TYPE UNIVERSAL MILLING MACHINE

Hydraulic weight compensation

Due to the hydraulic weight compensation in the vertical axis, the weight of the milling and vertical carriage is hydraulically compensated so that the long-term precision was increased and the load of the ball screw and feed drive could be decreased, which gives way to an extremely high positioning accuracy; thus, the SBM machines can be used in the large tool production without any problem.

SBM modular design

Due to the use of a modular design, an optimum gradation in the x axis travelling range between 2000 to 3500 mm and thus a cost-effective use tailored to customer specifications is guaranteed.

Design and construction were made using the finite element method (SBM).

Safety system

An additional braking system on Z axis prevents the lowering of the milling head and saddle when switching off the machine or in case of a failure of the hydraulic weight compensation.



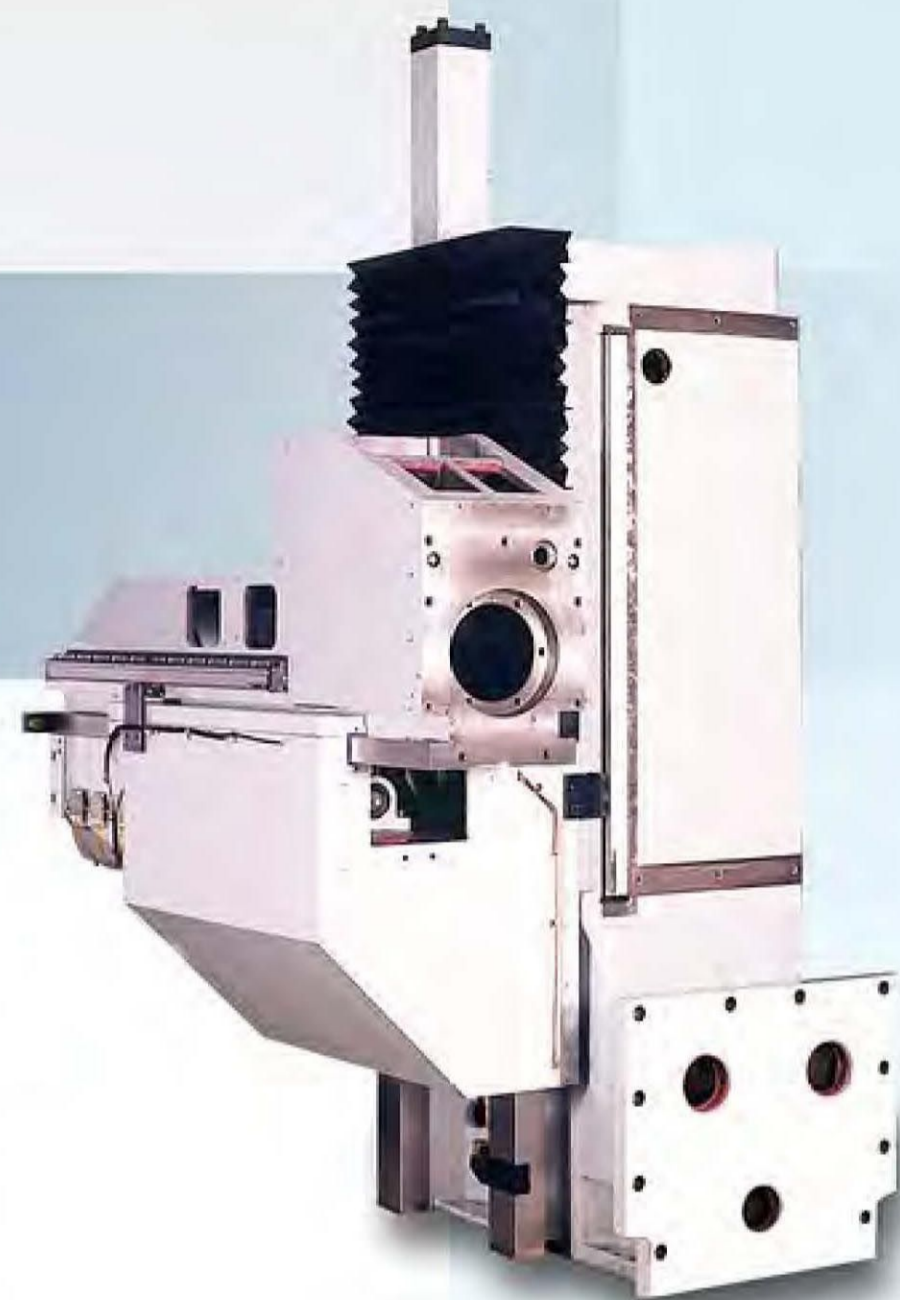


SBM Series

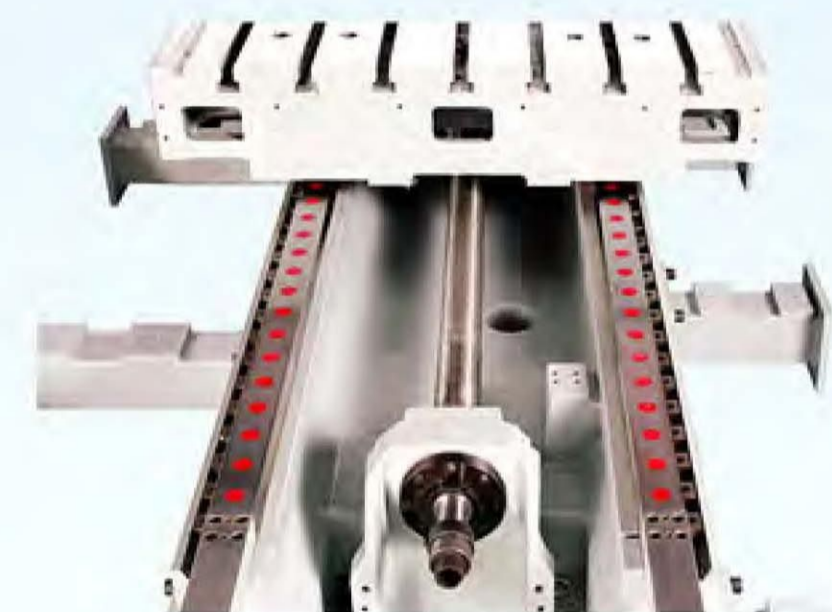
■ CONSTRUCTION

- The generously dimensioned guideways ensure a high permanent precision supported by specially hardened vertical and horizontal guideways at column and milling carriage, while the counter-guideways are coated with Turcite-B.
- The overall sturdy design ensures stability, torsional rigidity and extremely high table load options.

All of the large components as base, column, saddle, ram as well as table are made from heavily ribbed Meehanite cast iron.



- Pre-Loaded & pre-tensioned being designed make sure machine accuracy into stable and long term kept.

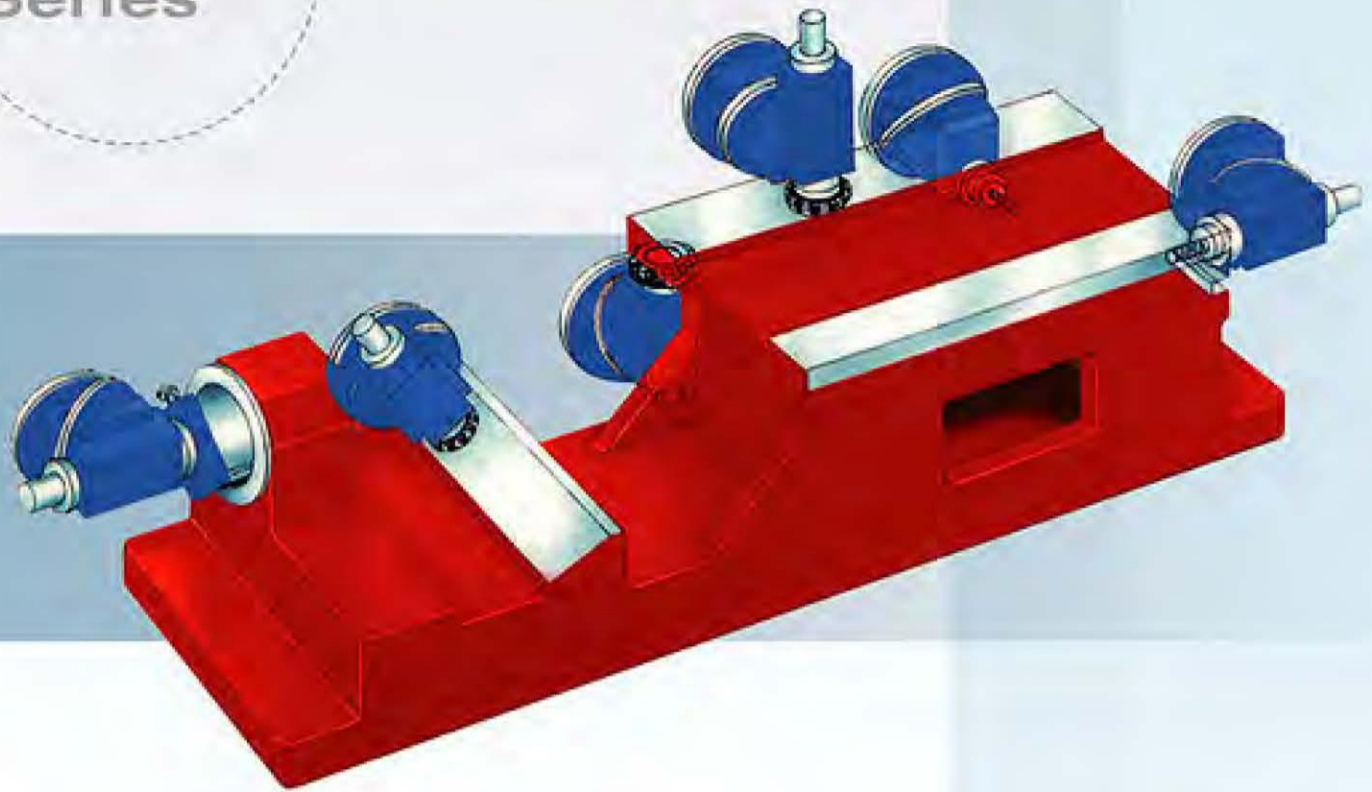


- Roller's block plus Linear way on X-axis. low friction. larger capacity keep very good "Rigid" and "Positioning" as movement.





■ APPLICATIONS:



Horizontal spindle

A powerful AC motor in connection with the automatic 2-step transmission generates high torques at the spindle. Work spindle speeds and rotating direction are directly selected or programmed via the control.

The standard equipment SBM 2000L up to SBM 3500L offer a generously dimensioned horizontal spindle with four bearings and a front bearing diameter of 90 mm, tools are held with a force of 32000 kN. Consequently, ultra high machining forces can be reached without any problems.



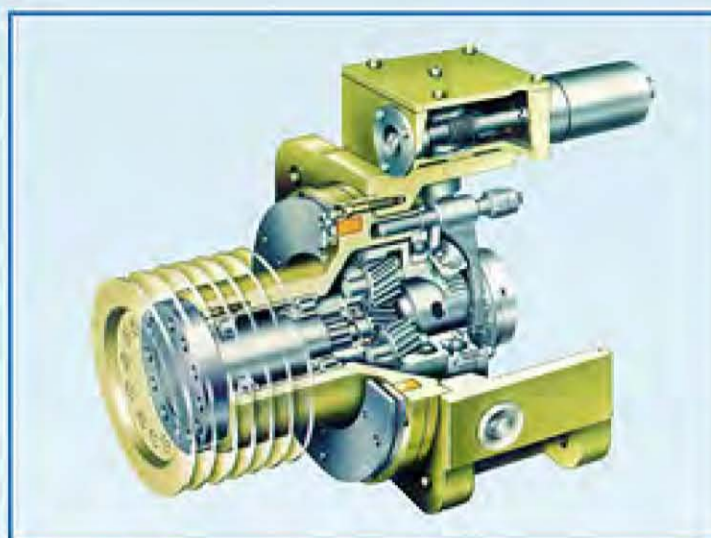
Vertical



Horizontal



Horizontal spindle



Planetary gearbox head.

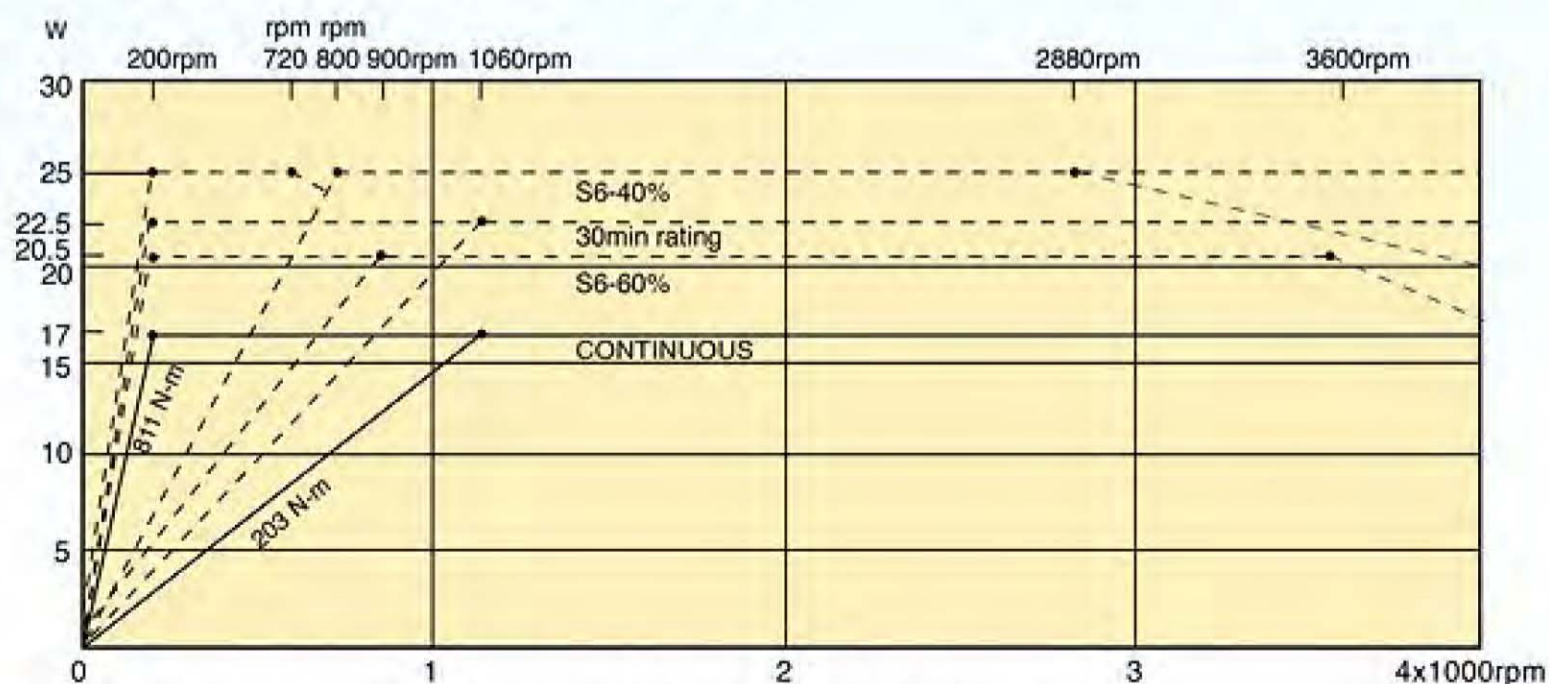


Optional long nose spindle without universal head.



Standard short nose horizontal spindle.

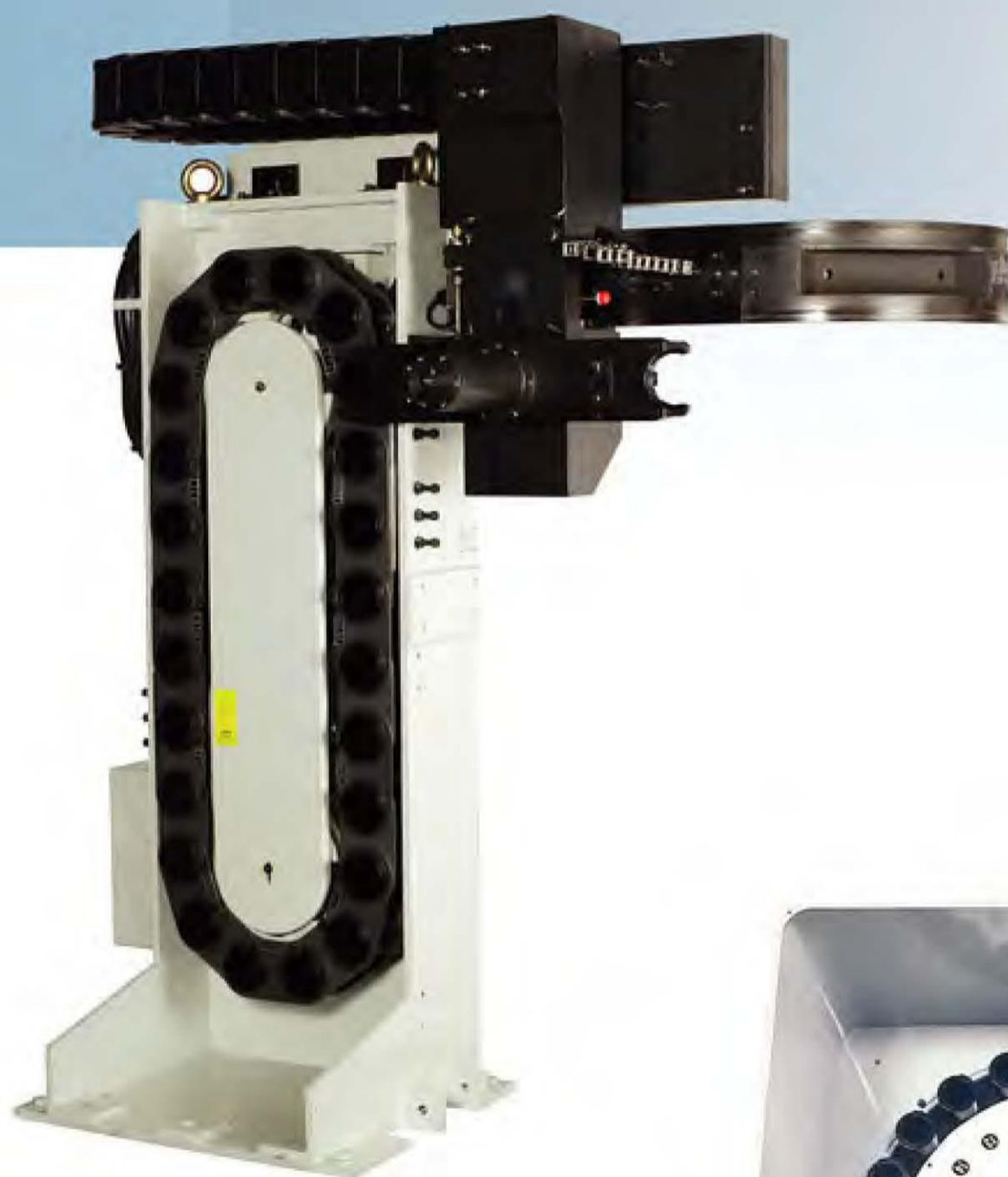
Torque chart. The spindle motor is 25kw.



Note: Above torque chart is only for horizontal spindle.



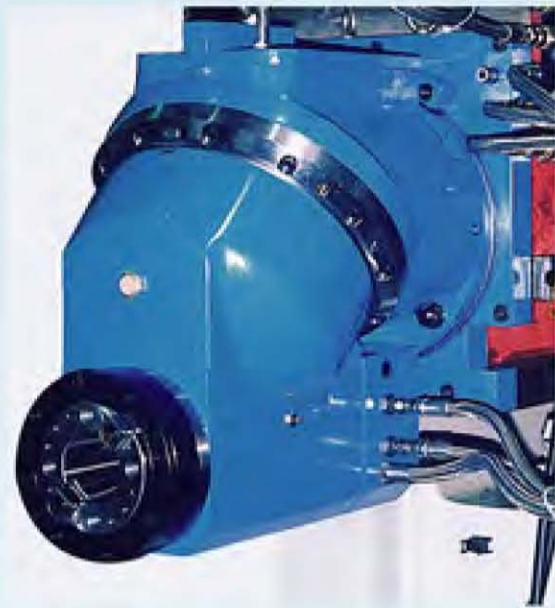
■ OPTIONAL ACCESSORIES



24 Tools Automatic Tool Changer for "Horizontal"



24 Position Swing ARM Automatic Tool Changer for "Vertical"



Auto. 2 Positions Head (Vertical & Horizontal)
Max.3500 rpm.



3500 rpm Manual Universal Milling Head.



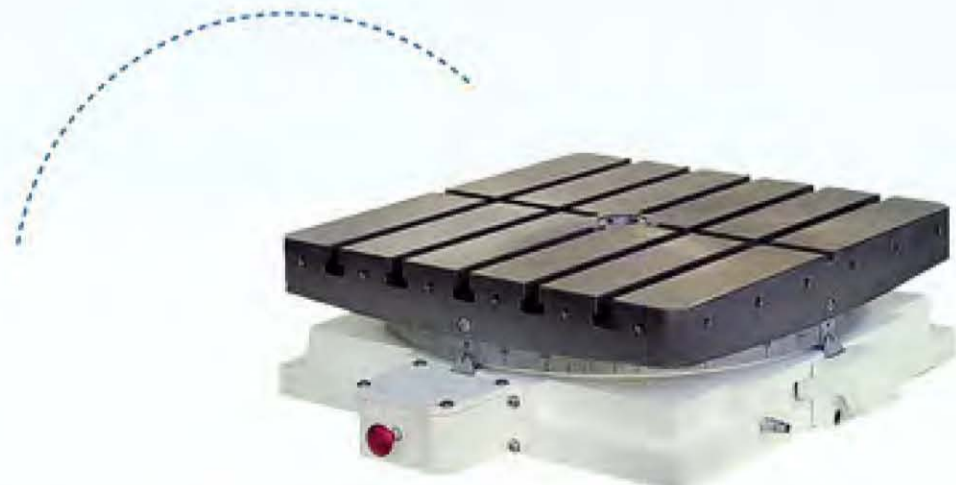
Workpiece Measuring



3D Triggering Workpiece Touch Probes.
(Heidenhain's package)



Auto. Tool Length & Radius Detector.



Hydraulic Indexing Table With Various Sizes.



■ SPINDLE TAPER CHOICES

BT-50



(OPTIONAL)

CAT-50/DIN69871

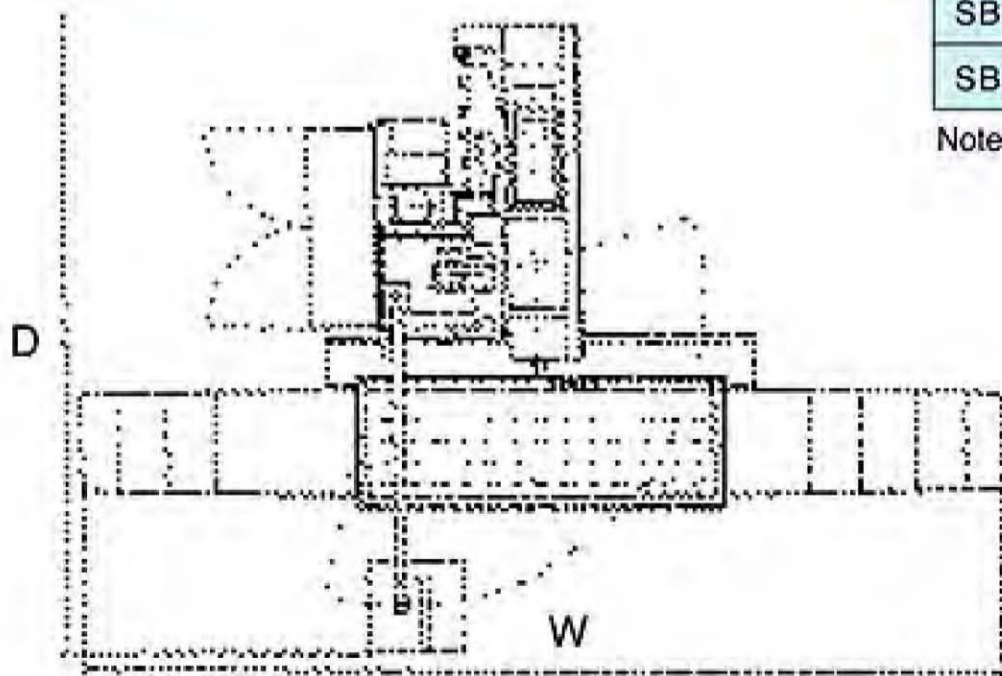


(STANDARD)

■ FLOOR SPACE

Unit : mm

TOP VIEW :



	WIDTH	DEPTH	HEIGHT
SBM-2000L	4500	4510	2830
SBM-2600L	5450		
SBM-3000L	6500		
SBM-3500L	7450		

Note : dimensions will be different due to with options.

■ MULTI CONTROLLER

■ CNC STANDARD FUNCTIONS / FANUC

- * Control Axes : 3 +2
- * Simultaneously Axes Control 4 Axes
- * Mirror Image
- * Follow Up
- * Backlash Compensation
- * Pitch Error Compensation
- * Exact Stop
- * Skip Function
- * 2nd Reference Point
- * Over Traveler
- * ABS/INC Input and Programming
- * Work Coordinate 6+48 Pairs
- * Rotation Coordinate
- * Preset Coordinate
- * Customer Macro B
- * Programmer Data Input
- * M/S/T Codes
- * Rigid Tapping
- * Tool Offset 99 Pairs
- * Tool Length Compensation
- * Cutter Compensation C
- * Fixed Canned Cycles
- * Program Register 150
- * Program Memory 640M
- * Background Editing
- * Clock Display
- * Self Diagnostics
- * 10.4 " TFT Screen"
- * Spindle Orientation
- * Least Input 0.001
- * EIA/ISO Codes
- * AICC Control
- * DNC Connection
- * Graphic Display



● FANUC 18iMB/5



● SIEMENS 810D/840D



● HEIDENHAIN
i TNC530



● SELCA
S3045/S4045D

■ OPTIONAL FUNCTIONS:

- * Multi-Language
(French, Italian, Germany, Spanish)
- * Program Memory Extend 1,280 M
- * HPCC (18iMB)
- * RISC & NURBS (18iMB)
- * Data Server With ATA 1GB Card
- * 4-Axis Rotary Table
- * 5 Axes Facing (18iMB5)

MACHINE SPECIFICATIONS

Unit:mm

MODEL	UNIT	SBM-2000L	SBM-2600L	SBM-3000L	SBM-3500L
Table:					
Working area	mm	2100 × 1000	2700 × 1000	3100 × 1000	3600 × 1000
T Slots (size × no)	mm	22H8 × 7 SLOTS			
Top to floor distance	mm	860			
Load (Evenly distributed)	kg	5000	6000	7000	8000
Travel (Horizontal w/o optional milling head) :					
X Axis	mm	2000	2600	3000	3500
Y Axis	mm	1200 (1500)			
Z Axis	mm	1000			
Horizontal Spindle:					
Taper		DIN 69871 #50 / BT 50			
Speed	rpm	4000 (6000)			
Output 40% duty cycle	kw	20			
Constant output	kw	18			
Maximum torque	Nm	700			
Universal Milling Spindle:					
Taper		DIN 69871 #50 / BT 50			
Speed	rpm	3500			
Output 40% duty cycle	kw	20			
Constant output	kw	16			
Maximum torque	Nm	600			
Feedrate:					
Cutting	mm/min	1 - 5000			
Rapid	mm/min	10000			
Ballscrews:					
X Axis dia. × pitch	mm × mm	Ø63 × 10	Ø63 × 10	Ø63 × 10	Ø63 × 10
Y Axis dia. × pitch	mm × mm	Ø50 × 10			
Z Axis dia. × pitch	mm × mm	Ø50 × 10			
Precision class	mm/300mm	0.008 / 300			
Accuracy:					
Positioning	±mm/300mm	JIS 6338 0.005 / 300VDI 3441 / PS0.014			
Repeatability	mm	JIS 6338 0.003 / 300VDI 3441 / PS0.01			
Roundness	mm/dia.	0.02 / 300			
General:					
Machine net weight	kg	10500	12000	13000	14000
Pneumatic required	kg/cm ²	6			
Hydraulic required	kw	3.5			
Power required	KVA	40KVA	45KVA	45KVA	50KVA

Standard features & accessories :

1. Programmable coolant system.
2. Automatic lubrication system.
3. Spindle air blast system.
4. Working lamp.
5. Alarm lamp for abnormal situation.
6. Indication lamp for dwell & end of job.
7. Levelling bolts & pads.
8. RS-232 terminal interface port
9. Machine & control manuals
10. Toolbox with spanners & wrenches.



S & P

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