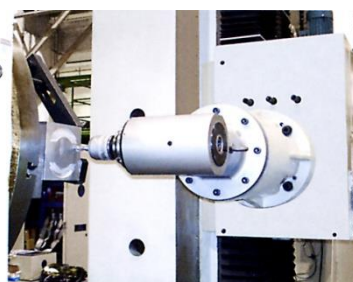
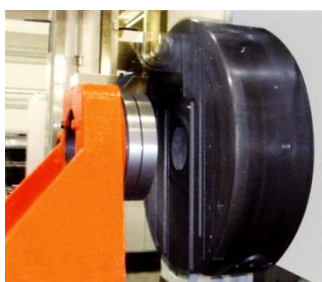




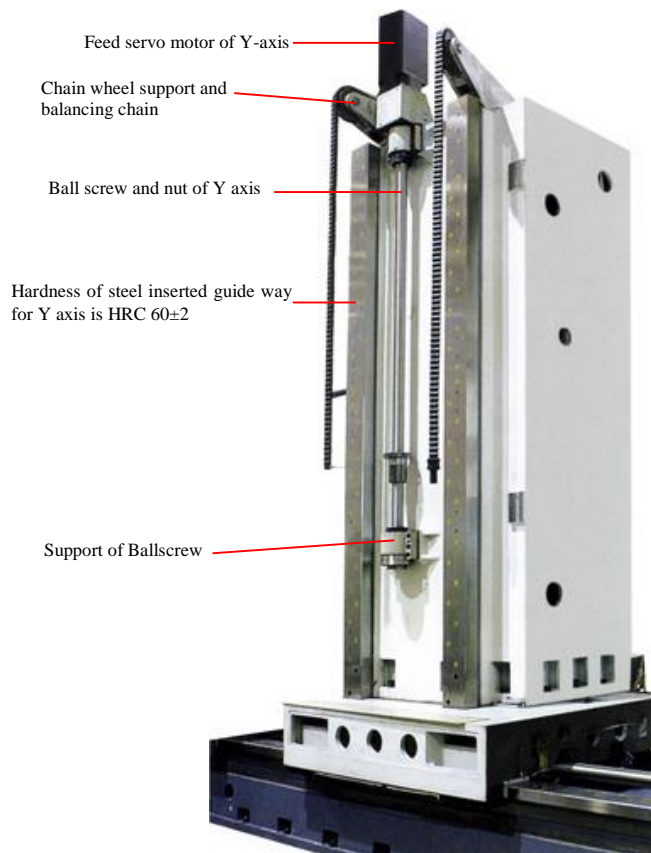
### Features

- SHBC series machine are our own designed machine on the base of our other similar machine construction, which absorbed advanced Germany technology, according to European market demand. The machines have been designed in modular Ways, which is on the same main machine, equip with various CNC control and adopt relative adjustment on construction and layout, makes various machines.
- SHBC series machine's main function is to boring and milling, it Can also do drilling, boring, tapping, turning outside diameter and turning surface, especially for the piece with several holes which has comparably high demand of the accuracy of the distance of holes.
- SHBC series could realize each axis auto positioning, and simultaneously movement of any four axes among X, Y, Z, W, B, could machining outline and 3-dimension curve by liner interpolation and arc interpolation.

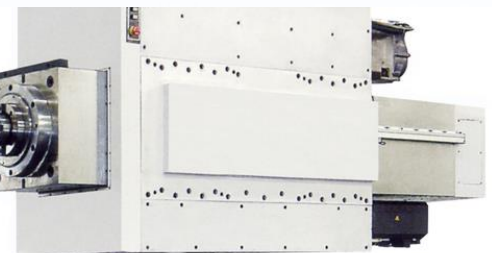
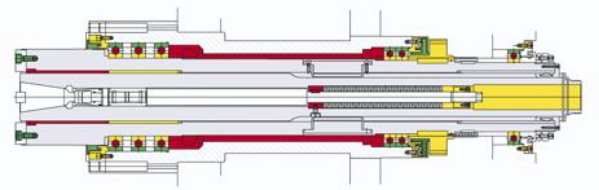


**CNC BORING MACHINE**

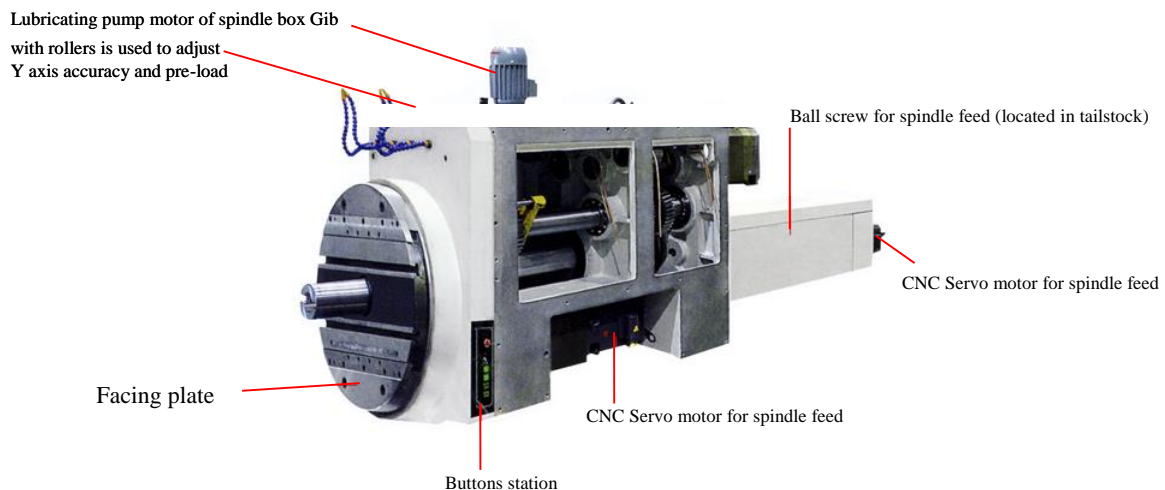
Your partner for presentation of the needs



Moveable spindle 110, travel 550; 130, travel 800, travel 1000



Its ram dimension is 480x480, moveable boring shaft with diameter 130/160 and travel 700

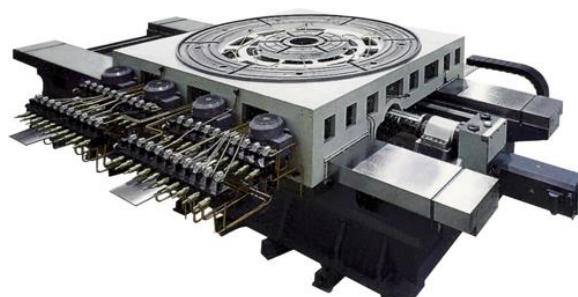


## CNC BORING MACHINE

Your partner for presentation of the needs

Worktable

Spindle  $\Phi$ 110: 1000x1250, 1250x1400  
 Spindle  $\Phi$ 130: 1400x1600, 1600x1800, 1600x2000,  
 1800x2000, 1800x2200, 2000x2000  
 Spindle  $\Phi$ 160: 1600x1800, 1800x2000, 2000x2000,  
 2000x2500, 2500x3000



CNC moveable rotary worktable (Hydrostatic) Worktable  
 2000x2000, 2000x2500, loading 20000kg Worktable  
 2500x3000, loading 30000kg

Slide of worktable

**Complex guide way**

Front side with pasting plastic, rolling movement on the side

**Transmission**

Motor, belt wheel and double worm and worm bar, pinion, gear ring, eliminated transmission clearance

**Clamping at vertical way**

Unclamping by hydraulic, clamping by butterfly spring which with large force, without deformation. Circle scale can be used for measurement

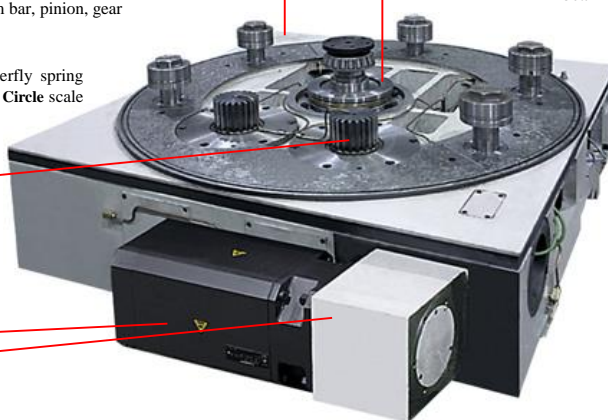
Gear for worktable rotary is used to eliminate rotary clearance on the forward and backward

Servo motor for worktable rotary

Ballscrew seat can reduce thermal deformation error for pre-loaded ballscrew

Servo motor for Z(X) axis

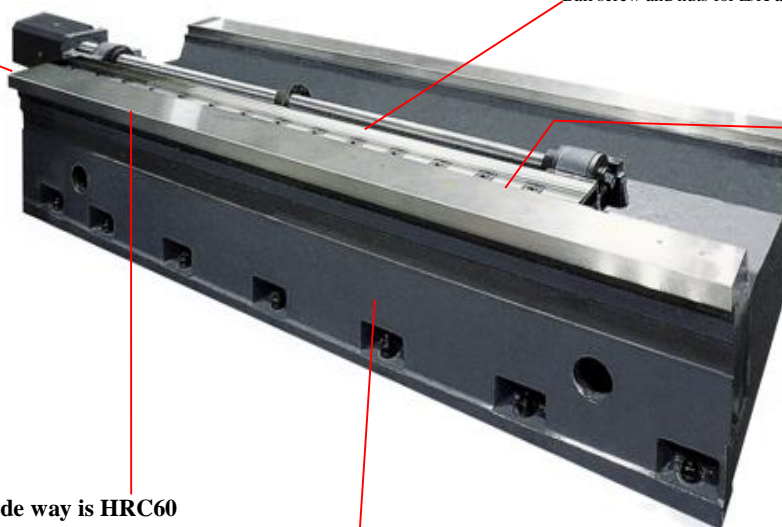
Thrust bearing, worktable, rotating flexible, the load bearing is large



The gib with rollers can meet rolling without clearance, avoid snaking motion, raise accuracies of movement and positioning

Ball screw and nuts for Z/X axis

Scales can be supplied according to uses requirement



hardness of steel inserted guide way is HRC60  $\pm 2$ , the front side with pasting plastic, rolling Without clearance on the side

Bed

### Technical specifications

Item	Units	SHBC0511	SHBC0511/A	SHBC0513
Table size	mm	1000x1250(1250x1400)	1000x1250(1250x1400)	1000x1250(1250x140)
Max. load on the table	kg	5000	5000	5000
Worktable and T slot		22x7	22x7	22x7
Dia. of spindle	mm	110	110	130
Taper of spindle		ISO 7:24 N050	ISO 7:24 N050	ISO 7:24 N050
Speed of spindle	r/min	10-2500(10-3000)	10-2000	10-2000
Max. torque	N.m	1300/1700	1300/1700	1300/1700
Distance between spindle center and table top	mm	60-1560(30-1530)	60-1560(30-1530)	70-1570
Min. distance between spindle end and table	mm	350 Spindle zero position	487 Spindle zero position	487 Spindle zero position
Transverse travel of table X	mm	2000(2500,3000)	2000(2500,3000)	2000(2500,3000)
Vertical travel of headstock Y	mm	1500	1500	1500
Longitudinal travel of column Z	mm	1200(2000)	1200(2000)	1200(2000)
W spindle travel	mm	550	550	550
V travel of ram	mm	-	-	-
U slide travel of facing plate	mm	-	140	140
Rotation of rotary table B		0.001°x360°	0.001°x360°	0.001°x360°
Feed speed				
X, Y, Z	mm/min	1-6000	1-6000	1-6000
W, U	mm/min	W:1-2000	W:1-2000; U:1-1 000	W:1-2000; U:1-1 000
B	r/min	0-2.5	0-2.5	0-2.5
Rapid speed				
X, Y, Z	m/min	9	9	9
W, U	m/min	2.4	2.4	2.4
B	r/min	2.5	2.5	2.5
Tool magazine capacity (TH series)	piece	40(60 Floor type)	40(60 Floor type)	40(60 Floor type)
Shank specification		ISO 7:24 JT50	ISO 7:24 JT50	ISO 7:24 JT50
Pin standard		LDA-50	LDA-50	LDA-50
Power of main motor	kW	17/22.5(Continuous/30min)	17/22.5(Continuous/30min)	17/22.5(Continuous/30min)
Positioning accuracy				
Executing JBIT8772.4 -1998 Standard	X, Y, Z	mm	X:0.025; Y,Z,W:0.020	X:0.025; Y,Z,W:0.020; U:0.045
	B(4x900)	"	15(3.2)	15(3.2)
	X,Y,Z	mm	X,Y,Z,W:±0.008	X,Y,Z,W:±0.008
Executing JIS Standard	B(4x900)	"	±7.5(±2)	±7.5(±2)
Repeatability				
Executing JBIT8772.4 -1998 Standard	X, Y, Z	mm	X:0.020; Y,Z,W:0.016	X:0.020; Y,Z,W:0.016; U:0.032
	B(4x900)	"	9(2)	9(2)
Executing JIS Standard	X,Y,Z	mm	X,Y,Z,W:±0.005	X,Y,Z,W:±0.005
Overall dimensions of machine(LxWxH)	mm	5555x4155x4200	5555x4155x4200	5555x4155x4200
Weight of machine	kg	20000/21000	20000/21000	20000/21000
CNC system		SIEMENS 840D (FANUC system 18i optional)	SIEMENS 840D (FANUC system 18i optional)	SIEMENS 840D (FANUC system 18i)
Total power capacity	KVA	50	50	60

## CNC BORING MACHINE

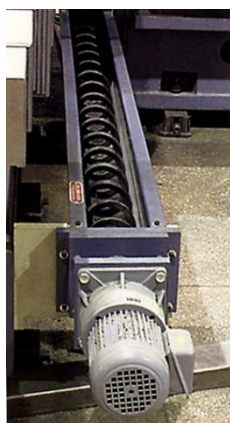
Your partner for presentation of the needs

SHBC1013	SHBC1013/A	SHBC3016	SHBC2013/B	SHBC3016/A
1400x1600(1600x1800)	1400x1600(1600x1800)	1600x1800(2000x2500) (2500x3000)	2000x2000(2000x2500)	2000x2000(2000x2500) A(2500x3000)B
10000	10000	10000(20000,30000)	1 0000(20000)	10000(20000)A(30000)B
28x9	28x9	28x9	28x9	28x9
130	130	160	130 Square ram 480x480	160 Square ram 480x480
ISO 7:24 Na50	ISO 7:24 Na50	ISO 7:24 Na50	ISO 7:24 Na50	ISO 7:24 Na50
10-2000(10-3000)	10-2000	10-1500	10-1500	10-1000
2500/3000	2500/3000	3500/4800	1800/2500	3000/4100
100-1700	100-1700	100-2100	267-2267(300-2300)	300-2300
Extension of 50 spindle (250/2000 Width of worktable/10T400/2000Width of worktable/20T)	Extension of 50 spindle (250/2000 Width of worktable/10T)(400/2000W idthofwo,ktable120T)	Extension of 0 spindle (100/350)	833 Spindle zero position(1 033 1173)	1033 Spindle zero position(1173, 1423)
2000(3000,3500,4000)	2000(3000,3500,4000)	3000(3500,4000)	2000(3000,3500,4000)	3000(3500,4000)
1600(2000,2500,3000)	1600(2000,2500,3000)	2000(2500,3000)	1600(2000,2500,3000)	2000(2500,3000)
1600(2000)	1600(2000)	2000	1600(2000)	2000
800	800	1000	700	700
-	-	-	700	700
-	200	-	-	-
0.001 Ox 360°	0.001 Ox 360°	0.001 Ox 360°	0.001 °x360°	0.001°x360°
1-6000	1-6000	1-6000	1-6000	1-6000
W:1-3000	1-3000	1-3000	W,U:1-3000	W, U:1-3000
0-1	0-1	0-1	0-1	0-1
				∅.
9	9	9	6	6
W:3	3	W:3	W,U:3	W,U:3
1	1	1	1	1
40(60)	40(60)	40(60)	40(60)	40(60)
ISO 7:24 JT50	ISO 7:24 JT50	ISO 7:24 JT50	ISO 7:24 JT50	ISO 7:24 JT50
LDA-50	LDA-50	LDA-50	LDA-50	LDA-50
22/30	22/30	37/51	37/51	37/51
X,Y,Z:0.026; W:0.020	X,Y,Z:0.026; W:0.020; U:0.032	X:0.030; Y,Z:0.026; W:0.020	X,Y,Z:0.026; W,V:0.025	X,Y,Z:O,026; W,V:0.025
18(4)	18(4)	18(4)	18(4)	18(4)
X,Y,Z,W:~0.008	X,Y,Z,W:±0.008	X,Y,Z,W:±0.001	X,Y,Z,W:±0.008	X,Y,Z,W:±0.008
:::7.5(±2)	±7.5(±2)	±7.5(±2)	±7.5(±2)	±7.5(±2)
X,Y,Z:0.020; W:0.018	X,Y,Z:0.020; W,U:0.018	X,Y,Z:0.020; W:0.018	X,Y,Z:0.018; W,V:0.015	X,Y,Z:0.018; W,V:0.015
10(2)	10(2)	10(2)	10(2)	10(2)
X,Y,Z,W:±0.005	X,Y,Z,W:±0.005	X,Y,Z,W:±0.006	X,Y,Z,W:±0.005	X,Y,Z,W:±0.005
6700x7800x4700	6700x7800x4700	7250x7250x5000(8000 x8000x5000)	7600x6300x5300	8200x8000x5300
35000/39000	35000/39000	38000(40000) 53000(55000) 63000(65000)	42000(44000) 59000(61000)	42000(44000) 57000(59000) 67000(69000)
SIEMENS 840D(FANUC system 18i optional)	SIEMENS 840D(FANUC system 18i optional)	SIEMENS 840D(FANUC system 18i optional)	SIEMENS 840D(FANUC system 18i optional)	SIEMENS 840D(FANUC system 18i optional)
100	100	100/130/150	100/130/150	100/130/150



### Standard accessories

- Center lubricating Device
- Helix chip conveyor (type110)
- Cooler
- Hydraulic tank
- Illuminating for working area
- RS232 interface
- Handle pulse generator
- Organ protective cover for columns
- Chain Chip conveyor with cooling tank
- Air conditioner for electric cabinet
- Pneumatic components



### Optional Accessories:

- Scale for X, Y and Z axis (Standard for export)
- CNC system (FANUC 1 8i, Heidenhain iTNC 530)
- Circle scale for B axis
- Cleaning squirt
- Protective for working area
- NC vertical rotary worktable
- Protective for column and spindle box
- Removable facing plate
- Paper filter for spindle inner cooling system
- Universal milling head (index manual)
- Right milling head standard/extended (index manual)
- Tool magazine (40,60)

