



Zx-SERIES

MONUMILL

SHAPING INNOVATION, CUTTING PERFECTION

ZX SERIES



MAIN CHARACTERISTICS

KEY FEATURES AND ADVANTAGES OF THE **BHAGWATI'S Zx-SERIES**:

INTERPOLATED AXES:

The BHAGWATI Z series machines are large CNC multifunctional machining centers with 5/6 interpolated axes and a Z-axis stroke ranging from 800 to 2000 mm. These machines are particularly suitable for producing straight, as well as two-dimensional and three-dimensional milling, columns, sculptures, and cuts of any kind.

PRECISION REDEFINED

BHAGWATI Zx-series machines are designed to be extremely versatile and powerful machining centers with high accuracy. Thanks to the steel bridge with a reinforced structure, axis movements generated by servo motors coupled with ultra-high-precision gearboxes, includes X Axis Carriage (cross movement) which operates along the gantry, Y Axis - Overhead Gantry (Longitudinal Movement) which moves along end carriage on robust welded steel columns & horizontal beams. Z axis - Ram (Vertical Movement) which is mounted on the X axis carriage, featuring a pneumatic braking system for safe operation during voltage drops or power failures, C axis- Revolving Hood (Rotatory movement) securely attached to the ram, includes a precision gearbox for smooth 360° rotation, A axis- Spindle (Tilting Movement) features a tilting mechanism for accurate positioning and smooth adjustments across its designated range. It is possible to produce objects of various dimensions and shapes with exceptionally precise finishes.

VERSATILE PRECISION

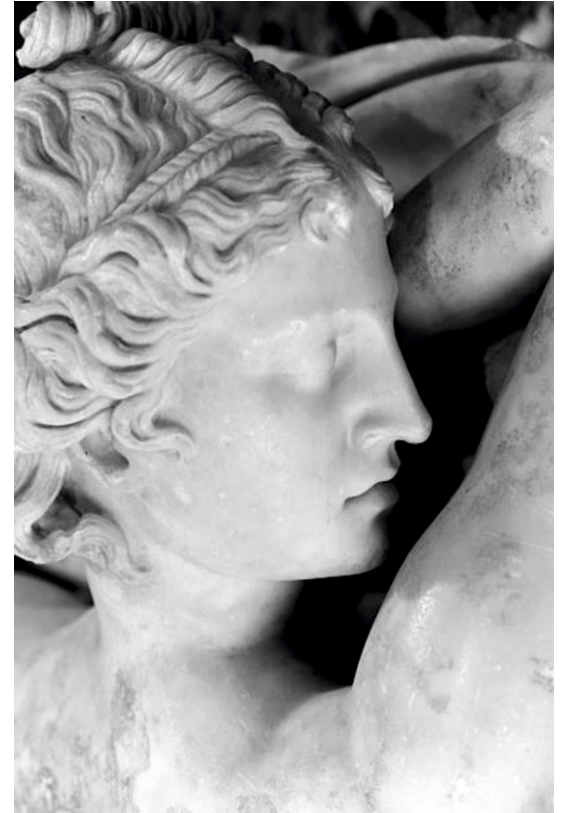
These machines are equipped with inverter-controlled electrospindles featuring TOOLS with ISO 50 connections, capable of accommodating diamond blades with diameters ranging from 350 mm to 1000 mm, as well as various diamond tools. The system can also be configured with a lathe and a rotating platform, both incorporating an NC-controlled rotary axis, thereby increasing the interpolated axes from 5 to 6. With a wide range of accessories available in the catalog, the machine can be configured as a simple cutting tool or a machining center for complex processing tasks.

UNMATCHED VERSATILITY

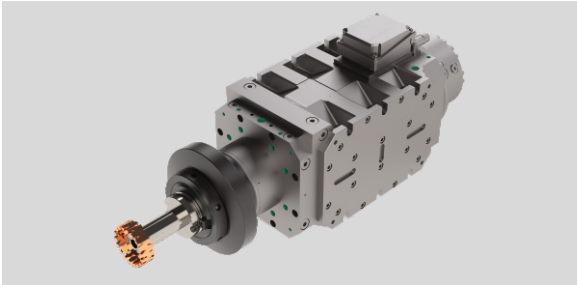
BHAGWATI Zx machines are ideal for customers seeking powerful and flexible solutions to meet the increasingly complex challenges and projects of today's market. All machines in the series are available with grease lubrication provided in the standard version.

PRODUCTION

Zx-SERIES CRAFTING POSSIBILITIES, REDEFINING LIMITS



STANDARD FEATURES



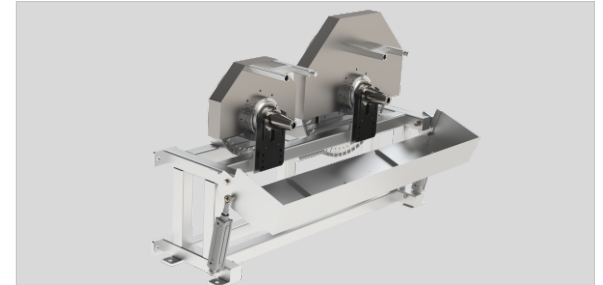
ELECTROSPINDLE

Top-quality, inverter-controlled electro-spindles allow rotations to be adjusted from 0 to 5000/6000/8000 RPM. They can be equipped with an optional bi-rotary head featuring continuous axis tilt from -30° to 210° , making them ideal for highly complex 5-axis machining. These electro-spindles support the use of various tools, including blades, diamond tools, milling wheels, finger bits, and diamond carving tools. Tool changes can be performed either automatically or manually.



AUTOMATIC GREASING

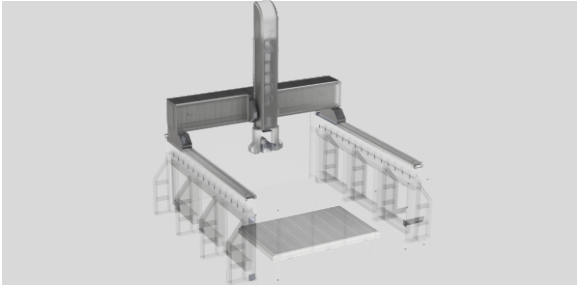
The sliding lines of the Zx-Series machines are lubricated with grease, managed automatically and centrally. Thanks to the innovative linear guiding systems installed on the lateral crosspieces, the bridge moves smoothly and precisely, ensuring fast and efficient operation. The digitally controlled servo motors and advanced gearboxes provide exceptional precision and impressive speed while minimizing energy consumption.



AUTOMATIC BLADE CHANGE

This two-station automatic blade change system is equipped with $\varnothing 350$ and $\varnothing 600$ blades, designed to ensure efficient and quick blade replacement. With its sturdy and reliable design, the system offers maximum versatility and usability. The blade holder structure is securely fixed to the floor using threaded rods and chemical anchors, providing excellent stability during operation. It is ideal for processing stones of varying dimensions.

STANDARD FEATURES



WORK BENCH SOFTWARE

The workbench is available in various sizes and with different surface options to accommodate selected accessories and specific production requirements. A bench top can also be added for specialized processing. With a range of options available, including fixed or tilting workbenches, you can select the solution that best suits your production process.



TOOL PRESETTER

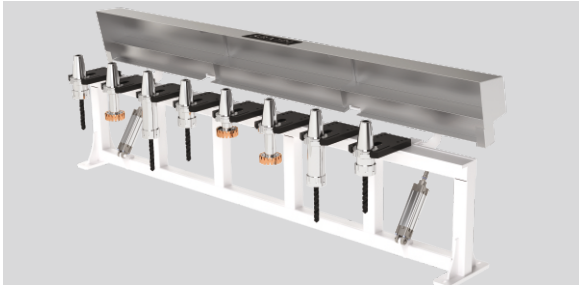
The tool presetting system precisely detects the tool dimensions (height and width) and transmits this information to the machine's NC system. This enables the software to update the Z-axis positioning accordingly, leading to significant improvements in machining quality and accuracy.



HANDHELD TERMINAL

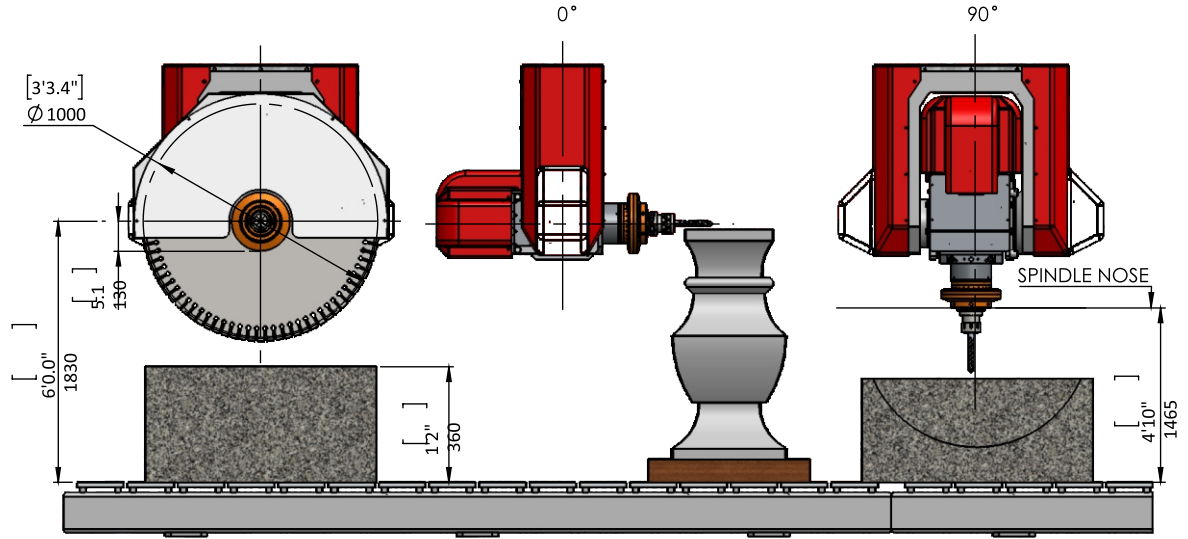
A range of operations can be performed using the Handheld Terminal, including manually moving the machine axes, saving origin points, viewing machine coordinates, and performing other functions such as switching the laser on and off.

STANDARD FEATURES

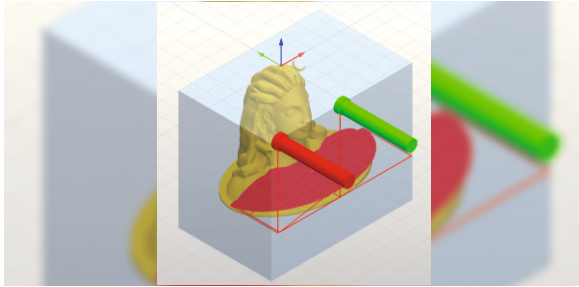


8 STATION LINER TOOL HOLDER

This is a 8-station tool holder with ISO50 cones (SK-50). The base is positioned at the back of the machine. The system can be extended to accommodate up to 32 tools at an additional cost.

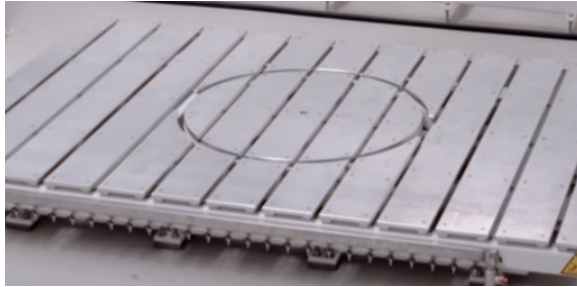


OPTIONAL - FEATURES



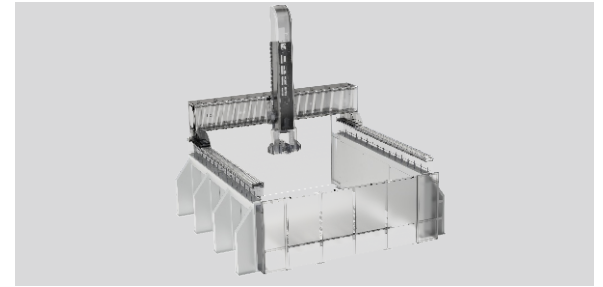
EASYSTONE SOFTWARE

EASYSTONE is CAD/CAM software specifically designed for the marble processing sector. It is simple and intuitive, with "click-friendly" functions that can be easily used even by individuals with no prior computer skills. The software allows users to design or import 2D and 3D files in various formats, or to define surfaces and shapes through laser scanning. It is ideal for shaping, drilling, profiling, hollowing, polishing, and 5-axis machining, as it optimises the execution process.



ROTATING TABLE

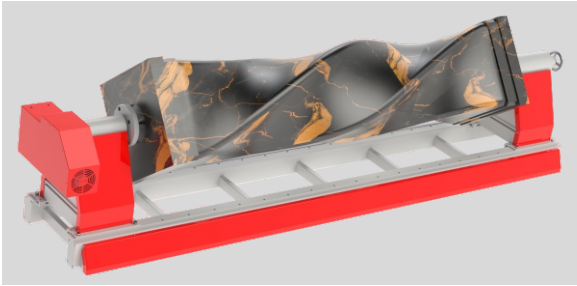
An extremely versatile motorized interpolated rotating table. The supporting surface is made of aluminum, and the structure is crafted from metal carpentry that is sandblasted and painted to guarantee optimal protection. The table is designed to adapt to the different working needs of our customers. The accurate control of movements ensures the best results.



STEEL FRAME

The Z-Series machines have an optional steel structure: instead of the client having to make cement walls, a steel frame can be installed to fix the Y-axis sliding rails. The structure is made of welded steel and painted with three coats for greater protection against external agents.

OPTIONAL - FEATURES



ROTATORY AXIS (LATHE)

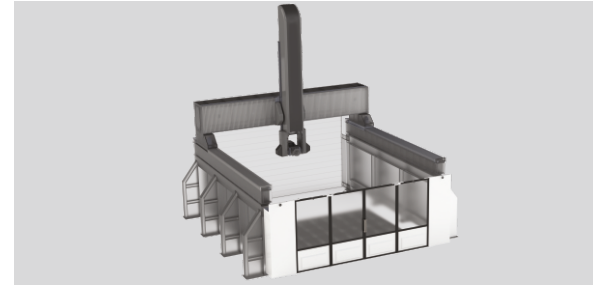
The machine we offer is a versatile and indispensable tool, specifically designed for crafting various solid rotary marble and granite stones.

Its precision and adaptability make it ideal for producing a variety of intricate architectural elements, whether you're working on balusters, columns, guide bars, cycloidal balusters, pellets, stylobates, caps, or other stone components.



3D SCANNER

The portable 3D structured light scanning system is an incredibly flexible solution for reverse engineering and copying objects of various dimensions, such as statues, shrines, design objects, and other items of any shape and size. The scanning system generates a 3D file that is compatible with most CAD-CAM software.



FRONT ENCLOSURE

The front safety guards with a closing system provide enhanced safety management. These barriers are designed to ensure maximum visibility of the work area while minimizing bulk. The closure system features a 2+2 wing design, allowing for easy opening and closing. This solution ensures exceptionally high safety standards.

TECHNICAL DATA SHEETS	Unit	Z 800	Z 1200	Z 1600	Z 2000
Number of inter-polated axes	N°	5/6	5/6	5/6	5/6
Carriage stroke (X-axis)	mm	3700	3700	3700	3700
Bridge stroke (Y-axis)	mm	4000	4000	4000	4000
Head up/down stroke (Z-axis)	mm	800	1200	1600	2000
Head rotation (C-axis)	degree	-5° / +365°	-5° / +365°	-5° / +365°	-5° / +365°
Head tilting (A-axis)	degree	-30° /+210°	-30° /+210°	-30° /+210°	-30° /+210°
Workbench dimensions	mm	2200 X 3600	2200 X 3600	2200 X 3600	2200 X 3600
Minimum blade diameter	mm	350	350	350	350
Maximum blade diameter	mm	1000	1000	1000	1000
Max cutting depth	mm	360	360	360	360
Power of electro-spindle motor	kw	28	28	28	28
Blade rotation with inverter	RPM	0-8000	0-8000	0-8000	0-8000
		Optional RPM 10,000	Optional RPM 10,000	Optional RPM 10,000	Optional RPM 10,000

TECHNICAL DATA SHEETS

	Unit	Z 800	Z 1200	Z 1600	Z 2000
Taper shank for tool	-	ISO-50	ISO-50	ISO-50	ISO-50
Carriage speed (X-axis)	m/min	0 - 40	0 - 40	0 - 40	0 - 40
Bridge speed (Y-axis)	m/min	0 - 40	0 - 40	0 - 40	0 - 40
Head speed (Z-axis)	m/min	0 - 10	0 - 10	0 - 10	0 - 10
Axis positioning speed (X and Y axes)	m/min	0 - 40	0 - 40	0 - 40	0 - 40
Water consumption	L/min	60	60	60	60
Air consumption	L/min	30	30	30	30
Standard voltage	Volt	400	400	400	400
Frequency	Hz	50	50	50	50
Total machine weight	kg	10,295	12,785	15,190	18,897



ADDRESS

HEAD OFFICE (AJMER)

178, 179, 179-A, RIICO Industrial Area Extn,
Parbatpura-Makhupura, AJMER-305002 (Raj) INDIA

DELHI OFFICE

Yc Co-working Space 4th Floor, Plot No-94 Sec-13,
Near Radisson Blu New Delhi-110078

PUNE (MAHARASHTRA)

Shop No.- 104, Westwood Estates, 235/2A,
Chatrapati Chowk, Kaspate Vasti, Wakad, Pune-57

BENGALURU (KARNATAKA)

1F, Maatara Apartments, 4th Floor Srirampura,
Bommasandra, Jigani Road Bengaluru (Karnataka)

PALANPUR (GUJARAT)

District Banaskantha,
Palanpur (Gujarat)

KARIMNAGAR (TELANGANA)

Shree Niwasa Complex, Kazipur Road,
Bahupet, Karimnagar (Telangana)

SRIKAKULAM (ANDHRA PRADESH)

H. No 4-12, Sai Nagar, Narasannapeta,
Srikakulam (Andhra Pradesh)

KISHANGARH (RAJASTHAN)

Studio Flat No. C-1, 3rd Floor, Ganpati Square,
RIICO Industrial Area Madanganj-Kishangarh (Raj)