China Professional CNC Marble Cutting Machine Factory: R&D-Driven Innovation for High-End Solutions





QUANZHOU, FUJIAN, CHINA, September 25, 2026 / EINPresswire.com/ -- High-end architectural marble processing demands zero-defect cutting precision, synchronized veining alignment, and automated multi-axis profiling on delicate, fracture-prone natural stone slabs. Traditional mechanical setups lack automated toolpath compensation and dynamic vibration damping, leading to high scrap rates and micro-chipping along finished slab edges. To address micro-chipping risks on fragile stone and accelerate multi-axis fabrication efficiency, Fujian Wanlong Times Technology Co., Ltd. (WANLONG / Wanlong Group) manufactures high-precision professional CNC marble cutting machinery driven by continuous R&D innovation and proprietary motion control algorithms. Operating since 1993, WANLONG integrates rigid monoblock machine beds, intelligent CAD/CAM vision nesting, and in-house formulated diamond tooling to deliver turnkey cutting and profiling solutions for international stone enterprises.

Engineering specialists at WANLONG anchor the company's CNC marble machinery development across five core industrial competencies:
R&D Innovation: Nearly 100 engineering professionals develop proprietary motion control platforms and advanced kinematic machine designs.

Intelligent Automation: Industrial CNC systems support DXF and DWG CAD importation, digital slab nesting, laser alignment, and adaptive feed regulation.
Manufacturing Governance: Operating 40,000 square meters of production space, all equipment adheres to SGS ISO 9001:2015 and European CE standards.
Tooling Synergy: Dedicated stone testing laboratories evaluate mineral hardness to formulate custom copper-based diamond blades matched to spindle torque.
Global Project Delivery: Exporting to 180 countries, WANLONG provides turnkey installation, operator training, 24-hour response, and IoT remote diagnostics.

CNC Marble Cutting Machine Solutions Tailored to Diverse Fabrication Demands
Industrial marble processing facilities require specialized equipment configurations aligned with specific slab dimensions, mineral hardness, and fabrication workflows. WANLONG organizes its CNC machinery portfolio into modular processing cells that streamline material flow from initial slab sizing to multi-axis 3D detailing. By integrating multi-axis bridge saws, abrasive waterjet cutters, and CNC stone routers into unified production lines, fabricators maximize shop-floor throughput and ensure premium quality delivery for luxury architectural projects.

5-Axis CNC Bridge Saw Series: Features 0-90 degree rotation and 0-45 degree tilting for waterfall miter edges, sink cutouts, and 3D profiling.

4-Axis CNC Bridge Saw Series: Delivers cutting feed speeds of seven to nine meters per minute on dense marble with matched diamond blades.

3-Axis Mono-Block CNC Saws: Features a 4,500 kg steel frame and 18.5 kW motor for slabs up to 3200 by 2000 mm.
CNC High-Pressure Waterjet Series: Executes intricate marble medallion mosaics and composite cuts with metal inlays without heat distortion or thermal stress.

CNC Stone Router Series: Equipped with a 24,000 RPM spindle for high-definition 3D bas-relief carvings, column profiles, and luxury accents.

R&D-Driven Technological Innovation: Integrating IoT and Automation Control Systems
Continuous research and development forms the operational cornerstone of WANLONG's machinery engineering, delivering intelligent solutions that seamlessly integrate the Internet of Things (IoT) and advanced automation control systems. Proprietary CNC software algorithms automatically convert imported DXF/DWG CAD drawings into collision-free five-axis toolpaths, while intelligent digital nesting algorithms optimize cutting sequences to align with natural stone veining.

Through integrated IoT-enabled architecture, machines maintain real-time bidirectional communication between the factory floor and central engineering servers. This allows automated adaptive feed regulation based on spindle resistance, remote telemetry monitoring of machine health, and online parameter optimization, transforming standalone bridge saws

into interconnected, intelligent stone fabrication cells.

A vital technological asset is the company's dedicated stone sample analysis laboratory. Specialized metallurgical and mineralogical testing equipment evaluates calcite grain density, quartz inclusions, and fracture toughness on client stone samples. Using this empirical data, metallurgists synthesize custom diamond segment formulations calibrated to machine electro-spindle torque curves. Variable Frequency Drives (VFD) continuously monitor cutting resistance, automatically adjusting travel speeds when encountering harder mineral formations. This closed-loop adaptive regulation maintains steady tool pressure, protecting fragile marble edges from micro-cracking and extending blade longevity.

High-End Equipment Manufacturing and Quality Governance
Disciplined manufacturing standards govern every phase of equipment fabrication across WANLONG's 40,000 square meter production complex. Heavy monoblock steel machine beds undergo high-temperature thermal stress-relieving annealing to eliminate internal weld stresses and ensure structural permanence. Heavy-duty linear guideways, precision-ground helical gear racks, and European imported electrical components are assembled in dedicated cleanroom bays. Zero-backlash dual-drive mechanisms along the Y-axis guarantee smooth, synchronized gantry movement across travel strokes of 3700 by 2460 by 330 mm. This rigid kinematic platform maintains precise positioning accuracy of 0.1 mm or better under heavy continuous production loads.

Quality control protocols strictly follow the SGS ISO 9001:2015 quality management system and European Machinery Directive 2006/42/EC. Equipment satisfies harmonized European safety standards, including EN 12418:2021, EN ISO 12100:2010, and EN 60204-1:2018. Diamond tooling complies with EN 13236 safety standards for superhard abrasive products. Before export, every machine undergoes rigorous Factory Acceptance Testing (FAT), including full-stroke laser interferometer calibration and 48-hour continuous dry-run trials. Overseas buyers receive verified inspection certificates alongside official Declarations of Conformity to streamline customs clearance and factory commissioning.

Customization, Installation, and Global Project Delivery Support
WANLONG provides extensive OEM and ODM engineering customization to adapt machinery to specific workshop layouts and production goals. Engineering teams design tailored plant layouts coordinating raw block storage, multi-blade primary sawing, water filtration recycling, and automated polishing lines. Hydraulic worktables tilting up to 85 degrees are integrated to facilitate safe, rapid slab loading by overhead crane or forklift. Integrated optical camera arrays provide real-time visual tracking of workpiece nesting from safe remote control consoles. This collaborative engineering ensures that customized production cells integrate smoothly into existing factory workflows.

Dedicated global project delivery services support international clients throughout equipment lifecycles. WANLONG disassembles heavy equipment into protective modular containers and

coordinates maritime logistics to major international shipping ports. Experienced field service engineers deploy to overseas client facilities to manage on-site mechanical assembly, electrical wiring, and laser calibration. Structured training programs instruct local technicians on CAD file programming, preventive maintenance, and optimal feed rate adjustment. IoT-enabled remote diagnostics allow factory specialists in China to access CNC systems online, troubleshooting issues and optimizing parameters in real time.

Commercial Procurement Value of Direct Factory Partnership
Partnering directly with a research-driven Chinese manufacturer delivers decisive commercial and operational gains for global stone fabricators. Direct factory sourcing eliminates intermediary commercial markups, providing favorable capital acquisition terms for high-performance automated assets. The precision alignment of WANLONG CNC saws maintains tight cutting tolerances within 0.5 mm or tighter, reducing raw stone loss and shortening downstream polishing times. Factory-matched diamond tooling lowers power consumption and reduces tooling wear per square meter across demanding natural marbles. Direct factory engineering support guarantees rapid spare parts dispatch and continuous software algorithm upgrades. These long-term operational advantages ensure sustained productivity and competitive project delivery for international commercial stone fabricators.

To download technical specifications for WANLONG CNC marble cutting machines or request a custom factory layout proposal, visit the official portal at https://www.wanlongtimes.com/. Connect directly with the global engineering division to submit stone testing samples, schedule live machine demonstrations, and receive factory-direct equipment quotations.

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