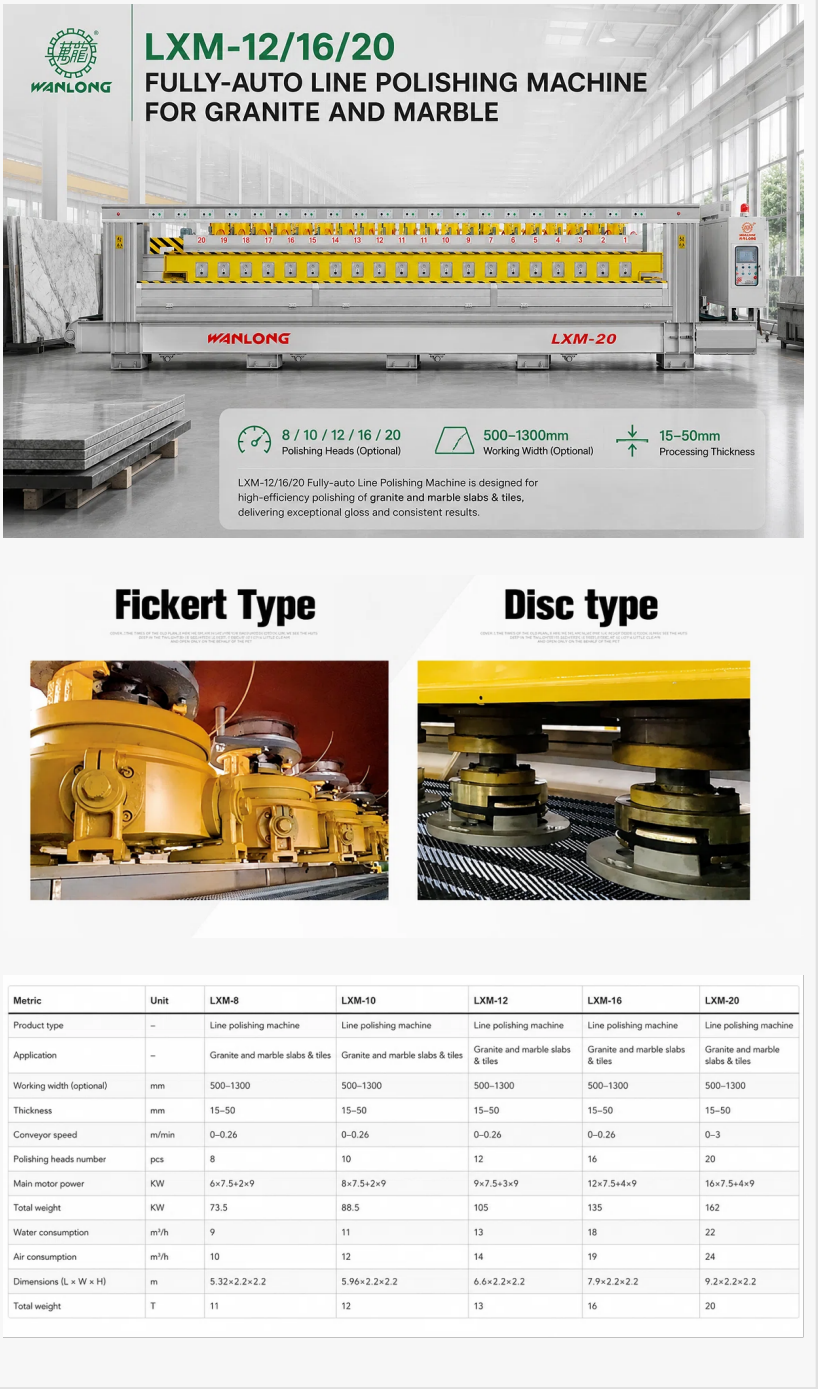
Premium Quality Line Polishing Machine Manufacturer: Reliable Product Performance Guide from WANLONG

QUANZHOU, FUJIAN, CHINA, September 25, 2026 / EINPresswire.com/ -- High-volume slab processing lines require continuous polishing equipment capable of delivering mirror-grade specular gloss, consistent edge-to-edge flatness, and rapid conveyor throughput on dense natural granite and marble. Conventional manual polishing or uneven grinding setups often produce visible swirl marks, gloss variations across large slabs, and excessive abrasive tool wear. To address surface gloss inconsistency and eliminate polishing swirl defects on architectural slabs, Fujian Wanlong Times Technology Co., Ltd. (WANLONG / Wanlong Group) manufactures heavy-duty automatic stone line polishing machine solutions engineered with progressive multi-spindle grinding arrays and independent pneumatic pressure controls. Operating since 1993, WANLONG integrates rigid stress-relieved steel frames, intelligent optical slab contour scanning, and proprietary diamond abrasives to maximize finished square-meter output for stone fabricators worldwide.



Metric	Unit	LXM-8	LXM-10	LXM-12	LXM-16	LXM-20
Product type	–	Line polishing machine	Line polishing machine	Line polishing machine	Line polishing machine	Line polishing machine
Application	–	Granite and marble slabs & tiles	Granite and marble slabs & tiles	Granite and marble slabs & tiles	Granite and marble slabs & tiles	Granite and marble slabs & tiles
Working width (optional)	mm	500–1300	500–1300	500–1300	500–1300	500–1300
Thickness	mm	15–50	15–50	15–50	15–50	15–50
Conveyor speed	m/min	0–0.26	0–0.26	0–0.26	0–0.26	0–3
Polishing heads number	pcs	8	10	12	16	20
Main motor power	KW	6×7.5+2×9	8×7.5+2×9	9×7.5+3×9	12×7.5+4×9	16×7.5+4×9
Total weight	KW	73.5	88.5	105	135	162
Water consumption	m³/h	9	11	13	18	22
Air consumption	m³/h	10	12	14	19	24
Dimensions (L × W × H)	m	5.32×2.2×2.2	5.96×2.2×2.2	6.6×2.2×2.2	7.9×2.2×2.2	9.2×2.2×2.2
Total weight	T	11	12	13	16	20

Operating 40,000 square meters of modern facilities across 64 acres, WANLONG structures

equipment engineering across six core performance criteria:
Polishing Quality and Uniformity: Multi-head progressive grinding arrays and independent pneumatic pressure controls achieve mirror-grade surface gloss and consistent planar flatness.
Structural Frame Stability: Heavy 20-ton stress-relieved steel chassis and precision ground guide rails eliminate mechanical vibrations during high-speed continuous feeding.
Automated Digital Process Control: Industrial PLC controllers and optical sensor arrays automate slab profile detection, head avoidance sequences, and conveyor speed adjustments.
Manufacturing Governance and Standards: Equipment manufacturing adheres strictly to SGS ISO 9001:2015 quality management systems and European Machinery Directive 2006/42/EC protocols.
Flexible Processing Configurations: Modular arrangements from 8 to 20 spindles handle slab widths from 500 mm to 1300 mm.
Turnkey Installation and Global Support: Exporting to 180 countries, WANLONG delivers on-site commissioning, operator training, IoT remote diagnostics, and spare parts.

Surface Gloss Consistency, Planar Flatness, and Finishing Quality

Achieving high surface gloss across large stone slabs requires disciplined abrasive progression and steady polishing contact. WANLONG continuous polishing lines utilize multi-head spindle configurations, such as the LXM-20 model equipped with twenty independent grinding heads. The machine transitions slabs smoothly through coarse diamond grinding, intermediate honing, and ultra-fine resin polishing stages. Each spindle applies calibrated downward pressure via precision pneumatic cylinders, maintaining uniform contact across natural stone variations. This progressive abrasive sequence produces a brilliant, mirror-like finish across dense granites and delicate marbles without surface waviness.

Uniform planar flatness is maintained through synchronized crossbeam oscillation that sweeps abrasive heads continuously across the moving slab. Variable speed oscillation motors distribute abrasive wear evenly, eliminating directional grinding lines and edge thickness discrepancies. High-flow internal water distribution channels deliver twenty-two cubic meters of cooling water per hour directly to each grinding interface. This continuous water flow clears abrasive stone slurry rapidly, preserving tool sharpness and preventing thermal micro-cracks on stone surfaces. Finished slabs exhibit exceptional gloss uniformity from leading edges to trailing corners.

Mechanical Architecture, Structural Rigidity, and Operational Stability

Continuous industrial line polishing places heavy mechanical demands on machine frames and structural assemblies. WANLONG constructs its polishing lines on a heavy, stress-relieved steel chassis designed to absorb dynamic operational vibrations during high-speed multi-spindle processing. Heavy-duty Taiwan HIWIN linear guide rails and an integrated brake motor ensure smooth, precise crossbeam oscillation while protecting structural assemblies during unexpected power interruptions. The primary spindle box integrates high-precision NSK bearings and an automated timed lubrication system to ensure continuous, wear-free rotation under heavy production shifts.

Long-term operational stability depends on dependable workpiece transport and durable mechanical sealing. The conveyor system features a heavy-duty continuous rubber belt with high friction coefficients to prevent slab slippage during intense grinding passes. Variable frequency drives regulate conveyor travel smoothly between 0 and 3 m/min, allowing precise feed rate optimization. Supported by Taiwan Airtac pneumatic cylinders and multi-labyrinth seals, the machine maintains uniform down-pressure while shielding sensitive drive components from abrasive water mist.

Automated Digital Process Control and High-Throughput Efficiency
Modern stone processing facilities require automated control systems that minimize manual intervention and maximize daily square meter throughput. WANLONG LXM series polishing machines integrate industrial Mitsubishi PLC controllers with intuitive LCD touchscreen operator interfaces and Yaskawa inverter drives. At the machine infeed, an advanced laser scanning device automatically detects incoming slab profiles, irregular contours, and thickness variations in real time.

Coupled with high-resolution rotary encoders for precise head-position tracking, the central system coordinates sensitive collision-avoidance sequences that automatically raise and lower individual polishing heads across slab gaps and edges. Operators can easily store and recall customized polishing recipes, adjust crossbeam oscillation, and monitor machine-fault alarm systems from the central console, drastically reducing manual adjustments during continuous granite and marble processing.

Disciplined Manufacturing Standards, Assembly Testing, and Quality Governance
Strict quality control protocols govern every assembly phase across WANLONG's 40,000 square meter production facility. All manufacturing operations comply fully with the SGS ISO 9001:2015 quality management system, ensuring disciplined component traceability. Machinery design satisfies the European Machinery Directive 2006/42/EC, including harmonized standards EN 12418:2021, EN ISO 12100:2010, and EN 60204-1:2018. WANLONG holds prestigious distinctions as a National High-Tech Enterprise and recipient of the Second Prize of the National Science and Technology Progress Award. These accreditations confirm that equipment manufacturing meets the highest international safety and reliability standards.
Before dispatch, every polishing machine undergoes rigorous Factory Acceptance Testing (FAT) in specialized testing bays. Technicians verify spindle concentricity, dynamic balance, and pneumatic pressure response under continuous 48-hour dry-run simulations. Pilot test polishing on reference stone slabs validates surface gloss consistency, planar flatness, and electrical safety circuits. International buyers receive official quality inspection certificates and standardized Declarations of Conformity (DoC) with every shipment. These verified compliance documents streamline overseas customs clearance and accelerate on-site plant commissioning.

Flexible Factory Configurations, Turnkey Commissioning, and Global Support
Stone processing plants require customized machinery configurations tailored to specific workshop layouts, stone varieties, and target finishes. WANLONG offers modular polishing

architectures available in Disc-Type (continuous disc heads) and Fickert-Type grinding head configurations to match specific granite or marble abrasive processes:
Modular Spindle Scaling: Multi-head configurations (such as the LXM-12, LXM-16, and LXM-20 models) flexibly adapt to standard commercial slab widths and varying material thicknesses to fulfill specific daily output requirements.
Utility and Site Engineering: Drive power ratings and operational water requirements scale proportionally with the selected head count and machine footprint, allowing buyers to align electrical capacity, water supply, compressed air, and floor loading before final installation.

Engineering teams design integrated factory layouts that connect continuous polishing lines directly with upstream multi-blade block cutters and downstream edge profiling machines. Supported by structured international documentation, dedicated commissioning teams, and IoT-enabled remote diagnostics, WANLONG ensures rapid on-site setup and reliable long-term operation worldwide.

Commercial Procurement Value and Long-Term Ownership Return
Sourcing continuous line polishing machinery directly from WANLONG provides substantial commercial advantages for international stone enterprises. Direct factory engagement eliminates intermediary commercial markups, securing favorable capital investment terms for high-capacity production assets. Automated multi-head efficiency increases daily square meter output, lowers labor overhead, and reduces per-slab electrical consumption. Consistent mirror-grade surface finishing enhances slab market value and strengthens client satisfaction on prestigious architectural projects. These operational gains enable stone processing enterprises to accelerate project delivery, expand market share, and maximize long-term profitability.

To download technical brochures for WANLONG continuous line polishing machines or request a custom workshop layout proposal, visit the official portal at https://www.wanlongtimes.com/ . Direct engineering consultations and wholesale machinery quotations are available through the official international portal.

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