Bhagwati

LEADERS IN INNOVATION

THIN MULTI WIRE

MACHINE FOR MARBLE BLOCK CUTTING

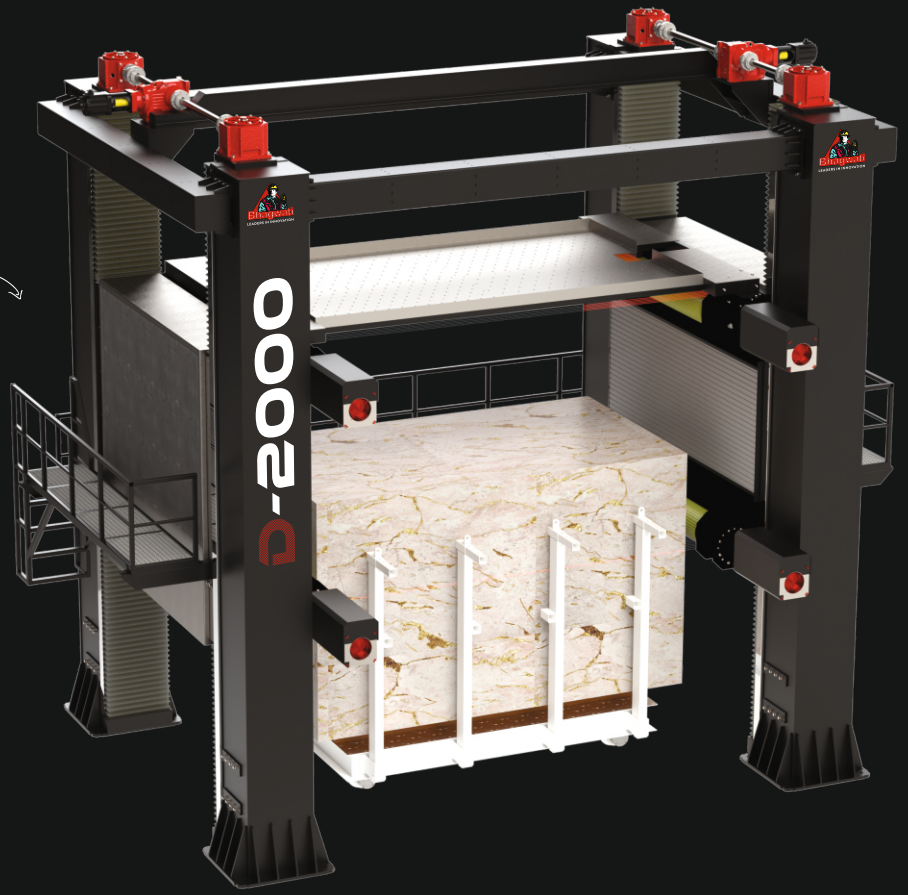
D-2000

DIAMOND ELECTROPLATED WIRE CUTTING TECHNOLOGY

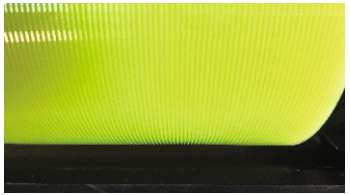
DEW

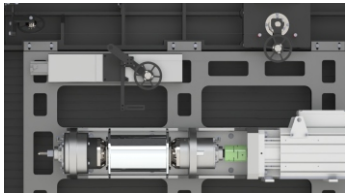
DIAMOND ELECTROPLATED WIRE MACHINE

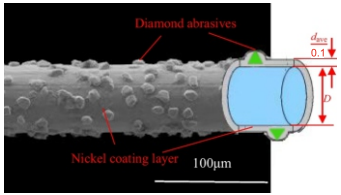
FRAME DOWN



STRUCTURE FEATURES







The machine's structure is made of heavy steel sheets on a box-shaped welded frame, while the main sliding roller frame is constructed from gray cast iron to ensure robust and stable

The machine features an automatic advance servo control system to ensure precise tensioning and execute the desired program.

Comprehensive setup solutions are implemented for advanced servo systems, ensuring stable and reliable performance.

The servo wire tensioning control system is designed to deliver precise and rapid adjustments, ensuring accurate wire tension for flawless cutting.

The cutting feed features a two-axis-linked screw mechanism with servo-driven speed adjustment for precise downward feeding.

The machine is capable of high-speed cutting with a wire speed of up to 25 m/s.

STRUCTURE FEATURES

COMPARED TO TRADITIONAL GANG SAWS

Maximum Cut Size:** 3.6 m (L) x 2.0 m (W) x 2.1 m (H)
Machine Dimensions:** 8.1 m (L) x 5.1 m (W) x 6.8 m (H)
The foundation area required for this machine is reduced by more than 30%.

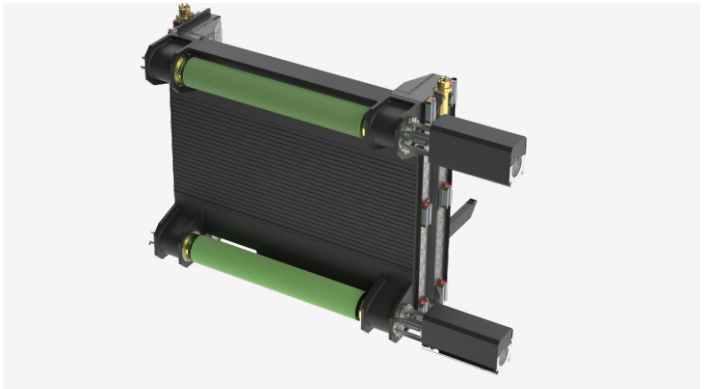
Thin wire saws with cutting grooves of only 0.5 to 0.7 mm increase the yield rate to 97%.

By minimizing cutting vibration to prevent edge breakage, the machine is capable of producing ultra-thin slabs under 10 mm.

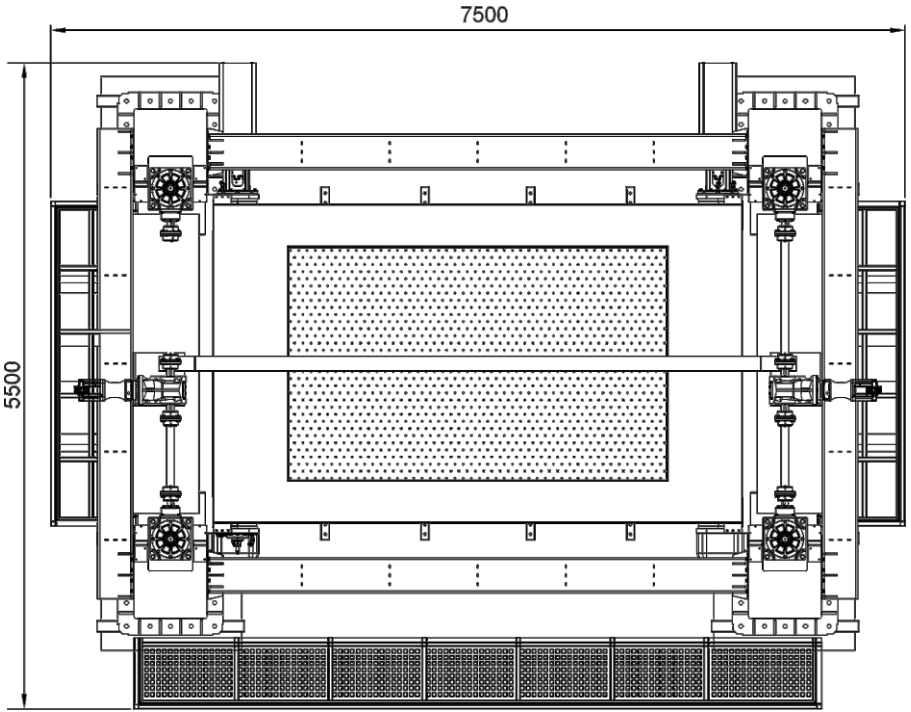
High-precision processing prevents wire marks and improves slab flatness.

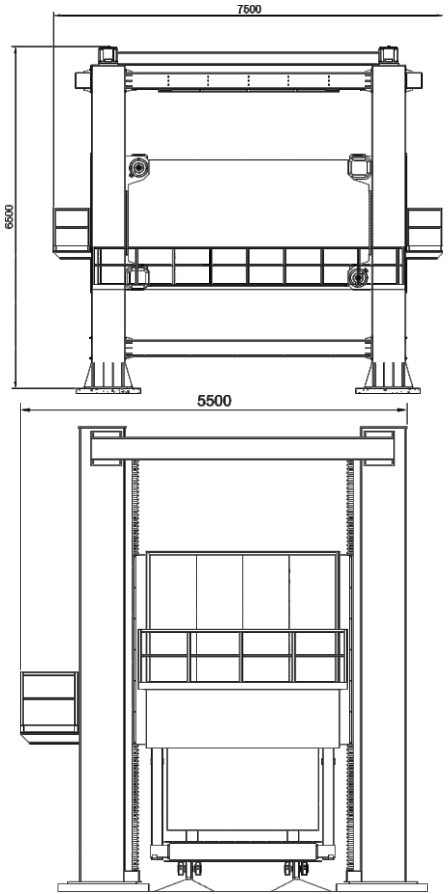
Operating at noise levels below 90 dB, the machine ensures quieter performance.

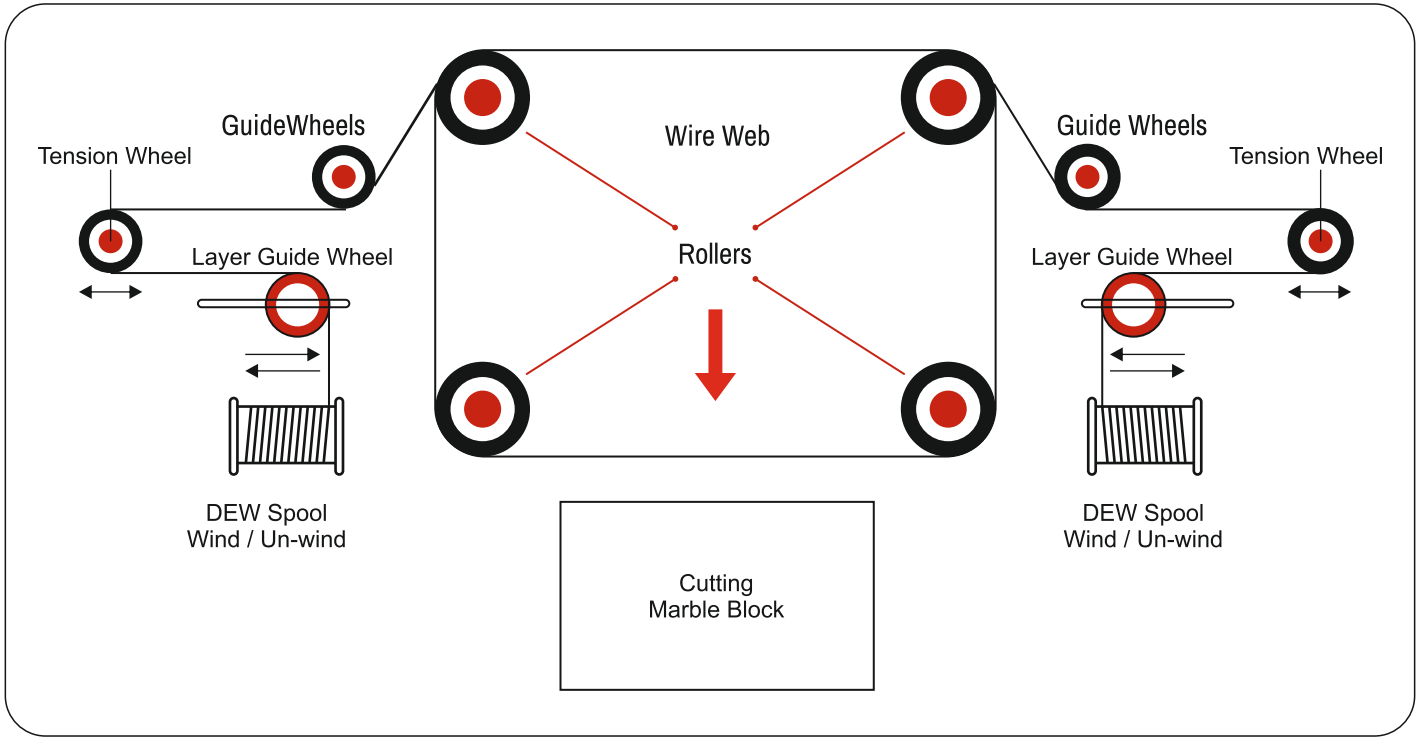
Convenient grooving capabilities accommodate a wide range of slab thickness requirements.



WORKING PRINCIPLE






GuideWheels
Tension Wheel
Layer Guide Wheel
DEW Spool
Wind / Un-wind
Wire Web
Rollers
Cutting
Marble Block
Guide Wheels
Tension Wheel
Layer Guide Wheel
DEW Spool
Wind / Un-wind

WORKING PRINCIPLE

The stone multi-line cutting machine employs a rotor to drive a cutting line composed of diamond-beaded wire. Line wheels and guide wheels form a network around the main rollers, ensuring proper alignment and tension. This wire network enables simultaneous multi-wire cuts for efficient stone processing. The cutting line is guided back through additional guide wheels and stored in line reels for reuse. This system allows for precise, high-speed cutting of large stone blocks into manageable pieces, making it ideal for stone quarries and offering enhanced productivity and accuracy.

The machine is equipped with four main rollers, each engraved with parallel grooves to securely hold the cutting line in place. Driven by a motor, these rollers operate alternately in forward and reverse directions. The alternating motion ensures continuous operation of the cutting line, improving efficiency. Longer forward operating times optimize the cutting process, while the reverse motion enhances line utilization. This design prevents line slippage and ensures consistent performance. Specifically designed for stone cutting, the machine maximizes productivity and extends the cutting line's lifespan.

During operation, the cutting line transitions from the wire to the clot wheel, gradually cutting into the material. The material is securely fixed on a workbench positioned perpendicular to the wire network. The wire network moves downward with consistent pressure and a curved trajectory. As the cutting line grinds and cuts, the sections in contact with the wire are gradually removed. The cutting depth increases until the process is complete. This multi-line cutting machine delivers precision, efficiency, and adaptability for various cutting operations.

TECHNICAL DATA

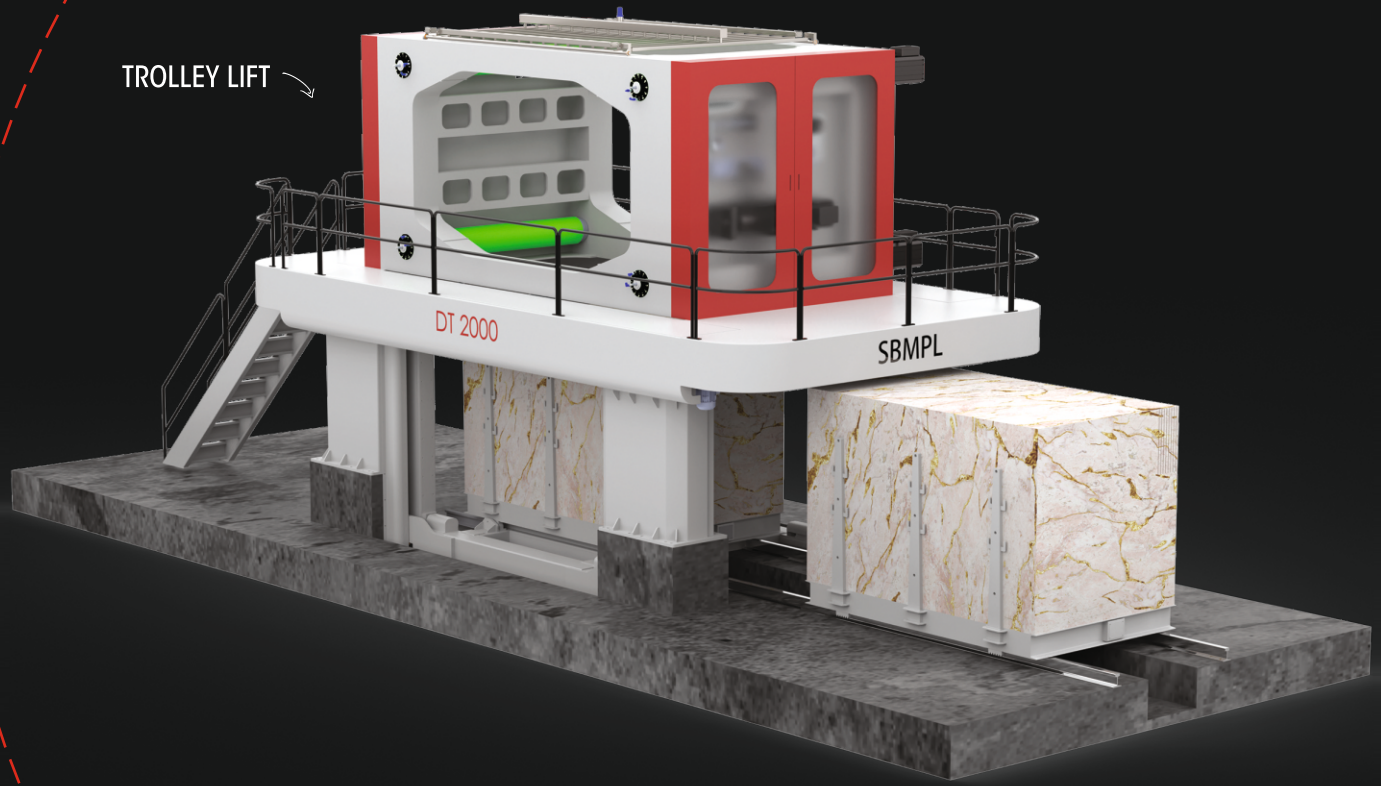
DESCRIPTION	PARAMETERS		
Wire Diameter (mm)	0.45 - 0.70		
Max. Cutting Size (mm)	Length	Heigth	Width
	3600	2200	2000
Main Motor Power (kw)	60 x 4		
Installed Electrical Power (kw)	300		
Wires Speed (m/s)	0-25		
Wire Length (mtr.)	30,000		
Roller Diameter (mm)	Ø 300		
Lifting Stroke (mm)	2500		
Lifting Speed (mm / min.)	1-200		
Tensioning system	Servo torque control		

TECHNICAL DATA

DESCRIPTION	PARAMETERS
Wire Tension (n)	0-290
Water Requirement (l / min)	1000
Machine Length (mm)	7500
Machine Width (mm)	5500
Machine Height (mm)	6500
Approximative Mass (Ton)	35

Note: The information in this catalogue is provided for reference only. All product details and availability are subject to change without notice.

DF-2000



TECHNICAL DATA

TECHNICAL INFORMATION	DF-2000	DF-2200	DT-2000	DT-2200
Electroplated Wire Diameter (mm)	0.45 - 0.70		0.45 - 0.70	
Max. Cutting Size (mm) L x w x h	3500 x 2000 x 2100	3500 x 2200 x 2100	3500 x 2000 x 2100	3500 x 2200 x 2100
Main Motor Power (kw)	60 x 4	80 x 4	60 x 4	80 x 4
Installed Electrical Power (kw)	300	380	300	380
Wire Tension (N)	0-290		0-290	
Overall Dimension L x w x h	7500x5500x6500	11800x5200x5900	7500x5500x6500	11800x5200x5900
Approx Weight (Tons)	38	43	38	42

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