

triumph

Non-stop



Manufacturing Laser & Automation Solutions



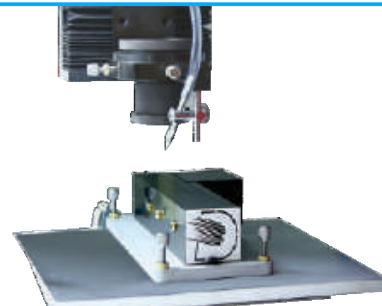
Multi Focal Banding Facility
for Cubes type Stone



Profile Banding Facility
for Flat type Stone



Alternative Cutting & Setting Station



All in One Accurate "Process" Fixture

Model of Series **triumph**
Non-stop

- **CNC** Integrated Green Laser Diamond **SAWING & PIE SAWING** Machine with **IKLWA**
- **CNC** Integrated Green Laser Diamond **SAWING** Machine with **IKLWA**
- **CNC** Integrated Green Laser Diamond **SAWING** Machine **Single** with **IKLWA**



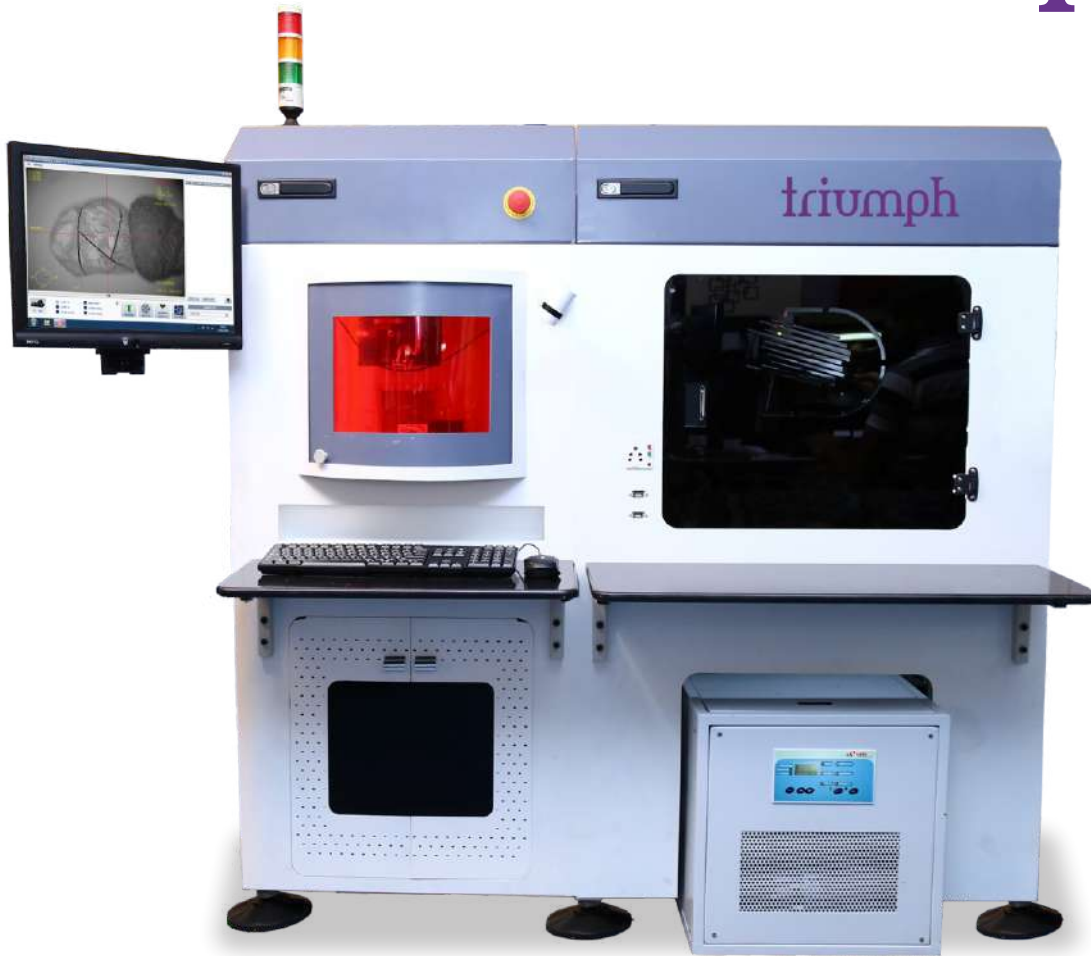
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Machine Specification

Main Supply	230VAC - 10 AMP, 1 Phase
Computer System	Intel Core i3 Processor, 4GB RAM, 1TB HDD 450 Watt SMPS, 17" Square LCD Screen
Cooling System	1200 Watt Cooling Capacity, German Brand PUMP, Nickel Coated, Heat Exchanger, All SS Fittings, 0.1 Degree Temperature Control Range
Power Supply (Diode Driver)	30 AMP - 30 Volts DC, High Stability Power Control
Optical Laser Power Control System	0 to 20 Watt Output Power Control by Optical System, Maximum Beam Roundness, Highly Stable Beam Quality to Prevent Diamond Damage
RF Q-Switch Driver	27MHZ, 50 Watt Output Power, Modulation Frequency Auto, Manual 1k to 25KHZ Frequency Range, Thermal cut off protection, FPS system
TEC LBO Controller	0.1 Degree Control Capacity, 18 to 45 Degree Temperature Range
CNS System - 1	AC Servo 200 WATT Control Drive, Highly Accurate and Long Lasting 23 Bit Resolution Axis Travel X-Axis : 130mm, Y-Axis : 130mm, Z-Axis : 70mm Accuracy - 2 Micron
Dimension of Machine	  Length - 1460mm * Width - 660mm * Height - 1400mm Weight - 900kg ~ Length - 2060mm * Width - 660mm * Height - 1400mm Weight - 1200kg ~

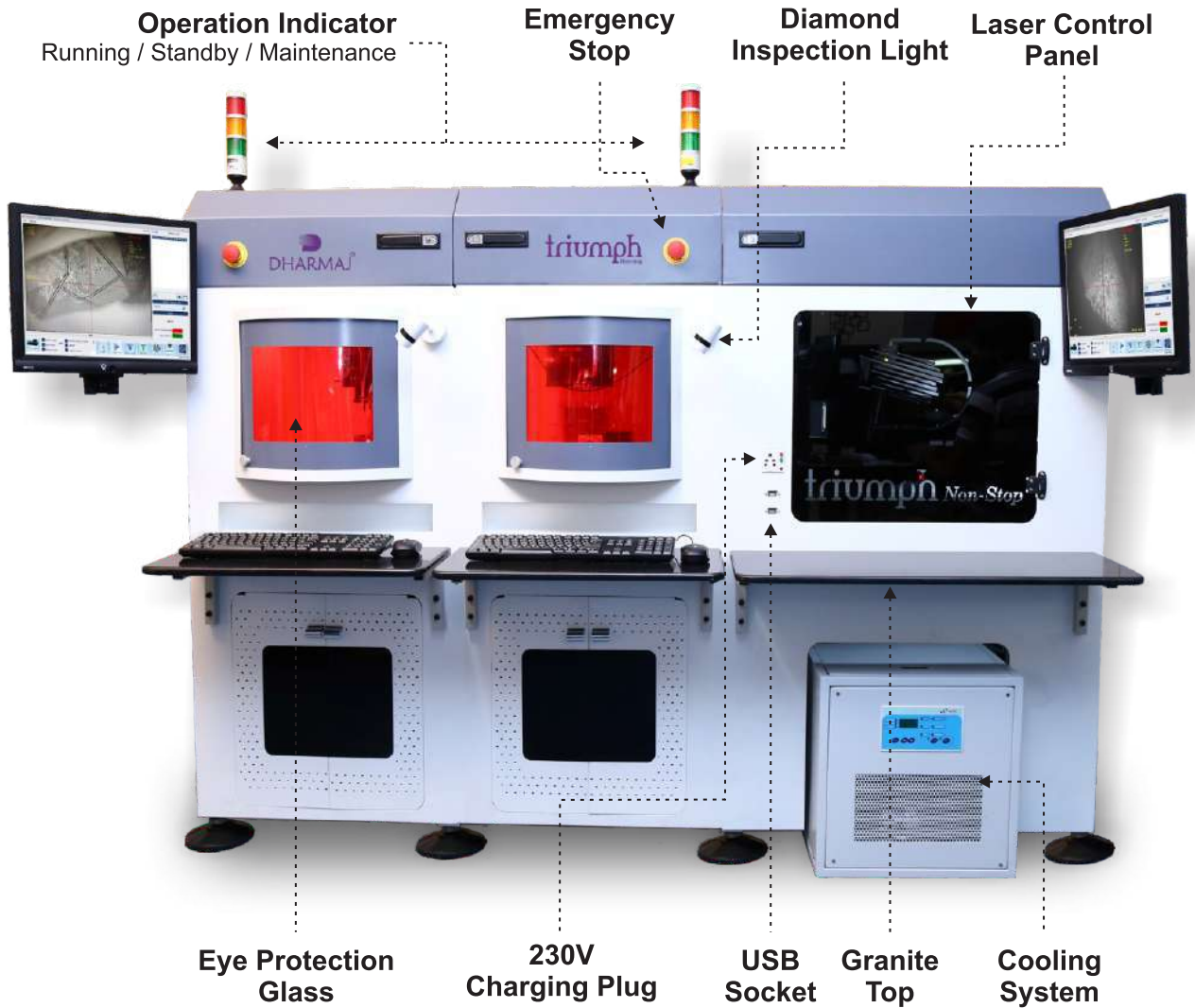
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Laser Specification

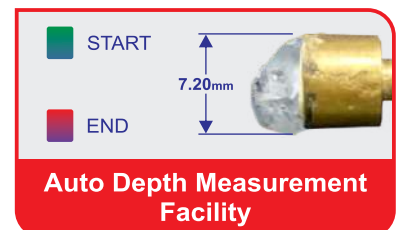
Laser Specification Common for Both Machine

Laser	DPSS (ND : YAG) Green Laser
Diode Module	Northrop Grumman "IKLWA" Laser Head or "Indigenous make Green Laser Head"
Central Emission Wavelength	532nm
Transverse Mode	TEM ₀₀
Q-Switched Output Power	Upto 22 Watt at 9KHZ
Beam Polarization	Vertical / Linear
Repetition Rate	6 - 20KHZ
Pulse Width	FWHM<80ns



Salient Features

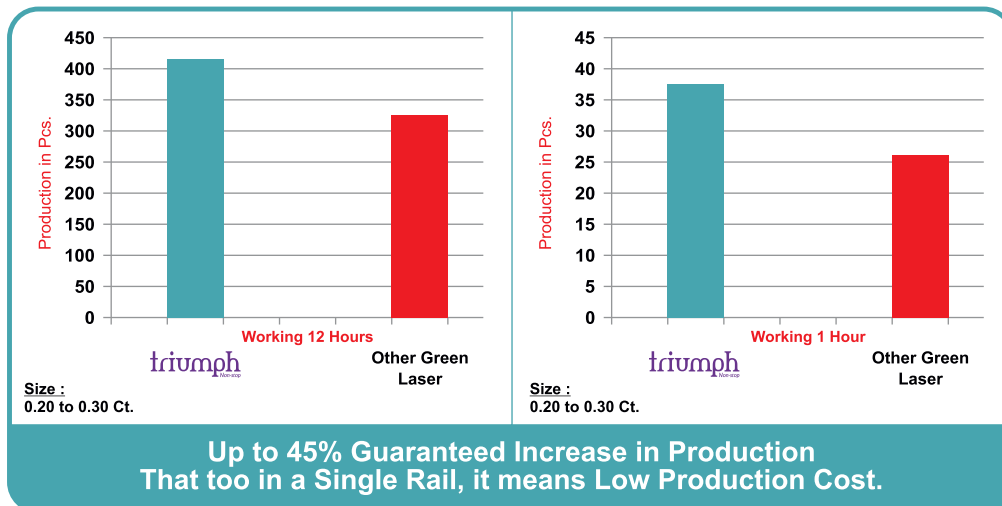
- No Requirement of **UV Glue**
- **Additional 50%** Production with **Single Laser Diode triumph**
- No more Diamond Detachment Problem During Cutting Process
- Multi Top & PIE Sawing in Single Sticking
- Lower Investment, Greater Yield
- User Friendly Software
- Robust and Vibration Free **Frame Structure**



Production

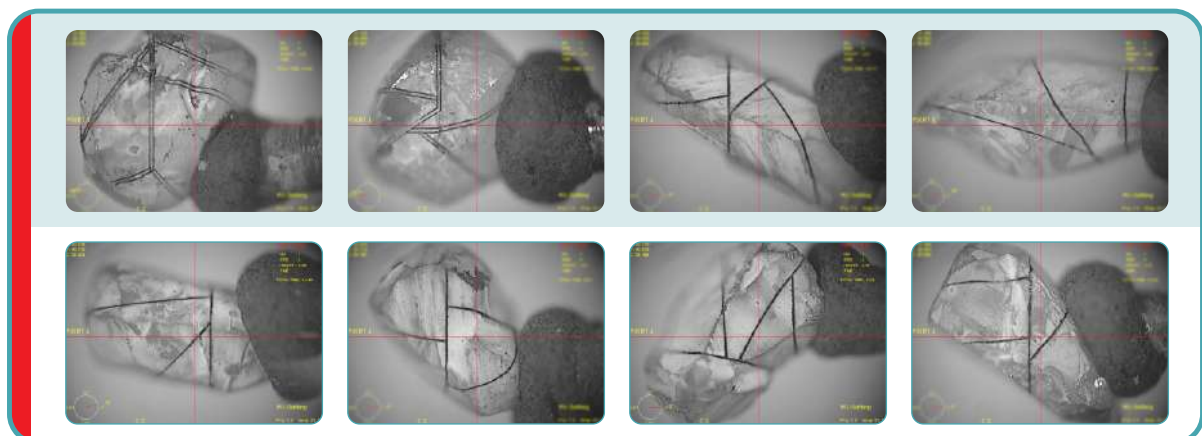
Comparison : with Single table Vs Double Table

Size (Cent)	triumph	Other Laser	triumph	Other Laser	triumph	Other Laser
	Pieces		Carats (approx.)		Average Diode Life / 20,000 hrs.	
10 - 20	500	380	75	57	8,33,333 Pcs.	6,33,333 Pcs.
20 - 30	430	310	107	77	7,20,000	5,16,666
30 - 40	370	270	137	94	6,16,666	4,50,000
40 - 50	330	230	148	103	5,50,000	3,83,333
50 - 60	300	190	165	104	5,00,000	3,16,666
60 - 70	270	160	175	104	4,50,000	2,66,666
70 - 80	245	140	183	105	4,08,333	2,33,333
80 - 1.00 ct.	205	120	185	108	3,41,666	2,00,000



Multi Top Sawing

- Highly Accurate Multi Side Sawing in Single Sticking.





• Innovation • Teamwork • Service •

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ડોક્યુમેન્ટમાં દર્શાવેલા ફોટોગ્રાફ સાથેની વિગતો ધર્મજ ટેકનોલોજીસ અને એસોસિયેટ કંપની સાથે જોડાયેલ છે.

Patent Pending.(પેટન્ટ રજીસ્ટ્રેશન કાર્યવાહીમાં છે.)

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