



Sahajanand

LASER TECHNOLOGY LTD.

EMPOWERING INNOVATION

Laser Sawing- Bruiting- Blocking System



Hallmark 4G

Hallmark 4G



Specification

Laser Source		SPAQ 75W CW
Laser Type		DPSSL
Wave length	nm	1064
Beam mode		TEM00
Working Power	watt	4 - 18
CNC Table	mm	170*170
Resolution	micron	1
Repeatability	micron	3
Accuracy	micron	2
Drive Type		AC SERVO
Z Axis travel	mm	50
Power supply		1 Phase, 15 Amp
Power Consumption	kw	1.7
Operating Environment :		
Temperature / Humidity	celsius	20 - 30 / < 60%
Coolant requirement	lt/hr.	4 - 6
Dimension	mm	1660 * 900 * 1465
Computer System:		Intel Dual core, 1 GB, 160 GB HDD, 17" LCD

* Technical Specifications are subject to change without prior notice.

**SUPPLIED MORE THAN 5000
LASER SYSTEMS**

4th Generation Laser processing machine with in-built software for laser beam stability and robotic cnc control features. These are the new generation robots for diamond processing, which will help redefine laser operations in the Diamond industry. With the ability to produce almost 80% of the job, this Hallmark 4G is a must for all the diamond factories around the world.

Features

Table sawing - Girdle - Bottom & Top blocking.



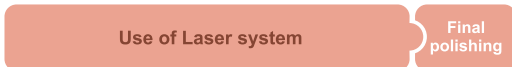
All in one diamond processing system doing Table sawing, Bruiting and cone blocking with one time fixing of the stone. This is remarkable machine able to process 80% of polishing work at a single station. As the fixing of the stone is only one time so there is minimal of error involved in the processing. It not only helps save lot of time but also increases the efficiency and diminishes losses due to human errors. Hallmark 4G helps in reducing production time with smaller process cycle.

Hallmark 4G can also be integrated with our planner machine so that even the planning process gets into a system with minimal human interference. This provides you with more systematic production cycle with error free operations.

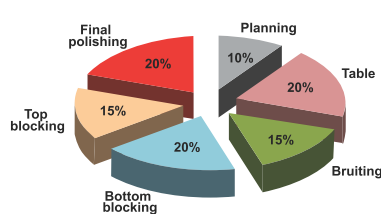
Traditional Process:



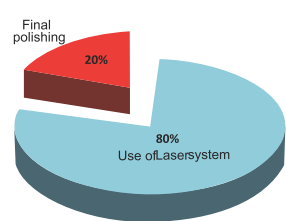
Process with Technology:



Traditional Process



Process with Technology



Specially designed laser for processing different applications at a single set-up

Almost NIL breakage rate due to RTLS (Real Time Laser System)

Precision laser operation due to stable beam delivery

Fully automatic system provides better production without high skilled manpower

Smart Intelligence software detects the stone symmetry and accordingly selects the best cutting parameter for the operation

Auto Frequency

Single phase power usage

Total protection of diamond using peak power control

User friendly software for semi-skilled manpower to run the machine

Overall less manpower requirement

Optional

Set-up station

USA made Diode module (NG)

Interface with planner machine possibility

Power & frequency control interface with software



Diamond Facts

The world's largest diamond was the CULLINAN, found in South Africa in 1905. It weighed 3,106.75 carats uncut. It was cut into the Great Star of Africa, weighing 530.2 carats, the Lesser Star of Africa, which weighs 317.40 carats, and 104 other diamonds of nearly flawless color and clarity.

The world's largest documented polished diamond – unearthed in 1986, also in South Africa – is called UNNAMED BROWN. It weighs 545 carats and was cut down from a 700 carat rough diamond.

Another impressive diamond that took 3 years to cut and a part of the British crown jewels is the Centenary Diamond. It weighs 273.85 carats and is the world's largest flawless diamond.

The biggest diamond in the entire universe is thought to be LUCY, a crystallized white dwarf star, a star consisting of diamonds. It is a chunk of crystallised carbon, 4,000 km across, some 50 light-years from the Earth in the constellation Centaurus. Its weight is 10 billion trillion trillion carat. It was named after Beatles song 'Lucy in the sky with Diamonds' and technically known as BPM 37093.



An ISO 9001: 2008 certified company

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