

Innovative Technologies | www.ermaksan.com.tr | Laser Series



LASERMAK

CO₂ Laser Cutting Machine





www.ermakusa.com

ERMAKSAN's first subdivision and showroom in North America, ERMAK USA.

Ermaksan USA opened its doors to its customers and business partners in the Chicago land area in 2010 with a 11,000 square foot facility, where you can see state of art Ermaksan products under power.

In order to show Ermaksan customers our endless commitment to their success we have placed over \$ 2,000,000 dollars in spare parts in inventory at our Chicago Facility.

We invite everyone to visit our facility to see a demonstration of our machines at their convenience.



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After half a century, Ermaksan is moving confidently into the future

With 48 years of technological investment and innovative R&D department, Ermaksan has become one of the world's leading companies in the sheetmetal fabricating machinery industry.

Ermaksan is a pioneer in the industry with strong R&D department, 860,000 sq.ft. modern production facility, highly qualified team of 700 staff dedicated to high quality manufacturing of our machine tools .

Our factory is equipped with the latest industry leading precision CNC machines. Under the supervision of expert engineers, the factory manufactures 3,000+ machines annually. Ermaksan is one of the world's leading companies in the industry represented by exclusive dealers around the world with strong technical support in 70 countries.

Ermaksan designs and manufactures durable, productive, and value based machinery. We do this by, continuously meeting customer demands and exceeding industry standards towards sustainable growth.

High-Tech
CNC Machines
manufactured by
Ermaksan;

- New Generation Fiber Lasers
- CO₂ Lasers
- Press Brakes
- Servo Motorized Hybrid Press Brakes
- Plasma Cutting Machines
- Punch Presses
- Shear Cutters
- Iron Workers

CNC CO2 LASER CUTTING MACHINE

Your partner for presentation of the needs

LASERMAK CO₂ Laser Cutting Machine

For perfect cutting results, the Lasermak frame and components are specially machined in CNC machining centers with maximum precision. The Lasermak is equipped with linear motors which is an optional specification for other brands. The axis, moving along with strong magnets mounted on the frame, provide high speed and maximum acceleration. (Y axis 3G). This high speed and acceleration provides increased efficiency and productivity while also decreasing operational costs.

Frame and bridge are assembled by expert engineers and tested with the latest high-tech measuring technology in every phase of the manufacturing process. This is the main reason of perfectness in square and circular cutting. There is no need for secondary operations and Lasermak produces parts ready-to-assemble.

Perfect cutting solution with high speed



Perfect cutting solution with high speed;

Reduce your working
hours with Lasermak's
corrosion and friction free
linear motors.

Control panel.
Well-known quality and technology with user friendly
Fanuc controller.

Rigid structure.
Processed with high precision,
dynamic and static rigidity provided strong body.

Choice of professionals

- Lasermak provides full automation and less production fault.
- Fanuc resonator with 24,000 hours (turbo blower) life time provides no-maintenance and 24 hours mass production with low costs.
- Lasermak outputs finished products and doesn't require secondary operation like deburring, thus increasing your productivity.

Linear motorized ultra fast Lasermak is combined with latest CO₂ resonator technology. 3 main aspects for designing Lasermak is;

LOWER PRODUCTION COSTS

- While the competition in the market is rising, low electricity and gas consumption this will create big advantages. Low cost per parts/products "just in time" production is available.

DURABILITY

- Strong frame construction, world wide recognized brands and long life components that are used in Lasermak will increase your performance in every condition.

BEST MACHINE LOW PRICE

- Ermaksan reflects its mass manufacturing capability to its prices for your advantage. As a goal Ermaksan producing highest level of quality, unique design and technology in its products.



Choice of professionals;

Lasermak cuts precisely and perfect with its innovative technology which is developed by Ermaksan's Professional Engineers.



Automatic pallet changer.
Rapid sheet loading with dual pallet loading system.



High Speed and Precision

6648 IPM

General Features

- Bridge type flying optic laser.
- High Speed : 6648 IPM (Combined)
- High Acceleration : (X: 2G; Y: 3G)
- Accuracy : Repetition : ± 0.0006 inch
Positioning : ± 0.001 inch
- Dynamic and high precision axes with linear motors.
- Best cutting result with constant beam path and compensation system which is synchronized with X axis bridge.
- Stress relieving process applied to frame after welding process.
- High performance rigid aluminum bridge.
- Low energy and gas consumption.
- Highly integrated complete system package from Fanuc. (Laser resonator, controller and linear motors)
- Compact plug and play cartridge for 5" and 7,5"
- Height control with capacitive nozzle sensor.
- High pressure cutting head (25 bar - 362 psi)
- Ping-pong function providing shortest hole-to-hole time.
- Lantek CAD-CAM software with full auto-nesting.
- Film burning feature.
- Lasermak automatic cutting technology chart.
- 3 Different cutting technologies for all materials and thicknesses.
- Advanced cutting features. (Edge, start-up, power control function)
- Automatic nesting, machining, time and cost calculation.
- Automatic loading-unloading unit.
- Restart and retrace function.
- 3 points reference sensor.
- Auto-focus cutting head.
- Part and scrap collecting conveyor.
- Reliable high/low pressure assist gas system. (Two proportional valves)
- Automatic controlled synchronized extraction system.
- Special filtered air dryer system.
- Precise temperature control for water cooling system.



Resonator-Laser Power Unit Fanuc CO₂

C 1000 | C 2000 | C 4000 | C 5000 | C 6000 |

- "Fanuc beam mode" is designed to cut thin and thick sheets at optimum speed so it will give the lowest damage to lens and mirrors. Life time of optic components is very long.
- Fanuc resonator uses one type of gas mixture. Extremely low gas consumption. (10 lt/hr)
- Advanced software detects fault, analyze it and give a solution to user.
- "Photo-Catalytic Element" removes hydrocarbons to avoid mirror contamination and protects laser power supply units.
- Automatic aging, leak check and warm-up functions reduce maintenance time.
- Highest reliability with intelligent technology.
- Nano-machined mirror holders reduce resonator setup time after maintenance and doesn't require beam alignment after cleaning the mirrors.
- With innovation technology, maintenance period for turbo blower is 24,000 hours.



Power of Laser

NO WEAR ON ELECTRODES

- Electrodes are mounted outside of the discharge tubes. The discharge tubes produce the laser beam, therefore there is no contact between electrodes and discharge tubes and as a result there will be no wear on electrodes and could be used for a long time.

LOW GAS CONSUMPTION

- Compared to DC-Discharge, energy consumption of RF-Discharge technology is considerably lower.

CONSTANT POWER OUTPUT

- Homogenous gas discharge system keeps the laser output power always constant. Laser output power guarantees continuous cutting quality.
- Fanuc mode is especially designed to achieve the best cutting results over a wide range of thicknesses.
- Fanuc 4 kW has only 6 folding mirrors and this is advantages for maintenance. (Fanuc 2,5 kW has only 3 folding mirrors)
- Fanuc uses a modular power supply system. (Typical 1 PSU per 1 kW output power)
- Fanuc lasers offer the latest RF excitation technology.
- Discharge circuits of Fanuc lasers do not need any maintenance.
- Highest maintenance efficiency.



0.019 inch stainless



PRECITEC HP 1,5" Z - HP 2" Z LASERMATIC CUTTING HEAD

- Plug and play cartridge system for high pressure cutting applications. The cartridges, on which the lens are fixed on, are very practical and easy to use. When changing material thickness, it only takes a few minutes to setup the new adjustments ready for next cut.
- 3.75", 5", 7.5", 10" (with extension adaptor) focal lengths are provided by two exchangeable cartridges on the cutting head.
- Effective lens and cooling system.
- Two assist gas connection.
- Compact exchangeable cartridge (dual focal lengths) between - 0.7 in. and + 0.39 inch provides lots of advantages for cutting.
- The cutting head can be operated at high gas pressure up to 362 psi. (2.5 MPa)
- Integrated distance sensor control always keeps the same distance between sheet and nozzle.
- Error signals to protect cutting head from collision, cable cut and body touch.



PRECITEC HP 1,5" M HP 2" M LASERMATIC MOTORIZED CUTTING HEAD

- Plug and play cartridge system for high pressure cutting applications.
- Automatic adjustable lens position with motorized head.
- When sheet thickness or material is changed there is no need to adjust focus length thanks to signals between CNC and motorized head.
- Cartridge replacement system enables to replace lens faster.
- Electronic cartridge detection. (only 2" cutting head)
- Integration of PS130-sensors and booster into the cutting head. (optional)
- Laser crack sensor warns the operator about the cracks in the sensors (Standard for 1,5" M) shuttle table.

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Air drier and conditioner.

SHUTTLE TABLE

- Automatic or manually controllable dual shuttle table technology provides continuously production.
- Lasermak integrated clamping system gives the best solution to fix thin sheets to the shuttle table.
- Safety standards according to CE standards.

CONVEYOR

- Conveyor placed under the machine frame carries dropped scraps and dross which is collected into a wheeled scrap box.

AIR DRIER AND CONDITIONER

- Chemical air dryer and filters are very important and provides protection for the beam path and optical elements against oil, dust and humidity.

MACHINE FRAME

- Machine frame is designed with fine element method and with its stress relieved, durable, rigid, mono block construction. It will provide the same cutting precision for years.
- Machine frame is designed in one piece so it can be installed and transported very quickly.
- Safety window panel's surrounding the work area protects the operator and provides a clear view of the cutting process.

EXTRACTION SYSTEM

- Independent absorbing windows are synchronized with the cutting head. The suction window opens according to the cutting head position. Therefore optimal suction is provided to avoid environment pollution.

COOLING SYSTEM

- Cooling water system is designed to cool laser source, optical components, cutting head and linear motors.
- Protection against freezing.
- Alarm level and warning messages.
- All material in contact with water are made from stainless steel.
- Integrated heating to warm up the water.
- Low noise.
- Low energy consumption.



Extraction system.



Cooling system.

Sliding door system.
Full access to table with sliding doors.

Bridge.
Aluminum cast bridge manufactured with high precision.



Easy control

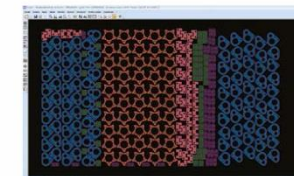
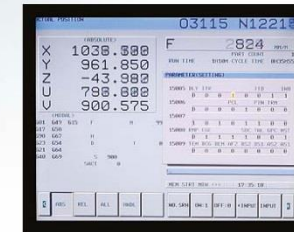
Control Panel Fanuc 16i-LB

- Years of experience in production for resonator, controller, driver and linear motor. Perfect integration and maximum control.
- World's biggest manufacturer for CNC controllers.
- 10.4" color LCD screen.
- 512 KB part program memory.
- Ethernet or PCMCIA card connections.
- Programmable high speed for reducing cycle times.
- High speed approaching function.
- Easy access for cutting data tables.
- Edge, machining and start-up functions.
- Integrated laser screens.
- Control characteristics can be changed by parameter setting.
- Ping-pong function. (very short hole-to-hole times)
- Restart and retrace function.
- Display screen for periodic maintenance and alarm history.
- Program formation with MDI panel.
- Time and cost calculation.



CAD/CAM SOFTWARE Lantek Expert

Lantek Expert Cut CAD / CAM Software with the Lasermak postprocessor has functions to make the cutting easy with automatic machining and nesting, time/cost calculation, micro - joint, partner cutting. Cutting parameters (cutting, piercing, edge, power control) and technology charts for each part can be written directly into the part program by proprietary Lasermak postprocessor. Consequently part programs created on Lantek can be transferred and run on the machine without any need for parametrical change on the CNC. Furthermore it has a feature to make a hole with a diameter of 0.5 times sheet thickness and marking.



EASY PROGRAMMING FEATURES

- Lantek contains cutting data table for all material types and thicknesses.
- Automatic nesting and machining.
- Time/cost calculation.
- CAD module.
- Micro-joint feature which keeps the part on the sheet after cut.
- Common cut feature.
- Film burning.
- Automatic lead-in/lead-out.



Way of precision cut



Compensation axis. (V axis)
Best cutting result with constant beam path and compensation system which is synchronized with bridge on X axis. With this feature you will get perfect cutting result on every point of the table.

Linear motor technology.
Linear motor technology consists of magnetic fields providing corrosion, maintenance and friction free drives.



0.019 inch stainless



Way of precision cut;

Lasermak can cut all kind of metal sheet with the highest production capacity, maximum precision and quality.

Standard Equipment

- Machine frame, 5 axes (X,U,Y,V with linear motor - Z axis with servo motor); High speed laser cutting machine
- Chiller unit, for laser source, linear motors, cutting head and all optic components, equipped with a special micron rated water filter.
- CNC control unit, Fanuc 16i-LB 10.4" LCD Screen, display screen for all laser and maintenance functions, program storage with ethernet and PCMCi card.
- Cutting head, precitec HP1.5" (for 2.5 kW); HP2" (for 4 kW)
- Plug and play cartridge system, precitec 5" and 7.5"
- Easy changeable lens Kit, ZnSe positive meniscus lens.
 - 7.5" for 2" cutting head (50.8 mm Dia* 190.5 mm FL) - edge thickness: 0.38 inch
 - 5" for 2" cutting head (50.8 mm Dia* 127 mm FL) - edge thickness: 0.38 inch
 - 7.5" for 1.5" cutting head (38.1 mm Dia* 190.5 mm FL) - edge thickness: 0.3 inch
 - 5" for 1.5" cutting head (38.1 mm Dia* 127 mm FL) - edge thickness: 0.3 inch
- Capacitive approaching controller, sensitive distance control with Precitec EG8010 adjust box.
- Nozzle Kit,
 - 0.8 mm, 5 pieces - 1.0 mm, 5 pieces - 1.2 mm, 5 pieces - 1.5 mm, 5 pieces
 - 2.0 mm, 5 pieces - 2.5 mm, 5 pieces - 3.0 mm, 5 pieces
- Optical mirror kit, 5 pieces folding mirror.
- Cutting head ceramic part kit, 2 pieces ceramic part.
- Beam path system, special beam path protective bellows.
- Gas and air control, two proportional valves for pressure adjustment, two sensors to control high and low pressure.
- Clean - dry air system, chemical air - dryer with active carbonized filter.
- Automatic loading - unloading unit.
- Sheet clamps, four holder clamp on every table.
- Three points reference sensor and programming.
- Conveyor, part and scrap collecting conveyor.
- Extraction system; Independent absorbing windows are synchronized with the cutting head.
- Warning lamps.
- Lantek CAD - CAM software.
- Machine and operator safety system.
- PCMCi flash memory card.
- Manuals for all Lasermak equipments.



Optional Equipment

- 3.75" Cutting cartridge and 3.75" Lens (only for 1.5" cutting head) - 10" Lens with extension adaptor.
- Motorized cutting head.
 - Precitec HP 1.5" M(Z) - Integrated lens break sensor.
 - Precitec HP 2" M(Z)
- PS130 piercing sensor, process module, includes lens break and piercing sensors together. (only for HP1.5" HP2" and HP2" M(Z)
- Protective glasses against Lasermak CO₂ laser beam.
- Filter unit.
- Lasermak spare part kit.
 - Ceramic part - 2 pieces
 - Folding mirror - 2 pieces
 - 5" Lens - 2 pieces
 - 7.5" Lens - 2 pieces
 - 1.0 mm nozzle - 10 pieces
 - 1.2 mm nozzle - 10 pieces
 - 1.5 mm nozzle - 10 pieces
 - 2.0 mm nozzle - 10 pieces
 - 2.5 mm nozzle - 10 pieces
 - 3.0 mm nozzle - 10 pieces
- Flexible automation solutions.
- Pipe cutting system.
- Automatic nozzle cleaning and changing system.



Pipe cutting system.



Automatic nozzle cleaning and changing system.

CNC CO2 LASER CUTTING MACHINE

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Technical Features

		LASERMAK 2500.8.2"x4.1"	LASERMAK 2500.9.8"x4.9"	LASERMAK 2500.13"x6.5"	LASERMAK 4000.9.8"x4.9"	LASERMAK 4000.13"x6.5"	LASERMAK 4000.20"x6.5"	LASERMAK 6000.9.8"x4.9"	LASERMAK 6000.13"x6.5"	LASERMAK 6000.20"x6.5"
		2500 Watt CO ₂ -Laser GE Fanuc C2000i-B, Short Optical Path Type	2500 Watt CO ₂ -Laser GE Fanuc C2000i-B, Short Optical Path Type	2500 Watt CO ₂ -Laser GE Fanuc C2000i-B, Short Optical Path Type	4000 Watt CO ₂ -Laser GE Fanuc C4000i-B, Short Optical Path Type	4000 Watt CO ₂ -Laser GE Fanuc C4000i-B, Short Optical Path Type	4000 Watt CO ₂ -Laser GE Fanuc C4000i-B, Short Optical Path Type	6000 Watt CO ₂ -Laser GE Fanuc C6000i-MODEL B	6000 Watt CO ₂ -Laser GE Fanuc C6000i-MODEL B	6000 Watt CO ₂ -Laser GE Fanuc C6000i-MODEL B
RESONATOR	Watt	2700	2700	2700	5000	5000	5000	7000	7000	7000
MAXIMUM PULSE PEAK POWER	Watt	2700	2700	2700	5000	5000	5000	7000	7000	7000
RF - EXCITATION	MHz	2	2	2	2	2	2	2	2	2
POWER STABILITY	%	± 1 (power monitor)	± 1 (power monitor)	± 1 (power monitor)	± 2 (power monitor)	± 2 (power monitor)	± 2 (power monitor)	± 2 (power monitor)	± 2 (power monitor)	± 2 (power monitor)
		Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%	Freq: 5 - 2000Hz Duty: 0 - 100%
PULSE MODE	-									
LASER WAVE LENGTH	µm	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
BEAM MODE	-	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode	Fanuc Low Order Mode
LASER SHUTTER	-	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter	Mechanical safe shutter
LASER GAS COMPOSITION	-	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂	CO ₂ / He / N ₂
LASER GAS CONSUMPTION	Gal/hour	2.6	2.6	2.6	2.6	2.6	2.6	5.3	5.3	5.3
COOLING WATER FLOW RATE	Gal/min	19.8	19.8	19.8	42.3	42.3	42.3	66	66	66
CNC CONTROLLER & OPERATOR PANEL	-	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet	GE Fanuc series 16-LB *LCD mounted* type CNC with 10.4" color screen, 512kB part program memory and all relevant laser functions, Ethernet
MAXIMUM WORKSHEET DIMENSIONS	inch	86.4 x 49.2	118.1 x 59.1	157.5 x 78.7	118.1 x 59.1	157.5 x 78.7	242.1 x 78.7	118.1 x 59.1	157.5 x 78.7	242.1 x 78.7
CUTTING CAPACITY (High Quality)										
	inch	5/8	5/8	5/8	25/32	25/32	25/32	1	1	1
	inch	5/16	5/16	5/16	15/32	15/32	15/32	5/8	5/8	5/8
	inch	1/4	1/4	1/4	5/16	5/16	5/16	15/32	15/32	15/32
MAXIMUM BURDEN CAPACITY	pounds	2205	3307	4629	3307	4629	4629	8818	8818	8818
MACHINE AXES	-	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]	5-Axes [X, Y, Z, U (X2), V]
AXIAL MOVEMENTS										
	inch	101	120	159	120	159	244	120	159	244
	inch	51	61	81	61	81	81	61	81	81
	inch	6	6	6	6	6	6	6	6	6
	inch	74	89	118	89	118	157	89	118	157
ACCELERATIONS										
	G	2	2	2	2	2	2	2	2	2
	G	3	3	3	3	3	3	3	3	3
	G	2	2	2	2	2	2	2	2	2
MAXIMUM AXES VELOCITIES	IPM	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)	6648 (simultaneous) (X,Y single axis velocity 4728 inch/min)
POSITIONING ACCURACY	inch	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001
REPEATIBILITY ACCURACY	inch	± 0.0006	± 0.0006	± 0.0006	± 0.0006	± 0.0006	± 0.0006	± 0.0006	± 0.0006	± 0.0006
SHUTTLE TABLE (Automatic Loading - Unloading Unit)	palette	2 (30 sec)	2 (35 sec)	2 (45 sec)	2 (45 sec)	2 (45 sec)	2 (65 sec)	2 (35 sec)	2 (45 sec)	2 (65 sec)
ASSIST GAS										
	-	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)	Oxygen (0.5-6 Bar)
	-	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)	Nitrogen (0.5-25 Bar)
	-	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)	Dry Air or Nitrogen (0.5-25 Bar)
CUTTING HEAD	-	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar	Precitec HP1.5" 25 Bar
CUTTING HEAD FOCAL LENGTHS	inch	5" - 75"	5" - 75"	5" - 75"	5" - 75"	5" - 75"	5" - 75"	5" - 75"	5" - 75"	5" - 75"
CAD/CAM SOFTWARE	Hp	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM	LANTEK CAD / CAM
TOTAL ELECTRIC POWER NECESSITY	Hp	67 - 94	67 - 94	67 - 94	87 - 121	87 - 121	87 - 121	134 - 161	134 - 161	134 - 161
MACHINE DIMENSIONS (L x W x H)	inch	366 x 190 x 88	415 x 208 x 80	531 x 227 x 80	415 x 208 x 80	531 x 227 x 80	415 x 264 x 80	415 x 264 x 80	531 x 286 x 80	415 x 286 x 80
MACHINE WEIGHT	pounds	30643	36595	61144	36595	61144	66355	36595	61144	66355