

QUESTIONS TO ASK WHEN PURCHASING A LASER

Safety <i>Laser cutting is performed with a focused beam of light that burns through and obliterates the material</i>	Universal Laser	Other
Does the machine have an over temperature safety alarm?	✓	
Are the machine doors made of glass (not acrylic) to reduce the risk of any possible fire spread?	✓	
Is the machine fully enclosed meeting CDRH Class 1 safety for safe operation?	✓	
Do all doors have interlocks to ensure the laser cannot fire when doors are open (including rear doors)?	✓	

General Questions *Is the driver easily learned enabling you to bring new staff up to speed quickly*

Is full training included in the cost of the system	✓	
Is the machine the same that most students will use when going onto tertiary education	✓	
Is the supplier happy to give you a number of current users details to get feedback on the machines and the ongoing support and service provided?	✓	

Ask to see the machine running a file you would typically run to see how easy the system is to run as opposed to a file prepared by the sales person

Laser Tubes *High quality tubes with matching motions systems and drivers are what ensure great results when engraving and cutting. These use expensive components*

Does the manufacturer make their own laser tubes?	✓	
What is the warranty on a tube?	25 months	
What is the average life of the laser tube (our technology is not measured in hours as this is not a measurement of modern tubes)?	7 years plus	
Are the laser tubes, motion system and drivers from the same company to ensure algorithms match to give a constant beam quality at varied speeds?	✓	
Is the tube specifically designed for cutting and engraving or is a generic laser tube adapted to the machine?	✓	
Is the laser tube rebuildable, reusing the expensive components to produce a high quality beam (or are they a throw away unit with cheap components)?	✓	
Does the laser tube have Permalign, making for simple upgrades and replacement?	✓	
Are the laser beam quality and delivery system (optics) capable of producing a kiss cut of paper across the entire bed of the machine?	✓	

Bearings *High Quality Bearings ensure quiet operation and smooth delivery of the laser beam*

Does the machine use precision sealed bearings that require no lubrication and don't allow dirt and laser debris to enter?	✓	
Is the motion system lightweight creating minimum resistance when moving to allow for fast cutting speeds?	✓	

Optics *High Quality optics ensure the beam is delivered to all parts of the cutting area in exact focus to ensure clean cutting and the prevention of burning*

Are the optics covered to protect from dust, debris and fumes during the lasering process?	✓	
Are the optics easily inspected and cleaned without the use of tools?	✓	
Is positive air pressure created around the optics to keep them clean?	✓	
Is a beam alignment something that can be carried out simply by the user in a couple of minutes?	✓	

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Universal
Laser Other

Print Driver *The tool that links your chosen graphics software with the laser, controllers the cutting and etching process and makes the machine user friendly*

Does the system run direct from CorelDraw, Adobe Illustrator, 2D Design, AutoCAD and hundreds of other programs?	✓	
Is the printer driver constantly upgraded to work with the latest computer updates and are the upgrades free for the life of the system?	✓	
Does the driver have selectable raster/vector on all eight colour settings?	✓	
Is the driver able to perform multiple vector and raster functions in any colour combination?	✓	
Does the driver have high speed image enhancement to allow marking of small fonts and precision features at full speed without losing detail?	✓	
Does the driver contain 3D, rubber stamp and clipart modes?	✓	
Will the driver engrave direct from colour photos such as bitmap, jpg and tiff?	✓	
Does the driver support bottom up engraving to leave less residue when engraving?	✓	
Does the driver use a materials database to make machine setup easy or do you have to make up your own settings?	✓	
Does the driver give you a cut preview and show live progress of the job running on the computer?	✓	
Does the driver have a job estimator that will give you a run time before processing a job?	✓	
Can the driver deal with a file of any size with no limits?	✓	
Is the driver able to store up to 4000 job files with associated settings for each job?	✓	
Does the machine have multiple focusing options, (Manual and Auto within each colour selection)	✓	

Maintenance *This should be simple and able to be carried out by the user after training during install*

Is the machine easily maintainable by the user?	✓	
Are step by step pdf's with photos available for all maintenance procedures or do you need to get someone in to maintain the machine?	✓	

Support *The fully trained technician who is available when something goes wrong*

Is the machine designed for easy user serviceability?	✓	
Do the suppliers have fully factory trained support staff?	✓	
Does the company offer free lifetime phone support?	✓	
Is the company you're dealing with supplying a machine that is recognised globally?	✓	
Is support being provided locally (within NZ)?	✓	
Does the supplier specialise in selling laser machines and associated materials?	✓	

Extraction or Filtration *The removal of gasses from the cutting area to a filtration system or to the outside of the building*

If an extraction, filtration unit are included do they meet the regulations for removal of gasses appropriate to the size of the engraving area?	✓	
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