

LC G1 NT SERIES

The Third Generation in Blanking Innovation



Concept of the LC-C1 Laser-based process with turret functionality



The latest generation in blanking offers the highest amount of process integration in one of the most compact footprints available. Backed by Amada's long history of turret/laser combination machines, we developed the C1-machine that addresses the needs of most companies: quality, cost, delivery and flexibility.

The new LC-C1 is the culmination of decades of experience and thousands of successful turret punch press and laser installations worldwide. By listening to the voice of our customers, Amada engineered a 22-ton / 2.5 kW blanking production system. It takes advantage of the latest in servo punching and laser technology, including optional automation to maximize productivity. The new turret design can reduce secondary processes and add value to the part while it is still in the machine. The integrated part remover adds capacity without taking up manpower or floor space. Also, the C1 is energy efficient, making the operating costs of this system lower than comparable hydraulic systems.

5 new innovations

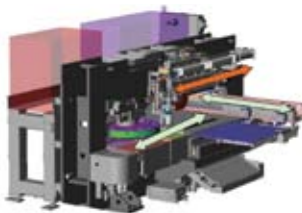


1 New Multiple Purpose Turret (MPT)

Nobody has more experience in turret design and functionality than Amada. The new 45-station Multi-Purpose Turret (MPT) has been designed with a number of unique features including (3) die lift stations to help minimize scratching during forming and (1) auto-index station. There is also a station that holds up to four (4) tapping tools. If tapping tools are not required, these (4) tap locations can be used to hold punching tools which increases the turret capacity to 49-stations. The versatility of the new MPT turret helps reduce costs and increase production rates by reducing or eliminating many secondary operations.

2 Synchronized transition of punch/laser functions

Changeover time between punching and laser operations has been decreased by 50% by synchronizing motions of the table, punch and laser. This results in reduced processing times while maintaining high accuracy.



3 Versatile brush table

- Quieter Operation
- Scratch-free processing helps eliminate post-blanking finishing operations
- High-speed floating table section helps prevent damage to downward forms
- Automatic material origin setting when loading new sheets
- Longer-life brush material is used in the laser cutting section of the table



4 High-accuracy integrated punch/laser "Y" axis movement

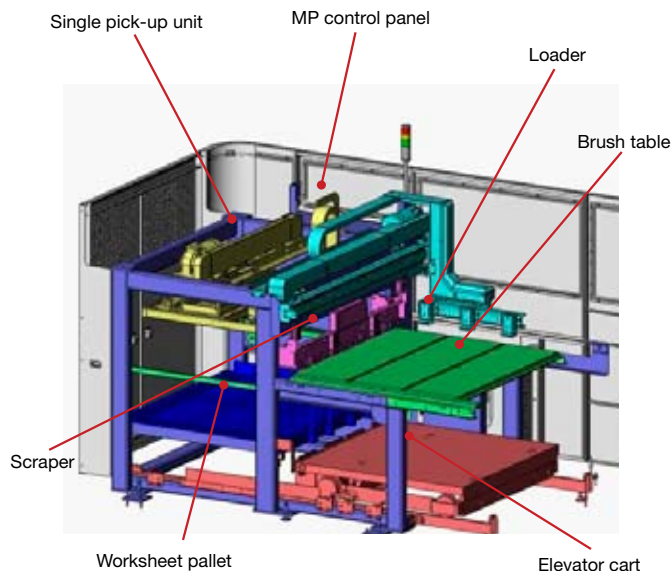
Newly-engineered "Y" axis table and laser positioning mechanisms use direct drive servo motors (no gearboxes) for high speed and accuracy. The laser cutting head has been designed with proprietary features that resist the high acceleration rates and the vibration generated during the punching process. This helps increase cutting speeds and edge quality while reducing maintenance and repairs.

5 Parts Remover (PR-C1)

The optional PR-C1 integrated parts removal and sorting system helps take productivity to a higher level. This system is integrated onto the frame of the C1 minimizing the amount of floor space typically required with this type of automation. This unique device can automatically remove parts from the sheet and stack them on a conveyor helping to reduce labor and handling costs.



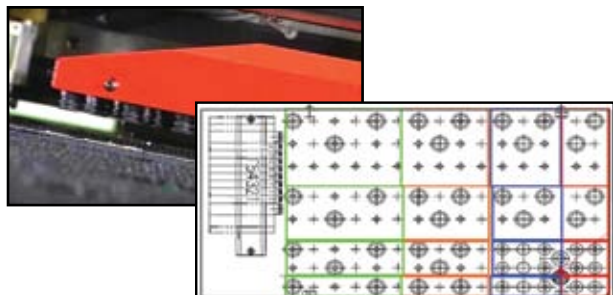
Compact manipulator MP-2512C1



The optional MP2512-C1 automatic sheet loader maintains high levels of productivity by eliminating operator intervention during the loading process. The compact design takes up a minimal amount of valuable floor space. Integration with the LC-C1 controller reduces setup time and provides simple, reliable operation.

Model		MP-2512C1	
Machine	LC-2012C1NT		
Material size	Min (X/Y)	19.7" x 11.8"	
	Max (X/Y)	98" x 50"	
Material thickness	0.02" - 0.25"		
Worksheet material types	Mild steel, stainless steel and aluminum		
Max. height	Material	13"	Including skid height 2"
	Finished parts	18"	
Max. weight of material	6,613 lbs.		
Max. size of manual load operation	98" x 50"		
Machine Dimensions	(X/Y)	129" x 136"	
	Height	79"	
Installation area	122 ft ²		
Pass line	39.8"		

Integrated part remover/stacker PR-C1



Simple programming of the PR-C1 ensures that the vacuum pads are optimally positioned for secure part removal and stacking. The PR-C1 easily adapts to either flat or formed parts.

Model	PR-C1
Max. part size (X/Y)	20" x 20"
Min. part size (X/Y)	3.92" x 2"
Pneumatic supply	Vacuum pads
# of vacuum pads	51
Max. weight	26.5 lbs.

Machine specifications

Model	LC-2012C1NT	LC-1212C1NT
Max. sheet size w/o reposition	79" x 50"	50" x 50"
Amada/Fanuc laser resonator model	AF2000i-B LU2.5	
Max. sheet weight	110 lbs. (F1) 330 lbs. (F4)	
Max. material thickness	0.25"	
Max. continuous laser output	2500W	
Tap applications	Mild steel, stainless steel and aluminum	
Punch servo drive	AC servo	
Press tonnage	22 tons	
Turret capacity	45 station 1AI + 4 tapping stations (MPT turret)	
Max. hit rate	X Axis 370 hpm - Y Axis 275 hpm (on 1" pitch at 0.118" stroke) for punching pattern 900 hpm (at 0.019" pitch and 0.055" stroke) for marking pattern	X Axis 390 hpm - Y Axis 275 hpm (on 1" pitch at 0.118" stroke) for punching pattern 900 hpm (at 0.019" pitch and 0.055" stroke) for marking pattern
Work chute size (X/Y)	15.75" x 50"	15.75" x 50"
Max. table feed rate (X/Y)	3,150 ipm x 2,362 ipm	
Positioning accuracy during combination process	± 0.0027"	
Approx. floor space requirement	226 sq. ft.	
Power requirements	69Kva	
Machine weight	15.5 tons	15 tons

* Specifications, machinery and equipment appearance are subject to change without notice for reason of improvement.

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Eco-friendly approach for future manufacturing.

The LC-C1NT is the first laser machine that took into consideration the hazardous chemical substances prohibited by the RoHS Directive to meet strict demands for eco-friendly products. In addition, the LC-C1NT contributes to lower CO2 emissions by reducing electrical consumption and through shorter processing times enabled by high-speed punching and laser cutting.

*The restriction of the use of certain hazardous substances enforced by U.S.



Substances prohibited by the RoHS Directive are not contained in this product.



Before using this product, please read the operator's manual carefully and follow all applicable instructions.

- When using this product, appropriate protection equipment to the safety regulations of your country is necessary.



This product is using Class 4 invisible laser radiation for cutting and class 3R visible laser for indicating position.

- Class 4 laser : Avoid eye or skin exposure to direct or scattered radiation.
- Class 3R laser : Avoid eye exposure to direct radiation.

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