M2558 HL

Laser Punch Combination Machine

Tooling range

Range	Round punch	No. of Stations	
		54ST/2 I/T	44ST/4 I/T
X	～12.7 mm [0.5"]	10	10
B	～25.0 mm [1.0"]	28	16
C	～38.0 mm [1.5"]	6	6
D	～50.0 mm [2.0"]	4	4
E	～64.0 mm [2.5"]	2	2
F	～76.0 mm [3.0"]		
G	～89.0 mm [3.5"]	2	2
H	～105.0 mm [4.0"]		
J	～120.0 mm [4.75"]		
INDEX	～76.0 mm [3.0"]	2	4
VT	12,18 Stations		
VM	20,40 Characters		

* With Auto-index stations, Index tool (I/T), VARITOOL (VT) or VARIMARK (VM) can be selected as options in desired combination.

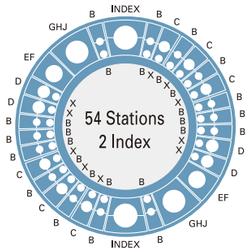
Specifications

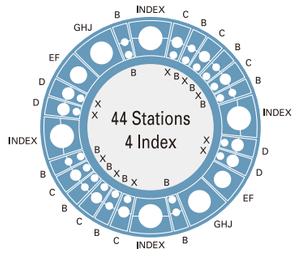
Punching capacity			25 tons (245 kN) [27 US tons]
Maximum sheet thickness	Punch		6.35 mm [0.25"]
	Laser cutting	Mild Steel	6.35 mm [0.25"]
		Stainless Steel	6.35 mm [0.25"]
Y-axis stroke			1905 mm [75.0"]
X-axis stroke			2550 mm [100.4"]
Maximum sheet size (YxX)	Without repositioning		1525 mm x 2500 mm [60.04" x 98.43"]
	With one reposition		1525 mm x 5000 mm [60.04" x 196.85"]
Throat depth			1620 mm [63.78"]
Feed clearance			25 mm [0.99"]
Maximum allowable sheet weight			150 kg [330 lbs]
Hit rate	25 mm pitch, 8.3 mm stroke		400 hpm
	5 mm pitch, 8.3 mm stroke		500 hpm
Simultaneous axis speed			125 m/min [4.920"/min]
Punching accuracy			±0.1 mm [0.004"]
Laser oscillator			Fast axial glass flow type, CO_2 Laser
Rated laser output			2000 W, 4000 W
Compressed air	Quantity		430 NL/min
	Pressure		0.5 MPa [71 PSI]
Power supply (except chiller unit power supply)			2000 W 58 kVA(Machine) +15 kVA(Chiller unit)
			4000 W 94 kVA(Machine) +28 kVA(Chiller unit)

Option

- Varitool
- Varimark
- 4-Station Tapping
- 8-Station Tapping
- Retractable Die-holder function
- Programable up forming
- In turret bending
- Slug suction unit
- Downward extrusion protection
- Cell ready

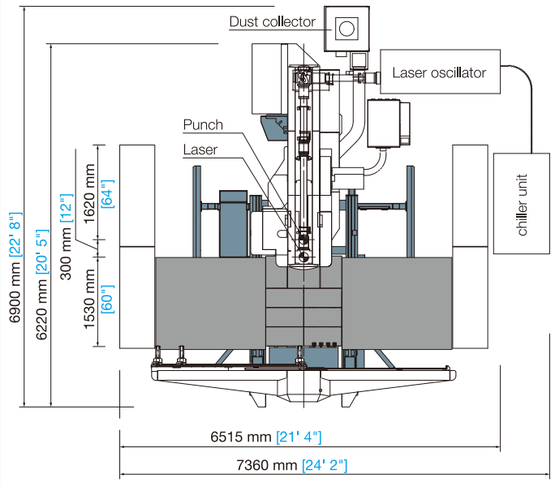
Turret Layout





Floor Plan

Machine weight
15 tons [33,000 lbs]



Overall Height : 2960 mm [9' 9"]

■Safety Specification
Machines built with CE-safety conformity are available as option.

* Machine appearance may differ to that shown in the catalogue pictures.
* All specifications are subject to change without advance notice.

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muratec

MOTORUM SERIES

M2558 HL

Laser Punch Combination Machine

MURATA MACHINERY, LTD.

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M2558 HL

Laser Punch Combination Machine

First to offer the NC turret punch in 1955 and the CNC in 1970, Muratec has been a continuous innovator in sheet metal processing.

Muratec developed a punch-laser combination in 1984. Since then Muratec has strived to offer high quality, high-speed performance Hybrid machines with user friendly technology providing the highest return on investment.

The M2558 HL combines the best of punching and forming with the flexibility of laser cutting. The M2558 HL uses advanced technology incorporating a high performance CNC control and laser oscillator. This system provides a high quality edge cut using many advanced functions such as a cutting monitor, user friendly laser cutting head with crash protection function, non-contact height sensor and laser power control function for complicated edge cutting.

Non-contact type height sensor

Double Part Chute

Small :
235 x 550 mm
[9.2" x 21.7"]

Large :
600 x 550 mm
[23.6" x 21.7"]

One touch lens unit

The Key to Reduced Lead Time

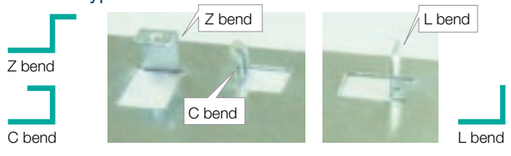
The M2558 HL provides high speed processing with reliability and accuracy.
This machine increases overall productivity through the integration of bending, forming, tapping and other processes, with the standard punching and laser cutting operations.

Bending Option

In Turret Bending

The servo drive allows precise stop positioning of the RAM punch, which in turn gives accurate angle control, for Z-bending via index-station processing. Increase in turret feed clearance takes the in turret bending height to a maximum of 20 mm. [0.79"]

- Stations used: Auto-index (F-Station)
- Process types



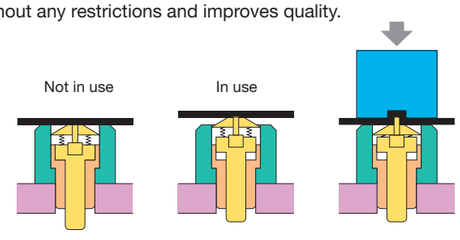
- Sheet thickness: 0.5 mm–1.6 mm [0.02"–0.06"] (Mild Steel)

Forming

Optimum control of RAM speed leads to fast and accurate forming of the highest quality, with minimal distortion of the workpiece.

Retractable forming die function (Option)

Upward forming tool dies are retracted to die height when not in use. This is to avoid interference of the forming die with the workpiece and workholders. This allows free movement of the sheet without any restrictions and improves quality.

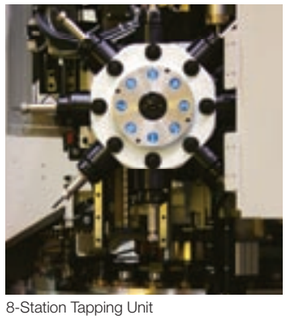


Tapping Option

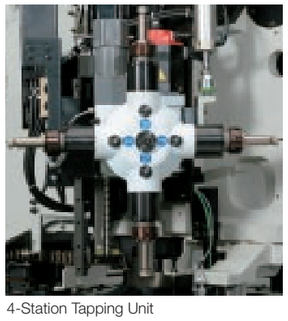
Tapping Units

Two choices of tapping units are available. Synchronization of RPM and feed speed using a servo motor allows tapping with a full range of tapping tools.

- Tap size: M2～M10
- Tapping methods: Machine thread / Rolling thread
- Max. sheet thickness: 6.35 mm [0.25"]



8-Station Tapping Unit



4-Station Tapping Unit

*Specifications vary, depending on type of material, hole diameter, etc.

Tapping Vacuum Unit

Machined cuttings are suctioned away beneath the tapping tool for improved quality.

Tapping Tool Life Monitor

The number of tapping operations is monitored and the operator is notified when a preset count is exceeded.

Deburring operation Option

One tooling. All round deburring operation

Deburring and pinching operation using the ball bearing manufactured originally by Muratec.
Two bearings from top and botom sides removes the burr of the edge both sides, upper and lower, of the punched parts simultaneously by pinching the edge of the punched sheet along with the path.