TLM series machine specifications

Item	TLM-404	TLM-408	TLM-608	TLM-610	TLM-614	TLM-914
Table size mm(inch)	1,300x1,300 (51x51)	1,300x2,500 (51x98)	1,900x2,500 (75x98)	1,900x3,100 (75x122)	1,900x4,300 (75x169)	2,800x4,300 (110x169)
X axis travel mm(inch)	1,300 (51)	2,500 (98)		3,100 (122)	4,300 (169)	
Y axis travel mm(inch)	1,300 (51)		1,900 (75)		2,800 (110)	
Z axis travel mm(inch)	600 (24)			800 (31)		
Optical head (C axis)	±200° (±359° as option)					
Optical head (A axis)	±180°					
Rapid feed rate (X,Y,Z axis) mm/min. (inch)/min.	XY: 40,000 Z:30,000 XY: (1,575) Z:(1,181)			XY: 35,000 Z:30,000 XY: (1,378) Z:(1,181)	30,000 (1,118)	20,000 (787)
Rapid feed rate (C,A axis)	250°/sec.					
Cutting feed rate (X,Y,Z axis) mm/min.(inch)/min.	30~30,000 (1.2~1,181)				20,000(787)	
Cutting feed rate (C,A axis)	MAX 250°/sec.					
Floor space (WxL) mm(inch)	3,650x6,030 (144x238)	3,650x7,220 (144x285)	4,250x7,220 (168x285)	4,250x7,820 (168x308)	4,250x9,780 (168x385)	6,370x9,750 (251x384)
Machine height (H) mm(inch)	3,650 (144)			3,850 (152)		3,880 (153)



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Specifications are subject to change without notice for improvement.

5-AXIS, 3-DIMENSIONAL CO₂ LASER CUTTING SYSTEM







Komatsu America Industries LLC

5-AXIS CUTTING WITH EXPANDED VERSATILITY, HIGHER SPEEDS AND SUPERIOR ACCURACY.



A Controllable optical head angles of ± 200°, 359° optional, and a rotation of \pm 180°. B PC-based controller uses Microsoft Windows operating system. C Easy-to-use joystick transforms novice operators into process experts. D Non-contact sensor provides rapid response to changes in gap. E Intricate cutting in 3 dimensions with the 5-axis TLM Series. F-K A variety of simple to complex parts are easily fabricated with the TLM Series.

THE TLM SERIES OF ADVANCED, 5-AXIS, CO, LASER CUTTING SYSTEMS PROVIDE **UNSURPASSED 3-DIMENSIONAL LASER** CUTTING PERFORMANCE.

VERSATILITY

Versatility is a hallmark of the TLM series with six models making up the line... having table sizes and cutting strokes up to 110 in. x 169 in. (2,800mm x 4,300mm) and vertical travel of up to 35 in. (900mm). With four laser powers available up to 6kW, you'll find a TLM to match your application. You can also add a welding function with automatic setup for power ramping and welding gas control. And a sixth axis command for use with a rotary table or other workholding devices. With controllable optical head angles of plus-minus 200°, 359° optional, and rotation of plus-minus 180°, no shape is out of reach or inaccessible to the TLM.

The TLM Series makes 3-dimensional cutting simple with a new PC-based controller using a Microsoft Windows operating system. Its software comes with a multitude of built-in functions and

calculations plus interactive guidelines that simplify difficult beam paths. In teach mode, a touch probe measures points for computation into cutting paths and a joystick control transform even novice operators into process experts. The integral control monitors machine movement and laser operational parameters for precise cuts and sharp edge results. Its list of functions includes linear, circular and pipe interpolations: copying and mirror shaping; pattern downloading; circular cutting and corner

rounding from center point definition; scheduling parts and operations for unattended production and much more. Combined with optional material loading and stacking storage devices, the TLM series is the leader in 3-dimensional, 5-axis laser processing productivity and quality.

SPEED

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Speed is one of the most critical elements to laser processing. The TLM Series offers rapid feeds of up to 1,575 in. (40,000mm) per minute in the X and Y axes and up to 1,181 in. (30,000mm) per minute in the Z axis and head positioning with precise, singlepoint steering of 250° per second. Cutting speeds are accurately controlled from 1.2 in. (30mm) to 1.181 in. (30,000mm) per minute. Even the most intricate shaped part cycles faster, with less time spent cutting air.



ACCURACY

Starting with its bridge-style construction, solid base and rugged table, the TLM Series is precise with ±0.0012 in. (0.03mm) per 12 in. (300mm) of travel distance. Highly accurate low inertia AC servo motors, ball screw feeds. linear ball guide mechanisms and a non-contact sensor that provides rapid response to changes in gap between optics and material to assure consistent beam focus and cutting performance.

NTC sets the standard for 3-dimensional laser processing quality and productivity by redefining speed, precision, reliability and user friendliness with the TLM Series.

The TLM Series with its 5-axis speed, precision and quality to deliver powerful performance in all dimensions.

