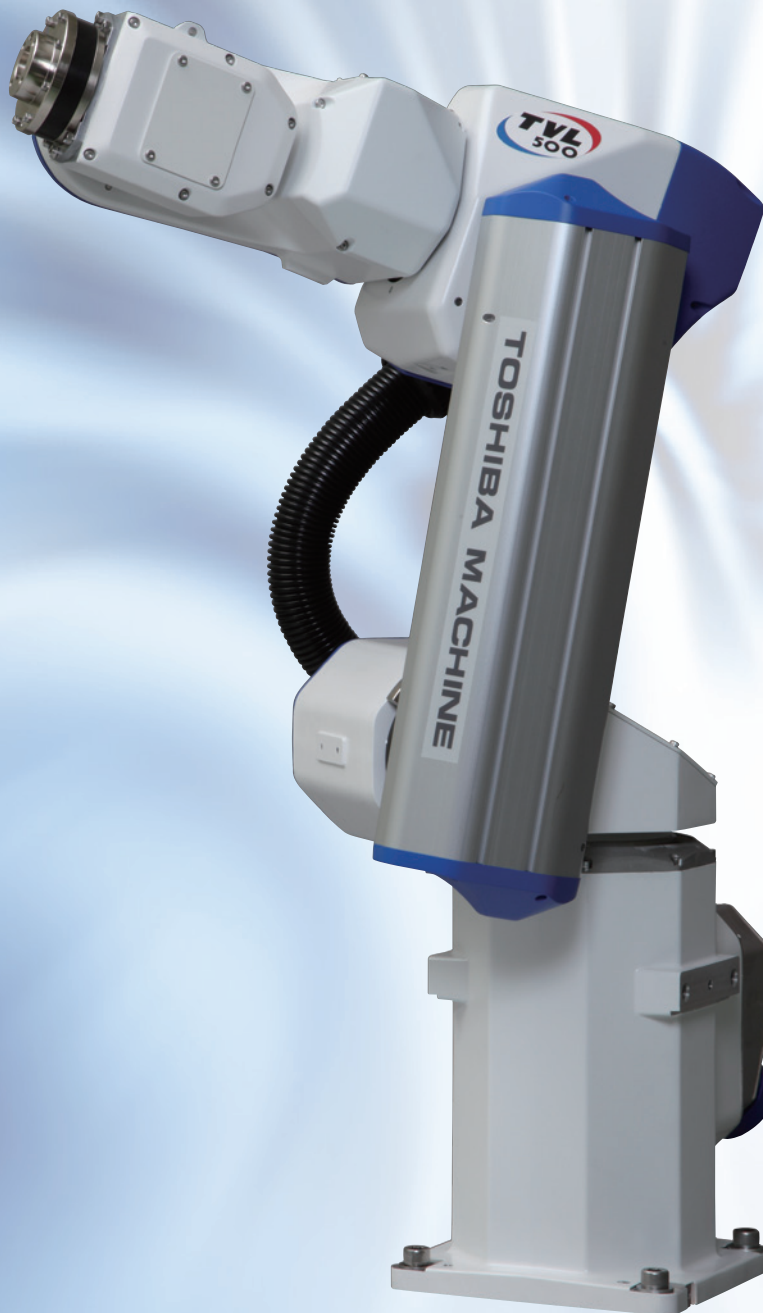


TOSHIBA MACHINE

Vertically Articulated Robot



World-class performance
(standard cycle time of less than 0.4 seconds)



High productivity in assembly and pick-and-place applications in a compact space.

[Specifications]

Model	TVL500	
Type	Vertically articulated robot	
Number of controlled axis	6	
Arm length	Total length	500mm
	1st arm	260mm
	2nd arm	240mm
	Reach	602mm
Working envelope	Axis 1 (J1)	±170°
	Axis 2 (J2)	-64~+165°
	Axis 3 (J3)	0~+150°
	Axis 4 (J4)	±190°
	Axis 5 (J5)	±120°
	Axis 6 (J6)	±360°
Maximum speed ¹	Axis 1 (J1)	435°/s
	Axis 2 (J2)	348°/s
	Axis 3 (J3)	348°/s
	Axis 4 (J4)	422°/s
	Axis 5 (J5)	422°/s
	Axis 6 (J6)	696°/s
	Composite ²	7.98m/sec
Maximum payload mass ¹	3kg (rated: 1kg)	
	(Downward: 5kg)	
Standard cycle time ³	<0.4sec	
Allowable moment of inertia	Axis 4, 5	0.15kg·m ²
	Axis 6	0.2kg·m ²
Positioning repeatability ⁴	±0.02mm (X-Y-Z)	
Position detecting system	Absolute system/AC servo motor	
Power supply	1.5kVA	
Robot body	Mass	28kg
	color	White/blue

*1: Acceleration rates are limited depending on motion patterns, payload mass, and offset value.

*2: Under rated load

*3: Continuous operation of standard cycle motion pattern is not possible beyond the effective load ratio.

(Horizontal 300 mm, vertical 25 mm, round-trip, coarse positioning)

*4: When the environment temperature is constant.

[Features]

Special features

Tap holes

Tool fixture tap holes are provided at four locations on the arm, upper and lower positions. They are useful for fixing external cabling and peripheral devices.

Alternative installations

Tap holes on the side of the base unit allow for the robot to be installed sideways.

1st arm equipped with a T-groove as standard

The T-groove can be used to place tools, cabling and DIN rails in position.

Options

Robot controller cable options

In addition to the standard cabling at the back, cabling can be routed through the base. This eliminates the need for installation space at the rear, and increases flexibility relating to the application and the space available.

I/O panel options

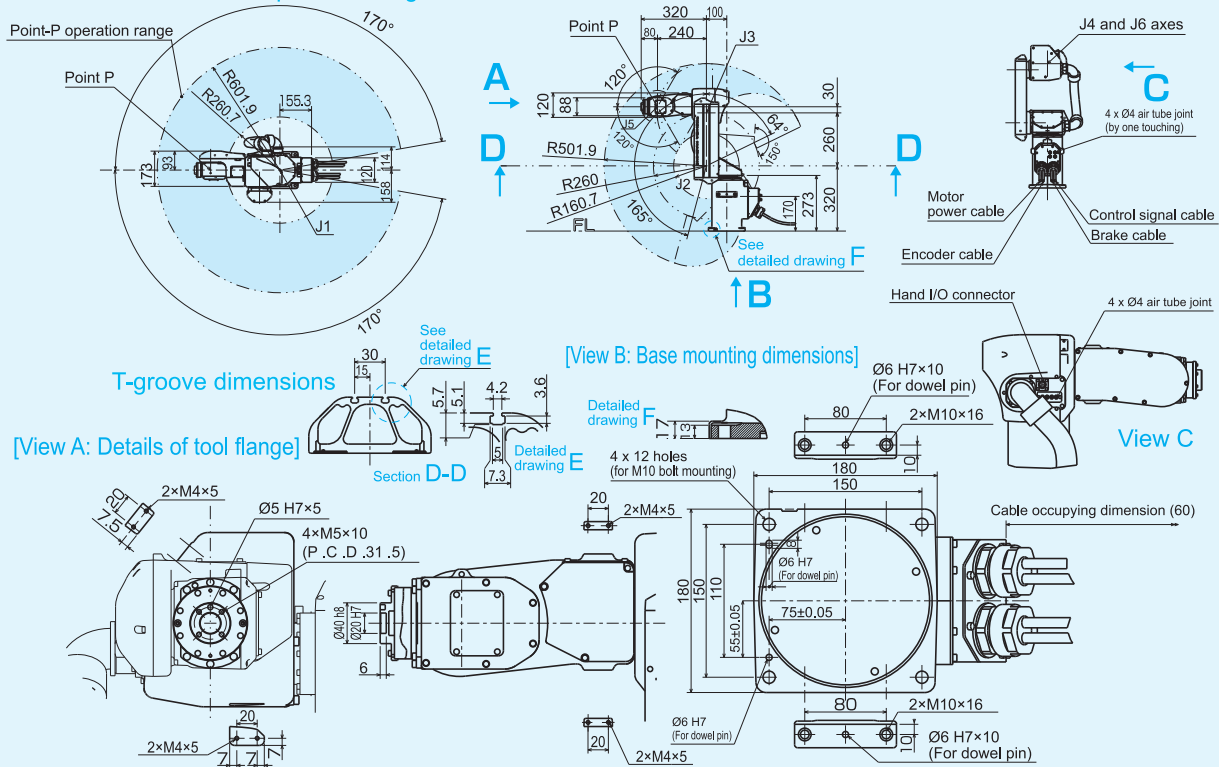
The I/O panel can be selected from three options. An optional elbow type plug is available on the hand-side connection. (Option)

IP65 option

Dust-proof and drip-proof protection is available if required.

[External View]

External dimensions and operation range



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