Scara Robots with Increased Payload Capacity

New to Toshiba Machine's affordable and lightweight THL Series line, the THL300 and THL400 offer increased payload capacities. In fact, with arm lengths of 300mm and 400mm respectively, these new THL robots fall into the class of small SCARA robots, while they boast the maximum payload capacity (5kg) in their class.

Like all THL Series robots, the newer THLs are equipped with lightweight die cast aluminum arms. After extensive analysis, Toshiba Machine successfully developed the arm of the smaller THLs to be lighter in weight than previous models and comparable competitor models without sacrificing their rigidity. The THL's lighter robot can reduce costs for system integrators, as the THL Series requires minimal supporting and vibration-suppression elements.

Another benefit to the lightweight construction of this series is reduced energy-consumption. Toshiba Machine's latest THL models consume up to 20% less power than the already low power consumption of other THLs. This contributes to improved overall efficiency of the entire system.

Also included in the THL are less complex, easy-to-maintain gearboxes and motors. The THL's high RPM motor results in the highest speeds in its class compared to other SCARA robots of similar size. THL300 and THL400 cycle times (with 2 kg load) are .48s.

Low-cost and lightweight THL Series SCARA Robots are ideal for price-conscious end-users, and system integrators looking to incorporate automation. Both the THL300 and THL400 Series are offered at the same low price; on average up to 30% less than other models.

The THL300 and THL400 are ideal for small parts handling and assembly, including cellular phones, medical devices, pharmaceuticals, small automotive parts and consumer products.

The THL Series also includes the THL500, THL600 and THL700 with arm lengths of 500mm, 600mm and 700mm respectively; each with a payload of 10kg. All THL Robots feature a working envelope of 4 axes, with a Z-axis rotation of 360º.

Toshiba Machine's TSL3000 Controller was developed exclusively for the THL Series. It includes USB compatibility as standard, while Field Bus is available as an option. Storage capacity totals are approximately 6400 point + 12800 steps. The programming language is SCOL (similar to BASIC).

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