

LEAD BY INNOVATION

HEAD AND TAIL STOCK WELDING MANIPULATOR



Overview

CARMAC TECHNOLOGIES PVT. LTD. designed and manufactured Head and Tail Stock Welding Manipulators are specialized positioners used to precisely maneuver and rotate long or heavy weldments during the welding process, improving weld quality, efficiency, and worker safety. Imagine a robust, two-pronged system: the headstock firmly clamps one end of the weldment, while the tailstock steadies the other, enabling 360° rotation for effortless access to all weld joints.

Carmac make manipulators come in various capacities, handling massive weldments weighing tons. Think shipbuilding, wind turbine assembly, or oil rig construction. Their electric or hydraulic drives ensure smooth, controlled movement, while adjustable heights and widths cater to diverse workpiece dimensions.

Beyond welding, these versatile workhorses excel in tasks like painting, coating, and assembly, streamlining industrial workflows. And by minimizing welder fatigue and awkward postures, they promote a safer, more ergonomic work environment. If you're looking to boost productivity, precision, and worker well-being in your fabrication shop, head and tail stock manipulators are a worthy investment.



Features



Robust Design

Built to handle heavy loads (up to 100 tons!), these manipulators feature sturdy columns and powerful electric or hydraulic drive systems for smooth, precise positioning.



360° Rotation

Access every weld joint with ease! The headstock firmly clamps one end, while the tailstock steadies the other, allowing for full 360° rotation of the workpiece.



Adjustable Height and Width

Accommodate a wide range of workpiece dimensions with adjustable heights and widths on both the headstock and tailstock.



2 Axis Movement

Some models offer additional axis movement, like tilting or lateral travel, for even greater positioning flexibility.



Versatile Applications

Not just for welding! These manipulators excel in tasks like painting, coating, and assembly, making them invaluable across various industries.



Customizable solutions

Many manufacturers offer custom designs to accommodate specific workpiece shapes and welding processes.



Advantages

▲ Improved Weld Quality

Precise positioning and stable support lead to cleaner, more consistent welds with minimal rework.

▲ Enhanced Efficiency

Faster setup, easier access to weld joints, and reduced welder fatigue translate to increased production rates.

▲ Boosted Worker Safety

Eliminate the need for manual handling of heavy workpieces, minimizing the risk of accidents and injuries.

Ergonomic Working Conditions

Adjustable heights and controlled movement ensure comfortable working postures for welders, reducing fatigue and strain.

Reduced Manufacturing Costs

Improved weld quality, increased efficiency, and fewer safety incidents ultimately lead to lower overall production costs.



Applications

Shipbuilding

Weld massive hull sections, decks, and superstructures with precision and ease.

▲ Wind Turbine Assembly

Rotate and position wind turbine blades and nacelles for efficient welding and assembly.

▲ Oil Rig Construction

Maneuver and weld heavy tubular sections used in oil rig platforms.

▲ Pressure Vessel Fabrication

Weld thick plates and cylindrical sections used in pressure vessels with optimal control and accuracy.



Steel Beam Fabrication

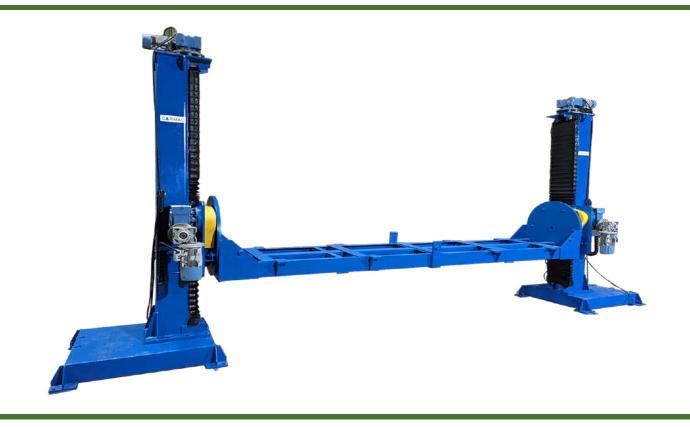
Weld long steel beams for bridges, buildings, and other structures with exceptional precision and speed.



CUSTOMIZED HEAD AND TAIL STOCK WELDING MANIPULATORS – FIXED TYPE



CUSTOMIZED HEAD AND TAIL STOCK WELDING MANIPULATORS – ELEVATED TYPE





CARMAC TECHNOLOGIES PRIVATE LIMITED

J 65-1, J Block, MIDC Bhosari, Pune - 411026, INDIA +91- 91122 77712, +91 - 91122 77713 info@carmac.co.in, sales@carmac.co.in www.carmac.co.in

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