



**MOTION**  
INDEX DRIVES



## Benefits of Multi-Axis Weld Positioners



With multi-axis weld positioners, a company can expand on the possibilities of welding automation by giving manufacturers the advantage of maximizing throughput and improving quality, while saving on floor space. Positioners gives the robot: better access to tooling or parts, reduces floor footprint, allows parts to be removed easily and gives the company flexibility to add multi-stations.

A trunnion 3-axis positioning system position allows the robot accessibility to one side of the tooling or part and then rotates to work on the second side. This dramatically reduces the time operators need to spend time replacing the part, thus efficiency of the productions line is improved.

Motion Index Drives designed two DR-TR "Dual Trunnion" drives that will be part of an overall automated cell for assembly and welding of panels for the consumer goods sector. The goal our customer wanted to achieve was to increase production rates. The panels are currently manually assembled into a fixture and manually welded.

The dual trunnion's 2 position main indexer allows for a set of robots to load all of the individual parts into a holding fixture on one side of the main turntable, while the other set of robots on the opposite side, weld up the panel. Once welded, the turntable indexes 180 degrees and gets the newly loaded panel to the weld side and welded panel to the load / unload side.



The Trunnions on either side allows for the fixtures to be oriented for ease of assembly into the holding fixture as well as the welding robots to get better access to either side of the panel. Motion Index Drives Multi-Axis Welding Positioners provide a superior accuracy, index time, and flexibility to meet the demands of modern automation systems. These complete 3, 4, or 5 Multi-Axis Welding Positioner machines are designed and engineered to provide superior performance in demanding industrial automation environments. Our positioning systems utilize one of two mechanical drive systems depending on customer requirements. Our high capacity "zero backlash" programmable cam systems create extremely high accuracies and repeatability of 2-3 arc seconds, while providing mechanical robustness to suit any size application.

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