

Michigan Seat Co. - Improve Seat Assembly Operation

Michigan Seat Co., one of the worlds leading producers of vacuum form foam-in-place seats, had tried many alternative possible positioning solutions to improve the adjustability of the various seat frames during their assembly processes, before learning about the Ergo Master 3-axis manual positioner capabilities. “During the seat assembly process, the operators used to manually move and hold the seat frames in position during each assembly step,” says Duane Brooks, assembly supervisor for the lift truck seat line. “As many of today’s seats are quite complex, it meant that the operators had to move a lot of weight while making the proper adjustments to add the many parts of the seat frames,” continues Mr. Brooks.

The Ergo Master manual 3-axis positioner equipped with a custom cam-profiled top collar, today serve as ergonomic work stations at Michigan Seat’s facility in Jackson, MI. “These positioners allows the operators to adjust the seat frames not only to their desired work height, but also to adjust to the proper assembly position at all times. By simply rotating the seat, now attached to the positioner, the proper access angle for each assembly step is automatically obtained through motion against the “pre-programmed” cam profile. This allows the operator a fast and easy seat assembly operation,” comments Mr. Brooks. “With the small foot print of the Ergo Master, it fits well into our work station concept,” adds Mr. Brooks.

The small size of the positioner further allows the operator close access to any

stocked parts. “New seat designs have many parts and it is important that they are accessible within arms reach of the operator,” says Robert Senese, the Manufacturing Engineer responsible for the implementation of the Ergo Master. “The Ergo Master positioner further improved our overhead access for use of counter balanced air tools,” continues Mr. Senese. “The Ergo Master positioner with our cam profiled top collar has greatly improved our overall seat assembly operation. Productivity has improved and everybody is happy with the achieved ergonomic advantages. The Ergo Master combines all the best features we were looking for basically in a unit off the shelf,” ends Mr. Senese.



Figure: The Ergo Master with its 3-axis positioning system.