

ADJUSTABLE TILTING WORK TABLE



NEED

Portland Marble Works Inc. manufactures high quality marble and granite products for residential and commercial building interiors. Sheets of rock materials are cut to desired shapes and require edge and top final shaping and polishing. Most of this is done by hand using hand held grinders and polishing products. It is very labor intensive and traditionally is done by resting the sheets on fixed height sawhorses. The employees are required to fit their bodies to the work requirements, which involve long hours of static postures holding powered hand tools at awkward angles. An Oregon OSHA Worksite Redesign Grant was applied for to develop an adjustable work table to help minimize these human ergonomic issues.



SOLUTION

The solution resulted in the specification, design, and development of an adjustable tilting work table. Specifications requested by the employees who would be using it include the ability to support loads to 500 lbs., foot controlled electric lift and tilt functions, simple but consistent clamping fixturing, and the ability to have the table top indexed over a 360 degree range to allow for working on ends of a part. It needed to withstand a damp, harsh environment. Through concept meeting with a Concept Designer, a design was outlined, engineered, and constructed. It functions very well and is well received by the employees who offered input into its feature requirements.

BENEFIT

The post ergonomic report states " Although the sample size for both (ergonomic) surveys was small, the results do indicate that at least for these employees, a substantial benefit has been realized by the elimination of all task related discomfort. This benefit is directly attributable to the ergonomic improvements that have occurred with the introduction of the new adjustable tilt table."

CONTACTS

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