

## Overhead Lift for Vertical Assembly Work



### The Challenge

A major producer of hospital furniture was challenged with making their assembly process more ergonomically effective for employees by installing equipment that could vary the height of the product as it moved down the assembly line. There could be no major modifications to the overhead cranes system, and overhead space was limited. The ultimate equipment solution had to: 1) be low profile, 2) have two axes of movement (up down, forward reverse), 3) be cost effective.

### The Autoquip Solution

An Autoquip technical salesperson discussed the application with the industrial engineers overseeing the factory re-design to review potential lifting solutions. Because of the low profile requirement, and the need to hold and stabilize the product from overhead, a scissor lift solution was chosen. To accomplish the controlled up and down movement of the product, double-acting hydraulic cylinders were used to actuate the scissor mechanism. Finally, to minimize the square-foot space requirement of the lift, a double-pantograph scissor design was specified as part of the lifting solution.

Autoquip ultimately delivered a medium-travel, low capacity, and low profile double-scissor lift with a small rail hoist attached to the platform (providing forward-reverse motion) and double-acting hydraulic circuit. This solution provided the least intrusive, most stable, and most cost-effective lifting solution for the application. The



customer is completely satisfied with this overhead lifting solution, and worker productivity has been measurably higher as a result of keeping the work within the ergonomic “power zone” of the assembly personnel.

## The Solution Benefits

Through the use of this customized scissor lift, the work station area has been cost-efficiently updated to include a vital worker productivity improvement with minimal overhead space consumed, and zero impact to the floor space required to perform the assembly process.