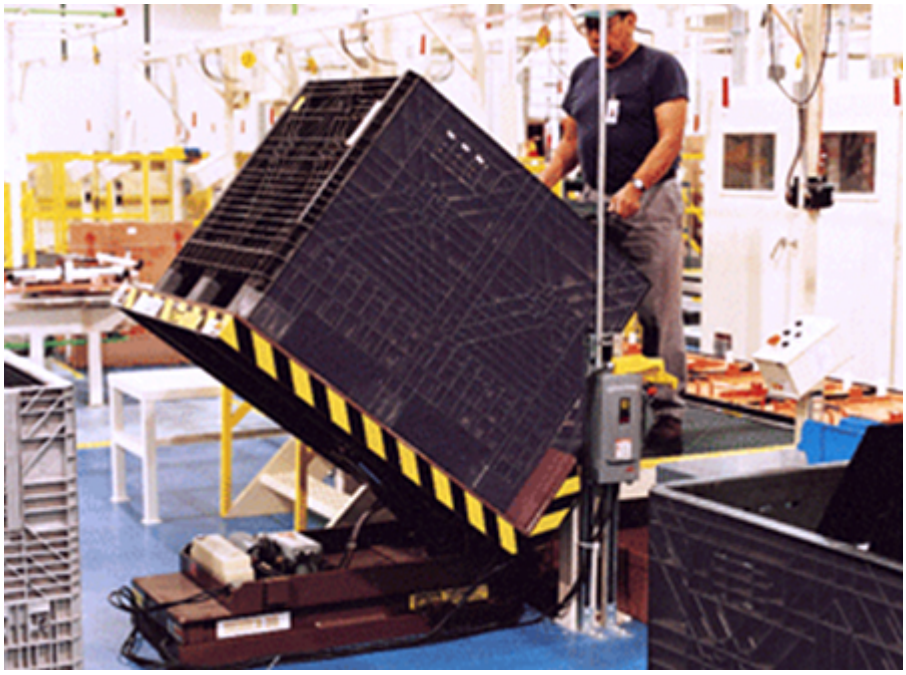
Autoquip®

CNC Work Station Tilters



The Challenge

A machining company wanted to reduce employee exposure to lower back injury due to excessive bending and reaching during the manual material handling tasks associated with machined parts. Employees were having to reach into baskets while accessing parts for the CNC machines and as the basket emptied employees had to bend and reach farther down to retrieve the parts, typically with knees locked and using only their lower back for lifting strength. Ideally, a solution was required to incrementally adjust both vertical position and degree of tilt of work platform to ergonomically “fit” a wide variety of employee heights and reaches – to dramatically reduce bending and reaching motions associated with loading baskets.

The Autoquip Solution

The Autoquip technical sales representative recommended a solution in which a hydraulic tilter was attached to the top of a hydraulic lift table, because the customer wanted to be able to adjust the vertical position and angular position independently from one another. This design approach provides the widest range of adjustability and operator control over the baskets being positioned for part retrieval. Separate foot-operated controls allow the operator “hands-free” control of the material handling equipment as he/she performs assembly tasks.

Fork trucks deliver and pick up baskets of various sizes to this workstation tilter – depending on the types of parts being machined at the time. Operators then control the height and position of the load depending on the basket style and component part size/orientation. A tilter “lip” at the front of the tilter platform was sized

---

according to customer requirements (determined by basket style and height) to provide load stability during the tilting process.

Specifications for this Tilter Application:

Tilter Model: STE45-40-5

Platform Size: 50″ x 50″

Tilter Capacity: 4,000 lbs.

Vertical Travel: 24″

Degrees of Tilt: 45 degrees

Actuation: Hydraulic

The Solution Benefits

Through the addition of this lift and tilt combination, manual material handling tasks associated with retrieving parts from bins and baskets are now more ergonomic, reducing employee exposure to lower back injury and increasing work station efficiency.