Intelligent Lifting Device Helps Pump Manufacturer Improve Safety and Double Productivity

Features and Benefits
Addition of an intelligent lifting device contributed to 100% increase in productivity
Reduced employee risk of injury
Cycle times have decreased
Damage to milling machine has decreased

Industry Group: Ergonomic Assist Systems and Equipment (EASE)

A major pump manufacturer was looking for a safer, more efficient way to load adapter castings weighting up to 70 lbs. onto the chucks of their twin spindle-milling machine. They identified the potential hazards and problems to ensure workers safety:

- The position operators had to maintain trying to carefully place the castings on the chuck, putting them higher than acceptable risk for injury.
- The costly soft-jaw chucks in the milling machines were repeatedly damaged when castings were put down with too much force.
- Operators were losing valuable cycle time waiting for their air balancers to bleed pressure before placing the load.

Ergonomic Solution
The manufacturer replaced their air balancer with an intelligent lifting device. Because this device moves with the operator and doesn’t require push buttons, switches or valves, the operator can move at a natural pace. Plus, because they don’t have to wait for it to bleed pressure like an air balancer, they reduced cycle times.

The intelligent lifting device also has the added benefit of programmable virtual limits and speed reduction points. The operator can lift the castings out of the bin at his natural pace, but the intelligent lifting device is programmed to sense when he
nears the milling machine. It automatically shifts into slower speeds as the operator approaches the chuck, decreasing damage to the chuck and eliminating the need for costly re-cutting.

**Increased Productivity**
Thanks to the introduction of an intelligent lifting device, productivity has increased 100%, and they have been able to decrease their on-floor inventory by 50%. Plus, the operators are thrilled with the speed of the intelligent lifting device.