

## MagReTech Inc., Bellevue



**Intervention key words:** Lifting aid, vacuum lift, lift assist, track crane, high-temperature suction pad

**Industry:** Manufacturing

**Risk factor(s):** Awkward posture – back deviations; manual handling – lifting/pulling; awkward posture – shoulder deviations

**Situation:** The MagReTech manufactures magnesium-aluminum ingots. The ingots typically weigh 25 pounds. In a two and one-half hour period, employees lift and stack 600 or more of the ingots. The photo to the upper left and the middle photo show the process.

**Solution:** The MagReTech purchased a vacuum-lift assist with a high-temperature suction pad. The equipment is mounted on an overhead-track crane above the conveyor and stacking station. The lifting system cost \$19,000. The bottom photo shows the lifting system.

### Results

- The incident rate (standardized for 200,000 hours worked) decreased from 11.9 the two years prior to the intervention to 4.9 for the two years following, a 59-percent improvement.
- The National Safety Council reports the average cost of a workers' compensation claim is \$19,382. The company's return on investment was 11.5 months.
- The lifting aid picks up two ingots as compared to one by manual lifting. Because of this new lifting device, employees now walk less between the conveyor and the stacking area.
- This equipment picks up two ingots at a time, increasing conveyor speed by 40 percent. Employees no longer touch the ingots, and they don't need to wear Kevlar gloves. They now wear knit gloves, which saves the company more than \$9,000 a year.