MEP National Network™

OHIO SUCCESS STORY

HIGHLY EFFICIENT PLANT LAYOUT

ABOUT ALLOY ENGINEERING. Alloy Engineering Company is an innovative and high-quality leader in the design and manufacturing of equipment for high-temperature and corrosion-resistant industrial applications. The company, based in Berea, Ohio, has built a strong reputation since its beginning in 1943 for expertise in engineering, fabrication, and advanced materials. Alloy Engineering has accumulated significant application know-how, which they share and leverage in addressing the challenging needs and issues of their customers.

The company specializes in designing and fabricating heat exchangers, pressure vessels, batch annealing equipment, catalyst baskets, high temperature fans and blowers, and other related equipment. It services customers in a variety of industries including chemical, oil and gas, power generation, primary metals, and other markets.

In addition to its core manufacturing capabilities, the company also offers customers related services including blasting and painting, equipment repair, NDT, alloy welding, and various aftermarket services. Alloy Engineering operates in an accredited ASME facility and possesses various certifications relating to their capabilities, product focus, and distinctive areas of expertise.

THE CHALLENGE. In order to help achieve its future business goals of increased sales, Alloy contacted the Ohio MEP | MAGNET, part of the MEP National Network™, about analyzing its current manufacturing layout and then coming up with a future state layout and recommendations which maximized white (unutilized) space in the plant. This maximized value-added operations under existing crane space, minimized material movement, and provided a plan for the 50'x100' new construction.

MEP CENTER'S ROLE. The MAGNET team analyzed the current state. This included updating the current state AutoCad drawing; creating flow diagrams for eight value streams; documenting travel distances for eight value streams; and indicating crane locations and coverage area of cranes.

Once the current state drawing was completed, MAGNET created a future state drawing using lean principles and improving flow and travel distances of the eight value streams. The future state also included recommendations to improve efficiencies.

RESULTS

$10,000,000 in new or retained sales

$2,600,000 in new investment

$40,000 in cost savings

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Ohio Manufacturing Extension Partnership

"Gwido and his team helped us assess our existing floor plan and value streams and then set goals for travel distance reduction of materials in each value stream. Because everything we build requires overhead cranes, we realized that any non-value added activities needed to be re-located to somewhere that did not consume any of this floorspace. As a result, we built a 5,000-square-foot building used to store anything that could be relocated (materials, finished goods, equipment, etc...). We also created a centralized inventory location. The result was immediate relief, better utilization of manufacturing space, and increased throughput. The MAGNET Team proved invaluable in this part of our evolution."

-Lee Watson, CEO