

INDIANA FABRICATOR REDUCES GREENHOUSE GAS EMISSIONS

ABOUT IN-FAB, INC. IN-FAB, Inc. designs and builds a wide range of custom fabricated products for shipping and cargo handling, including custom steel pallets, racks, bins, and storage containers. Based in Bedford, Indiana, with just six employees, IN-FAB is committed to providing each customer with the best shipping solution possible.

THE CHALLENGE. IN-FAB is dedicated to exceeding customer expectations through continuous improvement efforts. When company leaders became aware of the E3: Economy, Energy, and Environment initiative, they decided it was an ideal opportunity to review IN-FAB's operations and identify areas for improvement. The E3 initiative helps manufacturers become more competitive and sustainable by leveraging the resources of federal, state and local agencies. In Indiana, the Purdue Manufacturing Extension Partnership (Purdue MEP), part of the MEP National Network™, works with the Indiana Department of Environmental Management (IDEM) and the IUPUI Industrial Assessment Center (IAC) to deliver the E3 program.

MEP CENTER'S ROLE. To kick off the E3 initiative, IAC provided a one-day on-site Energy Assessment for IN-FAB, followed by a full report with priority recommendations. Next, Purdue MEP facilitated two two-day trainings on Lean Value Stream Mapping and Environmental W.A.S.T.E. Stream Mapping, which "taught us how to look with fresh eyes to find and eliminate non-value added activities," said owners Darin and Jay McCullough. Through the Lean training, the company identified an opportunity reduce raw material inventory by half as many days, an improvement that will generate significant cost-savings. As a result of the W.A.S.T.E. Stream Mapping, the company is switching to water-based paint to reduce hazardous material, changing plant layout to lower propane usage, and changing welding wire to reduce emissions.

Purdue MEP followed up with a one-day Carbon Footprint Assessment and a half-day Introduction to Energy Management Systems training, and IN-FAB participated in a project closeout meeting to discuss the final E3 report and next steps. By following the E3 recommendations, IN-FAB will reduce its Greenhouse Gas (GHG) emissions by 16,800 Tonnes of CO₂eq. This is equivalent to annually removing 3,345 passenger vehicles from the road, or 17 million pounds of burning coal.

"We were staggered by the results, both in knowledge gained and money saved. The E3 Program has driven us to examine and implement several sizeable process changes. Not only will these changes benefit the environment and our employees, but they will also allow us to be much more efficient and realize savings that far outweigh the small cost of the program."

-Darin McCullough and Jay McCullough, Owners

RESULTS



Reducing GHG emissions by
16,800 Tonnes of CO₂eq



Reduced raw material
inventory from to **9** days (down
from 18)



Potential savings of over
\$300,000

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