

WACKER CHEMICAL GROUP: IMPROVING PERFORMANCE WITH SIX SIGMA BLACK BELTS

ABOUT WACKER CHEMICAL CORP (SILICONES). WACKER Chemical Group is a technological leader in the chemical industry and manufactures products for all key global industries. The company is active in the silicone, polymer, life sciences and polysilicon markets. Their products are found in countless everyday items ranging from cosmetic powders and shampoos to drywall, solar cells and semiconductors. WACKER employs 14,400 across 27 production sites and recently opened a new NCA Innovation Center and Regional HQ in Ann Arbor, Michigan.

THE CHALLENGE. With a commitment to continuous improvement, WACKER is always looking for ways to invest in its team members. This commitment was demonstrated when they wanted to advance several certified Six Sigma Green Belts to Black Belts. Six Sigma allows manufacturers to improve the performance of their business and manufacturing processes by systematically removing waste and reducing variation. Investing in Six Sigma Black Belt training meant that WACKER would have internal mentors capable of not only solving tough problems but also guiding others to do the same to efficiently carry out the goals of the company. Global supply chain issues and increased customer demand have put the production sites at full capacity, so productivity and capacity maximization were more critical than ever.

MEP CENTER'S ROLE. With a longstanding history of working together, WACKER knew the experts at Michigan Manufacturing Technology Center's (The Center), part of the Michigan MEP and the MEP National Network™, would be a great fit to provide Six Sigma training. Since they were already familiar with the core Six Sigma concepts, The Center and WACKER created a customized Six Sigma Green-to-Black Belt training program. This allowed the team to become Black Belts while also learning some advanced techniques tailored towards WACKER's unique challenges. Some of the customizations included the addition of EVOP (evolutionary operations methodology), a method for studying a production process while it stays running, as well as a factor optimization technique called response surface methodology (RSM). Thanks to the training, nine WACKER staff were trained, and one has already received Six Sigma Black Belt certification. To demonstrate the newly acquired skillset, a graduate of the Green-to-Black Belt program took on the challenge of improving site-wide efficiency and performance at WACKER's site in Calvert City, Kentucky. By thinking critically and applying a structured problem-solving approach, his project was a key piece of the capacity improvement achieved by the site in 2022. The additional volume produced allowed WACKER's powders plant to achieve an all-time high production record for the year.

"The Six Sigma Green-to-Black Belt program offered through The Center was exactly what I was looking for. I especially appreciate their emphasis on preparing their candidates to mentor the next generation of Green and Black Belts to ensure continued success."

-Mike Palmeri, Operations Manager

RESULTS



\$751,693 in new sales



\$15,520 in new investment



Reduced time wasted by
.38/hrs per batch

CONTACT US



45501 Helm St.
Plymouth, MI 48170



(734)451-4200



www.the-center.org

MICHIGAN
MANUFACTURING
TECHNOLOGY
CENTER