

VALUE STREAM MAPPING OF COIL MOVEMENT WASTE  
REDUCTION

**ABOUT NORTH AMERICAN STAINLESS.** Founded in 1990, North American Stainless (NAS) has undertaken several phases of expansion to become the largest fully integrated stainless steel producer in the U.S. NAS is focused on being the leading provider of high quality stainless steel in the Western Hemisphere. The company's 1,400-employee, state-of-the-art production facility is laid out for maximum efficiency and offers the full range of stainless products with competitive delivery times. With all of NAS's production lines on site, the company avoids the inherent delays common in mills with geographically dispersed production sites.

**THE CHALLENGE.** NAS was looking to optimize material transfer movements and related costs. Mobile equipment repair and maintenance expenses, as well as downtime, were high, and variations in market demand over the years had led to costly waste. For help, NAS contacted the Advantage Kentucky Alliance (AKA), part of the MEP National Network™.

**MEP CENTER'S ROLE.** North American Stainless, recognizing the opportunity to better manage the non-value-add material movement, contracted with Advantage Kentucky Alliance to study the specific process of coil material movement while developing the leadership and process improvement skills of NAS team members in the process. AKA's project manager adapted the value stream mapping (VSM) tool and worked with the NAS team to gather data and piece together the "big picture" to identify areas for improvement.

The AKA engagement included leadership theory for enhancing team dynamics (understand/agree/support), process discipline (manage or be managed), dynamic mentorship, and execution. This embedded portion of the engagement intentionally 'pushed' participants to challenge status quo (current reality). Perceived non-conformers and/or naysayers were encouraged to be part of the team to foster a broad, full spectrum of ideas. As data was being gathered by the team, AKA's project manager engaged each team member to defend their data by standing at the board and walking the other members through each result. Once all relevant data was gathered, AKA's project manager led the team through a 'smell test' of each forklift's data, culminating into a realistic current state map. From there the team launched into ideation (brainstorming) potential improvements, redlining and re-calculating each step, resulting in the improved and realistic Future State Map with the results presented. Each project member not only grew in their ability to use the VSM tools, understand (and defend) application of Lean concepts and apply real process improvements, they also practiced team based communication, presentation and leadership skills.

"Working with AKA has been a rewarding learning experience, and helped NAS to understand and implement value stream mapping principles to material handling movements."

-AJ Bhawe, NAS Long Product Division

## RESULTS



\$250,000 per year in labor savings with no expense



\$250,000 per year in savings through use of larger forklift



\$100,000 per year in savings through labor reduction



Eliminated/decreased staging areas and empty travel times

## CONTACT US



2413 Nashville Road, B8,  
Suite 310  
WKU Center for Research and  
Development  
Bowling Green, KY 42101



(270)282-7103



[www.advantageky.org](http://www.advantageky.org)

