

UNDERSLUNG ASSEMBLY LINE PROCESS IMPROVEMENT

ABOUT TAYLOR POWER SYSTEMS, INC. Taylor Power is a premier manufacturer of generators made in the USA. They design, engineer, manufacture, and service generators for the oil and gas, industrial, commercial, business, healthcare, telecommunications, municipalities, agricultural and any standby or prime power needs. For over 32 years Taylor Power Systems (TPS) has established a solid reputation for quality, innovation & service. Taylor Power has an assembly plant in Clinton, MS.

THE CHALLENGE. One of the products that Taylor Power produces is a diesel Reefer Generator Set also known as an Underslung Unit. This unit is designed to provide highly reliable unattended continuous operation for all refrigerated ocean going container units in both over-the-road and rail transport modes. This product has seen an increase in demand which Taylor is struggling to meet. TPS has desire to increase output of underslung generators because short lead times are very important for this product.

MEP CENTER'S ROLE. MMA-MEP Center at MSU-CAVS-E created an assembly line based on lean principles with a target of increasing capacity 100%. Cycle time data was used to create a line-balance chart; that chart was then used to re-layout the assembly area. Additionally, work station efficiency for the assembly operators was improved by adding a small inventory of parts in each station. Hour-by-hour production and quality boards were implemented to give hourly feedback to management and the team.

"Through the efforts of the MMA-MEP Center at MSU-CAVS-E team, our ability to increase production of generators for the intermodal market has more than doubled. Prior to this team working with us, we were attempting to increase production through methods that were not very lean, including adding to the length of our assembly line and building numerous additional production carts to build units. From the lean manufacturing principles that MMA-MEP Center at MSU-CAVS-E implemented, along with time studies, the length of our assembly line was reduced and with fewer units being on the line each day. Our units produced per day increased, the employees were happier and certain customers requested that we cut back on our weekly shipping volume as we became more efficient. We even outpaced the ability of our vendors to keep up with our demand with production capability increasing weekly."

-Steve Duke, General Manager

RESULTS



300% increase peak output



52% decrease work in process



50% quality improvement



50% decrease in man-hours per unit



43% decrease floor space (sq. ft.)

CONTACT US



720 North President
Jackson, MS 39202



(601)709-2921



www.mma-web.org/mep

Mississippi Manufacturers Association

