

Aiden Kamber

Project Abstract - Bosch Automotive Service Solutions

**BOSCH**

Invented for life

INTERN

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BS Agricultural and Biological
Engineering, University of Illinois, Urbana-
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PROJECT FOCUS

Waste

ADVISOR

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COMPANY

Bosch Automotive Service Solutions

COMPANY DESCRIPTION

Bosch is a multinational engineering and electronics company headquartered in Gerlingen, Germany with over 125 locations worldwide. Bosch Automotive Service Solutions in Owatonna, MN is one of the only sites in the US that manufactures tools required to service vehicles. The facility is divided into three main production areas: LOP, MFG1, and MFG2. In MFG1, raw steel is processed and manufactured into usable tools onsite. With over 38,000 unique part designs and a total of 3000 tons of metal processed annually in MFG1 alone, Bosch is a high variety, low quantity manufacturer.

INCENTIVE

In 2017, Bosch corporate in Germany set the goal for the Owatonna facility of maintaining current overall waste amounts despite increases in production. In the past three years, waste has increased from 1519 tons in 2017 to 2354 tons in 2019. The primary focus of this project was to reduce waste in the top three categories: Metal Scrap, Cardboard, and Pallets.

GENERAL APPROACH

The intern first started with familiarizing themselves with the manufacturing process, interviewing managers, and understanding how metal scrap is characterized and where it is generated.

FOCUS OF RESEARCH / RECOMMENDATIONS

Due to this facility manufacturing a high variety and low volume of parts, it became clear that this avenue of waste reduction would require significant time investment and capital to re-engineer parts or create castings, which Bosch corporate has temporarily halted due to COVID-19. Pallet waste, on the other hand, was identified as having high potential for reduction. While hundreds of pallets are ordered weekly, hundreds of slightly damaged (or even usable) pallets are scrapped to mulch weekly as well. The intern investigated solutions to improve the storage and organization of pallets as they flow throughout the facility in order to better identify viable pallets and reduce pallet scrap waste.