Title: Billet Cutting Saw Automation

Industry Sponsor: Trelleborg Sealing Solutions

Budget = $1,000

Project Description

Plastic billets, approximately 10” diameter and 30” long, are produced in current Trelleborg machinery and saw-cut to length. The method of saw cutting utilizes an “off the shelf” wood cutting chainsaw. The saw requires significant modification to be installed into the station, resulting in frequent lost production time due to issues with the cutting station. The cutting mechanism is also inspected daily by a maintenance mechanic or technician to insure proper operation tying up a technical resource that could be better utilized elsewhere.

Project Scope

Trelleborg would like for the team to improve the current design of the automated cutting station. They should develop and provide alternatives to the current cutting method and/or machinery. Engineering science in the areas of Statics, Dynamics, Materials Science, and Heat Transfer should be utilized in the concept, analysis, design, and testing phases. The cutting rate and time will need to match the current process. The primary objective is to improve the ease of installation and the robustness of the automated cutting station.

Project Budget

$1,000 for analysis and testing equipment for use while on IPFW campus. In addition, Trelleborg will supply all other hardware required for implementation and testing at the manufacturing facility.