

Stack'em Up



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Part I: Overview of Workplace

- Diversified Technologies Incorporated (DTI) started as a blacksmith shop in 1888 just outside the town of George, Iowa.
- The sub-divisions of Sudengas and Dura-Lift product lines make up DTI as a whole.
- That list of products include, aerial lifts, portable augers, bulk feed trailers and straight trucks, feed processing and automation systems, bucket elevators, drag conveyors, leg support towers and catwalk, round tube and u-trough augers, bin unloading systems including power sweeps and zero-entry sweeps for the commercial ag market, belt conveyors and a variety of accessories for installation of complete material handling systems.
- <https://youtu.be/ObIVytZWA8k> is a link for a brief overview and history of this manufacturing facility

Part II: Workplace Focus

- Fabrication, welding, painting, and assembly are all major components to produce a product in this facility.
- This specific department uses the above processes to construct aerial lifts.
- The salesman, engineers, and production supervisors need to collaborate frequently so product is constructed to a high quality standard and shipped in a timely manner for customer satisfaction.

Part III: Introduce the Problem

- You will be constructing steel production boxes for parts storage for a local manufacturer.
- Boxes must be assembled and welded correctly so they can be stackable.
- Variety of welds will be required for this production line.
- The company will be able to use these storage boxes to help better their organization of parts.

Part IV: Standards, Driving and Essential Questions

- Students must have basic knowledge of using hand tools and measuring devices used for metal fabrication.
- Students need to have some previous welding practice.
- Students need to be able to interpret basic engineered drawings.

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Part V: Extern Host Role

- The extern host is willing to supply all materials for the manufacturing of these production boxes.
- The host will also cut and fabricate all components due to the inability to do so at the school district.
- Drawings will be provided to the students for the assembly and welding of this production line.
- Mike Domnick (General Manager) and Chuck Sjogren (Company President) are my primary contacts at Diversified Technologies Inc.

Part VI: Student Learning

- Discussion between the students and myself before the production begins to get their aspect of how this production line should operate.
- After production has been in operation for about a week, stop and reflect on a few different aspects: production flow, efficiency, are the right individuals in the correct position on the line.
- If the students think changes can be made to become more productive, adjust and continue on.
