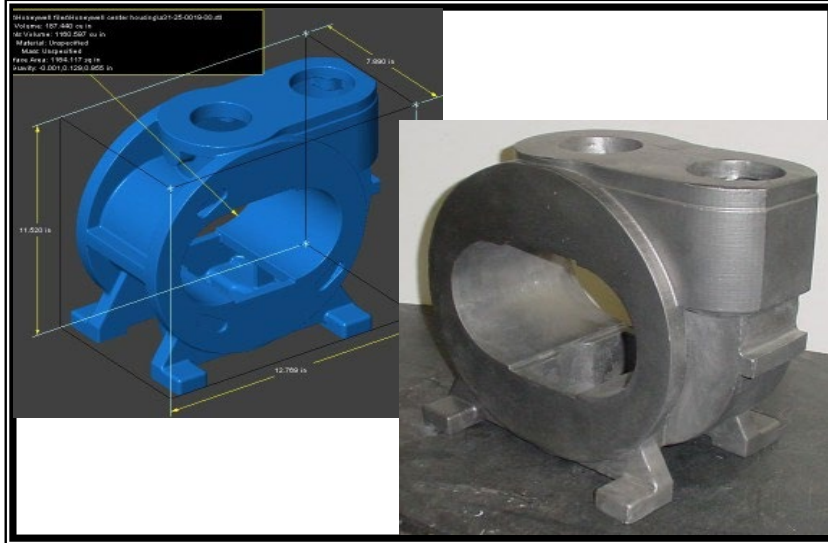


Online Casting Cost Advisory System

DLA - POC: DLAR.DPR@dla.mil

AMERICAN METALCASTING
CONSORTIUM



Problem

- Casting costs are difficult to estimate

Objectives

- Identify specifications and features that drive the majority of cast part and tooling costs
- Show users what investment and sand castings should cost
- Include part cost, NDT cost, and tooling cost

Benefits to Warfighter

- Substantial reduction in procurement costs with better understanding of key cost drivers
- Enable ability to benchmark quotes received from suppliers
- Establish a scalable platform on which additional manufacturing processes and materials can be added

Description of Project:

Develop an Online Casting Cost Advisory System that utilizes the latest casting knowledge and techniques to provide users with real-time cost estimates based on cast part design criteria.

Team:

H.A. Burrow Pattern Works, DR Consultants and Engineers, ATI



Milestones / Deliverables

- GUI allowing manual input of specifications and design parameters
- Estimates of part cost, NDT cost (including x-ray), and tooling cost for sand and investment casting processes with aluminum, ductile iron, cast iron, and cast and stainless steel alloys
- Feedback tool highlighting the specifications and design features that impact the overall part and tooling costs
- Demonstration of how shape/feature complexity, choice of manufacturing process, material, tolerances, surface finish, and quality requirements affect manufacturing costs