



Contact

480 Old Erwin Hwy
Greeneville, TN 37745

chris@castingconsulting.com

www.castingconsulting.com

(423) 546-0101

Education

Alfred University
MS/ BS Ceramic Engineering

Key Skills

Slurry Formulation & Optimization
Ceramic Materials
Ceramic Property Usage
Material Problem Solving
Presentation Public Speaking

Patents

US 10953460B2

Honors/ Awards

3M Circle of Technical Excellence
& Innovation 2018

Technical Papers/ Presentations

**16 Investment Casting
Conferences including:**

- Investment Casting Institute
 - Japan Foundry Society
- European Investment Casting Federation
 - Indian Conference on Investment Casting

(LinkedIn for paper details).

Technical Areas of Expertise

Slurry/ shell design and optimization for all of investment casting systems for nearly 25 yrs for various build, strength or permeability needs. Optimized Howmet Hampton VA Structural Monoshell system. Instruct technicians, engineers and GM's at the Investment Casting Institute's Professional Certification Course for 15-yrs. Holder of 3M's highest technical achievement award and US patent holder.

Background

January 2023 – Present

President/ Founder – Comprehensive Casting Solutions, LLC.

Commercial, medical & aerospace foundry consulting with a combined group investment casting experience of *two centuries*. Co-inventor of CCS CrackAttack™ Original, MAX and CORE and binder systems. Foundry design and optimization (WF Engineering) with the latest investment casting equipment and a unique optimized slurry system to meet their product requirements. We also work with raw material suppliers of all types helping bring unique materials and their incredible properties into use where investment casters can benefit.

June 2023 – Present

Eastern USA Technical Service – Westech Products

Service the entire east coast commercial, aerospace & medical foundries with wax, pattern cleaners, colloidal, refractory needs and assistance. Optimize flow of wax to perfect the surface finish, minimize surface flow lines/ defects and eliminate pattern cracking. Train slurry/shell room supervisors and technicians what to look for in the ultimate shell build structure and slurry pot performance and robot programming. Designed next generation slurry systems here also.

December 2003 – May 2023

Technical Support Slurry/ Shell Designer – 3M

Designed over a half a dozen slurry/shell systems for 3M and Nalco and others, each optimized by particle size distribution, or rheology or additives to achieve specific objectives required by foundries.

Received 3M's highest technical achievement award.

Communication

Skilled at public speaking, presentations and training of groups of thirty to over seven hundred. Simplifying difficult material concepts into something simple for a novice to grasp is a specialty.