FLOW-3D® CAST
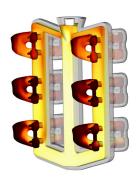
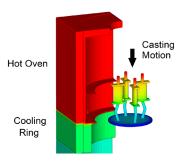The Next Generation of Casting Simulation Software

GENERAL FEATURES

· Industry-leading filling prediction accuracy through **TruVOF** and FAVOR™
· Full radiation heat transfer with view factors
· Chemistry-based solidification model
· Fast/easy mesh generation
· Simulation control based on process events
· Moving geometry (Bridgman process)
· Physical models
· Turbulence
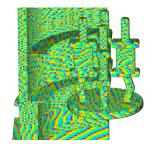· Surface oxide tracking
· Air entrainment
· Floating license

Investment Shell Temperature
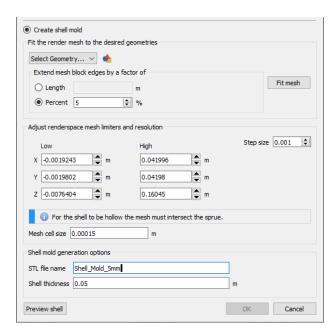

Filling of Multi-Cavity Orthopedic Implant

Bridgman Effect

Surface Clustering

DEFECT PREDICTION

· Entrained air
· Surface oxides
· Trapped gas bubbles
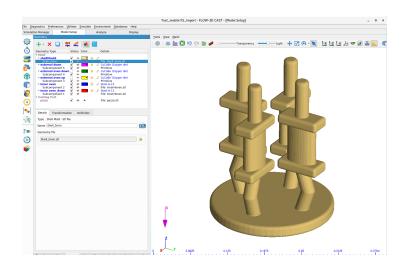· Hot spots
· Porosity
· Warpage

Shell Mold Creation

FLOW-3D® CAST

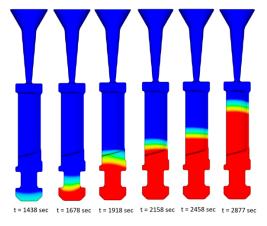The Next Generation of Casting Simulation Software

USER INTERFACE

- Investment casting workspace
- Shell mold creation tool
- Extensive databases (metals, molds, filters)
- Interactive geometry creation
- Configurable simulation monitor
- Simulation queueing

Investment Casting Workspace Interface

RESULTS ANALYSIS WITH *FLOW-3D* POST

- Multi-case comparison
- Porosity analysis tool
- 3D filling front display
- Hot spot identification
- 2D clipping/sweeping
- Solidification analysis
- Volume rendering

t = 1438 sec   t = 1678 sec   t = 1918 sec   t = 2158 sec   t = 2458 sec   t = 2877 sec

Directional Solidification of Titanium Turbine Blade

GLOBAL DISTRIBUTION NETWORK

HEADQUARTERS

Flow Science, Inc.
683 Harkle Rd.
Santa Fe, NM 87505 USA
+1 505-982-0088
sales@flow3d.com
flow3d.com/cast

Germany: Flow Science Deutschland GmbH
Japan: Flow Science Japan
China: Flow Science Software Trading Co., Ltd.
India: Kaushiks International
South Korea: Soft-Tech International
France, Italy: XC Engineering
flow3d.com/global