

FLOW-3D[®]

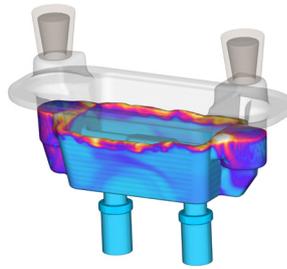
CAST

SAND CASTING

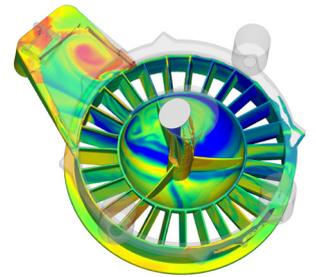
The Next Generation of Casting Simulation Software

GENERAL FEATURES

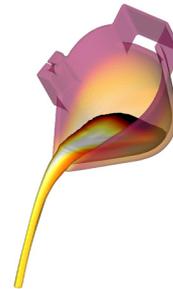
- The most accurate filling simulation tool, based on the **TruVOF** and **FAVOR™** algorithms
- Advanced solidification model
- Intuitive model setup
- Automatic grid generation
- Event based simulation control
- Moving geometries (ladle, stopper)
- Stress analysis with distortion
- Physical models, including turbulence, surface tension, moisture, iron solidification, and exothermic feeders
- Comprehensive defect prediction
- Output of important process variables (velocity, temperature, pressure)
- Additional outputs (flow path, contact times, thermal modulus)
- Extensive analysis tools (probes, sampling volumes, tracers)
- Advanced particle model
- Complete simulation suite
- Floating license



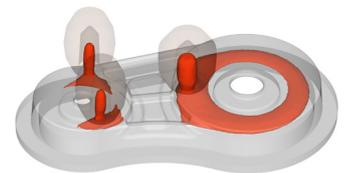
Oxides



Entrained Air



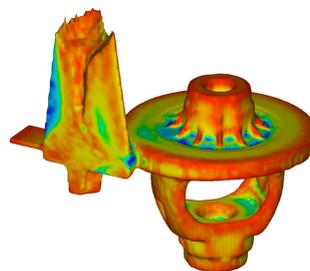
Moving Ladle



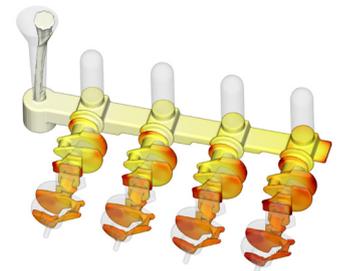
Liquid Regions

ADVANCED DEFECT PREDICTION

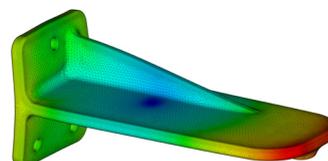
- Oxide formation and transportation
- Entrained air, void particles
- Liquid regions, cold run
- Shrink holes, porosities
- Core gas defects
- Hot spots
- Distortion, hot cracks



Graphite Formation



Temperature



Distortion

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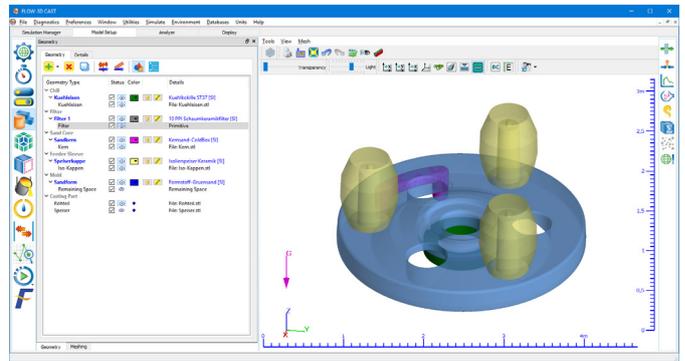
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SAND CASTING

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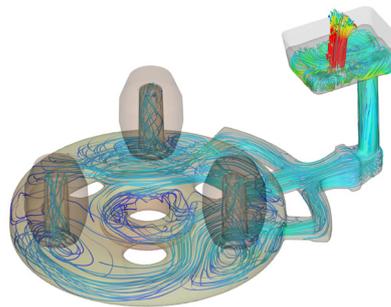
USER INTERFACE

- Process-oriented workspaces
- Comprehensive databases for metals, feeders, and filters
- Interactive object creation
- Project management
- Queueing system
- Configurable simulation monitor



FLOW-3D POST

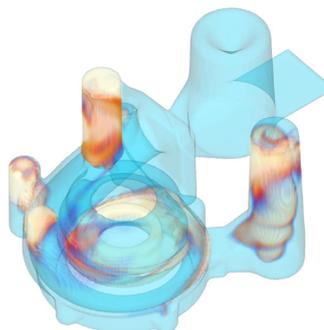
- Multi-case analysis
- Defect prediction tools
- Multiple objects and viewports
- Particles, vectors, and streamlines
- Volume rendering
- Customizable analysis tools
- Keyframe animations



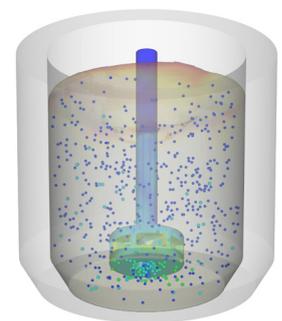
Streamlines



Exothermic Feeder



Volume Rendering



Melt Processing

GLOBAL DISTRIBUTION NETWORK

HEADQUARTERS

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