

FLOW-3D[®]

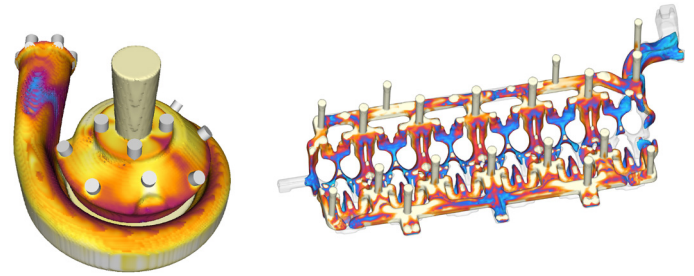
CAST

CORE MAKING

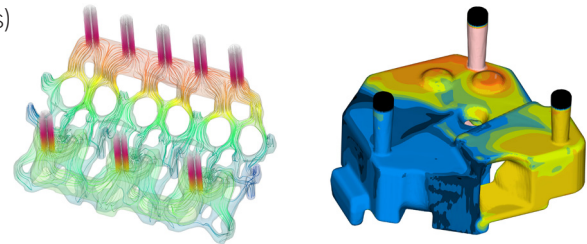
The Next Generation of Casting Simulation Software

GENERAL FEATURES

- The most accurate filling simulation tool, based on the **TruVOF** and **FAVOR™** algorithms
- Intuitive model setup
- Automatic grid generation
- Event based simulation control
- Physical models, including two fluid model and compressible flow
- Comprehensive defect prediction
- Output of important process variables (velocity, temperature, pressure)
- Additional outputs (flow path, contact times, shear stress)
- Extensive analysis tools (example probes, sampling volumes, tracers)
- Complete simulation suite
- Floating license



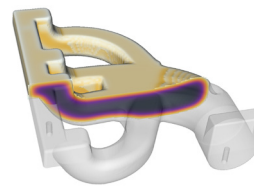
Core Shooting



Core Gassing

CORE MAKING PROCESSES

- Shooting
- Gassing
- Drying
- Hardening
- Organic and inorganic binders
- Cold and heated core boxes



Hardening



Core Drying

RESULTS AND BENEFITS

- Optimized blow tube and vent configurations
- Determination of robust process parameters, such as shooting pressure and times, curing times, and thermal control of core boxes
- Reduction of binder content and catalyst consumption
- Optimized core box and blowing head design
- Prevention of core box erosion
- Improved sand core strength and surface quality

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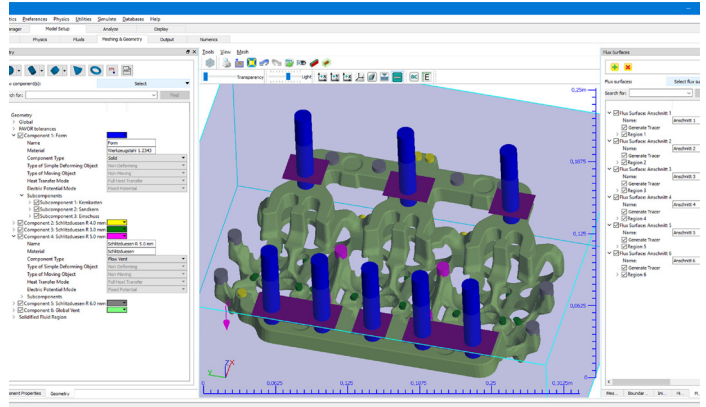
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CORE MAKING

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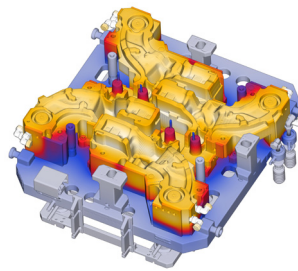
USER INTERFACE

- Process-oriented workspaces
- Comprehensive database for sand, air, and slot nozzles
- Interactive object creation
- Project management
- Queueing system
- Configurable simulation monitor

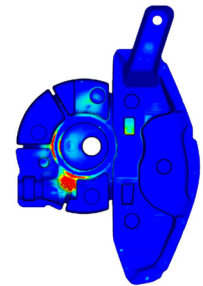


FLOW-3D POST

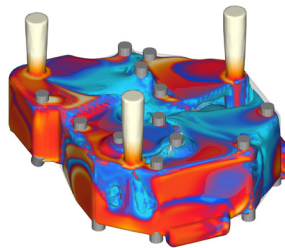
- Multi-case analysis
- Defect prediction tools
- Multiple objects and viewports
- Particles, vectors, and streamlines
- Volume rendering
- Customizable analysis tools
- Keyframe animations



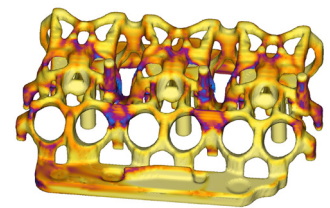
Heat Balance
of a Core Box



Core Box Erosion



Density



Amin Concentration

GLOBAL DISTRIBUTION NETWORK

HEADQUARTERS

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