

# FLOW-3D<sup>®</sup>

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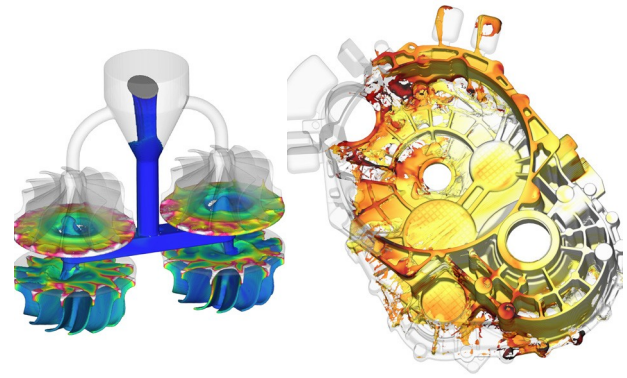
# CAST

## THE SIMULATION SOFTWARE FOR THE FOUNDRY INDUSTRY

차세대 주조 시뮬레이션 소프트웨어

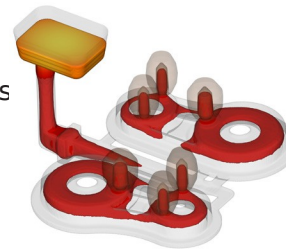
### GENERAL FEATURES

- 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 (plunger, ladle, stopper)
- Stress analysis with distortion
- Physical models, including turbulence, surface tension, and moisture
- 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

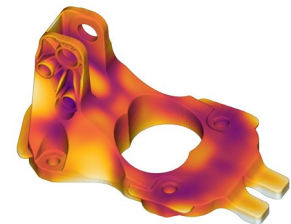


Filling Defects

Temperature



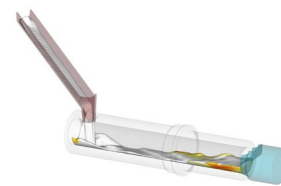
Liquid Region



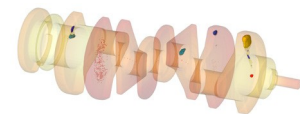
Solidification

### ADVANCED DEFECT PREDICTION

- Surface defects, for example oxides, slag, and residue
- Entrained air, void particles
- Liquid regions, cold run
- Shrink holes, porosities
- Hot spots, hot cracks, distortion



Filling Chamber



Porosity

### CASTING PROCESSES

- High pressure die casting
- Permanent mold casting
- Sand casting
- Lost foam casting
- Centrifugal casting
- Tilt casting
- Low pressure casting
- Squeeze casting
- Investment casting
- Continuous casting
- Core making

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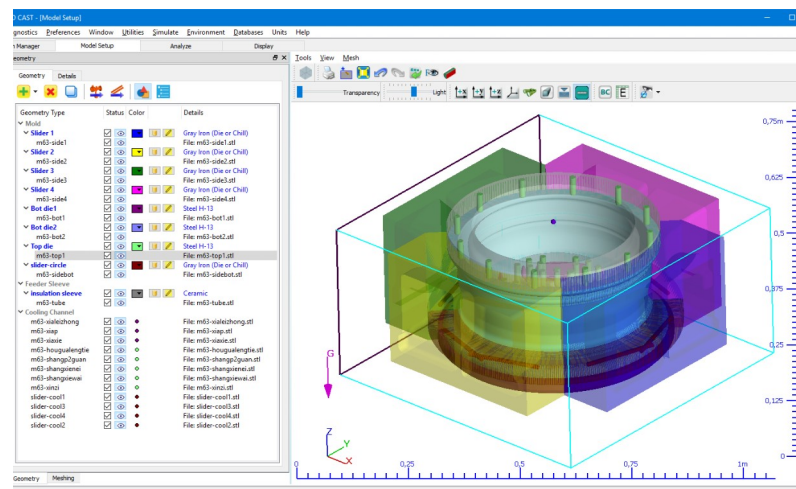
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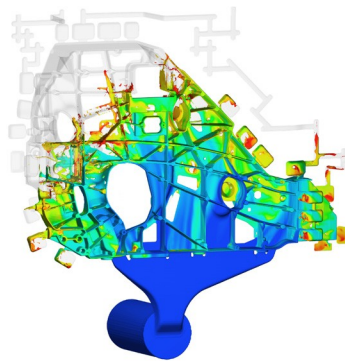
### USER INTERFACE

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

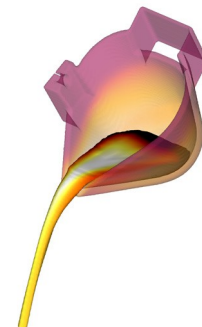


### FLOW-3D POST

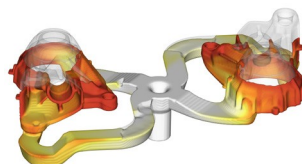
- Built-in Filters
- Cell Filtering
- Plot Views
- Advanced Animation Options
- Spreadsheet Views
- HPC Support
- Python Calculator
- Comparison Views
- Ray Tracing
- Volume Rendering



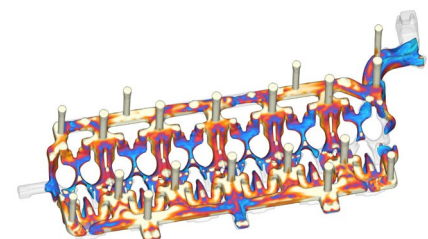
High Pressure Die Casting



Moving Ladle



Low Pressure Die Casting



Core Shooting