# LOST WAX CASTING
# TECHNICAL SPECIFICATION

**Unique functionalities**

In addition NovaFlow&Solid has the following unique functionalities:

- A formula function for creating your own criteria, for example your own definition of a shrinkage prediction. This function also enables the calculation of Secondary Dendrite Arm Spacing (SDAS)
- With the particle tracer function, users can more simulate flow behavior and also induce slag particles into the melt for tracing
- Gas calculation which enables back pressure and vacuum permeability. You see the air bubbles
- Multi Mesh function: Use different mesh for filling and solidification in several steps which enables you use of the correct size for the specific time increment of the filling or solidification
- Extremely good cold flow prediction adapted for thin-walled castings

**3D Import**

- Import of binary and ASCII STL files and STEP files
- Import of filter
- STL fixing
- Boolean functions
- Expansion functions
- 3D Positioning functions
- Shell creation

**Characteristics**

- Includes advanced database based on constitution diagrams
- Material database for aluminium alloys, steel alloys, super alloys, titanium alloys and jewelry alloys (gold and silver)
- Accounts for gravity during simulation
- Calculates air gap formation or heat transfer coefficient
- Calculates radiation within the shell
- Preheating function
- Several filling alternatives, including bottom-pouring ladles, ladle pouring over lip and low pressure die casting, tilt casting and vacuum filling of the shells
- Particle trace function (tracking of slag inclusions) with flow length and age
- Auto-simulation, running multiple simulations in a batch
- Sensors measuring velocity, pressure, temperature, liquid phase and cooling rate at a certain point
- Flowmeter and flowcolor measuring the efficiency of an ingate system
- 2D and 3D velocity vectors
- Parameter optimization

**Results presentation**

- Powerful browsing and slicing in x, y and z directions
- Built-in animation functions presenting results.
- Creation of AVI and real time AVI movie files as well as WMV
- Two or more simulations can be viewed simultaneously in the browser
- You can synchronize different simulation results viewing them simultaneously
- Printing facility in all modules
- Possibility to save simulations in BMP or JPEG formats in each module
- Automatic report generator in doc-format

**Hardware recommendations**

- PC with QUAD Core (4) or 6 or 8 core processors (Multiple core support) or higher
- Highly recommended: Intel Core i9, 3.3 GHz and higher
- Microsoft Windows 10, 64-bit
- Recommended: 16 GB RAM
- 200 GB free hard disk space
- Highly recommended: Solid state drive 128GB as primary disc where simulation should run and be stored during simulation, normal HDD 1TB for storage after simulation as secondary disc
- Graphics card: NVidia 2GB and higher
- 3D mouse for rotation, move and zoom. System supports 3D Connexion Space navigator