FLOW-3D CAST MODEL DESCRIPTION
2009-01-01 Flow Science Inc.

BASIC	EXTENDED	ADVANCED
Multi-block meshing (up to 5 mesh blocks) One incompressible fluid Newtonian viscosity Turbulence models Surface defects Heat transfer & solidification Non-inertial reference frame (for centrifugal casting and tilt pour casting) Mass & momentum sources Mass & marker particles Solidification/shrinkage porosity Micro-porosity Air entrainment Natural convection Heat sources/sinks (obstacles with given temperature or heat power)	Everything available with the Basic Edition, *plus:* Unlimited mesh blocks General bubble models Surface tension Thermal die cycling Moving pistons Trapped gas with gas vents Lost foam casting (including lost foam defect tracking) Filters (baffles, porous obstacles) *After implementation in* ***FLOW-3D***: - Thermal stress evaluation (FEM) - Core gas generation - Sand core blowing	Everything available with the Extended Edition, *plus:* Two incompressible fluids Non-Newtonian viscosity Cavitation potential Compressible flow General moving objects Highly viscous flows Shear thinning/thickening Thixotropic flow Viscous heating Fluid heat sources *(Note: This version encompasses the full* ***FLOW-3D*** *solver)*