

Best Selling Software in Japan on Casting CAE

The Highly-Integrated CAE System for Casting

JSCAST



JSCAST - the casting simulation software evolving year-by-year, is mainly focused on the **high-accuracy** , **high-speed** and **high user-friendship**.

We offer our customers products and solutions with the **best cost-performance** and **best services** (initial training course, technical support).

【Simulation with High Accuracy】

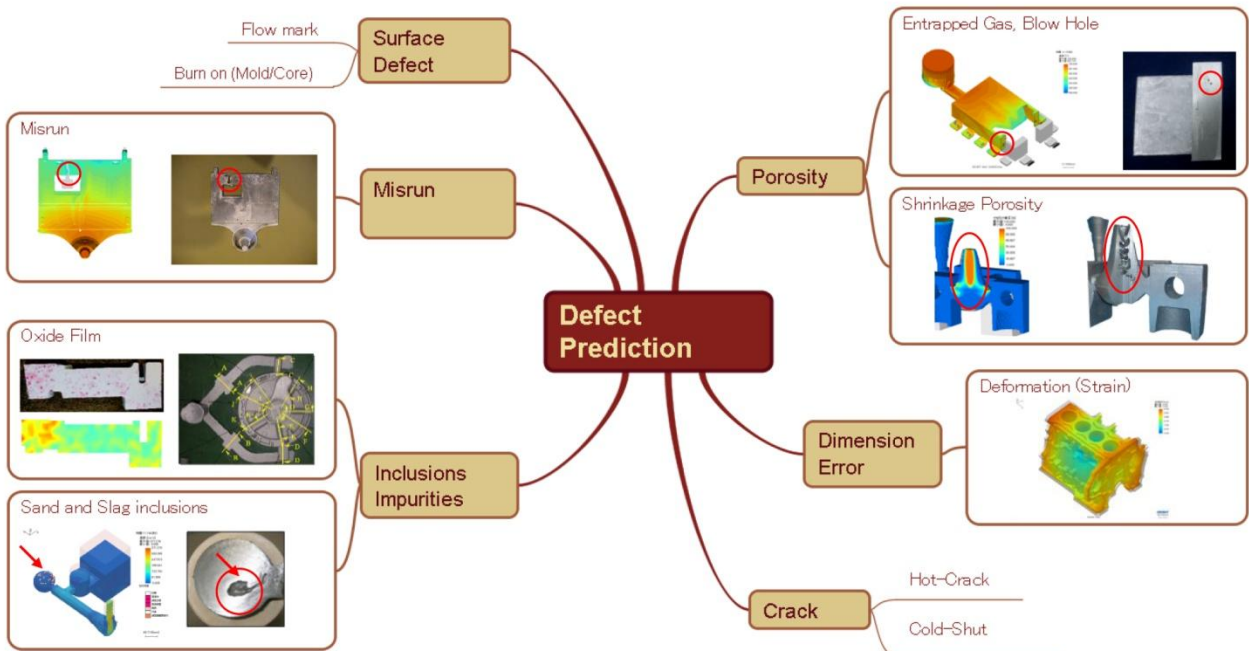


Gas entrainments are very well re-produced in the simulation

Evaluation of mold filling simulations using X-ray radiography

【Benefits to Users】

- Low rejection-rate, High yield-ratio, Short lead-time (cost down)
- Better solutions, and better qualities (More contracts)
- Accumulation and heritage of casting technologies (Young engineer education)
- Globalization (Reinforce collaboration between branches and departments, domestically and abroad)



A powerful casting CAE tool. Applicable to any of the casting alloys and most of the casting processes. Capable to identify main causes of various casting defects and develop counter-measures more effectively.

Simulations of An Investment Casting of large Scale

The 13th World Conference on Investment Casting

JSCAST

Courtesy of King Parts Ltd.

Simulation Conditions

Casting alloy : SCS13

Pouring Temp: 1670°C

TL: 1460°C

TS: 1390°C

ρ : 7.0g/cm³

Cp: 0.18cal/g/°C

λ : 0.07cal/g/°C/cm

H: 50cal/g

σ : 1800mN/m

Contact Angle: 160°

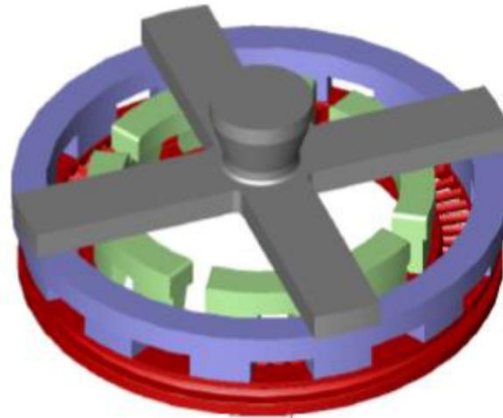
K (mold): 0.2 (JIS)

Viscosity: 0.5(cm²/sec)

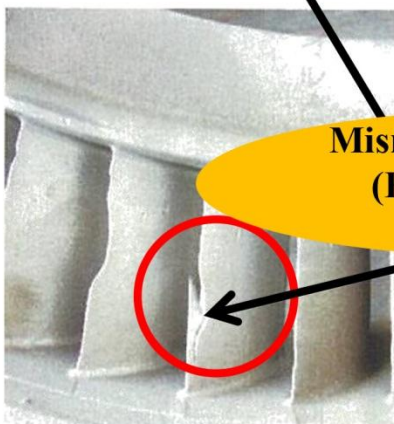
(Temperature-dependent)



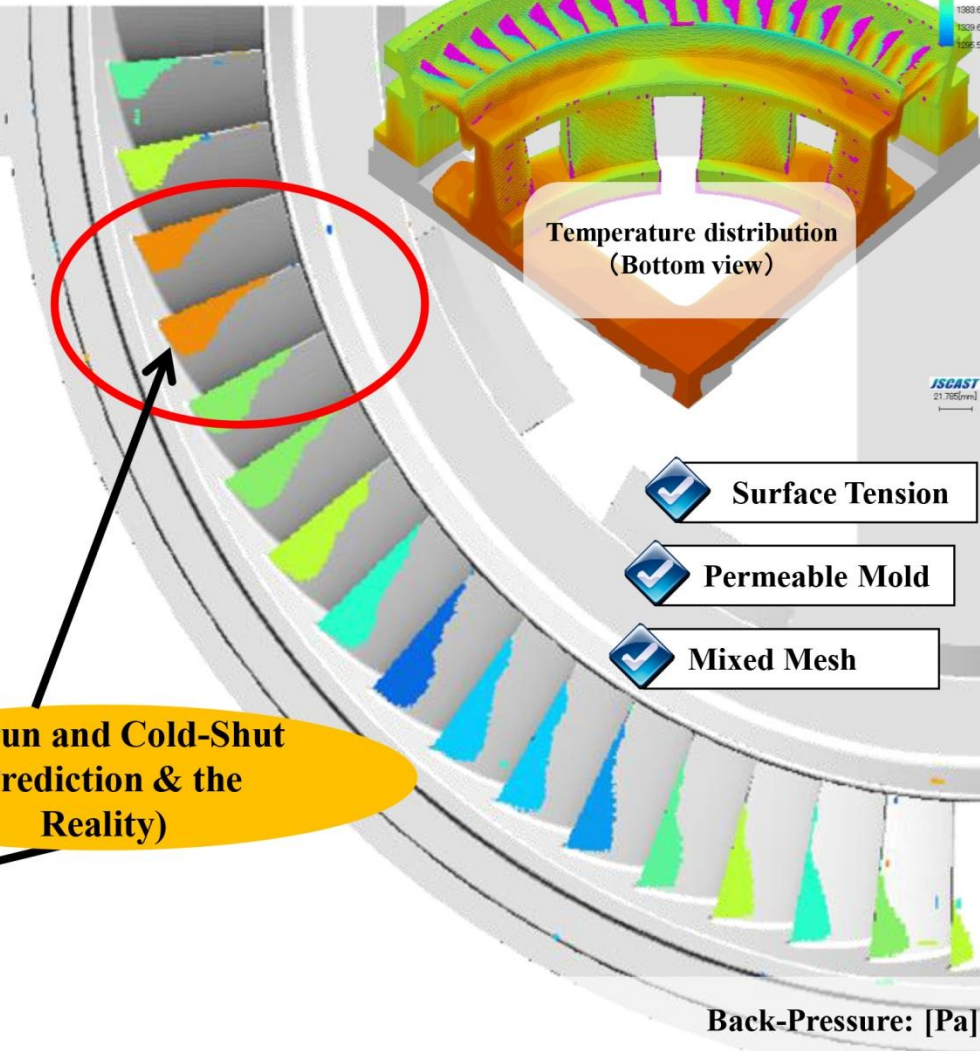
Casting Product



Initial Casting Design



Misrun and Cold-Shut
(Prediction & the Reality)



- Surface Tension
- Permeable Mold
- Mixed Mesh

