

RELEASE NOTES

Altair® Inspire CastTM 2025



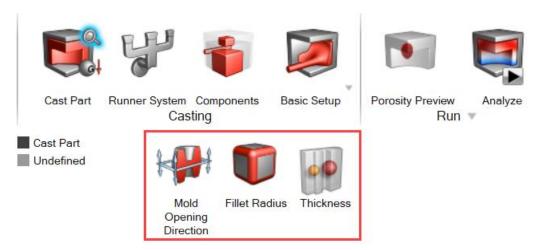
New Features and Enhancements 2025

Altair Inspire Cast 2025 includes the following new features and enhancements.

Casting Ribbon Updates

Part Analysis Features

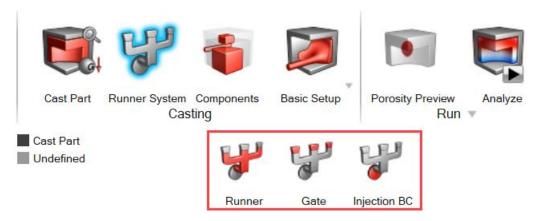
The new Part Analysis sub ribbon includes the existing Mold Opening Direction tool, the new Fillet Radius tool that highlights curved surfaces on the model, and the new Thickness tool that shows the points of greatest and least thickness in the model.



For details on this update, see Designate Mold Opening Axis, Fillet Radius Analysis, and Thickness Analysis in the help.

Runner System

The tools for creating the filling system for the casting part are now grouped in the new Runner System sub ribbon.



For details on this update, see Runner System in the help.



Designate Mold

You can now use imported geometry as the mold with the new Designate Components as Molds satellite tool, attached to the Mold tool in the Components sub ribbon.



Select the model geometry that you want to designate as a mold component. \square

For details on this update, see <u>Designate Components as Mold Parts</u> in the help.

Run Analysis Window Updates

Configure Demolding

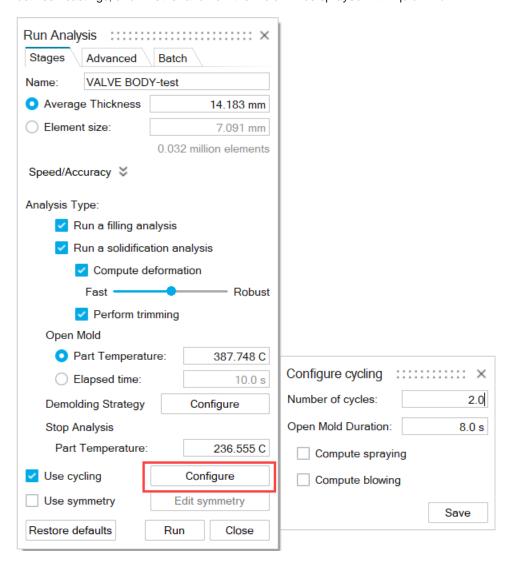
You can now use the Configure Demolding sub window to choose a cooling strategy, the temperature of the cooling medium, and the heat transfer coefficient between the cooling medium and the part.

Run Analysis ::::::		::::::: ×		
Stages Advanced	Batch			
Name: VALVE BODY-test				
Average Thickness	14.183 mm			
C Element size:	Element size: 7.091 mm			
0.032 million elements				
Speed/Accuracy				
Analysis Type:				
Run a filling analysis				
Run a solidification analysis				
Compute deformation				
Fast Robust				
Perform trimming				
Open Mold			Configure demolding :::::::::::: ×	
Part Temperature: 387.748 C		Demolding Strategy Air cooling		
Elapsed time:		10.0 s	Temperature	20.0 C
Demolding Strategy	Co	nfigure	нтс	20.0
Stop Analysis	Stop Analysis			Save
Part Temperature:		236.555 C		
Use cycling	Configure			
Use symmetry	Edit symmetry			
Restore defaults	Run	Close		



Spraying and Blowing

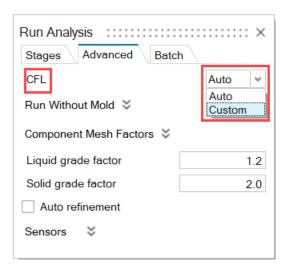
You can now use the Configure Cycling sub window to set the number of cycles to model, the length of time the mold will remain open between castings, and whether and how the mold will be sprayed with liquid and/or blown with air while it's open.





CFL Number

You can now use the new CFL Number control to change the number of elements a perturbation in the casting material travels in one time step. Find the CFL control on the Advanced tab.

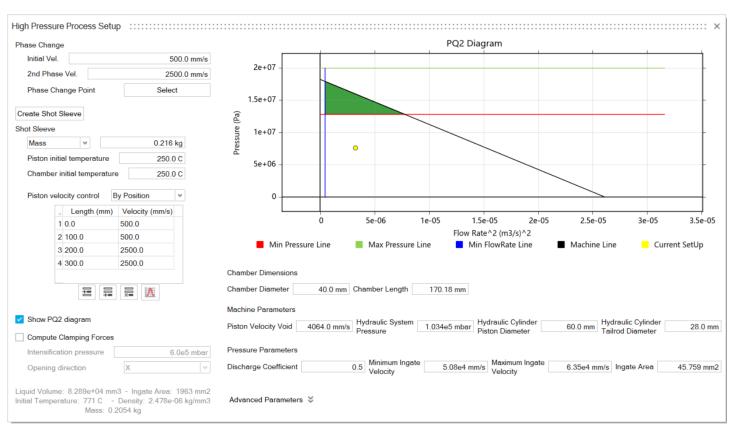


For details on these updates, see Run Analysis in the help.

Additional Changes and Enhancements for Cast 2025

PQ2 Diagram Without Shot Sleeve

In the High Pressure Process Setup window, you can now access the PQ2 diagram when there is no shot sleeve in the model.

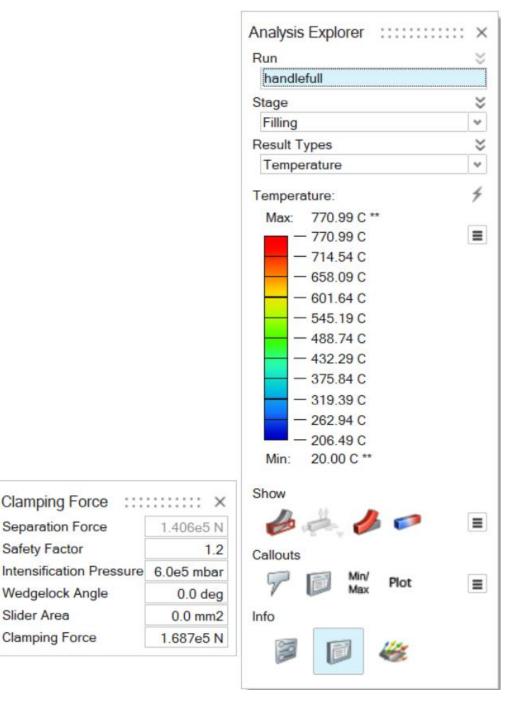


For details on this update, see High Pressure Process in the help.

Clamping Force Window Updates



The Clamping Force window (available in the Analysis Explorer) now includes fields for Wedgelock Angle and Slider Area. This update shows data from imported molds with sliding components.



For details about this update, see **Show Analysis Results** in the help.

Clamping Force

Separation Force

Wedgelock Angle

Clamping Force

Safety Factor

Slider Area



Learn More About Inspire Cast

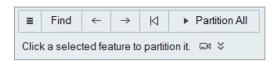
You can learn more about new and existing features in Inspire using the following resources:

In-Application User Assistance

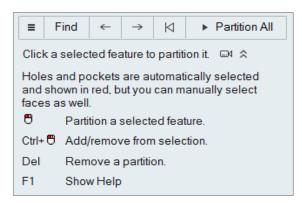
Inspire provides two types of user assistance. **Enhanced tooltips** appear when you hover over icons and other features. They describe what the tool does.



Workflow help appears when you select a tool that opens a guide bar or microdialog. The text prompts you what to do next.



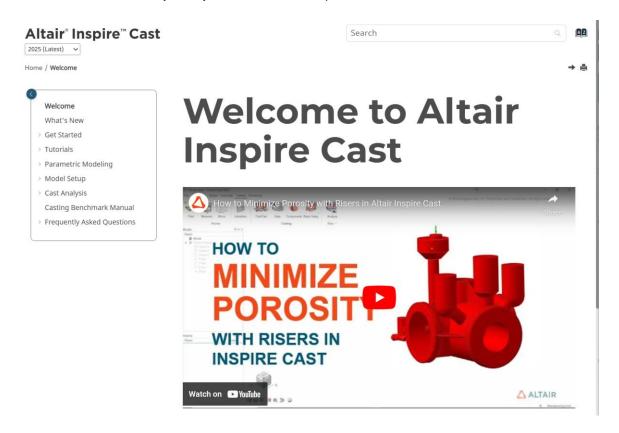
Click [▼] to view additional tips and shortcuts. Some tools also include a video □ 4.





Online and Offline Help

Press F1 or select File > Help > Help to view the online help.



You can download an offline version by selecting **File > Help > Download Offline Help**. An internet connection is required to download.

