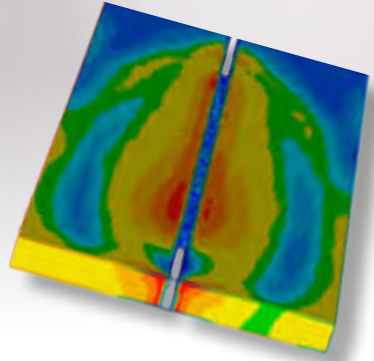


TRANSWELD® 1.0

3D SIMULATION SOFTWARE FOR WELDING PROCESSES

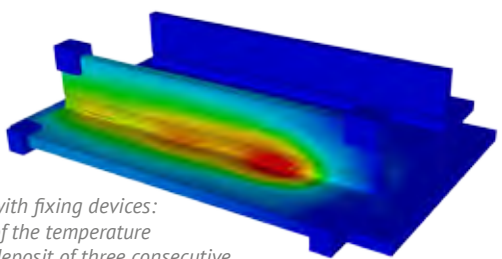


The newest virtual manufacturing experience for innovative & trusted welding solutions

- Available for Arc welding (TIG / MIG / MAG) & Laser welding
- An intuitive, quick & easy graphical user interface
- Unmatched accuracy with the unique Automatic Adaptive Anisotropic remeshing
- A fully integrated solution for structural post-analysis of the assemblies

THE TRUE BEHAVIOR OF THE METAL

TRANSWELD® **multi-physic** modeling captures all physical phenomena for a true behavior of the metal in the **liquid-mushy-solid** states. It guarantees an accurate prediction of metal transformations such as solidification & primary shrinkage in the mushy zone, primary & secondary shrinkage after complete solidification.



Assembly with fixing devices: evolution of the temperature while the deposit of three consecutive weld beads

THE REAL PREDICTION OF THE WELD BEAD

TRANSWELD® simulates the welding with **addition of material**. Associated to the **AAA remeshing**, the shape of the weld bead becomes a true result of the simulation.

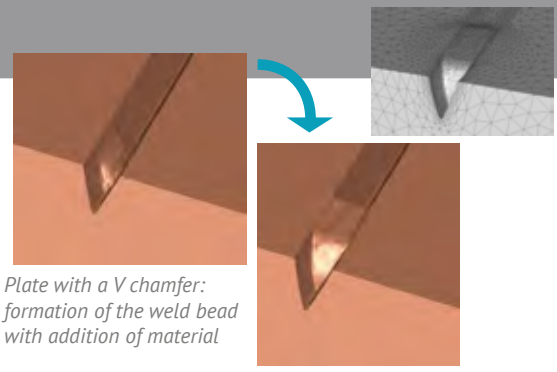
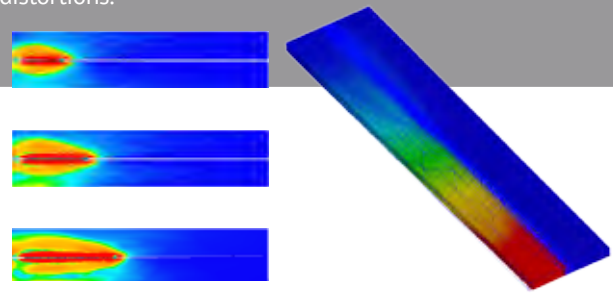


Plate with a V chamfer: formation of the weld bead with addition of material

REDUCE RESIDUAL STRESSES & DISTORTIONS

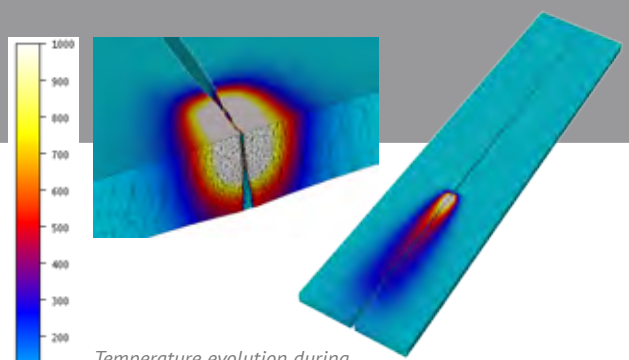
TRANSWELD® helps to **optimize the welding points** to minimize the residual stresses & the components distortions.



Effective stress & residual deformation due to the welding. The two plates are joining at the edge under the effect of deformation

CONTROL THE HEAT AFFECTED ZONE

It is crucial to **master the HAZ**. This sensitive zone is usually quite narrow to minimize stresses & local deformations.



Temperature evolution during welding of two plates with assembly gap

Coming soon

- Metallurgy with phase transformations
- Microstructure with grain orientation prediction
- Multi-materials

More than 3 decades of experience at your service

Transvalor is a world leader for simulation software in the field of material forming. Thanks to its unrivaled R&D investments, Transvalor's software solutions are always at the cutting edge of technology.

More than 500 customers throughout the world – including major players in the automotive, aeronautics and energy industries, and prestigious universities – place their trust in Transvalor and in its software, thereby guaranteeing their efficiency and reliability.

A department dedicated to your simulations



Your requirements effectively translated

Based on exchanges with your specialists, Transvalor will translate your industrial requirements in terms of numerical simulation to accurately describe our proposed service.

Our offer will match your requirements as closely as possible in terms of lead times, budget and expected results.



Unique resources at your disposal

For the delivery of your service, we provide you with:

- Transvalor's expertise in simulation
- the most recent software versions
- latest hardware technology



Analyzed and interpreted results

Throughout the study, we maintain contact with you to keep you informed of the project's progress. On completion of the study, we present our main conclusions to you via a Web conference.

At your request, we can also provide you with the results files and a light viewer to analyze them.



Consulting and training

Transvalor can also provide you with support to allow you to gain proficiency in the aspects highlighted during the execution of your study.

You can benefit from tailored thematic training either on your company premises, on Transvalor premises, or via Web conference.

Contact us for a quote



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