FORGE®

Starting with FORGE®

Now is the time to discover FORGE® and its extensive possibilities. After this course, you'll be able to get the most out of the software!

This course will be your first approach to FORGE®. The first day lets you understand all of the data setup steps, the procedure for launching computations and how to analyze the main results. The second day will be devoted to more in-depth analysis of a full panel of results for a better interpretation of physical phenomena.

Key functions will be covered such as die stress analysis, fibering techniques, detecting folds as well as customizing the working environment.

LEVEL

Beginner

PREREQUISITES

There is no prior requirement for this course.

GOALS

- **Data setup for forging (punching/closed-die forging)**
- **Launching a single computation and/or a computation sequence**
- **Analyzing simulation results**
- **Identifying and interpreting forging defects (folds, cracks, etc.)**
- **Visualizing fibering and monitoring physical values (temperature, pressure, etc.) at any point on the part**
- **Predicting die wear and performing tooling analysis (stress, etc.)**
- **Customizing your working environment**

OTHER RECOMMENDED COURSES

- Finite element modeling fundamentals
- New functionalities of FORGE® NxT 4.0

DURATION	DATES 2023		
2 Days	19-20 January	11-12 May	13-14 September

TRAINING	PRICE EXCL. TAX	PARTICIPANTS
Inter-company	1080 € per person	3 to 8 people
In-company	2600 € per training	1 to 3 people

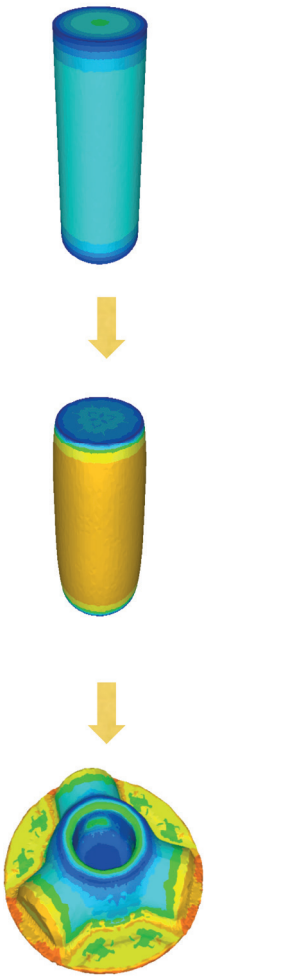
This course is also available for academic participants. More details page 9.

DAY 1 > 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

Introduction	▫ Transvalor presentation ▫ Course goals ▫ Reminders of finite element method
Data setup	▫ Presentation of the environment ▫ Concepts: stores, processes, cases and stages ▫ Importing geometries ▫ Surface and volume meshes ▫ Definition of kinematics ▫ Rheology, friction, heat exchanges, materials database (FPD) ▫ Object handling (creation, trimming) ▫ Application to a tutorial case
Launching computations	▫ Quick launch ▫ Batch computation manager and chained simulations
Analyzing results	▫ Displaying results, the main scalars and vectors ▫ Curve patterns, animations, VTFx export ▫ Multi-window analysis ▫ Handling animations and exporting results
Data setup for an industrial case	▫ Launching computation

DAY 2 > 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

Analyzing results from an industrial case	▫ Interpreting results
Additional functions	▫ Marking grid and fibring ▫ Predefined and post-processed sensors ▫ Furnace-to-press initial cooling ▫ Billet cutting, drilling and trimming ▫ Import of tooling assembly
Die analysis	▫ Uncoupled and coupled approach
Working environment customization	▫ Creating specific models and data sets (materials, presses, friction, etc.)
Perspectives	▫ Introduction to advanced notions: induction, heat treatment
Conclusions	▫ Questions and course assessment



1st: initial cooling phase

2nd: upsetting

3rd: blocker