

Hexagon Virtual Manufacturing solutions

Virtual manufacturing simulation software harnesses the powerful simulations and innovation to drive sustainable and efficient manufacturing processes, enabling manufacturers to achieve ‘Shift to zero.’



HxGN
Virtual Manufacturing

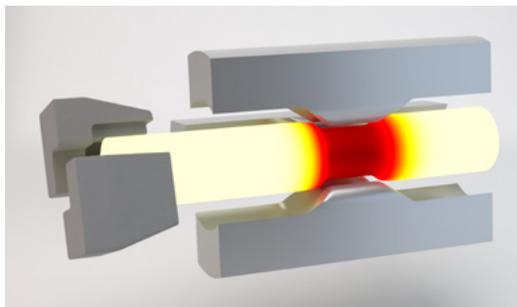
The virtual tryout

Software solutions that enable engineers and designers to quickly and efficiently evaluate a wide range of design options and scenarios without the need for expensive and time-consuming physical prototypes and testing.

It helps identify and mitigate potential manufacturing issues earlier in the product development process, reducing the risk of cost and time-to-market.

Metal forming solutions

Evaluate and optimise metal forming processes and tooling design, identify and eliminate potential manufacturing defects and maximise tool life.



Products



FTI FormingSuite



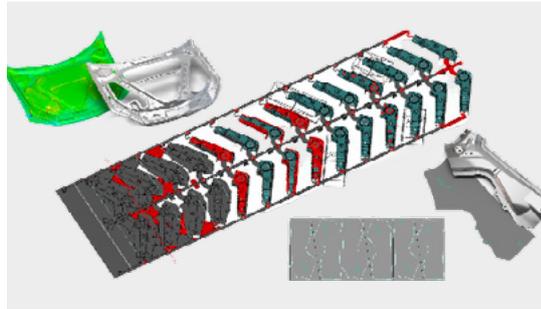
Simufact Forming

Supported processes

- Cold forming
- Hot forging
- Sheet metal forming
- Rolling
- Ring rolling
- Open die forging
- Machining
- Heat treatment

Cost engineering

Create a detailed process plan with images to establish piece and tool costs within minutes.

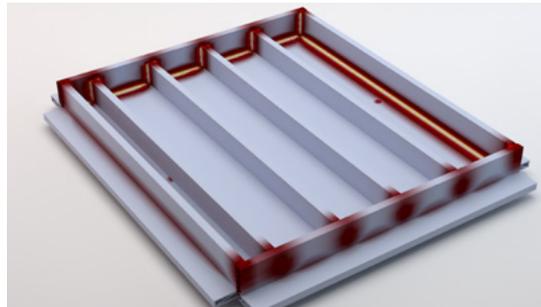


Product



Welding and joining

Predict, evaluate, and optimise thermal and mechanical joining processes to predict thermal history, distortion, stress/strain, joint quality, joint strength, and risk of defects.



Products



Supported processes

- Mechanical joining
- Resistance spot welding
- Pressure welding
- Arc welding
- Laser beam
- Electron beam
- Brazing
- Cooling & clamping
- Stress relief

Additive manufacturing (AM) design solutions

Generative design

Highly automated geometry optimisation design solution. Quickly create lightweight designs adapted to manufacturing to reduce weight, production runtime and material consumption.



Product



AM process simulation

Evaluate metal and polymer AM part geometry and processing strategies to predict and mitigate risk of failures and dimensional non-conformance. Perform geometry compensation so that part distorts into tolerance during AM process.



Products



Supported processes

- Powder bed fusion
- Direct energy deposition
- Metal binder jetting
- Selective laser sintering
- Fused filament fabrication
- Heat treatment

[Learn more at hexagon.com](https://www.hexagon.com)