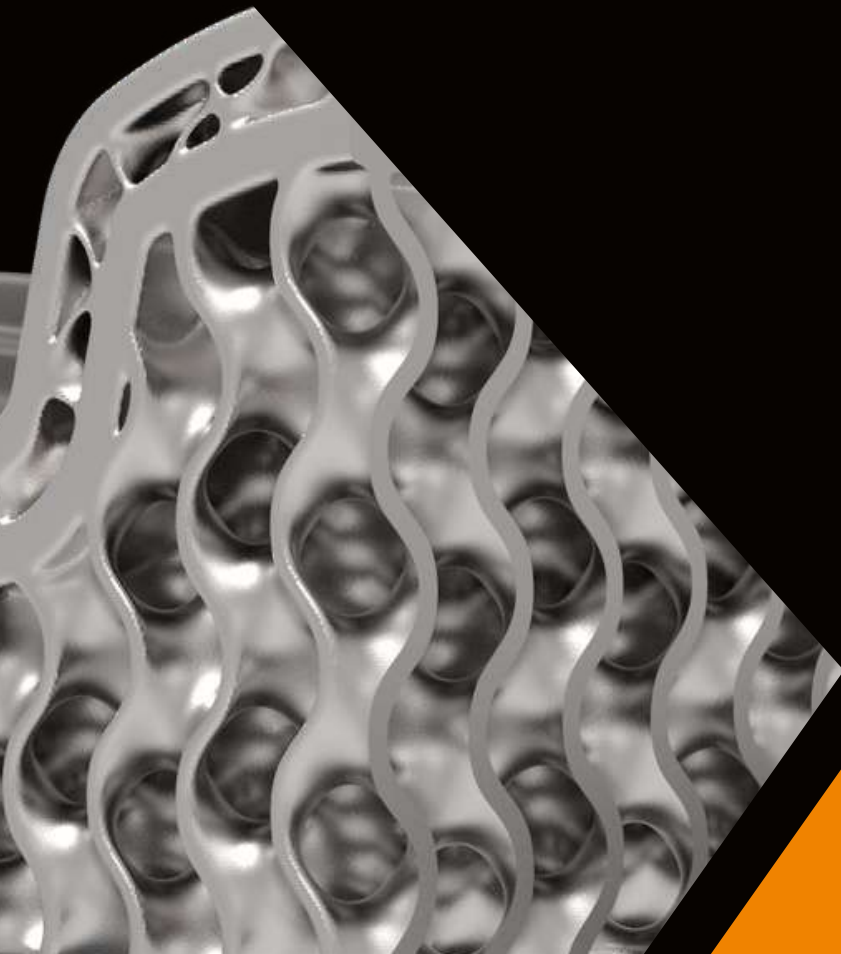




AI-Powered Design Software for Additive Manufacturing



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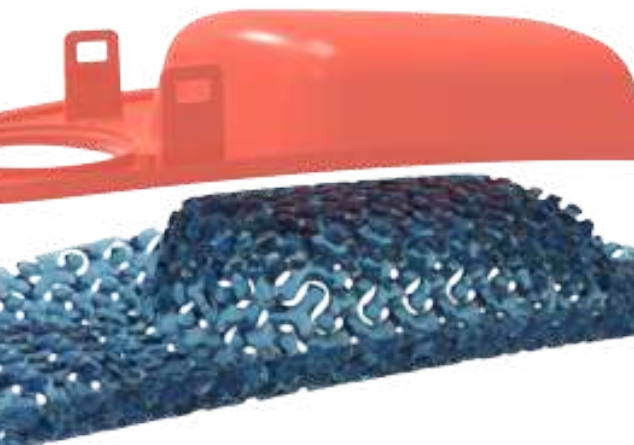
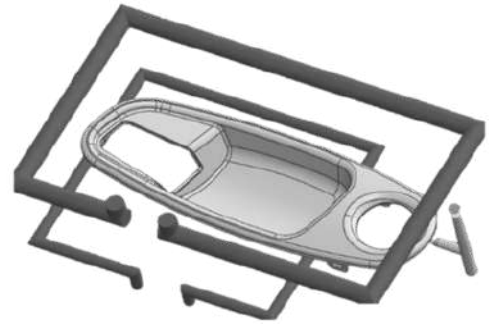
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Automated Tooling Optimisation for Additive Manufacturing

Nowadays, mould thermal control is mostly done by straight cooling channels, which are designed manually based on human expertise and traditional manufacturing constraints.



QTool software leverages two patented technologies that **generate automatically** hundreds of fully **optimized channels** based on temperature maps, which seamlessly **follow the geometry of the product.**



Unprecedented Thermal Control.

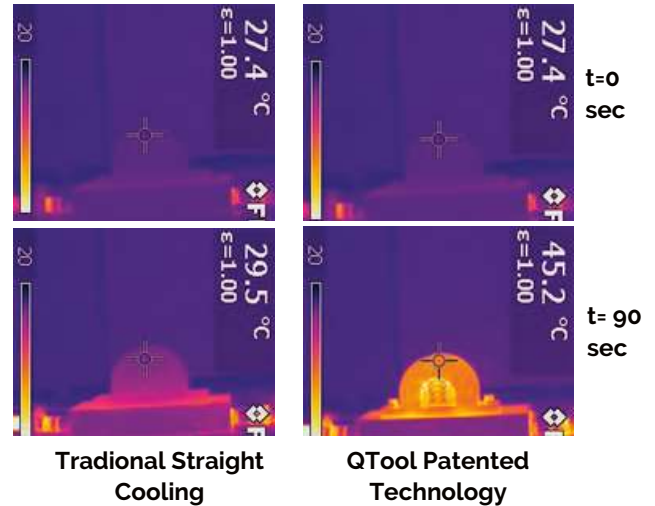
Up to 10X Higher Thermal Efficiency

The increase in the heat exchanger surface area directly **reduces energy consumption by up to 50%** and **decreases the product unit cost** due to a reduction in the production cycle time.



Traditional Straight Cooling

QTool Patented Technology

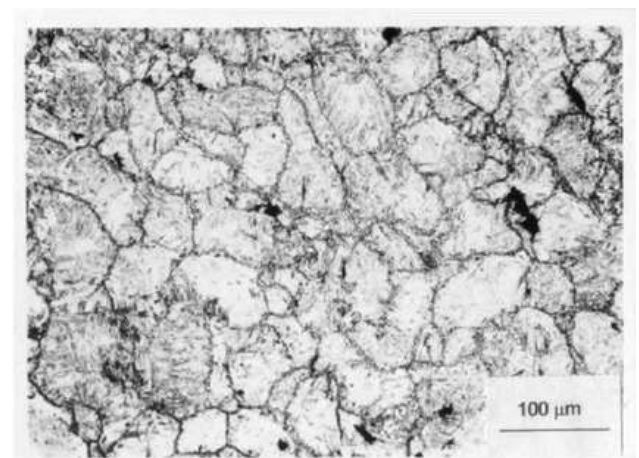


Uniform Cavity Temperature

Uniform cooling minimizes temperature variation, resulting in **less scrap rate** and **better aesthetic finish**.

Material Microstructure Control

QTool's software is capable of precisely controlling the heat transfer rate to **obtain the desired microstructure** such as Austenite, Martensite..etc.





Mould Optimization for Additive Manufacturing.



Lightweighting Patented Technology.

QTool Software intelligently puts material only where it is necessary, according to local loads. An effective method to **mitigate mould crack, reduce material usage, manufacturing cost and time.**



Applications

Plastic Inection Moulding



Hot Stamping

Die Casting



Industry



Automotive



Food & Beverage



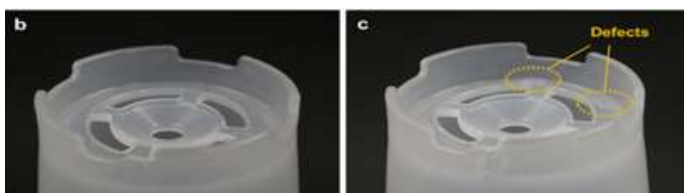
Medical

Household Products



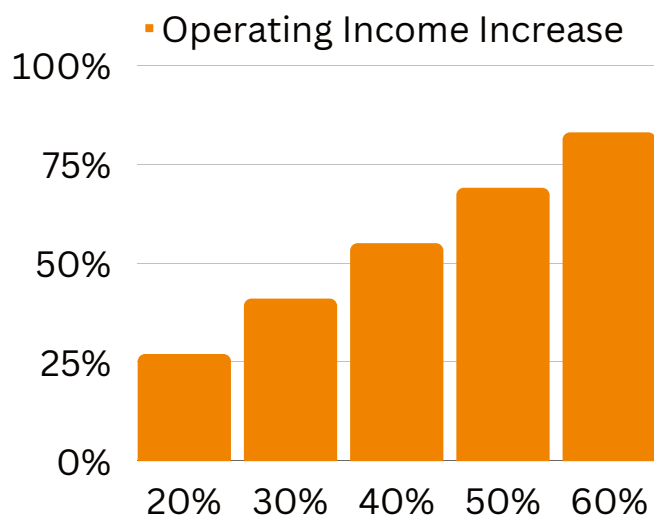


WHY NOW?



Improve Product Quality, Decrease Finishing Process.

Non-uniform heating/cooling causes aesthetic defects which necessitate further painting process. This is eliminated with QTool thermal management patented technology



Increase Operatin Income by at least 27%.

QTool software guarantees optimal thermal management for your moulds. This in turn reduces the production cycle time an average of 40% which corresponds to a 55% increase in the operating income for one mold, one press or a whole plant.



Accelerate reaching sustainability goals.

QTool Design Software rations material usage early during the design stage leveraging its patented Lightweighting technology without compromising the useful life of the product. Traditional machining is minimally used to reach tight geometrical tolerances and improve the surface finish produced with Additive Manufacturing. This combined with the reduction in the production cycle time directly reduces the energy consumption.

01

Material usage reduction by up to 90%



02

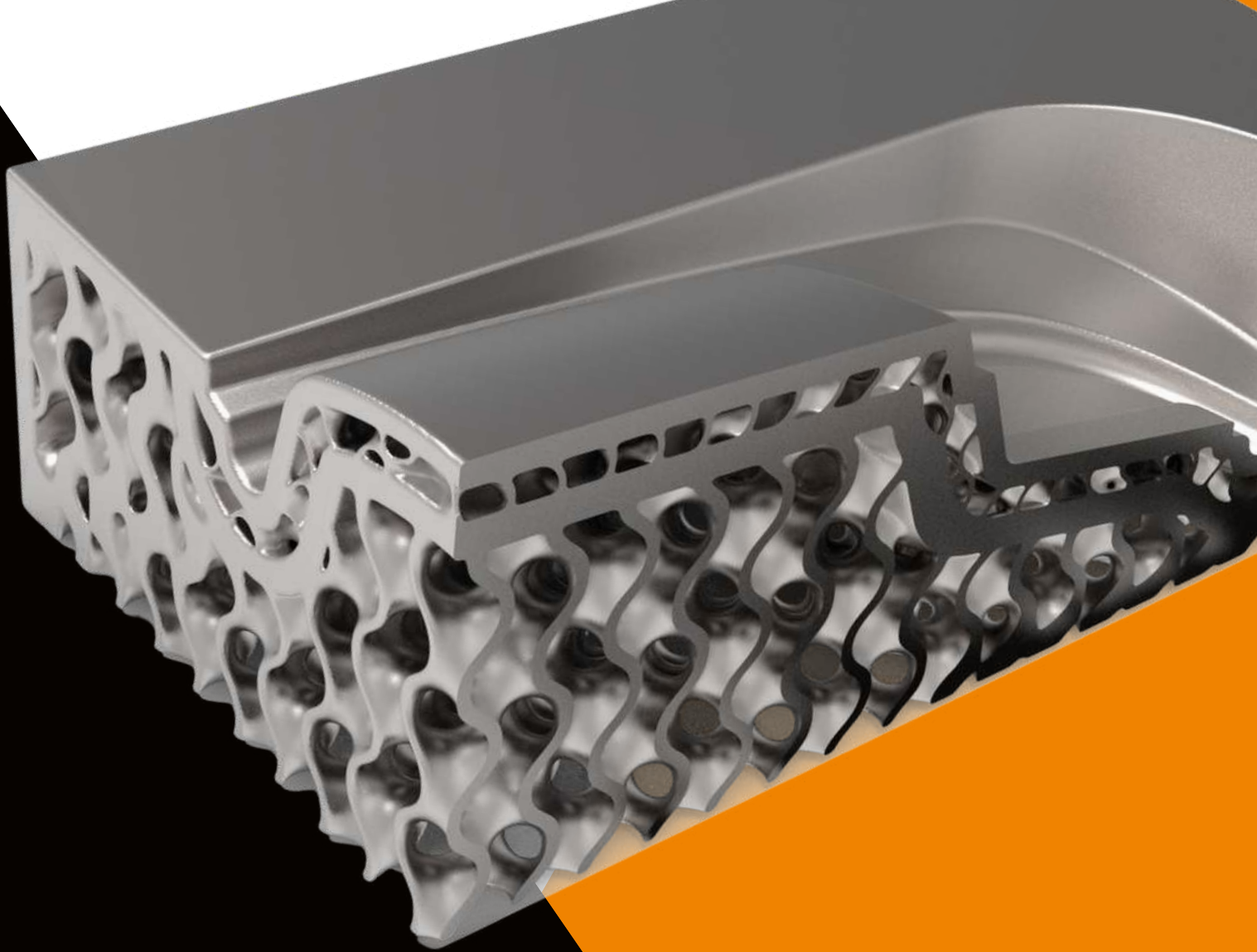
Less hazardous waste management



03

Decrease energy consumption by up to 50%





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