

# ADVANCED TECHNOLOGIES

FOR HIGHER PRODUCTIVITY



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## ADVANCED TECHNOLOGIES

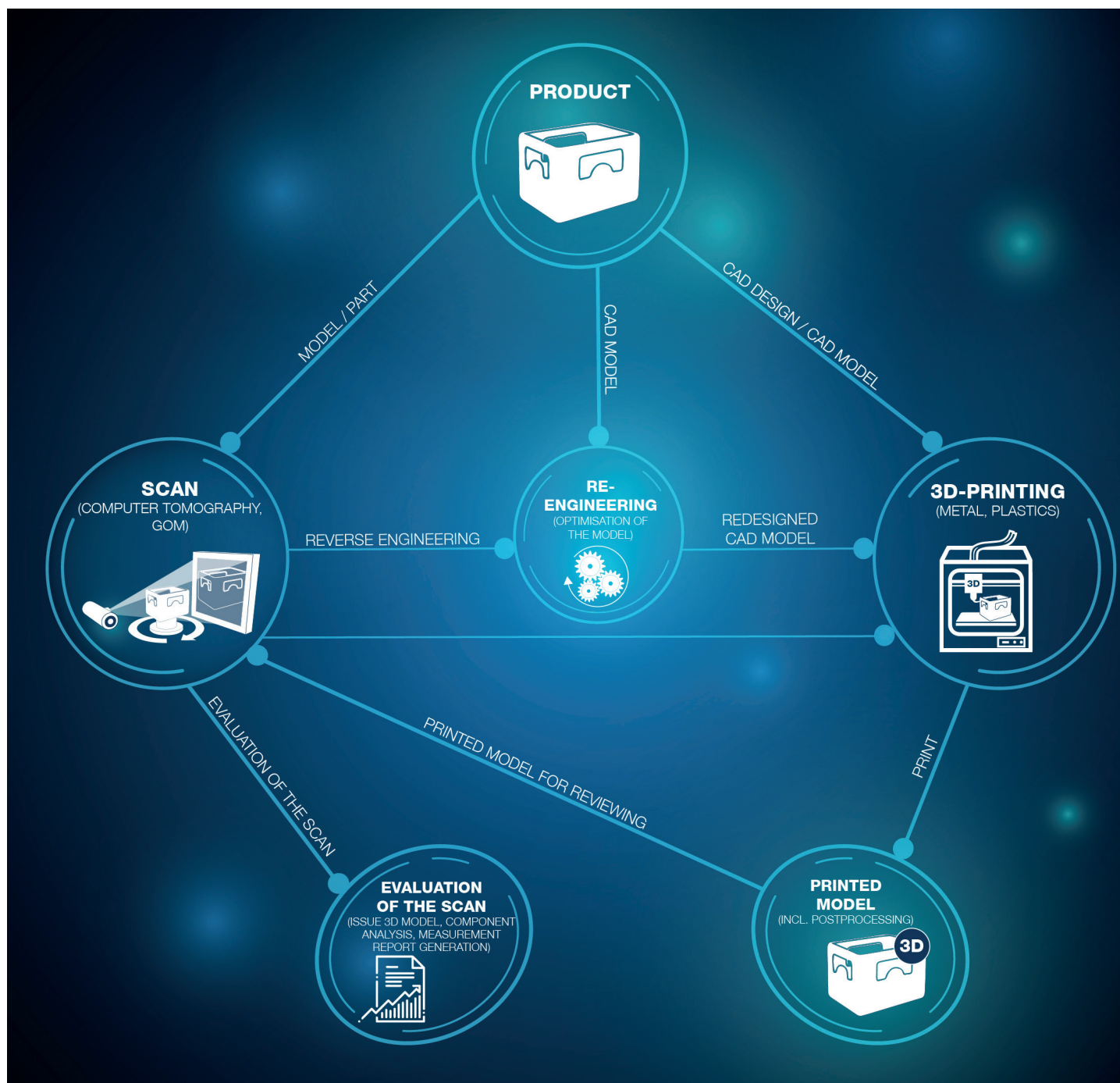
The new department „Advanced Technologies“ at HAIDLMAIR combines services in the fields of computer tomography, measurement technology and 3D printing.

The special advantage consists of the combination of the comprehensive know-how of the HAIDLMAIR specialists and the use of the most modern machines and measuring instruments. HAIDLMAIR offers with the „Advanced Technologies“ examinations of your products down to the very bottom or surface analysis, in which no small flaw remains undetected.

To get the most out of your product, all analysed surfaces can easily and simply reversed for example for 3D-printing.

Let us inform you about your individual possibilities. We are happy to advise you!

**FOR  
HIGHER  
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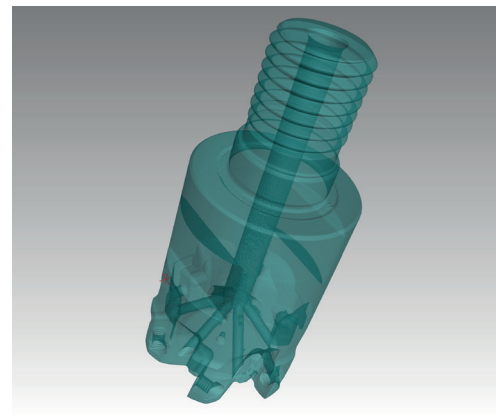
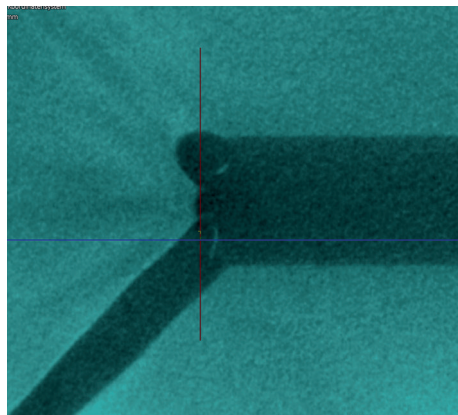
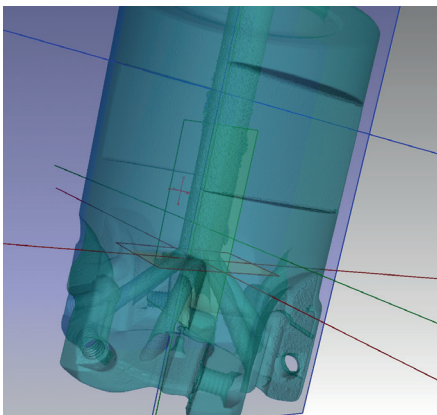




## COMPUTER TOMOGRAPHY

Haidlmaier offers with the largest industrial computer tomograph Yxlon CT Modular, a perfect instrument for carrying out material and product tests at the highest level for its customers. Especially for quality assurance, the high depth of analysis plays a particularly important role.

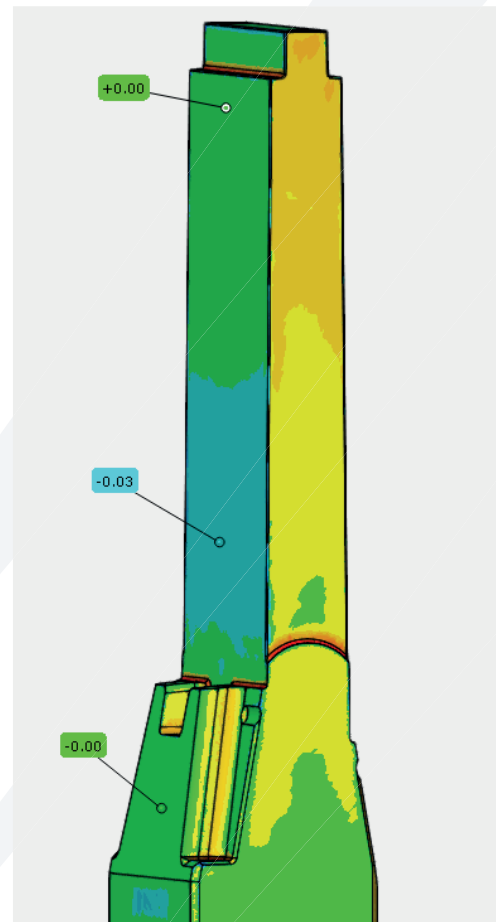
- Fields of application: defect analysis, target-actual comparison, metrology, reverse engineering, fibre analysis
- 320 kV minifocus X-ray tube and 225 kV microfocus for excellent radiography and highest resolution
- Line detector for extra-large test parts up to 1.250 mm diameter
- Scan height up to 1.250 mm
- Flat-panel detector for fast CT-scans and highest resolution
- Manifold CT-scanning modes (helix, scanfield extension, vertical CT-scan stitching)



## MEASUREMENT TECHNOLOGY

With its measuring instruments, Haidlmaier has nearly unlimited possibilities to carry out surface measurements on various parts. The Haidlmaier experts have years of experience and guarantee you a precise analysis.

- Surface measurement with GOM ATOS III TS and photogrammetry (surfaces from approx. 40 mm to approx. 10 m)
- Microscopic surface measurement with Alicona Infinite Focus (surfaces of <1 mm to approx. 30 mm)
- 3D-modeling with PHANTOM FreeForm
- Reversed Engineering with Geomagic Wrap



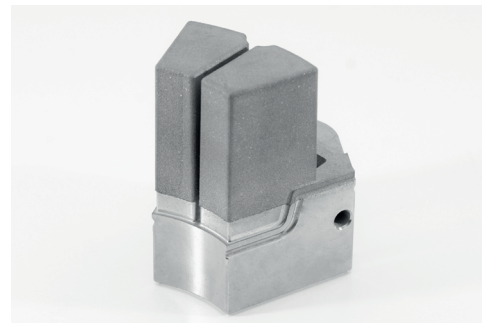
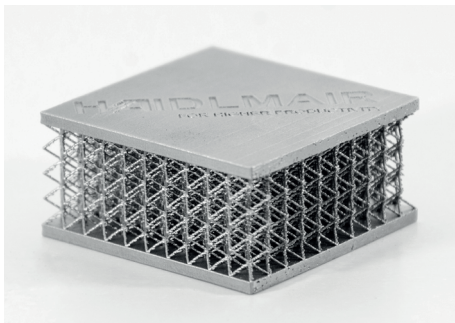
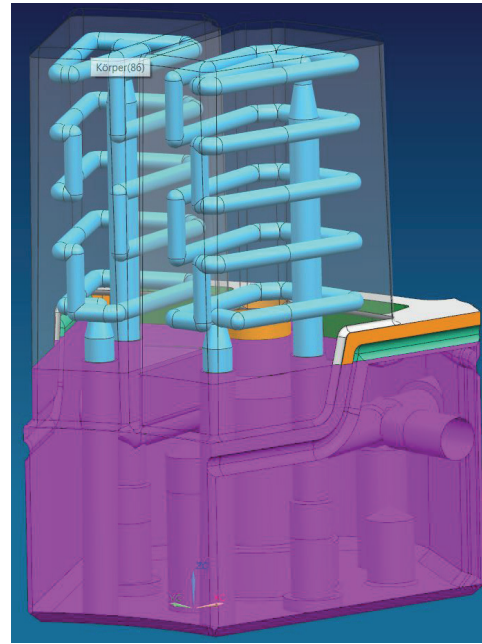
## METAL 3D-PRINTING

The metal 3D printing at HAIDLMAIR is characterized mainly by the expertise in the production of parts for conformal cooling. A perfect cooling design can reduce cycle time and increase product quality.

In addition, HAIDLMAIR offers rapid prototyping production or manufacturing of small series.

As an additional service HAIDLMAIR also offers the postprocessing of the printed parts by CNC milling or eroding to guarantee a perfect fit and perfect surface quality.

- Build envelope: 250 x 250 x 350 mm
- Materials:  
Hot work steel, Stainless steel, Aluminium alloys, Titanium alloy, Cobalt chromium alloy, Nickel-base alloy (Inconel), and many more
- Layer thickness: 20 - 80  $\mu\text{m}$
- Laser: 2 fibre laser each with 400 watt



## PLASTICS 3D-PRINTING

Plastics 3D-printing is especially suitable for the prototyping of your product ideas. Therefore you can optimise your products before the actual production begins. In addition, HAIDLMAIR also offers customised mould manufacturing packages.

- Prototyping of parts of an unsurpassed size
- Up to a size of 914 x 610 x 914 mm
- Materials: ASA, nylon 12 (for flexible applications), further on request
- Material colors: Ivory and black, dark grey, light grey, red, blue, green, orange, yellow, white
- Layer thickness (slices): T12 nozzle: 0.17 mm, T16 nozzle: 0.25 mm, T20 nozzle: 0.33 mm
- Wall thickness: min. 0.5 - 1 mm
- Accuracy: min. +/- 0.5 mm

