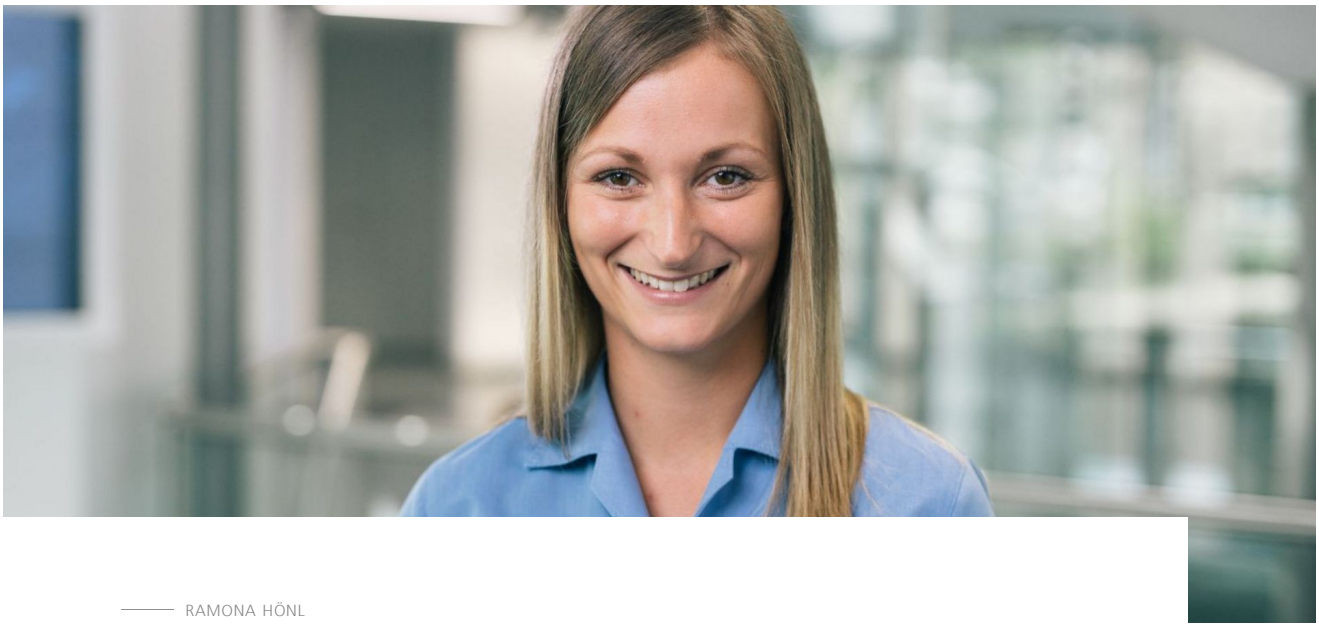


RAMONA HÖNL

Lena explains how 3D printing offers real advantages

Parts manufacturers can benefit from 3D printing in many ways. An example from TRUMPF's own experience illustrates this well, says Lena Eisenhardt.

TRUMPF used 3D printing to improve its own manufacturing process for a diode cooler. The version made by conventional means consists of a milled heat sink with an integrated cooling channel. The designers improved it by taking full advantage of the benefits of additive manufacturing. The result is a smaller, lighter component that is easier to install and consists of fewer parts.

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Key improvements at a glance:

- The new component has no undercut areas and is optimized to keep the coolant flowing smoothly. It no longer has corners that could cause turbulence. Nor does it have any drilled holes that could become blocked.
- The TRUMPF design engineers also decided to do away with the old screw connections. Instead the 3D-printed device simply slots into place in the laser machine with the aid of clip connectors.
- The designers have also equipped the new diode cooler with additional functions, such as integrated electromagnetic shielding. And the hose connections have also been redesigned. This simplifies assembly and eliminates the need for additional components.

Are you wondering whether your own products could benefit from 3D printing? Let our TRUMPF experts help you: They offer "Design for Additive" seminars for customers interested in 3D printing.



Lena Eisenhardt apprenticed as an industrial mechanic at TRUMPF. She has been working as a demo technician in the TRUMPF Customer Center since 2018. In spring of 2021, she will complete her advanced training to earn certification as Bachelor Professional of Metal Production and Management.



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