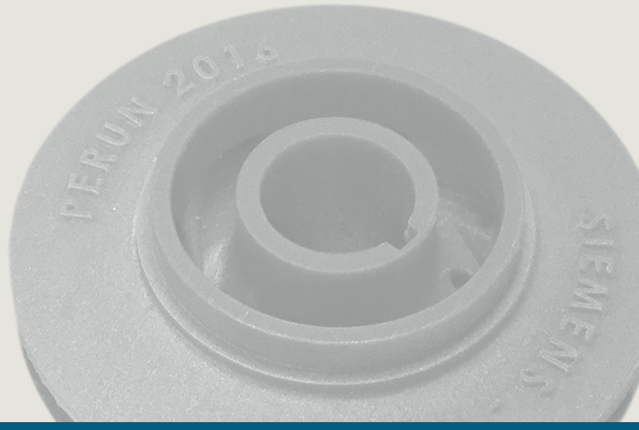
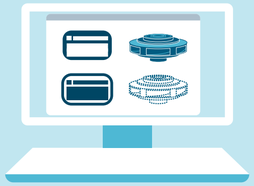
SIEMENS
Ingenuity for life

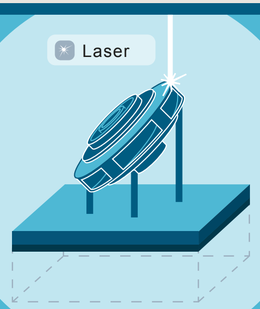
Siemens sets industry milestone with first 3D printed part operating in nuclear power plant



Replacement part: Impeller for water pump, original manufacturer is no longer in business

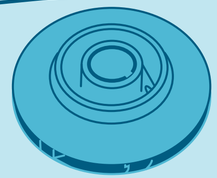


Reverse-engineering and creation of „digital twin“



3D printed, as thin layers of powdered metal are placed over each other (Selective Laser Melting)

Quality requirements fulfilled



The impeller operates successfully since January 2017 at Krško Power Plant in Slovenia

Advantages of 3D printing with Additive Manufacturing*

- Lead time reduction for parts replacement
- Obsolete parts can be produced
- Saving of material
- Eliminated tools
- On demand

> The better than expected performance of this 3D printed part gave us confidence that we can reach the full life expectancy from our asset. Siemens has a long history of innovation in this area and their dedication to providing their customers with the latest, proven innovations made them an excellent partner for this project.“
>
> **Vinko Planinc**
> Head of Maintenance at the Krško Power Plant

* Additive Manufacturing (AM) refers to a production process in which components are created layer by layer on the basis of digital 3D design data.
Source: International Committee F42 for Additive Manufacturing Technologies (ASTM).