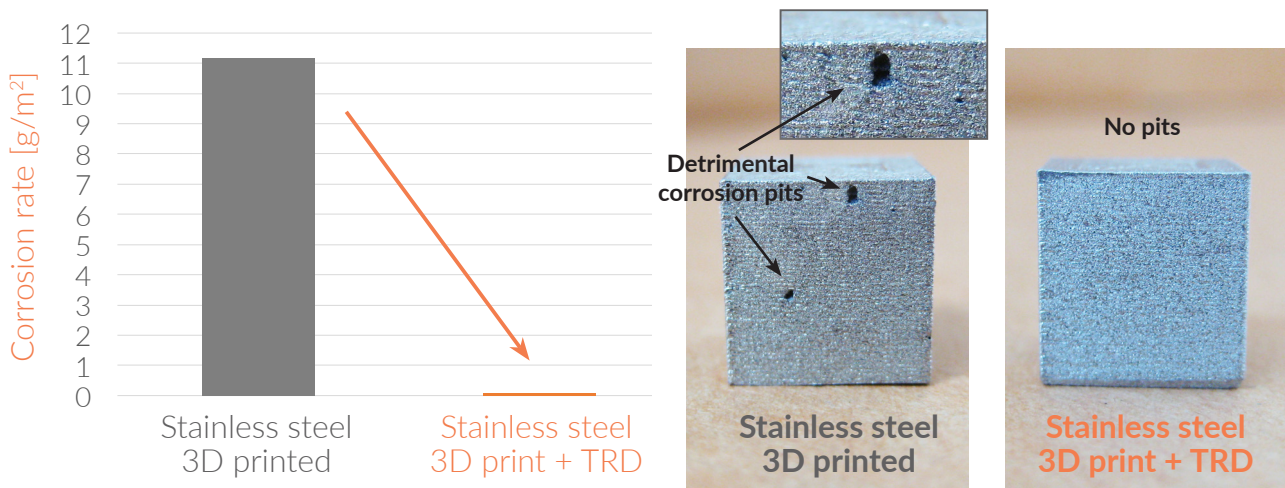


# Superior surfaces of 3D printed stainless steel with TRD Gamma

Together with Grundfos A/S, TRD Surfaces have shown that the corrosion resistance of 3D printed stainless steel can be significantly increased with a TRD Gamma technology. The unique and new surface technology incorporates a corrosion and wear resistant layer in the surface of the printed material and makes it capable of handling even harsher environments. The nature of the TRD process is greatly applicable for 3D printed parts, as the gas-based treatment can handle complex geometries, from single components to larger batch productions. Together with better corrosion resistance, TRD Gamma also increases wear resistance, lowers surface roughness and improves surface integrity of 3D printed parts.

## Corrosion of 3D printed stainless steel



3D-printed test parts of stainless steel type 1.4404 were subjected to a modified G48 pitting corrosion test with 3% FeCl<sub>3</sub> for 24 hours at 20°C. Conclusive results show a significant increase in corrosion resistance by using the TRD Gamma technology.

3D printed material manufactured by  
**GRUNDFOS**

## Why choose TRD Gamma?

- Pitting corrosion resistance is increased with a factor of 20 (PREN-value > 40)
- TRD Gamma layer is six times harder than the original stainless steel surface (200HV increased 1200HV)

### About TRD Surfaces

TRD Surfaces is a high-tech surface engineering company based in Denmark, offering unique solutions for optimal wear and corrosion performance of steel components. We aspire to deliver the best service and constructive dialogue for our customers. We are driven by a desire to understand your challenges and to apply the correct surface engineering to fulfill demands for better performance and increased lifetime.



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