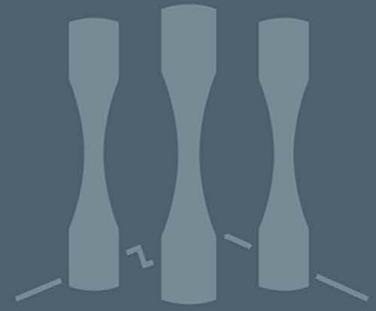


ADDITIVE FATIGUE STUDY

INFLUENCE OF DIFFERENT SURFACE FINISHING METHODS ON MECHANICAL PROPERTIES FOR METAL AM COMPONENTS



ADDITIVE FATIGUE STUDY



PROBLEM STATEMENT

Current Situation

- How does each surface finishing method influence the mechanical properties of my AM components?
- Which mechanical properties can be expected after post-processing of AM components?

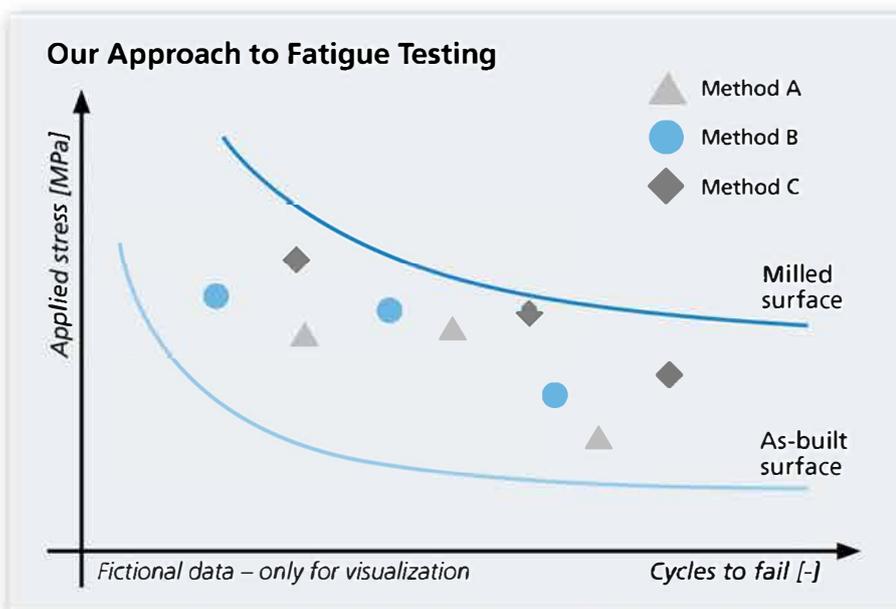


Solution

- A study about the influence of post-processing methods on mechanical properties**
- Objective comparison of different finishing methods
 - No expertise needed
 - Quick decision help in assessing the suitability and impact of various finishing methods on mechanical properties

CONTENT AND STRUCTURE OF THE STUDY

Materials Investigated	Benchmark Criteria	Surface Finishing Methods Investigated
Ti-6Al-4V	Fatigue strength	<i>Machining with undefined cutting edge</i>
Inconel 718	Tensile strength	Abrasive Blasting
	Elongation at break	Vibratory Finishing
	Dimensional accuracy	
	Surface roughness	
		<i>Chemical ablation</i>
		Chemical Polishing
		Isotropic Superfinishing
		<i>Electrochemical ablation</i>
		Electrochemical Polishing
		Metal DryLyte
		<i>Finishing method combination</i>
		Vibratory Finishing + Metal DryLyte
		<i>Additional surface conditions for reference</i>
		As-built surface
		Milled surface



SECURE THE STUDY RESULTS NOW!

Contact us: surface.finishing@iapt.fraunhofer.de

