



Realize ideas

With ARBURGadditive

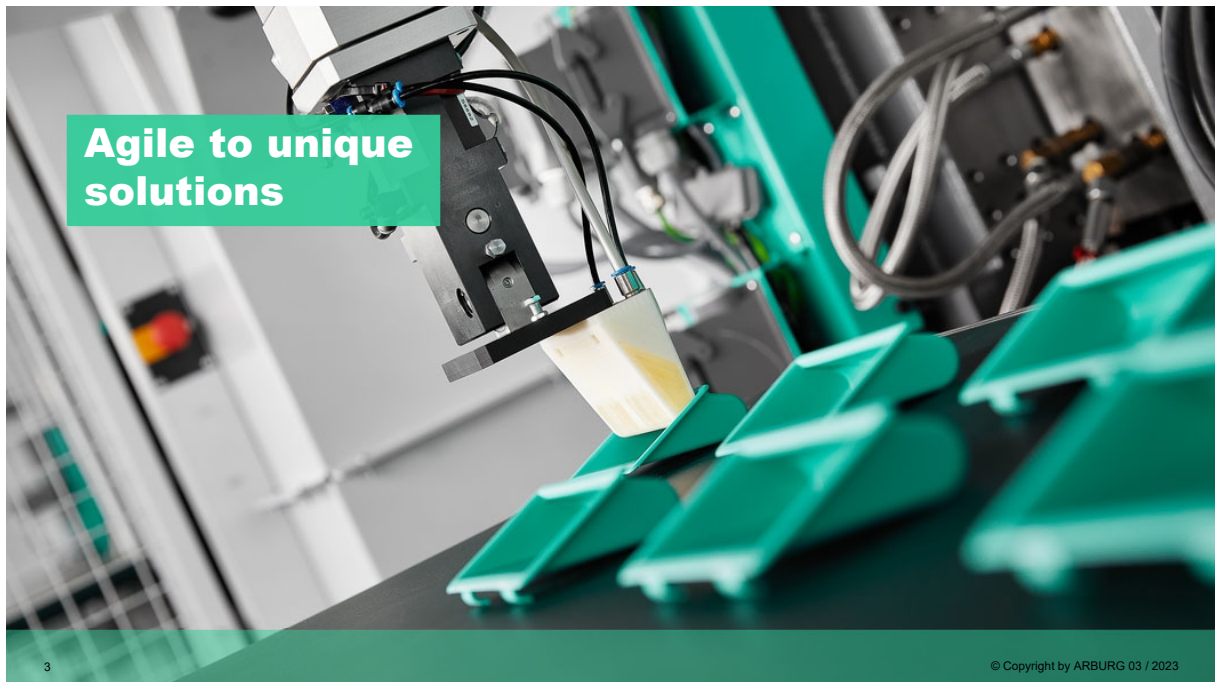
Bradley Koren

InnovatiQ – Partner Sales Manager

Dr.-Ing. Didier von Zeppelin

APF services and training

ARBURG Jubiläums-Tage
Lossburg, 8.-10. March 2023



3

© Copyright by ARBURG 03 / 2023

ARBURG

Two-component gripper

- Functional hard-soft combination
- Vacuum grippers for automation
 - Soft component adapts to component contour
 - Efficient removal of complex components



Additive manufacturing
in the customer center

Technical characteristics

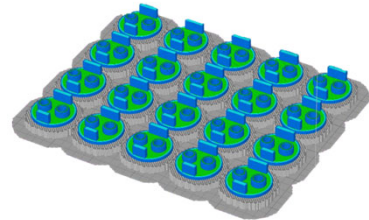
- Materials:
- ABS Terluran GP 35
 - TPU Desmopan 9385 A (80 Shore A)

4

© Copyright by ARBURG 03 / 2023

Diehl Aviation – Adhesive Adapter

- Project completed in **24 hours**
- Production downtime avoided
- Prevented spoilage of ~100,000 EUR worth of glue



**Additive manufacturing
in the customer center**

**Technical
characteristics**

- Material: PETG and ABS
- 27 min print time per part
- 2.24 EUR per part



Challenges in additive projects

- Define requirements in advance
- Specifications
 - AM-compliant construction
 - ensure density and strength (especially in Z-direction)
 - surface finish and resolution
 - tolerances, warping, shrinkage
 - functional properties
 - film hinges
 - degree of softness
 - operating cost

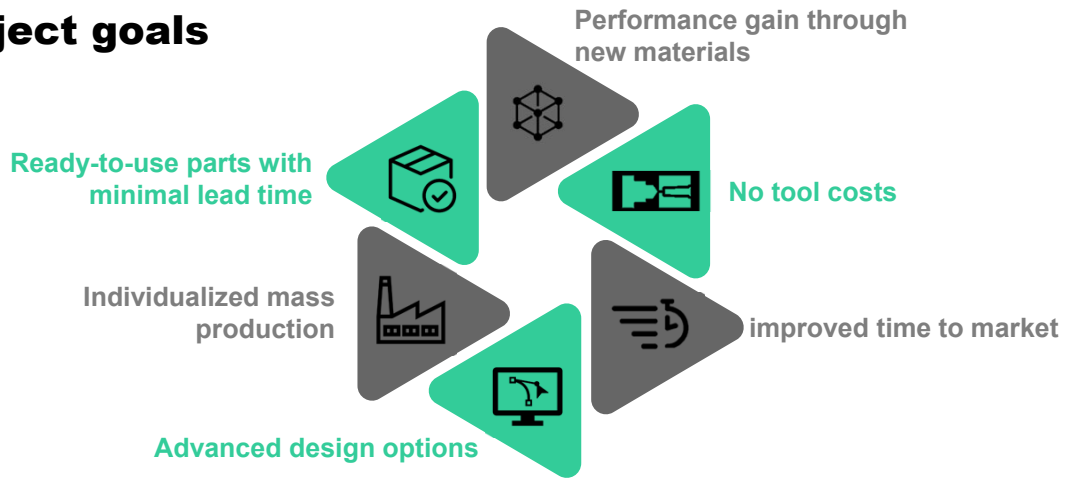


Challenges in additive projects

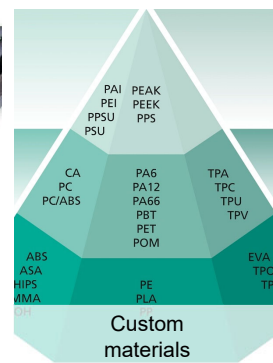
- Comprehensive advice
 - Advantages and disadvantages of the system and method
- Illumination of all procedures
 - FDM
 - FFF
 - SLS
 - SLA
 - AKF
 - etc.



Project goals



What you can achieve with us



What we do for you



Best practice Samaplast AG: bone implant

- Individually adapted to patients
- Dissolves **specifically** in the body
- Gentle processing preserves absorbability
- Only one surgical procedure necessary
- Customizable surface roughness



Prototyping Center
in the Customer Center

Technical characteristics

Medical Poly lactide (PLLA)
Purasorb PL 18
Resomer LR 708

Best practice Ecco: QUANT-U shoe soles

- 2016 project start
- 2018 Sales launch of mass customized production
- Design generated from scans of feet
- Patented process



**Prototyping Center
in the Customer Center**

ARBURGadditives as a project partner – over 60 years of plastics experience



1962 ARBURG ALLROUNDER



2019 InnovatiQ
Filament-Thermoplaste
Liquid-Silicone Rubber (LSR)



2013 ARBURG freeformer
Industry-grade granulates
Elastomers
Thermoplasts

ARBURGadditive GmbH Co. KG

ARBURGadditive as project partner



ARBURGadditive as project partner



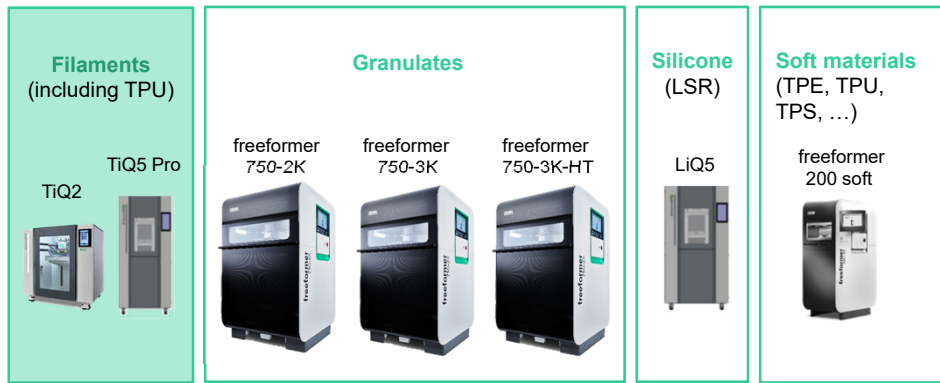
Reduction of construction time Component example: hollow tube



Benefits from freeformer 750-3X features

- Optimized building strategy
- Fast discharge at the edge of the component
- Optimized discharge frequency
- Layer thickness 0.25 mm
- Larger installation space

ARBURGadditive as project partner



Customer benefits Werner Turck GmbH: ESD fixtures



**Prototyping Center
in the Customer Center**

- short delivery time
- Light weight for easy handling
- Material perfectly suited for electronics applications

Technical characteristics

- Material: ESD ABS
- Print Time: ~70 hours
- Part Weight: ~1kg
- Part Cost: ~500€

Summary

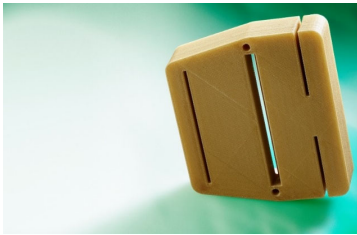


Realize ideas with ARBURG additives

- Innovative solutions for every requirement
- Sound advice and know-how
- **Adapted technologies for all requirements**
- **Digital networking of industrial processes**

**Prototyping Center
in the Customer Center**

Outlook – high-performance plastics



Biocompatible (ISO 10993)
Resistent gegenübergängiger
Sterilisationsverfahren
Patientenspezifische
Führungsschiene (ULTEM)



Polycarbonate FR
Flame retardant
Approved for use on trains in
accordance with EN 45545



PEEK Vestakeep® i2 G
cranial implant
Biocompatible and biostable
High installation space
temperature (~200°C)

