

3DFinisher

**SURFACE FINISHING
FOR INDUSTRIAL 3D PRINTING**

3D | extech



The first professional device
for the surface finishing of ABS, ASA, PETG
and Cellulose Acetate parts



PROBLEM

To date no **3D printer** can guarantee a perfect surface finishing of printed parts. Raw 3D printed parts can only be considered semi-finished products, that require a **considerable amount of additional work** in order to improve the aesthetics of the surface as well as the mechanical properties of the parts, ranging from sanding to the application of resins or primer.

These manual treatments entail **considerable costs for companies**, at the same time only partially solving the problem: the final quality is often not satisfactory, and repeatability is not guaranteed. All these shortcomings effectively hinder the widespread adoption of 3D printing for production purposes.

COMPANIES REPORTING ISSUES ASSOCIATED WITH POOR SURFACE FINISHING

82%

Raw 3D printed part



SOLUTION

3DFINISHER was designed precisely to solve all these issues. Raw parts are placed inside the device and undergo an automatic and **patented chemical-physical process**, which makes them stronger, glossy, waterproof, dirt resistant, washable and sterilizable.

The device is **plug-n-play** and does not require additional infrastructures such as fume hoods. Completely interconnected, the machine can be controlled and monitored remotely. One surface finishing process lasts 70 minutes on average, making use of disposable cartridges which are sold separately.

SURFACE ROUGHNESS IS REDUCED BY UP TO

97%

3D printed part after
postprocessing with 3DFINISHER



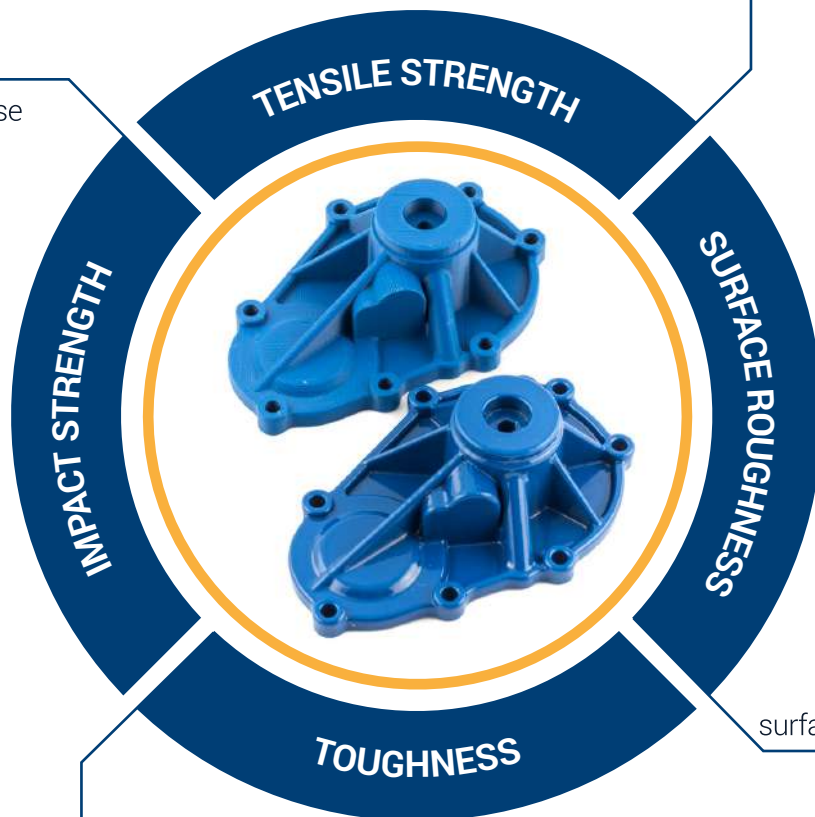
POSTPROCESSING RESULTS

up to 60%

Toughness increase after treatment

up to 20%

Increase of tensile breaking load



Reduction of surface roughness

up to 97%

Hardness increase after treatment

up to 15%

ADDITIONALLY

Postprocessed parts become:

- WATERPROOF •
- PAINTABLE •
- WASHABLE •
- DIRT RESISTANT •
- EASY TO METALLIZE •



WORKFLOW

1

PREPARATION

The operator places the raw objects inside the sealed work chamber, sets the process parameters and places a disposable cartridge containing our proprietary mixture inside the 3DFinisher.

2

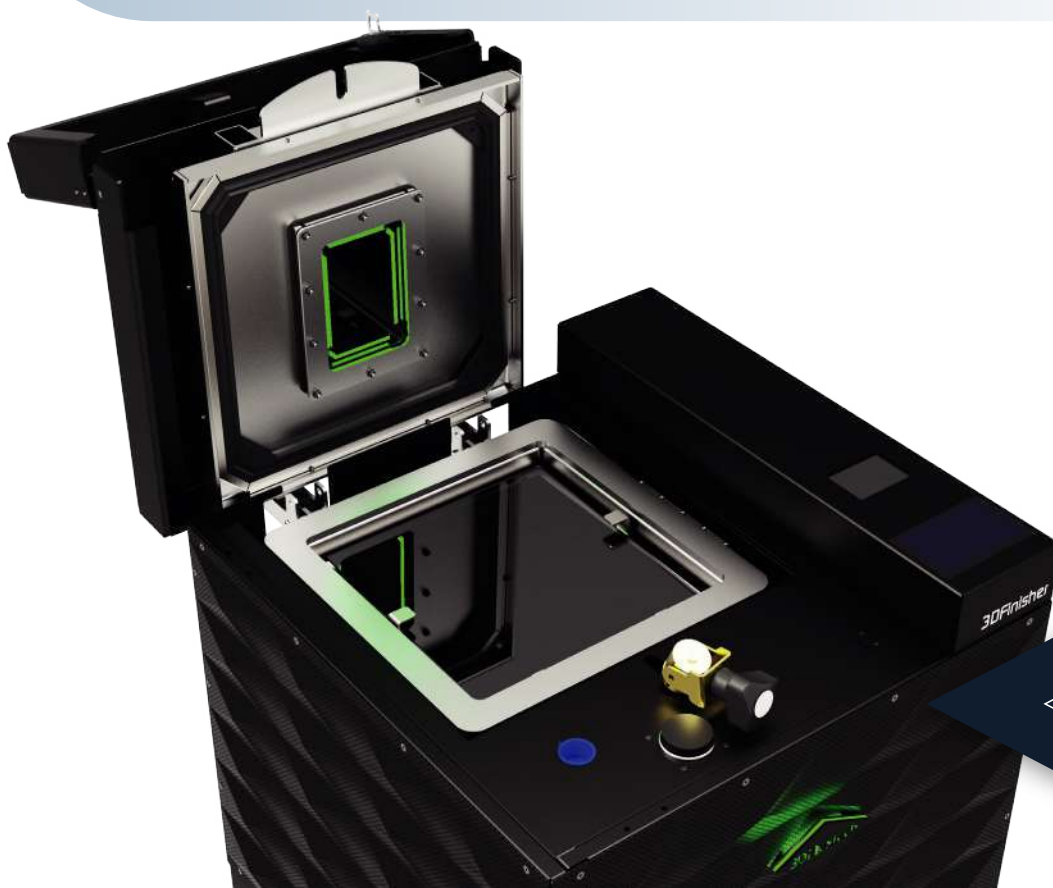
PROCESS

Parts undergo a chemical-physical process taking places in controlled atmosphere.

3

RESULTS

after the process all parts achieve a perfect, uniform surface finishing, becoming waterproof, paintable, smooth and glossy. Mechanical properties are considerably improved as well.



TECHNICAL SHEET

Product specifications

External Dimensions	60 x 60 x 60 cm
Inner Chamber Dimensions	30 x 30 x 30 cm
Weight	83 kg
Processing Time	~ 1 hour
Operating temperature	20° C - 33° C
Noise specifications	72 dB max in the filtering phase
Processable Materials	ABS/ASA/PETG/Cellulose Acetate
Connectivity	IEEE 802.11.b/g/n/ac wireless, LAN Gigabit Ethernet over USB 2.0 1 x USB 2.0 port
Power supply	230V/6A, 50Hz, max 400W
Regulatory compliance	CE, TÜV SUD


Designed and Produced
in Italy

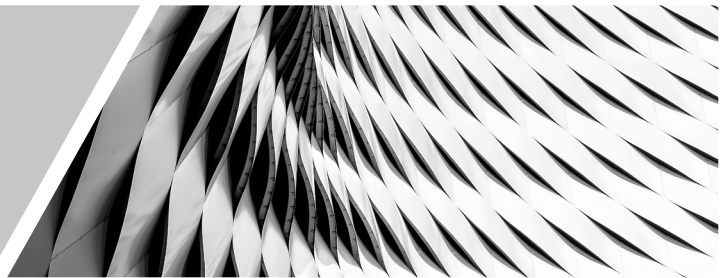


APPLICATION FIELDS



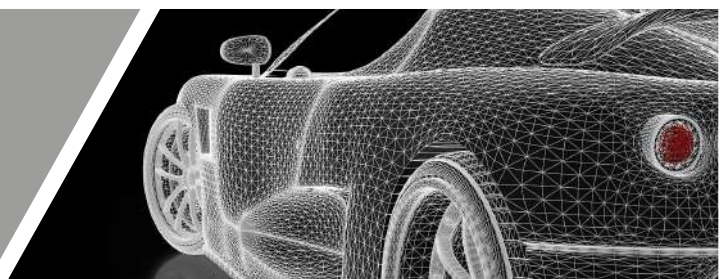
Medical

Design &
Architecture



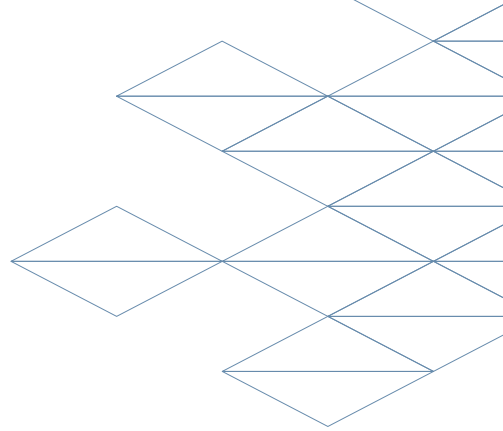
Plastic
Industry

Automotive



Marine





ABOUT 3DNEXTECH

3DNextech is an innovative startup, Spin-Off of the BioRobotics Institute of the Scuola Superiore Sant'Anna of Pisa. We are specialized in the development of products and technologies related to the digital manufacturing world, with special focus on additive manufacturing and 3D printing.

The innovative technology at the core of the **3DFINISHER**, designed and developed by our team, can affect virtually all sectors concerned with the production of plastic items. It also has the potential to finally take 3D printing from the prototyping world to real production environments, meeting higher quality standards.



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