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YOUR TRUSTED PARTNER IN ADDITIVE MANUFACTURING

ULTRA 3D PRINTER

MINIFACTORY ULTRA 3D PRINTER

FIND OUT WHY THE MINIFACTORY ULTRA IS NUMBER 1 FOR INDUSTRIAL 3D PRINTING

ULTRA 3D PRINTER

KEY FEATURES

EXTENSIVE MATERIAL RANGE AT YOUR DISPOSAL

Thanks to the **250°C heated chamber**, our technology enables the manufacture of parts with excellent quality, and you have a **wide range of materials from engineering polymers to high-performance polymers and composites**.

The high temperature chamber of miniFactory Ultra enables **extensive material range today - and in the future**. This highlights the versatility of miniFactory Ultra and makes It true **all-In-one Industrial 3D printing system.**

RELIABLE AND EASY WORKFLOW

We have packed our **10 years of experience** into the straightforward and **understandable usability of our products**, enabling you to produce successful 3D prints time after time.

As high-performance polymer printing is technology-intensive, it can easily become complex. However, thanks to our experience, we have succeeded in making the miniFactory Ultra printer **easy to use**.

ULTRA 3D PRINTER

KEY FEATURES

INDUSTRIAL LEVEL REPEATABILITY

Quality and reliability are the basis of all our operations. We use only **high-quality components** in combination with **a precision machined frame**.

This gives you the **best possible quality and reproducibility for 3D-printed parts**, whether you are printing small or large quantities.

SENSIBLE INVESTMENT AND SATISFIED CUSTOMERS

The miniFactory Ultra 3D printer is a unique solution that enables reliable 3D printing of high-performance polymers. Due to its durable features, it is **one of the most cost-effective solutions on the market**.

We have delivered miniFactory Ultra 3D printers to more than 20 countries. **Our customer satisfaction is top class all around the world**, as our equipment and services are supreme.

ULTRA 3D PRINTER

KEY FEATURES

DESIGNED FOR HIGH INTENSITY USE

Our technology is designed for daily industrial use. The assembly expertise, combined with high-quality components and a comprehensive service offering, enables a **warranty of up to 5 years**. This way the printer's **life cycle costs for the first 5 years are known** even before the investment decision.

With our **optimized service plan** and authorized support network, you have **local partner to support you throughout the life-cycle of the system.**

SHORT RAMP-UP TIME - EFFECTIVE FROM DAY 1!

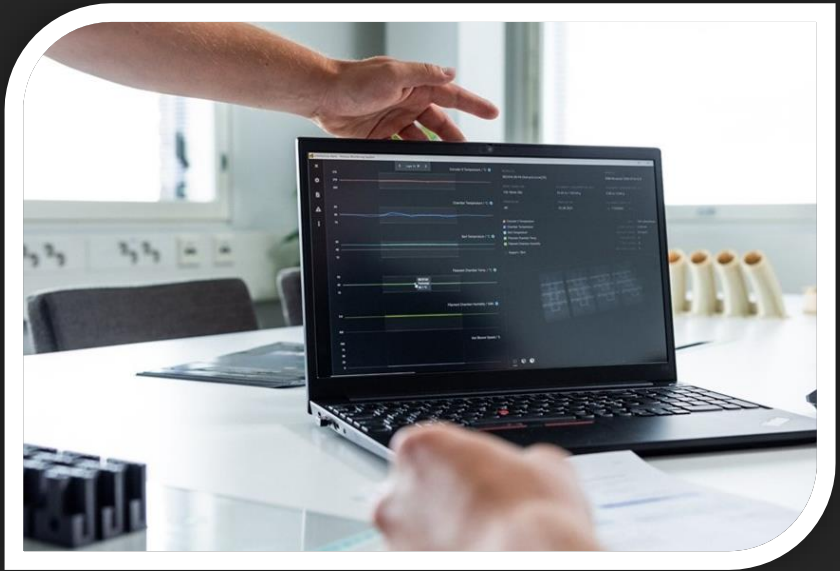
We deliver the device completely ready for use. During the deployment of the system, a technician performs an Inspection and can set up the system **ready to use In 2 hours**!

The functional and internal systems of the printer, such as **liquid cooling and pneumatics, are integrated inside the device, so the device only needs electricity to operate.** This allows you to **place the printer freely** and **move it easily from one place to another**.

TECHNICAL FEATURES – **QUALITY ASSURANCE TECHNOLOGY**

3D PRINTING QUALITY ASSURANCE WITH AARNI PROCESS MONITORING SYSTEM

THE MINIFACTORY AARNI PROCESS MONITORING SYSTEM ENABLES 3D PRINTING QUALITY ASSURANCE EASILY DURING THE PRINTING PROCESS. WITH AARNI, YOU CAN CREATE TRUST AND TRANSPARENCY IN YOUR PART PRODUCTION WITH ACCURATE LINE-BY-LINE MONITORING THAT ENSURES THE PART IS CERTIFIED AND COMPLETED AS DESIRED.



TECHNICAL FEATURES – **OPEN MATERIAL SYSTEM**

GET ACCESS TO THE WIDEST MATERIAL RANGE ON THE MARKET WITH ULTRA 3D PRINTER

MINIFACTORY ULTRA 3D PRINTER HAS ADVANCED HEATED CHAMBER UP TO 250C WHICH UNLOCKS THE WHOLE MATERIAL RANGE FOR YOU.
FROM COMMODITY AND ENGINEERING POLYMERS ALL THE WAY UP TO THE MOST DEMANDING HIGH-PERFORMANCE POLYMERS AND COMPOSITES ARE AVAILABLE. MATERIAL RANGE IS MANY TIMES WIDER THAN IN "CLOSED SYSTEMS" OR IN THE SYSTEMS WITH LOWER CHAMBER TEMPERATURE.

ULTEM1010, ULTEM9085, PPSU, PSU, PPS, PEEK, PAEK, PEKK, PVDF, PC, PA, ABS AND MANY MORE PURE POLYMERS.
CF-ULTEM, CF-PEKK, CF-PEEK, ESD-PEEK, GF-PA AND MANY MORE COMPOSITES.

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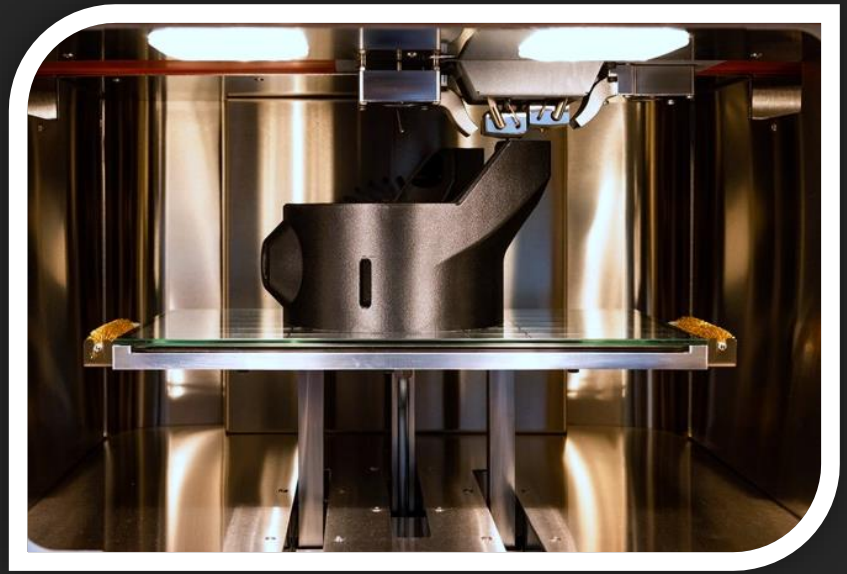
TECHNICAL FEATURES – **250°C HEATED BUILD CHAMBER**

EXTREMELY HIGH TEMPERATURE IN THE CHAMBER UNLOCKS THE WIDEST MATERIAL RANGE ON THE MARKET AND ENSURES ULTIMATE STRENGTH FOR PRINTED PARTS.

THE OPTIMUM TEMPERATURE FOR THE HEATED BUILD CHAMBER IS GLASS TRANSITION TEMPERATURE (TG) OF THE USED POLYMER.
MINIFACTORY ULTRA HEATED CHAMBER CAN REACH 250°C.
THE HEATED CHAMBER IS THE MOST IMPORTANT FEATURE WHEN LOOKING FOR THE BEST RESULT.



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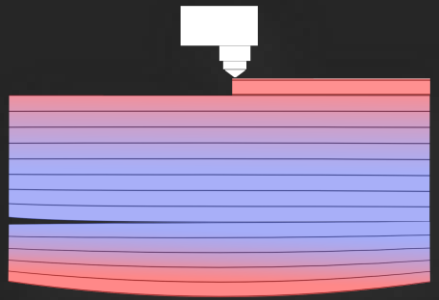
TECHNICAL FEATURES – 250°C HEATED BUILD CHAMBER

OPTIMUM CHAMBER TEMPERATURES FOR SOME HIGH-PERFORMANCE POLYMERS:
TPI - 240°C
PPSU - 220°C
ULTEM 1010 - 215°C
ULTEM 9085 - 180°C
PEKK-A - 155°C

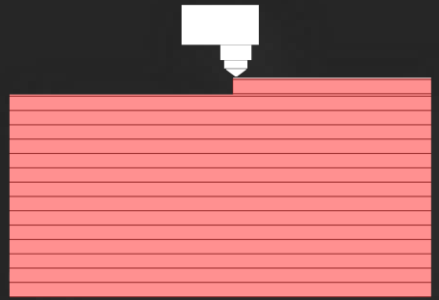
PRINTING CHAMBER TEMPERATURE IS TOO COLD ->

- POOR LAYER ADHESION
- MEDIUM MECHANICAL STRENGTH
- HIGH MECHANICAL STRESS
- HIGH WARPING / CRACKING



WITH THE MINIFACTORY ULTRA 3D PRINTER
PRINTING CHAMBER TEMPERATURE IS HIGH ENOUGH ->

- GREAT LAYER ADHESION
- HIGH MECHANICAL STRENGTH
- LOW MECHANICAL STRESS
- LOW WARPING / CRACKING



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TECHNICAL FEATURES – **SERVO DRIVEN TECHNOLOGY**

MINIFACTORY ULTRA IS ONE THE MOST ACCURATE FFF 3D PRINTER WITH REPEATABLE PRINTING,
BASED ON THE INDUSTRIAL LEVEL TECHNOLOGY.

PRESICION AND STABILITY WITH HIGH-END SERVO MOTORS, BALL SCREWS AND LINEAR GUIDES ENSURE LARGE, DIMENSIONALLY ACCURATE AND PRECISELY REPEATABLE PRINTS TIME AFTER TIME.

BALL SCREWS ARE CLASS C5. REAL AC SERVO MOTORS ENCODER RESOLUTION IS 10 000 CPR AND MECHANICAL CUMULATIVE POSITIONING ERROR 0.025MM PER 400MM.

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TECHNICAL FEATURES – **FAST PREPARATION TIME - LESS THAN 30 MIN**

ON SEVERAL COMPETING DEVICES, PREHEATING TAKES HOURS!

PREPARING AND PREHEATING THE MINIFACTORY ULTRA FOR PRINTING IS FAST: IT TAKES LESS THAN 30 MINUTES TO HEAT AND STABILIZE THE PRINTING CHAMBER AT 220°C. THIS ALLOWS THE DEVICE TO BE READY TO PRINT QUICKLY WHEN NEEDED. THE FAST PREPARATION TIME ENABLES YOU TO START THE PRINTING UNEXPECTEDLY, WITHOUT HAVING TO PLAN IT IN ADVANCE.

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TECHNICAL FEATURES – **HEATED FILAMENT CHAMBER**

HIGH-PERFORMANCE POLYMERS ARE EXTREMELY SENSITIVE FOR THE HUMIDITY. ULTRA'S HEATED FILAMENT CHAMBER ENSURES THE OPTIMAL CONDITION FOR YOUR MATERIALS.

WITH THE CAPABILITY TO STORE THE FILAMENTS UP TO 120°C AND MONITOR THE MOISTURE LEVEL, YOU WILL ALWAYS HAVE OPTIMAL CONDITIONS FOR PRINTING.

- TEMPERATURE UP TO 120°C TO PREVENT THE EFFECTS OF HUMIDITY TO THE FILAMENT.
- TEMPERATURE AND HUMIDITY ARE MONITORED BY AARNI TO KNOW THE ENVIRONMENT OF THE FILAMENT CHAMBER.

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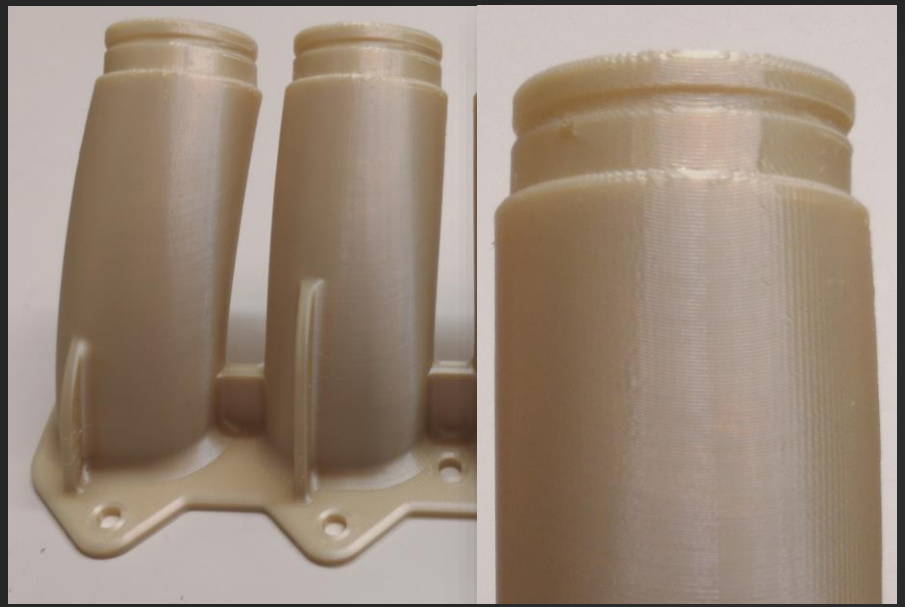
TECHNICAL FEATURES – **HEATED FILAMENT CHAMBER**

WITHOUT HEATED FILAMENT CHAMBER

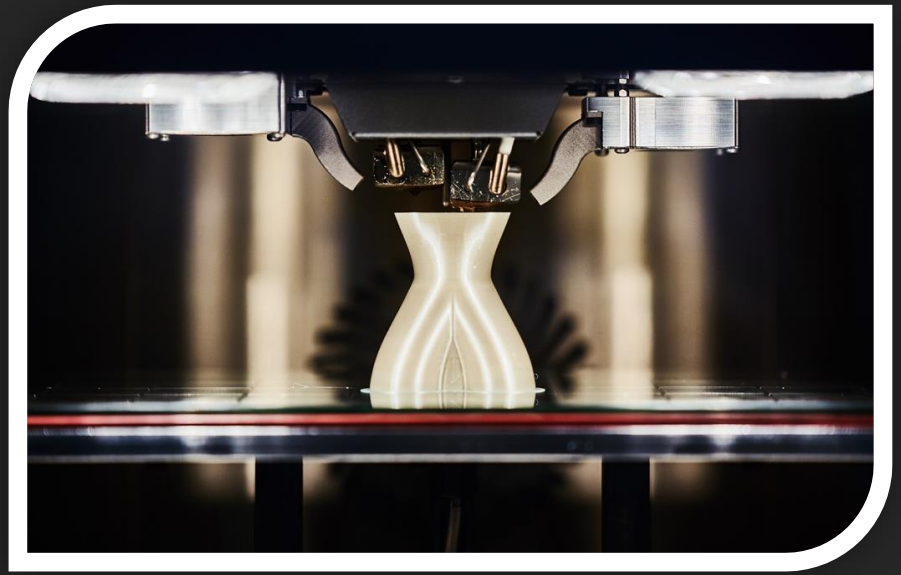
WITH THE HEATED FILAMENT CHAMBER



TECHNICAL FEATURES – **VACUUM TABLE**

INTERNAL VACUUM SYSTEM ENSURE EASY AND FAST CHANGE FOR PRINTING PLATFORM. INTERNAL PUMP IS EASY TO FOLLOW WITH AN INTEGRATED GAUGE.

THE VACUUM PUMP IS A FIXED PART OF THE SYSTEM SO THERE IS NO NEED FOR EXTERNAL AIR PRESSURE CONNECTION.



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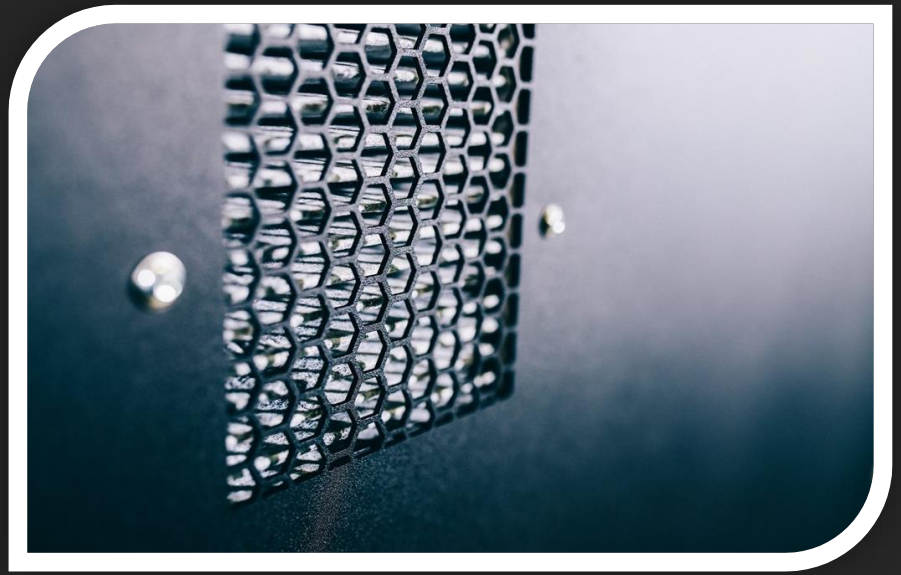
TECHNICAL FEATURES – **ACTIVE CARBON FILTERING**

THE FILTERING WILL CONSIDERABLY REDUCE THE AMOUNT OF EMISSIONS PRESENT IN THE PRINTING PROCESS OF INDUSTRIAL POLYMERS.

THE FILTERS CAN BE EASILY REPLACED, WHEN NECESSARY.



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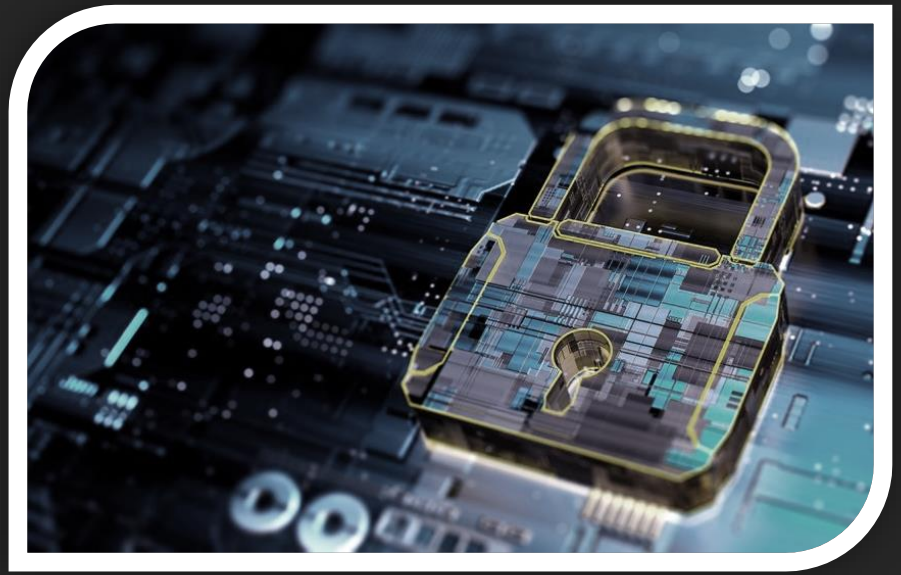
TECHNICAL FEATURES – **OFFLINE USE**

ALTERNATIVE DATA TRANSFERRING MODELS (ADDITIONAL SOLUTION).

TO MAKE THE PRINTING PROCESS AS SIMPLE AS POSSIBLE, IN MINIFACTORY ULTRA BASIC -MODEL DATA TRANSFER WORKS VIA USB. ALTERNATIVELY, YOU CAN CHOOSE AN ALTERNATIVE MODEL, IN WHICH CASE THE DATA TRANSFER TAKES PLACE VIA WLAN OR LAN CONNECTION ACCORDING TO YOUR CHOICE.



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ULTRA 3D PRINTER

SPECIFICATIONS

CHAMBER TEMPERATURE	250°C
PLATFORM TEMPERATURE	250°C
EXTRUDER TEMPERATURE	470°C
MECHANICS	AC-SERVO MOTORS & BALL SCREWS CLASS C5
REPEATABILITY	0,025MM/400MM
EXTRUDERS	2, SEPARABLE EXTRUDERS
BUILD VOLUME	330MM X 180MM X 180 MM
MATERIALS	TPI, PEI, PEKK, PEEK, PPSU, PPS, PVDF, PA, PC, ABS + WIDE RANGE OF GF/CF COMPOSITES AND ESD POLYMERS
BUILD PLATFORM	INTERNAL VACUUM SYSTEM
LEVELING	FULLY AUTOMATIC CALIBRATION
UI	7" TOUCH SCREEN
SAFETY	PROTECTED WITH RCD ACTIVATED CARBON FILTERING
FILAMENT DIAMETER	1,75MM
COOLING	LIQUID COOLING & AIR COOLING
SENSORING	JAM & RUNOUT SENSORS AARNI - PROCESS MONITORING SYSTEM
INTEGRATED FEATURES	HEATED FILAMENT CHAMBER
SLICING SOFTWARE	SIMPLIFY 3D
CERTIFICATION	CE
DEVICE MEASUREMENT	100 X 80 X 190CM
DEVICE WEIGHT	320KG
POWER REQUIREMENT	400V/16A 3-PHASE

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TRUSTED BY

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