





# End to end agile prototyping and manufacturing

Next-gen technologies enhancing every stage of product development

Zortrax is a widely-acclaimed manufacturer of professional 3D printers, printing materials, software, and post-processing devices used by world-leading organizations like Bosch or NASA. The company has developed a portfolio of unique flexible manufacturing technologies to deliver the best value to its customers.

### ○ LPD | Layer Plastic Deposition

The LPD is an additive manufacturing technology that builds physical models by depositing a fused polymer filament onto a build platform moving in a Z axis. The LPD technology is tightly integrated with its dedicated software and a wide range of filaments with various chemical and physical properties.

### UV LCD | Fast Resin 3D Printing

The image of the model's layer is displayed on a high-res LCD screen with a UV light source placed beneath it. Its main strength is very high precision as it is capable of printing extremely small objects barely visible to the naked human eye.

### 

The LPD Plus has the same working principle as the LPD but it supports simultaneous 3D printing with two filaments: one for the model, and one for the soluble support structures. This way there is no need for mechanical support removal.

### SVS | Smart Vapor Smoothing

The SVS is a unique technology developed by Zortrax to automate vapor-smoothing, one of the most popular techniques to remove visible layering from models 3D printed in the LPD, LPD Plus, FDM, FFF or similar technologies. Vapors of methyl ethyl ketone (MEK) or acetone react with models' surfaces to achieve glossy or matte finish, depending on the filament used.



### M200 Plus

## Basically reliable 3D printer





Prosthetics & orthotics



Pre-surgical planning models





### Designed for hard work

The M200 Plus LPD 3D printer has been made with high-quality components to offer class-leading reliability and low maintenance costs. This machine is a versatile, affordable 3D printing solution that can work for many hours without a single failure.

#### > Fail-safe design

The industrial-grade extruder in the M200 Plus is compatible with a wide range of filaments. Functionalities like efficient cooling system or a heated build-platform guarantee dimensional accuracy while the filament endstop mechanism pauses the print and notifies the user when the filament runs out.

### > Made for 3D printing farms

Large clusters of remotely controlled 3D printers can offer significant prototyping and small to medium scale production capabilities. The M200 Plus has Wi-Fi and Ethernet connectivity which make it great as a basic manufacturing unit in a 3D printing farm.

### > Easy to control

The M200 Plus can be operated remotely or through an intuitive touch screen fitted in the front panel. The printing process can be monitored at all times with a camera installed in the printing chamber. The machine can be set up and operated with no prior 3D printing experience.

### Zortrax Speed mode

Zortrax Speed mode is a fully free feature for M Series Plus and M300 Dual 3D printers, which users can access from the printer menu. The feature lets you speed up your 3D printing project even up to 3 times.









Medical winch for fiber laser closing of varicose veins

End-use drill-driver casing

Artificial human heart model

Functional headphones prototype

#### **DEVICE**

Build volume	200 x 200 x 180 mm (7.9 x 7.9 x 7.1 in)
Nozzle diameter	0.4 mm (0.016 in) – standard / 0.3 mm (0.012 in) / 0.6 mm (0.024 in)
Extruder	Single (compatible with demanding materials like TPU or nylon)
Extruder cooling system	Radial fan cooling the extruder block; two fans cooling the print
Hotend	Single, V3
Platform	Heated; perforated and glass plates are applicable
Material endstop	Mechanical
Connectivity	Wi-Fi, Ethernet, USB
Operating system	Android
Processor	Quad Core
Touchscreen	4" IPS 800 x 480
Camera	Yes

### **PRINTING**

Technology	LPD (Layer Plastic Deposition) – depositing melted material layer by layer onto the build platform
Layer resolution	90-400 microns
Minimal wall thickness	450 microns
Platform levelling	Automatic measurement of platform points' height

#### **FILAMENTS**

Available Filaments	BASF Ultrafuse® ABS, Nanovia PC-ABS V0, Z-ABS, Z-ABS 2, Z-ASA Pro, Z-ESD, Z-FLEX, Z-GLASS, Z-HIPS, Z-NYLON, Z-PCABS, Z-PETG, Z-PLA, Z-PLA Pro, Z-ULTRAT
External materials	Applicable
Support	Mechanically removed – printed with the same material as the model
Filament container	Spool
Filament diameter	1.75 mm (0.069 in)

### **TEMPERATURE**

Maximum printing temperature (extruder)	290 °C (554 °F)
Maximum platform temperature	105 °C (221 °F)
Ambient operation temperature	20-30 °C (68-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### IN THE BOX

3D Printer, Hotend V3, Side Covers, Z-SUITE, Starter Kit, Material Spool, Spool Holder, USB Memory Stick

#### **ELECTRICAL**

AC Input	110 V ~ 5.9 A 50/60 Hz 240 V ~ 2.5 A 50/60 Hz
Maximum power consumption	320 W

### SOFTWARE

Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf, .ply
Supported operating system	Mac OS Catalina and newer versions / Windows 10 and newer versions



## M300 Plus

## Print big models in one go

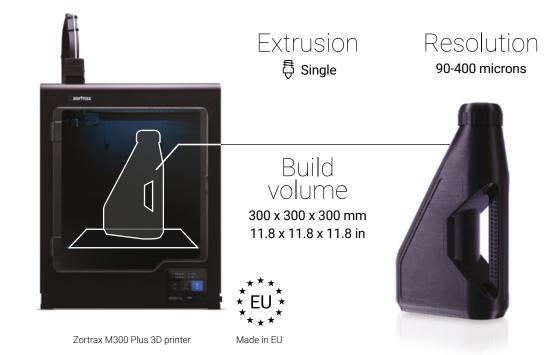












### Large workspace

The M300 Plus workspace is one of the largest among desktop class 3D printers. It allows printing big models in one go without breaking them down into separate parts that need to be assembled. That's particularly important when durability is of the essence as joints are usually the weakest spots in the structure.

### Remote management

Manufacturing output increases with the number of 3D printers working on the project and the M300 Plus is designed to work in 3D printing farms. Multiple machines can be controlled remotely from one workstation over Ethernet or Wi-Fi.

### > Rock-solid performance

Working cycles on large volume 3D printers tend to be longer than on smaller machines which makes reliability even more important. The M300 Plus is based on a proven M300 design capable of running for many hours without failure at world-leading organizations like NASA.

### > Wide range of filaments

The M300 Plus works with all 1.75 mm filaments available on spools. It can print with challenging materials like flexible TPU or with highly durable nylon. Professional users are thus free to choose the right filament for their projects and rely on the 3D printer to handle it with no issues.

### Zortrax Speed mode

Zortrax Speed mode is a fully free feature for M Series Plus and M300 Dual 3D printers, which users can access from the printer menu. The feature lets you speed up your 3D printing project even up to 3 times.









Car grille prototype



Apartment cross-section model

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Build volume	300 x 300 x 300 mm (11.8 x 11.8 x 11.8 in)
Nozzle diameter	0.4 mm (0.016 in) – standard / 0.3 mm (0.012 in) / 0.6 mm (0.024 in)
Extruder	Single (compatible with demanding materials like TPU or nylon)
Extruder cooling system	Radial fan cooling the extruder block; two fans cooling the print
Hotend	Single, V3
Platform	Heated; perforated and glass plates are applicable
Material endstop	Mechanical
Connectivity	Wi-Fi, Ethernet, USB
Operating system	Android
Processor	Quad Core
Touchscreen	4" IPS 800 x 480
Camera	Yes

### **FILAMENTS**

Available Filaments	BASF Ultrafuse® ABS, Nanovia PC-ABS V0, Z-ABS, Z-ABS 2, Z-ASA Pro, Z-ESD, Z-FLEX, Z-GLASS, Z-HIPS, Z-NYLON, Z-PCABS, Z-PETG, Z-PLA, Z-PLA Pro, Z-ULTRAT
External materials	Applicable
Support	Mechanically removed – printed with the same material as the model
Filament container	Spool
Filament diameter	1.75 mm (0.069 in)

#### IN THE BOX

3D Printer, Hotend V3, Side Covers, Z-SUITE, Starter Kit, 2x Material Spool, Spool Holder, USB Memory Stick

#### **PRINTING**

Technology	LPD (Layer Plastic Deposition) – depositing melted material layer by layer onto the build platform
Layer resolution	90-400 microns
Minimal wall thickness	450 microns
Platform levelling	Automatic measurement of platform points' height

### **TEMPERATURE**

Maximum printing temperature (extruder)	290 °C (554 °F)
Maximum platform temperature	105 °C (221 °F)
Ambient operation temperature	20-30 °C (68-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### **ELECTRICAL**

AC Input	110 V ~ 5.9 A 50/60 Hz 240 V ~ 2.5 A 50/60 Hz
Maximum power consumption	360 W

### SOFTWARE

Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf, .ply
Supported operating system	Mac OS Catalina and newer versions / Windows 10 and newer versions



## 酮

Architecture



Geometrically complex models

Large mechanical models



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## M300 Dual Industrial-class 3D printing on your desk



### Large volume dual extrusion

The M300 Dual can simultaneously print with both model and water-soluble support filaments in a large build volume measuring  $265 \times 265 \times 300$  mm. This makes it capable of printing big models needed in industries like aerospace, automotive, or architecture.

### Advanced filament control

The printer can detect when the filament ran out or jammed. In both scenarios the print is paused and a notification is sent to the user. The work can be resumed from the same spot when the problem is solved.

#### Various build-platforms

With a capacitive displacement sensor, the M300 Dual can automatically calibrate to work with glass, perforated, or other types of build platforms. This way it's possible to customize the printer for the project at hand.

#### > Fail-safe 3D printing

To deal with power outages, the Blackout Response System stores enough energy to save the printing progress. Printing can be resumed from the same spot when the power is back on.

#### Third-party filaments support

Professional users often need special-purpose filaments for their projects. That's why the M300 Dual can work with all third-party 1.75 mm filaments available on spools with no adverse effect on utility.

#### Extensive connectivity

Multiple M300 Dual 3D printers can be connected via Wi-Fi or Ethernet network to work in large, remotely controlled clusters. Such 3D printing farms can be used for bridge manufacturing or small to medium scale production.

#### Zortrax Speed mode

Zortrax Speed mode is a fully free feature for M Series Plus and M300 Dual 3D printers, which users can access from the printer menu. The feature lets you speed up your 3D printing project even up to 3 times.











Model of gear mechanism before support material dissolution

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### DEVICE

Build volume	265 x 265 x 300 mm (10.4 x 10.4 x 11.8 in)
Nozzle diameter	0.4 mm (0.016 in) - standard, 0.6 mm (0.024 in)
Extruder	Dual, printing with model and support material
Extruder cooling system	Two fans cooling the extruder, radial fan cooling the print
Hotend	Dual
Platform	Heated; perforated and glass plates are applicable
Material Endstop	2 x mechanical
Connectivity	Wi-Fi, Ethernet, USB
Operating system	Android
Processor	Quad Core
Touchscreen	4" IPS 800 x 480
Camera	Yes

### FILAMENTS

Dedicated for single extrusion	Z-ABS, Z-ASA Pro, Z-ESD, Z-FLEX, Z-GLASS, Z-HIPS, Z-NYLON, Z-PETG, Z-PLA, Z-PLA Pro, Z-ULTRAT, BASF Ultrafuse® PAHT CF15, BASF Ultrafuse® PP GF30, BASF Ultrafuse PET CF15, 3DXTECH CarbonX PETG+CF, Kimya PETG Carbon, Kimya ABS-ESD, Nanovia PC-ABS V0, Nanovia PETG CF
Dedicated for dual extrusion	Z-ABS, Z-ASA Pro, Z-ESD, Z-FLEX, Z-NYLON, Z-GLASS, Z-PETG, Z-PLA, Z-PLA Pro, Z-SUP- PORT ATP, Z-SUPPORT Premium, Z-ULTRAT, BASF Ultrafuse 17-4 PH, BASF Ultrafuse 316L, BASF Ultrafuse ABS, BASF Ultrafuse BVOH, BASF Ultrafuse PAHT CF15, BASF Ultrafuse Support Layer, Nanovia PC-ABS V0
External materials	Applicable
Support	Mechanically removed – printed with the same material as the model  Soluble – printed with a different material than the model
Filament container	Spool
Filament diameter	1.75 mm (0.069 in)

### PRINTING

Technology	LPD Plus (Layer Plastic Deposition Plus) – advanced technology depositing melted thermoplastics with dissolvable support structures
Layer resolution	150-500 microns
Minimal wall thickness	450 microns
Platform levelling	Automatic measurement of platform points' height / manual measurement of platform points' height

### TEMPERATURE

Maximum printing temperature (extruder)	310 °C (590 °F)
Maximum platform temperature	105°C (221°F)
Ambient operation temperature	20-30 °C (68-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### **ELECTRICAL**

AC Input	110 V ~ 5.9 A 50/60 Hz 240 V ~ 2.5 A 50/60 Hz
Maximum power consumption	400 W

### SOFTWARE

Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf, .ply
Supported operating system	Mac OS Catalina and newer versions / Windows 10 and newer versions

### IN THE BOX

3D Printer, Side Covers, Z-SUITE, Starter Kit, Spool of Model Material, Spool of Support Material, 1x Perforated Plate, 1x Glass Plate, 2x Spool Holders, Material Box, USB Memory Stick



### Surgical planning models

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### Inventure Compact tool for your inventions



engineering



mechanisms





Zortrax Inventure 3D printer

### Extrusion ₽₽ Dual

🛱 Single

Resolution 150-300 microns





### Enclosed printing chamber

The Inventure has an enclosed heated printing chamber which allows to tightly control the temperature around the model. That's how warping and shrinkage that occur during the polymers' cooldown are minimized to achieve better dimensional accuracy.

#### Advanced dual-extrusion

Models in the Inventure can be printed in dual or single extrusion modes. In dual-extrusion, the printer works with two filaments: one for the model and one for water-soluble support structures. In the single-extrusion mode, the Inventure prints both the model and support structures with the model filament alone.

### Third-party filaments support

The Inventure works with both dedicated and third-party filaments available on spools. Dedicated smart cartridges are also available and automatically identify the type, color, and amount of the filament inside. Compatibility with spools enable the Inventure to support all 1.75 mm filaments available on the market.

#### Built-in HEPA filter

The HEPA filter is an integral part of the Inventure that prevents fumes and ultra-fine particles (UFPs) from getting out of the printing chamber. This filter is experimentally proven to intercept over 99% of the UFPs released in the 3D printing process.

### Automated support removal

Soluble support removal can be done automatically in the DSS Station designed to complement the Inventure. The DSS Station keeps the water at optimal temperature and circulates it around the model until all the support structures are gone\*.

<sup>\*</sup>The DSS Station is a stand-alone device that does not come in the box with the Inventure 3D printer.











Prototype of a knee joint

Bicycle cassette model before support material dissolution

Human heart pre-surgical planning model

Torsen differential mechanism

### DEVICE

Build volume	135 x 135 x 130 mm (5.3 x 5.3 x 5.1 in)
Nozzle diameter	0.4 mm (0.016 in)
HEPA Filter	Yes
Extruder	Dual, printing with the model and support material
Hotend	Dual
Connectivity	SD card (included)

### FILAMENTS

Dedicated for single extrusion	Z-ABS, Z-ASA Pro, Z-ESD, Z-FLEX, Z-GLASS, Z-NYLON, Z-PETG, Z-PLA, Z-PLA Pro, Z-ULTRAT
Dedicated for dual extrusion	Z-ESD, Z-GLASS, Z-PETG, Z-PLA, Z-PLA Pro, Z-SUPPORT Premium
External materials	Applicable
Support	Mechanically removed – printed with the same material as the model in single extrusion
	Soluble – printed with a different material than the model in dual extrusion
Filament container	Spool
Filament diameter	1.75 mm (0.069 in)

### IN THE BOX

3D Printer, Z-SUITE, 2 Material Spools, 5 Build Trays, Starter Kit, 2x Spool Holders, SD Card

### PRINTING

Technology	LPD Plus (Layer Plastic Deposition Plus)  – advanced technology depositing melted thermoplastics with dissolvable support structures
Layer resolution	150-300 microns
Minimal wall thickness	450 microns
Platform levelling	Automatic measurement of platform points' height

### TEMPERATURE

Heated chamber	Yes
Ambient operation temperature	15-30 °C (59-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### ELECTRICAL

AC Input	110 V ~ 4 A 50/60 Hz 240 V ~ 1.7 A 50/60 Hz
Maximum power consumption	300 W

### SOFTWARE

Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf, .ply
Supported operating systems	Mac OS Catalina and newer versions / Windows 10 and newer versions



Jigs and fixtures for manufacturing lines

Large end-use parts



Chemical-resistant models



Functional aerospace & automotive prototypes



Support tools for machines



Functional space parts

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### **Endureal**

### The real future of production lines



#### Easy to implement

Being a full-fledged industrial machine, Endureal is as fast to set up and easy to operate as Zortrax desktop-class 3D printers. Intuitive user interface and software with carefully tuned settings predefined for each dedicated filament make Endureal ready to work at full capacity from day one.

### High-temp polymers compatibility

The Endureal has been designed to work with a range of high-temp polymers. Z-PEI 9085, Z-PEI 1010, and blends of PEEK are all industrial materials with strength-to-weigth ratio comparable to metal alloys. Due to their uniqe properties, such materials are used in high tech fileds like aviation and space industry.

#### Performance under control

Endureal's operation is monitored in real time by a wide array of sensors. Everything from air humidity in the filament's compartment, to temperatures in its critical modules is tightly controlled. The printer can detect multiple issues like overheating or filament shortages and notify the user. In emergencies, its operation can be immediately stopped by hitting a clearly visible safe button.

### Industrial printing chamber

Endureal has an enclosed priniting chamber designed for the most challenging materials like Z-PEI 9085, Z-PEI 1010, or different blends of PEEK. It can be heated up to 200 °C. Such high temperatures are necessary to minimize shrinkage in large-format prints.

### High temperature build platform

A build platform in the Endureal is made of aluminum covered with PEI film to ensure proper adhesion for all supported filaments. The platform is designed to withstand temperatures reaching 220 °C which are necessary to efficiently print high-performance polymers.

#### Dual-extrusion capability

The printer can simultaneously work with two filaments, one for the model, and the other one for soluble or breakaway support structures. This makes it capable of fabricating models with complex internal geometries, movable mechanisms, and other shapes that would have been impossible to print in a single-extrusion mode.





A chemically resistant T-junction pipe 3D printed with Z-PEEK and soluble Z-SUPPORT ATP 130



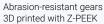
Temperature resistant thermostat housing 3D printed with Z-PEI 1010



Bevel gear 3D printed with BASF Ultrafuse® 316L after the debinding and sintering procedures









Triple clamp 3D printed with BASF Ultrafuse® 17-4 PH before the debinding and sintering procedures

Build volume*	400 x 300 x 300 mm (15.7 x 11.8 x 11.8 in)	
Nozzle diameter	0.4 mm (0.016 in)	
Extruder	Dual material	
Extruder cooling system	Two fans cooling the extruder, radial fan cooling the print	
Hotend	High-temperature dual hotend**	
Platform	Heated; aluminum plate coated with PEI	
Material Sensors	2 x mechanical endstop, 2 x material weight sensor	
Connectivity	Wi-Fi, Ethernet, USB	
Operating system	Android	
Processor	Quad Core	
Touchscreen	7" IPS 1024 x 600	
Camera	Yes	

### **FILAMENTS**

Dedicated for single extrusion	Z-ABS, Z-ULTRAT, Z-PEI 9085, BASF Ultrafuse® ABS, BASF Ultrafuse® PPSU, BASF Ultrafuse® PC/ABS FR, Nanovia PC-ABS V0	
Dedicated for dual extrusion	Z-ABS, Z-PEEK, Z-PEI 1010, Z-PEI 9085, Z-SUPPORT ATP, Z-SUPPORT ATP 130, Z-SUPPORT High-Temp, Z-ULTRAT, BASF Ultrafuse® 17-4 PH, BASF Ultrafuse® 316L, BASF Ultrafuse® Support Layer, , BASF Ultrafuse® ABS, BASF Ultrafuse® PC/ABS FR, VICTREX AM™ 200 FIL, Nanovia PC-ABS V0	
External materials	Applicable	
Support	Mechanically removed – printed with the same material as the model Break-away – printed with a different material than the model Soluble – printed with a different material than the model	
Filament container	Spool	
Filament diameter	1.75 mm (0.069 in)	

#### IN THE BOX

3D Printer, Z-SUITE, Starter Kit, Maintenance Kit, Spool of Model Material, Spool of Support Material, Spool of High-temperature Model Material, Spool of High-temperature Support Material, USB Memory Stick

#### **PRINTING**

Technology	LPD Plus (Layer Plastic Deposition Plus) – advanced technology depositing melted thermoplastics with break-away and dissolvable support structures	
Layer resolution	200-250 microns	
Minimal wall thickness	450 microns	
Platform levelling	Automatic measurement of platform points' height	

#### **TEMPERATURE**

Maximum printing temperature (extruder)	480 °C (896 °F)
Maximum platform temperature	220 °C (428 °F)
Maximum build chamber temperature	200 °C (392 °F)
Ambient operation temperature	17-30 °C (63-86 °F)
Storage temperature	0-35 °C (32-95 °F)

#### **ELECTRICAL**

AC Input	120 V ~ 13 A 50/60 Hz 200 - 240 V ~ 9.5 A 50/60 Hz
Maximum power consumption	120 V - 1600 W 200 - 240 V - 2300 W

### SOFTWARE

Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf, .ply
Supported operating system	Mac OS Catalina and newer versions / Windows 10 and newer versions

#### **MAINTENANCE KIT CONTENTS**

Material endstop (2 pcs.), extruder filament gear (2 pcs.), extruder, filters set (carbon & HEPA) (2 pcs.), PEI plate (2 pcs.), high-temperature hotend module (2 pcs.), extruder cable

<sup>\*</sup>In dual-extrusion mode project's dimensions cannot exceed 390 mm [15.35 in] in the X axis and/or 290 mm [11.40 in] in the Y axis.

 $<sup>{}^{\</sup>star\star}\text{Remember to use a separate high-temperature hotend module with each high-temperature material type you use.}$ 

### Parts & Accessories for @ LPD & @ LPD Plus

### **HEPA** Cover

Dedicated for: M200, M200 Plus, M300, M300 Plus, M300 Dual and other 3D printers with similar dimensions





HEPA Cover is a filtering device designed to intercept UFPs and unpleasant odors released in the 3D printing process. It also keeps the temperature in the printing chamber stable to reduce warping and shrinkage.

#### **WEIGHT AND PHYSICAL DIMENSIONS**

HEPA Cover 200	
Without filtering module (W x D x H)	368 x 357 x 230 mm (14.5 x 14.1 x 9.1 in)
With filtering module (W x D x H)	426 x 357 x 230 mm (16.8 x 14.1 x 9.1 in)
Device weight	1.95 kg (4.3 lb)
HEPA Cover 300	
Without filtering module (W x D x H)	496 x 483 x 280 mm (19.5 x 19.1 x 11 in)
With filtering module (W x D x H)	545 x 483 x 280 mm (21.5 x 19.1 x 11 in)
Device weight	2.55 kg (5.6 lb)

#### **FILTRATION**

Odor reduction filter	Carbon
Particle reduction filter	HEPA
Filtration efficiency	99.5%

### **ELECTRICAL**

AC input	100 - 240 V ~ 0.7 A 50/60 Hz
Power supply parameters	12 V DC, 0.5 A (min)
Maximum power consumption	6 W

### IN THE BOX

Device, Power Supply Unit, Filtering Module with HEPA and Carbon Filters

### HFPA Cover Filter set

Dedicated for: Zortrax HEPA Cover

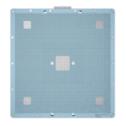
HEPA and carbon filters in HEPA Covers should be changed every 3-4 months. This filter set contains 3 HEPA and 3 carbon filters – enough to keep the HEPA Cover's performance at optimal level for up to a year.



### Parts & Accessories for @ LPD & @ LPD Plus

# Perforated plate & glass plate

Dedicated for: M200 Plus, M300 Plus, M300 Dual







Perforated plate V2 for M300 Plus

Perforated build plates are made to ensure great build-platform adhesion and are recommended for printing with rafts.

Glass build plates available for the M200 Plus, M300 Plus and M300 Dual make it possible to achieve extremely smooth first layers when printing raft-free.



Perforated plate for M300 Dual



Glass build plate\* for M200 Plus, M300 Plus, M300 Dual

### Zortrax DSS Station

Dedicated for: Inventure and M300 Dual



Zortrax DSS Station is an automated soluble support removal device compatible with the Inventure and M300 Dual 3D printers. It keeps the water at optimal temperature and circulates it around the model to increase the supports dissolution rate.

### **WEIGHT AND PHYSICAL DIMENSIONS**

External dimensions (W x D x H)	235 x 238 x 295 mm (9.2 x 9.4 x 11.6 in)
Internal dimensions	188 x 188 x 199 mm (7.4 x 7.4 x 7.8 in)
Working volume	6 I (202.9 fl oz)
Device weight	8.4 kg (18.5 lb)

#### MECHANICAL

Maximum working temperature	75 °C (167 °F)
Maximum rotational speed	220 rpm

#### **ELECTRICAL**

AC input	110 V ~ 9 A 50/60 Hz 240 V ~ 4.2 A 50/60 Hz
Maximum power consumption	1000 W

<sup>\*</sup>Different for each 3D printer.

### Parts & Accessories for © LPD

PARTS & ACCESSORIES	DESCRIPTION	M200 PLUS	M300 PLUS	PRODUCT
Extruder cable*	Cable connecting an extruder with a motherboard	<b>√</b>	<b>√</b>	ROTIGE Transaction and transac
Fan cooler	Spare extruder's fan cooler	<b>\</b>	<b>√</b>	
Glass plate*	Glass build plates make it possible to achieve extremely smooth first layers when printing raft-free	<b>\</b>	<b>√</b>	
Hotend V3	Heating block for filament extrusion system	<b>\</b>	<b>√</b>	Zorttax Herned v3
Nozzle 0.4 mm (brass)	Spare brass 0.4 mm nozzle	<b>√</b>	<b>√</b>	
Nozzle set 0.3 & 0.6 mm (brass)	Set of 2 brass nozzles with 0.3 diameter for precise prints and 0.6 mm diameter for fast prints	<b>√</b>	<b>\</b>	

<sup>\*</sup>Different for each 3D printer.



### Parts & Accessories for O LPD

PARTS & ACCESSORIES	DESCRIPTION	M200 PLUS	M300 PLUS	PRODUCT
Nozzle 0.6 mm (brass)	A spare brass nozzle with 0.6 mm diameter	✓	<b>√</b>	
Nozzle 0.6 mm (steel)	A spare steel nozzle with 0.6 mm diameter	✓	<b>√</b>	
Nozzle caps	Set of 4 teflon nozzle caps	✓	<b>√</b>	
Perforated plate	Perforated plate to install on heatbed	✓	X	
Perforated plate V2	Perforated plate V2 to install on heatbed	Х	<b>√</b>	

### Parts & Accessories for © LPD

PARTS & ACCESSORIES	DESCRIPTION	M200 PLUS	M300 PLUS	PRODUCT
Radial fan cooler	Spare radial fan cooler dissipating heat generated in the XY block where the upper part of hotend is attached	<b>√</b>	<b>√</b>	
Side covers*	Detachable plastic panels covering build space	<b>√</b>	<b>√</b>	
Spool holder*	Holder for spools of filament	<b>√</b>	<b>√</b>	
Thermocouple +heater	Set of one thermocouple (element for hotend temperature gauge) and one heater (heating element for hotend)	<b>√</b>	<b>\</b>	

<sup>\*</sup>Different for each 3D printer.

### Parts & Accessories for O LPD Plus

PARTS & ACCESSORIES	DESCRIPTION	M300 DUAL	INVENTURE	PRODUCT
Build tray	4 spare standard build trays	X	<b>√</b>	
Build tray plus	4 spare build trays plus. Designed for 3D printing with Z-ULTRAT Plus	X	<b>√</b>	
Extruder FPC cable	M300 Dual extruder's cable	<b>√</b>	X	Name of the last o
Extruder PCB	M300 Dual extruder's PCB	<b>√</b>	X	Softex 6
Extruder v1	Extruder for M300 Dual	<b>√</b>	X	
Fan cooler	Spare extruder's fan cooler	<b>√</b>	χ	
Glass build plate	Glass build plates available for the M300 Dual make it possible to print raft-free	<b>√</b>	X	
HEPA filter	Spare air filter	X	<b>√</b>	

### Parts & Accessories for O LPD Plus

PARTS & ACCESSORIES	DESCRIPTION	M300 DUAL	INVENTURE	PRODUCT
Hotend module 0.4 mm (brass)	2 separate hotends in set, one extruding the model material and the other extruding the support material	<b>√</b>	<b>√</b>	
Hotend modu- le with 0.6 mm nozzle (brass)	2 separate hotends (each with a brass 0.6 mm nozzle) in set, one extruding the model material and the other extruding the support material	<b>√</b>	Х	T T
Hotend modu- le with 0.6 mm nozzle (steel)	2 separate hotends (each with a steel 0.6 mm nozzle) in set, one extruding the model material and the other extruding the support material	<b>√</b>	Х	
Nozzle 0.6 mm (brass)	Spare brass 0.6 mm nozzle	<b>√</b>	Х	
Nozzle 0.6 mm (steel)	Spare steel 0.6 mm nozzle	<b>√</b>	Х	
Nozzle caps	Set of 4 teflon nozzle caps	<b>√</b>	√	
Nozzle set 0.4 mm (brass)	2 brass 0.4 mm nozzles, 2 teflon nozzle caps, 2 hotend covers	<b>√</b>	<b>√</b>	

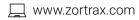
<sup>\*</sup>Different for each 3D printer.

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### Parts & Accessories for O LPD Plus

PARTS & ACCESSORIES	DESCRIPTION	M300 DUAL	INVENTURE	PRODUCT
Perforated plate	Perforated plate to install on heatbed	<b>√</b>	X	
Radial fan cooler 30x30*	Radial fan cooler	<b>√</b>	√	
Extruder fan coolers top and front	Spare fan coolers	<b>√</b>	√	
Side covers	Detachable plastic panels covering build space	<b>√</b>	Х	
Spool holder	Holder for spools of filament	<b>√</b>	Х	

<sup>\*</sup>Different for each 3D printer.



# 3D Printing Thermoplastic Filaments for © LPD & © LPD Plus

FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	INVENTURE	ENDUREAL
Z-ABS  ABS-based, multi-purpose filament. Easy to post-process for both beginners and professionals.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	X
Z-ABS 2 Z-ABS 2 is an ABS blend that has higher elongation at break and tensile strength than standard Z-ABS.	<b>√</b>	<b>√</b>	Х	Х	X
Z-ASA Pro ASA-based resilient filament for functional prototypes that can withstand the UV light, rain, and wind.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Х
Z-ESD  PETG-based filament perfect for the electronic industry.  Guarantees electrostatic discharge protection along with resistance to most acids, alcohols, and alkalis.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	X
Z-FLEX Strong TPU-based flexible filament with great interlayer- adhesion. It can bend without breaking. The material is non- toxic and resistant to various chemicals like gasoline and ethyl alcohol.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	X
Z-GLASS  Composite material based on PETG with fiberglass addition. It has light-transmitting properties for translucent models and is resistant to scratches, UV light, and chemicals.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Х
Z-HIPS  A filament based on HIPS (high impact polystyrene) with semi-mat texture that masks the layering. Offers high impact resistance and effortless post-processing.	<b>√</b>	<b>√</b>	<b>√</b>	X	X

## 3D Printing Thermoplastic Filaments for @ LPD & @ LPD Plus

FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	INVENTURE	ENDUREAL
Z-NYLON  Very strong, versatile filament resistant to high temperatures and chemicals. It can be post-processed with tools meant for machining metals. The material is easy to paint and hard to break.	√	<b>√</b>	<b>√</b>	<b>√</b>	X
Z-PCABS  A blend of ABS and polycarbon. Can easily withstand impacts, UV light, high temperature, and time. It's also resistant to salts, acids, and other chemicals.	<b>√</b>	<b>√</b>	Х	Х	Х
Z-PEEK  Very strong, radiation-resistant high-performance polymer with excellent thermal properties.	Х	Х	Х	Х	<b>√</b>
Z-PEI 1010  Industrial material offering better temperature resistance and higher rigidity than Z-PEI 9085. Withstands contact with a wide range of chemicals.	Х	Х	Х	Х	√
Z-PEI 9085  Durable, aerospace-grade polymer with strength-to-weight ratio comparable to aluminum 6061. Consists of polyetherimide with a polycarbonate copolymer blend and exhibits excellent thermal properties.	X	Х	Х	Х	✓
Z-PETG  Filament based on PET with glycol addition. Able to withstand UV light and passage of time. The material is also exceptionally resistant to oils and other greases.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Х

# 3D Printing Thermoplastic Filaments for © LPD & © LPD Plus

FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	INVENTURE	ENDUREAL
Z-PLA					
PLA-based filament with low shrinkage, guaranteeing high-quality details and smooth surfaces. Offers exceptional precision for complex models	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	Χ
Z-PLA Pro					
PLA-based, biodegradable filament. An addition of chalk gives its surface a unique mat finish and more visible details with gypsum-like texture. Very low shrinkage, almost no warping.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	X
Z-SUPPORT ATP					
Soluble support filament designed with high thermal stability in mind. Unlike materials based on PVA or BVOH, it does not dissolve in water but in a mild alkaline called Z-SUPPORT ATP Activator.	X	X	<b>√</b>	Х	<b>√</b>
Z-SUPPORT ATP 130					
Soluble support filament dedicated for 3D printing with high-temperature conditions. It dissolves in a mild alkaline of water with Z-SUPPORT ATP Activator.	X	Χ	X	X	<b>√</b> *
Z-SUPPORT High Temp					
Breakaway support filament designed to withstand high temperatures necessary for printing polymers like Z-PEI 9085 or PEEK-based filaments.	X	X	X	X	<b>√</b>
Z-SUPPORT Premium					
BVOH-based soluble support filament. The material has a fast dissolution rate.	X	X	<b>√</b>	<b>√</b>	X
Z-ULTRAT					
Durable and lasting ABS-based filament. Its surface can be easily post-processed with acetone and mechanical treatment. Available in a wide range of colors.	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>

<sup>\*</sup>the material profile available only in Z-SUITE 3.0 BETA

**O** 

LPD Plus

### zortrax

### Trusted Partners' Professional Filaments for @ LPD & @ LPD Plus

Top of the line filaments are one of the key factors contributing to outstanding print quality Zortrax LPD and LPD Plus 3D printers are known for. For this reason we are working with world-leading manufacturers of polymer filaments like BASF Forward AM to guarantee that materials in our ever-growing portfolio have thoroughly calibrated printing profiles and are always true to the manufacturers' specifications.













FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	ENDUREAL
BASF Ultrafuse® ABS Black Filament Strong ABS filament with high temperature resistance and flexibility. Perfect for various engineering and rapid prototyping applications. Can be smoothed with Acetone.	<b>√</b>	<b>√</b>	<b>/</b> *	<b>/</b> *
BASF Ultrafuse® PAHT CF15  Polyamide-based filament with 15% carbon fibers addition. Apart from its advanced mechanical properties, dimensional stability, and chemical resistance, it has excellent processability.	χ	Х	<b>√</b>	Х
BASF Ultrafuse® PP GF30  Polypropylene-based filament with 30% fiber glass addition. It is characterized by extremely high stiffness and resistance to heat, UV light, and chemicals.	X	X	✓	Х
BASF Ultrafuse® PET CF15  Polyethylene therephthalate (PET) thermo-plastic reinforced with 15% carbon fiber. Its high dimensional stability and very low moisture absorption make it a perfect material in a humid environment. The heat-resistant property, strength, and stiffness make this filament highly suitable for a wide range of industrial applications.	X	X	<b>/</b> *	X
BASF Ultrafuse® BVOH  Water-soluble support filament. The solubility increases with the increase in temperature of water used for supports' removal. Compatible with PLA, ABS, PA, and PAHT CF15 filaments.	X	X	✓	Х

<sup>\*</sup>the material profile available only in Z-SUITE 3.0 BETA

# Trusted Partners' Professional Filaments for © LPD & © LPD Plus

FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	ENDUREAL
BASF Ultrafuse® PC/ABS FR  Ultrafuse® PC/ABS FR is a V-0 flame retardant blend of PC and ABS, two most-used thermoplastics for engineering and electrical applications. The filament offers excellent mechanical properties and low printing temperatures.	X	X	Х	<b>√</b> *
BASF Ultrafuse® PPSU  Ultrafuse® PPSU is an amorphous high-performance polymer with high thermal and chemical resistance. 3D parts maintain high stiffness and dimensional stability when used in high temperature in automotive, aerospace, and plumbing sectors.	X	X	Х	<b>,/</b> *
BASF Ultrafuse® 17-4 PH  Metallic powder filament included in the Zortrax Full Metal Package 17-4 PH. It has features that allow users to produce metal parts in a safe, easy, and cost-effective way in comparison with Metal Injection Molding or metal machining. The filament contains 80% 17-4 stainless steel particles and 20% of polymer content.	X	X	<b>/</b> *	<b>/</b> *
BASF Ultrafuse® 316L  Metallic powder filament included in the Zortrax Full Metal Package 316L. It has features that allow users to produce metal parts in a safe, easy, and cost-effective way in comparison with Metal Injection Molding or metal machining. The filament contains 80% 316L stainless steel particles and 20% of polymer content.	X	X	<b>/</b> *	<b>/</b> *
BASF Ultrafuse® Support Layer  Special support filament designed to work with BASF Ultrafuse® 316L and BASF Ultrafuse® 17-4 PH. It creates a thin barrier between the part and its supports, so that the part doesn't get distorted during sintering and debinding and the supports are easy to remove.	Х	Х	<b>/</b> *	<b>/</b> *

# Trusted Partners' Professional Filaments for OLPD & OLPD Plus

LPD Plus

FILAMENTS	M200 PLUS	M300 PLUS	M300 DUAL	ENDUREAL
3DXTECH CarbonX PETG+CF				
Composite material based on PETG with high-modulus carbon fiber. It is perfect for 3D printing structural components with high modulus, excellent surface quality, dimensional stability, light weight.	X	X	<b>√</b> *	X
Kimya PETG Carbon				
The material combines high temperature resistance of PETG with the strength that comes from the addition of carbon fibers. It also has very high bending resistance. Due to its stiffness, it is used for specific mechanical parts, especially in the automotive industry.	X	χ	<b>/</b> *	χ
Kimya ABS-ESD				
Kimya ABS-ESD 3D filament belongs to the styrene polymer family. The material has a specific additive that gives it ESD properties. This filament protects against electrostatic discharge and provides good impact resistance. It is a lightweight and rigid material that is also easy to print.	Х	X	<b>√</b> *	X
Nanovia PETG CF				
Nanovia PETG CF allows users to create structural 3D prints with low warping thanks to its compound carbon fibers structure. The filament provides good mechanical properties, rigidity, and dimensional control during the realization of technical parts.	Х	X	<b>/</b> *	Χ
Nanovia PC-ABS V0				
Nanovia PC-ABS combines the ease of printing of ABS with mechanical and thermal properties of PC. It is non-flammable according to the UL94 norm (V0). The material is ideal for technically demanding environments that exceed regular ABS's thermal limit.	✓	<b>√</b>	<b>√</b>	<b>/</b> *
VICTREX AM™ 200 FIL				
VICTREX AM™ 200 is a high-performance PAEK polymer. It belongs to the same family of materials as Z-PEEK but has way stronger interlayer bonds due to slower crystallization rate. The material is thermally stable with melting temperature exceeding 300 °C.	χ	χ	Х	<b>√</b> *

<sup>\*</sup>the material profile available only in Z-SUITE 3 BETA



## Apoller

# Revolutionary automated post-processing





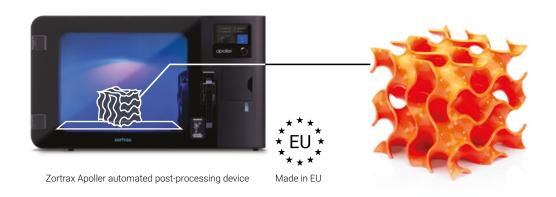








300 x 250 x 250 mm 11.8 x 9.8 x 9.8 in



### Smart Vapor Smoothing

MEK or acetone vapors react with surfaces of 3D printed models which leads to disappearance of visible layering. The SVS is a patent-pending technology that efficiently performs this process in a controlled and user-friendly manner.

### Safety first

The Apoller has carefully designed vapors' flow and condensation systems make the device safe to use even by untrained staff.

### High efficiency

Once the smoothing is done, excessive vapors are retrieved in the condensation system and placed back in the tank to be reused in the future. This way multiple smoothing sessions can be performed with just one 500 ml bottle of MEK or acetone.

#### Perfect details

Manual vapor-smoothing can leave tiny details deformed. The Apoller solves this with tight control over the temperature and pressure in the smoothing chamber. The smaller the detail the less solvent is applied to its surface which keeps its shape intact.

### Wide compatibility

The Apoller is compatible with prints made on all FDM, FFF, LPD, and LPD Plus 3D printers. It can smooth models printed with ABS, ASA, or HIPS filaments. Surfaces can be smoothed to glossy or matte finish, depending on the used filament.

### Serial post-processing

Each smoothing session takes about 3h, regardless of how many models are placed in the smoothing chamber. The Apoller can work in large 3D printing farms taking their production quality to the level comparable with injection molding technology.









Turbine	prototype
I GI DII IC	prototype

End-use bike handle

### DEVICE

Build volume	300 x 250 x 250 mm (11.8 x 9.8 x 9.8 in)
Connectivity	Wi-Fi, Ethernet, USB
Operating system	Android
Processor	Quad Core
Touchscreen	4" IPS 800 x 480
Solvent compatibility*	Aceton, MEK
Zortrax compatible materials	Z-ABS, Z-ASA Pro, Z-HIPS, Z-ULTRAT
External compatible materials	ABS, ASA, HIPS

### IN THE BOX

Device, Starter Kit

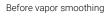
#### **PROCESS**

Maximum working temperature	90 °C (194 °F)
Minimum working temperature	-20 °C (-4 °F)
Minimum gauge working pressure	-0.6 bar
Ambient operation temperature	15-30 °C (59-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### ELECTRICAL

AC Input	110 V ~ 13.6 A 50/60 Hz 240 V ~ 6.3 A 50/60 Hz
Power supply parameters	24 V DC @ 21 A, 500 W
Maximum power consumption	1500 W







After vapor smoothing

<sup>\*</sup>Only pure MEK or acetone are supported and safe to use. Using other solvents may be dangerous and should not be attempted.



Precise engineering



Medium- to large--scale production



Detailed models



Excellent surface quality

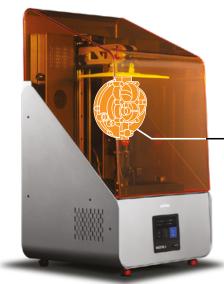


Highly automated

### zortrax

## **Inkspire 2**

### Refined resin 3D printing experience



Build volume 192 x 120 x 280 mm 7.56 x 4.72 x 11.02 in

> Pixel size 50 microns





Zortrax Inkspire 3D printer

### High speed resin 3D printing

UV LCD technology used in the Inkspire 2 is one of the fastest in the resin 3D printing market. The entire layer is solidified at once, so there is no time lost for a laser dot to draw it on a resin vat. The same high speed of printing is maintained regardless of how much of the build platform is filled.

#### Advanced post-processing ecosystem

Most resins require additional post-processing to achieve desired properties after the printing is done. This is why we have introduced Zortrax Cleaning Station and Zortrax Curing Station, two automatic post-processing devices that complement the Inkspire 2 resin 3D printer in an advanced ecosystem. The purpose of the Zortrax Cleaning Station is to remove uncured resin from the surfaces of models while the Zortrax Curing Station provides UV curing to materials that need it.

### Uniform UV exposure

Models 3D printed on the Inkspire 2 have the same high surface quality and excellent mechanical properties regardless of whether they are positioned in the center or towards the edges of the build platform. This has been achieved through maintaining uniform UV light distribution across the entire build platform.

### Compatible with high-performance resins

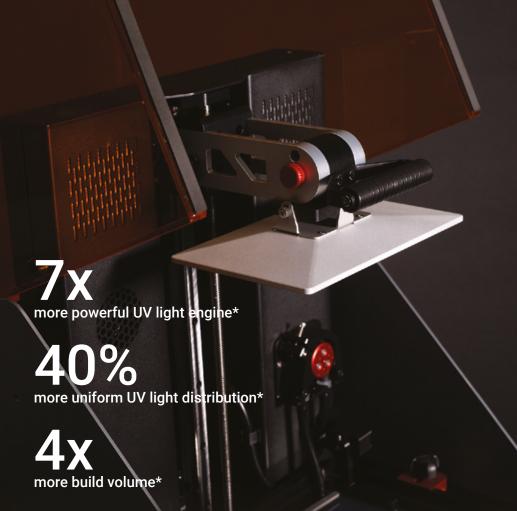
The Inkspire 2 is compatible with many advanced engineering resins, including the ones previously available only for DLP 3D printers. We are working with brands like Henkel/ Loctite or BASF Forward AM to ensure properties of parts printed with their best performing materials match or exceed the specced values.

### More advanced, even easier to operate

The Inkspire 2 is our most advanced resin 3D printer and yet it is easy to set up and run. It comes with a pre-calibrated build platform, so it is ready to work out of the box. Appropriate sensors keep tabs on resin levels both in the vat and in the bottle. Other sensors detect power outages to save the printing progress. The Inkspire 2 is a highly automated machine that gets the job done with very little supervision and maintenance.

### Air filtering systems

The Inkspire 2 has closed air circulation within its build space to keep unpleasant smell and potentially harmful fumes released by resins from getting out. Instead, the fumes are routed through air filtering system designed to keep the Inkspire 2 surroundings safe and comfortable to work in.



### Industrial-grade proprietary light engine

### Ingenious design

The light engine in the Inkspire 2 has been developed in-house from the ground up. Our engineers designed an array of UV diodes backlighting a monochromatic screen to achieve consistent UV exposure of every single pixel on a large build platform while retaining utmost precision.



### Uniform and powerful

The amount of UV light delivered to the resin vat in the Inkspire 2 is 7 times higher than in the Inkspire 1. This powerful exposure is also uniform across the build platform due to placement of each UV diode working in the array.

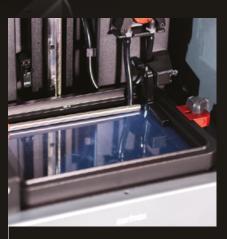


### Open to engineering resins

Because its light engine is so powerful, the Inkspire 2 can work with dense, advanced resins made by world-leading manufacturers like BASF Forward AM or Henkel/Loctite. Such materials have thermal and mechanical properties comparable to most durable polymers used on industrial manufacturing lines but need significantly more UV light.







### Consistent precision

Each pixel in the Inkspire 2 measures just 50x50 microns which, when combined with 25 microns of minimal layer height enables printing astonishingly precise parts. Moreover, individual pixels can be accurately projected onto the polymer vat which means the Inkspire 2 is just as good at printing both extremely small and very large models.

<sup>\*</sup>compared to last-gen Inkspire 3D printer

### Less messy, more automated resin 3D printing

The Inkspire 2 is designed to keep the resin 3D printing process clean and simple. We have achieved this simplicity through advanced, cleverly implemented automation.

### Pre-calibrated for performance

The build platform in the Inkspire 2 is factory-calibrated so there is no need to do the calibration manually. And even if manual calibration proves necessary at some point, the procedure is fast and simple.

### Resin wiper

Automatic resin wiper stirs the resin in the vat at predefined intervals to prevent resin sedimentation and this way makes it possible to reliably print more advanced materials.

### Intelligent build platform mount

The build platform in the Inkspire 2 can be easily attached and detached. It can also be positioned at an angle, allowing for the resin to drip down to the vat, which helps keeping the build platform clean.

### Blackout Response System

Blackout Response System detects power outages and keep the Inkspire 2 going until the printing progress is saved. When the power is back on, printing can be safely resumed.

### Resin management system

The Inkspire 2 recognizes how much resin it has available and how much is needed to complete the printing process. Here are the key components of the resin management system:

- One sensor constantly measuring how much resin is left in the bottle placed in the holder at the back of the printer.
- Another sensor measuring how much resin is in the vat beneath the build platform.
- A pump that can transfer the resin from the bottle to the vat and back when necessary.

All three parts constantly work together to make sure the Inkspire 2 has enough material to get the printing done with no interruptions.









Transparent artery





Bike saddle

Functional vent

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Fixtures and Jigs

192 x 120 x 280 mm (7.56 x 4.72 x 11.02 in)
pre-calibrated during quality control; immediately ready for 3D printing
Wi-Fi, LAN, USB
Android
4" IPS 800 x 480'
.zcodex2

### SOFTWARE

Software bundle	Z-SUITE
Supported file types	.stl, .obj, .3mf, .dxf (only 2D models), .ply
Supported operating systems	Mac OS Catalina and newer versions / Windows 10 and newer versions

#### **RESINS**

Zortrax	Zortrax Resin Basic, Zortrax Resin Tough
Trusted partners	BASF Ultracur3D® RG 35, BASF Ultracur3D® RG 50, BASF Ultracur3D® ST 45, BASF Ultracur3D® ST 80, BASF Ultracur3D® ST 1400, BASF Ultracur3D® FL 60, BASF Ultracur3D® EL 60, BASF Ultracur3D® EL 150, BASF Ultracur3D® EL 4000, BASF Ultracur3D® RG 1100, BASF Ultracur3D® RG 3280, Zortrax Henkel Loctite Resin Pro 410, Loctite 3D 3843 HDT60, Loctite 3D 3172 HDT50 High Impact, BlueCast Original, BlueCast X5, BlueCast X10, BlueCast X-ONE
External	Applicable

### **PRINTING**

Technology	UV LCD
Pixel size	50 μm
Layer thickness	25, 50, 100 μm
LCD screen	8.9" monochrome
Light source	integrated LED panel (wavelength 405 nm), ensuring even light distribution across the entire platform
Supports	mechanically removed - printed with the same material as the model

### **TEMPERATURE**

Ambient operation temperature	20-40 °C (68-104 °F)
Storage temperature	0-35 °C (32-95 °F)

### **ELECTRICAL**

AC Input	100-240 V AC 6.2 A 50/60 Hz
Maximum power consumption	340 W

### IN THE BOX

Zortrax Inkspire 2, UV Resin, Bottle Holder, FEP Film (set), Wiper Set, Resin Sensor Set, Starter Kit

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### Cleaning Station

Zortrax Cleaning Station is a post-processing device removing excessive unsolidified resin from the surfaces of 3D printed photopolymer models



Working area dimensions 300 x 210 x 270 mm (11.8 x 8.27 x 10.6 in)

Tank capacity 18 I (608.65 fl oz)



Zortrax Cleaning Station

#### The first post-processing stage

Parts made in all resin 3D printing technologies need to be cleaned after the printing is done. It is so because unsolidified resin present in the vat tends to stick to their surfaces. Zortrax Cleaning Station is made to clean this excessive resin off the printed models.

### Two supported cleaning agents

Isopropyl alcohol (IPA) is the most popular cleaning agent used in post-processing of resin 3D printed models and Zortrax Cleaning Station is designed to support it. Some materials, however, need two-stage cleaning. The first stage is done using glycol-based agents and the second is done with standard IPA. For this reason, Zortrax Cleaning Station can also work with glycol-based cleaning fluids.

#### More efficient rotor cleaning

Zortrax Cleaning Station uses a rotor with adjustable speed to circulate cleaning fluid. Compared to ultrasonic cleaners, it is more delicate and does not damage intricate parts. The cleaning process takes roughly 5 minutes and is fully automated. Once it is done, the top cover opens up and the models are lifted out of the tank for retrieval.

#### Compatibility with all resin 3D printers

The Zortrax Cleaning Station works with all major resin 3D printing technologies like UV LCD, SLA, and DLP. Due to high volume tank, it can clean relatively large models. Moreover, the device offers full functionality when paired with all resin 3D printers on the market.

#### IPA filtering system

IPA cleaning fluid is circulated through a filtering system that catches remnants of the resin. This way the IPA can be safely reused in multiple cleaning session. Lifespan of filters depends on the geometry and size of the cleaned models. It is recommended to check the filters' condition periodically and replace them when they are clogged.

### Made for Zortrax Inkspire 2

While Zortrax Cleaning Station can be used with any resin 3D printing system, it still works best with Zortrax Inkspire 2 as a part of the same ecosystem. The build platform used in the Inkspire 2 can be easily attached to the top cover of the Zortrax Cleaning Station, so the models can be cleaned without taking them off the platform.



### DEVICE

Working area dimensions	300 x 210 x 270 mm (11.8 x 8.27 x 10.6 in)
Tank capacity	18 L
Filters	Two mechanical filters:  • polypropylene cartridge (1 micron)  • stainless mesh cartridge with UV lighting (150 microns)
Security	excessive cleaning fluid level sensor     flow meter preventing operation without the cleaning fluid in the system

### **IN THE BOX**

Zortrax Cleaning Station, a metal basket for 3D prints' cleaning, a holder for attaching the Inkspire 2 platform, Starter Kit

### **WEIGHT AND PHYSICAL DIMENSIONS**

Device (W x D x H)	460 x 460 x 490 mm (18.1 x 18.1 x 19.3 in)
Weight	40 kg (88.2 lb) - without cleaning fluid     around 80 kg (176.4 lb) - with cleaning fluid (full tank)

### ELECTRICAL

AC input	100-240 V AC 4 A 50/60 Hz
Maximum power consumption	48 W







### **Curing Station**

Zortrax Curing Station is a postprocessing device providing additional UV curing of parts made in all resin 3D printing technologies



### Light source:

UV light - 405 nm wavelength

UV light power: 75 mW/cm^2



11.8 x 11.8 x 7.9 in



Zortrax Curing Station

#### Made in EU

#### Essential in resin 3D printing

UV curing is a post-processing step required by nearly all leading resin manufacturers to achieve desired mechanical and thermal properties of their materials. To guarantee consistent results it has to be performed in controlled conditions using high-quality equipment like Zortrax Curing Station.

### Safety comes first

Zortrax Curing Station has multiple systems ensuring safety of its operators. The device detects when the curing chamber door is open and immediately turns off UV lamps to prevent harmful UV irradiation. During the curing process all UV radiation is stopped by a filter built in the front glass pane. Finally, a separate system prevents the UV LEDs from overheating.

### Wide compatibility

The Zortrax Curing Station is a standalone device that can complement all UV LCD, SLA, or DLP resin 3D printers available on the market. It has a large workspace that enables curing 3D prints of significant size made on industrial machines. Now, there aren't any design or software features that lock a user into one particular 3D printing ecosystem.

#### Industrial-class curing chamber

The curing chamber in Zortrax Curing Station is designed to ensure all surfaces of a resin 3D model get consistent UV exposure. The walls of the chamber are made with 304 stainless steel sheet polished up to the EN 10088-2 2P standard which acts as a mirror, reflecting UV light at all sides of the model. Consistency of exposure is further enhanced by a rotating table on which the parts being cured are placed. This way, the post-processed models are free of weak spots caused by insufficient UV exposure.

### Validated by BASF Forward AM and Henkel/ Loctite

World-leading resin manufacturers like BASF Forward AM and Henkel/Loctite know that it is the entire ecosystem that makes it or breaks it for a 3D printed part. That is why the Zortrax Curing Station was tested along with the Inkspire 2 resin 3D printer in their thorough validation procedures. In result, both are proven to achieve desired mechanical and thermal properties of chosen BASF Forward AM and Henkel materials when used together.



### Automated and easy to operate

The Zortrax Curing Station offers the same level of automation and easy operation as the Inkspire 2. The UV curing process boils down to choosing proper settings and placing models on the rotating glass table. Post-processing takes place in a controlled and safe environment.



### DEVICE

Workspace volume	300 x 200 x 300 mm (11.8 x 11.8 x 7.9 in)
Light source	UV light - 405 nm wavelength
UV light power	75 mW/cm^2
Chamber	Metal with a mirrored surface supporting even light distribution around 3D prints
Door	Made of a glass layer with a PMMA filter
Display/control panel	Touch control panel; single color display; on/ off button
Security	Door opening sensor

### **ELECTRICAL**

AC input	100 - 240 V AC max 2 A - 120 V; max 1 A - 230 V 50/60 Hz
Maximum power consumption	240 W

### **WEIGHT AND PHYSICAL DIMENSIONS**

Device (W x D x H)	464 x 470 x 501 mm (18.3 x 18.5 x 19.7 in)
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### IN THE BOX

Zortrax Curing Station, Starter Kit



# Parts & Accessories for \( \rightarrow UV LCD \)

PARTS & ACCESSORIES	DESCRIPTION	PRODUCT
FEP Film (set)	A set of 4 FEP films. The set contains 4 FEP films which are designed to pass UV light to solidify liquid resins.	FEP Film
Resin Vat	Removable resin vat available with frames and FEP film.	
Platform	A removable build platform with a holder.	
Wiper Set	Components needed to install the wiper in the resin vat. Contains a wiper, a blade with a holder, and a socket screw.	-
Filters Set	A set of HEPA and carbon filters containing 4 filters: 2 x HEPA filters and 2 x carbon filters.	
Resin Tubes Set	A set of resin tubes for the resin pump. Contains three pump tubes and a pipe connector.	

# Parts & Accessories for \( \rightarrow UV LCD \)

PARTS & ACCESSORIES	DESCRIPTION	PRODUCT
Resin Sensor Set	A set with components needed to install the resin sensor. Contains a resin sensor, a sensor shaft cover, and screws.	
Z Axis Endstop	A spare Z axis endstop. The sensor ensures a proper position of the platform.	
8.9' LCD Screen Set	A spare 8.9' LCD screen. The set contains an LCD screen with protective glass, a connector, and screws.	
Bottle Holder	A spare bottle holder with a weight sensor responsible for measuring the amount of liquid resin during the printing process.	
Resin Vat Holder	A set of components needed to install the resin vat. Contains a fixture and a knob.	
Tempered Protective Glass	Tempered glass which protects the LCD screen from scratches and damage.	

# Parts & Accessories for O UV LCD

**PARTS & ACCESSORIES** DESCRIPTION **PRODUCT** 

Filters Set

A set of filters for Cleaning Station. Contains 1 micron polypropylene filter and 1 stainless steel mesh filter.



Suction Strainer 3/8

A spare mesh filter (suction strainer 3/8) for Cleaning Station. To be installed in the fluid chamber, near the vent.



Stainless Basket

A spare stainless basket. The basket grid is required for the cleaning process of 3D prints.



# Ultrasonic Cleaner

### Dedicated for Inkspire and other resin 3D printers

Zortrax Ultrasonic Cleaner uses high frequency sounds propagated in liquid detergent like isopropyl alcohol to remove excessive liquid resin from models 3D printed on the Inkspire. Typical cleaning sessions takes up to 10 min.



### DEVICE

Model	Zortrax Ultrasonic Cleaner
Tank dimensions	240 x 135 x 100 mm (9.4 x 5.3 x 4.0 in)
Maximum tank capacity	3.2
Material	Stainless steel
Time control	0-30 min

### **ELECTRICAL**

Maximum power consumption	120 W
Cleaning frequency	40 kHz

### TEMPERATURE

Ambient operation temperature	20-30 °C (68-86 °F)
Storage temperature	0-35 °C (32-95 °F)

### **WEIGHT AND PHYSICAL DIMENSIONS**

Device (W x D x H)	250 x 150 x 230 mm (9.8 x 5.9 x 9.0 in)
Net weight	3.3 kg (7.2 lb)

# Trusted Partners' Professional Resins for **OUV LCD**

To deliver excellence in our UV LCD technologies, we are working closely with world-leading resin manufacturers like BASF Forward AM, Henkel or BlueCast. Each of the top-quality photopolymers available in our constantly expanding range has been validated in a strict two-stage process both by our own engineers and by the manufacturer's team which worked with our latest hardware in-house. This way, we can guarantee that thermal and mechanical properties of the 3D printed parts will match or exceed the manufacturer's specification every time.









PHOTOPOLYMER RESINS	DESCRIPTION	CONTAINER
BASF Forward Ultracur3D® EL 60	Ultracur3D® EL 60 by BASF is a flexible resin with quick elastic response and medium hardness. It offers very good elongation at break properties.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® EL 150	Ultracur3D® EL 150 by BASF is a flexible resin for elastic applications with medium hardness. It offers very good elongation at break properties.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® EL 4000	Ultracur3D® EL 4000 by BASF is a flexible resin with high hardness (Shore 90 A). It offers superior strength and tear resistance.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® FL 60	Ultracur3D® FL 60 by BASF is a flexible resin with low hardness (Shore 60 A). It offers high tear strength.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® ST 45 B	Ultracur3D® ST 45 B by BASF is a versatile resin which combines high strength, toughness, and impact resistance. It ensures fast printing properties and excellent surfaces.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® ST 80	Ultracur3D® ST 80 by BASF is a multi-purpose resin for applications requiring high toughness. It also offers high impact resistance.	Bottle, net weight: 1000 g ± 5%

# Trusted Partners' Professional Resins for $\bigcirc$ UV LCD

PHOTOPOLYMER RESINS	DESCRIPTION	CONTAINER
BASF Forward Ultracur3D® ST 1400	Ultracur3D® ST 1400 by BASF is a ductile material with outstanding toughness and elongation at break. Its high impact strength makes it ideal for applications where high durability and toughness are required.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® RG 35	Ultracur3D® RG 35 by BASF is a rigid resin for high performance functional parts. It offers very high stiffness and high temperature resistance.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® RG 50	Ultracur3D® RG 50 by BASF is a rigid resin with medium viscosity, high print accuracy, and low cure shrinkage. Prints can be washed only with water.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® RG 1100	Ultracur3D® RG 1100 by BASF is a high-strength resin for demanding applications. It offers very good temperature and chemical resistance.	Bottle, net weight: 1000 g ± 5%
BASF Forward Ultracur3D® RG 3280	Ultracur3D® RG 3280 by BASF is a ceramic-filled photopolymer resin offering exceptional stiffness and resistance to temperatures reaching 280 °C.	Bottle, net weight: 1650 g ± 5%
Zortrax LOCTITE Resin Pro 410	Zortrax Henkel Loctite Resin Pro 410 is a photopolymer resin which offers high print accuracy. It offers high rigidity and excellent surface finish.	Bottle, net weight: 1000 g ± 5%
LOCTITE 3D 3843 HDT60 High Toughness	LOCTITE 3D 3843 HDT60 Matte Black by Henkel is a semi-flexible photopolymer resin with high impact resistance. It offers excellent surface finish.	Bottle, net weight: 1000 g ± 5%
LOCTITE 3D 3172 HDT50 High Impact	LOCTITE 3172 HDT50 High Impact Grey by Henkel is a photo- polymer resin aimed at the industrial sector. It offers high impact resistance.	Bottle, net weight: 1000 g ± 5%

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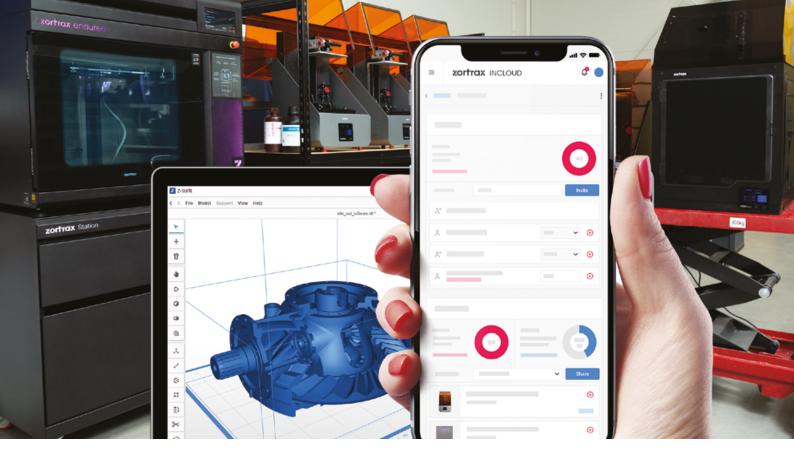
# zortrax

# Trusted Partners' Professional Resins for **OUV LCD**

PHOTOPOLYMER RESINS	DESCRIPTION	CONTAINER
BlueCast Original LCD/DLP	Very precise castable resin for light-weight filigree jewelry. Can be hand-shaped after printing and leaves only 0.003% of ash residue.	Bottle, net weight: 500 g ± 5%
BlueCast X5 LCD/DLP	Castable resin for standard jewelry items like engagement rings. Can be used in the same process as wax, leaves no ash residue, and does not need post-curing.	Bottle, net weight: 500 g ± 5%
BlueCast X10 LCD/DLP	Castable resin for large jewelry investment patterns. Guarantees smooth surfaces, high dimensional accuracy, and leaves no ash residue.	Bottle, net weight: 500 g ± 5%
BlueCast X-One Resin	BlueCast X-One Resin is a precise castable resin offering almost no shrinkage and very high dimensional stability. It ensures smooth surface finish.	Bottle, net weight: 500 g ± 5%

# Zortrax Photopolymer Resins for \( \rightarrow UV LCD \)

PHOTOPOLYMER RESINS	DESCRIPTION	CONTAINER
Zortrax Resin BASIC	An epoxy-based resin offering sharp edges and accurate details. It's durable and easy to print.	Bottle, net volume: 500 ml ± 5%
Zortrax Resin TOUGH	A versatile and durable resin for both professionals and hobbyists. 3D prints are tough, impact resistant, and have smooth surfaces. The resin has low shrinkage.	Bottle, net weight: 1000 g ± 5%
Zortrax Resin TOUGH Clear	A durable resin with distinctive properties. It allows users to print translucent and glass-like objects.  The resin is tough, impact resistant, and offers smooth surfaces.	Bottle, net weight: 1000 g ± 5%



# Digital solutions complementing

# the Zortrax Ecosystem

Close integration of hardware and software has always been the primary objective for Zortrax. Creators can not only rely on the tried and trusted Z-SUITE software, but they can also use the powerful features in Zortrax inCloud for effective 3D printing and people management. Learn how you can optimize your work with the slicer and cloud services at every stage of your projects.

### Z-SUITE | Comprehensive Slicing

Z-SUITE is a powerful tool designed specifically to support creators in the process of preparing models for 3D printing. The main role of the program is to convert typical file formats generated by 3D modeling software into the format readable by Zortrax printers – .zcodex. The exported .zcodex file consists of your 3D model divided into individual layers which are "read" by a printer as the movement pattern of components directly involved in building the final object. Z-SUITE also contains an extensive print settings section which allows users to determine the print's final features and properties, and help them to cope with the most ambitious projects.

### Zortrax inCloud | Next-level Management

Zortrax inCloud is a cloud-based platform for efficient management of your 3D printers and human resources involved in fabricating models. It's available to everyone who has registered their Zortrax machines with network connectivity through the Zortrax ID system. The inCloud provides a variety of features which optimize the workflow with printers and teams of people employed in various 3D printing projects. Depending on the number of printers you or your team works with, you can choose a subscription plan that will be suited to specific needs and include a determined amount of transfer required for uploading files through the cloud service. Thanks to Zortrax inCloud, you can access and monitor all your Zortrax devices from any place you want.



# **Z-SUITE**

# Advanced Slicing Software

Z-SUITE is a slicing software made for the LPD/LPD Plus and UV LCD 3D printers. Refined in extensive open beta testing programs, Z-SUITE has a number of unique functionalities designed for each of the 3D printing technologies available in Zortrax range. Multiple industry-specific features have been developed with professionals working in various fields like medicine, jewelry casting, or engineering.

# Main Features for O LPD & O LPD Plus

### Automatic triangle mesh repair

Models with a damaged triangle mesh are automatically repaired upon uploading.

### Editable supports

Support structures can be manually added or removed from the selected areas.

### Hybrid supports in dual extrusion

Support structures in selected areas can be printed with both model and support material.

### Thin walls detection

Walls too thin to be printed properly are always highlighted in red.

### Zcodex replication

Already prepared models can easily be replicated with the same print settings and supports.

### Raft-free 3D printing

Models and supports can be placed directly on the build platform without the raft structure.

### My devices panel

Command center for printers with Wi-Fi connectivity, which enables smart management of 3D printing farms.

### > External filaments support

Z-SUITE enables printing with filaments provided by thridparty manufacturers.

# Main Features for OUV LCD

### Rotation optimization tool

Model's position can be automatically optimized to maximize the area touching the build platform or minimize the amount of support, and more.

### Hollow infill

The infill type which allows you to save resin by adding drain holes and making a model empty inside.

### Additional support exposure time

The parameter which determines additional curing time only for support structures.

### Zcodex replication

Already prepared models can easily be replicated with the same print settings and supports.

### > Tree-type supports

Tree-like structures, which are derived from the jewelry industry, help to save liquid resin. They can easily be customized by moving the yellow joints around.

### My devices panel

Command center for printers with Wi-Fi connectivity, which enables smart management of 3D printing farms.

### > External resins support

Z-SUITE provides a great selection of printing profiles for specialized resins delivered by third-party manufacturers. The profiles have been prepared in cooperation with market-leading companies and thoroughly tested to support every application from industries including jewelry and dentistry. The profile database is constantly reviewed and expanded with new resins.

### **MINIMUM SYSTEM REQUIREMENTS\***

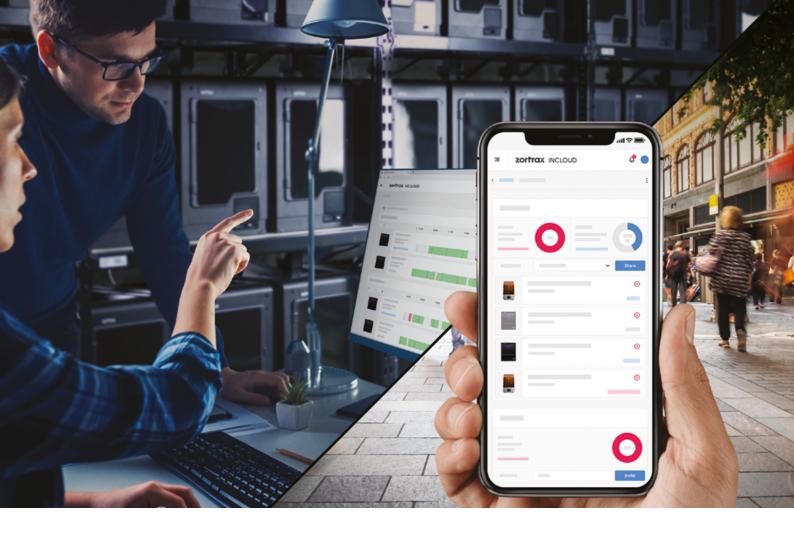
Central Processing Unit	Intel i3-i7 or equivalent AMD (3,0+ GHz)
Graphics Processing Unit	GeForce GT 730+ / AMD R7 series+
RAM Memory	8GB+
Operating System Mac OS Catalina and newer versions / Widows 10 and newer versions	

### SUPPORTED FILE FORMATS

.stl, .obj, .3mf\*, .dxf\*, ply

\*Some models may not be correctly read because of the limits of this file format

The license for Z-SUITE comes with every Zortrax product for free. The program is available for download in the Downloads section at the Zortrax Support Center.



# Zortrax inCloud

# Next-level Management of 3D Printing Workflow

### > Remote Printing

The core solutions available within Zortrax inCloud involve managing and operating your 3D printers remotely. Whether you own one printer or a whole 3D printing farm, it is now possible for you to send commands to your devices through Zortrax inCloud, transfer files for printing directly from the website, and start or pause the printing process of a selected model. All added printers can be arranged in one or more groups and shared with other users.

### Multiprint Option

Managing multiple devices and running 3D printing farms become even easier with the Multiprint option. This solution comes in handy for mass production of prototypes or other models as it allows users to start the printing process of one file using several devices simultaneously. Simply choose a file and select the printers you want to use to begin the production.

### Security First

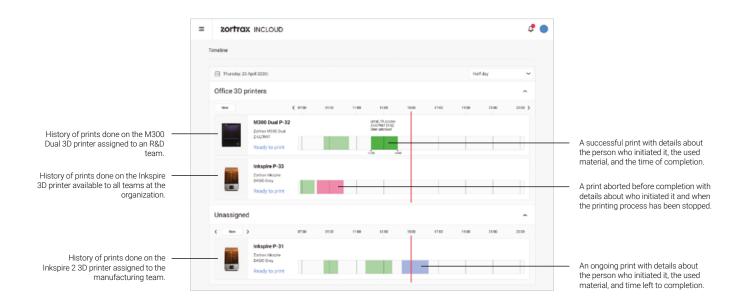
Since Zortrax inCloud can be used for key, innovative projects at your company, protection of intellectual property is of high importance. Transferring files to your printers through Zortrax servers poses no risks as all information is encrypted at all times. No files are saved or stored in any place apart from the printer's storage or its internal memory. What you see in the panel is mainly information needed for remote management of your devices.

### Real-time Printing Progress Info

At any point of the printing process, you can display a live footage from the camera installed in your device or check the printer's current status in the Zortrax inCloud dashboard. The interface always gives the real-time printing progress information as well as sends push notifications which appear in the top right corner of the screen.

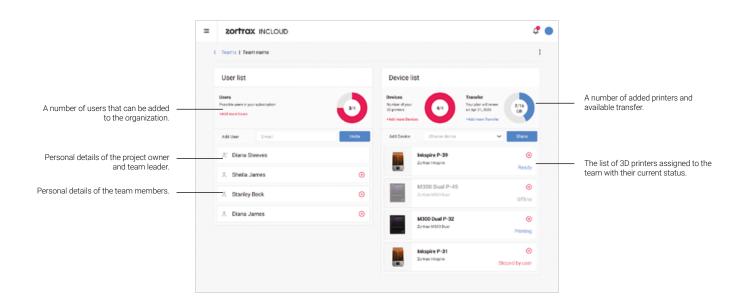
### > Timeline and Print History

All activities connected with each team and each added printer can be found in the Timeline section. There you can see which printer is currently working, which is idle at the moment, which part of the project is currently being completed, and which users have been involved in the process. Also, you can easily scroll through the printer's whole timeline and access details related to the print history.



### Team Management

Zortrax inCloud can support teamwork among people employed in one company or involved in the same project. If you want to cooperate with other people, you can create a team, add team members and share the added printers with authorized users. Your teammates will be able to manage and print with the shared devices from their own individual accounts. However, each printer can have only one administrator who can control all the work at any point during the project.



Zortrax inCloud is available in multiple subscription plans. FREE plan offers basic features at no cost. STANDARD, PROFESSIONAL, and ENTERPRISE paid subscriptions offer higher available transfer, additional users in an organization, and advanced features like full timeline and multiprint.



# Contact your local reseller

Find your local Reseller at zortrax.com/find-reseller Choose your country to get the list of resellers closest to your place of residence.

LOCAL RESELLER

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