



Automotive
& aerospace



Architecture



Medium-scale
production



Geometrically
complex models



Large mechanical
models



Production
lines support

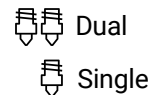
zortrax

M300 Dual Industrial-class 3D printing on your desk



Zortrax M300 Dual 3D printer

Extrusion

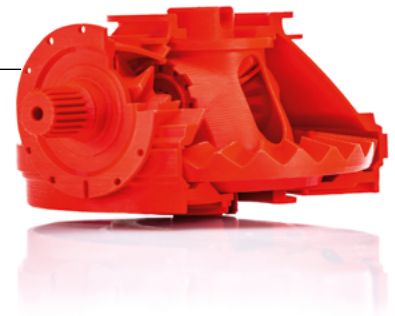


Resolution

150-300 microns

Build volume

265 x 265 x 300 mm
10.4 x 10.4 x 11.8 in



› 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 x 265 x 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.



Model of gear mechanism before support material dissolution



Car gearbox



Part of a VR headset

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)
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-FLEX, Z-GLASS, Z-HIPS, Z-NYLON, Z-PETG, Z-PLA, Z-PLA Pro, Z-ULTRAT, Z-ULTRAT Plus
Dedicated for dual extrusion	Z-ABS, Z-ASA Pro, Z-ESD, Z-GLASS, Z-PETG, Z-PLA, Z-PLA Pro, Z-SUPPORT ATP, Z-SUPPORT Premium, Z-ULTRAT, Z-ULTRAT PLUS
External materials	Applicable
Support	Mechanically removed – printed with the same material as the model Water-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, 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

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 / 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

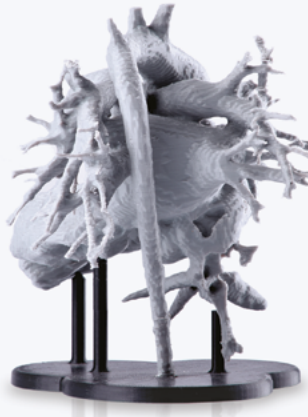
Software bundle	Z-SUITE
Supported input file types	.stl, obj, .dxf, .3mf
Supported operating system	Mac OS up to Mojave version / Windows 7 and newer versions



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
Material detection sensor	Yes (for filaments in cartridges only)
Chip with information about material (type, color, consumption)	Yes (for filaments in cartridges only)
Extruder	Dual, printing with the model and support material
Hotend	Dual
Connectivity	SD card (included)

FILAMENTS

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

IN THE BOX

3D Printer, Cartridge with Model Material, Cartridge with Support Material, 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
Supported operating systems	Mac OS up to Mojave version / Windows 7 and newer versions

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

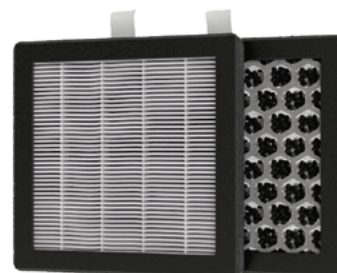
IN THE BOX

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



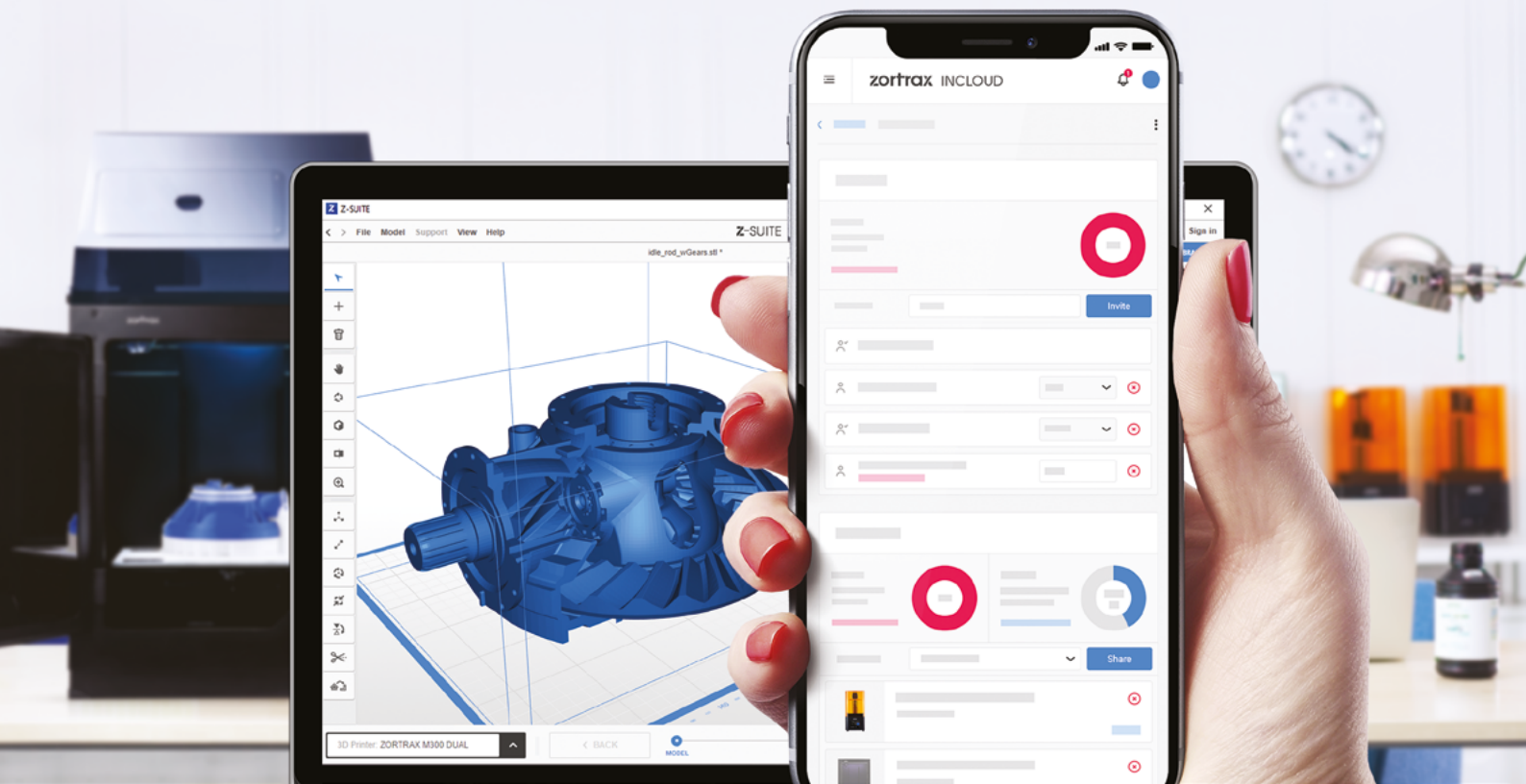
3D Printing Thermoplastic Filaments for LPD Plus

FILAMENTS	DESCRIPTION	COLORS	M300 DUAL	INVENTURE	ENDUREAL
Z-ESD	PETG-based filament perfect for the electronic industry. Guarantees electrostatic discharge protection along with resistance to most acids, alcohols, and alkalis.	● Black	Spool net weight: 800 g ± 5%*	Spool net weight: 800 g ± 5%*	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.	● Black	Spool net weight: 800 g ± 5%*	Spool net weight: 800 g ± 5%*	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.	○ Natural ○ Transparent	Spool net weight: 2 000 g ± 5%	Spool net weight: 800 g ± 5%*	X
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.	● Black ● Grey ○ Natural White	Spool net weight: 2000 g ± 5%	X	X
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.	○ Natural ● Black	Spool net weight: 2000 g ± 5%	Spool net weight: 800 g ± 5%*	X
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.	● Natural	X	X	Spool net weight: 1000 g ± 5%
Z-PETG	Filament based on PET with glycol addition. Can withstand UV light and passage of time. The material is also exceptionally resistant to oils and other greases.	● Black ● Grey	Spool net weight: 2000 g ± 5%	Cartridge net weight: 350 g ± 5%* Spool net weight: 800 g ± 5%*	X

*Spools weighting 350 or 800 g must be used with a specially designed printable holder. The holder's .stl file is available at Zortrax Library.

FILAMENTS	DESCRIPTION	COLORS	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.	<ul style="list-style-type: none"> ● Black ○ White ● Graphite ● Blue ● Green ● Yellow ● Grey 	Spool net weight: 2000 g ± 5%	Cartridge net weight: 350 g ± 5%* Spool net weight: 800 g ± 5%*	X
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.	<ul style="list-style-type: none"> ○ Gypsum White ● Concrete Grey ● Cool Grey ● Pure Black 	Spool net weight: 2000 g ± 5%	Spool net weight: 800 g ± 5%*	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.	<ul style="list-style-type: none"> ○ Natural 	Spool net weight: 750 g ± 5%*	X	Spool net weight: 750 g ± 5%
Z-SUPPORT High Temp	Breakaway support filament designed to withstand high temperatures necessary for printing polymers like Z-PEI 9085 or PEEK-based filaments.	<ul style="list-style-type: none"> ○ Natural 	X	X	Spool net weight: 1000 g ± 5%
Z-SUPPORT Premium	BVOH-based soluble support filament. The material has a fast dissolution rate.	<ul style="list-style-type: none"> ○ Natural 	Spool net weight: 800 g ± 5%*	Cartridge net weight: 350 g ± 5%* Spool net weight: 800 g ± 5%*	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.	<ul style="list-style-type: none"> ● Blue ● Yellow ● Green ● Cool Grey ○ Ivory ● Pure Black ● Red 	Spool net weight: 2000 g ± 5%	Spool net weight: 800 g ± 5%*	X
Z-ULTRAT Plus	Durable ABS-based filament. When printed with a soluble support material, it offers high layer adhesion.	<ul style="list-style-type: none"> ○ Ivory ● Blue ● Graphite ● Pure Black ● Red 	Spool net weight: 2000 g ± 5%	Cartridge net weight: 350 g ± 5%*	Spool net weight: 2000 g ± 5%

*Spools weighting 350, 750 or 800 g must be used with a specially designed printable holder. The holder's .stl file is available at Zortrax Library.



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 project.

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 LPD & 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 third-party manufacturers.

Main Features for UV 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	Windows (7/8.1/10) 64-bit / macOS up to 10.14 (Mojave)

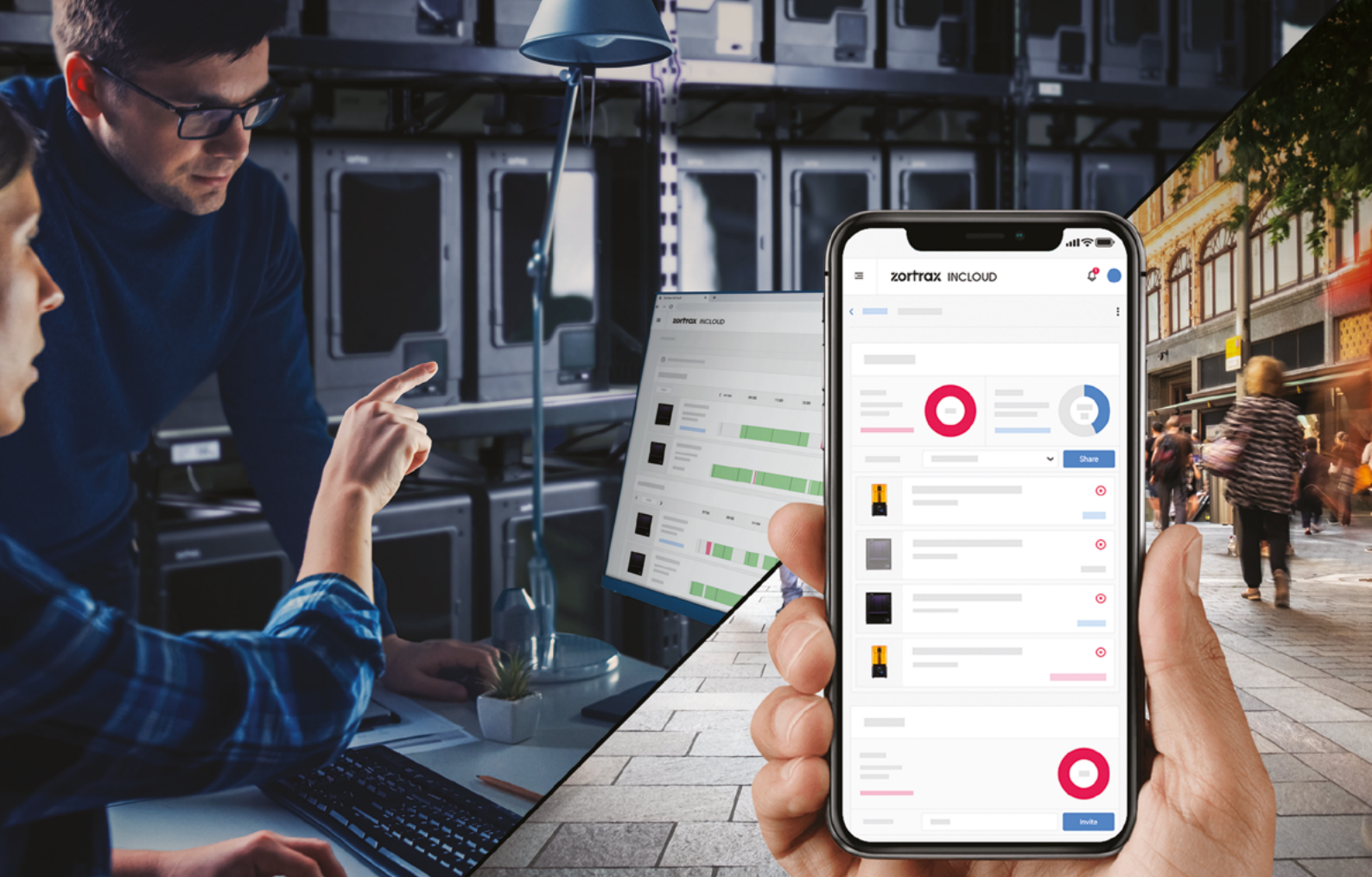
SUPPORTED FILE FORMATS

.STL, .OBJ, .3MF**, .DXF**

*In the case of computers that do not comply with the hardware requirements, problems can occur when loading models over 100-150MB

**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.

The screenshot shows the 'Timeline' section of the Zortrax inCloud interface. It displays a calendar view for Thursday, 23 April 2020, with a 'Half day' indicator. The printers are categorized into 'Office 3D printers' and 'Unassigned'.

- M300 Dual P-32:** Shows a successful print job initiated by 'User: J. Zwickler' using 'Z-CLIPART (D34) User: J. Zwickler' material, completed at 14:00.
- Inkspire P-33:** Shows a print job that was aborted before completion, initiated by 'User: J. Zwickler' using 'Z-CLIPART (D34) User: J. Zwickler' material, with the process stopped at 14:00.
- Inkspire P-31:** Shows an ongoing print job initiated by 'User: J. Zwickler' using 'Z-CLIPART (D34) User: J. Zwickler' material, with a time left to completion of 14:00.

Annotations on the left side of the image:

- History of prints done on the M300 Dual 3D printer assigned to an R&D team.
- History of prints done on the Inkspire 3D printer available to all teams at the organization.
- History of prints done on the Inkspire 3D printer assigned to the manufacturing team.

Annotations on the right side of the image:

- A successful print with details about the person who initiated it, the used material, and the time of completion.
- A print aborted before completion with details about who initiated it and when the printing process has been stopped.
- An ongoing print with details about the person who initiated it, the used material, and time left to completion.

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.

The screenshot shows the 'Team Management' section of the Zortrax inCloud interface. It displays a 'User list' and a 'Device list'.

- User list:** Shows 3/4 users added to the organization. The list includes Diana Steeves (Project owner and team leader), Sheila James, Stanley Beck, and Diana James (Team members).
- Device list:** Shows 4/4 devices added to the team. The list includes Inkspire P-39 (Ready), M300 Dual P-45 (Offline), M300 Dual P-32 (Printing), and Inkspire P-31 (Stopped by user).

Annotations on the left side of the image:

- A number of users that can be added to the organization.
- Personal details of the project owner and team leader.
- Personal details of the team members.

Annotations on the right side of the image:

- A number of added printers and available transfer.
- The list of 3D printers assigned to the team with their current status.

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.