

Raise3D DF2 Solution

Beyond Prototyping:
Traceable Workflow from Start to Finish



Raise3D DF2

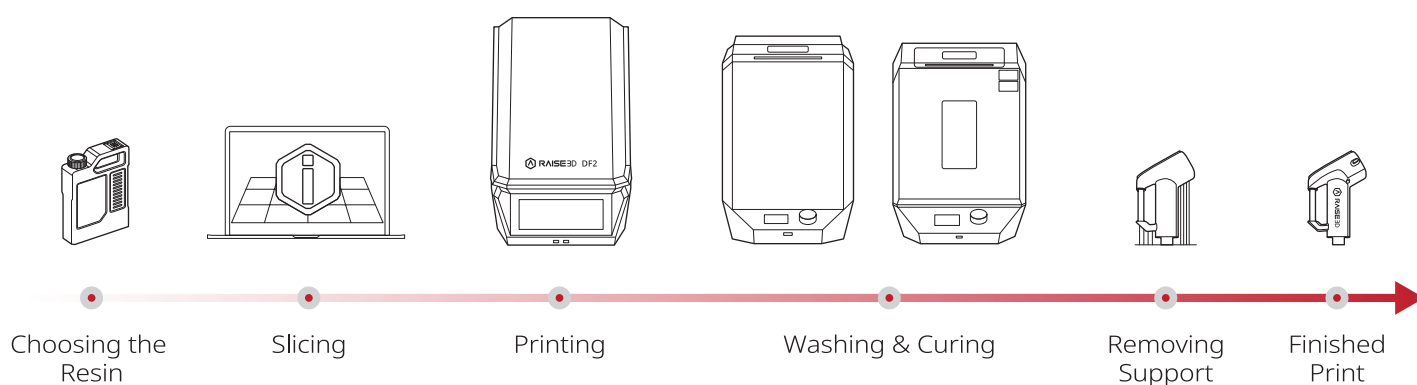
Raise3D DF Wash

Raise3D DF Cure

The Raise3D DF2 solution is a Digital Light Printing (DLP) system offering speed, quality, exceptional reliability and efficient workflow via RFID. It is designed for low-volume production using a wide variety of high-performance resins.



End to End DLP Printing Workflow



Efficient Full-process Workflow

After the Raise3D DF2 printer has completed the printing task, the next step is the washing and curing station. With an RFID-tag-integrated smart build plate and a consistent interface, Raise3D DF Wash and Raise3D DF Cure can effectively save operation time and labor costs. This not only streamlines manual operations but also ensures your printing tasks are always accomplished with the same print results.

Raise3D DF2

A DLP 3D printer designed for small batch production with high precision, repeatability and reliability.



Raise3D DF Wash

Process controllable, efficient, easy maintenance and automatic cleaning solution.

Raise3D DF Cure

A powerful curing station with multiple, traceable and customizable UV curing and heating profiles.



Larger Size, More Possibilities

Max. Build Volume:
200 x 112 x 300 mm

Max Part Weight:
10 kg

200 mm

112 mm

300 mm





High Precision Printing

XY Resolution: 2560 x 1440

Small Batch Production with Consistent Prints

The Raise3D DF2 adapts effortlessly to the scale of production and maintains consistent quality.



Raise3D High Performance Engineering Resins

Meet demands for customized small batch production of precise prototyping and industrial engineering parts.



ORP (Open Resin Program)

A collaboration between Raise3D and Resin Manufacturers to identify and select top performing resin for Raise3D DF2 Solution.



Standard Resin

Easy-to-print resin for prototyping and design

Advantages

- | Easy-to-print with high accuracy
- | Smooth and precise details
- | Matte surface finish

Applications

- | Prototyping and design
- | Models with small features and intricate details
- | Model for painting and other post-processing



Tough 2K Resin

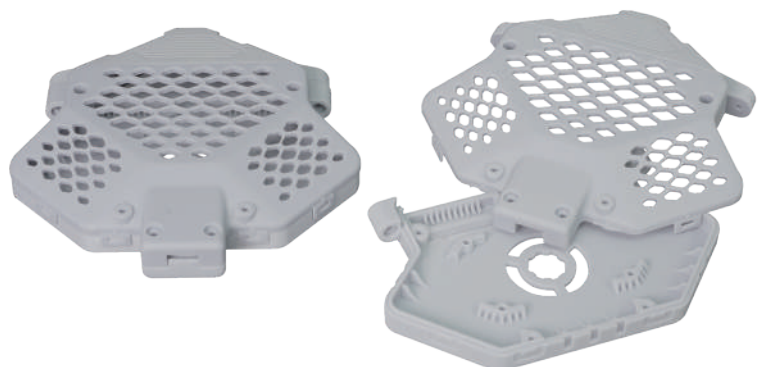
Tough and durable resin for functional applications

Advantages

- | Tough and strong
- | Excellent toughness and impact resistance
- | Strength and rigidity similar to ABS

Applications

- | Strong and stiff prototypes
- | Jigs and fixtures
- | Manufacturing aids
- | Housings and enclosures



High Clear Resin (Coming soon)

Suitable for applications working with optical or showcasing internal features

High Detail Resin

High-resolution material for detailed models

Advantages

- | Ultra-fine details and high resolution
- | Ready for painting and plating
- | Excellent matte surface finish

Applications

- | Ultra-high resolution and detailed prototypes
- | Complex and intricate models and sculptures
- | Models for painting and plating



Rigid 3K Resin

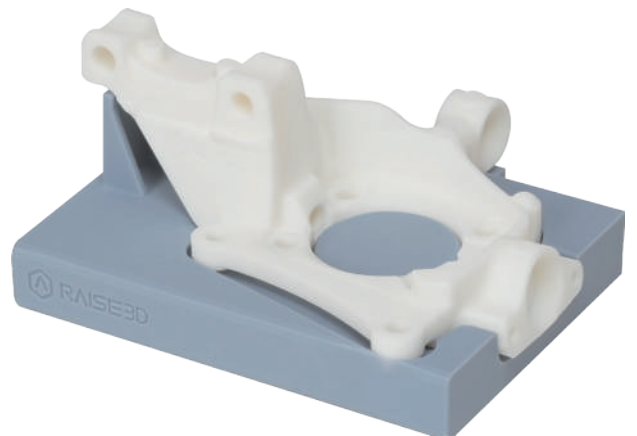
Material with high strength, rigidity and heat-resistance

Advantages

- | High rigidity
- | Excellent part strength
- | Heat resistance
- | Rigidity similar to glass fiber reinforced thermoplastic materials

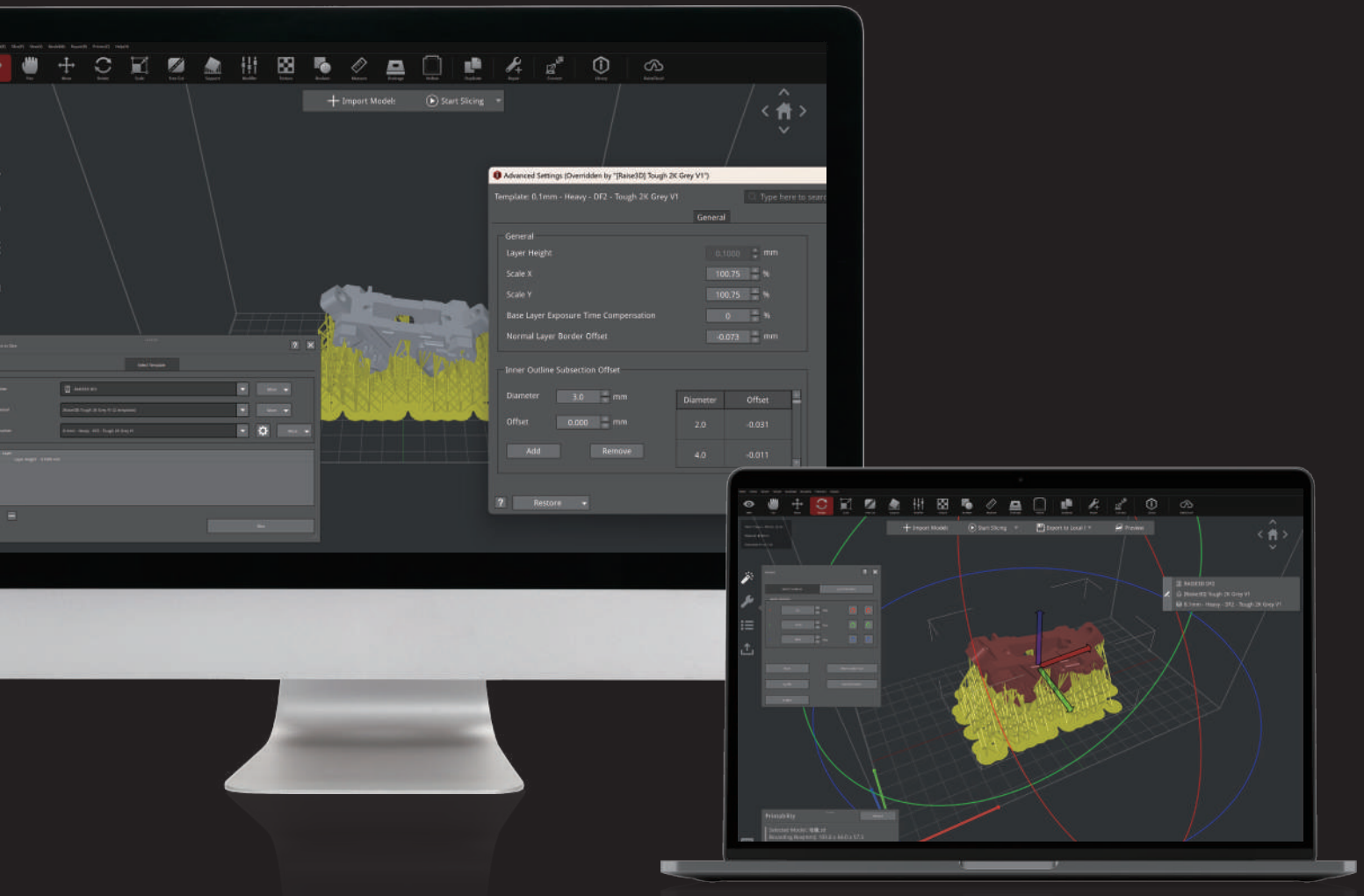
Applications

- | Robust prototypes
- | Thin-wall parts
- | Jigs & fixtures
- | Connectors
- | Mounts and brackets



High Temp Resin (Coming soon)

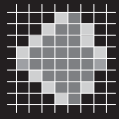
High temperature resistant material for harsh thermal environments



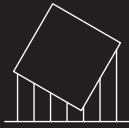
ideaMaker

Reliable Success Rate by ideaMaker

ideaMaker has added multiple new features that are compatible with Raise3D DF2 printer, reducing learning curves and improving the success rate of DLP printing.



Antialiasing



Auto Support



Auto Orientation



Auto Cross Section Analysis



Contour Compensation



Suction Cup Detection



Hollow



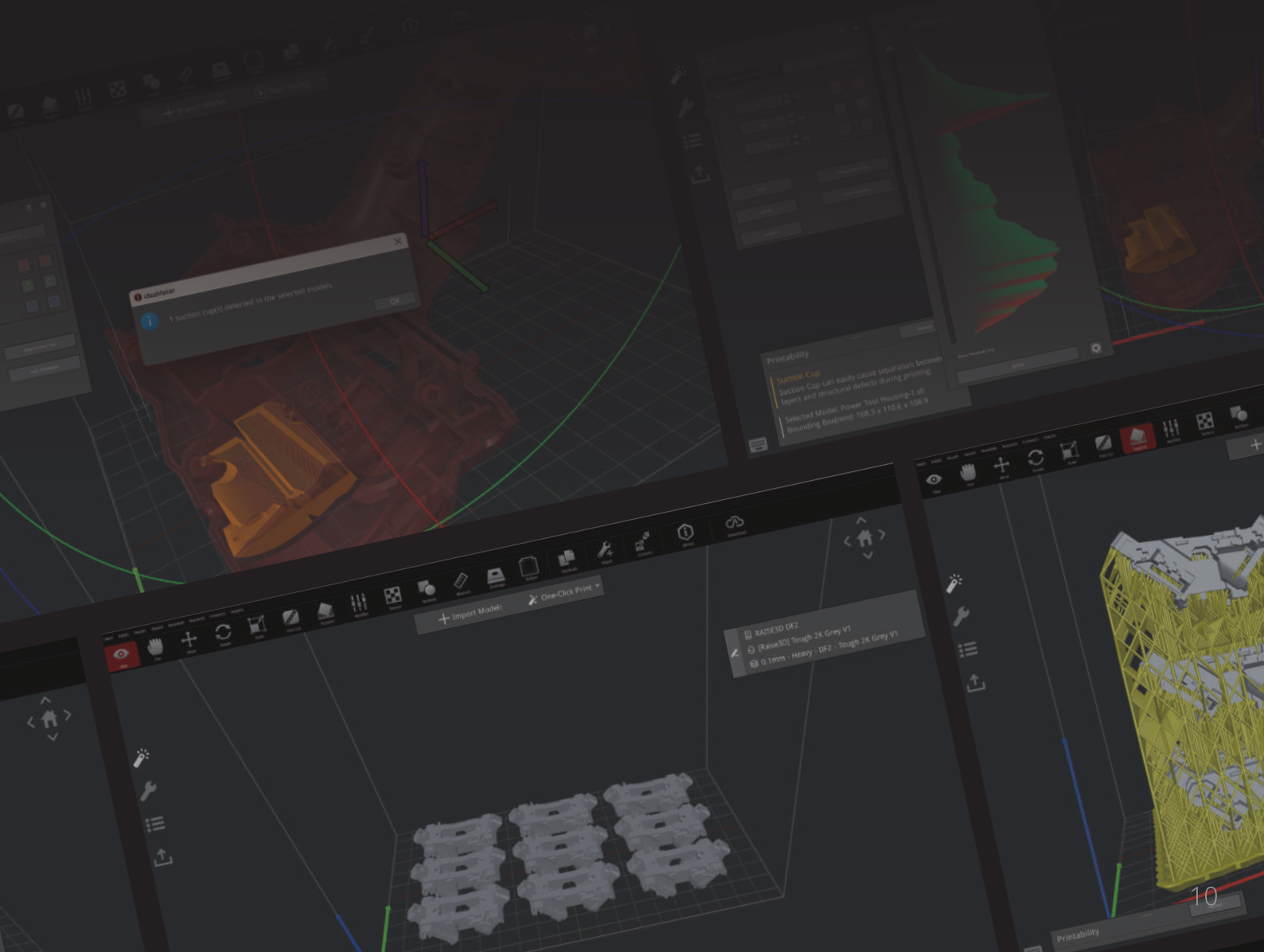
Drainage Hole



Texture Generation



Smaller Gcode Size



Consistently Printing Every Time

| Z-axis with High Load Capacity

Maximum load capacity of 200 kg for Z-axis. Features no staggered layers and high movement accuracy, ensuring the stability of printing large parts and extended usage.

| Air-Peel Technology

Air peel design between the resin vat bottom and the highly clear glass reduces the force from 50 kilograms to 10 kilograms, effectively peeling each layer and ensuring successful printing.



High Precision Image Quality

Industrial Grade Optical Components

High-quality optical components are used throughout the entire optical path projection system to reduce loss, eliminate dispersion, ensuring the reproduction of sharp layers.



1 Printing



Traceable Workflow

Smart Build Platform with RFID

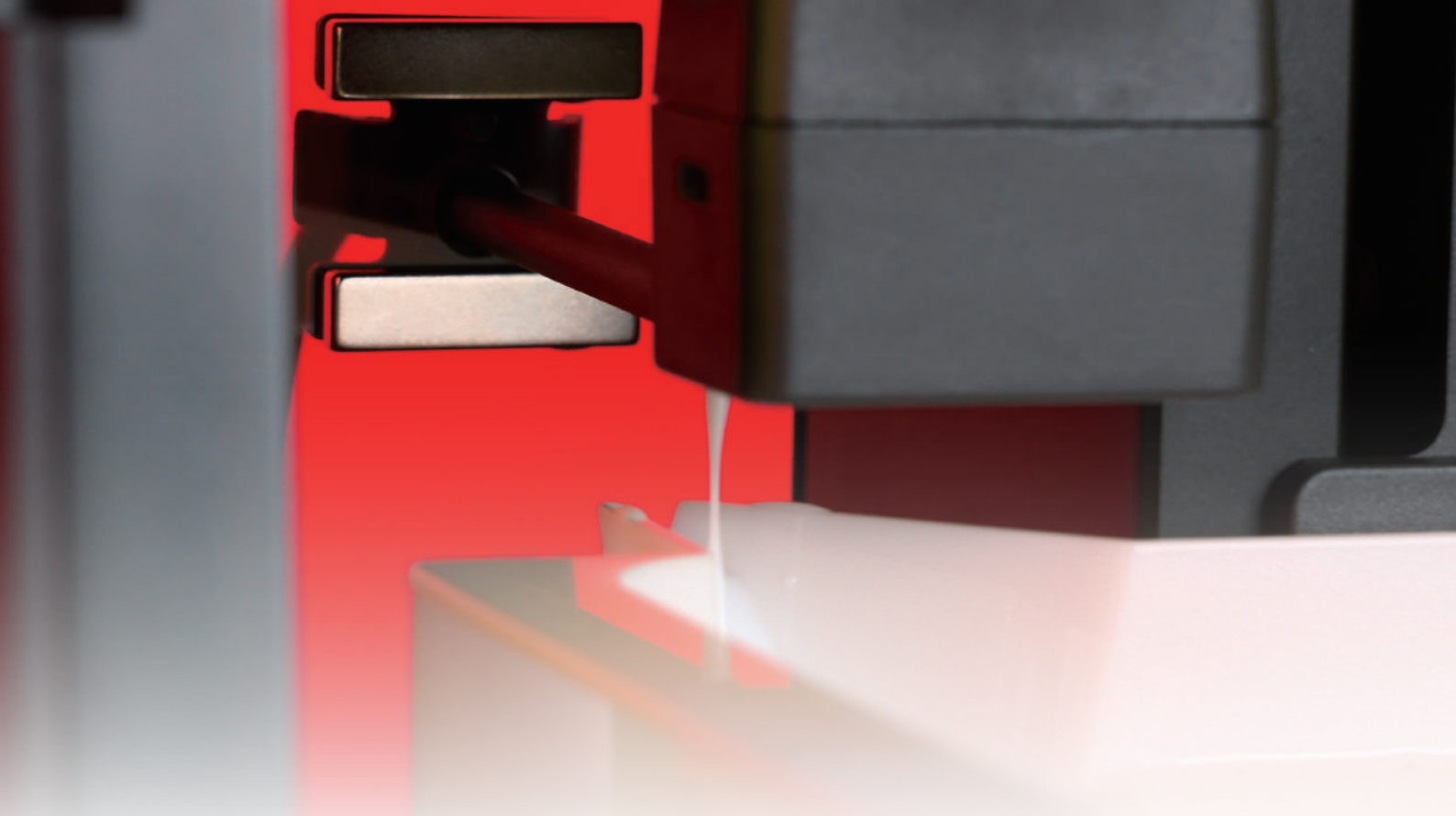
The smart build platform automatically saves all the parameters required for the entire workflow, making the entire process easy and fail-safe.

2 Washing



3 Curing





Efficient Material Management

Ultrasonic Liquid Level Detection Module and Automatic Dosing

When the ultrasonic liquid level detects a lack of material, the resin dosing device will automatically replenish the container with material.



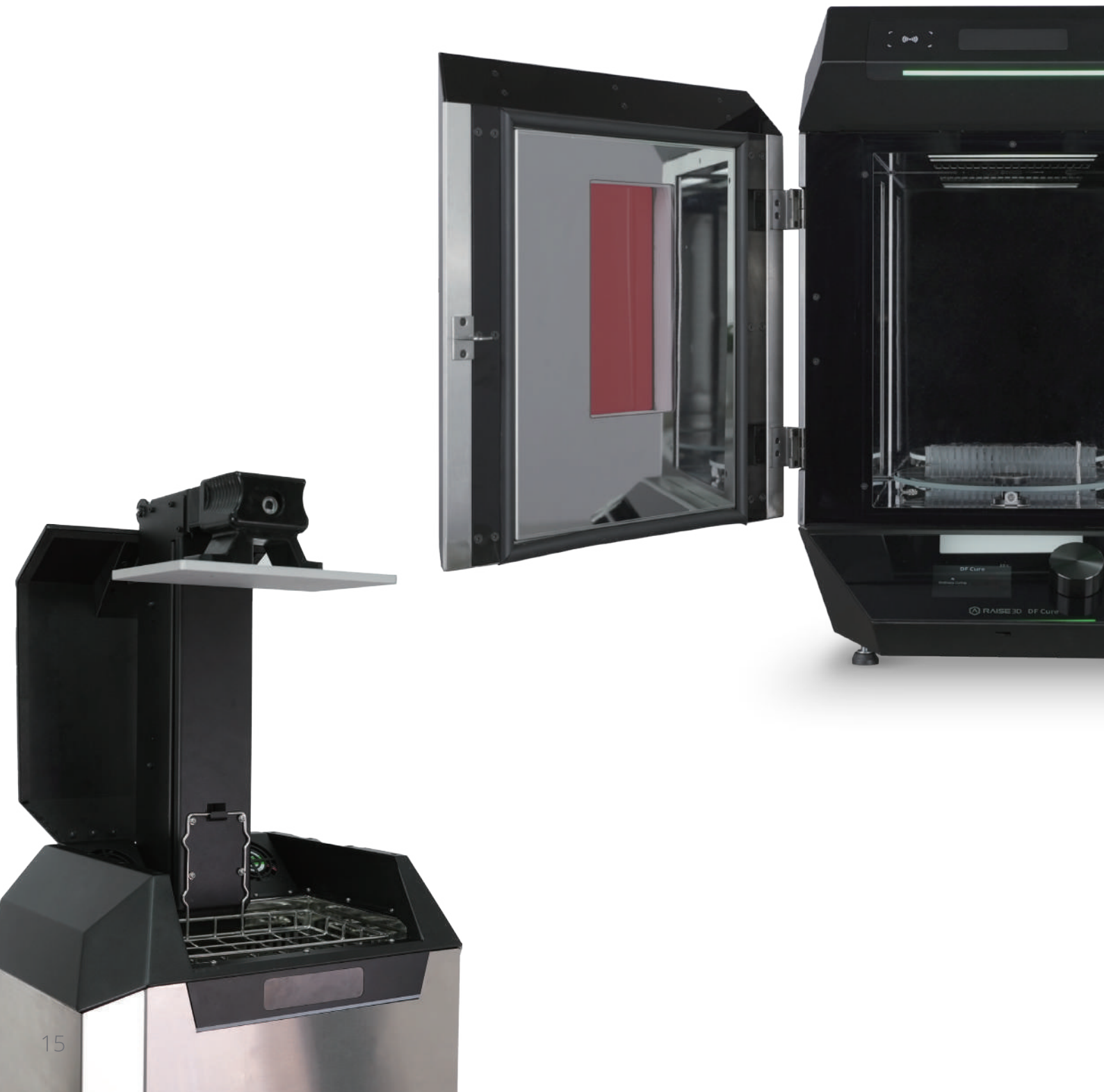
Compatible Post-processing

Raise3D DF2 Solution provides compatible post-processing to fulfil requirement of different types of resin materials.

■ **Compatible Solvent: IPA, Water* and TPM**

■ **Dual Curing Sources & Multiple Wavelengths (365/385/405 nm)**

*Depend on the selected material





A Cleaner Workflow

Raise3D DF Wash offers a cleaner washing process by less contact with resin contact during operation and automatic drainage module.



Raise3D DF2 Specification

Printer Hardware	Print Technology Build Size (W × D × H) XY Resolution Max Part Weight Max Printing Speed Layer Height Resin Management Control Panel RFID Print Platform Level Calibration Chamber Heating	Digital Light Printing (DLP) 200 × 112 × 300 mm (7.87 × 4.41 × 11.8 inch) 2560 × 1440 10 kg 25 mm/h (0.1 mm per layer) 50-100 micron Auto Resin Feeding, Resin Level Detection, Resin Confirmation Touch Screen (Resolution: 1920 × 720) with Magic Layout (Allow to easily adjust the print layout and duplicate prints) Record the type of resin used and the printing, washing and curing settings Calibrated in factory Max 40°C
Resins	Raise3D Resins Co-branding Resins with BASF and Henkel ORP (Open Resin Program)	Raise3D Standard White Resin, Raise3D High Detail Apricot Resin, Raise3D Tough 2K Grey Resin, Raise3D Rigid 3K Grey Resin, Raise3D High Clear Resin (Coming soon), Raise3D High Temperature Resin (Coming soon) LOCTITE 3D IND405™, LOCTITE 3D PRO476™, Ultracur3D® RG 3280, Ultracur3D® RG 1100 B Coming soon
Software and Network	Connectivity Network Slicing Software Remote Management Software Supported File Types Supported OS	Wi-Fi, LAN, USB port × 2, Live Camera Ethernet, Wireless 802.11 b/g/n ideaMaker (Features: Antialiasing; Auto Support; Auto Orientation; Auto Cross Section Analysis; Contour Compensation; Suction Cup Detection; Hollow; Drainage Hole; Texture Generation; Smaller Gcode Size) RaiseCloud (Coming soon) STL/ OBJ/ 3MF/ OLTP WINDOWS/ macOS/ LINUX
Operation and Shipping	Power Supply Input Operating Ambient Temperature Storage Temperature Machine Size (W × D × H) Net Weight Gross Weight Shipping Dimensions	100-240 V AC, 50/60 Hz 230 V @ 3.3 A 15 - 30°C, 10 - 90% RH Non-Condensing (HOLD) -25 to 55°C, 10 - 90% RH Non-Condensing (HOLD) 450 × 400 × 730 mm (17.7 × 15.7 × 28.7 inch) 40 kg (88.2 lbs) 59.4 kg (131 lbs) 710 × 595 × 980 mm (28.0 × 23.4 × 38.6 inch)

Raise3D DF Wash & DF Cure Specification

Raise3D DF Wash		
Wash Hardware	Washing Tank Volume Max Washing Size Compatible Solvent Washing Features Drying Feature Drainage Wash Profile	14 L 200 × 112 × 300 mm (7.87 × 4.41 × 11.8 inch) IPA, Water, TPM Twin-turbo Washing, Hand Washing Simulation Double Fan Air Drying Automatic Liquid Drainage with Waste Container RFID Auto Set or Manual Entering
Operation and Shipping	Power Supply Input Operating Ambient Temperature Storage Temperature Machine Net Weight Machine Gross Weight Waste Container Net Weight Waste Container Gross Weight Machine Size (W × D × H) Waste Container Size (W × D × H) Machine Shipping Dimensions Waste Container Shipping Dimensions	100-240 V AC, 50/60 Hz, 96 W 10°C-35°C -25 to 55°C, 10 - 90% RH Non-Condensing (HOLD) 27.7 kg (61.1 lbs) 45.8 kg (101 lbs) 0.7 kg (1.54 lbs) 1.5 kg (3.3 lbs) 400 × 410 × 646 mm (15.7 × 16.1 × 25.4 inch) 350 × 190 × 290 mm (13.8 × 7.5 × 11.4 inch) 725 × 585 × 915 mm (28.5 × 23.0 × 36.0 inch) 407 × 247 × 349 mm (16.0 × 9.7 × 13.7 inch)

Raise3D DF Cure		
Cure Hardware	Max Curing Size Curing Source Cure Profile	φ 230 x 300 mm (φ 9 x 11.8 inch) LED (365nm, 385nm, 405nm mixed); Max Air Heating Temperature up to 120°C RFID Auto Set or Manual Entering
Operation and Shipping	Power Supply Input Operating Ambient Temperature Storage Temperature Net Weight Gross Weight Machine Size (W × D × H) Shipping Dimensions (W × D × H)	100-240 V AC, 50/60 Hz, 500 W 10-35°C -25 to 55°C, 10 - 90% RH Non-Condensing (HOLD) 32.8 kg (72.3 lbs) 49.2 kg (108.5 lbs) 490 × 400 × 610 mm (19.3 × 15.7 × 24.0 inch) 725 × 585 × 850 mm (28.5 × 23.0 × 33.5 inch)

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