

# UNIWAY

OPTRONIX





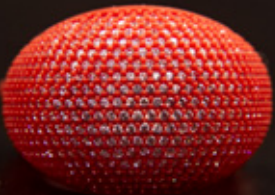
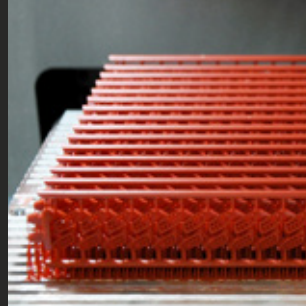
Thinner support generation  
and less resin consumption

**EXJET  
SERIES**



Perfect productivity with high  
speed printing and larger print  
platform

**EXCELLENT  
PRODUCTIVITY**



Easy stone setting with high  
precision

**PRECISION**



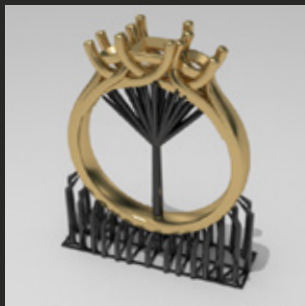
General maintenance and  
control services in all  
countries

**AFTERSALES  
SERVICE**



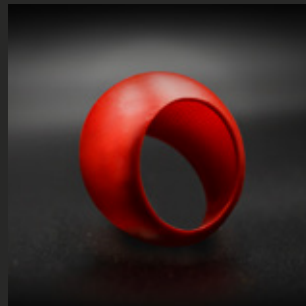
Software training and  
continuous support

**TRAINING and  
SUPPORT**



Excellent surface quality for  
direct casting

**SURFACE  
QUALITY**



## ABOUT US

Uniway Optronix is a technology company which designs and manufactures hi-tech 3D printers, especially for the jewellery manufacturing industry. Since the day it was established, it has focused only on the jewellery industry, aiming to ensure that 3D printing technology is used much more widely and efficiently in the sector. Considering the sensitivities of the industry with the knowledge and experience of more than 20 years, it concentrates all development activities on the subjects that will meet the needs and expectations of the sector. All these R&D activities bring together the new approaches developed by Uniway Optronix with the highest quality components available, enabling the jewellery industry to gain new production capabilities that were not possible before.

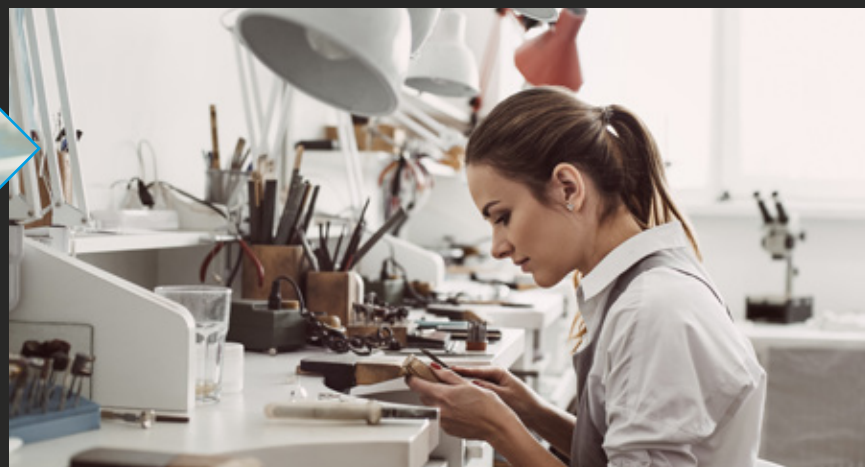
For the implementation of new ideas, Uniway Optronix combines hi-tech components which are produced by worldwide top-class suppliers especially for Uniway Optronix, with its genuine software developed by its own software engineers. Also, application tests handled by the experienced engineers are very important which help final step for these ideas come true.

With this innovative approach, Uniway Optronix is preferred by top jewellery manufacturing companies from all around the world as a solution partner for 3D printing technology. With the same strong motivation as the first day, Uniway Optronix will continue to bring new ideas and solutions with the latest technological developments and will continue to support the jewellery companies from all around the world through that big transformation from the traditional to the future.



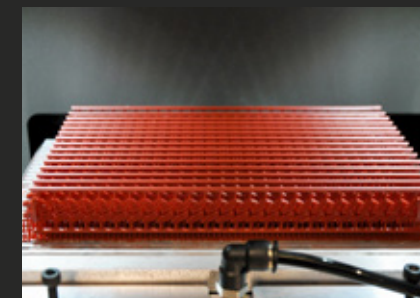
## FROM TRADITION to THE FUTURE

*Jewellery industry still prefers traditional manufacturing methods heavily when compared to many different industries. But the changing market conditions and increasing competition brings the pressure to make difference over manufacturers which forced them to look for and adapt new technologies faster. On that point, beyond all other innovations, 3D printing technology has the highest potential to change the traditional production process radically.*



## Lifetime of The Designs

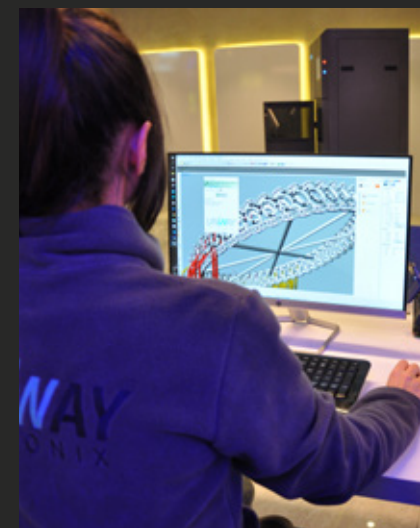
*From the days when a single model was produced for years to the days when only a few quantities of a model is produced and even customized models are getting more popular, moving the industry towards direct manufacturing with 3D printing technology more and more instead of investing to master model of the design which the sales volume is unknown.*



## Lighter and Flashy Products

*As it is known, the chances of the sales of light jewellery products that do not lose anything from their flashy appearance are always much higher. 3D printing technology enables the same products to be produced much lighter than traditional methods.*

*Uniway Optronix predicts that the use of 3D printing technology will rapidly become widespread and will replace traditional main mold manufacturing and handcrafting wax injection methods over the years.*



## Different Production Capability

*3D printing technology provides companies with new production capabilities that enable them to realize different designs that cannot be produced by traditional methods or can be produced at high costs.*



# UNIWAY TECHNOLOGY

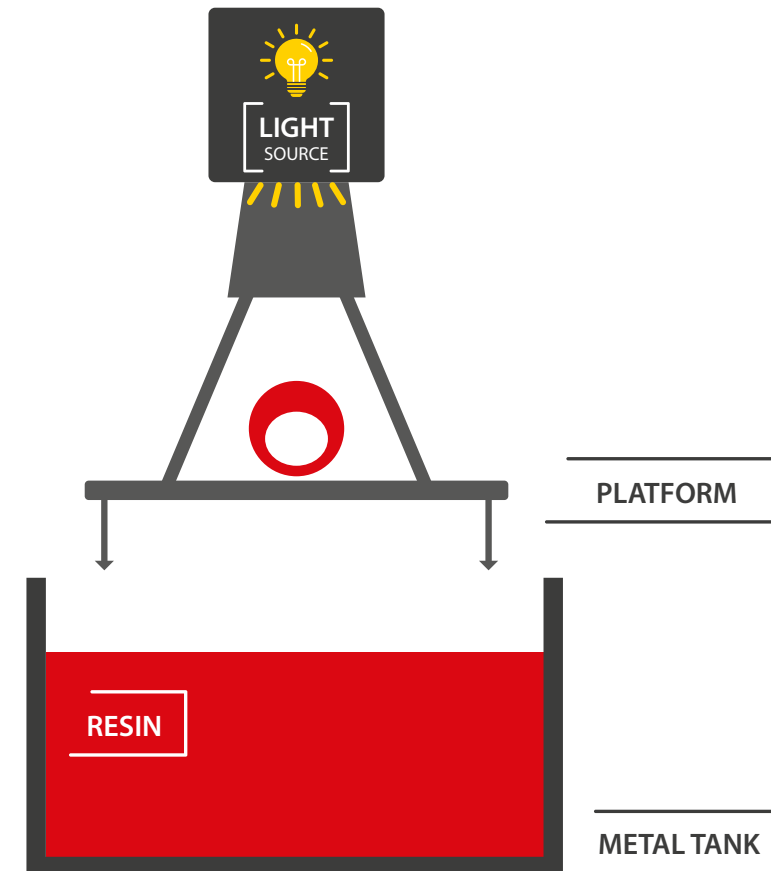
## Our Best Friend: Physics

The main specification that makes Uniway Optronix different than many other DLP based 3D printing machines is the perfect results created for main products that need very high dimensional accuracy due to its extraordinary working principle. Because of this innovative working principle, Uniway Optronix enables the manufacturing of different designs with more cost-effective workflows that were not possible before.

This new working principle, with DLP based 3D printing technology which uses UV light to harden the liquid resin layer by layer, the gravity is also used as a valuable advantage instead of a difficulty against 3D printing process. With Uniway ExJet 3D printers, printing platform moves down into the resin and the products on the platform are standing not hanging upside down. That means the products can be printed with less support and less resin consumption.



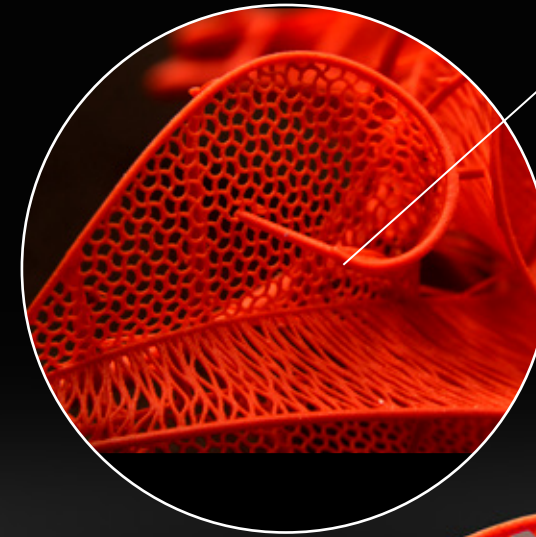
As one of the principles of DLP printing, the platform must move vertically after each layer printed. At Uniway ExJet 3D printers, the platform moves into the resin after each layer and benefiting from the lifting force of the liquid resin which enables the products to stand on feet with very thin supports. Because of that, the support structures can be cleaned very fast after the curing process and leave very smooth surface after casting which mean less labor costs for further surface operations.



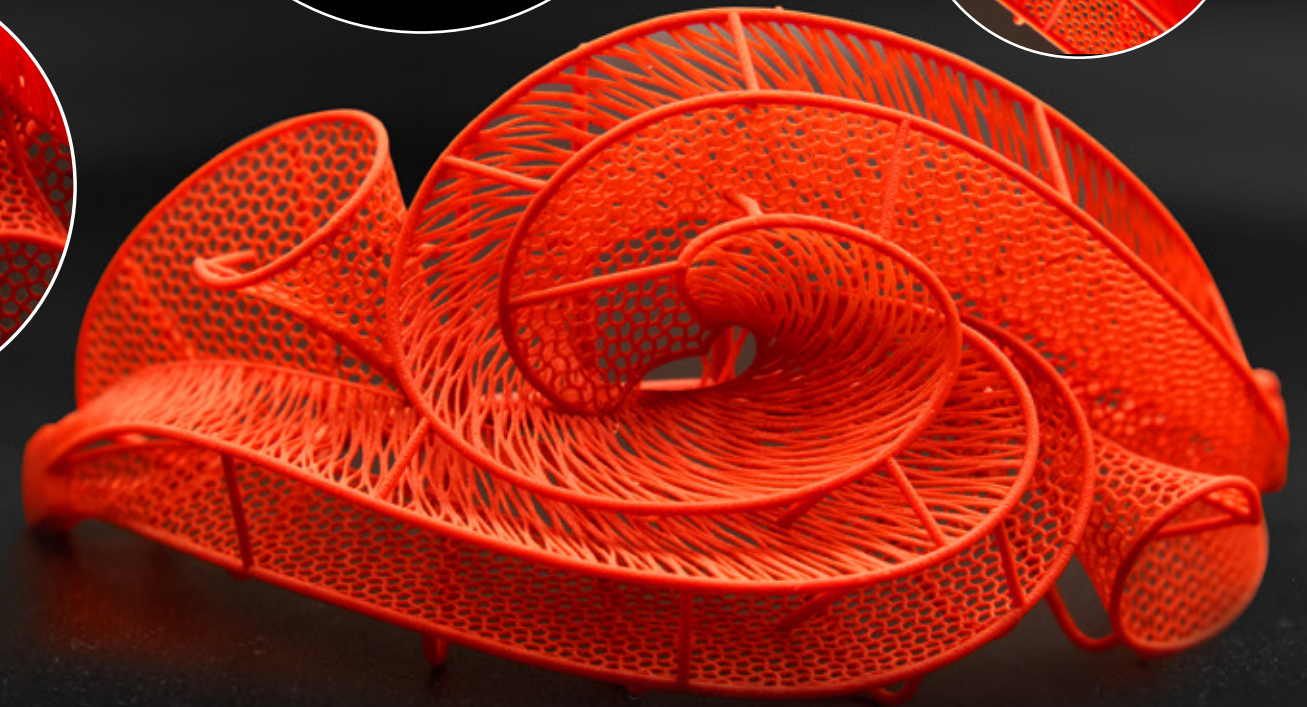
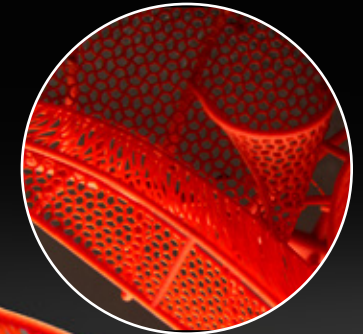
## Thinner, Faster, More Accurate

Thanks to the working principle of Uniway Optronix, high-resolution UV light is projected directly to the liquid resin without glass or transparent plexiglass between the light source and the resin. Direct projection of the UV light avoids refraction and creates very high dimensional accuracy.

The non-refracting UV light provides manufacturers with the ability to produce extraordinary high surface quality and high accuracy down to 0.10 mm thickness.



0.10 mm  
print capability

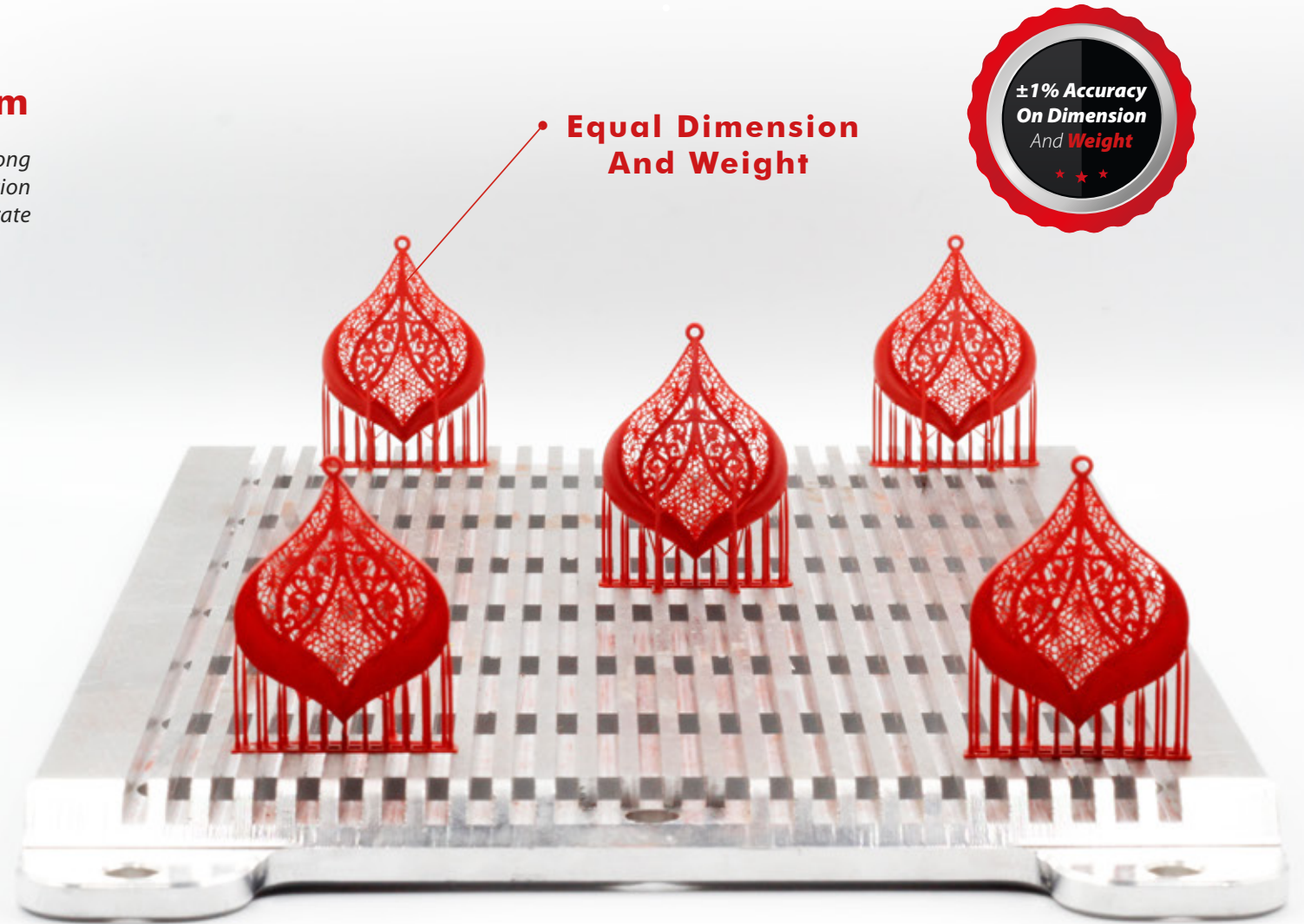


## Equal Dimension and Equal Weight on Full Platform

Uniway Optronix offers the highest possible accuracy with the combination of its state of the art technology, strong software, and working principle which provides the manufacturers less than 1% weight and dimensional deviation on the complete platform. This specification is critically important for mass manufacturers who have corporate customers as well as weight-sensitive medium-size manufacturers.



• up to 25mm/h  
print speed



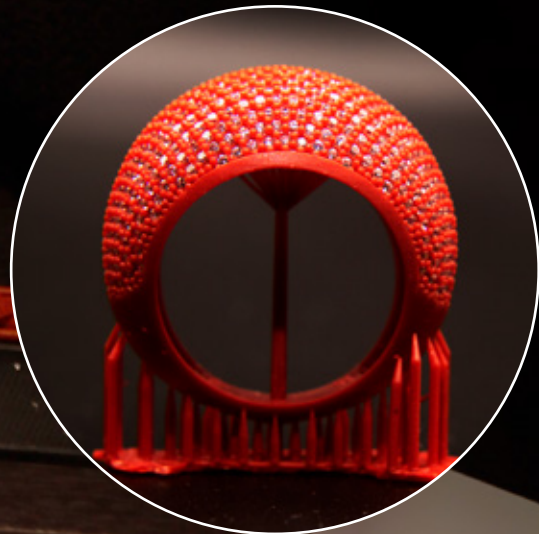
• Equal Dimension  
And Weight

±1% Accuracy  
On Dimension  
And Weight

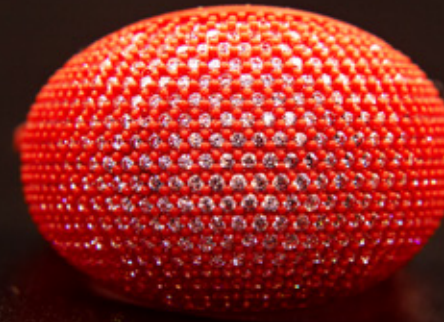
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### Easy Stone Setting

Uniway Optronix JetCast 1000 red resin is very suitable for easy stone setting with its high wax rate, flexible physical properties, and non-shrinking structure. A combination of the JetCast 1000 red resin's structure for wax-like easy stone setting and the high accuracy of Uniway ExJet 3D printers provides jewellery manufacturers to set the same size stones on a complete platform.



Same Size  
Stone Setting



## Spare Parts Cost: 0

Uniway Optronix 3D printing systems are designed not to require any spare part replacement thanks to robust structure, strong mechanical parts, and hi-tech components. In addition, thanks to its working principle, it does not require a resin tank that needs to be changed continuously like many other 3D printing machines, so the operating cost is very low.

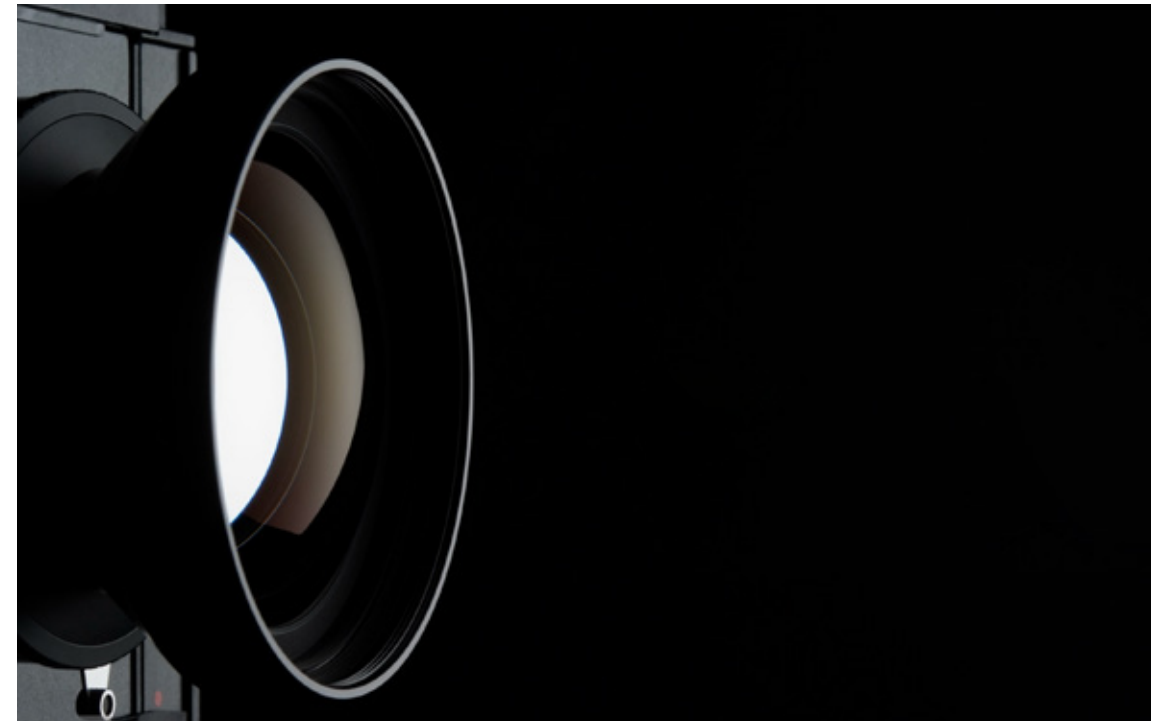


**NO  
SPARE  
PARTS  
ZERO  
COST**

## Ultra High Resolution DLP Projector

Uniway Optronix 3D printers which have the highest technology in the market can print even the tiny details easily thanks to its 4K resolution and 21  $\mu\text{m}$  pixel size. Integrated hardware and software enables one-click automatic light calibration which avoid manual adjustment mistakes.

The LED, which enables high quality and long-term use, enables Uniway projectors to work with high performance over 15000 hours.



## STRUCTURAL SUPPORT DESIGN

Uniway Optronix, with its experienced design instructors, provide advanced training to all its customers on subjects that need to be considered in structural support design and model positioning on the platform. In addition, Uniway Optronix provide remote support for all new users about the design problems they might face during their learning period.

With the Sprout Support software which works in common design programs (such as Rhinoceros 3D, Panther for Rhino, MatrixGold) and is compatible with Uniway Optronix principles, the lessons learned after a short training can be put into practice quickly. Uniway Optronix design team always support all users for their questions and solve their design related problems in a short time.



# UNIWAY OPTRONIX



## UNIWAY EXJET SERIES

### ExJet A6

ExJet A6 which is the smallest member of the Uniway ExJet family is a very good option for small and medium-sized businesses that want to use Uniway 3D printing quality with its speed, compact structure, and robust mechanical features. ExJet A6, which can reach 90x160 mm print area, 70 mm printing height, and printing speed up to 25 mm/hour, makes it possible to achieve excellent printing results with much lower investment costs with its hi-tech components.

#### ExJet A6 Technical Specifications

Projection Area	160 x 90 mm
Print Height (max.)	70 mm
Print Speed	up to 25 mm/hour
XY Resolution	21 µm
Z Resolution	25/35/50 µm
File Transfer Method	Ethernet/LAN
Electrical Specifications	240VAC, 50/60 Hz
File Type(s)	SLC/Pack/SPack
Accessories	UV Curing Machine, Accessories Box
Workspace Conditions	1 kVA UPS, AC (22° – Maximum), Stiff/Hard Floor



## UNIWAY EXJET SERIES

### ExJet A5

ExJet A5 widely preferred by medium and large sized enterprises which is offering a much smoother surface quality with the advanced printing technique. With its 220x140 mm projection area, 100 mm printing height, and up to 20 mm/hour printing speed, it is very suitable for both chain manufacturers and bracelet production. With its strong structure suitable for continuous production, it provides fast return of investment with reasonable initial cost.

### ExJet A5.5

For your special design where A6 print area is not enough, ExJet A5.5 is designed to expand the limits with its standard 100 mm or optional 130 mm print height and 192x108 mm projection area.

Technical Specifications	A5	A5.5
Projection Area	220 x 140 mm	192 x 108 mm
Print Height (max.)	100 mm	100 mm/130mm
Print Speed	up to 20 mm/hour	
XY Resolution	21 µm	
Z Resolution	25/35/50 µm	
File Transfer Method	Ethernet/LAN	
Electrical Specifications	240VAC, 50/60 Hz	
File Type(s)	SLC/Pack/SPack	
Accessories	UV Curing Machine Water Chiller, Accessories Box	UV Curing Machine Accessories Box
Workspace Conditions	3 kVA UPS, AC (22° – Maximum), Stiff/Hard Floor	



## UNiWAY EXJET SERIES

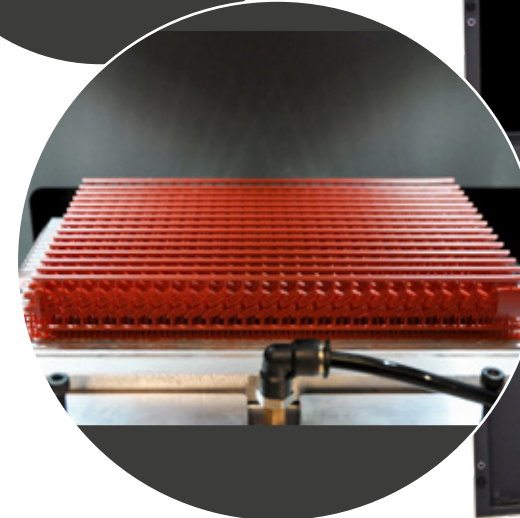
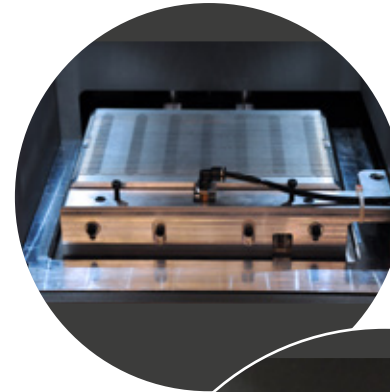
### ExJet A5 NSP

Uniway ExJet A5 NSP offers a unique experience with its non-stop working capability for big size industrial manufacturers, without the need of an operator and with lower costs. In addition to the all advanced technological properties of ExJet A5, a platform cleaning robot lets the NSP run 24/7 non-stop.

After each platform is printed, the robot skims off the printed models to the basket located at the cleaning module and continues to print the next job on the line. The basket can be removed at any time without interrupting the printing process.

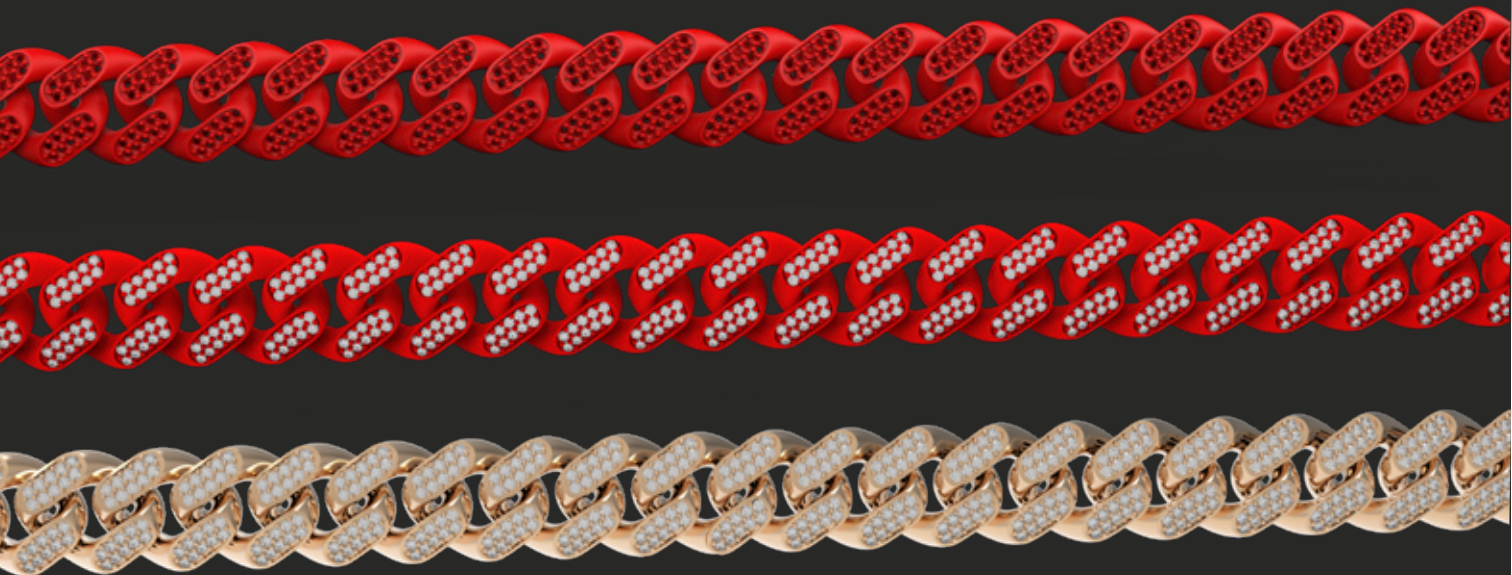
#### ExJet A5 NSP Technical Specifications

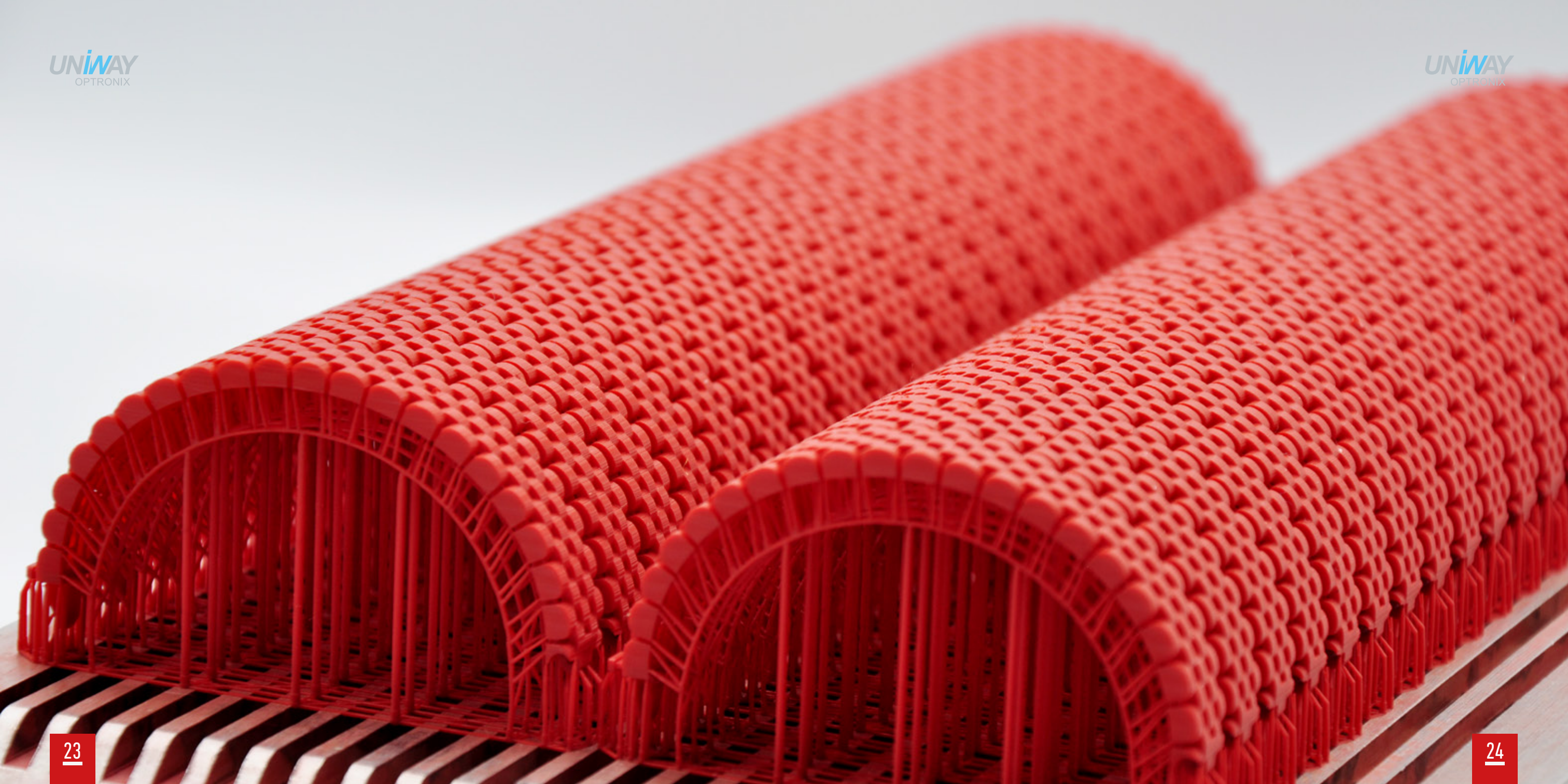
Projection Area	220 x 140 mm
Print Height (max.)	130 mm
Print Speed	up to 20 mm/hour
XY Resolution	21 µm
Z Resolution	25/35/50 µm
File Transfer Method	Ethernet/LAN
Electrical Specifications	240VAC, 50/60 Hz
File Type(s)	SLC/Pack/SPack
Accessories	UV Curing Machine, Water Chiller, Accessories Box
Workspace Conditions	3 kVA UPS, AC (22° – Maximum), Stiff/Hard Floor



## JETCAST 1000 RESIN: BEST of ITS KIND

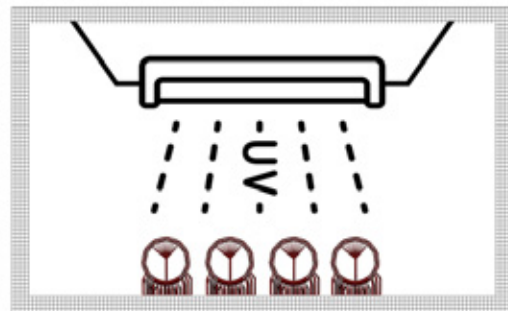
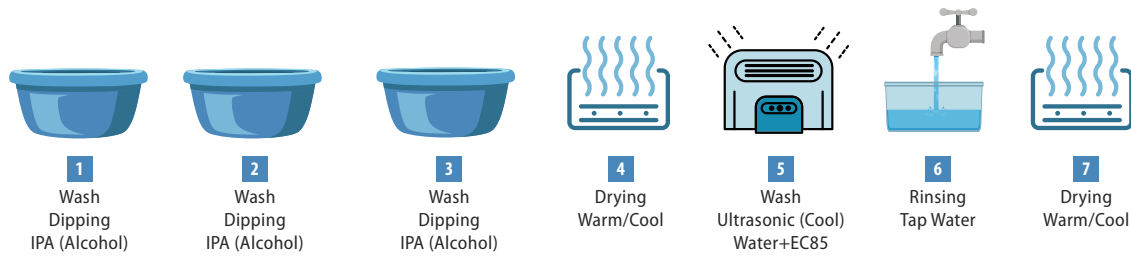
Uniway JetCast 1000 red resin contains high wax rate and is highly preferred by most of the jewellery manufacturers as it also offers easy stone setting and high quality casting ability. As a part of Uniway 3D printing technology, JetCast 1000 red resin works pretty good in harmony with Uniway hardware and software and only offered to the Uniway ExJet 3D printer users.





## WASHING/CLEANING/CURING

After printing process, liquid resin and resin oil residuals on the surface of the products must be cleaned by chemical dissolvents before curing operation. Washing, cleaning and curing must be handled perfectly as they are critically important processes for a good casting result. Uniway Optronix suggests the high quality Elma Ultrasonic cleaning units for washing and cleaning process. Additionally, for curing process, Uniway Optronix gives its own curing unit CureJet curing system free of charge with all the 3D printing units supplied.



## AFTERSALES SERVICE

*While making the final decision to purchase a 3D printer, most of the customers consider the aftersales service quality of the brand they will purchase. With experienced service team, Uniway Optronix offers a high quality customer service from installation of the printers at customer's factory and training to the on demand service visit and remote service supports.*

*In addition, the expert design team ensures that the printing process continues uninterrupted by responding very quickly to all its users' questions about design and the service team organizes visit programs both domestic and abroad time to time and performs general maintenance and controls of Uniway ExJet 3D printing machines in use.*



## FREE SAMPLE PRINTING

*As Uniway Optronix, we invite all jewelry manufacturers who plan to produce with a 3D printer to participate in a free test printing before making a decision. We believe that presenting Uniway technology and its differences, that create added value, in more detail at our head office in Kuyumcukent, Istanbul, and enabling you to see our print quality on your own products will help you in choosing a 3D printer.*

*For our distant customers or those who have no chance to visit us, we can print their designs (.stl file format) on Uniway ExJet 3D Printers and deliver them ready for casting after performing the necessary washing and curing process.*

**Test our 3D printers!!**



# UNIWAY

## OPTRONIX

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