

DWS Company Profile

DWS - Digital Wax Systems, is an innovative Italian company founded in Vicenza in 2007. It already had a long experience in the prototyping sector. It develops hi-tech solutions for prototyping and high-speed production applied to reduce development times for new industrial products.

Today these systems are a strategic resource and a must-have element necessary to increase the competitiveness.

The mission of DWS is to innovate production processes in order to make the production faster and more flexible.

It is currently the only Italian company specialized in the development and application of the stereolithography technology, that provide best quality results combined with a drastic reduction of time to market.

All our systems are fully compatible with all CAD/CAM files in the market. Directly from a .stl 3D file, DWS systems create the best prototypes and finished products, in terms of high definition and accuracy. Completely designed and produced in Italy by DWS, DigitalWax® systems are used in 42 countries worldwide and provide companies with the innovative additive manufacturing technology in the market.

The point of strength of DWS is the perfect merge of high technology and human values that leads to a continuous improvement. Our process is unique of its kind and it is protected by several international patents. Our best distinctive technology and solutions are:

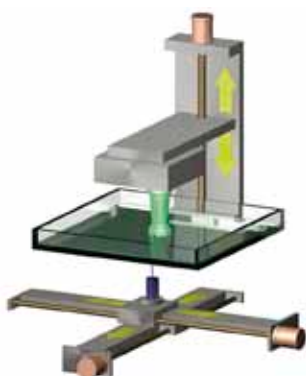
- The innovative BluEdge® laser
- Dedicated software, constantly updated
- The absence of immersive building phase which strongly reduce the consumption of resins and allows a quick material change
- Proprietary photosensitive resins and hybrid materials, differentiated for every kind of applications, in order to give a full range solution for any needs.
- Accuracy and superior surface quality of the final product.

Thanks to all these solutions, DWS systems provides the best performance in terms of high definition and cost reduction. DWS is leader in the gold jewellery sector and also an important player with innovative solutions for the dental sector and industrial applications in general. Our customized solutions aim to meet the highest requirements of today's market and to improve the companies' competitiveness following the main lean manufacturing principles: less waste, more quality and more productivity.

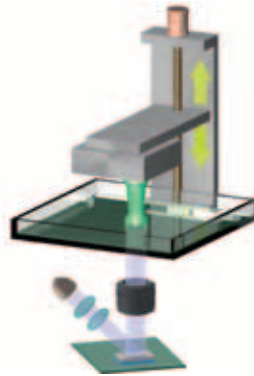
Digital Wax®J Additive Manufacturing Systems for Jewelry


DigitalWax® J: additive manufacturing systems for jewelry. Due to their reduced moving parts and unique user-friendliness, DigitalWax machines are characterised by high reliability and extra-low maintenance. A great flexibility is made possible by the quick material change, the absence of pre-heating and calibration. The machines are controlled by dedicated software that is perfectly compatible with most 3D CAD systems used in the dental applications. BluEdge® is a Class 3B laser source created by DWS Research & Development Centre that emits ultraviolet rays which solidify layer upon layer of photosensitive resin. By means of a vertical positioning device, the modelling platform base rises up for a measure corresponding to the thickness of the solidified layer. These motion capabilities, together with a synchronised laser allow the creation of exceptionally complex and precise three-dimensional prototypes. DigitalWax stereolithography machines are characterised by innovations such as a transparent resin tank which allows the laser beam to pass through it, and a laser scanning unit placed directly under the tank. These innovations, in comparison to conventional techniques, make the whole process more flexible and more economical, especially in terms of material consumption.

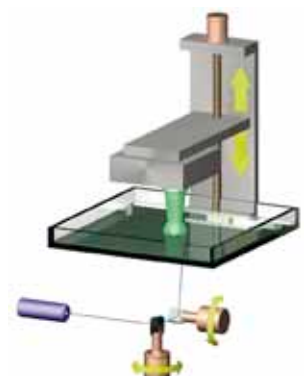
DWS Building Process




 The Plotter X-Y scanning method is characterised by high accuracy and a relatively small productivity, the main features of the DigitalWax 008J.



 The DLP Projection method is characterised by high accuracy and a high productivity, the main features of the DigitalWax 009J.



 The Galvanometer type scanning method allows the highest building speed and accuracy and is adopted by DigitalWax 028J, 028J+, 029J, 029J+, and 030J systems.

DIGITALWAX 028J

Desktop size system

Working area (x, y, z):
Productivity:

65x65x90 mm
80 patterns built in 24 hours*



DigitalWax 028J is a high accuracy rapid manufacturing system for jewelry applications.

With its unbeatable price-performance ratio and the lowest running cost in the market, DigitalWax 028J is **the perfect choice for fast production of high quality models.** DigitalWax 028J **can build up to 80 models per day** (24 hours), it depends on their size and complexity.

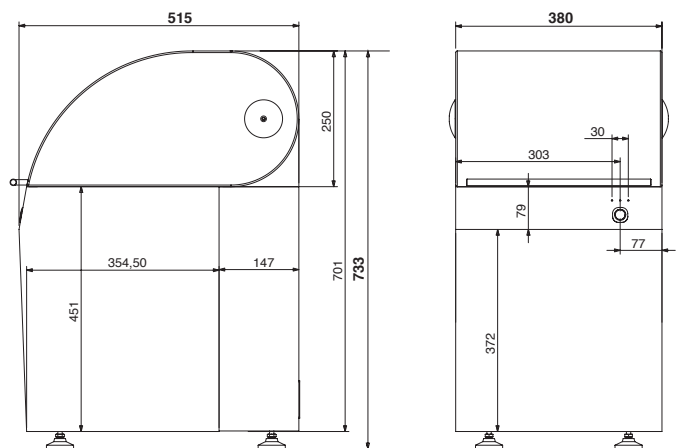
The three-dimensional models are built by a special laser which hardens a proprietary photo-curable resin.

The laser is specifically developed to guarantee high performance and long life.

Thanks to the layer-by-layer forming technology, there are no limits to the geometric complexity of the models: undercuts, cavities, thin surfaces and complex shapes can be created without any difficulty.

The BluEdge® laser head allows the use of a new generation, high performance UV photo-curable resins for direct casting and rubber mould applications.

BluEdge® laser source
High speed and accuracy
High surface quality
Direct casting
Master models for rubber moulds
No lamp replacement
No calibration
Long life UV laser
Lowest running cost



Standard accessories supplied with DigitalWax 028J:

N. 1 Building platform mm 75x75 (working area: mm 65x65)
N. 1 Resin tank mod. RT800
N. 1 Set of handling tools
N. 1 Personal Computer with LCD monitor
N. 1 UPS 650VA 230V 50/60 Hz
N. 1 DigitalWax 028J Software Suite License
N. 1 User manual

Technical data:

Laser source: Solid State BluEdge®	BE-1500A/BE-1500AHR
Working area (x, y, z):	65 x 65 x 90 mm
Slice thickness*:	0,01 – 0,10 mm
Laser scanning speed:	0-2200 mm/sec
Scanning method:	Galvanometer
Software:	DigitalWax 028J Controller
OS:	Windows 7
Input file format:	.stl - .slc
Machine size:	380x515x733 mm
Weight:	56 Kg
Operating Temperature and Humidity:	22° - 25°C / 60%
Electrical consumption:	400 W
Power supply:	AC 230/115 V / 50-60 Hz

Technical specifications subject to changes without notice.

*it depends on the kind of photo-curable resin used.