

# 3D Crystal Sub-surface Laser Engraving Machine

(Model: PE-DP-A1/A2)





Customer-orientated

Wish to provide benefit to agents and customers

Free Pre-Sales Consulting, Free Sample Service

life-long service

Engineer Overseas Installation available

12 hours Quick Feedback & After-Sales Service

10000+ Customers Choice

Perfect Laser will be your best Partner





### Applicable Industry

2D or 3D in three-dimensional pattern engraving, crystal glass and acrylic transparent materials. Can be carved 2D/3D portrait, name footprints, trophies and other personalized gift souvenirs, but also mass production of 2D/3D animals, plants, buildings, vehicles, ships, aircraft and other models of products and 3D scene display.

Widely recommended for use in urban scenic spots, photo printing shop, wedding photography, tourism souvenirs and personalized gift shop, can also be used in place of other consumer sites and temporary activities. Suitable for tourism, hotels, galleries, photo studio, advertising and other consumer and industry activities.

### Applied Materials

Suitable for crystal, glass, acrylic, decoration materials and other transparent materials etc..

By adding a 3D portraits Camera, this 3D sub-surface crystal laser engraving machine can take the 3D portraits on the human body, and then through PE laser inner engraving technology to make dots inside crystal, and then many dots to form a three-dimensional images.

This type of machine use the imported air cooling laser system, so it not only greatly increased the speed of engraving, but also with small light point, carving out digital images of high profile distinctive characteristics. Good stability and easy maintain. Suitable for large shopping malls, tourist resort and the place of big population like that make the personalized portrait production.



Engraving software demo



Z axis motor



Back



Integral structure of equipment

- 1) High speed: only 1-2 minutes for engraving a 50\*50\*80mm size crystal, suitable to tourist resorts.
- 2) Good engrave quality: high resolution. The pattern of engraving is exquisite, crystal-clear and strong tri-dimensional sense.
- 3) Use the imported air cooling laser system, stable, easy maintenance.
- 4) Non-touches engraving process ensures that the surface of the crystalline lens keeps its original shape and quality
- 5) Small volume: Less than 1 cubic meter (suitable in shopping mall)
- 6) Free of maintenance: It is diode laser. Different from old YAG Xenon lamp 3D inner laser engraver, no need to change Xenon lamps after lamps used out.
- 7) Can take the 3D pictures on the human body: With 3D Camera, can engrave real person to form a 3D image.
- 8) 1 years whole machine guarantee





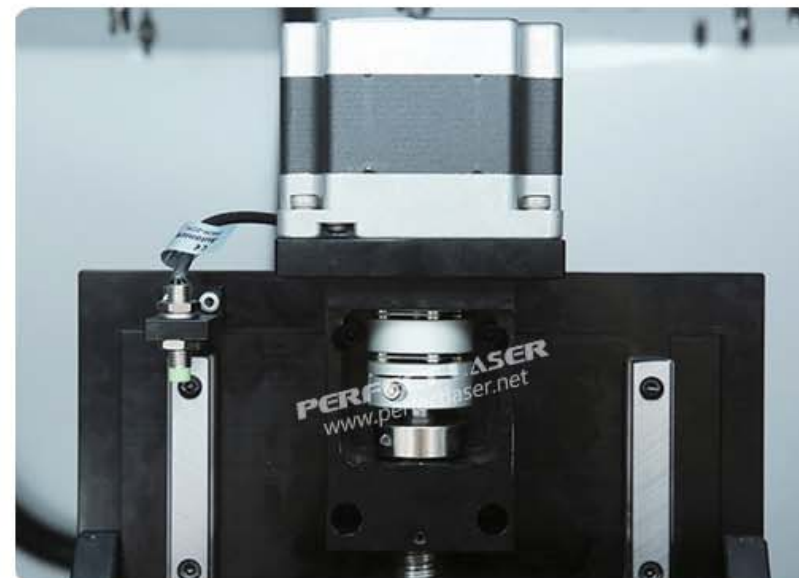
# 1.

## Appearance



# 2.

## Integral structure of equipment



# 3.

## Movement platform

Adopt Imported stable aluminum material special platform  
Specially used for engraving heavy loading





# 4.

## Moving platform guide rail

The bearing of the lead guide rail is face to face  
Using precision is high for a long time self-lubrication



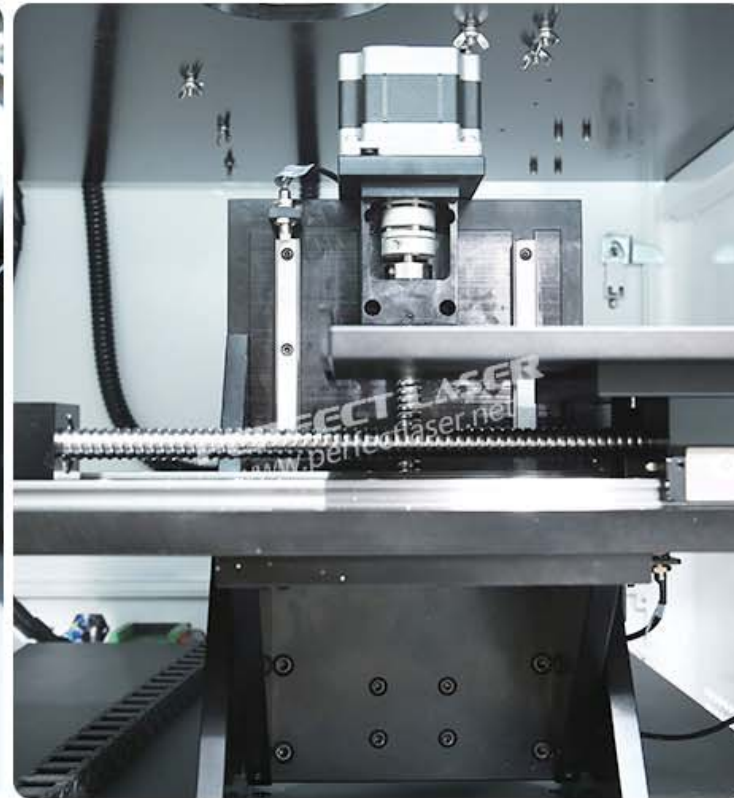
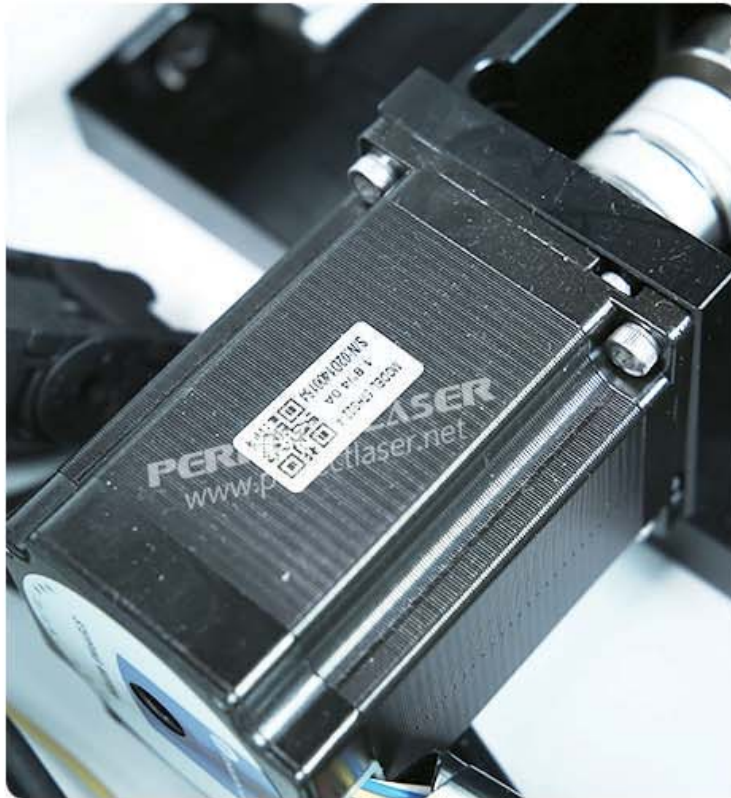




# 5.

## X axis motor

Ensures the possibility of realizing extreme precise positioning  
Makes moving positioning mechanism operate smoothly





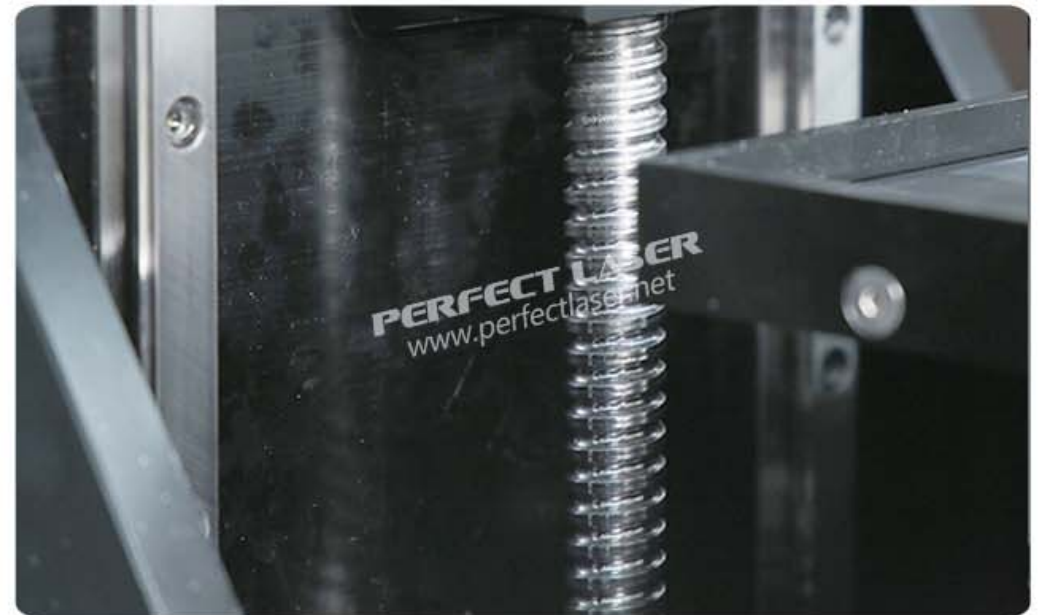
**6.**

**Y guide**



**7.**

**Z axis motor**





8.

X+Z axis motor



9.

Ball Screw Transmission





# 10.

### Working table



# 11.

### 3D Engraving software

Support JPG,BMP,DWG,DXF,etc





**12.**

**Finished product display**



Model	PE-DP-A1	PE-DP-A2	PE-DP-C1	PE-DP-C2
Laser	YAG Diode Pump			
Average Life LD	>20000 Hours	>12000 hours	>20000 Hours	
Max Frequency	5000HZ	3000HZ	5000HZ	
Max Range Support Split	400mmx320mm x150mm	400mmx300mm x120mm	100mmx100mmx100mm	120mmx120mm x100mm
Focal Length	120mm	100mm	120mm	165mm
Accuracy	20μm~40μm		20μm~40μm	40μm~80μm
Max Speed	5000 PIONTS / Second			
Repeat Offside	10~20μm		10μm	
Power	<350W 220v/50Hz	<350W 110v/60Hz	<400W 100V-120V /50Hz ; 200v - 240V /60Hz	
Weight	150 kgs		75 kgs	
Cooling	Air cooling			
Environment	Less dust and shock, Temperature 10-35°C, humidity < 85%			
File Format	BMP JPG DXF OBJ WRL 3DS STL			
Applicable Mate	All transparent material, Glass, Crystal, PMMA, etc.			
Package Size	1070mm x 970mm x 1450mm		1080mm x 780mm x 1310mm	
Machine Size	800mm x 900mm x 980mm		550mm x 650mm x 850mm	



### CCD Camera

Applicable to a wide range of 3D surface data measured by using color structured light measurement principle, can be taken within 0.5 seconds out of 3D surface data. Can be widely used in large-scale measurement of 3D objects and 3D portrait crystal engraving system, human face shooting. The system is more plug-ins with the crystal engraving, Crystal laser can select a variety of shapes and crystal types for simulation and match



Portrait Engraving with CCD Camera



CCD Camera	
Power	AC110V~240V, 200W
Capture Device	>8M Pixels
Shooting speed	<0.5 sec.
Pattern Projector	Single Color Projector
Control Software	Beaut3D
Field of View	800mm(W)*500mm(H)*400mm(D)
Resolution	2.5mm
Accuracy	+/- 0.5mm
Texture Data	with> 8M UV
3D Format	LTM, OBJ, STL, WRL <small>PERFECT LASER www.perfectlaser.net</small>
CPU	Intel P4 2.4 or Higher
RAM	R512MB
OS	Windows 2000, XP, Vista(32 bits),windows 7(64 bits)
USB Port	2
3D Input 3d format	STL, OBJ, 3DS, LTM, TGL
Output 3d format	STL, OBJ, 3DS, WRL, LTM, TGL
Viewing Fun	Front, Top, Side, ISO View, Point/Polygon, Texture On/Off, Rotate, Scale
Selection Fun	Point (Single/Group), Triangle (Single/Group), Boundary
Editing Fun	Triangle (Delete, Smooth, Remesh), Boundary (Hole Fill)
Modeling Fun	Registration, Merge, Combine, Stitch
Apply	Measurement of Large mold, Measurement of large statues, Measured half-length portrait crystal engraving . measuring up to 3 peopl at the same time





**Advanced Aviation Packing Box**

<b>3D Crystal Sub-surface Laser Engraving Machine</b>				
Length (m)	Width (m)	Height (m)	Measurement (m <sup>3</sup> )	Net Weight (kg)
1.07	0.97	1.45	1.5	150

## Terms and Conditions



### Q: What's the package?

A: We have 3 layers package. For the outside, we adopt wood craft case. In the middle, the machine is covered by foam, to protect the machine from shaking. For the inside layer, the machine is covered by thickening plastic bag for waterproof.

### Q: Will the package damaged during transportation?

A: Our package is considerate all the damage factors and make it to be safe, and our shipping agent have full experienced in safe transportation. We have exported to 180 countries worldwide. So please don't worry, you will receive the parcel in good condition.

### Q: How to install and run the machine?

A: Our technician have installed the machine before shipping. For some small parts installation, we will send detail training video, user's manual along with the machine. 95% customers can learn by themselves.

### Q: How can I do if the machine goes wrong?

A: If confronted with such problems, please contact us asap and do not try fix the machine by yourself or someone else. We will response within 24 hours as quick as we can to solve it for you.