



Chinese Dental laboratory turns to EnvisionTEC printers and materials for aligner production

Hanyang Technology was founded in July 2017 by CEO Sasa Jia and Technical Director Vivian Wang. Sasa currently also operates a 200-bed hospital and brings both extensive management experience and medical resources. Vivian, has been working on invisible tooth correction for 5 years and is familiar with 3Shape and other related software and devices.

The business is located in Baoding, Hebei Province China and engages in research into the application of medical and 3D printing technology.

Hanyang’s core products are orthodontic at present, predominantly the production of tooth aligners. It has recently registered a new transparent dental appliance brand MYDEMAK.

Why look at 3D printing?

The customized transparent tooth appliances that Hanyang produce need to be incredibly accurate and closely aligned with the tooth crown of the patient. Failure to achieve this results in incorrect orthodontic force and potential damage to teeth. From their experience, replacing gypsum tooth models with the 3D scanning of tooth impressions and 3D printing provides a far more accurate result for the patient.



CEO Sasa Jia and Technical Director Vivian Wang with the DDDP (Digital Desktop Dental Printer)



“EnvisionTEC is widely recognized in dentistry, and its DLP technology is superior. Their materials and equipment have great advantages compared with other brands” -

Vivian Wang, Technical Director, Hanyang Technology.

Hanyang Technology

Industry:
Dental/Orthodontic

Machines:
Vector 3SP/DDDP, 3Shape Dental Scanners

Materials:
E-Model Light

Why EnvisionTEC?

Hanyang's management team were aware of EnvisionTEC's brand as early as 2015. Through their network they received multiple reports of EnvisionTEC's DLP technology and its recognized abilities in areas such as hearing aids, jewelry and dentistry.

In early 2017 when the business was being launched the team knew they needed to investigate the best options in terms of 3D printers, scanners and materials. After discussing their options with contacts within the industry and closely examining their options, including a number of brands, and even a home made SLA machine, they settled on two of EnvisionTEC's 3D printers, a Vector 3SP and a DDDP (Digital Desktop Dental Printer).

This decision was made based upon EnvisionTEC's expertise in the field of dentistry and orthodontics, the recognition within the market, the exceptional accuracy of the printers and the surface quality of the models.

Outcome

Hanyang can both process digital files from other dental labs, or digitized from impressions on its in house 3Shape scanner. The team can then use 3Shape or Maestro 3D software to modify these and print accurate models of the teeth in the EnvisionTEC E-Model material. A vacuum mechanism is then used to form the invisible orthodontic appliances over the model.

Hanyang's digital solution provides it with the competitive edge over manufacturers who are still reliant on traditional gypsum models. The 3Shape scanner and EnvisionTEC printer provide much improved accuracy of the tooth models, this in turn results in better fitting aligners for its customers.

About EnvisionTEC

EnvisionTEC is a leading global provider of professional-grade 3D printing solutions. Founded in 2002 with its pioneering commercial DLP printing technology, EnvisionTEC now sells a range of printer configurations based on six distinct technologies that build objects from digital design files. The company's premium 3D printers serve a variety of medical, professional and industrial markets, and are valued for precision, surface quality, functionality and speed.



Hanyang Technology manufacturers a range of custom clear aligners.

"Digital dental solutions will certainly be the trend in the future. More and more hospitals and clinics will accept 3D printers, dental crowns, implant guides and orthodontics produced by 3D printing." - Vivian Wang.



Vacuum is used to form the transparent orthodontic appliances over the model.

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