

## Smart Aligner Production Solution



3D Printer  
BQP-D15



Pressure Forming Machine  
BQT-P01



Aligner Trimming Machine  
BQM-T4X



## Product Catalogue

### BenQ Aligner Solution – DentCare Q Smile

- Slicing & Trimming Software (Q-Slicer PRO)
- 3D Printer & Printing Resin
- Pressure Forming Machine & Clear Aligner Films
- Aligner Trimming Machine

# BenQ AB DentCare Corp.

BenQ Qisda Group

## Brand & Service



## Technology & System Integration



## Key Components



## Milestones

2001 – Establishment of BenQ

BenQ was established in 2001. Our commitment to excellence and ongoing pursuit to discover breakthroughs have resulted in great strides that have been made from scientific fields to the medical industry, with a variety of new products and services, all in order to create better lives for people.

2010 – A brand new start in the medical field for BenQ

This year was one of the milestones for BenQ. Trident Medical Corp., a leading medical equipment manufacturing brand with numerous awards and international certifications, joined BenQ and was officially changed to “BenQ Medical Technology Corporation” in 2010. The new organization focuses on R&D and also acts as a distributor in the field of accuracy and professional medical instruments. Now, BenQ Medical Technology, which is the largest medical corporation in Taiwan, provides the best medical solutions domestically and internationally.

2014 – A big step forward for BenQ into the dental industry 2020

As our mission is to pursue breakthroughs, we took another step forward into the dental industry in 2014. BenQ Medical Technology, a well-known brand in the domestic region, established “BenQ AB Dentcare Corporation.” Our mission is to lead a new way into the dental industry.

2020 – Taiwan’s first intraoral scanners were launched on the market.

2022 – The digital dental equipment brand DentCare had been established to provide a full range of dental products.



## Company Overview

“Thinking globally, rooting locally” BenQ AB DentCare is your most reliable partner

“Because it matters” is our philosophy and BenQ AB DentCare’s guide towards growth.

We see the trend and future of the dental industry and we are eager to bring the best of it to the global markets. BenQ AB DentCare Corp., a subsidiary of BenQ Qisda Group, is an expert in the field of dental device. In 2020, BenQ intraoral scanners was launched on the market. In 2022, the digital dental equipment brand DentCare had been established to provide a full range of dental products.

In the field of dentistry, we provide BenQ integrated digital solutions for clear aligners, implants, and prosthetic treatment. We provide smart production solutions for clear aligners and prosthetic, Q Smile, including slicing & trimming software, 3D printer, pressure forming machine, aligner material, aligner trimming machine and dental milling machine.

“Thinking globally, rooting locally” BenQ AB DentCare is your most reliable partner.



BenQ AB DentCare 🔍



DentCare Academy 🔍



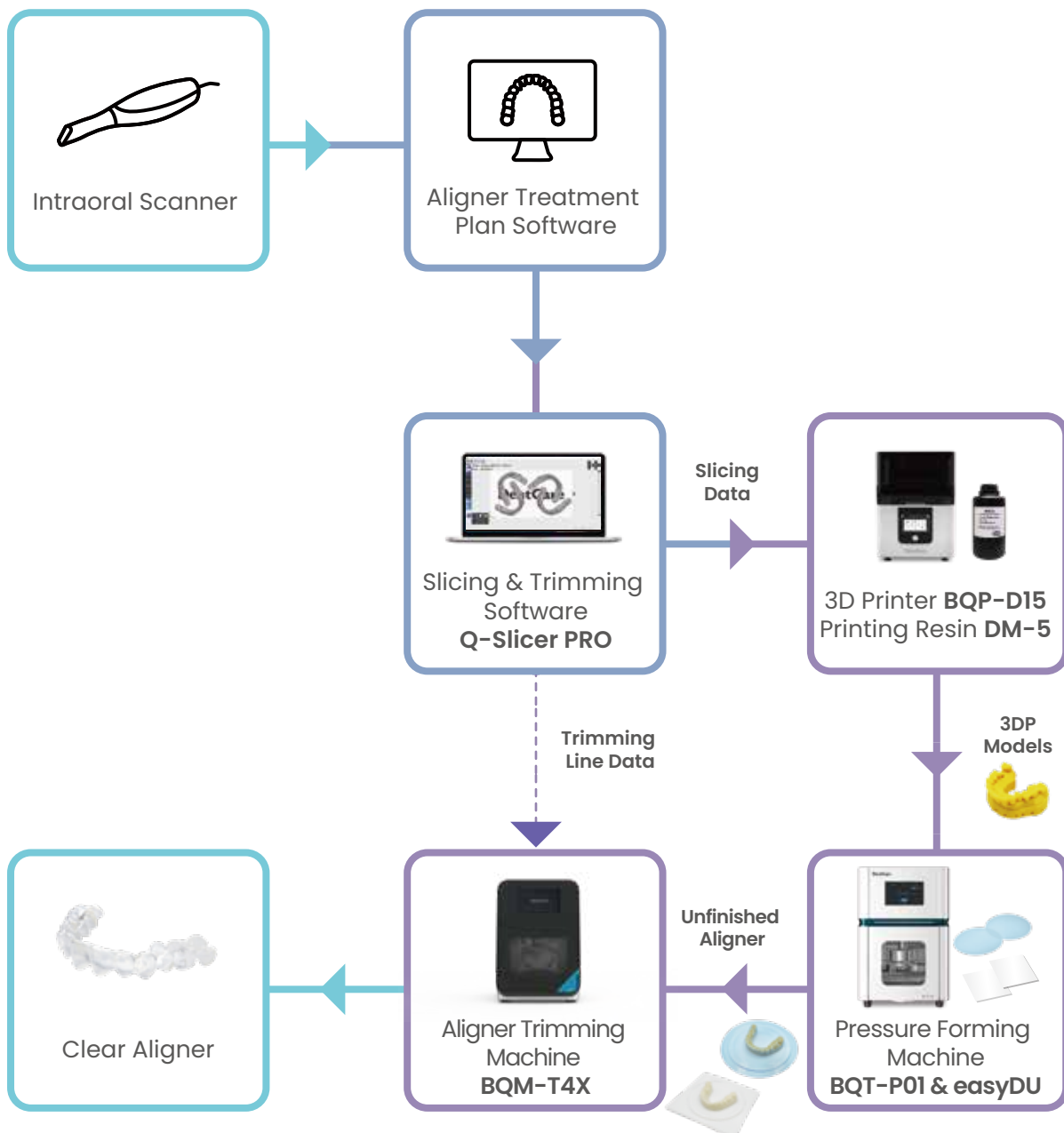
www.benqabdentcare.com

# BenQ Aligner Production Solutions

DentCare Q Smile



## Workflow | BenQ Aligner Solutions - DentCare Q Smile





# BenQ Q-Smile Software

Q-Slicer PRO



## BenQ Slicing & Trimming Software (DentCare Q-Slicer PRO)

- Automatic model bottoming
- Model Edit: Hollow, Punch Hole, Basic repair, Cut, Dental Model Build, Text, Strengthened pillar
- Smart support editing: Automatic identify feature (avoid necessary/key features), Automatic printing angle calculation
- Advanced Slicing: Preview material weight, Multi-Slicing parameters.
- Trimming Add-On: Automatic trimming detection

# BenQ 3D Printer

DentCare BQP-D15



BenQ is the leader of DLP projector solution provider, that use this technology for the key part of DLP 3D printer at the same time. BQP-D15 adopt DLP light curing technology of high resolution, that the advantage of high accuracy, large printing area, high working efficiency, and stability of working consumables.

## Features

- Made especially for dental application
- Superior optical design to achieve excellent sharpness
- Z-axis liner motion guide provide high rigidity and stability
- The Z-axis creates high accuracy and high printing speed
- Unique design of resin tank
- Easy to detach the picker and resin tank
- Resin tank lifetime reaches 15 kg  
(The lifetime depends on different resins)
- More user friendly and intuitive software



## BenQ DM-5 | Printing Resin

BenQ has devoted itself in polymer science for many years. DM-5 is a 3D printing resin made especially for orthodontic models. It can be printed in high speed with superior resolution. By using DM-5, clear aligners can be thermoformed directly from 3D printed orthodontic models due to its high temperature resistance, ultra-high surface hardness and edge stability.



## Features

- High precision and accuracy.
- Low shrinkage rate (<1%), and high hardness.
- Low viscosity and easy to operate.
- Suitable for DLP and LCD light sources.
- Correspond to UV wavelength : 365-405 nm.

## Specification

| DentCare BQP-D15        |                    |
|-------------------------|--------------------|
| Technology              | DLP                |
| Printing Area ( WxDxH ) | 150 x 84.3 x 75mm  |
| XY Res.                 | 58μm               |
| Z-axis Layer Thickness  | 5-200μm            |
| Wavelength(LED)         | 405nm              |
| Light Engine Pixels     | 2560 x 1440 pixels |
| Connectivity            | USB, Ethernet      |
| Dimension               | 30 x 40 x 43cm     |
| Weight                  | ≈ 20 kg            |
| Power supply            | 100-240V, 50/60 Hz |

| BenQ DM-5           |                   |            |        |
|---------------------|-------------------|------------|--------|
| Item                | Unit              | Standard   | Data   |
| Color               |                   |            | Yellow |
| Hardness            | Shore D           | ASTM D2240 | 90     |
| Density             | g/cm <sup>3</sup> | ASTM D792  | 1.19   |
| Viscosity           | cp @ 25 °C        | ASTM D2556 | 150    |
| Tensile Strength    | MPa               | ASTM D638  | 37     |
| Elongation at break | %                 | ASTM D638  | 5.6    |
| Young's Modulus     | MPa               | ASTM D638  | 1087   |

1. Suitable for DLP and LCD light sources
2. Correspond to UV wavelength : 365-405 nm
3. Solvent recommendations for curing treatment - Either 95% alcohol or isopropyl alcohol

# BenQ Orthodontic Material

easyDU preformed tooth positioner



**Delightful**  
Less visible appearance fitting anyone's lifestyle

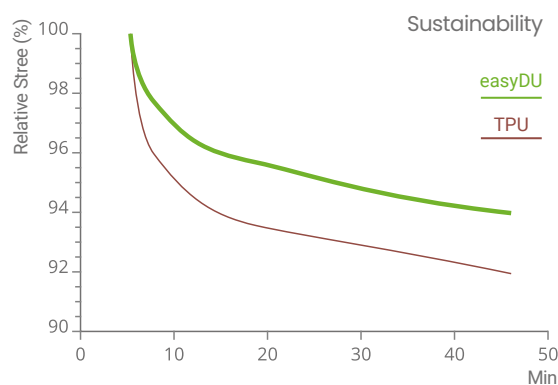
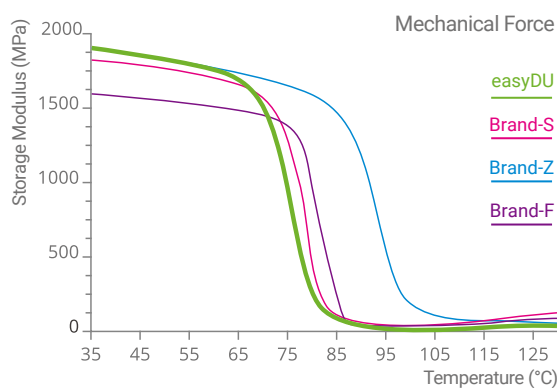
**Considerate**  
Certified biocompatibility for patient safety

**Reliable**  
Effective and long lasting orthodontic forces



## Physical

easyDU Preformed Tooth Positioner is easily to be thermoformed into aligner brace and keeps superior orthodontic force\*1 under normal oral temperature. easyDU Preformed Tooth Positioner has outstanding sustainability\*2 to strike a balance between alignment effectiveness and wearing comfortability.



\*1 Refer to Storage Modulus measured from Dynamic Mechanical Analyzer (DMA)

\*2 Refer to Relaxation Modulation measured from Dynamic Mechanical Analyzer (DMA)

## Bio-compatibility

A Clear tooth aligner can be applied on patient about 20~22 hours up to 7~14 days.\*3 Hence, biocompatibility and any possible precipitation of plasticizer are critical points to be verified. easyDU Preformed Tooth Positioner has been approved of biocompatibility by third-party authority\*4 and certified the product in compliance with the following:

ISO 10993-5: Cytotoxicity Test

ISO 10993-11: Acute Systemic toxicity in mice Test

ISO 10993-11: Pyrogen Test in Rabbit

ISO 10993-10: Skin Sensitization Test

ISO 10993-10: Oral Mucosa Irritation Test

It has been confirmed without Phthalate Esters (PAEs)

\*3 Wearing time will be varied in accordance with treatment plan made by orthodontist.

\*4 The biocompatibility test was conducted by MASTER LABORATORY CO., LTD in Taiwan.

## Specification

| easyDU Preformed Tooth Positioner |   |                |
|-----------------------------------|---|----------------|
| Material                          | PETG (Polyethylenterephthalat Glycol copolymer) |                |
| Diameter                          | Round shape / 125 mm                            |                |
| Effective Thickness               | 0.50 mm   | 1.00 mm        |
|                                   | 0.75 mm   |                |
| Packing                           | 20 pks / bag ;                                  | 20 pks / bag ; |
|                                   | 20 bags / box                                   | 16 bags / box  |

# BenQ Pressure Forming Machine







DentCare BQT-P01

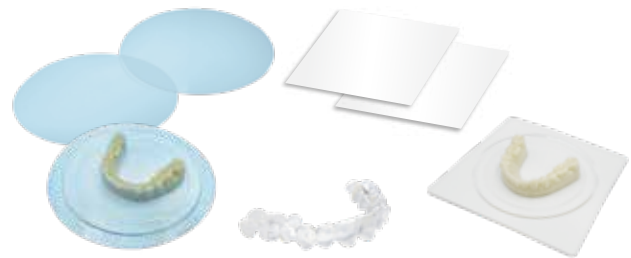


## Features

- 7" Touch Screen
- Door Protection
- Automatic Pressing and Filming
- Intelligent Temperature Control
- Fast / Evenly Heated / Accurate / Efficient
- Status Reminder and Easy Trouble Shooting Tips
- Fits All Types of Films in the Market: Square and Round








|  |  |  |
|--|--|--|
| <br>One-click                 | <br>Suitable                | <br>Short time      |
| <br>Intelligent Temp. Control | <br>Door-opening Protection | <br>Status Reminder |



## Specification

| DentCare BQT-P01   |   |
|--|---|
| Dimension  | 375*345*562mm                                 |
| Power  | 800W  |
| Pressure   | 4.0-4.5bar                                    |
| Time   | 1-2min  |
| Control System   | 7" Touch Screen Android System                |
| Weight   | 46KG  |
| Thermoforming Foils Size   | Round Discs: 125mm<br>Square Discs: 127*127mm |
| * Note: Air Compressor required (minimum recommended spec)<br>Working Pressure: 0.7Mpa, Motors: 2, Capacity: 50L<br>Voltage: 220v, Volume Flow: 54L/min, Power: 800w*2 |   |

## Comparison

|                                  | DentCare BQT-P01   | Other Brand                           |
|----------------------------------|--|---------------------------------------|
| Operation                        | <b>Automatic</b><br>(One Button Starting)                               | Manual<br>(Multiple Steps)            |
| Parameter Setting                | <b>Not Required</b><br>(3mm below)                                      | Required                              |
| Safety                           | <b>Door Protection</b>    | Without Door Protection               |
| Operating Personnel Required     | <b>General Operator</b>   | Skilled Lab Technician                |
| Required Foils & Accept Diameter | <b>Fit All Types of Films</b><br>Square 127x127mm <br>Round 120 & 125mm | Accept Single Shape and Diameter Only |





**BenQ**  
**Aligner Trimming Machine**  
 DentCare BQM-T4X

**Features**

- 4 axes dry machining
- Compressed air-free operation without suction
- 7" capacitive touch screen
- AI Trimming Line Detection

**Aligner Trimming Machine**



**Application**



**Specification**

| DentCare BQM-T4X            |   |
|-----------------------------|---|
| Fields of Application       | Dry machining   |
| Number of Axes              | 3+1   |
| Spindle                     | High-frequency, 12,000RPM, 400W   |
| Linear Axis<br>X-/Y-/Z-axis | X-axis: 105mm, Y-axis: 105mm, Z-axis: 105mm<br>XYZ Step Motor<br>Accuracy ± 0.01mm  |
| Rotary axis A-axis          | Rotation angle: 360°, infinite  |
| Dry                         | Compressed air-free operation without suction   |
| Connectivity                | USB, Ethernet   |
| Dimension                   | 34 x 36.1 x 48cm  |
| Weight                      | Around 45kg   |
| Monitor                     | Integrated 7" touch screen  |
| DentCare Core System Inside | Single board computer with QR code camera and touch screen<br>Connect to DentCareCore website for remote control and monitor<br>Provide application interface for automated production line |







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