Digital impression solutions

3M™ True Definition Scanner

Precise impressions in a jiffy
Digital impressioning redefined

Easy handling. Desired result.

With the 3M™ True Definition Scanner, you have everything under control in digital impressioning: Thanks to its unique precision potential errors are dramatically reduced and repeated working steps become superfluous. Trouble-free integration into the familiar workflow with your dental lab lets you achieve the desired result – fast, easily and very conveniently.
You work the way you did before. But with brand-new opportunities.

Seamlessly integrates into your familiar workflow – from the practice to the lab.

With the 3M™ True Definition Scanner, you can cooperate with your partner lab as usual: the scan data are simply and safely transmitted to the lab. Highly precise SLA working models are available for further processing. 3M Margin Marking software, specially developed for the 3M™ True Definition Scanner, provides a unique depiction of the oral anatomy and allows for precise marking of the preparation margin. It also ensures that the accuracy of the scan can be maintained in the on-going process as well.

Digital Impression
Digital impression with the 3M™ True Definition Scanner and transmission of the data to the lab.

Laboratory processing
Section of die, marking of preparation margins and digital design.

Making of SLA model
The traditional plaster model is replaced with a precise stereo lithography model (SLA).

Manufacture of restoration
Final manufacture of restoration (conventional or digital) and shipment to the practice.

PRACTICE

DENTAL LAB

VALIDATED PARTNER

CONTROL

20 × magnification of the preparations.

The big touch screen of the 3M™ True Definition Scanner operates like a “digital magnifying glass”: It can display every preparation in up to 20 × magnification from various points of view. This function enables you to examine the quality of the impression, including occlusal height and preparation margin – optionally in 3D as well – before it is sent to the lab. If required, individual areas can be re-scanned without any problems. Furthermore, it is much easier for you to show your patients any possible defects in their tooth structure.
Unique precision – proved a thousand times

Verifiable accuracy of fit.

Impressions made with the 3M™ True Definition Scanner noticeably reduces the risk of doing remakes: they are sufficiently precise for even the most demanding cases – such as long-span bridges (up to 8 pontics), full arch tasks (orthodontia) and implant impressions. Impressions made with the 3M™ True Definition Scanner have already been processed for thousands of cases and have a fitting accuracy rate of 99.7%.*

99.7%
Fitting Accuracy Rate

* 99.7% of restorations manufactured with the aid of a digital impression with the 3M™ True Definition Scanner are successfully seated with no need of rework. Based on the evaluation of all clinical cases by the 3M customer service during the period from March 2012 to September 2013.

Accuracy Measurements of Intraoral Scanners**

Study showed 3M™ True Definition Scanner digital impressions are more accurate – and more consistently accurate – than leading scanners on the market. Source: Data on file.

** Data acquired by van der Meer WJ, et. al. at the Academic Center for Dentistry Amsterdam.

In impressioning, once is enough.

Digital impressioning simplifies the standardization of the impressioning process and eliminates a number of error sources, for example omission of the impression tray. The impression is never physically transported or shipped. Furthermore, there is no plaster model that could expand. Executing multiple costly, time-consuming working steps – such as grinding or re-impressioning – is a thing of the past.
Designed for more comfort

Unusually small. Unusually ergonomic.

The extremely slim, light and ergonomically shaped handpiece of the 3M™ True Definition Scanner allows exceptionally convenient handling, similar to a contra-angle handpiece. Thanks to its compactness, it enables one-handed scanning from various positions – including distal surfaces in the molar area.

Once the field is prepared, an adept user can scan a full diagnostic arch in as little as 60 seconds.

An additional benefit of the compact construction – combined with the user-friendly software – is the fast and simple scanning procedure: An adept user can scan a full diagnostic arch in as little as 60 seconds. As a result, you not only save valuable time but can also offer your patients a more pleasant experience. Who wouldn’t like to hear that it’s already over after such a short time?
The digital workflow in the clinical application

Initial situation.

Prepared stumps 12 – 22.

Situation after retraction.

Thin layer of 3M™ High Resolution Scanning Spray for preparation of the scan.

Scan of the preparations.

Occlusal view.

Detailed view of the preparation margin (video view).

Scan of the opposite jaw.

Scan for bite registration.

Colour determination.

Temporary prosthesis created with moulded part.

SLA model created on the basis of scan data.

Occlusal view of model.

CAD/CAM manufactured restorations.

Try-in on SLA model.

Try-in of the restorations in the mouth.

Seated restorations.

Final situation after finishing.

Source: Courtesy of Dr. Markus Engelschalk, Munich.
Flexibility thanks to freedom of choice

Trusted Connections and open workflows.

3M cooperates with leading manufacturers to ensure seamless integration of digital CAD/CAM workflows. The Trusted Connections with partner companies mean gapless technical and clinical validation to make sure that performance and quality meet your high demands. Trusted Connections so far include various implant systems (BellaTek® Encode® by BIOMET 3i® and Straumann® Cares®) plus orthodontic restorations (Incognito™ Appliance System by 3M™ Unitek™ and Invisalign® Clear Aligners by Align Technology). Your first Trusted Connection, however, is your partner lab, which can process the scan data further and prepare them for subsequent design with 3M Margin Marking software. That way, the precision of the scan is maintained throughout the workflow.

Processing of the scan data by your partner lab with 3M Margin Marking Software:

- Adjustment of the occlusal plane.
- Virtual dye cutting.
- Marking of the preparation margin.
Open workflows – for full flexibility.

An unencrypted STL data set can be generated from every 3M™ True Definition Scanner case. The data are digitally transmitted to the lab – ruling out any loss of time and quality. The data set can be processed further with any CAD/CAM system that accepts STL data. Thus, you and your lab are completely free to design your own workflows.

Expand your service portfolio with new areas.

With the STL data from the 3M™ True Definition Scanner, completely new application fields open up to your practice – such as chairside manufacturing of restorations, or CAD/CAM-based manufacturing of bite splints in orthodontia (e.g., manufacturing of indirect adhesion trays for the simple and safe positioning of brackets).
As diverse as your demands: the 3M™ Connection Centre

Storing, connecting and sharing – just the way you want it.

The 3M™ True Definition Scanner is supported by the 3M Connection Centre – a safe, cloud-based platform where you can store as many patient scans as you want and smoothly share them with your lab. The 3M Connection Centre seamlessly and safely integrates your entire digital workflow from the order sheet to the final restoration – no matter whether you cooperate with your dental lab or do the design and milling in your own practice. Data are stored at the 3M Connection Centre in compliance with European privacy regulations.

The server is located within the EU, and access to the data is only possible for authorized persons.
With our data flat rate, you are perfectly interconnected

Your advantages at a glance:

Regular software updates included and you always work with the latest version.

Use of all Trusted Connections today and in future.

Unlimited number of scans with full cost control.

Unlimited data storage including backups.

Compliance with European privacy regulations.

Access to STL data at any time and simple data sharing with partners.
## Technical Specifications

### General Specifications and Classifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>$-10 \text{ mm} \times 13 \text{ mm}$ at nominal depth</td>
</tr>
<tr>
<td>Working Depth</td>
<td>0 mm to 17 mm from wand tip</td>
</tr>
<tr>
<td>Video Capture Rate/Flash Rate</td>
<td>20 captures/second (60 images/second)</td>
</tr>
<tr>
<td>Touch Screen Size</td>
<td>546.1 mm (21.5 in.) diagonal</td>
</tr>
<tr>
<td>Dimensions of Cart Base (footprint)</td>
<td>48.77 cm $\times$ 73.41 cm (19.2 in. $\times$ 28.9 in.)</td>
</tr>
<tr>
<td>System Height (floor to top of bezel)</td>
<td>108.20 cm (42.6 in.)</td>
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<tr>
<td>Monitor Tilt Adjust</td>
<td>$-30^\circ$ to $45^\circ$</td>
</tr>
<tr>
<td>Power Input</td>
<td>100–120/200–240 V ac, 50/60 Hz, 8 A</td>
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### Weights

<table>
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<tr>
<th>Weight</th>
<th>Description</th>
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<tbody>
<tr>
<td>Total Shipping Weight</td>
<td>70.8 kg (156 lbs.)</td>
</tr>
<tr>
<td>Cart with Monitor</td>
<td>34 kg (75 lbs.)</td>
</tr>
<tr>
<td>Wand with Cable</td>
<td>233g (8.2 oz.)</td>
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### Wand Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
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<tbody>
<tr>
<td>Length</td>
<td>254 mm (10 in.)</td>
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<tr>
<td>Wand Tip Width</td>
<td>16.2 mm (0.64 in.)</td>
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<tr>
<td>Wand Tip Height</td>
<td>14.4 mm (0.57 in.)</td>
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<tr>
<td>Maximum Diameter</td>
<td>24.3 mm (0.96 in.)</td>
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<tr>
<td>Wand Cable Length</td>
<td>2m (6.6 ft.)</td>
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<tr>
<td>Calibration</td>
<td>No field calibration required</td>
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</tbody>
</table>

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