

“Rescans and remakes are a thing of the past ...”

**Sören Hohlbein, millhouse, Germany**

There are two reasons why we prefer dental scanning systems of the company Imetric to other devices: their extremely high precision and their easy handling. Especially in combination with the software DentalCAD (exocad), the design step can be completed very quickly and easily.

**Günter Breitkopf, Günter Breitkopf Zahntechnisches Labor, Germany**

In March 2012, we entered into the world of digital dentistry by investing in the required CAD components. With regard to the scanner, we opted for the entry level device offered by Imetric 3D, since it gives us exactly what we desired: it generates highly precise data needed for the designing of single tooth restorations and bridges. Furthermore, it can be upgraded on demand. This is exactly what we did in July 2013 – since then, the scanner is also used successfully in order to design telescopes and screw-retained implant abutments.

**Gert Mullens, ProScan, Belgium**

In early 2007, we decided to invest in a high-end scanner of the company Imetric 3D, since it was the first scanning system with open interfaces that delivered reliable measurement data not manipulated in any kind. Today, the high accuracy and reliability of Imetric scanners are the reason why we recommend them to colleagues.

**David Leeson, Glidewell Laboratories, Irvine, USA**

During the last several years, we have tested different dental scanners to produce data that serves as a basis for manufacturing of implant bars – with inconsistent results. In August 2013, we integrated the IScan D104i in our laboratory and finally achieve the consistently high accuracy needed for complex implant-based structures. This saves us a lot of extra work because rescans and remakes are a thing of the past!

**Pieterjan Ghekiere, DentWise, Belgium**

To be able to deliver the highest quality to our customers, we need a scanning device with high accuracy and reliability. Imetric scanning systems deliver both requirements above expectations. All scanners offered by Imetric 3D have open interfaces, which is highly important since it gives us the flexibility we need in the rapidly changing world of dental CAD/CAM. At the same time, we benefit from scanner integration with selected software solutions that ensures validated, safe workflows.

**Imetric. It makes a difference!**

**We reduced the price and size, but not the accuracy and performance!**

***IScan L1 Series***



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## Combining accuracy with reliability and simplicity

Based on decades of experience in industrial metrology, the provider of the most accurate scanner in the dental market – Imetric 3D SA – has developed a new series of fast, affordable and accurate scanning systems for use in the dental laboratory.

The IScan L1 is the scanner for standard indications like crowns and bridges, partials, dentures, inlays/onlays etc. Important: It can be upgraded to the version L1m, which is also capable of scanning implant models for the production of custom abutments and multi-implant restorations, in addition to the afore mentioned standard indications.

Thanks to a proprietary and advanced calibration technique, the IScan L1i offers ultimate precision. It is therefore also suited for the digitization of multi-implant models, allowing the production of passive fitting, large-span, screw-retained structures.

The IScan L1 and IScan L1m are fully upgradable to IScan L1i.

## Technical specifications

Technology	Heterodyne phase shift-based structured white light combined with photogrammetry
Scan volume	Diameter 110 mm, up to 80 mm height
Scan speed	<b>Single die:</b> Approx. 30 sec <b>9 dies (in multi-die):</b> Approx. 30 sec <b>Full arch model:</b> Approx. 30 sec
	Two cameras, 1.3 Mega pixels
Data quality:	
Noise	< 5 µm (depending on surface of object)
Repeatability	< 10 µm (depending on surface of object)
Accuracy	< 15 µm over complete arch <b>L1i only:</b> < 5 µm for implant positions scanned with Imetric certified scan adapters
Scan indications	<b>L1:</b> Impressions, dental models and check-bites - standard indications, such as crowns and bridges, partials, dentures, inlays/onlays etc. <b>L1m:</b> In addition to L1, implant models for the production of custom abutments and multi-implant restorations. <b>L1i:</b> In addition to L1m, high-accuracy determination of implant positions and orientation with scan adapters.
Multi-die scanning	Yes
Dimensions	29 cm x 36 cm x 52 cm (width x depth x height)
Weight	15 kg
Calibration	Fully automated calibration method <b>L1i only:</b> Proprietary calibration technique for highest accuracy.
Data output	Binary STL, Implant positions in XML
Power requirements	100-240 V AC, 50-60 Hz, 2A
Open output formats	<ul style="list-style-type: none"> <li>▣ Open file output for exporting to multiple dental CAD applications.</li> <li>▣ Integrated workflow for exocad.</li> <li>▣ Output formats: STL, texture obj, texture ply, texture wrz (for integration with Digistell), and xml (for implant positions).</li> </ul>

## Highest precision for implant-based restorations

Since a passive fit is specifically important for implant-based restorations, Imetric has developed special implant positioning methods. They are used in combination with metallic scan adapters, high-precision pieces with very tight tolerances of less than 5 µm.

In order to ensure that the accuracy of the IScan L1i for multi-implant restorations is similar to that of coordinate measurement machines, special testing methods are employed. For most accurate data transfer, implant positions are supplied as XML file. Proprietary calibration techniques, supervision of the calibration status, and temperature supervision during scanning are used.

