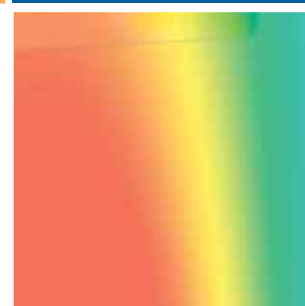


**cercon**  
smart ceramics



Cercon eye

The scanning module for  
Cercon smart ceramics

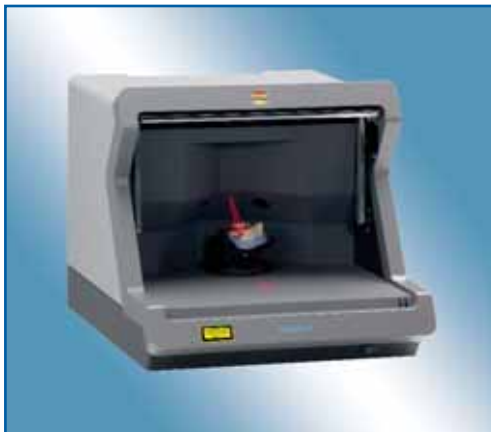




### Cercon eye

**Scanner** [sampling element], input device for reading and digitalising pictures, text, or objects.

In just a few years, Computer-Aided Design and Manufacturing (CAD/CAM) has become a fixed part of dental technology. A scanner is either part of a respective system or an auxiliary (stand-alone) machine and reads the geometry of the dental die or model. In turn, purpose designed software controls both the scanner and the complex task of virtual construction.



DeguDent's **Cercon® eye** is a powerful tool available at a well-balanced cost/performance ratio. Used in combination with Cercon art, you can connect the Cercon eye direct to any Cercon brain unit, or run in a laboratory to laboratory or laboratory to DeguDent network environment.

Cercon eye reads the geometric data from model dies.

Cercon eye reads the geometric data using a laser beam. This, combined with two matrix cameras, provides exact scanning results in the fastest time: the basis for accurately fitting restorations. Scanning of the master model takes place direct and touch-free (no surface wear).



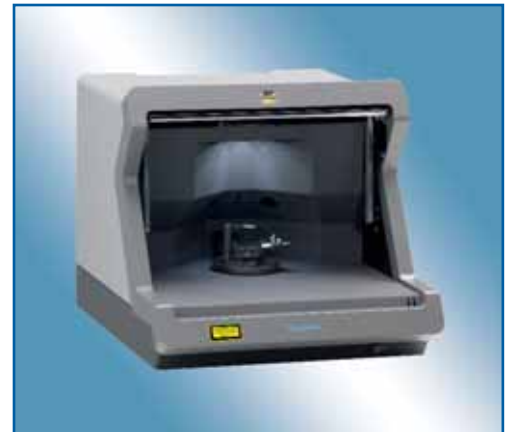
### Cercon eye and Cercon art

The **Cercon art** software controls the Cercon eye. The software is easy to use and simplifies restoration design without the need for complex and time-consuming schooling. The menu-guided operating system helps you with the virtual construction of your restoration and leads you efficiently to your goal: the transfer of data to the manufacturing unit.

### Cercon eye layout:

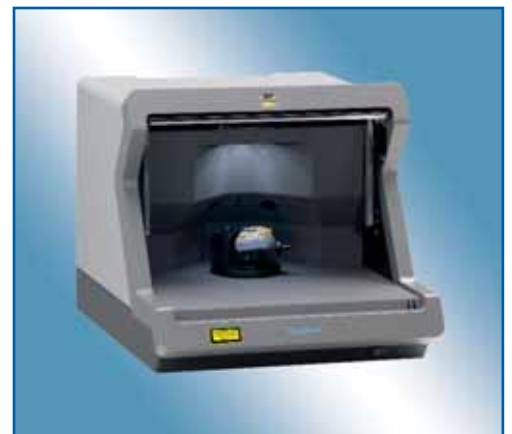
Cercon eye consists of a rotating platform for holding the model table, a laser, two matrix cameras to analyse the laser beam, and a third matrix camera to locate the position of bridges' individual dies.

The scanner is connected to Cercon art by USB (universal serial bus) 2.0. Cercon eye also requires mains supply.



### This is how Cercon eye works:

The scanner works on the principle of laser light sectioning. Two cameras record the route of a laser beam as it is projected onto the surface of the rotating object. A third camera provides the preview image and is responsible for referencing, that is, positioning the scatter plot during multistaged scanning. We believe our process – patent pending – is much more precise than the usual laser triangulation method.



### This is how scanning works:

After securing the model on the model table and locating the collective angle of insertion, place the assembly on Cercon eye's rotating platform. Close the hood and use Cercon art to start the scanning procedure. The scan runs automatically for each unit.

During the scan, the contour of the die or model, as the case may be, is mapped precisely, even in steep areas or undercuts. Elongated teeth also are captured true to detail thanks to the camera's excellent scanning range.

Difficult model geometries are scanned easily due to the scanner's large vertical range.



Data collection is controlled by Cercon scan and once this process is complete, you can view the finished scan in three dimensions on the flat screen.

In the case of multi-unit restorations such as bridgework, the scanning process must be repeated for each separate unit. The third camera uses a reference point on the model table to blend each separate scan and create a "complete picture".

**Cercon eye – a powerful module within the Cercon system.**

A scanner is only as good as the software controlling it and the milling unit that reproduces the mapped object surface true-to-detail. – Cercon smart ceramics achieves a perfect combination of both.

**One of Cercon eye's distinguishing characteristics is the ease and simplicity with which the user can map even large restorations.**



## Cercon eye – Outline of Advantages and User Benefits

Advantages	Benefits
Interaction with Cercon art	Easy, time-saving operation
Simple setup and adjustment of model	Time-saving, familiar procedure
Touch-free optical mapping	No-contact data collection
Areas of measurement need no defining	Ideal data collection for each scan
Economical scanning procedure	Good time/performance ratio Good cost/performance ratio

## Cercon eye Performance Data

<b>Scanning area</b>	Cercon eye can digitally map out all units of a model.
<b>Running times</b>	For each unit = 60 seconds for the scan and for data processing.
<b>Accuracy of Measurement</b>	The tight cluster of pixels gives an extremely high accuracy of measurement to < 20 µm.

## Cercon eye Technical Information

<b>Scanner Dimensions</b>	
Width	490 mm
Depth	569 mm
Height	447 mm
<b>Model Table Dimensions</b>	
Width	94 mm
Depth	64 mm
Height	106 mm
<b>Approx. Weight</b>	31 kg/68.34 lb
<b>Power Supply</b>	100–240 V (mains supply)
<b>Supply frequency</b>	50 Hz/60 Hz
<b>Power consumption</b>	approx. 100 Watts

## Packing list

<b>REF 53 5564 0001</b>	Cercon eye	1 piece	Scan template	1 piece
	Model table	1 piece	Scan holder	1 piece
	Calibration ball	1 piece		

For further information please visit:  
[www.cercon-smart-ceramics.com](http://www.cercon-smart-ceramics.com)

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