

CNC Technology in the Dental Laboratory:

Milling Perfect Dentures Quickly and Efficiently

vhf camufacture AG has presented its already established four-axis micro-machining system CAM 4-02 Impression at the International Dental Show (IDS) in Cologne. Together with a newly developed CAM software, it was the first presentation for an application in the sector of dental technology. The system quickly and comfortably mills temporary appliances of plastics as well as crown and bridge frameworks of zirconium oxide with up to fourteen units.

Operating the system is quite easy: One imports the previously modelled data into the provided CAM software. This open program loads data in the standardized STL format so that it doesn't matter which scanner and which CAD software is used. After the import, the user can select if he wants to process plastics or zirconium oxide. In the latter case, the shrinking during the sintering process will be automatically considered already while nesting.

The program supports an optimum utilisation of the blank by several aid functions. It is also possible to use one blank in several milling runs. The bars which connect the framework to the blank can be set and moved by just a few mouse clicks. Then the software automatically determines which process step will be machined with which tool. All necessary parameters for this are already stored in the software so that there is no previous knowledge in CNC milling necessary.

The machining system is completely encapsulated into a compact table housing with integrated suction holes. A repetition accuracy of +/- 0.003 mm and the usage of a high frequency spindle with first-class true-running characteristics enable finest structures to be milled. The high rotational speeds of up to 60,000 RPM support high feed rates to be achieved. With an optional minimum quantity lubrication also harder sorts of metal can be machined.

Due to a tool change station with automatic length detection for five tools, the whole machining process can run without any intervention by the operator. The rotary axis with its harmonic drive free from backlash is

vhf press release

2009-004

April 29, 2009

– page 2 –

equipped with a pneumatic collet chuck. So the fixing devices for different blanks can be exchanged within seconds, and thus various blanks can be processed in several stages. They just remain in their respective fixing device and will be used again until a blank is fully utilised.

Due to its reasonable price and the high quality of the machined workpieces, many full-range suppliers estimate CAM 4-02 Impression as decisive link in the chain from the scanner to the sintering furnace. If requested, the system can also be adapted with a post processor to many other CAD programs. So the system was the focus of many inspiring discussions at the vhf stand at the IDS in Cologne and competent resellers could be found for Germany and abroad.

Jörn Vogt M. A.

Download

You will find the text of this press release and an overview of all vhf press releases and images of the past years under:
www.vhf.eu/en/News

Contact

vhf camufacture AG
CNC Machining Systems
Im Marxle 3
72119 Ammerbuch/Germany
Phone: +49 (0)7032 97097-0
Fax: +49 (0)7032 97097-50

Internet: www.vhf.eu
E-Mail: info@vhf.eu

vhf press release

2009-004

April 29, 2009

– page 3 –

Photos

You can download these images in colour directly from our press section in the internet with a resolution of 300 dpi:

www.vhf.eu/binaries/CAM4-02_Impression_geschlossen.jpg



The four axis machining system CAM 4-02 Impression will be delivered ready-to-use with high frequency spindle and automatic tool change, CAM software and two fixing devices for universal blanks.

Download

You will find the text of this press release and an overview of all vhf press releases and images of the past years under:
www.vhf.eu/en/News

Contact

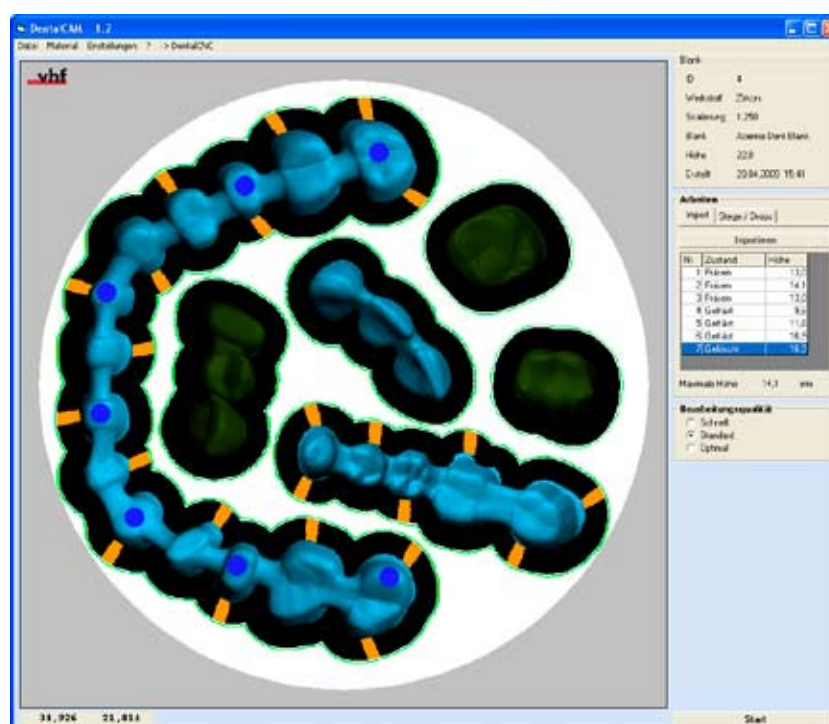
vhf camufacture AG
CNC Machining Systems
Im Marxle 3
72119 Ammerbuch/Germany
Phone: +49 (0)7032 97097-0
Fax: +49 (0)7032 97097-50

Internet: www.vhf.eu
E-Mail: info@vhf.eu

Photos

You can download these images in colour directly from our press section in the internet with a resolution of 300 dpi:

www.vhf.eu/binaries/DentalCAM.jpg



Screenshot of nested crowns and bridges in the DentalCAM software with bars (orange) and drops (dark blue); bridgeworks which are displayed in dark green colour have been processed in a previous run and detached already.

Download

You will find the text of this press release and an overview of all vhf press releases and images of the past years under:
www.vhf.eu/en/News

Contact

vhf camufacture AG
CNC Machining Systems
Im Marxle 3
72119 Ammerbuch/Germany
Phone: +49 (0)7032 97097-0
Fax: +49 (0)7032 97097-50

Internet: www.vhf.eu
E-Mail: info@vhf.eu

vhf press release

2009-004

April 29, 2009

– page 5 –

Photos

You can download these images in colour directly from our press section in the internet with a resolution of 300 dpi:

www.vhf.eu/binaries/Ausschnitt_Blank.jpg



Detail view of a zirconium oxide blank which has been processed with CAM 4-02 Impression; it contains different kinds of crown and bridge frameworks which are still fixed with bars.

Download

You will find the text of this press release and an overview of all vhf press releases and images of the past years under:
www.vhf.eu/en/News

Contact

vhf camufacture AG
CNC Machining Systems
Im Marxle 3
72119 Ammerbuch/Germany
Phone: +49 (0)7032 97097-0
Fax: +49 (0)7032 97097-50

Internet: www.vhf.eu
E-Mail: info@vhf.eu