

LABORATORY

Equipment/CAM

1
Scanner/CAD

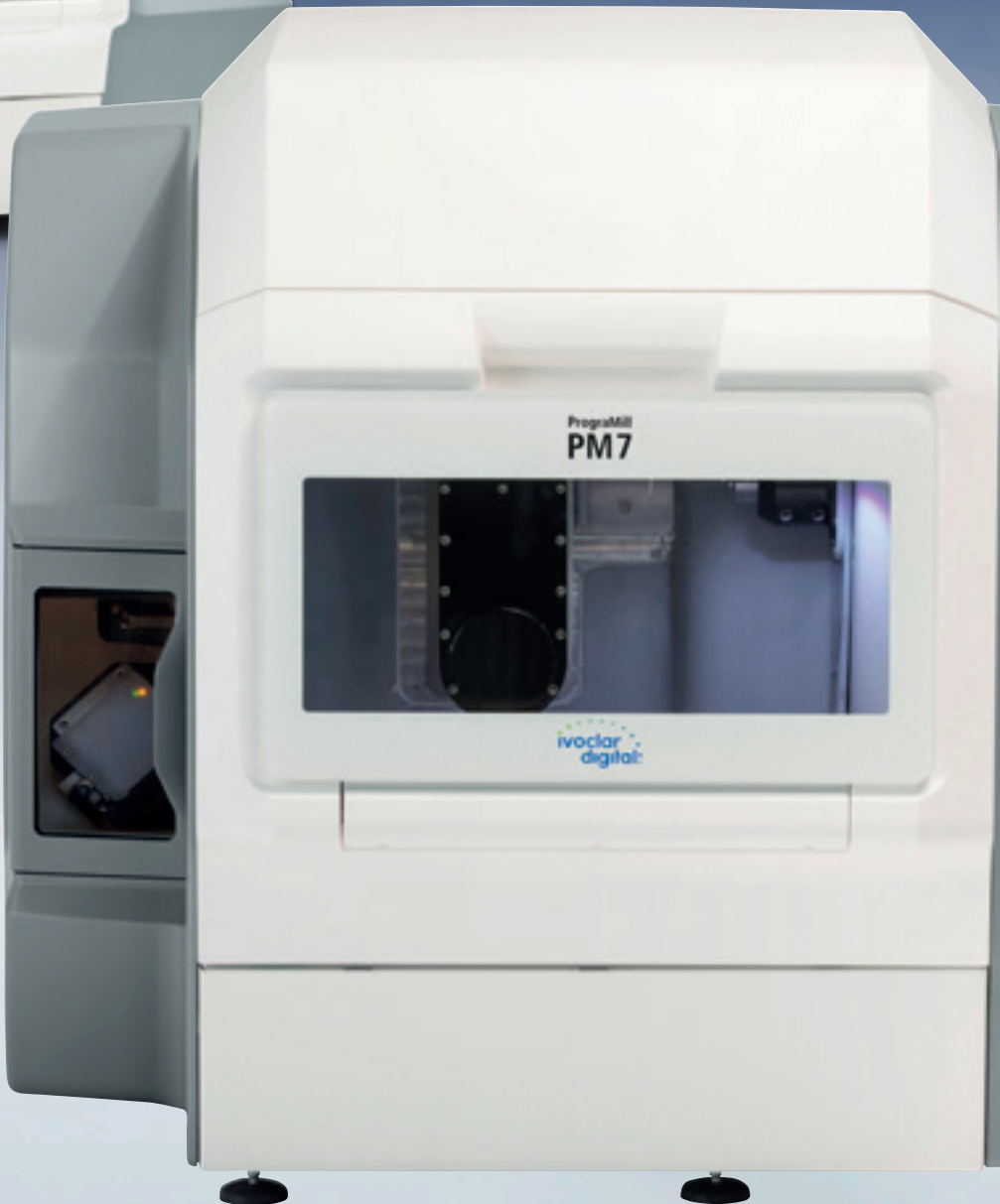
2
Material

3
Equipment/CAM

ivoclar
digital®

PrograMill™

Designed for the digital future



Digitalization is changing dental technical working methods and procedures in the laboratory. New production processes and materials require new techniques and sound know-how. The PrograMill milling machines combine the latest requirements for modern dental technology with innovative materials and coordinated processes, providing the right solution for every situation.

Choose the PrograMill milling machine which is right for you!



YOUR BENEFITS

- Developed for IPS e.max® by the makers of IPS e.max
- Different PrograMill models suited for different laboratories
- Integration with 3Shape scanners
- Intelligent, intuitive operating panel

PrograMill™ One

Setting new standards

YOUR BENEFITS

- Outstanding surface quality and precise fit of the milled restoration
- Short processing times
- Machine control from anywhere in the lab

PrograMill
one

ivoclar
digital:

PrograMill One is the smallest smart 5-axis milling machine worldwide. It combines industrial production quality with high precision and modern design. The machine is wireless and can be placed anywhere within the laboratory and operated via an app from a tablet or smartphone. This new interplay between man and machine means it can be perfectly integrated within the laboratory.



5XT – the next generation of processing

The innovative 5-axis turn-milling technology (5XT) means the block which is being processed moves around the tool. The infeed remains consistent and the tool never leaves the workpiece. This enables short machining times while keeping tool wear low. The result is an outstanding surface quality and excellent fit of the restorations. Depending on the materials and indications, individual validated machining strategies are used, reducing rework to a minimum.

5-axis turn-milling technology (5XT)

**5-way material changer and
8-position tool changer**

**Integrated camera for a high
level of automation**

Easy operation via a mobile app

Optical Status Display



INNOVATION AND INTEGRATION

- 5-axis turn-milling technology (5XT)
- Fully automatic material and tool management
- Quick and precise due to 5XT
- Wireless, mobile operation via an app

INDICATIONS

- Inlays, onlays, veneers
- Partial crowns, crowns
- Bridges (up to 45 mm block length)

MATERIALS

- IPS e.max® CAD
- IPS e.max® ZirCAD
- IPS Empress® CAD
- Telio® CAD

PrograMil
one

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digital



PrograMill™ One

High automation and control



A camera integrated within the PrograMill One automatically records all information on materials and tools. This makes the use of different materials extremely easy and material loading very convenient.

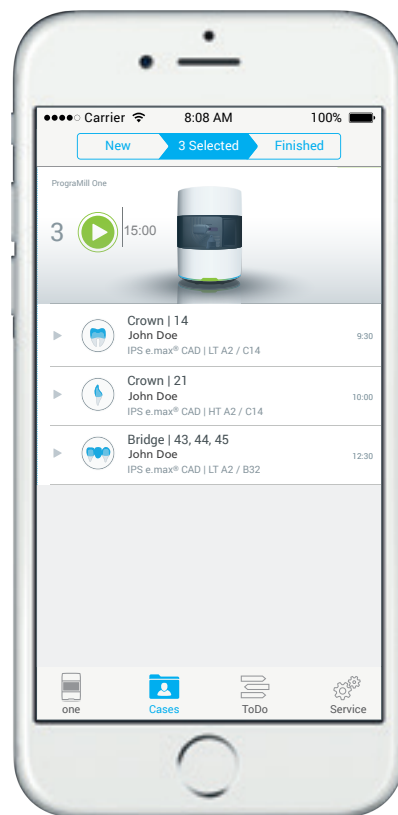
The OSD (Optical Status Display) visually informs the user about the current operating status.

Material, size, shade and translucency are automatically read in by means of the Data Matrix Code.

PrograMill One App

Everything under control. Always and everywhere.

PrograMill One is wireless and can be operated from anywhere within the laboratory via an app from a tablet or smartphone. This way you are always informed of the machine's current status.



Order management

- Order list in the overview
- Current processing status
- Control of the 5-axis block changer

Tool management

- Display of tool status
- Control of the 8-position tool changer

Machine management

- Overview of machine data
- Machine status
- Filter unit status

PrograMill™ PM7

Powerful and unrivaled

YOUR BENEFITS

- 970 Watts of power provides excellent milling of a wide spectrum of materials
- Servomotors provide exceptional speed
- Intuitive operation via a touchscreen display
- Integrated CNC PC and intelligent machine management
- Ionizer and automatic self-cleaning Active Air Suction aids in keeping the milling chamber clean





Hybrid operation: Automatic change between wet and dry operation

Integrated ionizer and automatic cleaning function

20-position tool changer for independent processing

Fully automatic materials management

Intuitive user interface for convenient operation

PrograMill™ PM7

Powerful and unrivaled

PrograMill PM7 sets new industrial standards for the digital production of restorations in the dental laboratory. The powerful performance and dynamics of this unit make it a highlight in the PrograMill portfolio. The high-power machine is capable of processing a variety of materials in wet and dry mode, and is suitable for a wide spectrum of indications. The high dynamics and efficiency of the machine result in precise and fast production results. The 5-axis machining process is controlled via the integrated PC with touch screen monitor.

The automation of material and tool changer allows independent and consistent production. The central management of max. 8 discs / 48 IPS e.max blocks in the material changer and up to 20 tools in the magazine ensures that the right, individual processing strategy is used. The integrated ionizer reduces the cleaning time to a minimum after PMMA has been milled.

The PrograMill PM7 offers you a high-end solution for the precise and efficient production of dental restorations.



MATERIALS

- IPS e.max® CAD
- IPS e.max® ZirCAD
- IPS Empress® CAD
- Telio® CAD
- Colado™ CAD CoCr4
- Colado™ CAD Ti2 and Ti5
- SR Vivodent® CAD
- IvoBase® CAD
- ProArt™ CAD



INDICATIONS

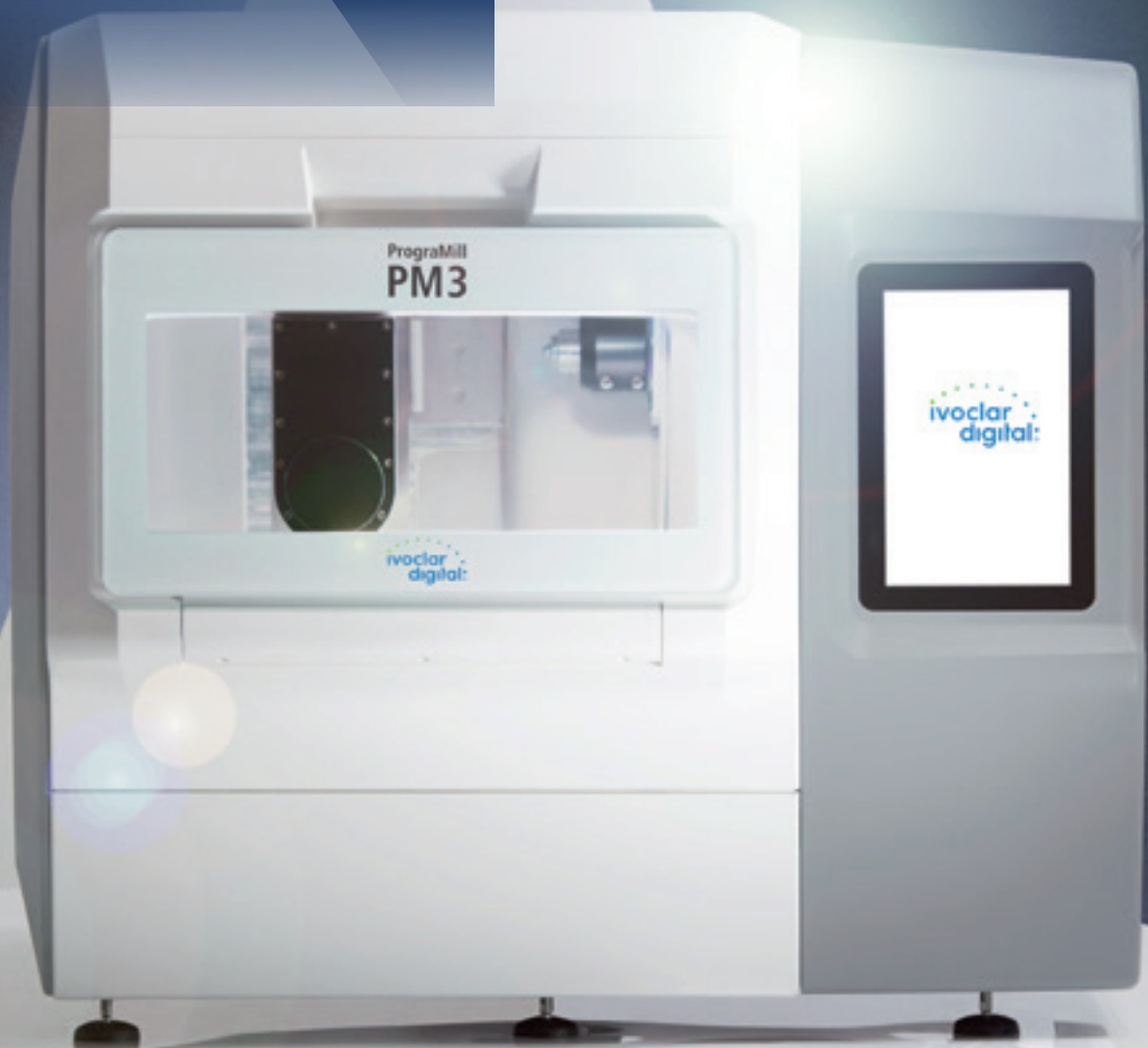
- Inlays, onlays, veneers
- Partial crowns, crowns
- Bridges
- Hybrid bridges
- Digital complete dentures

PrograMill™ PM3 | PM5

Efficient and precise

YOUR BENEFITS

- High precision and consistent results
- Intuitive operation and touch screen display
- Integrated CNC PC and intelligent machine management
- Automatic wet and dry operation



Both machines, **PrograMill PM3** and **PM5**, deliver ideal performance for the digital dental laboratory. These units are suitable for wet and dry processing, and offer a wide range of materials and indications.

The precise 5-axis machining process is controlled via the integrated PC with touch-screen interface. The fully automatic materials management checks whether the tools correspond with the respective machining strategy. The tool changer ensures that the production is carried out independently and consistently.

The PrograMill PM5, with its 8-material changer, provides perfect automation for your laboratory. The material changer allows several production orders with different materials and indications to be processed. Individual machining strategies are used depending on the material and the indication. This allows short processing times for the respective restorations.



Hybrid operation: Automatic change between wet and dry operation

12-position tool changer for independent processing

Fully automatic materials management



TECHNICAL DATA

OVERVIEW



	PrograMill™ One	PrograMill™ PM3	PrograMill™ PM5	PrograMill™ PM7
Materials magazine	5 Blocks	1 Disc / IPS e.matrix holder	8 Discs / IPS e.matrix holder	8 Discs / IPS e.matrix holder
Block / disc process	✓ / –	✓ / ✓	✓ / ✓	✓ / ✓
Automatic tool changer	8	12	12	20
Harmonic drive	✓	✓	✓	✓
Stepper motors	✓	✓	✓	–
Servomotors	–	–	–	✓
Zero-point clamping system	–	✓	✓	✓
Spindle	Sycotec 500 W / 80,000 rpm	Jaeger 410 W / 60,000 rpm	Jaeger 410 W / 60,000 rpm	Jaeger 970 W / 60,000 rpm
Ionizer	–	–	✓	✓
Automatic machine calibration	✓	optional	optional	optional
Internal PC for CNC	✓	✓	✓	✓
Internal, high-resolution display	Control via app	✓	✓	✓
Weight (lb.)	80	353	397	463
Dimensions (in., W x H x D)	15.0 x 18.9 x 15.0	34.1 x 29.4 x 27.3	38.5 x 29.4 x 27.3	38.5 x 31.2 x 27.3

INDICATIONS OVERVIEW

Veneers, thin veneers, occlusal veneers	✓	✓	✓	✓
Inlays / onlays / partial crowns	✓	✓	✓	✓
Full-contour crowns and bridges	✓* ¹	✓	✓	✓
Crown and bridge frameworks	✓* ¹	✓	✓	✓
Denture Tooth segments	–	✓	✓	✓
Denture bases	–	✓	✓	✓
Digital complete dentures	–	✓	✓	✓
Telescopes	✓	✓	✓	✓
Attachments	–	✓	✓	✓
Functional try-ins	–	✓	✓	✓
Impression trays and functional trays	–	✓	✓	✓
Bite templates / transfer templates	–	✓	✓	✓
Occlusal splints / drilling templates	–	✓	✓	✓
Models	–	✓	✓	✓

*¹ Up to 45 mm block length

PrograMill™ CAM SOFTWARE

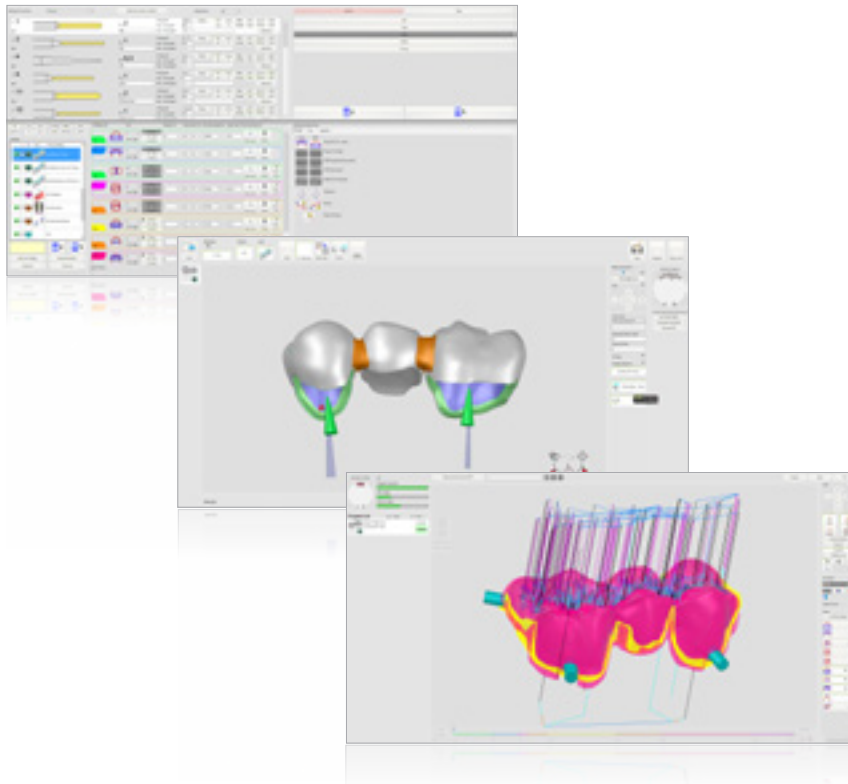
New software features for an optimized workflow

YOUR BENEFITS

- Fast calculation of milling paths
- CAM5 CAD output format for workflow automation
- Milling and grinding strategies coordinated with materials, tools and machines
- Easy operation, even in complex cases
- All open STL data can be read

The software PrograMill CAM V4, which is adapted to the PrograMill machines, utilizes the entire potential of the milling machines. The software is distinguished by its very short calculation times and the 5-axis simultaneous control of the machine.

The intelligent CAM5 CAD output format creates the bridge between CAD and CAM software. Various data, e.g. type of restoration, material and milling parameters, are transferred directly from the CAD software to the CAM software. The workflow is almost entirely automatic. For the user, this means operating the machines is easier, even in complex cases. This provides safety and accelerates the work process, which leaves more time for other lab work.



Careful processing

The milling strategies are developed for the Ivoclar Digital materials and tools. This means the processing procedure is carried out carefully, taking the material properties into account. Different milling areas, e.g. external and internal contours and preparation margins, are calculated and processed individually by the software. The result is fast milling and a perfect fit of the restorations.

MATERIALS MANAGEMENT

Managing diversity easily

PrograMill™ DISC HOLDER

In order to process the discs correctly, a powerful holder has been developed for the PrograMill machines PM3, PM5 and PM7, which is characterized by its zero-point clamping system. The precise fit of all discs enables high-quality production results.



DIGITAL DENTURE

A special modification ring has been developed for the PrograMill holder when manufacturing digital dentures in the Digital Denture process. It allows an already processed disc to be re-positioned accurately. A denture which has already been milled from the upper side can therefore be easily removed so that the prefabricated teeth can be adhesively cemented and then re-positioned for further processing.



IPS e.matrix® for PrograMill PM3, PM5 and PM7

The multi-holder IPS e.matrix® for PM3, PM5 and PM7 enables up to six blocks to be processed in one grinding cycle, depending on the block size. The IPS e.matrix for PM3, PM5 and PM7 can be easily removed from the materials magazine and conveniently loaded outside the device. The multi-holder is ideally suited to the PrograMill machining strategies.



AUTOMATIC MATERIAL RECOGNITION

Material discs from the Ivoclar Digital range are supplied with RFID labels so that they can be registered and managed in the machines and CAM software. The production process is automatic and reliable.



PrograMill™ Base

Functional and esthetic

YOUR BENEFITS

- Integrated powerful suction and coolant system for automatic wet and dry operation
- Ergonomic operation of machine and components
- High stability
- Ecological power-saving technology

PrograMill Base unites function and esthetics. A powerful and low-noise suction and coolant system is integrated inside the modern lower cabinet – the optimal base for PrograMill milling machines PM3, PM5 and PM7.

The PrograMill suction unit filters harmful particles using various filtration levels.



The PrograMill tank, with a filling capacity of 15 litres, ensures automation during wet processing.

The drawer contains a specially adjusted insert, in which materials, tools and accessories have a set place.

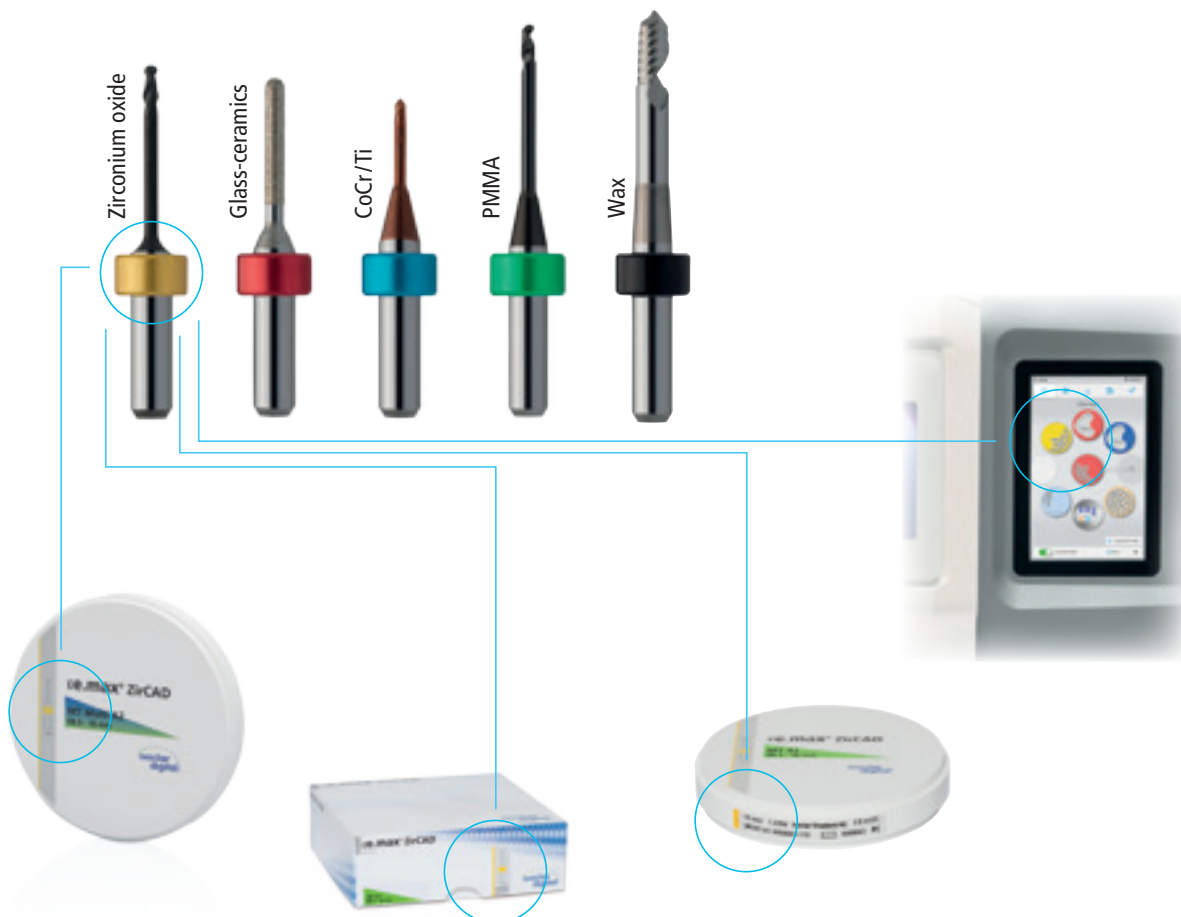
PrograMill™ Tools

For a high degree of process reliability

A wide selection of tools gives users a variety of processing possibilities. PrograMill tools are specifically designed for different CAD/CAM materials and color coded by means of a ring on the shaft. Every color represents a different material. The materials are also marked accordingly. Color coding is also used in the operating panels of the PrograMill machines. This allows intuitive and easy tool management.

YOUR BENEFITS

- Specially developed and adapted to the Ivoclar Digital CAD/CAM materials and the PrograMill machining strategies
- Color concept is displayed across the milling tools, millable materials, and software interface
- Production results are optimized



DIGITAL EXPERTISE UNDER ONE ROOF

Ivoclar Digital is championing the digital dental movement by delivering on Ivoclar Vivadent's long-standing promise of increased success and creativity for dentists and dental technicians, as well as greater satisfaction and outcomes for patients. For the dental laboratory, particular importance is placed on simple and understandable procedures that bring products and processes into a fully integrated workflow. The portfolio for the digital workflow is divided into three areas:

Scanner | CAD

Versatile scanners, intuitive design software and exclusive add-ons



Material

High-performance materials such as IPS e.max® – the world's most used all-ceramic system*



Equipment | CAM

Technologically high-quality PrograMill® milling machines for the production of esthetic restorations



*Based on sales figures

→ Connected to you

ivoclarvivadent.com
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Call us toll free at 1-800-533-6825 in the U.S., 1-800-263-8182 in Canada.
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