

# **OPMI PROergo**

The smart solution for dentistry



The moment you see a hidden detail reveal a visible success. This is the moment we work for. // DENTAL OPTICS
MADE BY CARL ZEISS





# **Comfort and information**

A Carl Zeiss microscope enables greater precision and efficiency. Key benefits include:

## Magnification

You can only treat what you can see. Optics from Carl Zeiss allow visualization of detail and fine structures, enabling you to enhance the quality of your diagnosis and treatment.

### **Ergonomics**

Utilizing OPMI® PROergo during treatment facilitates a comfortable working position. The ergonomic design helps prevent back and neck pain, as well as more serious spine disorders.



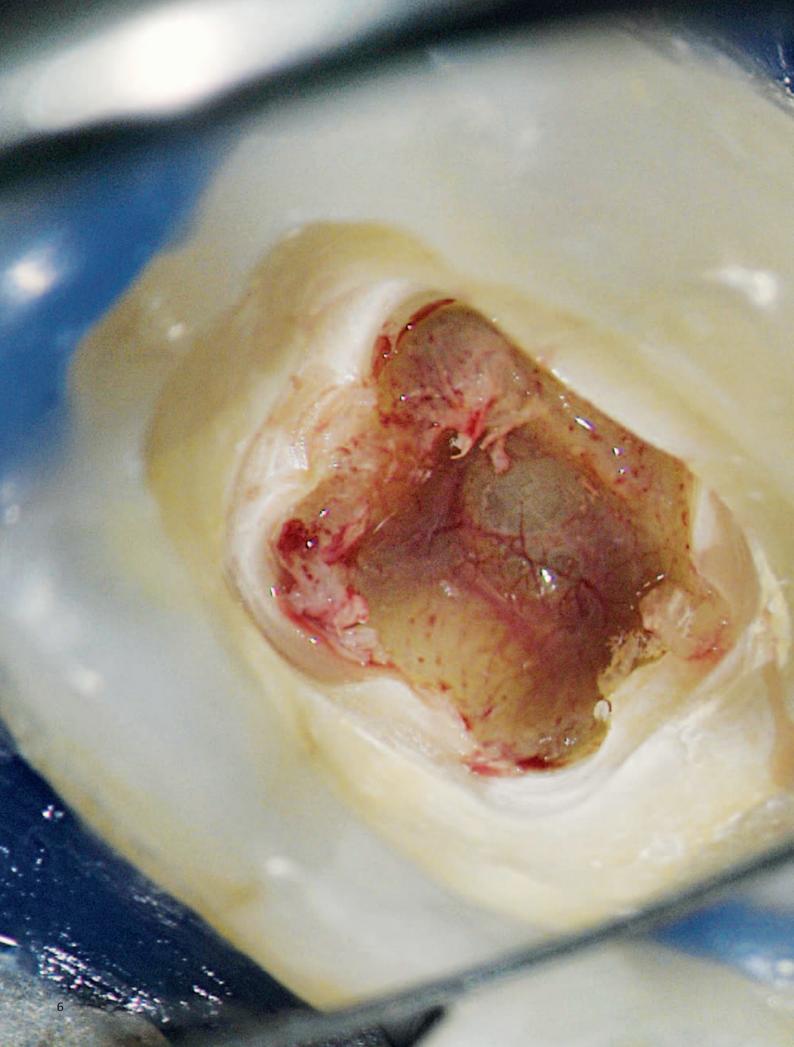
### Communication

Integrated video cameras make it possible to present the clinical treatment – before, during or after the procedure. High-quality diagnostic images and videos allow you to demonstrate the recommended course of action to your patients during treatment planning sessions.

### Clever design

OPMI PROergo combines optical quality with working and operating comfort to deliver an intelligently designed product. From the cables to the control console, Carl Zeiss has integrated each part for convenient operation and a clean, sleek appearance.

When you select your Carl Zeiss microscope you also benefit from the years of experience and optical expertise that come with the name Carl Zeiss.





# See more - treat more

OPMI PROergo from Carl Zeiss enables you to view otherwise difficult-to-see regions. The coaxial illumination puts light where it is needed. Even root canals are effectively illuminated and imaged.

Endodontics picture courtesy of: Dr. Bijan Vahedi, Augsburg, Germany



# Improved comfort - improved work

By providing you with a comfortable, upright position for your work, OPMI PROergo helps prevent the quick onset of fatigue as well as neck and back problems.

OPMI PROergo provides comfort and a smooth treatment routine with the following three functions:

**The motorized Varioskop®** adjusts to your seated position. Focus the treatment area with the push of a button and without moving the microscope or changing your working position.

**The 180° tiltable tube** allows you to work in comfort in a variety of positions and on difficult-to-reach areas. Your back will thank you – particularly during longer procedures.

**The Free Float Magnetic System** offers effortless maneuvering and smooth, precise positioning. The microscope is always where you want it.

# An Ergonomic Breakthrough

The Foldable Tube f170/f260\* combines brilliant apochromatic optics and a unique design for maximum visualization flexibility. It allows dentists a wide range of comfortable working positions, magnification potential and positioning ergonomics — even at extreme treatment approach angles.

**Greater comfort** 

The Foldable Tube f170/f260 introduces a new level of comfort:

**Rotate the tube** conveniently without moving the microscope head using the integrated 360° rotation function. No need for external rotating adapters while also reducing build height.

**Work ergonomically** by reducing or increasing the distance to the required treatment field thanks to the patented multi-link design.

The Foldable Tube f170/f260 allows an almost unlimited variety of working positions, providing optimal ergonomics and personalized positioning throughout each treatment. With its long reach, this highly flexible system easily accommodates different ergonomics of the operator and different positions of the patient.







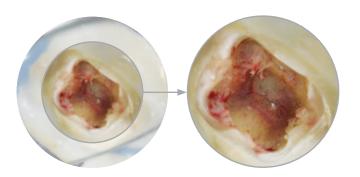


1.), 2.) 3.) Easily adjust angle, length and height as needed 4.) Relaxed working position as eye level is higher than arm posture

### **Greater detail**

Instantly yield a **50% magnification** gain for delicate and detailed procedures with the integrated PROMAG<sup>TM</sup> function.

Choose between **optimum magnification** and **maximum field of view** with a quick turn of the knob.



PROMAG for additional 50% detail magnification. Endodontics picture courtesy of: Dr. Bijan Vahedi, Augsburg, Germany

\*f170: focal length of 170 mm like the tiltable tube f260: focal length of 260 mm provides additional 50 % magnification (PROMAG)

# **Better communication – better patient compliance**

Patients often have difficulty understanding diagnoses, courses of treatment and outcomes. Having the ability to communicate with your patients using clear images and video footage illustrating your clinical concerns is extremely valuable for treatment acceptance and compliance. A picture is worth a thousand words.

OPMI PROergo provides visualization and documentation solutions that enable you to illustrate your work – before, during and after the procedure. The video cameras and camera adapters for OPMI PROergo allow you to document the diagnostic results and treatment stages in digital quality and convincingly demonstrate the accuracy of the recommended procedure.

Furthermore, the MediLive® systems offer solutions for archiving and processing digital images and videos, which can be utilized in many different ways. They can be used to present cases and clinical outcomes to colleagues or document treatment for referrers.

In short: OPMI PROergo creates added value – for your patients, for your office and for you.

Endodontics picture courtesy of: Dr. Rino Burkhardt, Zurich, Switzerland



# Welcome to your practice

# Integrated light guide and cable

No hanging cables to interfere with your work.

What you see when looking at OPMI PROergo is a microscope with a sleek, attractive design that matches the overall image of any practice.

What you do not see is the heart and soul of the instrument – the technology that drives it. The cables, light source, light guide, video camera and control console have all been completely integrated into the microscope. There are no exposed cables or external modules and instruments to interfere with your work.

The integrated product design reflects the high quality of the optics, and is part of the many functions that Carl Zeiss delivers with OPMI PROergo.



# Integrated MediLive Primo video camera (optional)

Featuring a freeze function to capture still shots and a rotatable video image function for upright viewing which enables better communication with both patients and staff during treatment.



# Integrated control console

With a large LCD display and intuitive user menus, it is possible to program individual default settings to meet your practice requirements.

# **Quality and convenience** in one

Carl Zeiss is known around the world for the high quality of its optics. A major feature in the production of Carl Zeiss optics is the apochromatic coating, which corrects for all three wavelengths of the visible spectrum. This ensures that there are no chromatic aberrations and enhances image resolution, contrast and depth perception.

The high quality of OPMI PROergo goes beyond the optics. You will also enjoy high operating comfort and convenience.

**Control console** 

Default settings such as light, zoom or magnification can be personalized and stored for various users, making clinical transitions quick and easy.

## Integrated light source

You have the choice of halogen or xenon illumination. Xenon has a light temperature characteristic of natural daylight. Both illumination systems present homogenous, high-contrast illumination of the treatment field. Perhaps the most striking feature is the integrated backup lamp module that can be changed with the push of a button. No treatment interruptions.





# Wide-field eyepieces (12.5x or 10x)

Large visual field with 3D, stereoscopic image. Special diopter settings also make them suitable for eyeglass wearers.

# 180° tiltable binocular tube

For an ergonomically correct, upright seated position even with extreme microscope positions.

### **Motorized Varioskop**

Focus the treatment field at the push of a button without having to move the microscope or change your working position.

### Motorized zoom

Continuous magnification. The brightness setting adjusts automatically as you increase or decrease magnification levels.

# Welcome to the state of weightlessness

Regardless of the model you select – floor stand, wall or ceiling mount – the free float magnetic system enables you to smoothly and easily position the microscope where you want it with ease.

### Free Float Magnetic System

You can unlock the magnetic brakes with the push of a button on the handgrip. You can then easily maneuver the OPMI PROergo into the desired working position. The system locks back into place once the button is released. It's that simple!

# SpeedFokus

Manual focusing is a thing of the past. Carl Zeiss believes your hands have more important things to do during treatment. A press of a button is all that is needed to focus the microscope. SpeedFokus is an option available upon request.





# Even more possibilities

OPMI PROergo is a system of almost unlimited possibilities. The configuration is tailored to the respective treatment or specific requirement. The available accessories and varying models of OPMI PROergo are as easy and intuitive to use as the microscope itself.

# Ergonomic design and operating comfort



**Foldable Tube f170/f260** With PROMAG for 50% more magnification.



Angled optics and tube dovetail
For work on difficult-to-reach areas.



**Foot control panel** Configurable functions allow you to free up your hands.

# Digital visualization



MediLive Primo
Integrated 1 CCD
video camera.

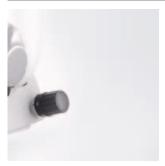


Trio 610

External 3 CCD

HD camera.

### **Optics and illumination**



**Orange filter**Prevents premature curing of composite materials.



Xenon or halogen illumination
Complete with integrated backup lamp module.



**Double iris diaphragm** Increases depth of field.



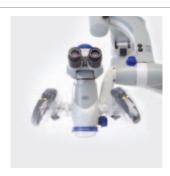
**tube**Your assistant can follow the procedure live.



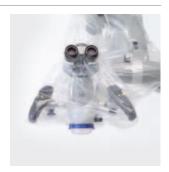
**SpeedFokus**Fast, automatic focusing.



**Free Float Magnetic System**Smooth movement at the push of a button.



**Sterilizable caps and handgrip drapes** Conduce asepsis.



**VisionGuard® Drape**Helps ensure sterile
work environment.



MediLive Trio Dent **3 CCD video camera.** 



SLR camera adapter.



**FlexioStill**Adapter for digital cameras.



**FlexioMotion**Adapter for digital camcorders.

# **OPMI PROergo** by the numbers

# OPMI PROergo microscope system

Magnification system	Motorized zoom system; with apochromatic 1:6 ratio; magnification factor $Y = 0.4x-2.4x$
Tube	- Foldable Tube f170/f260, including PROMAG® function for additional 50% magnification
	and integrated rotate function (optional)
	- 0°–180° tiltable binocular tube
Eyepieces	12.5x and 10x wide-field eyepieces
Magnification range	Example with AA 300 mm and 12.5x eyepiece
	Magnification: 2.3x up to 14x
	Field-of-view diameter: 75 to 16 mm
Focusing system	- Continuous motorized focusing via Varioskop; focusing range of 200–415 mm
	- SpeedFokus (optional)
Additional optics	- Angled optics with tube dovetail (optional)
	- Double iris diaphragm to increase the depth of field (optional)
Operating concept	- Free Float Magnetic System
	- LCD display with user guidance
	- Handgrip buttons for zoom and focus and freely programmable function keys
	- Foot control panel for zoom and focus (optional)

### Camera systems (optional)

Integrated MediLive Primo 1 CD video camera	- Functioning and ready to use at any time
	- Freeze function for still shots
	- Continuous image rotation
	- Specific user settings
	- Video standard: PAL/NTSC
	- Ports: Y/C (S-Video), VBS (composite)
External MediLive Trio Dent 3 CCD video camera	- Selectable user-specific setting parameters
	- Video standard: PAL/NTSC
	- Ports: Y/C (S-Video) and VBS (composite)
	- RGB, Progressive Scan
	- DV, DVI
Accessories to attach external cameras	Splitter: Angled optics documentation port, optional with tube dovetail
	- Beam splitter 20 with documentation port
	- Beam splitter 50 with documentation port
	Adapters:
	- Video lenses with C-mount interface for the attachment of external video cameras
	- Lenses to attach external digital still cameras

### Illumination system

- Integrated coaxial cold-light illumination
- Adjust brightness via the handgrip buttons
- Swing-in illumination diaphragms
- Orange filter for composite materials
- Integrated 12 V 100 W halogen illumination with 2 halogen reflector lamps in the quick-change module
- Integrated 12 V 180 W xenon illumination with daylight characteristic including 2 xenon lamps in the quick-change module (optional)

### Accessories

Splash protection for the objective lens

- High-quality cover lens with good optical quality, easy to change
- Reflection-free vision through slanted arrangement of the lens

VisionGuard drapes for sterile work

### **Electrical data**

Rated voltage	115 V ~ (100125 V ~ ± 10%) 230 V ~ (220240 V ~ ± 10%)	
Current consumption	115 V ~ max. 10 A 230 V ~ max. 8 A	
Rated frequency	5060 Hz	
Fuses	Automatic circuit breaker	
Electrical outlets	<ul> <li>Surgical microscope</li> <li>Remote socket for an external signal of a maximum of 24 V/0.5 A</li> </ul>	

# **OPMI PROergo** technical data

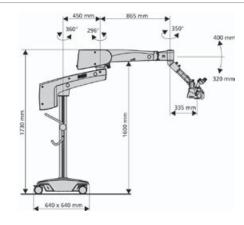
### Suspension system

S7 carrier system for user-friendly operation of OPMI PROergo

- Max. capacity 14 kg

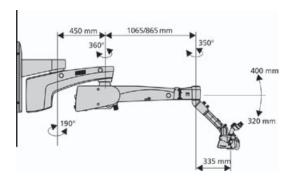
S7 floor stand

- Mobile solutions for the practice
- Dimensions: 640 x 640 mm
- Weight: approx. 177 kg



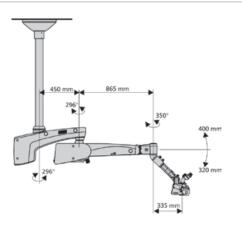
S7 wall mount

- The space-saving alternative for small rooms
- Weight
   Short arm: approx. 68 kg
   Long arm: approx. 69 kg



S7 ceiling mount

- Creates free space around the treatment chair
- Weight: approx. 80 kg



S7 Centro mount for support system KaVo CENTRO

- For space-saving integration into the office
- Weight: approx. 53 kg



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