



The **Zeiss OPMI Pentero** surgical microscope features apochromatic optics that deliver crystal-clear images, sharp details, and natural colors. The OPMI Pentero has 20% more light than previous models with spot illumination to precisely adjust the light cone. The Pentero has integrated high-speed autofocus that automatically delivers sharp images regardless of magnification. With the overhead design of this microscope, the suspensions system can be placed in any position, even behind the surgeon.

## Features

- Automated functions such as AutoBalance and AutoDrape
- Image-guided surgery with MultiVision data injection
- Integrated digital visualization, optionally with integrated high-definition (HD) camera head
- DICOM networking capabilities
- Touchscreen operation



# Specifications

## Dimensions

**Height:** 81.1" (206 cm)

**Width:** 28.97" (73.6 cm)

**Depth:** 28.97" (73.6 cm)

## Magnification System

Motorized zoom, apochromatic, 1:6 ratio

Magnification displayed on touchscreen and in the ocular (on demand)

User specific start position

## Focusing System

Varioskop, apochromatic, 200–500 mm working range

Internal, motorized, continuous adjustment

Magnification linked adjustment of focus speed

High-speed laser autofocus, accurate to +/- 0.5 mm (Class II Laser)

Visual focusing aid with two converging laser spots

Working distance displayed on touchscreen and in the ocular (on demand)

User specific start position

## MultiVision System

Integrated data display with shutter function

SVGA 800 x 600, color, 50-60 Hz

Color, binocular, injection and superimposition of contours and data

Supported external data signals

- Computer data (VGA Signal)
  - I.e. data from navigation systems
- Y/C video data (PAL / NTSC)
  - I.e. data from endoscopy systems

Superimposition of system information (focus, zoom, light)

Injection of the touchscreen user interface into the eyepiece for sterile control of the system

## Tubes and Co-Observation

Main tube: 0–180° rotatable

Eyepieces 10x/21B, 12.5x/18B

Integrated beam splitter for lateral and face-to-face co-observation

Stereo co-observation tube remains fixed when tilting the OPMI

Spine adapter for symmetric face-to-face configurations

Integrated rotary tube adapters

## AutoDrape Systems

Integrated vacuum system to remove air from sterile drape for fast and easy draping



## Specifications

### **Illumination System**

Superlux 330 light source with two 300 W Xenon daylight character lamps  
Integrated light source and light guide  
Integrated two-way illumination brightens shadows  
Variable spot illumination, minimum diameter 10 mm  
Semi-automatic lamp exchange  
Display of remaining lamp life on Touchscreen  
Brightness regulation via handgrips  
Magnification dependant automatic brightness adjustment  
Synchronized camera flash system

### **AutoBalance**

AutoBalance of the microscope, suspension system or entire system by pushing a button  
Microscope AutoBalance independent of position or accessories

### **Hospital Workflow Integration**

Varioskop, apochromatic, 200–500 mm working range  
Internal, motorized, continuous adjustment  
Magnification linked adjustment of focus speed  
High-speed laser autofocus, accurate to +/- 0.5 mm (Class II Laser)  
Visual focusing aid with two converging laser spots  
Working distance displayed on touchscreen and in the ocular (on demand)  
User specific start position

### **MultiVision System**

LAN interface and modem  
Microphone and speaker  
Patient data management allowing archival of image, video and audio data  
Service file  
Remote service interface

