

#### **AGILE FOCUS**

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### Features:

- PoweRave<sup>™</sup> Focus and
   Zoom
  - RP offers rapid focusing
  - RPZ offers rapid, independent control of optical power and zoom
- Inserts into open microscopes at infinite conjugate image planes
- Controlled via USB to a computer with included control software
- Achromatic
- No agitation or damage of the sample, since neither the stage or objective lens moves
- Maintains the resolution of the optical system throughout the focal range

## **Custom Options:**

- Total magnification
- Total focusing range
- Physical size can be altered
- Wavelength range specification
- Two layouts for objective lens with respect to camera/eyepiece
  - In-line
  - Perpendicular
- Two options for placement of objective
  - Attached with screw threading (as shown)
  - 20 mm separation
- Aperture size dependent on a particular objective lens



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# PoweRave™ focus & zoom

### **BENCHTOP VERSION**

The PoweRave™ Focus and Zoom takes advantage of deformable membrane mirror technology to allow for fast focus and zoom control without translating or rotating lenses, vastly outperforming traditional microscopy. The Rapid Power (RP) version provides rapid focusing only. The Rapid Power and Zoom (RPZ) version offers independent control of rapid focusing and 2x zoom.



## **PoweRave™ Benchtop**

US Patent No. 10466461

PoweRave<sup>™</sup> benchtop version is designed specifically for electrophysiology, inspection during manufacturing, and cryogenic applications with wide-field, confocal, and multiphoton microscopes.

## **PoweRave™ Benchtop Specifications**

Nominal dimensions: 5" x 7" W x 9.5" L

Optical zoom: 1x-2x continuous variable\*\*

3dB bandwidth: 450 Hz

Aperture stop dia.: 5 mm

\*\*Example: 10-20x when used with 10x objective

Wavelength:

Objective NA	Focus Change
0.025	0~110,000 μm
0.06	0~19,000 µm
0.1	0~6,900 µm
0.25	0~1,100 µm
0.4	0~430 µm
0.75	0~120 μm

400-700 nm

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Rev PB S1.10 - 12/2021 EN
\*design subject to change and additional
optical components (including
objective lens) not included.

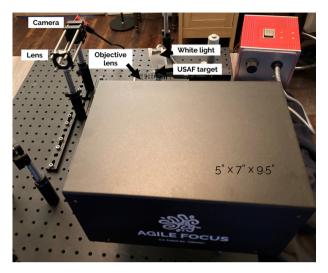
# PoweRave™ focus & zoom

#### **BENCHTOP VERSION**

#### PRODUCT DEMONSTRATION -



PoweRave<sup>™</sup> Benchtop use case where a simple microscope (light source and sample shown to left and imaging lens and camera shown behind) is directly attached to the PoweRave<sup>™</sup> Benchtop with a cage system.



PoweRave™ Benchtop shown in a benchtop 40x microscope. This was the testing setup for results shown below.

