

NEW!

BIOPTECHS

Re-designed Objective Heater

NEW!

As part of a continued effort to improve our products Bioptechs has redesigned its Objective Heaters to be compatible with the ever changing variety of geometries now available for today's live-cell objectives. This effort is supported and documented by our in house thermal profiling workstation. Thermal profiling is now available as a service from Bioptechs.

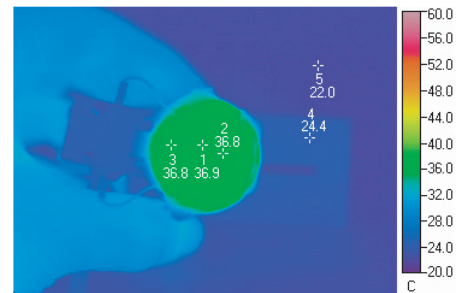
This superior design features the following attributes:

- New design now fits **all** objectives. Even ones that were difficult to fit in the past.
- Secondary retaining loop provides additional strength and mechanical stability
- Removable power cord allows the user to leave the heater on the objective and rotate the nosepiece.
- Shorter "Cube" can be mounted right side up or upside down.
- Convenient adjustment screw location enables mounting in any orientation.
- Available thermal spacer for objectives with less than optimal thermal profiles.*

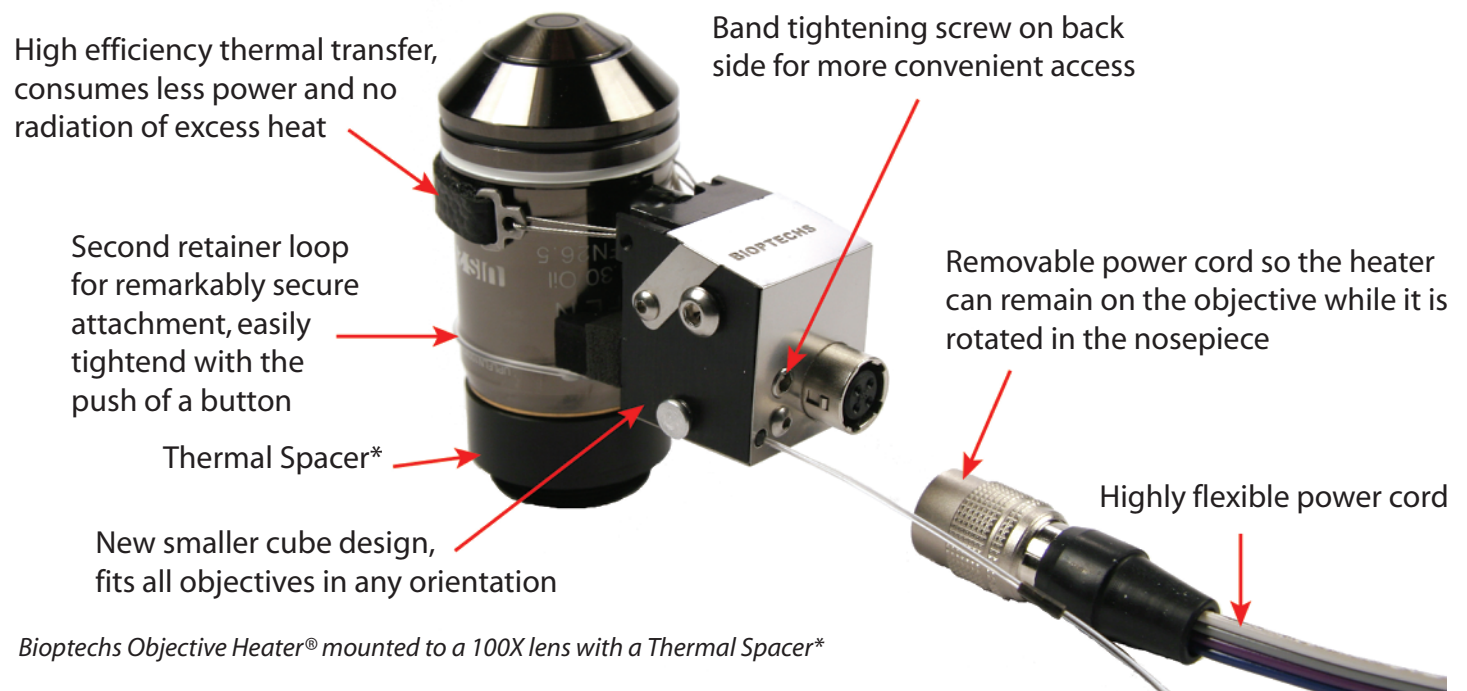
Review information:

It is now well known that thermal control of the objective is essential for high resolution time lapse imaging. Bioptechs developed and patented the first commercially available Objective Heater System[®]. It includes a heater/sensor device and an electronic controller. The heater/sensor is comprised of an adjustable thin-film heating band that surrounds 3/4 of the diameter of the objective and a temperature probe positioned in the gap formed between the ends of the heating band. This provides accurate feedback to a closed loop controller. The Objective Controller[®] is specifically designed to slowly heat the objective over a fifteen minute warm-up period, then hold the objective at the setpoint value within 0.1°C. The Controller operates from ambient to 50°C and has special safety circuitry to protect the objective and sound an alarm if the temperature of the objective deviates after it has reached setpoint.

The most important feature of the Bioptechs system is that it has an excellent thermal transfer efficiency so that it does not radiate excess heat that could cause overheating of the specimen!



Thermal image of a 60x objective at 37°C



Bioptechs Objective Heater[®] mounted to a 100X lens with a Thermal Spacer*