



# STILETTO® RESEARCH LASER



The Stiletto® includes laser module with 20x objective, 4 turret adapters, video camera, c-mount adapter, proprietary laser drilling software, Prior Scientific automated microscope stage, desktop computer and accessories. Microscope is not included.

| Dimensions  | H            | W          | D           |              |
|-------------|--------------|------------|-------------|--------------|
|             | in. (mm)     | in. (mm)   | in. (mm)    | lb. (kg)     |
| Stiletto:   | 1.65 (42)    | 1.1 (28)   | 2.1 (54)    | 0.5 (0.22)   |
| Controller: | 3.8 (95)     | 2.5 (63.5) | 1.8 (46)    | 1.0 (0.45)   |
| MiniTower:  | 11.5 (292)   | 3.7 (92.6) | 11.4 (290)  | 11.57 (5.26) |
| Monitor:    | 20.2 (513.5) | 21.9 (556) | 7.1 (180.3) | 10.1 (4.6)   |
|             | (with stand) |            |             |              |

| Electrical      | Desktop     | Monitor     |
|-----------------|-------------|-------------|
| Input Voltage:  | 100/240 VAC | 110-240 VAC |
| Power:          | 300 W       | 72 W        |
| Line Frequency: | 50/60 Hz    | 50/60 Hz    |

## Laser

|                  |   |
|------------------|---|
| Type:            | Infrared Solid-State Diode  |
| Maximum Power:   | @ Focus = 350 mW (Class I)  |
| Laser Modes:     | Single, Double, Manual, Auto  |
| Single:          | Laser produces single laser shots<br>Adjustable Laser Power (%) and Pulse Length (µs)<br>Fire laser by mouse or footswitch  |
| Double:          | Provides access to two independent Single Laser panels<br>Each panel has its own power and pulse setting and laser fire button<br>Fire laser by mouse or footswitch |
| Manual:          | Pulse length: 1 - 3000 µs<br>Power: 1 - 100%<br>Repetition rate per sec: 1 - 1000<br>Mean power maximum: 90 mW  |
| Auto:            | Controls stage and positioning of the sample automatically<br>Application of saved path profiles<br>Freehand drawing of laser path                                  |
| Firing:          | By mouse (Optional: Foot switch firing)   |
| Target Marker:   | Circle or arrow, adjustable "Blink Time" after firing.<br>Isotherm Rings, showing peak temps and hole size. Select which rings to display.                          |
| Crosshairs:      | Activation, size and color set by user (used for positioning embryo)  |
| Laser Alignment: | Aligned and locked at factory. No on-site physical laser alignment required   |
| Target:          | Adjust target alignment on-screen   |

## Objective

|                    |  |
|--------------------|--|
| Standard:          | 20x 0.40 N.A., I.R. (High transmission in both the visible and near-infrared, long working distance)           |
| Scale Calibration: | Performed interactively on-screen<br>Calibrate and save multiple objectives                                    |
| Scale Bar:         | Scale bar graphic overlay automatically adjusts based on calibrated objective. May be saved with images/video. |

## Video

|               |                                     |
|---------------|-------------------------------------|
| Camera:       | High resolution, digital color      |
| Illumination: | Microscope control, image on screen |

## Laser Safety

|                      |         |
|----------------------|---------|
| EN IEC 60825-1:2014: | Class 1 |
| 21 CFR 1040.10:      | Class I |

## Settings

|                 |  |
|-----------------|--|
| Laser Settings: | Enable, Remote Fire, Mode, Target, Slide Resolution  |
| Microplate:     | Allows calibration and storage for unlimited microwell configurations.                                       |
| Objectives:     | Calibrate and store magnification setting for unlimited objectives. Align laser and set communications port. |
| Prior Stage:    | Set the controller, connection axis direction encoders and map stage endpoints.                              |
| Path Profiles:  | Set and store unlimited laser path profiles containing laser pulse settings, path settings and scoring size. |
| Laser Settings: | Power, Pulse Width and Pulses/Sec  |
| Path Settings:  | Score type (internal, external, perimeter), Cut Perimeter<br>Max speed (µm/sec), Smoothing (µm), ReTrace     |
| Scoring Size:   | Set for X and Y axes in microns  |

## Image Capture and Storage Utility

Capture and store unlimited images. Images stored in user-selected JPG, BMP, or TIF format. Capture unlimited thumbnail images and select which to save. Automatic image capture on laser fire. Manual or automatic file naming. Images may be saved with graphic overlay.

## Video Capture

Capture and store real time and time lapse video in .mp4 format. Ability to set maximum recording length. Manual and automatic naming options. Open and play saved videos within program.

## Computer (subject to change)

|           |   |
|-----------|---|
| Type:     | Dell MiniTower / SFF  |
| OS:       | Windows 10 Pro (64-bit)   |
| CPU:      | Intel Core i7   |
| Memory:   | 8 GB  |
| Drives:   | 1 TB GB HD<br>8x DVD+-RW SATA   |
| Display:  | 24" Flat Panel Widescreen (16:10)   |
| Ports:    | 6 USB 3.0 (2 on front)<br>4 USB 2.0 (2 on front)<br>1 Serial<br>2 Display Port<br>2 PS/2<br>1 Line-in (stereo/microphone)<br>1 Line-out (headphone/speaker) |
| Network:  | 10/100/1000 Ethernet<br>1 RJ45 port   |
| Mouse:    | Wired   |
| Keyboard: | Wired   |

Specifications subject to change without notice.