Measuring Microscope Key Technical Specifications

A. Microscope Objectives:

1) 150x objective with minimum numerical aperture (NA) of 0.90, minimum working distance (WD) of 1.5mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

2) 100x objective with minimum NA of 0.90, minimum WD of 2.0mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

3) 50x objective with minimum NA of 0.80, minimum WD of 2.0mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

4) 100x Extra Long Working Distance (ELWD) objective with minimum NA of 0.80, minimum WD of 4.5mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

5) 50x ELWD objective with minimum NA of 0.60, minimum WD of 11mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

6) 20x ELWD objective with minimum NA of 0.40, minimum WD of 19mm, capable of both Bright Field and Dark Field, and having phase Fresnel lens chromatic aberration correction.

7) 10x objective with minimum NA of 0.30, minimum WD of 15mm, capable of both Bright Field and Dark Field.

8) 5x objective with minimum NA of 0.15, minimum WD of 18mm, capable of both Bright Field and Dark Field.

B) Z-axis Travel Range Capability: The microscope shall be capable of traveling from 0mm to 200mm continuously in the z-axis by rotating the z-axis movement knob without requiring the operator to add or remove spacers or perform any other tasks other than turning the knob.

C) Manual Theta Table: The stage shall have a manually adjustable theta table for adjusting theta.

D) Motorized X and Y-axis Stage: The microscope shall have a motorized X-axis stage capable of a minimum of 12” of travel and a motorized Y-axis stage capable of a minimum of 8” of travel.

E) Objective Mounting Capability: The microscope shall be capable of simultaneously mounting 5 objectives.

F) Differential Interference Contrast (DIC): The microscope shall be capable of performing Differential Interference Contrast (DIC) with all objectives listed in the “Microscope Objectives” section (reflective microscopy only).

G) Types of Microscopy: The microscope shall be capable of both reflective and transmissive microscopy.

H) Camera: The camera image sensor shall have an effective minimum of 16.25 megapixels and be capable of mounting on the measuring microscope.