

Mississippi State University
Notice of Proposed Sole Source Purchase
SSP 223-18

Mississippi State University anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

1. Commodity or commodities to be purchased (make, model, description):

- **Make:**

- Psylotech Inc., Evanston, IL 60201
- Olympus Scientific Solutions Americas Corporation, Waltham, MA 02453
- Basler, Inc.,
- Corelated Solutions, Inc., Irmo, SC 29063

- **Model:**

- Psylotech 10kN Clamp Tension (room temp) Smooth Clamp Plates for μ TS –10kN Micro Testing System for High-Speed Application
- Olympus BXFM Bundle (Ref QT-U1360330)- Camera C mount, 5 Position Nose Piece, Illuminator, Custom Psylotech Boom Mount, US Style 3 prong electrical & Dust Cover
- Olympus Apochromatic Long Working Dist. Objective, 2.5X (MPLFLN2.5X-1-7)
- Olympus MPLFLN1.25X; M PLAN FL 1.25X OBJECTIVE, NA0.04, WD3.5MM
- Olympus Apochromatic Long Working Dist. Objective, 10X (1-U2M343)
- Olympus BX3M-LED; RL LED Lamp Housing, White 5,700K (5-UL400)
- Olympus BX3M Power Supply LED (BX3M-PSLED-1-3)
- Olympus U-TR30-2-2; TRINOC, Observation Tube 100:0,80:20,0:100% Positions
- Olympus Eyepiece for BX/IX, 10x Focusing w/ \varnothing 24mm t=1.5mm Retical Shelf, FN22
- Olympus Eyepiece for BX/IX, 10x w/ \varnothing 24mm t=1.5mm Retical Shelf, FN22
- Olympus U-AN360-3; Rotatable Analyzer, w/Locking Plate U-PO3
- Olympus U-PO3; Polarizer with Locking Plate to U-AN360-3
- Basler Ace 12MP Machine Vision Camera, 30FPS, USB3.0
- Corelated Solutions VIC-Snap LS Acquisition & VIC-2D Post Processing

- **Description:**

These items will complement the recent purchase of a Psylotech μ TS –10kN Micro Testing System for High-Speed Application in the department. The microscopic and lighting systems will be mounted on a vibration isolation table and the machine vision camera will be connected to the microscope body to capture digital images. The

images will be synchronized with the testing system using VIC-snap and will be post-processed using VIC-2D.

2. Explanation of the need to be fulfilled by this item(s), how is it unique from all other options, and why it is the only one that can meet the specific needs of the department:

- **Specific needs of the department:** One of the main research thrusts in the Department of Aerospace Engineering at Mississippi State University is in multi-scale characterization of damage propagation in composites. This work requires in-situ microscopic images captured from fracture and fatigue tests. The department has recently purchased a Psylotech μ TS testing system which provides stably mounted horizontal testing configuration fitting under microscopes. The department needs microscopic and lighting systems, and digital image acquisition hardware and software packages for the testing system.
- **Unique features:** A 10kN clamp fixture will enable studies on tensile damages and fracture in different sizes of specimens. It was observed by one of the faculty in the department that the adaptiveness of microscope objects and lighting system dictates the quality of damage characterization. To address this issue, the microscopic and lighting systems have been chosen specifically for the testing system in close collaboration with an OEM Account Manager of Olympus Scientific Solutions Americas Corporation. The analyzer and polarizer will improve the quality of digital images. The machine vision camera will be perfectly mounted on the selected microscope body and be synchronized with the testing system in the department using VIC-snap. Digital image correlation will be performed using VIC-2D.
- **General requirements:**
 - A 10kN clamp fixture which can be mounted on a Psylotech μ TS –10kN Micro Testing System for High-Speed Application for tensile tests
 - A microscopic body mountable to a Newport Vibration Isolation Air Table with metric threads; A microscopic body under which a Psylotech μ TS –10kN Micro Testing System for High-Speed Application can be fitted
 - 1.25x, 2.5x, and 10x objects
 - An LED lighting source (more than white 5,500K) with power supply
 - A machine vision camera (more than 11MP) which can be mounted on an Olympus BXFM
 - Digital image acquisition (for synchronization between a machine vision camera and the testing system) and post-processing software packages

3. Name of company/individual selling the item and why that source is the only possible source that can provide the required item(s):

- **Name of company:** Psylotech Inc., Evanston, IL 60201
- The company is the manufacturer of the Psylotech μ TS –10kN Micro Testing System for High-Speed Application which the department recently purchased. The company can design and manufacture the test fixture which can be exactly mounted on the testing system based on their system design data. Additionally, the company have chosen and proposed the microscopic and lighting systems under which the testing system can be fitted and required lights can be provided based on their long-time experience with other institutions. Finally, the company provided distribution discounts for this purchase as a representative of Olympus Scientific Solutions Americas Corporation, Basler, Inc. and Corelated Solutions, Inc.

4. Estimated cost of item(s) and an explanation why the amount to be expended is considered reasonable:

- **Estimated cost:** \$39,404
- The company provided 11.5% discount on their test fixture and distributor discounts on the microscopic system, machine vision camera, and software packages as a representative of Olympus Scientific Solutions Americas Corporation, Basler, Inc. and Corelated Solutions, Inc.

5. Explanation of the efforts taken by the department to determine this is the only source and the efforts used to obtain the best possible price:

- The department has contacted individual manufacturers and developers but encountered difficulties in selecting parts and systems specifically for the Psylotech μ TS –10kN Micro Testing System for High-Speed Application. Additionally, the department could not match the price offered by the company through individual contacts.
- The department had several meetings with a sales manager of Psylotech and an OEM Account Manager of Olympus Scientific Solutions Americas Corporation to identify and remove nonessential parts for cost saving.
- The department has managed to receive 11.5% discount on the test fixture and distributor discounts on the microscopic system, machine vision camera, and software packages.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Don Buffum, CPPO

Director of Procurement & Contracts

dbuffum@procurement.msstate.edu

Subject Line must read "Sole Source Objection"

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, MSU determines that the commodity in the proposed sole source request can be provided by another person or entity, then MSU will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If MSU determines after review that there is only one (1) source for the required commodity, then MSU will appeal to the Public Procurement Review Board. MSU will have the burden of proving that the commodity is only provided by one (1) source.