REQUEST FOR BIDS/PROPOSALS COVERSHEET
THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Procurement and Contract Services
118 College Drive #5003, Hattiesburg, Mississippi 39406-0001

Date: December 7, 2016

Bid No. 17-18

THE UNIVERSITY OF SOUTHERN MISSISSIPPI is considering the purchase of the following item(s). We ask that you submit your bid and retain one copy for your files. Right is reserved to accept or reject any part of your bid. Your quotation will be given consideration if received in Bond Hall, Room 214 on or before:

2:00 p.m. CST

January 6, 2017

Buyer: Heather Kihyet

NOTE: If you cannot quote on the exact material shown, please indicate any exception giving brand name and complete specifications of any alternate. If additional space is required, use a separate sheet or letter of transmittal.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL NET PRICE</th>
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DESCRIPTION

RFB 17-18
RTM/VaRTM Work Station

PROPOSAL MUST BE RETURNED TO THE UNIVERSITY IN A SEALED ENVELOPE. RFB NUMBER AND DATE OF BID OPENING MUST BE SHOWN ON THE OUTSIDE OF THE ENVELOPE.

We quote you as above-F.O.B. The University of Southern Mississippi. Shipment can be made in _____ days from receipt of order. DATE ______________ TERMS __________________

Return quotation to Procurement Services at above address.

Signature Required
GENERAL TERMS, CONDITIONS AND INSTRUCTIONS FOR BIDS/PROPOSALS

1.) Failure to examine any drawings, specifications, and instructions will be at bidder’s risk.

2.) Samples of items when called for must be furnished free of expense and if not destroyed in testing, will, upon request, be returned at the bidder’s expense. Request for the return of samples must be made within ten (10) days following opening bids. Each individual sample must be labeled with bidder’s name and manufacturer’s brand name and number.

3.) Bids must be signed and sealed with bidder’s name and address on the outside of the envelope, and the time and date of the bid opening and the bid file number shown in the lower-left corner of the packages; envelopes, express mailing labels, boxes, etc.

4.) In order for your bid to be considered, it must be received and time stamped in our office by 2:00 P.M. of the bid opening date. It is the responsibility of the vendor to ensure their bid is received within the appointed time. If your bid package is not received in Bond Hall, Room 214, by 2:00 P.M. of the bid opening date, it will not be considered.

If you are delivering your bid, you need to hand carry the bid package to:

The University of Southern Mississippi
Procurement Services
Bond Hall, Room 214
Hattiesburg, Mississippi

If you are mailing your bid package via U.S. Postal Service, mail to:

The University of Southern Mississippi
Procurement Services
118 College Drive #5003
Hattiesburg, MS 39406-0001

If you are express mailing your bid package via Federal Express or UPS, or any other delivery service which requires the use of a physical address, deliver to:

The University of Southern Mississippi
Receiving Department
2609 West 4th Street
Hattiesburg, MS 39401
5.) Bids or proposals shall not be modified, corrected, altered, or amended after the specified closing time and the opening of such bids, unless otherwise noted in the request for bids or proposals.

6.) The University of Southern Mississippi reserves the right to reject any and all bids, to waive any informality in bids, and unless otherwise specified by the bidders, to accept any items on the bid. If the bidder fails to state the time within which bids must be accepted, it is understood and agreed that The University of Southern Mississippi shall have 60 days to accept.

7.) Contracts and purchases will be made or entered into with the lowest, responsible bidder meeting specifications.

8.) A written purchase order or contract award mailed or otherwise furnished to the successful bidder within the time of acceptance specified in the Invitation for Bid results in a binding contract without further action by either party. The contract shall not be assignable by the vendor in whole or in part without the written consent of The University of Southern Mississippi.

9.) Bid files may be examined during normal working hours by bid participants. Non-participants will be prohibited from obtaining any information relative to the bid until the official award has been made.

10.) If purchase orders or contracts are canceled because of the awarded vendor’s failure to perform or request for price increase, that vendor shall be removed from our bidders’ list for a period of 24 months.

11.) No addendum will be issued within a period of two (2) working days prior to the time and date set for the bid opening. Should it become necessary to issue an addendum within the two-day period prior to the bid opening, the bid date will be reset giving bidders ample time to answer the addendum.

12.) Alternate bids, unless specifically requested or allowed, will not be considered.

13.) Bid openings will be conducted open to the public. However, they will serve only to open the bids. No discussion will be entered into with any vendor as to the quality or provisions of the specifications, and no award will be made either stated or implied at the bid opening. After the close of the bid opening meeting, the bids will be considered to be in the evaluation process and will not be available for review by bidders. Proposal openings are not required to be open to the public; however, the resulting award is open for public inspection.

14.) Prices quoted shall be firm for the term of the contract or for the stated time of acceptance.
15.) The bidder understands that The University of Southern Mississippi is an equal opportunity employer and, therefore, maintains a policy which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other such discrimination; and the bidder, by signing this bid, agrees during the term of agreement that the bidder will strictly adhere to this policy in its employment practices and provision of products or services.

16.) Bidders must upon request of The University of Southern Mississippi furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. The University of Southern Mississippi reserves the right to make the final determination as to the bidder’s ability.

17.) Questions or problems arising from bid procedures should be directed to the Buyer listed on the solicitation at:

The University of Southern Mississippi
118 College Drive #5003
Hattiesburg, MS 39406-0001
Phone: (601) 266-4131

18.) All items must equal or exceed the specifications listed. The absence of detail specifications or the omission of detail description shall be recognized as meaning that only the best commercial practices are to prevail and that only first quality materials and workmanship are to be used.

19.) It is the intent of the specifications to obtain a product that will adequately meet the needs of the user while promoting the greatest extent of competition that is practicable. It is the responsibility of the prospective bidder to review the entire Invitation to Bid packet and to notify The University of Southern Mississippi if the Specifications, Instructions, General, or Special Conditions are formulated in a manner which would unnecessarily restrict competition.

20.) It shall be incumbent upon the bidders to understand the specifications. Any requests for clarifications shall be in writing and shall be submitted to our Procurement Services office at least five (5) days prior to the time and date set for the bid opening, unless otherwise noted in the bid or proposal specifications.

21.) The minimum specifications are used to set a standard and in no case are used with the intention to discriminate against any manufacturer. Bidders should note the name and the manufacturer and model number of the product they propose to furnish and submit descriptive literature.

22.) Trade names, brand names, and/or manufacturer’s information used in these specifications are for the purpose of establishing quality, unless otherwise noted. Bids on products of other qualified manufacturers are acceptable, provided they are demonstrated as equal to those specified in construction, design and suitability. Each bidder shall
submit with his bid a complete brochure with pictures on each item and shall point out specifically any deviations from the specified items. Failure to do so may disqualify any bid. Please bid as specified or an approved equal.

23.) A copy of the manufacturer’s standard guarantee/warranty shall accompany and become a part of this bid.

24.) There are no federal or state laws that prohibit bidders from submitting a bid lower than a price or bid given to the U.S. Government. Bidders may bid lower than U.S. Government contract price without any liability as The University of Southern Mississippi is exempt from the provisions of the Robinson-Patman Act and other related laws. In addition, the U.S. Government has no provisions in any of its purchasing arrangements with bidders whereby a lower price to The University of Southern Mississippi must automatically be given to the U.S. Government.

25.) All invoices, unless noted otherwise, are to be billed to:

The University of Southern Mississippi
Accounts Payable
118 College Drive #5104
Hattiesburg, MS 39406-0001

26.) All equipment bid shall be of current production and of the latest design and construction.

27.) Where all, or part(s), of the bid is requested on a unit price basis, both the unit prices and the extension of the unit prices constitute a basis of determining the lowest responsible and responsive bidder. In cases of error in the extension of price, the unit price will govern.

AA/EOE/ADAII
The University of Southern Mississippi
Request for Bid17-18: USM- RTM/VaRTM Workspace Station

General Specifications
The University is requesting a turnkey Integrated RTM/ VaRTM Workspace Station (injection, press, and software integration) to meet the following specifications:

System software should be integrated with dependent control for the injection and press system and with independent control of injection and press system if needed. PLC plus PC control for both systems with data gathering capabilities for quality control of composite parts.

A mobile infusion system capable of single component injection or dual component injection. With easy cleaning and purging of the system. The seals on the injection system should be able to withstand cleaning solvents. Capable of Vacuum Infusion, VARTM, RTM, and CAPRI vacuum infusion. For CAPRI vacuum infusion the ability to directly infuse from pressure tank with different metering than gear pump. Capable of handling BMI, Epoxy, Vinyl Ester, Polyurethane and other experimental material systems for research.

Press should be capable of upgrading to a thermoplastic composite molding cell with robot and preheating oven. Fast sheet transfer from oven to press and close mold within 5 seconds.

Comprehensive engineering drawings should be supplied for all system components.

Equipment Specifications

Matrix Injection System
- High precision gear pump metering system with an accuracy of 1% volumetric. With inline flow meters.
- Maximum Flow Control (mixed resin): 400 cc/min
- Single Component System
  - Capacity: 15-liter net resin after degassing
  - Maximum Pressure: 145 psi
  - Maximum Temperature: 300 °C +/- 5 °C
    - Includes resin lines and resin tank
- Dual Component System
  - Capacity: 18-liter (resin) and 5-liter (hardener) net resin after degassing
  - Maximum Pressure: 200 psi
  - Maximum Temperature: 120 °C +/- 2 °C
    - Includes resin lines, resin tank, gear pumps, and mixing head
- Degass in Injection System
  - Vacuum system and resin trap included with system.
  - Vacuum level 1 mbar
- Electric Heating with Resin Stirring in Container
- Variable Mix Ratio: 100:100 to 100/15
- Mixing: Static Mixing
- Exothermic safety control system with pressure relief valve for rapid fume venting. With temperature monitoring. Exothermic reaction gases are vented/purged through a single line venting system to be connected to USM air evacuation/ventilation system. The tank cover is maintained closed.
Hydraulic multi-purpose press

- Clamping Force Capable of maximum 500 metric tons
- 1 meter by 1 meter heated platen (working area)
  - Capable of 400 °C +/- 5 °C
  - Average heating rate of platen: 3-5 °C/min
- Capable of 24-inch maximum opening position
- Fast Closing Capability of at least 9 in/sec
- Capable of platen cooling
  - Average Cooling Rate: -5 °C/min +/- 1°C/min from 400°C to 40/60°C
  - The cooling operation by compressed air from 400°C to about 180/200°C then by water circulation from 180/200°C to 40/60°C with multiple inlets and outlets for uniform cooling.
- Capable of controlling upper platen position with better than 1mm precision
- Capable of infusions with gap control of platen position and with pressure control within the same process cycle.
  - Ability to infuse with a gap before closing to a specified pressure to consolidate part, allowing for faster infusion at lower pressure.

Software Control System

- Recipe Programing and storage of production files
- Monitoring of Process Data and Data acquisition at one point per second with full traceability.
- Ability to program: automatic degassing cycles in tanks/pots with set time and temperature control, degassing in mold with vacuum leak control, injection with specified pressure and temperature up to a volume or duration set point
- Ability to synchronize automated RTM cycles with RTM press. Real time monitoring of all pressure transducers and thermocouples

Installation/Training

Vendor must complete installation which includes complete set-up of the system, onsite installation, acceptance test and operation training. Final machine location, electrical, and other connections will be made by the vendor.

Vendor must agree to minimum 3 days training on basic system setup and operation for a maximum of 5 people. Telephone and online support must be included. Cost of travel and associated expenses included. All shipping, installation, and training costs needs to be included with the bid.

Warranty

Bidder shall submit copy of written warranty. The University is requesting a minimum 1-year warranty period following installation, including parts and labor. The warranty must include the following stipulation:

- Any defects will be repaired or replaced at no cost including shipping to and from the customer’s site

Freight

The university is requesting delivery to University of Southern Mississippi at the Accelerator, 46 Shelby Thames Drive, Hattiesburg, MS 39402.