

Mississippi State University
Notice of Proposed Sole Source Purchase
245-93

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: Markforged

Model: Metal X, Wash 1, Sinter 2 Bundle

Description: Industrial metal 3D printer with an integrated washing and sintering system utilizing Atomic Diffusion Additive Manufacturing (ADAM) technology for high-strength metal part production. Includes BOFA filtered fume extraction unit for facility exhaust compliance.

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:

The Markforged Metal X system is the only known system that combines 3D metal printing, sintering, and washing within a single ecosystem, utilizing the proprietary ADAM process. No other manufacturer provides a carbon-free retort sinter and continuous wash system under a patented technology.

Uniqueness and Compatibility:

Proprietary Technology: The ADAM process is patented and unique to Markforged (<https://patents.google.com/?q=CFF&inventor=Gregory+Thomas+Mark>). No other metal printing system offers this combination.

Vendor Exclusivity: Phillips Corporation is the only authorized educational reseller for Mississippi, ensuring exclusive distribution of this system.

Seamless Integration: The Metal X system is designed to work within Markforged's Digital Forge platform, which is already in use at MSU, allowing for smooth implementation with existing workflows.

Health & Safety Compliance: Markforged specifies BOFA fume extraction systems to maintain proper air filtration and safety compliance for metal printing operations.

The equipment necessary should have all the following characteristics:

High-Strength Metal Printing with ADAM Technology

Continuous Wash System for solvent-based metal debinding

Carbon-Free Retort Sintering for uniform metal part densification

Filtered Fume Extraction for compliance with ventilation requirements

Service Plan:

Two-hour response time for service

Free replacement parts

Priority access to inventory

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

Company Name: Markforged / Phillips Corporation
Point of Contact: Hunter Kubitz
Email: pcmachineorders@phillipscorp.com
Reason for Sole Source Provider: Markforged is the only company that manufactures and provides this system, and Phillips Corporation is the only authorized educational reseller in the region. No other entity can legally provide the required components.

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

Total Investment: \$157,640.00

Metal X, Wash 1, Sinter 2 Bundle: \$201,990.00

Educational Discount: -\$59,397.00

BOFA Fume Extraction Unit: \$4967.00

Metal X Print Sheet Pack: \$80.00

Installation: \$10,000.00

The amount is reasonable given that comparable systems requiring separate purchases of sintering, washing, and fume extraction units cost significantly more. Additionally, Markforged's exclusive educational discount provides substantial savings.

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 researched alternative metal 3D printing technologies, but none met the integration, safety, and workflow requirements of Markforged's Metal X system. Competing systems lack:

The ADAM process, which integrates printing, washing, and sintering in a streamlined workflow.

BOFA-filtered fume extraction compatibility as specified by Markforged.

A comprehensive warranty and support plan like Markforged's Digital Forge.

Given the proprietary technology, vendor exclusivity, integration with existing workflows, and unique health and safety compliance, the Markforged Metal X System qualifies as a sole source purchase for Mississippi State University.

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:

Jennifer Mayfield, CPPO

Director of Procurement & Contracts

jmayfield@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.