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Tender

## **4449/AMRC/JS/25-5 Axis Milling Machine**

UNIVERSITY OF SHEFFIELD

UK4: Tender notice - Procurement Act 2023 - [view information about notice types](#)

Notice identifier: 2025/S 000-028147

Procurement identifier (OCID): ocds-h6vhtk-052805 ([view related notices](#))

Published 28 May 2025, 2:41pm

### **Changes to notice**

This notice has been edited. The [previous version](#) is still available.

### **Scope**

### **Reference**

4449/AMRC/JS/25

### **Description**

## 4449/AMRC/JS/25 - 5 Axis Milling Machine for AMRC North West

The University of Sheffield wishes to invite tenders for the supply, installation and commissioning of a '5 Axis Milling Machining Machine' on behalf of the Advanced Manufacturing Research Centre,

The '5-Axis Milling Machine' which will be used for research, testing and demonstration purposes in the AMRC North West, Samlesbury facility.

The equipment will support the AMRC's research into technologies such as machinability, dynamics and process monitoring. The equipment should have adequate robustness, high precision and repeatability to facilitate the manufacture of high-performance components for various sectors including aerospace and biomedical with demanding tolerance requirements.

Compulsory requirements:

The '5-Axis Milling Machine' (please see section G1 of the ITT for further details):

1. Must be capable of 5-axis simultaneous machining.
2. Must have the ability to machine a range of alloys commonly used in aerospace, automotive and other high value manufacturing industries, including (but not limited to) titanium, nickel superalloys, tool steels, and stainless steels.
3. Must not exceed 5000 mm (width) x 5000 mm (length) including ancillaries (such as chiller, filter) as the footprint. For the avoidance of doubt, the height of the equipment is not a concern to the University.
4. Must weigh 15,000 kg or less.
5. Must have a tool magazine with a capacity of 20 tools or above (depending on tool size).
6. Must include a probe for part alignment.
7. Must include a probe for tool length and diameter measurement.
8. Must include electronic handwheel/pendant for ease of setup.
9. Must be capable of a linear positioning accuracy of 0.006 mm or better.
10. Must be capable of at least 12,000 RPM of spindle speed.

11. Must be capable of providing a spindle torque of at least 80 Nm.
12. Must be able to accommodate tools with a length of at least 300 mm (and shorter as well).
13. Must be able to accommodate tools with a diameter of at least 130 mm (and smaller as well).
14. Must be able to accommodate tools with a mass of at least 8 kg (and lower as well).
15. Must include a chip conveyor.
16. Must be capable of machining of workpieces with a mass of at least 300 kg (and lower as well).
17. Must be capable of accommodating a workpiece with a diameter of at least 500 mm (and lower as well).
18. Must be capable of accommodating a workpiece height of at least 400 mm (and lower as well).
19. Must allow machining with at least 10 bar through tool coolant pressure.
20. Must be capable of traversing at least 500 mm in at least one of the X or Y axes.
21. Must be capable of achieving a surface quality and dimensional tolerances on freeform surfaces as specified in Appendix A.
22. Must have local exhaust ventilation/mist extraction system capable of filtering and exhausting the mist generated by emulsion coolants used during machining. Please see the 'Health & Safety and Equipment Regulations' section g).

Tender Process and Documentation:

This procurement is a CDP (FTS) Open procedure conducted in accordance with the Procurement Act 2023.

The ITT can be downloaded by registering and expressing your interest on the University's e-tendering system <https://in-tendhost.co.uk/Sheffield>

If you have any questions or comments in relation to this tender they must be submitted via the In-tend System, this can be accessed at <https://in-tendhost.co.uk/Sheffield>

Completed tenders must be returned through the same e-tendering system.

Closing date for receipt of tenders: Monday 23rd June 2025 at 12 noon (UK time).

### **Total value (estimated)**

- £250,000 excluding VAT
- £300,000 including VAT

Above the relevant threshold

### **Contract dates (estimated)**

- 21 July 2025 to 21 July 2028
- 3 years, 1 day

### **Main procurement category**

Goods

### **CPV classifications**

- 42620000 - Lathes, boring and milling machine tools
- 42623000 - Milling machines
- 42637000 - Machine tools for drilling, boring or milling metal
- 42637300 - Machine tools for milling metal

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## **Submission**

## **Enquiry deadline**

13 June 2025, 5:00pm

## **Tender submission deadline**

23 June 2025, 12:00pm

## **Submission address and any special instructions**

please submit your tender proposal at the following address - <https://www.in-tendhost.co.uk/sheffield/>

## **Tenders may be submitted electronically**

Yes

## **Languages that may be used for submission**

English

## **Award decision date (estimated)**

16 July 2025

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## **Award criteria**

<b>Name</b>	<b>Description</b>	<b>Type</b>
Simple description	Scoring criteria (including weighting) is included in the Invitation to Tender document	Price

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### **Weighting description**

Scoring criteria (including weighting) is included in the Invitation to Tender document

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### **Other information**

#### **Conflicts assessment prepared/revised**

Yes

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### **Procedure**

#### **Procedure type**

Open procedure

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### **Documents**

#### **Associated tender documents**

<https://www.in-tendhost.co.uk/sheffield/>

All tender documentation can be accessed on the above URL

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## **Contracting authority**

### **UNIVERSITY OF SHEFFIELD**

- Companies House: RC000667

Firth Court, Western Bank

Sheffield

S10 2TN

United Kingdom

Email: [procurement@amrc.co.uk](mailto:procurement@amrc.co.uk)

Website: <https://www.sheffield.ac.uk/>

Region: UKE32 - Sheffield

Organisation type: Public authority - sub-central government