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Contract

## **Short Pulse Laser**

UNIVERSITY OF SHEFFIELD

F20: Modification notice

Notice identifier: 2025/S 000-003197

Procurement identifier (OCID): ocds-h6vhtk-049c36

Published 31 January 2025, 8:05am

### **Section I: Contracting authority/entity**

#### **I.1) Name and addresses**

UNIVERSITY OF SHEFFIELD

WESTERN BANK

SHEFFIELD

S102TN

#### **Contact**

Rachel Hirst

#### **Email**

[r.e.hirst@sheffield.ac.uk](mailto:r.e.hirst@sheffield.ac.uk)

#### **Telephone**

+44 1142157590

#### **Country**

United Kingdom

**Region code**

UKE32 - Sheffield

**Companies House**

RC000667

**Internet address(es)**

Main address

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

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**Section II: Object**

**II.1) Scope of the procurement**

**II.1.1) Title**

Short Pulse Laser

Reference number

4232/AMRC/RH/24

**II.1.2) Main CPV code**

- 42000000 - Industrial machinery

**II.1.3) Type of contract**

Supplies

**II.2) Description**

**II.2.2) Additional CPV code(s)**

- 38636100 - Lasers
- 38636110 - Industrial lasers

**II.2.3) Place of performance**

NUTS codes

- UKE - Yorkshire and the Humber

Main site or place of performance

AMRC Factory 2050, Sheffield Business Park, Europa Avenue, Sheffield, S9 1ZA

#### **II.2.4) Description of the procurement at the time of conclusion of the contract:**

4232/AMRC/RH/24 - Short Pulse Laser

The University of Sheffield wishes to invite tenders for a Short Pulse Laser on behalf of the Advanced Manufacturing Research Centre Factory 2050, Sheffield Business Park, Europa Avenue, Sheffield, S9 1ZA

The Advanced Manufacturing Research Centre (AMRC) are looking to replace their SPI redPOWER QUBE 2kW continuous-wave laser currently located at Factory 2050. The main application of this new laser will be further cutting trials with thin sheets of electrical steel for the production of electrical machine laminations, initially to produce perforations.

A remote laser cutting is being investigated as an alternative to traditional gantry-mounted fusion laser cutting. The perceived benefits of this method of cutting are that the cut rate is increased (the scanner is capable of speeds of up to 8,000 mm/s) and that the thermal damage (measured in terms of electromagnetic

performance, not physical material properties) is reduced, both with reference to the traditional fusion cutting baseline.

Materials being investigated are high-silicon steel (e.g. NO20) and cobalt iron (e.g. Hiperc50 - 49% cobalt content). Sheet thicknesses could range from 0.35 mm down to 0.1mm.

#### **II.2.7) Duration of the contract, framework agreement, dynamic purchasing system or concession**

End date

31 March 2025

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## Section IV. Procedure

### IV.2) Administrative information

#### IV.2.1) Contract award notice concerning this contract

Notice number: [2025/S 000-000504](#)

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## Section V. Award of contract/concession

### Contract No

4232/AMRC/RH/24

### V.2) Award of contract/concession

#### V.2.1) Date of conclusion of the contract/concession award decision:

7 January 2025

#### V.2.2) Information about tenders

The contract/concession has been awarded to a group of economic operators: No

#### V.2.3) Name and address of the contractor/concessionaire

IPG PHOTONICS (UK) LIMITED

Hawkfield Business Park

Bristol

BS14 0BY

Country

United Kingdom

NUTS code

- UK - United Kingdom

Companies House

04132272

The contractor/concessionaire is an SME

No

**V.2.4) Information on value of the contract/lot/concession (at the time of conclusion of the contract;excluding VAT)**

Total value of the procurement: £193,171.79

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**Section VI. Complementary information**

**VI.4) Procedures for review**

**VI.4.1) Review body**

University of Sheffield

Sheffield

Country

United Kingdom

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## **Section VII: Modifications to the contract/concession**

### **VII.1) Description of the procurement after the modifications**

#### **VII.1.1) Main CPV code**

- 42000000 - Industrial machinery

#### **VII.1.2) Additional CPV code(s)**

- 38636100 - Lasers
- 38636110 - Industrial lasers

#### **VII.1.3) Place of performance**

NUTS code

- UKE - Yorkshire and the Humber

Main site or place of performance

AMRC Factory 2050, Sheffield Business Park, Europa Avenue, Sheffield, S9 1ZA

#### **VII.1.4) Description of the procurement:**

4232/AMRC/RH/24 - Short Pulse Laser

The University of Sheffield wishes to invite tenders for a Short Pulse Laser on behalf of the Advanced Manufacturing Research Centre Factory 2050, Sheffield Business Park, Europa Avenue, Sheffield, S9 1ZA

The Advanced Manufacturing Research Centre (AMRC) are looking to replace their SPI redPOWER QUBE 2kW continuous-wave laser currently located at Factory 2050. The main application of this new laser will be further cutting trials with thin sheets of electrical steel for the production of electrical machine laminations, initially to produce perforations.

A remote laser cutting is being investigated as an alternative to traditional gantry-mounted fusion laser cutting. The perceived benefits of this method of cutting are that the cut rate is increased (the scanner is capable of speeds of up to 8,000 mm/s) and that the thermal damage (measured in terms of electromagnetic performance, not physical material properties) is reduced, both with reference to the traditional fusion cutting baseline.

Materials being investigated are high-silicon steel (e.g. NO20) and cobalt iron (e.g. Hiperc50 - 49% cobalt content). Sheet thicknesses could range from 0.35 mm down to 0.1mm.

**VII.1.5) Duration of the contract, framework agreement, dynamic purchasing system or concession**

End date

31 March 2025

**VII.1.6) Information on value of the contract/lot/concession (excluding VAT)**

Total value of the contract/lot/concession:

£193,171.79

**VII.1.7) Name and address of the contractor/concessionaire**

IPG PHOTONICS (UK) LIMITED

Hawkfield Business Park

Bristol

BS14 0BY

Country

United Kingdom

NUTS code

- UK - United Kingdom

Companies House

04132272

The contractor/concessionaire is an SME

No

**VII.2) Information about modifications**

**VII.2.1) Description of the modifications**

Nature and extent of the modifications (with indication of possible earlier changes to the contract):

The modification involves the procurement of additional items, specifically the wobble drill and cutting head, which are essential for the optimal functionality and performance of the IPG short pulse laser system. These items were not part of the original contract scope but are necessary to enhance the system's capabilities and ensure its effective use.

This modification does not alter the fundamental nature of the original contract but rather supplements it with compatible components from the same manufacturer.

There have been no previous modifications to the contract. This change aligns with the initial procurement's intent, maintaining technical consistency, operational efficiency, and cost-effectiveness without altering the core contractual obligations.

### **VII.2.2) Reasons for modification**

Need for additional works, services or supplies by the original contractor/concessionaire.

Description of the economic or technical reasons and the inconvenience or duplication of cost preventing a change of contractor:

The modifications such as the wobble drill and cutting head are designed for the IPG short pulse laser, ensuring full compatibility and avoiding integration issues. Using a different supplier could void warranties, require additional modifications, and lack the same level of technical support. Procuring from another supplier would also lead to extra procurement steps, validation costs, training requirements, and potential project delays. Keeping the purchase with IPG ensures seamless integration, system reliability, and cost efficiency.

### **VII.2.3) Increase in price**

Updated total contract value before the modifications (taking into account possible earlier contract modifications, price adaptations and average inflation)

Value excluding VAT: £193,171.79

Total contract value after the modifications

Value excluding VAT: £238,910.79