

1591a - Framework for the Supply & Delivery of an NIR

Curing Unit

1 Introduction

This tender is to establish a Single Supplier Framework. This tender will cover all spare parts, consumables, servicing and maintenance. Further purchases of equipment of a similar nature are covered under this framework should they be required by CPI during the framework duration.

2 Background Information

CPI have a well-established capability in formulating and printing conductive inks in both our National Formulation Centre and National Printed Electronic Centre based at NetPark Sedgefield.

To add to this capability CPI Formulation are looking for an NIR curing unit for the processing of conductive inks to enable those inks that are challenging to process by conventional means due to sensitive substrates or require sintering. Particular Interest is in processing of copper nanoparticle inks

3 Technical Scope

Please refer to the 1591 URS document for the Technical Specification details

4 Additional Requirements (Equipment Only)

4.1 Height/Access Restrictions

The Tenderer is required to submit weights and footprint dimensions of all packaged equipment prior to shipment. Equipment will be required to fit into a space of 2 m by 1.5 m.

4.2 Design Requirements

All equipment is to be designed and manufactured to current European and UK legislation and directives as applicable and comply with the applicable EC directives in accordance with The Supply Of Machinery (Safety) Regulations 1992 (As Amended), including the CE mark, together with the supply of the required Certificate of Conformity

Equipment must be CE marked including all control panels and systems

Design and manufacture of equipment not covered by any specific design code shall conform to 'good engineering practice', and be suitable for its intended life expectancy of 10 years.

The vendor shall ensure that all necessary safety precautions are taken for the safe operation of the equipment

Noise from the system and any individual part shall be neither a hazard nor a nuisance to plant operators or local residents. Noise shall be below 78 dBA when measured at 1m from its source.

All information necessary for a safe installation design and safe operation of the equipment must be provided in the scope of supply and all machine, control panel and operator-machine interfaces labelling provided must be in English language.

The vendor as part of this contract shall supply any special tools required for installing, commissioning or maintaining the supplied equipment

4.3 Utilities

The Tenderer shall submit detailed requirements for electrical power, air, water and drainage as part of their offer.

CPI will provide electrical power, air, water, drainage and other utilities identified by the Tenderer, and will provide resources to connect the equipment to these services.

4.4 Guarantees

All equipment supplied by the Tenderer shall include a minimum warranty period of 18 months, as detailed in CPIs Terms and Conditions for the supply of Goods and On-site Services attached to this document, from commissioning. Options to extend the warranty period to 3 years should be included in the response to tender.

Supply of labour and materials for any rectification work are at the Tenderer cost during the warranty period.

Schedule of Faults Reported During the Warranty Period

Event	Time	Response
E1		CPI will report the error by telephone, in person or by e-mail
E2	E1 + 48 Hours	Technical assistance will be provided by telephone, in person or via e-mail. If issue is not resolved within 48 hours, CPI will inform the tenderer if the issue is causing an operational issue or if the system is Hard Down. Operational issues will mean that the equipment is capable of being used by CPI or their customers although there may be some loss of capability. A Hard Down issue means that the machine (or a major functionality thereof) is not capable of being operated by CPI or its customers.
E3	E2 + 120 Hours	Hard down issues will be rectified within 120 hours of the issue been reported. The Tenderer will provide a resolution plan for operational issues within 120 hours of the issue being reported.

Issues not resolved within 168 hours:

A warranty extension of 1 week will be granted if the Hard down issue is not resolved with 168 hours of being reported (E1), with a further 1-month extension for every additional week down. Time will include normal CPI working week, although clock will stop for bank holidays or CPI shutdowns. Operational Issues will normally be expected to be resolved within two weeks of being reported. Failure to resolve an operation issue within 1 month will incur a 1-month warranty extension.

Accrued warranty extensions will be able to be reduced by enhanced reliability performance – reduction of warranty extension by 1 month for each month with no Hard Down issues logged and all operational issues resolved.

4.5 Documentation

Documentation to be provided with the equipment shall include a general arrangement of the whole package including service connections, as well as individual arrangements and parts drawings adequate to support installation and maintenance of the equipment.

4.6 Operating and Maintenance Manuals

Prior to delivery to site the Tenderer must submit 2 copies of the operation and maintenance manuals to CPI, one printed on paper. One copy is required on CD/USB. The manuals shall be in English language and include:

- Adequate information for the safe installation of the equipment.
- Adequate information for the safe operation of the equipment.
- Guidance for safe maintenance.
- Full Bill of materials
- A recommended parts list with costs and tenderers' details.
- Schematics (Where applicable)

4.7 Inspection and Testing

Following assembly of the equipment, a testing program shall be undertaken in the CPI's works, to ensure that the unit operates in accordance with the manufacturer's specifications. The CPI may, if appropriate, send a representative to observe this process.

4.8 Installation, Commissioning and Training

The Tenderer will be responsible for supply, delivery, installation, commissioning, and training of users.

Prior to the delivery to site, the tenderer will carry out a test programme at their facility to demonstrate major function operation, the Factory Acceptance Test, FAT, is to be defined in the tender offer and is to be carried out with the attendance of a nominated representative(s) of CPI, with analysis to be carried out on any samples made.

The Tenderer shall demonstrate to the satisfaction of the CPI's representative that the equipment is safe, fit for purpose, and meets any agreed performance parameters.

Performance of the machine would be expected to be demonstrated during FAT and Site Acceptance Test (SAT) before full acceptance. Following assembly of the equipment, a testing programme shall be undertaken in the CPI facility to ensure that the unit operates in accordance with the required specifications.

A suitably experienced and qualified engineer will be provided for the supervision of the installation, commissioning and training of users for this equipment.

Training on the equipment must be provided to users to ensure efficient and safe operation and routine maintenance can be carried out

A short induction and introduction to the CPI site may be required for any engineers or technicians attending before Lab access can be allowed. This will last for a maximum of half a day.

4.9 Maintenance

The tenderer shall supply details of an ongoing maintenance contract to cover an additional 2 years maintenance. Please provide a fixed fee for this. Optional extension for Year 4 and 5 coverage should be detailed within your response where available.

4.10 Delivery

The Tenderer shall deliver the equipment to the CPI National Formulation Centre, NETPark, Sedgfield, Co. Durham, UK. Any further equipment purchases may be made to any of the other CPI sites both existing and future.

Delivery period should be provided in the response to tender and provide expected timescales from receipt of order and the duration of the installation and commissioning activities.

All items are to be marked with CPI's Purchase Order number when delivered.

4.11 Milestones

The envisaged payment terms are set out below, which are subject to change. CPI reserves the right to change these upon placement order and are dependent on CPI's project requirements.

- 30% payment upon receipt of order confirmation
- 60% payment upon satisfactory delivery of all items detailed in the specification
- 10% payment upon satisfactory installation of all items detailed in the specification