**SECTION TWO: SPECIFICATION**

Section two of this ITT sets out the requirement for which the Customer invites Bidders to submit a Tender Response.

1. **Summary**

The requirement is for equipment to automatically dry extracts or fractions into screw-capped glass vials with minimal manual intervention and without cross contamination so that the dried samples can be weighed, stored or dissolved in solvent for further processing. The solvent to be removed is generally 1 to 10 ml of 100% methanol, 100% water or mixtures of methanol-water.

The equipment must be delivered and installed, and training provided.

1. **Scope of Requirements**

|  |  |  |
| --- | --- | --- |
| **Requirement reference** | **Specification** | **Scoring methodology / Weighting** |
| Technical | | |
| 1 | The equipment must dry the sample directly into a glass vial. | Pass/Fail |
| 2 | After being set-up by the operator, the equipment must dry at least 10 samples (each having a solvent volume of up to 10 ml) into 10 vials without further manual intervention. | Pass/Fail |
| 3 | The equipment must not subject samples dissolved in water, methanol or water-methanol mixtures to temperatures in excess of 50 °C | Pass/Fail |
| 4 | Other than an electrical supply, the equipment must not require any other continuous external supply to operate. Specifically the equipment must not require a supply of dry nitrogen gas. | Pass/Fail |
| 5 | The equipment must be bench-top and not exceed 700 mm (L) x 500 mm (D) x 900 mm (H) so that it will fit into a fume cupboard. | Pass/Fail |
| 6 | The equipment should dry one sample in 10 ml water at or below 50°C in less than 20 min. | Pass/Fail |
| 7 | The equipment should be self-contained within the dimensions in the above specification and be easily movable (e.g. into a fume cupboard). | 5% |
| 8 | The equipment should dry samples in a range of common solvents and additives (e.g. water, methanol, ethanol, DMSO, acetone, hexane, diethyl ether, butanol, chloroform, dichloromethane, acetic acid, formic acid, hydrochloric acid) and any exhaust vapours should be controlled. | 20% |
| 9 | The equipment should dry samples into the glass screwthread vials currently used in our laboratory (see below for vial details). | 20% |
| 10 | The equipment should not contaminate one sample with another | 30% |
| 11 | The equipment should not add significantly to existing laboratory noise levels. | 5% |
| 12 | Minimum 1 year warranty, inclusive of parts, labour and call-out charges | Pass/Fail |
| Commercial | | |
| 13 | Price to provide all requirements above, fully inclusive of delivery and installation | 30% |
| Total | | 100% |

**Details for vials used in our laboratory**.

We believe the thickness of the glass on the vials to be 1 mm:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nominal dram | Capacity (ml) | Height (mm) | Diameter (mm) | Neck bore (mm) |
| 2.00 | 7.00 | 42.00 | 20.00 | 13.00 |
| 4.00 | 14.00 | 58.00 | 23.00 | 15.50 |
| 8.00 | 28.25 | 72.00 | 27.50 | 21.00 |

1. **Delivery & installation**

The equipment must be delivered and unloaded to the Jodrell Laboratory, Royal Botanic Gardens Kew, Richmond, Surrey TW9 3DS and subsequently installed by the supplier within 1 month of delivery.

At least 1 weeks’ notice must be given prior to delivery and installation.

1. **Training**

Training should be provided at the time of installation or within one month of installation.

1. **Warranties & Servicing**

The equipment must come with a minimum of one year’s warranty. We are also interested in an extended warranty of up to a further 4 years. All warranties offered shall be inclusive of parts, labour, any servicing required to maintain the warranty, and call-out charges.

Where you are unable to offer an extended warranty, you may propose a service package providing equivalent maintenance and support.

1. **IT Software & Hardware**

We do not expect the equipment to be operated via a separate PC in order to comply with the specifications. If it does, then this PC should be supplied.

1. **Sustainability**

The equipment should capture most of the solvent vapour so that solvent can be disposed in the correct manner. The equipment should not require a constant external supply of cooling water (see requirement 4).