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भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE
Centre for Design and Manufacture

ट्रॉम्बे,
मुंबई-४०० ०८५.
TROMBAY,
MUMBAI -400 085

January 07, 2019

To,

Sub: Invitation of quotation for minor fabrication of ISO 45 Adaptor with Micro Boring Kits and Extensions.

Tender No. BARC/MF/CDM/402/2018-19/19 dated 03.01.2019

Dear Sir,

You are requested to send the most competitive quotation for ISO 45 Adaptor with Micro Boring Kits and Extensions as per the specification attached in the Annexure-1 and other term & condition as follows.

1.0 Prices:

- (i) The party should quote the total price for given quantity.
- (ii) Basic price and taxes shall be quoted separately. Any other levies or duties if required and applicable shall be mentioned in the offer.
- (iii) The applicable GST is at the concessional rate of 5 percent as the subject items are required for research purpose only. A certificate to this effect will be issued by the competent authority.

2.0 Work completion period:

- (i) Time required for delivering ISO 45 adaptor with micro boring kits and extensions will be three months after placement of purchase order.

3.0 Free issue material:

No free issue material will be provided.

4.0 Penalty:

Any delay which is attributable to the contractor is liable for penalty @ $\frac{1}{2}$ % per week (max 5 %) to be imposed on the contractor

5.0 Payment:

No advance/part payment will be made. Full payment will be made by ECS/RTGS within 6 to 8 weeks after satisfactory completion of works and submission of bills with advance stamped receipt, ECS/RTGS payment option and undertaking of GST forms. It may be ensured that PAN No. & GST No. Of the suppliers are mentioned in the quotation.

6.0 Deduction of taxes and surcharges:

Income tax @ 2% (or as applicable) plus education cess will be deducted from the bill.

7.0 Confidentiality Clause:

Confidentiality:

No party shall disclose any information to any third party concerning the matter under this contract.

Restricted information

Categories under section 18 of the Atomic Energy Act, 1962 and “official secrets” under section 5 of Official Secret Act, 1923 – Any contravention of the above mentioned provisions by any contractor, sub-contractor, consultant, advisor or the employee of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC’s name without permission for publicity

The contractor or sub contractor, consultant, advisor or the employees engaged by the contractor shall not use BARC’s name for any publicity purpose through any public media like press, radio, TV or internet without the prior written approval of BARC.

8.0 General Instruction:

- (i) The Contractor shall follow all the security procedures for working in BARC. The contractor should arrange for the PVC of the persons working inside BARC and should be responsible to submit all the supporting documents for the preparation of entry pass.
- (ii) All the persons who work shall be physically & mentally fit and shall follow industrial & safety precautions and BARC shall not be responsible for any damage, injury, death etc. of any contractor’s personnel under any circumstances.
- (iii) Sealed Quotation should be super scribed as “**ISO 45 Adaptor with Micro Boring Kits and Extensions at CDM**”, with tender number BARC/MF/CDM/402/2018-19/19 dated 03.01.2019 of this inquiry letter.
- (iv) The progress of work will be reviewed periodically. If the work is not carried out by the contractor satisfactorily and any deficiency is noticed, recovery towards the deficiency will be made from the contractor’s bill and the decision of Competent Authority shall be final and binding on the contractor.

- (v) Competent Authority reserved the right to terminate the contract at any stage of execution of the contract, without assigning any reasons.

The sealed quotation delivered by Indian post should reach the undersigned before 1500 hrs. on 20th February 2019 .

Thanking you.

Yours faithfully

Sd/-

(P.I.Hadagali)
Head, Machine Shops,
Centre for Design & Manufacture
Bhabha Atomic Research Centre
Trombay, Mumbai-400085.

Head, SIRD, BARC Trombay, Mumbai-85
(For uploading of tender information at BARC website)

Annexure-1
ISO 45 adaptor with Micro Boring kits and Extensions.

Sl.No	Description	Qty.
1.	Basic Adaptor ISO 45 7388/1, DIN 69871, (Type A), Basic adaptor 7 numbers will be further divided depend on the coupling sizes of the modular tool holders.	7
2	Retention Stud ISO 45 7388/2-A, DIN 69872, M 20 as per attached sketch.	7
3.	Taper adaptor ISO 30 DIN 69871 A with coupling size MHD 50 or equivalent to suit with the spindle head taper of vertical attachment of the machine.	1
4.	Extension Head 50 mm long for coupling size MHD 50 or equivalent to suit with basic adaptor for Serial No. 1.	1
5.	Extension Head 80 mm long for coupling size MHD 50 or equivalent to suit with basic adaptor for Serial No. 1.	1
6.	Extension Head 100 mm long for coupling size MHD 50 or equivalent to suit with basic adaptor for Serial No. 1.	1
7.	Extension Head 63 mm long for coupling size MHD 63 or equivalent to suit with basic adaptor for Serial No. 1.	1
8.	Extension Head 100 mm long for coupling size MHD 63 or equivalent to suit with basic adaptor for Serial No. 1.	1
9.	Extension Head 125 mm long for coupling size MHD 63 or equivalent to suit with basic adaptor for Serial No. 1.	1
10.	Extension Head 80 mm long for coupling size MHD 80 or equivalent to suit with basic adaptor for Serial No. 1.	1
11.	Extension Head 125 mm long for coupling size MHD 80 or equivalent to suit with basic adaptor for Serial No. 1.	1
12.	Extension Head 160 mm long for coupling size MHD 80 or equivalent to suit with basic adaptor for Serial No. 1.	1
13.	Micro Boring Kits suitable for ISO 45 spindle head. Boring diameter range 6 mm to 220 mm with a radial correction of 1 micron. Mention the number of micro boring heads required in step to cover the entire range 6 mm to 220 mm diameter and detail of holders with quantity will be supplied along with the kits. The cost will be evaluated in single unit.	1 set
14.	Necessary spares and consumables for Micro Boring kits (for Serial No. 13) such as ISO inserts, screws, keys etc. should be mentioned with quantity and quote separately.	1 set

Technical specification includes the following notes and other terms and conditions:-

1. All taper shank base adapters will be fitted on CNC high precision boring machine spindle (Make, M/s SIP, Switzerland, Model 7000/7 4A) and tolerance on taper shank will be AT-3 or better and surface finish Ra 0.2 micron or better. Taper contact should be more than 95%.
2. All the taper shank base adapters should be as per ISO 45 Nr 7388/1, DIN 69871 (Type A), Retention studs as per ISO 45 Nr 7388/2, DIN 69872 (Type A) M 20 (refer sketch for retention studs) and it should be compatible with Automatic Tool Changer (ATC).
3. The coupling size should ensure the interchangeability of all elements of the system that includes the basic adaptors, collect chucks, milling holders, extensions, and micro boring heads etc and it should be compatible with our existing modular tools D'andrea make MHD 50, 63 and 80 couplings.

4. The micro boring head should have radial correction of 0.001 mm. It can be effected directly on the machine and easily read on the vernier scale. High precision work IT6 grade tolerance with excellent surface finish should be achieved by using the micro boring head.

General terms & conditions:

1. The quotation should clearly mention the brand and the model No/Catalogue No. of the product being offered.
2. Each quotation should be accompanied by relevant copies of the manufacturer's catalogue where the quoted products are listed and it should be readily available.
3. This is a modular tooling system, so the list of above tools will be evaluated in a single package and individual tool will not be considered. Hence bidders are requested to quote the minimum inventory to cover the entire above modular tool system.
4. The material should be supplied in original sealed packing of the company.
5. Payment would be made only after final inspection & testing of all items at CDM, BARC.

Acceptance Criteria:

1. Sample holders/tools for testing of geometrical features and tolerances must be provided on demand. Such tests would be carried out on the machine at CDM, BARC. Items would be returned to the supplier after tests as it condition. If the suppliers are unable to provide sample holder/tools for testing on demand their offers will not be considered and it will be rejected.

Retention Stud ISO 45 7388/2-A, DIN 69872

(All dimensions in the sketch are in

mm)

DK 621.9-229.2:621.882.6 DEUTSCHE NORM November 1985

Anzugsbolzen für Zangenspannung

DIN 69 872

Retention knob for collet clamping
Embout de tirage pour serrage de pinces Ersatz für Ausgabe 06.82

Zusammenhang mit der von der International Organization for Standardization (ISO) herausgegebenen Norm ISO 7388/2 - 1984, siehe Erläuterungen.

Maße in mm

1 Anwendungsbereich
Anzugsbolzen nach dieser Norm gelten für Steilkegelschäfte für automatischen Werkzeugwechsel nach DIN 69 871 Teil 1 und Teil 2.

2 Maße, Bezeichnung
Nicht angegebene Einzelheiten sind zweckentsprechend zu wählen.
Allgemeintoleranzen: DIN 7168 - m

Bezeichnung eines Anzugsbolzens von $d_1 = 28$ mm:
Anzugsbolzen DIN 69 872 - 28

Für Steilkegel Nr	d_1	d_2	d_3	d_4	d_5	d_6	l_1	l_2	l_3	l_4	l_5	s
30	13	9	17	13	M 12	-	44	24	19	15	4	14
40	19	14	23	17	M 16	7	54	26	20	21	4	19
45	23	17	30	21	M 20	9,5	65	30	23	27	5	24
50/55	28	21	36	25	M 24	11,5	74	34	25	30	5	30

All dimensions are in mm

Fortsetzung Seite 2

Normenausschuß Werkzeuge und Spannzeuge (FWS) im DIN Deutsches Institut für Normung e.V.
Normenausschuß Werkzeugmaschinen (NWM) im DIN

Jede Art der Vervielfältigung, auch auszugsweise, nur mit Genehmigung des DIN Deutsches Institut für Normung e.V., Berlin, gestattet.