Ref. No.: BARC/APPD/LDS/LM/2020/Cavity  Date: 18/08/2020

Subject: Inviting quotations for Material Procurement, inspection, fabrication, vacuum testing, inspection and supply of High Precession cavity components along with beam line components as per required specifications.

Quotation are invited on behalf of the President of India for Inviting quotations for Material Procurement, inspection, fabrication, vacuum testing, inspection and supply of High Precession cavity components along with beam line components as per required specifications. Terms & conditions are given below.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description of the Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Material Procurement, fabrication, vacuum testing, inspection and supply of S.S 304L cavities, beam line components, linear guides, support table as per tolerance and precision mentioned in the drawings attached at EBC, APPD, BARC, Kharghar.</td>
</tr>
</tbody>
</table>

Terms and Conditions:
1. As the item is for Ultra High Vacuum application, the manufacturer should have sufficient knowledge and experience of making such ultra-high vacuum compatible jobs, hence please attach relevant documents otherwise the offer is liable to be rejected without any notification. Submission of specifications and source of standard bought out components. Purchase, procurement, testing and identification of material as per the materials mentioned in the annexure-A. Submission of MPS, QA/QC and ATP documents for approval. Stage wise inspection as per the approved QAP & QCP.

2. The material third party test report and material inspection will be carried out before the start of the fabrication work.

3. The quotations should have the minimum validity period of three months.

4. The acceptance terms and conditions are as per the note mentioned on the sketch attached. Supplier should submit their offers via speed post/ email to btdg.barc.gov.in on their letterhead, with the above-mentioned Reference No., due date and Title “Material Procurement, inspection, fabrication, vacuum testing, inspection and supply of High Precession cavity components along with beam line components as per required specifications., before 31-08-2020 (10:00 am). The quotation should contain the following details like (i) PAN NO, (ii) Period of validity, (iii) Approximate period
of completion of job, (iv) Copies of registration and income tax clearance certificates, (v) terms and conditions of offer.

5. The fabrication of the item shall be subjected to inspection by our Scientists / Engineers at the supplier’s works. Necessary inspection facilities should be provided to them during fabrication at the supplier’s premises. The purchaser has the right to make the minor modifications in the specifications if required. Additional charges will not be admissible for such minor modifications, if any. The item should be delivered to us at the EBC, APPD, BARC, Kharghar, after approval by our Scientists / Engineers.

6. Please note that shorter delivery period will be preferred. For any clarifications you may contact, Love Mishra, Manjunatha H.K, APPD, BARC on Tel. 25593464.

8. Payment will be made only after delivery and installation of the item to the above-mentioned address and approval by our Scientists / Engineers as per BARC rules.

Love Mishra
(SO(D), APPD, BARC.)

Dr. J. Mondal,
(OIC, LDT, M&LDS, APPD, BARC.)

Dr Archana Sharma
(Associate Director, BTDG, BARC.)
<table>
<thead>
<tr>
<th>Item Serial. No</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S.S 304L High Precision cavity</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>2</td>
<td>S.S 304L, CF160 to Rotatable CF 40 flange adapter, length: 55mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>3</td>
<td>S.S 304L, CF63 to Rotatable CF 40 flange adapter, length: 55mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>4</td>
<td>S.S 304L, CF160 to Rotatable CF 40 flange adapter, length: 132.5mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>5</td>
<td>S.S 304L, CF63 to Rotatable CF 40 flange adapter, length: 122.5mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>6</td>
<td>S.S 304L, CF40 to Rotatable CF 40 flange adapter, length: 66mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>7</td>
<td>S.S 304L, CF40 to Rotatable CF 40 flange adapter, length: 66mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>8</td>
<td>S.S 304L, CF 40 Extension flange</td>
<td>4 Nos.</td>
</tr>
<tr>
<td>9</td>
<td>OFHC Faraday Cup, with faraday Cup Mounting Flange, Signal end Flange CF 63</td>
<td>1 No.</td>
</tr>
<tr>
<td>10</td>
<td>S.S 304L, CF 16 Extension flange</td>
<td>1 No.</td>
</tr>
<tr>
<td>11</td>
<td>S.S 304L, CF63 Four way, 2 fixed and 2 rotatable flanges, length: 210mm.</td>
<td>1 No.</td>
</tr>
<tr>
<td>12</td>
<td>Scintillator Mounting Flange</td>
<td>1 No.</td>
</tr>
<tr>
<td>13</td>
<td>Movable and jack supported S.S 304 Support Table (600mm by 1200m of height 1000mm) with two parallel linear guides of length 1200mm and gap 150mm.</td>
<td>1 No</td>
</tr>
<tr>
<td>14</td>
<td>Linear Guide Holder for supporting solenoids of diameter: 120mm.</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>15</td>
<td>Linear Guide Holder for CF 63 Flanges</td>
<td>3 Nos.</td>
</tr>
<tr>
<td>16</td>
<td>Linear Guide for CF 160 Flange</td>
<td>2 Nos.</td>
</tr>
</tbody>
</table>
NOTE: ALL OVER SURFACE FINISH
0.8 MICRONS OR BETTER
REMOVE ALL BURRS AND SHARP CORNERS.
EDGES TO R= 0.1 MAX.

MATERIAL - SS-304L
QUANTITY - 01

SECTION A-A'  FRONT VIEW

SIDE VIEW

FILE No.: W.O. No.: CODE NO.: APP: SHEET NO. OR B.T.

DETAIL OF CAVITY 1

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

LINEAR DIMENSIONS

UP TO

± 0.01

± 0.1

± 0.2

± 0.3

± 0.5

± 1.0

± 1.5

± 2.0

± 3.0

± 4.0

± 5.0

± 6.0

± 8.0

± 10.0

LENGTH OF HOLE

SIDE OF ANGLE

SURFACE FINISH

BY SCRAPE 5 MICRONS

CHAMFER 1 x 45°

THESE TO BE LETTERED IN MANUFACTURER'S NAME AND ADDRESS.

1. ALL DIMENSIONS ARE IN MILLIMETERS

2. REMOVE SHARP CORNERS AND BURRS.
NOTE: ALL OVER SURFACE FINISH 0.8 MICRONS OR BETTER. REMOVE ALL BURRS AND SHARP CORNERS. EDGES TO R=0.1 MAX.

MATERIAL: SS-304L
QUANTITY: 01

FILE No.:
W.O. No.:
CODE No.:

DETAIL OF CAVITY 2

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

LINEAR DIMENSIONS
UP TO Tolerance
6 - 30 ± 0.2
30 - 120 ± 0.5
120 - 345 ± 0.8
355 - 1600 ± 1.2

SURFACE FINISH
LENGTH OF SHORTER SIDE OF ANGLE
1 - 6 ± 0.1
6 - 30 ± 0.2° 20°
30 - 120 ± 0.2° 20°
120 - 400 ± 0° 10°

CHAMFER 1 x 45°

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS.
1. REMOVE SHARP CORNERS AND BURRS.
2. REMOVE ALL BURRS AND SHARP CORNERS.
3. EDGES TO R=0.1 MAX.

SIGNATURE

PB-I-C-002
0
**SECTION A-A'**

**FRONT VIEW**

**SIDE VIEW**

**DETAIL OF A'-A'**

**NOTE:** ALL OVER SURFACE FINISH 0.8 MICRONS OR BETTER. REMOVE ALL BURRS AND SHARP CORNERS. EDGES TO R=0.1 MAX.

**MATERIAL:** SS-304L

**QUANTITY:** 0 Inst.

---

**GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED**

<table>
<thead>
<tr>
<th>NO. LOC</th>
<th>DESCRIPTION</th>
<th>DEPTH</th>
<th>APPD. DATE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>1000</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>2000</td>
<td>2000</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

1. **LINEAR DIMENSIONS**

   - **UP TO 30**: ± 0.2
   - **30 - 120**: ± 0.3
   - **120 - 315**: ± 0.5
   - **315 - 1000**: ± 0.8
   - **1000 - 2000**: ± 1.2
   - **2000 - 4000**: ± 2.0

2. **SURFACE FINISH**

   - **LENGTH OF SHOTTER**: ± 0.1°
   - **MATERIAL**: 3.5 µm
   - **CHAMFER**: ± 45°

3. **MATERIAL**: SS-304L

4. **QUANTITY**: 0 Inst.

---

**PROJECT OR SECTION**: DETAIL OF WAVEGUIDE WITH FLANGE DN1000CF

**TITLE**: DETAIL OF WAVEGUIDE WITH FLANGE DN1000CF

**FILE No.**

**W. O. No.**

**CODE No.**

**APP'D.**

**SHEET NO. OF SHEETS**

**SCALE**: 2/10

**DRAWN**

**CHECKED**

**DESIGNED**

**REV.**

**PROJ.**

**SRG. No.**

**PB-1-WF-001** 0
WELDMET OF COMPONENTS

NOTE:
JOINTS SHOULD BE AT LEAST 5.0atm PRESSURE HYDRO LEAK PROOF.

MATERIAL - SS-304L
QUANTITY - 02 assembly

WELDABLE SWAGELOK TUBE
FITTING FOR 6mm OD TUBE.
MATERIAL - SS-316
QUANTITY - 04no.

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

FILE No.: PB-1-WC-001

DETAILED OF COOLING ARRANGEMENT FOR CAVITY

A B C D E F G H

<table>
<thead>
<tr>
<th>NO. LOC</th>
<th>DESCRIPTION</th>
<th>SPN</th>
<th>APPL. DATE</th>
<th>DATE</th>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. REMOVE SHARP CORNERS AND BURRS
SECTION A-A'
FRONT VIEW

SIDE VIEW

NOTE: ALL OVER SURFACE FINISH 0.8 MICRONS OR BETTER, REMOVE ALL BURRS AND SHARP CORNERS, EDGES TO R=0.1 MAX.

MATERIAL - SS-304L
QUANTITY - 01 pc.
SECTION A-A'
FRONT VIEW

SIDE VIEW

NOTE: ALL OVER SURFACE FINISH 0.8 MICRONS OR BETTER.
REMOVE ALL BURRS AND SHARP CORNERS.
EDGES TO R=0.1 MAX.

MATERIAL - SS-304L
QUANTITY - 01's.