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भारतीय ताराभौतिकी संस्थान
INDIAN INSTITUTE OF ASTROPHYSICS
कोरमंगला / KORAMANGALA
बेंगलूर / BANGALORE - 560 034.

No: PUR/IMP/PUK/UVIT-ISRO/99/07-08

March 14, 2008

M/s.

Dear Sirs,

The Director, Indian Institute of Astrophysics, Bangalore invites Sealed Tenders for the Import of “ **Supply of Titanium/ stainless steel fasteners for UVIT System** ” detailed in the Tender Form hereto annexed. The terms and conditions are also enclosed may be noted and if you are in a position to quote for the supply in accordance with the requirement, please submit your quotation in the attached Tender Form. The Tender documents are available on IIA web site www.iiap.res.in/tenders.htm

The Tender bids should be in foreign currency only. Your completed Tender bids must reach this office in sealed envelope duly superscribed with the name of the supply on or before **15.30 Hrs. latest by 14.04.2008.**

Thanking you,

Yours faithfully,

Encl.: as above.

Administrative Officer
For Director



PUBLIC TENDER DOCUMENT NO: PUR/IMP/PUK/UVIT-ISO/99/07-08.
DT: 14.03.2008

TENDER FORM

FROM:

TO

THE DIRECTOR,
Indian Institute of Astrophysics.,
Bangalore-560 034.

Sir,

I/We hereby offer to supply the Items/Equipment indicated below at the price hereunder quoted and agree to hold this office open till _____. I/We shall be bound to supply the Items/Equipment hereby offered upon the issue of the Purchase Order communicating to the acceptance thereof on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of such Items/Equipment. I/We notwithstanding that the offer in this tender has not been accepted in whole, shall be bound to supply such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.

Sl.No.	Description of the item(s)	Qty.	Unit	Rate	Dely. Period
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1. Supply of Titanium/ Stainless steel fasteners for the UVIT System as per the enclosed size/quantity list and technical specification enclosed Annexure A and Annexure B

(Tender bids should be in Foreign currency only)



Place at which the Delivery is required : Indian Institute of Astrophysics
Bangalore-560034

Date by which the supplies are required : 4 weeks from the date of order

2. I/We have understood the items of the tender annexed to the invitation to the Tender and have thoroughly examined the specifications/drawing and /or pattern quoted or referred to herein and/are fully aware of the nature of the items/Equipment required and my/our offer is to supply the items/Equipment strictly in accordance with the requirements subject to the terms and conditions contained in the Purchase Order communicating the acceptance of this tender either in whole or in part.

Date:

Signature and Seal of Supplier

Annexure A

FASTENERS SPECIFICATIONS & QUANTITY.			
Sl No	Fasteners Specification	Size in mm	Order Qty.
1	Hexagon socket head cap screws	M3x0.5x10	25/50
2	Hexagon socket head cap screws	M3x0.5x14	100/200
3	Hexagon socket head cap screws	M3x0.5x18	25/50
4	Hexagon socket head cap screws	M3x0.5x20	25/50
5	Hexagon socket head cap screws	M4x0.7x12	200/300
6	Hexagon socket head cap screws	M4x0.7x16	50/100
7	Hexagon socket head cap screws	M4x0.7x18	1000/1500/2000
8	Hexagon socket head cap screws	M5x0.8x10	50/100
9	Hexagon socket head cap screws	M5x0.8x25	50/100
10	Hexagon socket head cap screws	M6x1x40	200/300
11	Hexagon socket head cap screws	M6x1x60	200/300
12	Hexagon socket head cap screws	M8x1.25x30	50/100
13	CSK socket head cap screws	M3x0.5x5	200/300
14	CSK socket head cap screws	M3x0.5x10	200/300
15	Std hexagonal nut	M3x0.5	100/200
16	Std hexagonal nut	M4X0.7	1000/2000
17	Std hexagonal nut	M5X0.8	50/100
18	Std hexagonal nut	M6x1	200/300
19	Plain washer	M3	200/300
20	Plain washer	M4	2000/3000
21	Plain washer	M5	100/200
22	Plain washer	M6	1000/2000
23	Plain washer	M8	100/200
24	Thread inserts (Helicoils)	M3x0.5x3	200/300
25	Thread inserts (Helicoils)	M3x0.5x4.5	200/300
26	Thread inserts (Helicoils)	M4x0.7x6	50/100
27	Thread inserts (Helicoils)	M4x0.7x8	50/100
28	Thread inserts (Helicoils)	M8x12	50/100
29	Dowel pin	Diameter 4x10 long, M6	200/300
30	Dowel pin	Diameter 4x25 long, M6	50/100

Annexure – B

Specifications of Titanium Fasteners for UVIT

Specifications:

1. Hexagon Socket Head Cap Screws:

Thread: Metric thread as per ISO 68; Tolerance: 4h, as per ISO 965.

Fastener: Grade A as per ISO 4762

Surface finish: (Before Protection) Ra maximum: 3.2 microns

End of fastener: Chamfered as per ISO 4753

Material: Ti 6Al 4V as per AMS 4967 G;

Ultimate tensile strength, minimum: 1100 MPa, Yield strength: 900 MPa.

Fastener acceptance inspection: ISO 3269, Test method: as per ISO 898

Tolerance on fasteners: as per ISO 4759/1

Acceptable surface discontinuities: as per 6157-3.

Magnetic cleanliness; Non magnetic

Sampling procedure: as per ISO 3269-1984(E)

Surface coating: Basic option: No coating; No oil;

Also quote for screws with MoS2 Dry Film separately.

2. Socket Head Countersunk Screws:

Thread: Metric thread as per ISO 68; Tolerance: 4h, as per ISO 965.

Fastener: Grade A as per ISO 10642:1997 / DIN 7991

Surface finish: (Before Protection) Ra maximum: 3.2 microns

End of fastener: Chamfered as per ISO 4753

Material: Ti 6Al 4V as per AMS 4967 G;

Ultimate tensile strength, minimum: 1100 MPa, Yield strength: 900 MPa.

Fastener acceptance inspection: ISO 3269, Test method: as per ISO 898

Tolerance on fasteners: as per ISO 4759/1

Acceptable surface discontinuities: as per 6157-3.

Magnetic cleanliness; Non magnetic

Sampling procedure: as per ISO 3269-1984(E)

Surface coating: Basic option: No coating; No oil;

Also quote for screws with MoS2 Dry Film separately.

3. Hexagon Nuts:

Thread: Metric Thread as per ISO 68; Tolerance: 4H5H, as per ISO 965

Fastener: Grade A as per ISO 4032

Surface finish: Ra maximum: 3.2 microns

Material: Ti 6Al 4V as per AMS 4967 G;

Ultimate tensile strength, minimum: 1100 MPa, Yield strength: 900 MPa.

Fastener acceptance inspection: ISO 3269, Test method: as per ISO 898

Tolerance on fasteners: as per ISO 4759/1

Acceptable surface discontinuities: as per 6157-3.

Magnetic cleanliness; Non magnetic

Sampling procedure: as per ISO 3269-1984(E)

Coating: no coating, no oil.

4. Plain Washers (metric):

Applicable Standard: ISO 7089, Product grade A

Acceptance Inspection: ISO 3269

Tolerances: as per ISO 4759/3

Material: Ti 6Al 4V as per AMS 4967 G;

Ultimate tensile strength minimum: 1100 MPa, Yield strength: 900MPa.

Test method: as per ISO 898.

Acceptable surface discontinuities: as per 6157-3.

Magnetic cleanliness; Non magnetic

Surface finish: Ra maximum: 3.2 microns

Surface coating: no coating, no oil.

5. Dowel Pin (metric):

Stainless Steel, Dowel Pins - m6 Tolerance as per ISO 2338A : 1997

Surface Treatment: Clear Passivated.

Chamfer both ends (0.4X45 degree)

6. Helicoils / Wire thread Inserts: Metric, Screw Lock

Applicable Standard: SAE MA 3329 and MA 1565 Rev.A

Material: SS 304 as per AS 7245

Hardness: 43 to 50 RC

Mechanical properties: Ultimate tensile strength \geq 1375 MPa

Bending: wire shall withstand, without cracking, bending when tested in accordance with AS 7245

Threads: The inserts when installed in threaded holes conforming to MA 1567, shall form threads conforming to ISO metric screw thread – M profile.

Locking torque: As per table given below

Surface roughness: 0.2 to 0.4 micron

Acceptance inspection: As per SAE MA 1565 Rev. A

Sampling procedure: as per SAE MA 1565 Rev. A

Surface coating: No coating

Nominal thread size	Maximum locking torque N-m	Min. breakaway torque, 15 th cycle N-m
M3x0.5	0.44	0.10
M4x0.7	0.90	0.16
M5x0.8	1.60	0.30
M6x1	3.00	0.40
M8x1.25	6.00	0.80

Notes:

1. Nominal sizes and the quantities required are given in a separate sheet.

2. Suppliers can use equivalent national / international standards, but shall in their data package, mention the standard used and its equivalence to above mentioned ISO standards.



Annexure - I

INSTRUCTIONS TO SUPPLIERS

1. Tenders should be sent in sealed and superscribed envelopes with mention of Tender No. date and date of opening. Only one Tender should be sent in each envelope.
2. Late and Delayed Tender will not considered at all.
3. Duties, Taxes where legally leviable and intended to be claimed should be distinctly shown separately in the Tender.
4. a) Your quotation should be valid for 90-120 days from the date. of opening of Tender

b) Prices are required to be quoted accordingly to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. Preference will be given to those tenders offering supplies from ready stocks and on the basis of delivery at Site.
6. a) All available Technical Literature(s), Catalogue(s) and other data in support of the specifications and details of the item(s) should be furnished along with the offer.

b) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should indicated in your offer.

c) Air freight/sea freight charges up to Bangalore Airport may be sent along with the offer.



d) SPECIFICATIONS:

Items/Equipment offered should strictly conform to our specifications. Deviation, if any should be clearly indicated by the Supplier in their quotation. The Supplier should also indicate the Make/type No. of the stores offered and provide catalogue(s), Technical literature(s) and sample(s), wherever necessary along with the quotations. Test certificates wherever necessary should be forwarded along with the supplies. Whenever options are called for in our specifications, the Supplier should address all such options. Wherever specifically mentioned by us the Supplier could suggest changes to specifications with appropriate response for the same.

1. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.
2. The Supplier should supply along with the tender, the Banking information for payment or any other purpose
3. A complete set of instruction and operation manual should be supplied at the time of installation.
4. Final performance should be guaranteed at the site.



TERMS AND CONDITIONS OF CONTRACT

1. DEFINITIONS:

- a). The terms 'Purchaser' shall mean the Director, Indian Institute of Astrophysics, Bangalore-560 034.
- b). The term 'Supplier' shall mean, the person, firm or company with whom or with which the order for the supply of Items/Equipment is placed.
- c). The terms 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorized intimating the acceptance on behalf the Purchaser on the terms and conditions mentioned or referred to in the said communications accepting the tender or offer of the supplier for supply of Items/Equipment.

2. PRICES:

The price may please be indicated on unit basis only.

Duty Exemption:

Please note that we may issue "Customs duty Exemption Certificate", if acceptable under the Govt. of India notification No. 51/96 valid till 2011.

3. GUARANTEE AND REPLACEMENT:

- a) The Supplier shall guarantee that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Guarantee should be for a period of one year minimum from the date of supply.



4. **PACKING, FORWARDING AND INSURANCE:**

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packing shall be done by and at the expenses of the contractor. The Purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Supplier and the Purchaser shall pay only for such Items/Equipment as are actually received in good condition, in accordance with contract.

5. **TEST CERTIFICATE:**

Wherever required Test Certificate should be sent along with the relevant dispatch documents

6. **ACCEPTANCE OF ITEMS/EQUIPMENT:**

a) The Items/Equipment shall be tendered by the supplier for inspection at such places as may be specified by the purchaser at the suppliers own risk, expenses and cost.

b) It is expressly agreed that the acceptance of Items/Equipment, for is subject to final approval by the Purchaser, whose decision shall be final.

7. **DELIVERY PERIOD:**

Delivery is the essence of the contract. The supplier should adhered to delivery schedule as indicated in the Purchase order.

8. **EXTENTION OF DELIVERY TIME:**

As soon as it is apparent that Supplier dates cannot be adhered to, an application shall be sent by the Supplier to the Purchaser. If failure, on the part of the Supplier to deliver the Items/Equipment in proper time shall have arisen from any cause which the Purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final he may allow such additional time as he considers it to be justified by the circumstances of the case) . In case of Letter of Credit the banking charges for the LOC amendment will be on suppliers account.



9. PAYMENT:

Preference will be given to the supplier whose payment terms is on Site Draft.

10. SECURITY FOR PAYMENT:

Successful Supplier will have to furnish in the form of a Bank Guarantee or any other form as called for by the Purchaser towards any payments before supply of Items/Equipment. In case of payment through Letter of Credit the banking charges out side India and Inside India will be on suppliers account.