NOTICE INVITING QUOTATIONS

Item Name: Optical Mounts  
Due Date: 20-05-2013

Quotations are invited for the purchase of **Optical Mounts** as per the specifications given below. **Quotations** along with terms and conditions and **additional details**, should reach by **5 PM** on **20-05-2013**.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of the Item</th>
<th>specifications</th>
<th>Quantity</th>
</tr>
</thead>
</table>
| 1     | **Electronic Beam Shutter**                   | Shutter Activation Time Open: <1 ms  
                                              |          | Shutter Activation Time Close: <1.5 ms  
                                              |          | (Spring Activated)  
                                              |          | Aperture: Ø0.5" (12.7 mm)  
                                              |          | Initial State: Closed  |
| 2     | **Shutter Controller (compatible with item no.1)** | Minimum Exposure Time: ≤ 10 ms  
                                              |          | Accuracy: 0.1 ms  
                                              |          | On/ Off Times: 1 ms to 900s  |
| 3     | **Air Compressor**                            | Max Duty Cycle: 50%  
                                              |          | Air Pressure: ≥ 800 kPa (116 psi) Max  
                                              |          | Air Delivery: ≥ 39 l/min at 8 bar (116 psi)  
                                              |          | Air Tank Size: ≥ 4 liters  
                                              |          | Voltage: 220VAC 50 Hz, UK Style Power Connector  
                                              |          | Noise Level: ≤ 40 dB (A) at 1 m  |
| 4     | **Right-Angle Bracket**                       | Counter bored slot for 1/4-20 tapped holes [m6x1.0]  
                                              |          | Material : Aluminum  |
| 5     | **Slim Right-Angle Bracket**                  | Counter bore for 1/4-20[m6x1.0]  
                                              |          | Material : Aluminum  |
| 6     | **25 µm Pinhole**                             | Pinhole Diameter: 25 µm  
                                              |          | Pinhole Thickness: ≤ 12.5 µm  
                                              |          | Aluminum Housing with 1” Outer Diameter  |
| 7     | **20 µm Pinhole**                             | Pinhole Diameter: 20 µm  
                                              |          | Pinhole Thickness: ≤ 12.5 µm  
                                              |          | Aluminum Housing with 1” Outer Diameter  |
| 8 | **15 µm Pinhole** | Pinhole Diameter: 15 µm  
Pinhole Thickness: ≤ 12.5 µm  
Aluminum Housing with 1” Outer Diameter | 02 |
| --- | --- | --- | --- |
| 9 | **Spatial Filter System**  
**With Aspheric Lens and Plano-Convex Lens** | Z-Axis Translator Holds Focusing Optics  
XY Translator Houses Pinhole  
Extension tube for aspheric focusing lens  
**Aspheric Lens specifications:**  
Effective focal length: 4.51mm  
Numerical aperture: 0.55  
Working distance (lens): 2.92mm  
Surface quality: 40-20 scratch-dig  
Magnification: infinite  
AR Coating: BBAR Ravg<0.5% for 400-600nm  
**Plano-Convex Lens specifications:**  
Lens Shape: Plano / Convex  
Surface Quality: 40-20 Scratch-Dig  
Surface Flatness: λ/2  
Clear Aperture: >90% of Diameter  
Focal Length Tolerance: ±1%  
Diameter: 25.4 mm  
f: 50 mm | 02 |
| 10 | **Frosted Glass Alignment Disk** | Diffuser diameter: 12.7mm  
Center hole diameter: 1.0mm  
Scratch-dig: 80-50 | 01 |
| 11 | **Microscope Objective** | Magnification: 40X  
Working Distance: ≤ 1 mm  
Effective Focal Length: ≤ 5 mm  
Numerical aperture: 0.55  
Theoretical Focal Spot: ≤ 1 µm  
AR Coating Range: 325-500 nm  
Damage Threshold : ≥ 50 MW/cm²  
Max Reflectivity per Lens Surface: 0.01 | 02 |
| 12 | **Microscope Objective** | Magnification: 20X  
Working Distance: ≤ 4 mm  
Effective Focal Length: ≤ 10 mm  
Numerical aperture: 0.4  
Theoretical Focal Spot: ≤ 1 µm  
AR Coating Range: 325-500 nm  
Damage Threshold : ≥ 50 MW/cm²  
Max Reflectivity per Lens Surface: 0.01 | 01 |
| 13 | **Active legs for vibration isolation table** | Vertical Resonant Frequency: 1.25 Hz  
Horizontal Resonant Frequency: 1.0 Hz  
Vertical Transmissibility at Resonance: 10 dB | 01 |
| 14  | Alignment Disk for Visible Wavelengths | Horizontal Transmissibility at Resonance: 12 dB  
Vertical Transmissibility at 5Hz: -20 dB (90%)  
Horizontal Transmissibility at 5Hz: -24 dB (94%)  
Vertical Transmissibility at 10Hz: -32.5 dB (97.5%)  
Horizontal Transmissibility at 10Hz: -30 dB (97%)  
Maximum Load Capacity (set of four): 5500 lb (2500 kg)  
Height Adjustment Range: -0.51", +0.2" (-13 mm, +5 mm)  
Self Leveling Repeatability: ±0.02" (0.5 mm)  
Height: 27.5" (700 mm)  
Air Pressure (Maximum): 80 psi (551 kPa) | 03 |
|---|---|---|
| 15  | Right-Angle Bracket for Ø1" and Ø2" Lens Tubes | Alignment Disk for Visible Wavelengths  
Pitch and Yaw Plus Rotation  
Pedestal Post: ≥ 150mm  
Rotation for Mirrors: 360°  
45° mirror mount: 2 (with kinematic adjustment)  
UV Enhanced Aluminum Mirror specifications:  
Diameter: Ø1" (25.4 mm)  
Shape: Round  
Reflectivity: $R_{avg} >90\%$ from 250 - 450 nm  
Substrate: Fused Silica  
Flatness: $\lambda/10 @ 633$ nm | 01 |
| 16  | Small Adjustable Clamping Arm | Material: Black anodized aluminum  
Mounting slot for ¼ (M6) cap screw places | 02 |
| 17  | Large Adjustable Clamping Arm | Maximum adjustable height: ≥ 24mm  
Mounting hole depth: 5.6mm  
Nylon tip setscrew for securing optics  
Threads on Top and Bottom of Post | 04 |
| 18  | Periscope Assembly with UV Enhanced Aluminum Mirror | Maximum adjustable height: ≥ 40mm  
Mounting hole depth: 5.6mm  
Nylon tip setscrew for securing optics  
Threads on Top and Bottom of Post | 02 |
| 19  | Camera Lens Holder | Standard C-Mount thread  
Material: Aluminum  
Diameter: 1.660 | 04 |
Additional Details (without these, quotations will be rejected):

1. Furnish brochure cum data sheets for the above specifications from the original manufacturer.
2. All items should be from same manufacturer.

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1. PRICING: Quote total in F.O.B. price
2. TERMS OF PAYMENT: Letter of credit OR Payment against delivery (Wire Transfer after receipt of item).
3. VALIDITY OF QUOTATIONS: Quotations should be valid at least for a period of 90 days.
4. WARANTY: Mention the warranty period in the quote.
5. DEALERSHIP CERTIFICATE: Letter from manufacturer to be attached for authenticity of dealership/agency. Quotations without authorized dealership certificate will be rejected.
6. PROPRIETARY CERTIFICATE: If the items are proprietary in nature, furnish a copy of the certificate.
7. COMPLIANCE STATEMENT: Please include a statement of compliance of all the above specifications.
8. INSTITUTE’S RIGHTS: IIT Delhi reserves the rights of acceptance or rejection of any or all quotations.
9. REJECTION: Quotations not conforming to the set procedure as above will be rejected.
10. DISCOUNT/REBATES: Special discount/rebate wherever admissible keeping in view that the supplies is being provided for the educational purpose in respect of public institution of national importance may please be indicated.
11. SUBMISSION OF QUOTATIONS: Quotations should be sent in a sealed cover marked at the top ITEM NAME AND DUE DATE.

The technical and financial bids should be sealed in separate envelopes before putting them together in the sealed cover. (Please note that ALL of the above specifications and additional details must be fully met in the technical bid).

Quotations should be sent to:

Prof. Joby Joseph
Department of Physics
Indian Institute of Technology, Delhi,
Hauz Khas
New Delhi-110 016
India