

CSIR- CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION
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PRE-INDENT CONFERENCE NOTICE

No. CSIO/3(24)/2016-Pur

November 11, 2016

The Director, CSIO, Chandigarh intend to procure Optics Metrology etc.. Interested authorized manufacturer/dealers/firms may attend Pre-Indent Conference by way of technical presentation etc. on 28th November, 2016 at 11.30 A.M. in the Conference Room of V-3 Division of CSIO. Please confirm your participation through e.mail.

Stores & Purchase Officer

Tentative Technical specifications for Optics Metrology

| S.No. | Features | Requirement |
|-------|-----------------------------------|--|
| 1. | Measurement Principle | <ul style="list-style-type: none"> - Scanning probe technology/ Scanning Point interferometry - Non-contact, however add on contact type probe will be an added advantage |
| 2. | Object Alignment | Alignment of part with minimal operator effort with software features to guide for alignment. However full CNC alignment would be preferred. |
| 3. | Form Measurement Accuracy | ≤50nm |
| 4. | Maximum object diameter | 240mm or higher |
| 5. | Maximum freeform object diameter | 150mm or higher |
| 6. | Maximum Sag measurement capacity | 0-70mm or Better |
| 7. | Object mounting | Suitable hydraulic expansion HD25 chuck should be supplied along with system. Fixtures to clamp and align free form, off-axis lenses, cylindrical lenses also must be supplied along with system |
| 8. | Calibration master | All required calibration/verification masters to be supplied along with machine |
| 9. | Form Measurement Capabilities | Aspheric, Spheric, Flats, Diffractive, Asphero-diffractive surfaces, Annular surfaces, discontinued surfaces, segmented lenses & Freeform surfaces |
| 10. | Software | All software along with life long validity of license to measure following types should be supplied along with machine: Aspheric, Spheric, Flats, diffractive, Asphero-diffractive surfaces, Annular surfaces, discontinued surfaces segmented lenses and freeform surfaces Also software for 3d measurement and analysis for various optical surfaces should be supplied. |
| 11. | Surface of objects to be measured | Grinded, Polished, Transparent, Specular and Opaque surfaces |
| 12. | Data Export Formats | .MOD, .XYZ, .ASCII, .ZYGO, .DAT, .PRF, .SUR, .TXT |
| 13. | Closed loop Integration | Compatibility of error/corrections generated with OptoTech, Precitech, Satisloh etc. |
| 14. | Air supply | If AIR supply is required for machine then appropriate air compressor has to be supplied along with machine. |

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| 15. | Vibration Isolation | Machine should be fully isolated from floor vibrations to avoid effect on the precision measurements. Such vibration isolation system has to be provided directly from the manufacturer, no local make solution will be accepted |
| 16. | Instrument cabin | Measuring station should be provided with an enclosed cabin to protect direct influence of air flow and sudden environmental changes and protection of external factors like dust. |
| 17. | Power supply | Suitable online UPS of reputed International make has to be supplied along with machine |
| 18. | Measurement time | Sphere, Roc = 80mm, Diameter= 80mm, Maximum Time taken 15 min or less with required accuracy. |
| 19. | Slope | Aspheres of slope upto 45 ⁰ or better |
| 20. | Electrical power requirement | 230V AC, Single Phase 50/60 Hz, Load Approx. 15 Amp |
| 21. | Longitudinal Resolution | 0.1nm or better |
| 22. | Data Analysis | 3D Surface visualization, Adjustable Cross section, 2D Graphics, Filtering(LPF,HPF, Gaussian), Best fit radius, Aspheric fit, PV, RMS, Tangential and radial errors, Zernike , Measurement report(PDF) |