# Instrument Design Development Centre Indian Institute of Technology Delhi

#### Date:13-02-2014

### Sub: <u>NOTICE FOR INVITING QUOTATIONS (NIQ) FOR CURVE GENERATION</u> <u>MACHINE FOR GLASS</u>

Instrument Design Development Centre, IIT New Delhi requires Curve generation machine for generating curve surfaces on glass and metals. Broad specifications of the same are described below. Kindly send Technical and commercial bids for the same in **separate sealed envelopes**. Your bids must reach the address given below on or before <u>02-03-2014</u>.

## **Specifications of Components:**

S.	Name of	Specifications	Qty.
No.	item		
1.	Precision Curve generation machine for generating curve surfaces on glass and metals	Precision glass grinder and curve generator with capacity for generating and fine grinding of spherical and plano optics in optical glass and metals.	
		Vertical configuration to be used with standardized diamond cup wheels	
		Diameter of the components to be made : upto 6 inch (150 mm) optics	
		Two spindle configuration: One (fixed) for clamping the work piece and another (tiltable) for holding cup tools.	
		Variable clamping holder with centering arrangement along with mechanical probe	One
		Tiltable angle (Head angle): up to 45 degrees to be able generate hemispherical surface	
		Angle accuracy: 15 arcsec (Angle read out: preferably Angular indexing)	
		Accuracy on the generating curves: ~ 30 micron or better	
		Maximum Sag generation capability: 75 mm	
		Linear axis: X, Y, Z To move the cutting edges	
		X travel: 300 mm, Automation Y travel: 125 mm	
		Z travel : 170 mm with the accuracy of 30 micron or better	

Coolant supply arrangement: From hollow bore on brass/copper of the upper (tool) spindle
Coolant system : pumps, coolant supply line, spray nozzles for outside coolant supply, reservoir
Motor drives: Work: Induction motor with AC drive controller (1 HP) Tool: Induction motor with AC drive controller (2 HP) Pump: Induction motor with AC drive controller (0.5 HP)
Rotation speeds: Work: 0 to 100 rpm Tool: 1400 to 3000 rpm
Control panel: On-OFF switch for starting Emergency stop Indicators for three phases of power Fuses and MCB Relays Digital Speed regulation displays at panel for both the work piece and tool motors Separate indications for all the three motors
Electrical power requirements: Three phase 440±10% volt AC with neutral, total 3KW load
Water proof Integrating Lamp for lighting the working area
Enclosure for the workable area
Essential accessories to run the machine: coolant oil, cup wheels of different grit size
Essential tool box
Different grit size cup tools
Demonstration and training in our workshop is required.
Warrantee: two years for the repair and replacement of the parts
Service support: For the period of 10 years after completion of warrantee

#### Terms and conditions covering submission of quotations:

- Supply all technical specifications..
- Validity of the quotation should be at least for a period of three months.
- Clearly indicate whether the prices are inclusive of all taxes. Otherwise indicate all taxes separately.
- Letter from manufacturer to be attached for authenticity of dealership/agency.
- In case of proprietary item, the principals must submit a letter declaring it clearly as a proprietary item.
- The technical and financial bids should be sealed in separate envelops before putting them together in the sealed cover.
- Payment terms: Payment against delivery, installation and satisfactory performance
- IIT Delhi reserves rights of acceptance or rejection of any or all quotations.
- Quotations should be sent to

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