

1. Description of the ITEM :Heavy Duty Manual & AUTO Translation Stages

2. Detailed SPECIFICATIONS and Quantity: Total – 02 Nos

**Item 1: Detailed Specification for Heavy Duty XYZ Manual Translation stage - 1 No**

**I. Scope of work :**

Fabrication, Inspection, Supply of Heavy Duty XYZ Manual Translation stage  
(Ref: IGC/MC&MFCG/CFED/MBPR/XY1)

**II. Quantity : 1Nos**

- III. XY Travel : 50 mm
- IV. Z Travel : 100mm
- V. Load Capacity : 200kg
- VI. Drive : Lead Screw, frictionfree, play less
- VII. Readout : 0.1mm(Vernier Scale)
- VIII. Positioning Accuracy :100 Microns
- IX. Platform Size : 625x525mm
- X. Minimum Height: 380mm
- XI. Maximum Height: 480mm(Maximum Travel)
- XII. Pitch-XY Travel : 14x2 lead screw
- XIII. Pitch-Z Travel : 30x4 lead screw
- XIV. Z- Travel : Hand Wheel Operated with locknut
- XV. XY Travel : Knob with locknut Operated
- XVI. Guideway : Precision ball bearing guide way
- XVII. Material : Aluminium Alloy B51S
- XVIII. Finish : Black Anodized(Aluminium)
- XIX. Mounting : M6 Tapped holes @25 Centre on carriage

**Item 2: Detailed Specification for Motorized XY Translation stage - 1 No**

**I. Scope of work :**

Fabrication, Inspection, Supply of Motorized XY Translation stage(Ref:IGC/MC&MFCG/CFED/MBPR/XYZ1)

- II. Quantity : 1 Nos
- III. X Travel : 300 mm, Y Travel :170mm
- IV. Load Capacity : 20kg ,
- V. Drive : Lead Screw, frictionfree, play less
- VI. Readout : 0.01mm(Micrometer Scale)

VII.	Positioning Accuracy	:	10 Microns, Platform Size :	370x240mm
VIII.	Height	:	75mm, XY Travel:	Motorized
IX.	XY Travel	:	Drive lead screw with motor	
X.	Guideway	:	Precision ball bearing guide way	
XI.	Material	:	Aluminium Alloy B51S	
XII.	Finish	:	Black Anodized(Aluminium)	
XIII.	Mounting	:	M6 Tapped holes @25 Centre on carriage	
XIV.	Controller	:	single axis controller with Software and compatible monitoring and controlling workstation machine.	
XV.	Warranty	:	Standard warranty (24 months)	
XVI.	Motor Details	:	Stepper Motor	
			Lead screw pitch	: 4 mm
			Max Torque	:0.53 N-m, Full step angle : 1.8 °

**Evaluation criteria:**

- The bidder shall be authorized distributor of original make instruments.
- The supplier shall have facility and qualified engineers to carry out pre-dispatch inspections of items.
- Technical catalogue of instruments and its accessories shall be attached along with offer.

**Acceptance criteria :**

All items shall be given warranty for two year period for trouble free operation from the product accepted date at the project site.

1. Positioning accuracy of 10 micrometers.
2. Axis controller and operation with software in modern compatible machine.
3. Dimensional verification.
4. Defect free motor operation.
5. Frictionless and playless movement of drive only.
6. All the technical parameters instruments and their accessories shall be complied.