

Annexure II – Technical Details & Specifications

Sr No.	Name of Equipment/Item	Qty.	Specifications	
Metal Machine				
1	Flexshaft Motors with kit	2	1. Series SR Motor:	The 1/6 HP, ball bearing, hang-up style speeds up to 18,000 RPM
			2. C.FCT Speed Control:	Foot operated speed control
			3. H.30 Handpiece:	3-jaw, geared chuck with a 0-5/32" capacity.
			4. Accessory Kit: .	Assortment with 3/32" and 1/8" shank accessories It must include Sanding Bands and Discs, V Stones, CeramCut Blue Stones, steel cutters and burs, rubber bonded abrasives, mounted abrasive points, wire and bristle brushes, polishing compound.
2	Mini Lathe	1	Power of Motor:	550W DC Single Phase
			Variable Speed:	50-2500PRM
			Swing Over Bed:	180-185 mm
			Chuck Diameter:	80-90 mm
			Centers Distance:	300-350 mm
			Spindle Bore:	21mm
			Inch Thread:	12-52 T.P.I
			Metric Thread:	0.5-2.5mm
Net Weight:	40kg			
3	Pipe Notcher	1	Main Motor HP	2 HP
			Coolant Motor	Yes
			Output RPM	320-1700 RPM
			Total Weight	+45 - 90 - -45 degree
			Dimensions (Floor)	60mm
			Notching Angle	55 x 55 mm
			Max Round Pipe	25mm
			Max Square Pipe	5mm
			Max Notch Radios	2 HP
			Minimum Notch Radios	Yes
4	Cold Welding Machine	1	Power Output	1200w
			Frequency	50-50 Hz
			Electride Dia.	Dia. 1.0-3.2 mm
			Input Voltage	AC220V
			Voltage Range	10-100V

			Output Percentage	10-100 %
Ergonomics equipment				
5	Digital Lux Meter	2	Contact Measurement	50-19999RPM $\pm(0.03\%+2)$
			Measuring Distance	N/A
			Auto Power Off	30S
			Data Logging	100 groups
			MAX/MIN/AVG Functions	Yes
			m/min m/sec ft/min ft/Sec in/min unit selection	Yes
			Data Hold	Yes
			Display Back light	Yes
			Low Battery indication	Yes
			Power Supply	4x1.5AAA Battery(Not Included)
			Size	193x60x29M
6	Goniometers set	2	Material	High Carbon Steel + Plastic
			Length (Approx)	200mm/7.87inch
			Measuring range	0-360 Degree
			High Resolution: 0.1 Degree	0.1 Degree
			Accuracy: +-0.3 Degree	
			Battery:	3V CR2032(Not Included)
7	Eye tracker	1	Eye tracking Wearable Unit	
			Eye tracking technique	Corneal reflection, dark pupil, stereo geometry
			Binocular eye tracking	Yes
			Sampling rate	50 Hz to 100 Hz
			Calibration procedure	One point
			Parallax compensation tool	Automatic
			Slippage compensation	Yes, 3D eye tracking mode
			Head unit	
			Material	Grilamid plastic, stainless steel, optical grade plastic lenses
			Nose pads	Grilamid plastic, with clip on attachments
			Scene camera format and resolution	1920 x 1080 @25 fps
			Scene camera, video format	H.264
			Scene camera, field of view (diagonal)	106 deg. 16:9 format
			Scene camera, field of view (horizontal and vertical)	95 deg. horizontal / 63 deg. vertical
			Weight	76.5 grams including cable
			Frame dimensions	153 x168 x51 mm
			Cable length	1200 mm

			Audio	16 bit mono, integrated microphone
			Design characteristics	Light-weight and discreet
			Number of eye tracking sensors	4 sensors (2 per eye)
			Fixed geometry	Yes
			Sensors	Gyroscope, Accelerometer, Magnetometer: ST™ LSM9DS1 (sampled at 100 Hz)
			Recording unit	
			Battery recording time	105 min.
			Battery type	Rechargeable 18650 Li-ion, Capacity: 3 400 mAh
			Storage media	SD (SDXC, SDHC) card
			Connectors	Micro USB, RJ45 (Ethernet), 3.5 mm jack (sync port), head unit connector
			Dimensions (height x width x depth)	130 x 85 x 27 mm
			Weight	312 grams
			Sync Port	3.5 mm jack (TTL signal)
Wood Working Machine				
8	Belt sander table based	1	Power Input	: 375 W
			No Load Speed	1400 rpm Disc, 275 rpm Sanding Belt
			Frequency	50Hz
			Includes	Angle guide, Tool rest, 2 Sanding belts (P80 & P120), Sanding discs (P80 & P120), Hex key, Wrench
			Voltage	230 V
			Diameter sanding disc	150 mm
			Dimension (LxWxH)	51x30x26 Cm
			Belt Size	915 x 100 mm
9	Router Table	1	Amperage	15
			Bulk	FALSE
			Depth	15-7/8"
			Dust Collection	Yes
			Height	14.5"
			Length	15.875"
			Max. Fence Opening	3-3/16"
			Max. Throat Opening	3-5/8"
			Weight	35.0lb
			Width	25.5"
			Working Length	25-1/2"
10	Table saw	1	Amperage	15

		Arbor	5/8"
		Arbor Size	5/8"
		Bevel Angle Range	-2° to 47°
		Blade Diameter	10
		Dado Capacity	1/2"
		Dimensions	22.5" x 22.5" x 13"
		Dust Blower	No
		Height	13.5"
		Length	21.75"
		Max. Bevel Capacity (°)	47
		Max. Depth of Cut at 45 Deg.	2-1/4"
		Max. Depth of Cut at 90 Deg.	3-1/8"
		No Load RPM	5000
		Rating	120 V
		Ripping Capacity-Left	7-3/4"
		Ripping Capacity-Right	18"
		Table Top Dimensions	22.5" W x 20" D
		Voltage	120V
		Weight	52.0lb
		Weight of Saw (lbs.)	52
		Width	22.5"

Measuring Tools

11	Marking Table	1	Surface Finish	CNC Machined
			Types	Hole Type & T-slot Type
			Material	Cast Iron and Granite
			Size	1000x1000mm(LxW) , Height - 1000
12	Surface Gauge	5	Height	300mm
			Base Length	80 mm
			Width	65 mm
13	Depth Gauges	5	Range:	0 - 150 mm
			Maximum Permissible Error E MPE:	±0,02 mm
			Base (W x T):	100 x 6 mm
			Mass:	207 g
			Max. response speed:	Unlimited
			Display:	LCD, character height 9 mm (150/200/300 mm), 10 mm (>300 mm)
			Delivered:	Including box, 1 SR-44 battery
			ORIGIN (ABS-Zero):	Yes
			ON/OFF:	Yes
Low voltage alarm:	Yes			

			Data output:	Yes
			ZERO/ABS:	Yes
			Digital/Analog:	Digital
			Battery life:	Approx. 5 years
			Display:	LCD, Character Height 9 mm
			Inch-Metric:	Metric
14	Height Gauges	3	Range:	0-12"
			Graduation:	.001"/0.02mm
			Accuracy:	A plus or minus .002"
			Scale adjustment:	.6"
			Fine feed:	16"
			height:	525mm
Metal workshop Hand Tools				
15	Jacks	5	Capacity	4T
			MINIMUM HEIGHT	180
			LIFT	110
			ADJUSTMENT HEIGHT	50
			MAXIMUM HEIGHT	340
16	Screw and tap extractors	5	High carbon steel forging, Overall heat treatment, high strength, Strong toughness, Strong and wear resistant	
			Precision thread, Quick removal of broken screws, Slip screw, Water pipe broken wire, etc.	
			6 different sizes of screw extractors	
17	Bolt and cable cutters	5	Size - 8 inch bolt	
			Cutter Forged and hardened alloy steel jaws	
			Compound cutting action requires less effort	
18	Glass Cutters	5	Carbide alloy cutting wheel, high hardness and sharp cutting, more smooth cutting, can cut 5mm-15mm thickness glass	
19	Pipe cutting and threading tools	5	5 popular interchangeable sized cutting dies, sizes include: 3/8, 1/2, 3/4, 1 and 1-1/4	
			Ratchet head with two-piece handle	
			Reversing knob	
20	Taps and dies	10	Hand Tap (9 set)	Pitch - 0.5mm to 1.75 mm
			hand Die (9 set)	Pitch - 0.5mm to 1.75 mm
21	Precision Reamers	10	Diameter	4 mm to 12 mm
22	Pullers	5	Capacity	5 Ton
			No of Jaw	3
			Jaws Reach	4"
			Jaw Spread	5" to 5"

23	Centre Finder	5	Shank Diameter Diameter	150 mm
			Finish	Chrome Finish
24	V Block	5	Length (inch/mm) :	2.3/4"/70mm
			Width (inch/mm) :	2.1/2"/63mm
			Height (inch/mm) :	1.3/4"/45mm
			Width of small VEE (inch/mm) :	1"/25mm
			Width of Large VEE (inch/mm) :	1.3/16"/30mm
			Clamping Capacity (inch/mm) :	1.1/2"/38mm
25	Carving & Edge tool set	5	Includes Knives, Gouges and Chisels of Different Sizes and Shapes	
26	Wood lathe turning tool set	5	Overall length:	415 mm
			Length of blade:	160 mm
			Woodworking Lathe Chisel Set:	1" (25.4mm) roughing gouge 7/8" (22mm) roughing gouge 1"(25.5mm)skew chisel 5/8"(16mm)skew chisel 5/8"shear scraper 3/6" parting tool 5/8" round nose scraper 1/2" spindle gouge
27	Woodworking Knives set	5	Standard	
28	Router Bit set	5	Core Box Bit	Dia-12.7mm R-6.3mm
			Cove Bit	Dia-22mm R-6.3mm
			14 Degree Dovetail Bit	Dia-12.7mm
			45 Degree Chamfer Bit	Dia- 32mm
Clamping Tools				
29	C Clamps 8 Inches	10	Size	10 Inch
30	C Clamps 2 Inches	10	Size	2 inch
31	F clamps 12 inches	5	12-Inch "F" clamp	
			For general purpose woodworking	
			Features a quick action sliding adjustment	
			Protective pads on each jaw	
32	F clamps 18 inches	5	18-Inch "F" clamp	
			For general purpose woodworking	
			Features a quick action sliding adjustment	
			Protective pads on each jaw	

33	F clamps 24 inches	5	24-Inch "F" clamp	
			For general purpose woodworking	
			Features a quick action sliding adjustment	
			Protective pads on each jaw	
34	Bar Clamps (parallel Jaw)	5	Dimensions LxWxH	84 x 23.5 x 6 Centimeters
35	Spring Clamps	5	plastic and spring steel	
			Clamps Heavy Duty--Clamp Force : about 15N force	
			Rounded handle for comfortable grip	
36	Pipe Clamp	5	Clamp Fixture for 1/2 Inch Pipe	
37	Wood working vice	5	JAW WIDTH -	150 MM
			JAW OPENING -	110 MM
			MATERIAL -	CAST IRON
			VICE LENGTH -	23 CM
			VICE WIDTH -	15 CM
			VICE HIGHT -	9 CM

Ergonomic Tools

38	Hand sensor kit (TPS)	1	The HandGRIP for the following tests	Maximum Grip, 5 Position Grip, Rapid Exchange Grip.
			Selectable units of measure:	pounds (lbs.), Newtons (N), or kilogram-force (kgf)
			Low and high threshold settings:	Low – 0.8 lb. to 200 lbs. in 0.1 lb. increments and High – 3 lbs. to 200 lbs. in 0.1 lb. increments
			Measurement accuracy	within 1% Bluetooth enabled for wireless use with either clinical or data collection research software.
			Battery	Uses 1/2 AA 3.7 volt rechargeable lithium ion battery.

Ceramics Machines and Equipment's

39	Blunger	1	Diameter of Propeller	400 mm
			RPM:	150-200
			Vol:	10 Litre
			Power:	0.5-01.0 KW
40	Rapid Glaze Grinder (500 ml)	1	DRIVE:	DIRECT MOTOR MOTOR 0.25 HP 960 RPM, 3-PH, 415V, 50Hz
			WITH PORCELAIN POT	

			WITH LID COVER PP WITH RUBBER GASKET	
			PORCELAIN POT CAPCITY	1000ML
			M/C CONSTRUCTION HEAVY	M.S. PLATE
			HEAVY SHAFT WITH SEFTY JALLY COVER	
			WITH ELECTRONIC DIGITAL TIMER SWITCH	0-999 MIN AUTO STOP & ON-OFF SWITCH WITH 2MTR WIRE
41	Jigger-Jolley	1	MS ENGLE FRAME STAND SIZE	4 FT X 2.5 FT
			WITH JIGGER & JOLLY SYSTEM FITTED ON TABLE	
			WITH PRIMERY SCRAPPER TOOL	
			DRIVE:	1/2 HP MOTOR, 1440 RPM, 3-PHASE, 415 V, 50HZ
42	Potter's Wheel	2	Motor	400W(1/2 PS/HP) 230V 50Hz 1-phase
			Speed control	Electric remote control
			Wheelhead speed	0-250 rpm
			Wheelhead size	350mm Light alloy casting
			Dimensions	600x702x580mm
43	Slab Roller	1	Size	12 " x 24 "
			Solid and stable construction.	
			Simple and easy adjustment of slab thickness, by turning a single, centrally attached, smoothly and precisely moving adjustment handle.	
			Two Rollers Working System given evenly distributes pressures on slab to reduce warping.	
			Gear Drive System (No Belt or Pully).	
			Rollers and other mechanic parts are galvanized for corrosion protection.	
Ceramics Equipment's				
44	Aerosol Spray Gun	1	Type: Airless Sprayer Reservoir Capacity: Flow Rate: Spray Tip:	Airless Sprayer 0 L 1 l/min SPRAY
45	Painter's wheel (D: 8 inch, H: 8 inch)	6	Diameter : Height :	8 inch 8 inch
46	Electronic Weight Machine for 30 kg	1	Weighing Capacity: Pan Size:	30kg 250*300 mm
47	Analog Weighing Machine	1	Weighing Capacity:	30 kg
48	Mortal Pestle	4	Material: Diameter:	GLAZED Poreclain 8 to 10 inch
Ceramics Tools				

49	Hole Cutter set	2	This 12-piece brass hole cutter tool set is ideal for creating different sizes of holes in clay pieces	
50	Chisel rods	4	Length	10 inch
51	Wooden Bat for RK55 Wheel	12	Diameter	12 inch
			Material	water proof MDF bat
52	Dipping Tongs	4	Length	32cm/12.6inch
			Width	10.5cm/4.1inch

The detailed technical specifications as given in Annexure II for the equipment and accessories are indicative major requirements. All necessary/required components to configure above must be included and mentioned in the bid to install equipment and accessories as per NID MP requirements.