

Purchase Order

INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

24-057 TF

Supplier : GABI GROUP, INC	P.O. No. : GIAE-PO-2024-02-0052 (MSD)
Address : 295 BONI SERRANO ROAD, BAGONG LIPUNAN NG CRAME 1111, QUEZON CITY	Date : February 28, 2024
TIN : 007-167-489-000	Mode of Procurement : PB

Gentlemen:
Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery : National Metrology Division	Delivery Term : 90 CD
Date of Delivery :	Payment Term :

Stock/ Property No.	Unit	Description	Quantity	Unit Cost	Amount
		<p>SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF ONE (1) LOT HIGH THROUGHPUT/OUTPUT 3D PRINTING FILAMENT EXTRUDER LINE</p> <p>I. MACHINE LAYOUT AND DIMENSION</p> <p>II. INCLUSIONS:</p> <ul style="list-style-type: none"> ✓ A. AUTOMATIC VACUUM LOADER ✓ B. HOPPER DRYER ✓ C. FLD45/28 SINGLE SCREW PLASTIC EXTRUDER ✓ D. PRECISION ALLOY MOULD ✓ E. AIR COOLING TABLE ✓ F. WATER TANK ✓ G. LASER GAUGE ✓ H. SERVO TRACTION SYSTEM ✓ I. AUTOMATIC STORAGE DEVICE ✓ J. PLC DOUBLE WINDING SYSTEM ✓ K. COLOR MIXER ✓ L. VACUUM SEALER MACHINE ✓ M. DEHUMIDIFICATION DRYER <p>III. SPECIFICATIONS:</p> <p>AUTOMATIC VACUUM LOADER</p> <ul style="list-style-type: none"> ✓ Motor: 1.1kw ✓ Max. wind pressure (Pa): 9800 ✓ Max. air volume (m3/min): 2 ✓ PowerRotating speed of motor (r/min): 2800 ✓ Transport capacity (kg/h): 100 ✓ Aspirating charging door volume (L): 5 ✓ Internal diameter of transfer soft pipe (mm): 40 ✓ Internal diameter of aspirating soft pipe (mm): 40 <p>HOPPER DRYER</p> <ul style="list-style-type: none"> ✓ Material: Stainless Steel ✓ Heating Power: 4.5kw ✓ Fan Power: 100W <p>FLD45/28 SINGLE SCREW PLASTIC EXTRUDER</p> <ul style="list-style-type: none"> ✓ Motor Power: 1.5kw ✓ L:D 28:1 ✓ Screw and Barrel Material: Alloy material ✓ Heating: Cast aluminum heating ring ✓ Hollow stainless steel outsourcing ✓ Extrusion Rate: minimum 800 grams per hour 1500 grams per hour up to a maximum adjustable rate of 1000 grams per hours ✓ Extruder Heater power is 2500kW ✓ Screw speed range: 0 - 150 RPM ✓ Motor Power: 1.5kW ✓ Heating Zone: 4 Zones (capable of 50C - 500C) ✓ Fan Power: 130W x 4 ✓ Temperature Cooling Zone: 4 zones ✓ Able to compound Nylon , ABS, PLA, PP, HDPE, ASA and other thermoplastics, recycled thermoplastic materials, composite thermoplastic materials, and other exotic materials for R&D ✓ Capable of processing additives, colorants, abrasives fiber (natural or synthetic), nano materials, and other demanding materials for R&D applicaitons ✓ Mainly for compounding and mass production of R&D 3D printing filaments <p>PRECISION ALLOY MOULD</p> <ul style="list-style-type: none"> ✓ Diameter: 1.75mm, 3.00mm + -0.025mm) ✓ Material: S136 steel ✓ *Includes 1.75mm and 3.00mm spare nozzle <p>AIR COOLING TABLE</p>			5,979,500.00

Fan Powder: 0.55kW
Material: Stainless Steel

WATER TANK

Stainless Steel Vacuum Cooler

- ✓ Compatible with 1.75mm to 3.00mm with + -0.025 tolerance
- ✓ Water Bath number: 1 set
- ✓ Cooling water bath length: 4 meters
- ✓ Water bath material: Stainless Steel
- ✓ Water: 0.55kW

LASER GAUGE

- ✓ Measurement: Laser Scanning
- ✓ Laser: Visible red semiconductor laser
- ✓ Laser output power: <2Mw

SERVO TRACTION SYSTEM

- ✓ Motor Drive: AC Servo
- ✓ Motor Servo Motor Model: 80st - M03520
- ✓ Controller: Fuji Controller

AUTOMATIC STORAGE DEVICE

- ✓ Storage length: 120 meters
- ✓ Plastic roller diameter: 300mm
- ✓ Electromagnetic motor: 0.75kw

PLC DOUBLE WINDING SYSTEM

- ✓ Motor: Servo motor
- ✓ Option for two-station (old) or Single-station (new) winding system.
- ✓ Able to operate without the need of the extruder system and can be used with the extruder systems
- ✓ Includes optical width sensor, voltage output and motor drive with polyurethane material
- ✓ Control system: PLC
- ✓ Pneumatic shaft: 2pcs
- ✓ PLC control system, roundness, precision change curve displa, monitoring 3D wire roundness
accurary changes at any time.
- ✓ Up to capacity of 1kg-25kg/hr depending on material type
- ✓ **Wind up range: 0.2-10m per min up to a maximum configurable speed of 50m per min wind up**

COLOR MIXER

- ✓ Capacity: 50kg
- ✓ Rotation Rate (r/min): 60

VACUUM SEALER MACHINE

- ✓ Vacuum Pump (m3/h): 20
- ✓ Ultimate vacuum (pa): ≤1000
- ✓ Motor power (kw): 0.9

DEHUMIDIFICATION DRYER

- ✓ Capacity (kgs): 50
- ✓ Air Flow (m3/hr): 100
- ✓ Drying Heater (kw): 2.2
- ✓ Blower Power (kw): 0.37
- ✓ Regeneration Heater (KW): 3
- ✓ Regeneration Blower (KW): 0.25 conveying blower (KW): 0.75

IV. SERVICES

1. INSTALLATION, COMMISSIONING, TRAINING

- ✓ On-site equipment installation, commissioning and local training
- ✓ Performed by manufacturer's engineer's
- ✓ Includes logistics and expenses including accommodation
- ✓ Location must be ready prior to training proper
- ✓ Water supply, air supply & power supply should be available
- ✓ Air fare included for manufacturer's engineer's

550,000.00 /

2. SHIPPING

- ✓ Shipment Costs

350,000.00

3. DELIVERY

- ✓ Shipment and Delivery costs

110,000.00 /

4. DOCUMENTARY REQUIREMENTS

- ✓ Machine Layout
- ✓ Electrical Diagram
- ✓ Machine Certificates
- ✓ General Operation manual book
- ✓ Maintenance book

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5. AFTER-SALES SERVICES

- ✓ **3 - Year Warranty**
- ✓ Manufacturing defects included in spare parts provision
- ✓ Excluding force majeure and user-related operational issues
- ✓ **Basic operation, troubleshooting, calibration, preventive maintenance of the equipment during the warranty period (annual). Calibraiton certificate is provided**

6. INCLUSIONS

25 kg each of trial resin pellets (PLA, ABS, HDPE, purging material, or more).
 Performance testing operation using trial resin pellets (PLA, ABS, HDPE, purging materials, or more) during commission
 Provide tools for troubleshooting of equipment (e.g. wrenches, screwdrivers, etc.)

V. DIAGRAMS

VI. SPARE PARTS PACKAGE (INCLUDED IN MACHINE COST)

- ✓ A. MOULD HEATER
- ✓ B. WATER HEATER
- ✓ C. TEMPERATURE CONTROLLER METER
- ✓ D. CONTACTOR
- ✓ E. GAS-TYPE FITTING (6PCS)
- ✓ F. PLASTIC ROLLER (2PCS)
- ✓ G. TOOLKIT
- ✓ H. SILICON SHEET (2PCS)
- ✓ I. RUBBER ROLLER

END USER: **JENNY LYN H. LAGA**

Jenny 0/4/2024

Less: VAT	266,941.96	5,979,500.00
EWT	53,328.39	5,70,350.35
TOTAL		5,659,169.65

(Total Amount in Words) FOUR MILLION SEVEN HUNDRED THREE THOUSAND TWO HUNDRED SEVENTY SIX PESOS 79/100

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s.

Conforme:

Jefferson Olvera
JEFFERSON OLVERA
 Signature over Printed Name of Supplier
MARCH 20, 2024
 Date

Very truly yours,

Annabelle V. Briones
DR. ANNABELLE V. BRIONES
 Signature over Printed Name of Authorized Official
 DIRECTOR
 Designation

Fund Cluster : **MATERIALS FOR APPLICATION-SPECIFIC TECHNOLOGIES FOR 3D/4D PRINTING R&D (MAST3RD)**

Funds Available : _____

Patricia Ashley M. Mendoza March 18, 2024
PATRICIA ASHLEY M. MENDOZA
 Accountant IV

ORS/BURS No. **TFW-2024030481**

Date of the ORS/BURS: _____

Amount : **₱ 5,979,500.00**

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