

Delivery Locations
Package No. HPSPDP-DOTE/25
Test equipment & hand operated moulding machines

Sr. NO.	Item Name	Govt. ITI Mehatpur	Govt. ITI Shahpur	Total Quantity
1	Test Equipment for plastic -MFI	0	1	1
2	Digitally controlled Universal Testing machine of 100 KN capacity	0	1	1
3	Impact tester	0	1	1
4	Hand operated Injection Moulding machine of 15 gm capacity	0	2	2
5	Hand operated Injection Moulding machine of 30gm capacity	0	2	2
6	Hand operated Compression Moulding Machine of 60 ton capacity	1	3	4
7	Hand operated Blow Moulding Machine of 250 ml capacity	0	3	3
8	Hand Injection Moulding Machine	1	0	1

Schedule of supply

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1. List of Goods and Related Services

Package Name: Supply of Test Equipment & hand operated moulding machines for Industrial Training Institutes to enhance technical and vocational skills among the youth of Himachal Pradesh. HPSPDP-DOTE/25; RFQ No. 02/2022

Lot No: Not Applicable									
Lot Name: Not Applicable								Delivery Time (in days): not more than 60	
Item No	Name of Goods or Related Services	Description	Unit of Measure -ment	Quantity	Unit Price INR	Total price per item INR	Sales and other taxes per item	Total Price (Including GST)	Remarks (Please mention Page Number of detailed information brochure having make and model no.)
1	2	3	4	5	6	7=5*6	8=7*@GST%	9=7+8	
1.	Test Equipment for plastic -MFI	Test Equipment for plastic –MFI, as per technical specifications	No.	1					
2.	Digitally controlled Universal Testing machine of 100 KN capacity	Digitally controlled Universal Testing machine of 100 KN capacity, as per technical specifications	No.	1					
3.	Impact tester	Impact tester, as per technical specifications	No.	1					
4.	Hand operated Injection Moulding machine of 15 gm capacity	Hand operated Injection Moulding machine of 15 gm capacity, as per technical specifications	No.	2					

5.	Hand operated Injection Moulding machine of 30gm capacity	Hand operated Injection Moulding machine of 30gm capacity, as per technical specifications	No.	2					
6.	Hand operated Compression Moulding Machine of 60 ton capacity	Hand operated Compression Moulding Machine of 60 ton capacity, as per technical specifications	No.	4					
7.	Hand operated Blow Moulding Machine of 250 ml capacity	Hand operated Blow Moulding Machine of 250 ml capacity, as per technical specifications	No.	3					
8.	Hand Injection Moulding Machine	Hand Injection Moulding Machine, as per technical specifications	No.	1					

2. Delivery and Completion Schedule

The delivery period shall start as of *date of Signing the Contract*

Item No	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
1 To 8	As per Schedule 1 – List of Goods and Related Services	Within 60 Days from the Signing of the contract.	As per delivery locations attached as Annexure-A	Within 60 Days from the Signing of the contract.

3. Technical Specifications

Item No.	Name of Goods or Related Services	Technical Specifications of Item and/or Bureau of Indian Standards (BIS) (if applicable) reference	Features	Accessories	Spare parts	Documents	Installation & Training	Warranty of Equipment /parts
1.	Test Equipment for plastic -MFI	Test Equipment for plastic -MFI - Range: 40 – 400°C - Resolution:0.1°C - Accuracy :0.2°C - Power 120V/230V; 50Hz/60Hz Temperature Probe Specifications Measurement 3 x PT 100 Sensors - Range : 0 – 500°C - Accuracy: 0.1°C	- Must be able to check the Melt Flow Index of all Thermoplastic material	- Temperature probe - Die - Piston, - Barrel core - Die cleaning tool - Die Retainer Cleaning probe - Filling funnel - Test Weights - Cleaning patches - Heat resistant gloves	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	One Year
2.	Digitally controlled Universal Testing machine of 100 KN capacity	Digitally controlled Universal Testing machine : - Maximum Capacity: 100 KN - 1st Measuring Range : 0-20 KN - Load Resolution : 0.005 KN - 2nd Measuring Range : 0-40 KN - Load Resolution: 0.01 KN - 3rd Measuring Range: 0-100 KN - Load Resolution: 0.025 KN - Resolution of Piston Movement (Displacement): 0.1 mm - Clearance for tensile test at fully descended working piston : 50-700 mm - Clearance for compression test at fully descended working piston : 0-700 mm - Clearance between columns: 500 mm - Straining / Piston speeds (at no load): 0-150 mm - Voltage: 440 V, 3 Phase	- Standard	For tension test: - Clamping for round: 10-20 mm - Specimens diameters : 20-30 mm - Clamping jaws for flat: 0-10 mm - Specimens thickness: 10-20 mm - Width : 50 mm For compression test: - Pair of compression plates of diameter: 120 mm For transverse test: - Table with adjustable rollers width of rollers: 160 mm - Diameter of Rollers: 30 mm -Maximum clearance between Supports: 500 mm	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	One Year

3.	Impact tester	Impact tester : - Maximum capacity : 300 J - Minimum scale graduation :2 J - Pendulum drop angle : 140° - Pendulum effective Wt. : 21.819 kg. - Striking velocity of pendulum: 5.182 m/sec	- Suitable for Charpy and Izod Impact Test	- Standard	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	One Year
4.	Hand operated Injection Moulding machine of 15 gm capacity	Hand operated Injection Moulding machine : - Minimum Capacity : 15gm - Temperature controller unit : 0- 200°C - Weight of piece : Minimum 15 gm	- Solid Frame made up of Heavy channel with a heavy base	- Die - Ceramic Band Heater - Other standard Accessories	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	one Year
5.	Hand operated Injection Moulding machine of 30gm capacity	Hand operated Injection Moulding machine : - Minimum Capacity : 30 gm - Temperature controller unit : 0- 200°C - Weight of piece : Minimum 30 gm	- Solid Frame made up of Heavy channel with a heavy base	- Die - 02 Nos Ceramic Band Heater - One No. suitable mould - Other standard Accessories	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	one Year
6.	Hand operated Compression Moulding Machine of 60 ton capacity	Hand operated Compression Moulding Machine of 30-60 tons capacity : - Suitable for processing Acrylonitrile Butadiene Styrene(ABS)- - Maximum working pressure = 25 kN - Pressure gauge : Analog Type - Heated Platen area = 200x 200 mm - Maximum travel distance of platen = 150 mm max - Maximum working temp = 200 degree C - Digital Temperature control with an accuracy of $\pm 2^{\circ}\text{C}$ 1.Press capacity = 100 tons 2.Pull back force = 8tons 3.Main platen size = 600x600 4.Day light = 700mm 5.Stroke length = 400mm	- A Sturdy & heavy body made up of cast steel, hardened & chrome plated with a heavy base enough to withstand impact & load. 1. Mould opening & closing with programmable and independent strokes and speed.	- One No. Suitable mould - Other standard Accessories 1.Associated tools 2.Associated attachments 3.Standard accessories	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate -Machine operating manual. Maintenance manual and Parts catalog	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI Installation and demo	18 months from the date of supply or twelve months from the date of commissioning, whichever is later.

		6. Piston size of main cylinders = 250mm 7. No. of main ram + jacking cylinder = 1+2Nos. 8. Working pressure = 200 bars 9. Approach speed = 100 mm / sec 10. Pressing speed = 10-20 mm / sec, Return speed = 120 mm /sec 11. Ejector force = 2 ton , 01 no Ejector 12. Stroke length of Ejector = 175 mm 13. Electric motor = 7.5 H.P 14. Operation = PLC with touch screen 15. Platen Temp. = 400° C 16. Heating capacity = 6kw/ Platen 17. Limit switch controlled Operation 18. MCB Control for each heating zone separately 19. Star delta starter for pump motor with over load protection 20. Hydraulic operation with an oil tank of 200 liter capacity.	2. High tensile, hard chrome plated tie bar. 3. Standard make High torque hydraulic motor 4. Limit switches controlled operation, for stroke control. 5. MCB control for each heating zone separately. 6. Star delta starter for pump motor. 7. Overload protection for pump motor. 8. Oil temp. control meter. 9. 24VOLT D.C solenoid valve. 10. Propulsion valve for pressure & flow control with Electric Feedback.					
7.	Hand operated Blow Moulding Machine of 250 ml capacity	Hand operated Blow Moulding Machine of 250 ml capacity : - Minimum Manufacturing capacity: 8 inches - Plasticising capacity : 1.5kg/hr - Minimum Shots per hour : 100 - Screw Dia - 38mm - Max article weight - 50gm - Max mould size : 120x130 - Max mould open stroke : 125mm - MAX Volume : 250ml	- A Sturdy & heavy body made up of cast steel ,hardened & chrome plated with a heavy base enough to withstand impact & load and having	- One No. Suitable mould - Other standard Accessories	- Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	one Year

			temperature controller with graduations.					
8.	Hand Injection Moulding Machine	Hand operated Injection Moulding machine : - Minimum Capacity : 50 gm - Temperature controller unit : 0- 200°C - Weight of piece : Minimum 50 gm	- Solid Frame made up of Heavy channel with a heavy base	- Die - 02 Nos Ceramic Band Heater - One No. suitable mould - Other standard Accessories	Standard	- User/Operating Manual - List of Service Centres in India - Warranty Certificate	- To be supplied at designated ITI's in Himachal Pradesh - Training as required by staff of ITI	one Year

4. Drawings

Not Applicable