

## Section 7. Technical Specifications

Package Name: **Supply, installation, testing & commissioning of dry fruits and vegetables processing heat pump dryer with pre and post processing technology transfer and operational procedure.**

Package Number: IDF/GD-01

The Goods and Related Services shall comply with following Technical Specifications:

Item No	Name of Item or Related Service	Technical Specification and Standards
1	2	3
<b>1. Heat Pump Dryer-(HPD)</b>		
1.1	Product Name	Heat Pump
1.1.1	HPD Capacity	Minimum Rated Capacity 800 Kg input per batch
1.1.2	Product Material	Coated Cover
1.1.3	Compressor Brand	To be Mentioned by the bidder
1.1.4	Make and Model	To be Mentioned by the bidder
1.1.5	Country of Origin	To be Mentioned by the bidder
1.1.6	Country of Manufacturer	To be Mentioned by the bidder
1.1.7	Refrigerant	R134A or similar
1.1.8	Total Power	Min 6 HP (380V/3PH); Total power input 9.5 KW (Approximate)
1.1.9	Total Power Input (KW)	19.4 KW (1 Unit Dryer + 24 Unit Fan)
1.2	FAN	
1.2.1	Material	Steel Cover
1.2.2	Total Current	250 W (Approximate)
1.2.3	Fan quantity	16 Nos
1.2.4	Fan Size	Compatible with frame
1.2.5	Fan frame Size	L- 970 x W-250 X H-2000 mm (Approximate)
1.2.6	Fan frame quantity	2 Nos
1.3	Chamber (1 No)	L-5800 x W-2190 x H-2200 mm (Approximate) Panel thickness: Min101 mm

	Door (1 No)	L-1000 x W-1870 mm (Approximate)
	Maintenance door (1 No)	W-500 x L-850 mm (Approximate)
	Partition board (1 No)	L-960 x H-2000 mm (Approximate)
1.4	1 pc Cart and 16 pcs trays	L-870 x W-610 x H-1750 mm (Approximate)
	Quantity	12 Nos
1.5	Lampshade	Φ 200 mm
	Quantity	01 Nos
1.6	Rubber pad	Φ 100 X 50 mm
	Quantity	04 Nos
1.7	Rivet clipper	400 mm
	Quantity	01
1.8	Rivet	4 X 25 mm
	Quantity	01 Box
1.9	Screw	25 mm
	Quantity	1 box
1.10	Fix Partition board	30 mm X 30 mm
	Quantity	2 pcs
1.11	Allen key	8.0 mm
	Quantity	1 No
1.12	Silicone gel	1 box
1.13	Silicone gel tool	1 No
1.14	Electric heater	6 KW (Approximate)
	Quantity	1 No
1.15	Special Feature	HPD unit will be independent heat pump dryer unit to dry fruits, vegetables and other products. (Ripen / semi ripen jack fruit Pineapple, Mango and some reference herb and vegetables)
<b>N.B: SI no 1.1 -1.15 are one set of HPD. Supplier shall supply 3 sets of HPD (As per Price schedule)</b>		

<b>1. Screw Blancher</b>		
<b>2.1</b>	<b>Product Name</b>	<b>Slice fruit blancher</b>
2.1.1	Brand	To be Mentioned by the bidder
2.1.2	Make and Model	To be Mentioned by the bidder
2.1.3	Country of Origin	To be Mentioned by the bidder
2.1.4	Country of Manufacturer	To be Mentioned by the bidder
2.1.5	Heat energy	by steam
2.1.6	Pressure	0.8 Mpa
2.1.7	Structure	Heat exchange via bottom heating coil in the water tank, then material get heat by hot water and move forward by chain take blancher function.
2.1.8	Water tank+ chain+ heat exhaust etc	Size: 4500 x 800 x 1200 mm (Approximate)
2.1.9	Blancher power	2.2 kw for the chain driven or more
2.1.10	Pump	2.2 kw or more Min 150 Kgs steam consumption Min 150 Kg per hour steam generator to be attached Stainless steel fabrication Should have proper insulation Stainless steel made standard pipes and fittings
<b>2.2</b>	<b>Product Name</b>	<b>Slice fruit cooler</b>
2.2.1	Capacity	500 kg/h (Minimum)
2.2.2	Heat energy	By ice water
2.2.3	Structure	Heat exchange via cold water in the water tank, then material get cooling by ice water and move forward by chain Water tank+ chain etc Stainless steel fabrication Should have proper insulation Standard pipes and fittings stainless steel made
2.2.4	Size	3500 x 800 x 1200 mm (Approximate) Should be connected with Chilling System: water chiller with heat exchanger and cooling tower to be attached

3	<b>Chilling system</b>	Set for chiller + cooling tower together to maintain a minimum temperature of 0 to 10 C
3.1	Brand	To be Mentioned by the bidder
3.2	Make and Model	To be Mentioned by the bidder
3.3	Country of Origin	To be Mentioned by the bidder
3.4	Country of Manufacturer	To be Mentioned by the bidder
3.5	Details of Chiller and Cooling Tower	Low temperature chiller by air fan (-5°C) NLPA-15.1C; 1 set
		Cooling tower 20 m <sup>3</sup> /h, from 75-40 Celsius degree;1 set
		Water pump 5t/h 2 set
3.6	Refrigerating Capacity	26.2 kw, 22.5×10 <sup>3</sup> kcal/h, (Approximate); TR-7.4 (or Similar)
3.7	Power	11.9 kw (Approximate)
3.8	Current	21.1 Amp (Approximate)
3.9	Air Compressors	Power: 11.4 kw (Approximate)
		Running Current: 20.3 Amp (Approximate)
3.10	Ice Water	Pipe Dia: 32 mm (Min)
		Flow: 75 Lit/min (Min)
3.11	Fan	Power: 0.75 kw (Approximate)
		Running Current: 1.94 Amp (Approximate)
3.12	Water Pump	Power: 1.10 kw (Approximate)
		Lift: 25 MH (Min)
3.13	Water Volume	L-1850 mm x W-915 mm x H-1678 mm (Approximate)
<p><b>N.B: SI no 2 &amp; 3 are one set of Blancher &amp; Chiller system. Supplier shall supply 3 sets of Blancher &amp; Chiller System (As per Price schedule).</b></p> <p><b>Supplier shall propose a standard layout of the total unit, and shall provide all pipes and fittings to connect complete unit.</b></p>		

<b>4. Pineapple Peeling Machine</b>		
4.1	Material	Stainless Steel
4.2	Brand	To be Mentioned by the bidder
4.3	Make and Model	To be Mentioned by the bidder
4.4	Country of Origin	To be Mentioned by the bidder
4.5	Country of Manufacturer	To be Mentioned by the bidder
4.6	Power Supply	(2~2.5) KW
4.7	Total Power Input	(220~380) V
4.8	Dimension	2600 x 1500 x 1600 mm (Approximate)
4.9	Capacity	30~40 Pce/min
4.10	Other details	<p>It is suitable for peeling different kinds fruit like pineapple, pawpaw, taro, honey dew melon etc. very perfectly. Having high peeling speed, good peeling effect, wide application. After peeling, there will be a device which can push the material to come out automatically.</p> <p>Name of the Machine: Fruit and Vegetables Peeler Machine</p> <p>Machine Type: Cutter</p> <p>Material: Stainless Steel 304</p>
<b>5. Cutting Machine</b>		
5.1	Material	Stainless Steel
5.2	Brand	To be Mentioned by the bidder
5.3	Make and Model	To be Mentioned by the bidder
5.4	Country of Origin	To be Mentioned by the bidder
5.5	Country of Manufacturer	To be Mentioned by the bidder
5.6	Power Supply	(0.75~1) KW
5.7	Total Power Input	220 V
5.8	Dimension	760 x 560 x 1350 mm (Approximate)
5.9	Capacity	600-1000 kg/h
5.10	Other details	To simulate the principle of manual cutting, the "centrifugal slicing mechanism" completes the cutting of various vegetables, and automatically sends to the cutting wire or cutting block of the vertical knife. Different cutting tools can be cut into production patterns.

	<p>Randomly assigned 3 knives. According to the cutting requirement, the cutting machine can be installed on both sides of the double-layer conveyor belt to save time, improve work efficiency and reduce cost. This machine installs double protection switch, the design is advanced, more benefit the staff to do.</p> <p>Type of Machine : Cutter</p> <p>Control System: Automatic</p> <p>Cutting length/Size: about 2-20mm</p>
<p>6.0</p>	<p><b>Technical Services</b></p> <ol style="list-style-type: none"> <li>1. The selected company/supplier/Vendors must provide Technical support for HPD installation, operation and maintenance.</li> <li>2. Facilitate the training course to workers at place of installation and operation in Bangladesh. The training duration will be 5 days for 9 persons. The trainers' fees, Food, Accommodation, Transportation, Air ticket, and other logistics will be borne by bid winner company.</li> <li>3. The selected supplier must demonstrate 2-3 batches of production cycle by his own arrangement in Bangladesh.</li> </ol> <p><b>After-sales service</b></p> <ol style="list-style-type: none"> <li>1. At least 3 years' warranty or guarantee. (Service warranty with replacement of parts at free of cost)</li> <li>2. Provide spare parts and technical support for 3 years</li> <li>3. Operating video &amp; instruction manual will be sent to purchaser for better use the machines.</li> </ol> <p><b>[In case of a Bidder not doing business within the Purchaser's Country, the Bidder is or will be (if awarded the Contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications). Agent Shall provide a written confirmation with the tender to perform above services]</b></p>

N.B: The above mentioned notional standards will be regarded as basic minimum required standards. Any better standard is deem to be eligible.