

Amendment No. 1

Name of Project: Hon. Balasaheb Thackeray Agribusiness and rural Transformation (SMART) Project.

Name of CBO: Apegaon Agro Processor Farmers Producer Company Ltd., Wadwali, Tq. Paithan, Dist. Aurangabad.

Name of Tender: Inviting Quotations for Freeze Dryer Machine 200 Kg/Day for Apegaon CBO.

RFB: SMART/AAPFPCL/Goods/03/2023

RFB: Published on 12/09/2023 in Dainik Punyanagari.

Amendment No. 1

Original Clause: Invitation for Quotations For Supply of Freez Dryer Machine 200 Kg/Day Point No. 4 (Table) (Page No. 3 of Tender Document)

Amendment: Revised Table Attached below

Sr. No.	Brief Description Of the Goods	Specifications	Quantity in No's
1	Freez Dryer Machine 200 Kg/Day	<p>1) Freeze dryer - 1 unit of 200 kg per batch machine</p> <p>2) Blast freezer - 1 unit of 200 kg loading capacity</p> <p>3) Cooling tower - 1 nos</p> <p>4) 52+52=104 nos ss304 trays</p> <p>5) Installation, commissioning and training.</p> <p>Additional Accessories</p> <p>1) Cooling tower piping</p> <p>2) Mains cable to panels</p> <p>3) Cooling tower cables</p> <p>4) Thermic fluid</p> <p>5) Air compressor</p> <p>6) Defrost and drainage piping</p> <p>7) Defrost and drainage pump</p> <p>8) Earthing's</p> <p>9) Electrical cable distribution from main panel to equipment.</p>	1 Unit

Original Clause: Instructions to Bidders Point No. 1 (Table) (Page No. 5 of Tender Document)

Amendment: Revised Table Attached below

Sr. No.	Brief Description of the Goods	Specifications	Qty	Delivery Period	Place of Delivery	Installation Requirement if any																																																																																																
1	Freeze Dryer Machine 200 Kg/Day	<p>System will consist of-</p> <ol style="list-style-type: none"> 1) Freeze dryer -1 unit of 200 kg per batch machine 2) Blast freezer -1 unit of 200 kg loading capacity 3) Cooling tower -1 no's 4) 52+52=104 no's ss304 trays 5) Installation, commissioning and training. <p>Additional Accessories:</p> <ol style="list-style-type: none"> 1) Cooling tower piping 2) Mains cable to panels 3) Cooling tower cables 4) Thermic fluid 5) Air compressor 6) Defrost and drainage piping 7) Defrost and drainage pump 8) Earthing's 9) Electrical cable distribution from main panel to equipment. <p>Technical specifications of Freeze Dryer :</p> <table border="1"> <tr><td>1.</td><td>Freeze Drying Capacity</td><td>100 TO 200 kg / Batch</td></tr> <tr><td>2.</td><td>Batch Time</td><td>12 TO 24 Hr</td></tr> <tr><td>3.</td><td>Usable freeze-drying area</td><td>20 M2</td></tr> <tr><td>4.</td><td>Power connection</td><td>415 V 3 Ph</td></tr> <tr><td>5.</td><td>Connection load for machine</td><td>28 Kw</td></tr> <tr><td>6.</td><td>Connection load for Heater</td><td>18 Kw</td></tr> <tr><td>7.</td><td>Machine dimension</td><td>5000mm * 4000mm * 2500mm</td></tr> <tr><td>8.</td><td>Tray size</td><td>530 * 730 mm</td></tr> <tr><td>9.</td><td>Load per tray</td><td>4 Kg</td></tr> <tr><td>10.</td><td>Number of trays</td><td>52 + 52</td></tr> <tr><td>11.</td><td>Total Usable area</td><td>20 Square Meter</td></tr> <tr><td>12.</td><td>Tray material</td><td>SS 304</td></tr> <tr><td>13.</td><td>Chamber material</td><td>SS 304</td></tr> <tr><td>14.</td><td>Condenser piping material</td><td>SS 304</td></tr> <tr><td>15.</td><td>Condenser Capacity</td><td>200 Kg</td></tr> <tr><td>16.</td><td>Heater plate</td><td>Anodized aluminum</td></tr> <tr><td>17.</td><td>Refrigeration compressor</td><td>Bitzer make</td></tr> <tr><td>18.</td><td>Vacuum pump</td><td>Busch</td></tr> <tr><td>19.</td><td>Roots pump</td><td>Busch</td></tr> <tr><td>20.</td><td>Heater motor</td><td>Stainless steel high temperature seal motors 2HP</td></tr> <tr><td>21.</td><td>Cooling tower</td><td>FRP counter flow with fiber body 30 TR</td></tr> <tr><td>22.</td><td>Heater body and steam coils</td><td>SS 304 seam less pipes</td></tr> <tr><td>23.</td><td>Expansion valve</td><td>Danfoss make</td></tr> <tr><td>24.</td><td>HPLP protector</td><td>Danfoss make</td></tr> <tr><td>25.</td><td>Liquid oil separator</td><td>Danfoss make</td></tr> <tr><td>26.</td><td>Oil pressure protector</td><td>Danfoss make</td></tr> <tr><td>27.</td><td>Refrigeration Condenser</td><td>Bitzer make water cooled</td></tr> <tr><td>28.</td><td>Solenoid valve, sight glass</td><td>Danfoss make</td></tr> <tr><td>29.</td><td>PLC</td><td>Fuji electric WSZ 24MC series</td></tr> <tr><td>30.</td><td>Touch screen HMI</td><td>Fuji electric VSFT touch soft series</td></tr> <tr><td>31.</td><td>DATA logging</td><td>USB storage device</td></tr> <tr><td>32.</td><td>Power monitoring</td><td>Adept make digital power meter</td></tr> </table>	1.	Freeze Drying Capacity	100 TO 200 kg / Batch	2.	Batch Time	12 TO 24 Hr	3.	Usable freeze-drying area	20 M2	4.	Power connection	415 V 3 Ph	5.	Connection load for machine	28 Kw	6.	Connection load for Heater	18 Kw	7.	Machine dimension	5000mm * 4000mm * 2500mm	8.	Tray size	530 * 730 mm	9.	Load per tray	4 Kg	10.	Number of trays	52 + 52	11.	Total Usable area	20 Square Meter	12.	Tray material	SS 304	13.	Chamber material	SS 304	14.	Condenser piping material	SS 304	15.	Condenser Capacity	200 Kg	16.	Heater plate	Anodized aluminum	17.	Refrigeration compressor	Bitzer make	18.	Vacuum pump	Busch	19.	Roots pump	Busch	20.	Heater motor	Stainless steel high temperature seal motors 2HP	21.	Cooling tower	FRP counter flow with fiber body 30 TR	22.	Heater body and steam coils	SS 304 seam less pipes	23.	Expansion valve	Danfoss make	24.	HPLP protector	Danfoss make	25.	Liquid oil separator	Danfoss make	26.	Oil pressure protector	Danfoss make	27.	Refrigeration Condenser	Bitzer make water cooled	28.	Solenoid valve, sight glass	Danfoss make	29.	PLC	Fuji electric WSZ 24MC series	30.	Touch screen HMI	Fuji electric VSFT touch soft series	31.	DATA logging	USB storage device	32.	Power monitoring	Adept make digital power meter	1 Unit	6 Months	Gat No. 151/1, Wadwali, Tq. Paithan, Dist. Aurangabad	
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33.	Single phase preventer	Minilec make
34.	Cooling tower fan motor	Hindustan motors make 1 HP
35.	Vacuum atm to 2 mbar	15 min. product temperature should be less than – 15 deg C.
36.	Working vacuum	1 to 0.1 mbar
37.	Refrigeration temperature	-32 to -55 deg C
38.	Loading capacity	Tested on 80% water

Tech specification of Blast Freezer:

1.	Blasting Capacity	200 kg / batch
2.	Blasting Time	8 Hr
3.	Usable Blasting area	20 M2
4.	Power connection	415 V 3 Ph
5.	Connection load	6 KVA
6.	Evaporator Coil	Blue cold make 1 nos
7.	Refrigeration Compressor	Bitzer make – 1 nos
8.	Refrigeration Condenser	Bitzer make – water cooled condenser
9.	Chamber dimension	2000mm * 2000mm * 2000mm thk 100mm
10.	Material	100mm puff insulation
11.	Density	40 kg/M3
12.	Number of Trolleys	1 nos
13.	Temperature controller	Sub-Zero
14.	Blasting temperature	-25 to -35 Deg C
15.	Cooling tower	NA
16.	Expansion valve	Danfoss make – TES 5
17.	HPLP protector	Danfoss make
18.	Oil separator	Henry