



OASOTECH & DESIGNS LIMITED



Glucose Syrup Sweetner Project Proposal

Project : Glucose Syrup Processing Line

Model : SDGS-50

Capacity : 50Ton Glucose Syrup per 24Hours

PP Code : KFSD20190623

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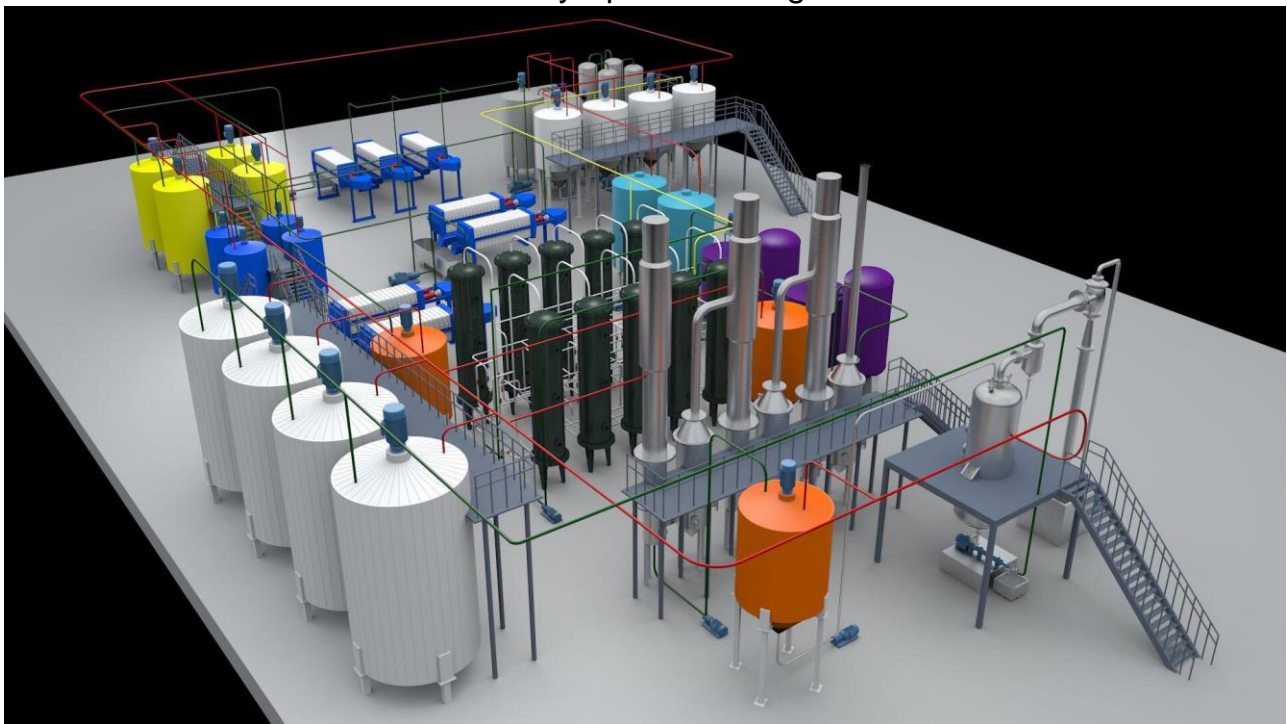
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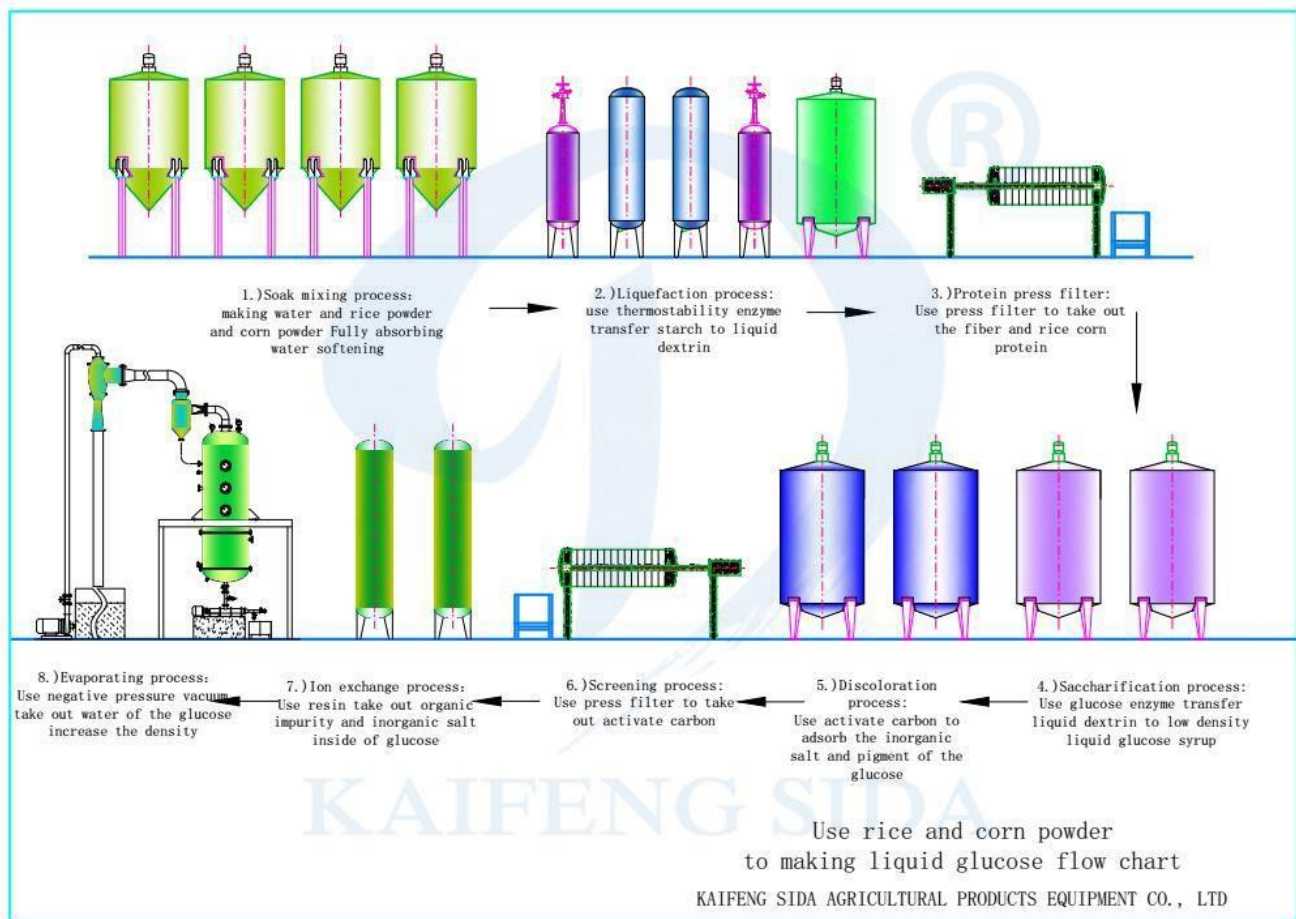
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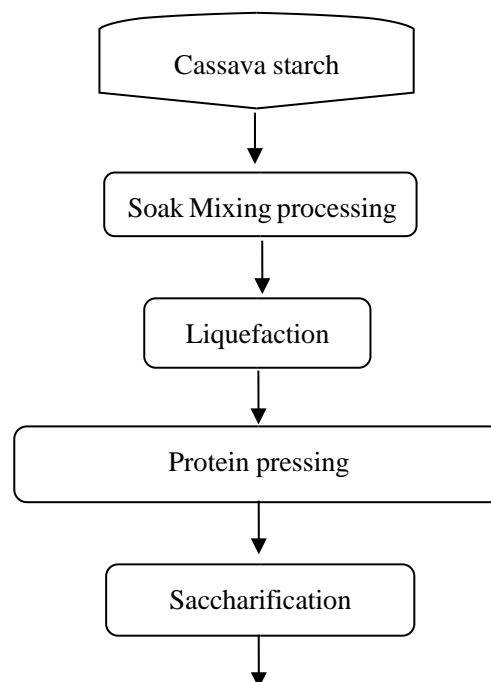
1. Process Description

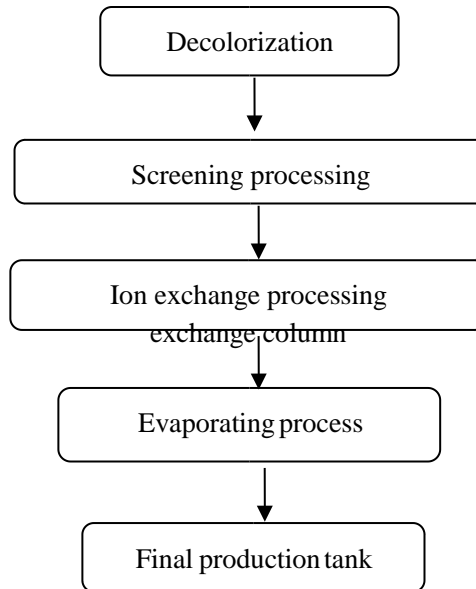
Glucose Syrup Processing Flow Chart





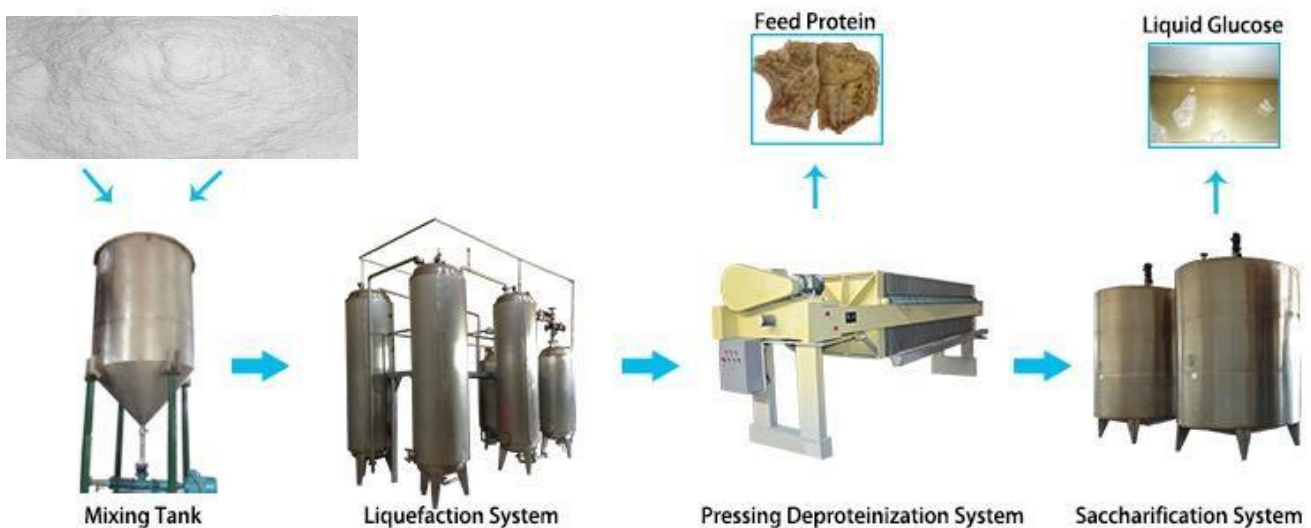
Glucose Syrup Processing Flow Chart





2. Main Equipment Unit

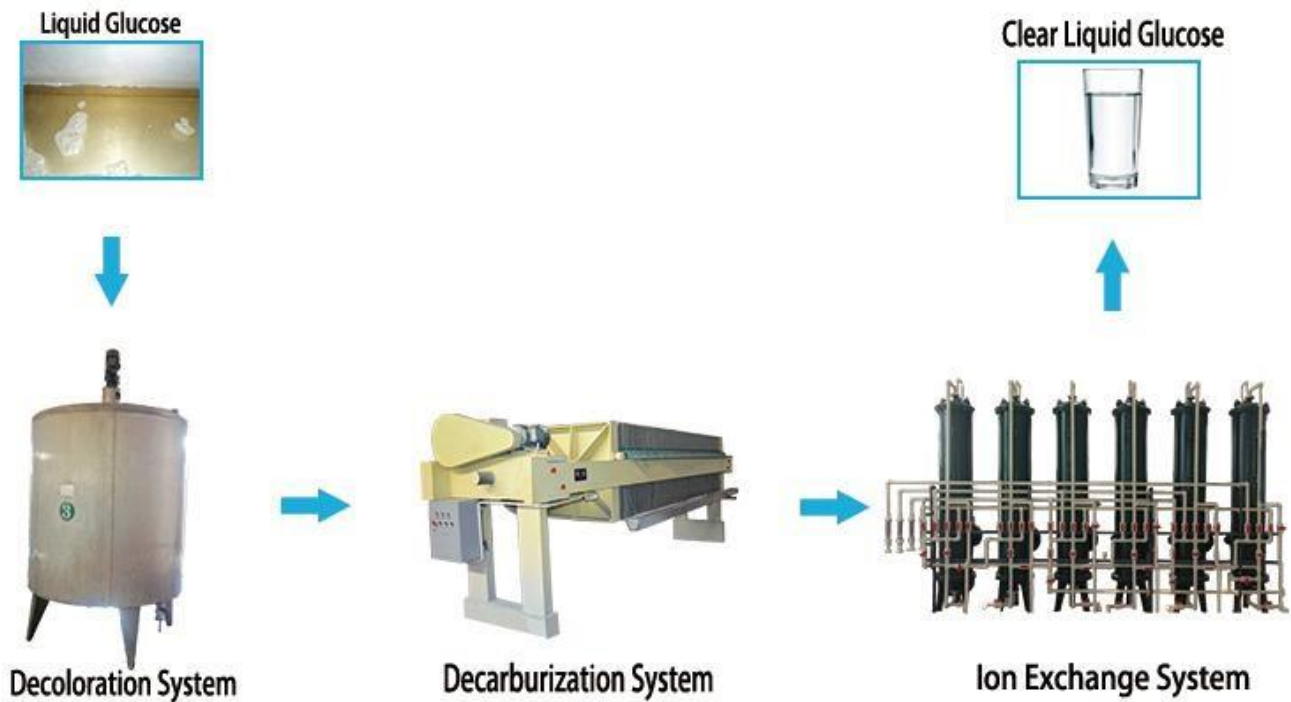
2.1 Mixing and saccharification system



1-a). The function of **mixing tank** is to get right density of the slurry, the water is very important at this time.

1-b). For liquefaction system, the temperature is very important. If temperature is too high the flour will be cooked.

1- c). **Press filter** is the parts to take all the protein out, at 70 to 80 degree Celsius will be very

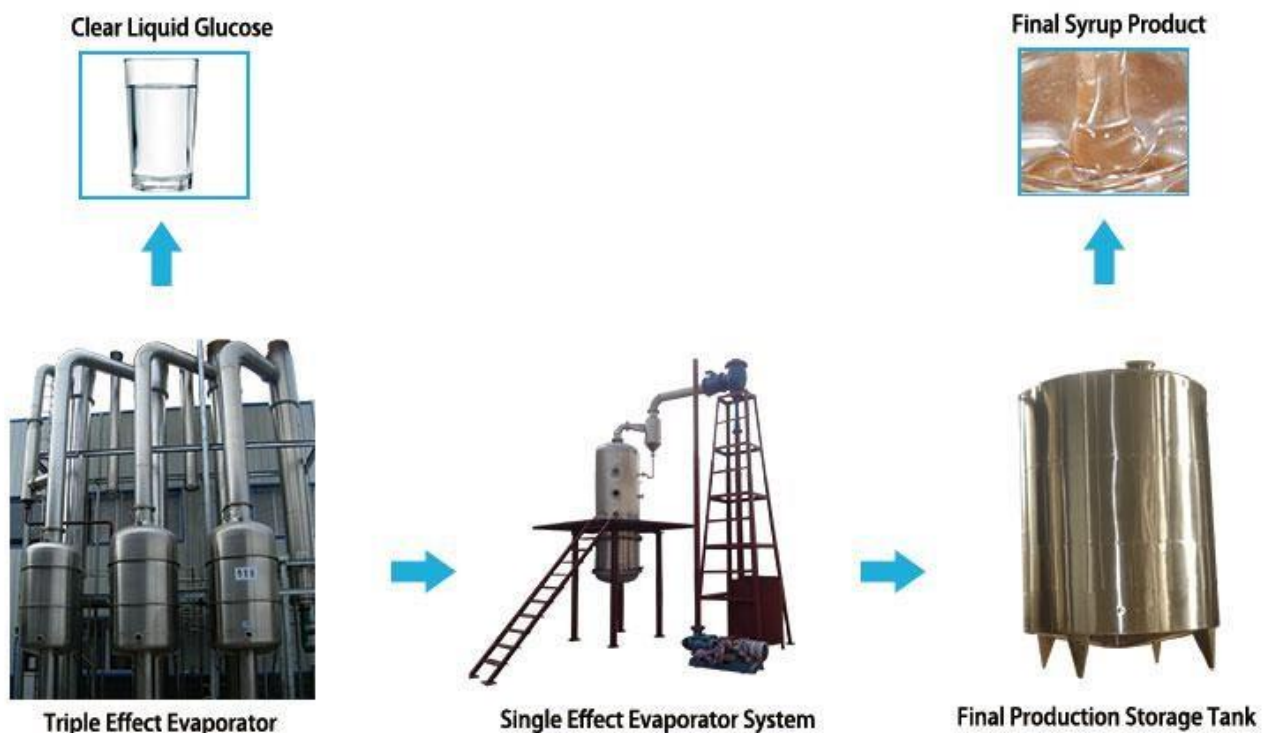


2- a). The decoloration main function is to attract color, this step will be effect to the final product level, about 90% of colour will be attract inside the activated carbon, this parts the temperature is very important,too.

2-a)

2-b). For inox exchange system, temperature is very important because if the temperature is too high, the transfer pipe will be damaged, and the resin will be not work, the speed also can not be too fast, the resin and glucose must touch a few second then the resin can take all the ion out side of the glucose.

2.3 Concentrating and storage system



3-a). Triple effect evaporator mainly used to concentrate the glucose density;

3- b). This is the last step, from this part customer can get final product, how much density you need, what color you need;

4- c). Final storage tank make sure all the glucose syrup can be stored properly, because the glucose will be thick on the pipe when the density is high like 84%, the glucose syrup can not pump out if the storage not properly. So the tank have constant temperature to make sure it can pump out in anytime.

3. Technical Service

3.1. Supervision of erection, commissioning, and start-up

Seller should be responsible for dispatching the experienced technical personnel for on site technical supervision of installation, commissioning, and give the warranty for the equipment performance.

Within the scope of supervision of start-up, supplier shall provide the following supervisory service:

- A. Advise the Buyer's concerned employees of the operation procedure and maintenance of the plant.
 - B. Set the time schedule of the installment giving details on the sequence of start-up of individual parts of the plant.
 - C. Advise on the mode and method of starting-up of individual plant units.
 - D. Advise the Buyer on the initial production run of the plant.
 - E. Instruct and train Buyer's staff on details of normal production conditions of the plant, and special operating conditions and emergencies.
 - F. Supervision of the daily activities of the Buyer's operating staff until the plant is ready for the trial run.
 - G. Supervision of the Buyer's operating staff in the performance run test.
 - H. Seller will be responsible for giving the detailed explanations for the technical documentations, drawings, operation manuals, equipment performance and relevant notice for the buyer's technical personnel, and answer & solve all technical questions.
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Man-day specified in this section should meet all requirements from installment of whole production line, commissioning, test-run, performance test up to final acceptance. The buyer should service charge **US\$150/day** for each technocrat. Also buyer should take charge of the round trip air tickets and accommodation for the technician.

3.2.Training of personnel

- a) The main training will adopt the terms of on-site training in the Client's plant, i.e the trainees will participate in the pre-operational activities of the plant. That includes the final erection activities, dummy runs, start-up and plant operation as well as necessary practices concerning equipment operation. This training will be completed by seller's supervisory personnel.

3.3. After sales service

- a) The warranty period of the equipment and materials of the contract plant supplied by the Seller shall be 12 months after the date of acceptance of the contract plant by the Buyer, but not later than 18 month from the date of delivery or re-delivery.
- b) Within the validity period of the contract, the Seller shall answer the questions from the Buyer in connection with the design and technical items in the supply scope of the contract and provide the relevant technical documentation to the Buyer free of charge.
- c) If any defective equipment and materials are found, the Buyer is obliged to notify the Seller within 1 week by fax and the Seller shall give a reply within 1 week.

4. Scope of Supply

序号 NO.	设备名称 Device name	型号 Model	功率 Power	台数 Quantity	备注 Remark
1.	浸泡调浆罐 Mixing slurry tank	16m ³	12kw	4 台 4 set	不锈钢材质，带搅拌机 Stainless steel with mixer
2.	喷射螺杆泵 Liquid ejector pump	G40-1	8kw	2 台 2 set	不锈钢材质带调速电机 Stainless steel adjustable-speed motor
3.	液化喷射器 Liquid ejector	HYZ-5 (6m ³ /h)		2 台 2 set	不锈钢材质 Stainless steel

4.	承压罐 Pressure tank	2m ³		1 台 1 set	不锈钢材质 Stainless steel
5.	层流罐 Laminar flow tank	3.6m ³		4 台 4 set	不锈钢材质 Stainless steel
6.	维持罐 Maintaining tank	2m ³		1 台 1 set	不锈钢材质 Stainless steel
7.	缓冲罐 Buffer tank	16m ³	6kw	2 台 2 set	不锈钢材质，带搅拌机 Stainless steel with mixer
8.	中转泵 Transfer pump	>15m ³ /h	4kw	1 台 1 set	不锈钢材质 Stainless steel
9.	箱式压滤机 Plate-and-frame filter press machine	120 m ²	9kw	3 台 3 set	聚 丙 烯带托盘带槽 PP with tray slot
10.	中转槽 Plate-and-frame flow slot	2.5m ³		1 台 1 set	不锈钢材质 Stainless steel

11.	中转泵 Transfer pump	> 15m ³ /h	4kw	1 台 1 set	不锈钢材质 Stainless steel
12.	板式换热器 Heat-exchanger	20 m ²		1 台 1 set	不锈钢材质 Stainless steel
13.	糖化罐 Saccharification tank	25m ³	12kw	4 台 4 set	不锈钢材质，带搅拌机 Stainless steel with mixer
14.	中转泵 Transfer pump	> 40m ³ /h	15kw	2 台 2 set	不锈钢材质 Stainless steel
15.	脱色罐 Decolorization tank	13m ³	6kw	4 台 4 set	不锈钢材质，带搅拌机 Stainless steel with mixer
16.	中转泵 Transfer pump	> 15m ³ /h	8kw	2 台 2 set	不锈钢材质 Stainless steel
17.	箱式压滤机 Plate-and-frame filter press machine	120 m ²	12kw	4 台 4 set	聚丙烯带托盘带槽 PP with tray slot
18.	中转槽 Plate-and-frame flow slot	2.5m ³		2 台 2 set	不锈钢材质 Stainless steel
19.	中转泵 Transfer pump	> 15m ³ /h	8kw	2 台 2 set	不锈钢材质 Stainless steel
20.	离交前后储罐 Transfer tank	20m ³	6kw	2 台 2 set	不锈钢材质，带搅拌机 Stainless steel with mixer
21.	中转泵 Transfer pump	IHW65-200(I)B	7.5kw	1 台 1 set	不锈钢材质 Stainless steel
22.	板式换热器 Heat-exchanger	20 m ²		1 台 1 set	不锈钢材质 Stainless steel
23.	精密过滤器， Ultrafilter			1 台 1 set	不锈钢材质 Stainless steel
24.	离子交换阳柱 Anion cation exchange column	Ø1200		6 台 6 set	碳钢材质，内衬胶 Carbon steel with inner rubber

		Ø1400		4 台 4 set	
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25.	四效蒸发器 Four effect - concentrate of evaporator	5.4t/h	40kw	1 套 1 set	不 锈 钢 Stainless steel
26.	中转罐 Transfer tank	10m ³	2.2kw	1 台 1 set	不 锈 钢 Stainless steel
27.	单效蒸发器 Single-concentrate of evaporator	1.5t/h	15kw	1 台 1 set	不 锈 钢 Stainless steel
28.	浓浆泵 Underflow pump	≤10m ³		1 台 1 set	不 锈 钢 Stainless steel
29.	板式换热器 Heat-exchanger	5 m ²		1 台 1 set	不 锈 钢 Stainless steel
30.	成品糖储罐 Final production tank	37m ³		4 台 4 set	不 锈 钢 Stainless steel
31.	热水罐 Water tank	20m ³		2 台 2 set	不 锈 钢 Stainless steel
32.	热水泵 Water pump	>8m ³		1 台 1 set	不 锈 钢 Stainless steel
33.	酸罐 acid Tanks	5m ³		2 台 2 set	玻璃钢 Glass reinforced plastic
34.	碱罐 alkali Tanks	16m ³		2 台 2 set	玻璃钢 Glass reinforced plastic
35.	耐酸.碱泵 Acidproof alkali pump	>8m ³	6kw	2 台 2 set	高分子材料 High polymer material
36.	凉水塔 Cooling tower	≥60 m ²		1 台 1 sett	玻璃钢 Glass reinforced plastic
37.	工作台架 Work platform			1 批 1 group	碳钢 Carbon steel
38.	管道阀门 Pipeline and valves			1 批 1 group	不锈钢, 塑钢 Stainless steel, plastic steel

39.	配电柜 Electrical chamber			6 台 6 sets	喷 塑 型 Plastic-paint type
40.	电线桥架			1 批 1group	
41.	合计 Total				

Note:

1. The Seller keeps right to revise design according to actual situation.
2. Washing parts are carbon steel, others are stainless steel, or make as customer's request.
3. Lab instruments not including.
4. Installation and materials not included, if need can be discussed later.

5. Commercial Part

5.1 Price

The price for the delivery of the equipment and service according to the List of Scope of Supply amounts to **NGN 768,427,200.000.00 ONLY**.

5.2 Terms of payment

70% T/T of the contract value to be paid upon signed nature of the contract.

30% T/T of the contract value to be paid after machine commissioning inspection by the buyer at the vender's workshop.

5.3 Time of delivery

Under the condition that Buyer provides in good time all the necessary import licenses and transfer permits, civil construction terminated in time, and considering the present manufacturing and transport conditions, the rough delivery time, calculated from the date of entering into force of the contract up to delivery from Kaifeng Workshop will be about **100 days**.

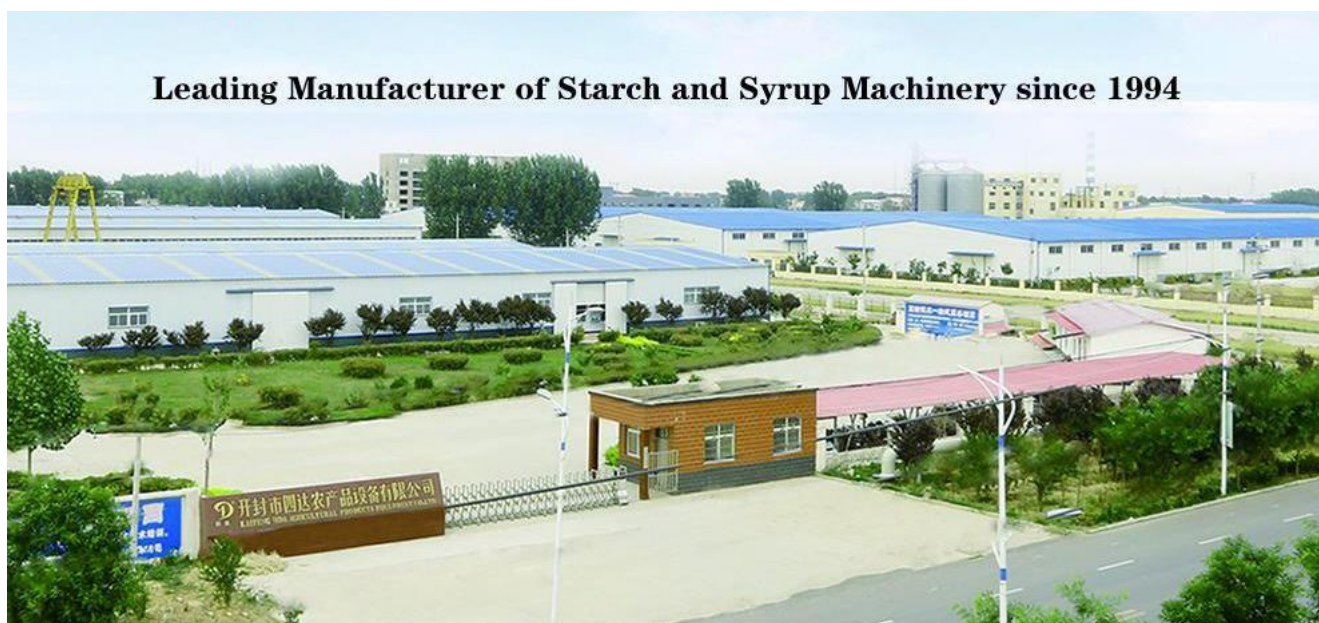
The contact will come into force when all the following conditions are fulfilled:

- b) Signing of the contract
- c) Receipt of the down payment

5.4 Warranties

Supplier will give the customer mechanical warranty for the equipment and will also guarantee the plant capacity, the quality of the end-product and the essential consumption figures based on the figures stated in the design Basis. The mechanical warranty shall be **12 months after start-up of the system, but not later than 18 month after the date of delivery.**

6. Company profile



Henan Lima Agricultural Products Equipment Co., Ltd. is based on manufacturing, researching & developing the complete set of cassava products deeply processing equipment since 1994. Registered capital of RMB6.6millions, covering an area of 33,335 squarem with an annual production value of RMB 50 millions. Our company had got **15pcs national**



7. Part of Partners

Domestic Partners			
No.	Name of Partners	Project	Year
1	Kaifeng County Zhongbang Science & Technology Ltd. 开封县众邦肥业有限公司	Sweet potato starch processing line 红薯淀粉生产线	2010
2	Hunan Yueyang Rongtai Starch Co., Ltd. 湖南岳阳蓉泰淀粉有限公司	Sweet potato starch processing line 红薯淀粉生产线	2012
3	Henan Fengqiu Central Plain Starch Co., Ltd. 河南省封丘县中原淀粉有限公司	Wheat starch processing line 小麦淀粉生产线	2013
4	Tongxu Sihai Starch Plant 通许县四海淀粉厂	Wheat starch processing line , skin machine 小麦淀粉生产线，面皮机等。	2014
5	Ningxia Guyuan 50 Plants 宁夏固原地区 50 个厂家使用我公司设备	Sweet potato starch processing line 红薯淀粉生产线	2014
6	Sichuan Starch Co., td. 四川淀粉设备有限公司	Wheat starch processing line 小麦淀粉生产线	2015
7	Chongqing Wanzhou Zeshi Agricultural Co., Ltd. 重庆万州择实农产品公司	Sweet potato starch processing line 红薯淀粉生产线	2017
8	Anhui Chuzhou Starch Production Co., Ltd. 安徽滁州淀粉生产公司	Sweet potato starch processing line 红薯淀粉生产线	2017
Abroad Partners			
No.	Name of Partners	Project	Year
1	Russia- Novosibirsk OAO Company	Wheat starch and glucose syrup equipment.	2013
2	Uzbekistan-Tashkent Glucose company	Glucose syrup processing line	2014
3	Bulgaria-Sophia	High fructose corn syrup(F-42)equipment	2015
4	Bangladesh-Dacca T.K. Group of Industries	Corn Starch glucose syrup equipment	2016
5	South Africa-Marketing Works cc Trading	Potato starch processing line	2016
6	Malaysia-Pahang Bio Starch Industries Worldwide Sdn Bhd	Cassava Starch Processing Line	2017
7	Nigeria – Abia VON BRIDGELAND NIG LTD	Cassava Starch Processing Line	2017

Chairman Zhang is Investigating Client's Worksite



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