

Technical Descriptions

of

36,000BPH/300ml/750ml PET Nitro Hot-fill Line



PROPOSAL No.	REVISION No.	DATE
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1. Cooling Tunnel



Main Technical Parameters

Model	YBL600
Type	Tunnel
Capacity	36,000bph 300ml/750ml PET bottle
Inlet bottle temperature	75~85℃.
Outlet temperature	≤30℃ (chilled water required for cooling)
Suitable bottle	Bottle height max 340mm.
Compartment	6
Temperature zone	4
Soft water pressure	≥0.15Mpa
Water consumption	~2T/H with cooling tower circulating
Main motor	0.75kw, with frequency inverter
Pump power	5.5kw x 6sets
Discharge end dryer blower	7.5kw
Total power	~40.5KW
Machine size	1840mmX5400mmX2000mm
Compartment width	5,000mm
Running weight	32,000kg

Plate exchanger	Included
Circulating pump balance tank	4kw, H=10m
Cooling tower	Provided by customer
Infeed and outfeed	With bottle jam control

Main Configuration

Pump	Most reputable Chinese brand
Main speed reducer	SEW
Inverter	Danfoss
Bottle conveyor motor	SEW
Proximity switch	OMRON or equivalent
Chain net for conveying	REGINA (Italy brand)
Chain wheel	REGINA
Comb board	REGINA
PLC	Siemens S7

Structure

- Consists of frame (SUS304), transmission (Engineering plastic chain), bottle-cooling spouting area, clear water spouting area, connecting pipeline and electrical control etc.
- Rotary sprayer with haze sprinkling is to be adopted.
- Water self-sump circulation.

4 temperature zones, full closed structure.

2. Air Blower



Main Technical Parameters

Model	CG01/02
Body	Stainless steel body
Knives setting	For blow the bottle body and cap
Fan quantities	2set
Power	7.5kw per set

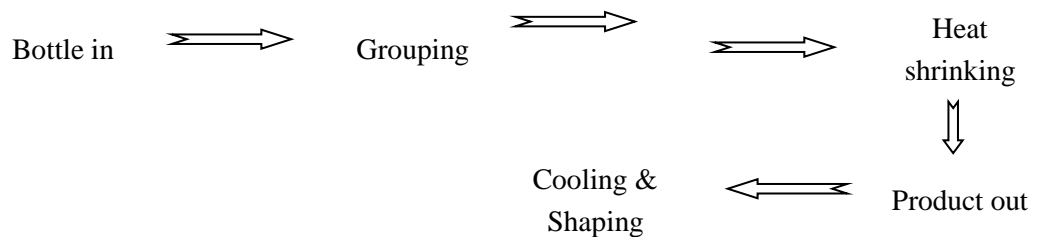
3. Shrink Film Packer



General Descriptions

- 1) The shrink film packer consist of container conveyor, packer, and heat shrinking tunnel, and mechanically it has mechanism of container conveyor, container press device, film feeding, container pushing, film wrapping, pack press device, frame, container stopper, heat shrinking tunnel and electrical automatic control system.
- 2) Film Packer uses heat-shrink film to automatically and continuously pack glass bottles, PET bottles, cans, jars, etc., and is suitable for automated production lines for beer, beverages, condiments, food and other products.

Function Flowchart:



- Bottle in – consists of a conveyor belt and a guide plate, so that the products are arranged as required.
- Grouping – divide the product into two groups of single quantity combinations,

equipped with a linear conveyor belt grouping device.

- Packing – unwinding, cutting and wrapping the film onto the product.
- Heat shrinking – the product is heated and thermally shrunk by a hot air tunnel.
- Cooling and shaping – cooling with fan and natural cooling.

Main Features:

- 1) HMI, easy for operation.
- 2) Vibration containers dividing without container jam and pushing, smooth running.
- 3) Film roll feeding in constant tension, servo cutting.
- 4) Auto lap joint film wrapping, good for high shrinking strength.
- 5) Servo motor control for container feeding, film feeding, film cutting and wrapping.
- 6) Precise synchronous control, stable.

Main Technical Parameters

Model	120WD
Rated capacity	Film-only type 60packs/min in 300ml & 750ml 4x3 format; 120packs/min in 300ml & 750ml 3x2 format.
Film thickness	95-120um(0.05-0.1 mm)
Density	0.94 g/cm ³
Vertical shrink ratio	70±5 %
Horizontal shrink ratio	20±5 %
Hot shrink temperature	180—210℃
Film core roll diameter	75 mm
Maximum outer diameter of film roll	350 mm
Maximum width of film	830 mm
Working noise	≤65dB
Total installed power	205kw
Weight	5,000kg
Color film capability	Included
Film static eliminator	Included

Main Components Standard

Item	Brand
PLC	B&R
HMI	B&R
Servo driver	B&R
Servo motor	B&R
Main switch	SCHNEIDER
Contactator	SIEMENS

Reducer of conveyor	SEW
VFD	DANFOSS
Photoelectric switch, Proximity switch	LEUZE, AUTONICS
Pneumatic component and magnetic valve	FESTO/SMC

4. Auto Palletizer



Main Technical Parameters

Model	MD120
Capacity	Film packs 60packs/min in 300ml & 750ml 4x3 format; 120packs/min in 300ml & 750ml 3x2 format.
Case format	300ml 4x3bottles/pack 750 3x2bottles/pack
Packing type	Film-only
Machine color	As per customer
Machine dimension	Refer to layout
Power supply	3-phase AC 400V, 50Hz, control voltage: 24V DC

Compressed air	0.6MPa
Air consumption	150NL/min
Weight	16T
Total installed power	48KW
Pallet format	To be confirmed with customer
Pallet size	1200x1000x150mm (LxWxH), to be confirmed with customer
Max palletizing height (include pallet)	1950mm

Main Components Standard

PLC	Siemens S7 series
HMI	Siemens
Main power switch	ABB
Contactora	SIEMENS
Breaker	SIEMENS
Relay	OMRON
Inverter	DANFOSS/AB
Photo cell	P+F
Proximity switch	P+F
Solenoid valve	AIRTAC
Pneumatic components	AIRTAC
Main reducer motor	SEW
Case and pallet	China famous brand

Main Features

1) Reasonable design and simple structure

- Optimized structure design, stable and reliable operation; Automatic palletizing process, no need manual intervention in normal operation;

Improve the utilization ratio of space per unit area, the palletizing can make the goods develop to the high level and save the site;

- Reduce labor intensity, improve the production efficiency;
- Easy monitoring and convenient operation, easy to maintain and repair;
- Can be automatically adjusted according to the flow status of the conveyor, to meet the production needs.

2) Advanced control system

- The main control components, including PLC, inverter, proximity switch, button switch and wiring terminal, all adopt first-class products to ensure the reliability and long life of the system hardware;
- The combination of high quality hardware and special control software designed by

experts realizes the high degree of automation of the system;

- Automatic PLC control, adopt SIEMENS series products, exclusive colorful HMI to display instantaneous and cumulative pallets number and connect with related printer to print that;
- The HMI is controlled by electric touch screen and control button, which can directly input and modify the parameters of the palletizing specification, and can also store a variety of parameters of different palletizing specifications;
- All working steps have sensors to detect, with self-diagnosis function, when any errors occur, the equipment automatically shut down, alarm lights shining, the error type display on the HMI;
- Switch logic interlocking with external devices;
- Complete set of electrical and gas piping systems that can be connected directly to the user's facilities.
- All connecting mainframe control, signal cables adopt repeated folding flexible cable.

3) Quick and convenient replacement of palletizing specifications

- Multiple sets of parameters with different palletizing specifications can be stored in the HMI in advance. When replace the palletizing specifications, only a corresponding set of parameters can be selected;
- No need to replace any fittings, only need to adjust the location of some parts to fit the new palletizing specifications.

4) Excellent mechanical properties

- The feeding drum is made of stainless steel and the palletizing drum is made of carbon steel.
- The operation platform adopts carbon steel material, anti-skid structure;
- The main drive component is fabricated after 45# steel heat treatment and surface preparation, the frame and other components are fabricated by high quality carbon steel;
- The surface spraying quality is good, the whole machine has strong anti-rust performance;
- All lubricating parts are reasonably designed and easy to operate;
- Adopt double channel structure.

5) Safety measures perfect

- Has perfect mechanical, electrical protection, process and safety protect function, equipped with self-locking emergency button;
- Equipped with a safety monitoring signal system, when encounter obstacles and abnormal operation of the machine, it will automatically stop to ensure the safety of equipment;
- The equipment conforms to the related safety operation and running specification and the standard, with the reliable protection earthing;
- Reasonable control mode of the equipment and distribution of the control points, which is convenient for the management of the production workshop and the safe operation of the

operator.

5. Conveying System



Main Technical Parameters of Bottle Conveyor

Model	YSP
Bearing	Axial bearing
Side board	With=145mm, thickness=2.5mm,Stainless steel
Support leg	Support leg=φ50*2, foot diameter=φ80 , M16*150 Adjusting screw
Water receiving plate	Thickness=1-1.5mm, full stainless steel structure, including the center lubricating system
Driving sprocket wheel	Open-close type, solid structure
Top flatted chain board material	Engineering plastic belts
Top flatted chain board spec	Modular belts 8.7mm
Guiding board	Can be adjusted
Guiding board material	Wearable plastic guiding
Guiding board design	Label protect design
Motor type	Asynchronous motor
Motor brand	SEW
Motor pcs	According to the line layout

Speed reduce box type	Turbine speed reduce box
Switch	Omron or equivalent brands
Central lubricating system	Dry lubrication type.
Control panel	S.S panel
PLC	Siemens S7
Inverter	Danfoss
Low voltage electric components	Mainly Siemens or Equivalent Brand

Main Technical Parameters of Pack Conveyor

Model	YSX
Capacity	Match with the layout and the capacity
Bearing	Axial bearing
Support leg	Support leg=φ54*2, foot diameter=φ80, M16*150 Adjusting screw
Side board	Width=160mm, thickness=2.5mm, S.S
Pack conveyor	Modular belt / plastic roller ball type after shrink wrapping film packer.
Motor	SEW

Thanks for choosing our product. In order to safeguard your rights and interests, please carefully read this instruction before you use the product. And after reading, please keep it carefully for future reference

Hard Ice Cream Machine Operating Instructions

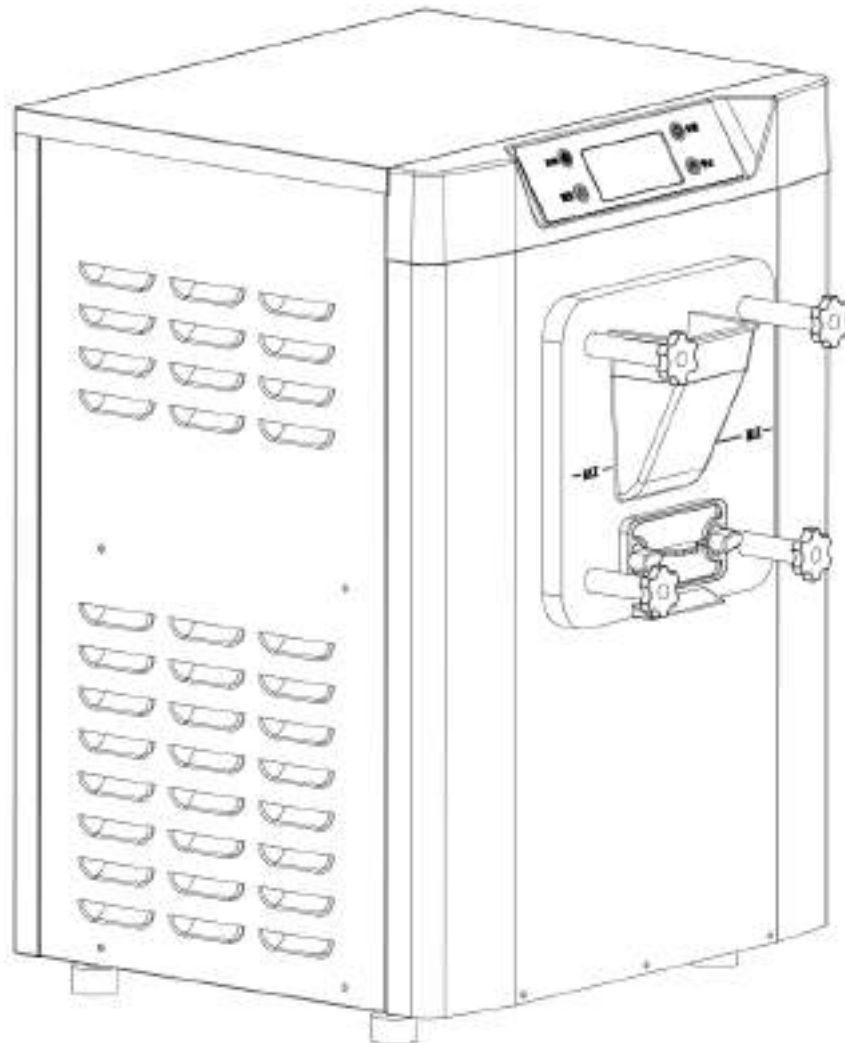


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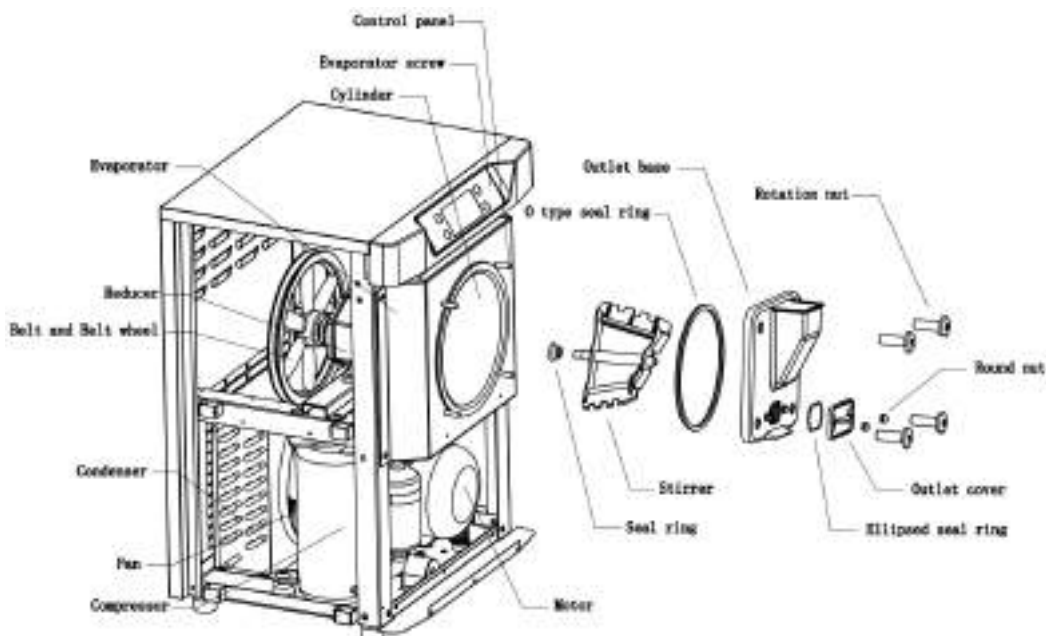
1.Usage and feature

Hard ice cream machine is mainly used for making hard ice cream, the biggest feature of this machine is small and exquisite, fashionable appearance, simple operation, easy to install and use, if equipped with a small refrigerator, it can become small factory for production of box ice cream. It is widely applicable to stalls, workshops, canteens and restaurants, hotels and bars. Secondly, the stream line design of the machine shows a luxurious and beautiful appearance, and it is easy to clean, makes it healthy and hygienic. The machine uses high-quality compressors and reducer, which makes it high efficiency, lower power consumption, safe and reliable, will bring you considerable economic benefits.

2.Security precautions

1. When you carry or move the machine, the tilting angle should not be more than 45°
2. The machine power outlet should be single-phase three-hole, ground protection pin must use the specific wire, cannot use the same socket with other household appliances
3. Voltage must be the same as the one shows on the rating plates, tolerance within 10%.
4. For machine installation, access to the wind grid should stay more than 50 cm space to ensure that the machine have efficient heat dissipation.
5. After the compressor shutdown, to restart it, there must be 3 minutes interval.
6. The power supply of the machine should be cut off after used, and clean the machine. When cleaning the mix cylinder, the beater can be removed and fitted with seal ring for cleaning by water, then wipe with towel. The machine body can be wiped with damp cloth, but must avoid to rinse by water.

3.Product structure diagram



4. Operating instructions



a) The “SET” key

In the stop state, press the “SET” key, when the display window number flashes, continue to press the “SET” key to set the ice cream making time (10 to 35 minutes cycle), no operation for 5 seconds, the machine will automatically exit and save the time.

b) The “AUTO” key

In the stop state, press the “AUTO” key, the machine enters the automatic mode, the auto indicator light is on, the display window displays the countdown, and the stirring motor starts to work. After one minute, the compressor starts to work, the countdown ends, the ice cream is finished, and the display window displays END. The buzzer sounds.

c) The “CLEAN” key

In the stop state, press the “CLEAN” key, the machine enters the cleaning mode, the cleaning indicator lights, the stirring motor works, and the display window displays the current value of the stirring motor.

d) The “STOP” key

In the automatic or cleaning mode, press The “STOP” key, the whole machine stops working, and the stop indicator lights.

5. Installation

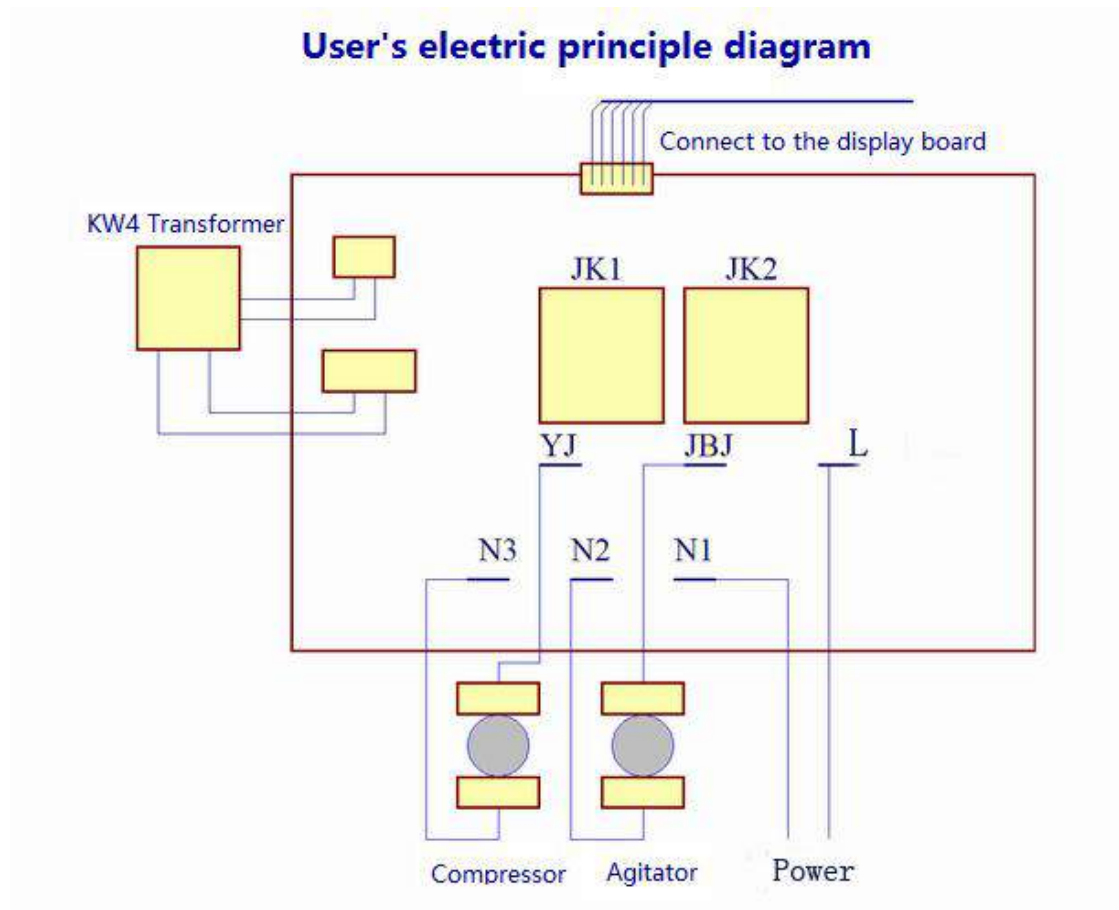
Clean the parts (such as the discharge base, beater, seal rings), fix them to the machine as the following steps indicate:

1. Set the horn shape seal ring in the square shaft of the beater, the small diameter mouth should be set in first, then align and insert the square shaft to the mix cylinder, then turn the beater by hand till it is difficult to turn any more, that means it has been installed in place.
2. Insert the ellipse shape seal ring into the groove of the discharge front cover, then fix the front cover to the discharge base, and fix it firmly with the locking nuts.
3. Insert the O shape seal ring to the groove of the discharge base, then fix the discharge base firmly to the evaporator screws by the fixing nuts. Then the machine is standby to start to make hard ice cream.

6. Ice cream making method

- a) Put the ice cream powder into a clean container, add 40°C water, (**Generally 1 kilogram of ice cream powder should be mixed with 2.5-3 kilograms of purified water.**) If necessary, milk, sugar, flavor, etc., can be added appropriately, then stir the mix evenly.
- b) Turn on the power, put the ice cream mix into the feeder, so that it gradually into the mix cylinder, pay attention that the mix should not exceed the max line.
- c) Press the “Set” button to set the ice cream making time between 10 to 30 minutes. (Hint: The setting number can be recycled, after setting, wait 5 seconds, then it will exit and save the setting number.)
- d) Press the “Refrigeration” button, the motor starts, the digital screen shows the countdown, the compressor automatically starts after one minutes, ice cream making starts.
- e) After a few minutes, the display shows "end" and the machine stops and sounds, indicating that the ice cream is ready.
- f) Loosen the locking nut of the front cover, press the "Clean" button, the beater will gradually put the ice cream out, then catch it and put it in the freezer.
- g) Re-tighten the discharge front cover, feed the mix to the cylinder, then it can be repeated to make ice cream.
- h)

7. Electric principle diagram



8. Common errors and their solutions

Errors	Possible causes	Solutions
The machine cannot start.	1. Whether the power supply voltage is normal.	1. Adjust the voltage.
	2. Whether the power is connected or the fuse is blown.	2. Reinsert or replace the fuse.
	3. Whether the machine is restarted after three minutes of its turn off.	3. Wait three minutes to restart it after its turn off.
Automatic shutdown frequently	1. Whether the power supply voltage is normal.	1. Adjust the voltage.
	2. Whether the air grid is blocked.	2. Keep 300mm space for the air grid.
	3. Whether for some reason, the machine inlet air temperature is too high.	3. Find out the cause and solve it.
There is noise and vibration	1. The machine is placed uneven	1. Place the machine evenly.
	2. The beater blade is broken.	2. Change the beater blade.
	3. Lack of oil or dirty oil in the reducer.	3. Add oil or change oil.
	4. Machine parts are loose.	4. Fix the parts firmly.
	5. The belt is too loose or too tight	5. Adjust the belt.

9. Maintenance and repair

1. The machine warranty for the hard ice cream machine is 1 year (start from the purchase date), if exceed the warranty period, appropriate fee will be charged for repairing.
2. Machine maintenance and repair, human factors damage, wearing parts are not covered under warranty
3. If the machine fails, please find a professional or manufacturer.

Messrs

Arsan Agro Industries Co

Alavi st Ferdosi sq

Tehran Iran

hamid.akhavan@sunich.org

Tel 021-88849128

Project manager Hamid Akhavan



UHT MILK STERILIZATION UNIT
Dual use: direct & indirect heating
Working capacity: 8000 L/h of raw milk

PRELIMINARY OFFER NR.

OEG22035REV1

24/05/2022

TECHNICAL OFFER

Pictures included within this document might not represent exactly the equipment being quoted and are proposed exclusively as an example without any liability and are not binding upon Fenco.

(A) UHT MILK PRODUCTION UNIT



Consisting of:

A1) N.1 DEAERATOR / DEODORIZATION TANK DT1500

For elimination of off flavor in the reconstituted milk, volume 1500 L .

Including:

- stainless steel expansion vessel with removable lid
- tangential milk inlet (inlet average temperature +68°C) thin film on the wall
- CIP washing ball
- sight glass
- milk level control system
- vacuum pump with protection
- tubular condenser gas/water, complete with electro valve for steam,
- vacuum - meter and stainless-steel connections
- stainless steel electro pump for milk outlet,
- 2 butterfly valves 2 ways for deviation when washing
- electro valve for water on vacuum pump
- Approx. installed power: 5,5 kw

A2) N.1 HOMOGENIZER Mod. HPA8000

For the homogenization of the milk.

Working capacity: up to \pm 8000 L/h;

Working pressure: 250 bar;

Stages: 2;

Driving unit: electric motor with FVD;

Including:

- Compression head;
- 3 pistons set up;
- Hydraulic group;
- Pressure safety valve and transmitter;
- Pressure embedded lubrication system;
- Sanitary construction specific for milk;
- Supporting skid with adjustable feet;
- On board piping, fittings and valves as necessary;
- On board switch electro-pneumatic control panel and wiring;
- Materials: all parts in contact with product AISI316 mirror polished, other parts AISI304 polished, rubber or plastic components sanitary certified.
- Approx. installed power: 75 kw
- Approx. cooling water consumption: 1000 L/h



A3) N.1 ASEPTIC STERILIZER-COOLER UNIT Mod. UHT-TP8000

For the sterilization, holding and cooling of milk, flavored milk, drinking yogurt, juice, destined to UHT aseptic tetra-bricks filling line. Having following features:

BASIS OF DESIGN

Product : Milk with fat content 0.1 / 3,5%, flavored milk, drinking yogurt, juices.

Capacity : 9000 L/h (step 1) or 4000 L/h (step 2)

Temp Program : 4 -90 -145°C / 4 sec - 80 - Homogenization – 40 – 25 C Regeneration: ±86%

Heating Media : Hot water at 148°C; Cooling media: Chilled water at 2 deg C (chiller NOT included)

Homogenization temperature / pressure: 70°C / 250 bar

Milk quality:

pH – 6.6 – 6.8

Alcohol stability – not more than 68% Bacterial count - < 600,000 cfu / ml Spore - < 10 / ml

Including:

PRODUCT FEED PUMP

Capacity: 15000 LPH, centrifugal, VFD

TUBULAR HEAT EXCHANGER (THE)

Pre-heating section

Heating section, with expansion bellows

Holding tube for total 04 seconds retention time

Pre-cooling section Cooling section

Inner tubes – SS 316

Outer shell – SS 304

All heating and cooling sections consisting of tube-in-tube corrugated type

THE is designed considering the CIP and the CIP flow requirement

HOT WATER SYSTEM

Hot water system will be THE based and will house an expansion chamber and other safety devices to take care of the volume expansion and increased pressure making the complete operational safety.

consisting of:

Expansion chamber, Tubular heat exchanger, Safety Valve, Hot water Control valve, Air vent, pneumatically controlled steam control valve with I/P converter, Water make up valve, Steam trap

Hot water pump: 15m³/hr, Grundfoss / Johnson make.

HOT WATER CIRCULATION PUMP SECOND CIRCUIT

Capacity: 15000 LPH, Grundfoss / Johnson make

PLC CONTROL PANEL

PLC system with inbuilt Ethernet connectivity. PLC model selected is suitable for connectivity to main SCADA system (if existing) & future expansion,

Make: Siemens

HMI touch screen as operator interface

IP55 cabinet in SS 304 construction

The panel is mounted on module frame

VALVES

Seat valve – actuated, Alfa Laval make

Constant Pressure Modulating valve – Alfa Laval make

Butterfly valve – actuated, Alfa Laval make

INSTRUMENTS

Electromagnetic flow meter, E&H make Temperature Transmitter, E+H make Pressure transmitters, E+H make

Level Switches, E&H make

Hygienic Pressure gauges

ELECTRICAL

Power cables from panel to motors, control cables for instruments, valves, cable trays, conduits-

SS PIPES & FITTINGS

SS 316 pipes & fittings for interconnection in the module

MODULE

Above components is mounted on SS 304 skid & complete with internal pipework in compact modular construction except Tubular heat exchanger which is kept beside the module on a frame work.





A4) N.1 MILK BUFFER ASEPTIC TANK Mod. AT12000

For collecting the milk and feed the aseptic UHT filling unit. Including:

- N.1 vertical cylindrical tank, insulated, with low speed stirrer;
- Level controls;
- Capacity: 10.000 L;
- N.1 CIP centrifugal pump for the UHT sterilizer;
- N.1 CIP centrifugal pump for aseptic tank;
- N.1 Flowmeter E&H;
- N.2 Electro-pneumatic butterfly valves;
- N.1 Flow distribution plate with 5 ports;
- CIP Flow plate;
- CIP return pump;
- N.2 CIP dosing pump;
- N.1 conductometer;
- In-line filter;
- Nitrogen aseptic filter (nitrogen production unit NOT included)
- Supporting skid with adjustable feet;
- On board piping, fittings and valves as necessary;
- On board switch electro-pneumatic control panel and wiring;
- Materials: all parts in contact with product AISI316 mirror polished, other parts AISI304 polished, rubber or plastic components sanitary certified.
- All flanges in the cold section with steam barrier.
- Approx. installed power: 38 kw

- Approx. steam consumption at 3 bar: 50 kg/h
- Approx. useful dimensions Ø 2150 x 5000 mm total height 5980 mm approx..



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A5) N.1 CONTROL ELECTRO-PNEUMATIC PANEL

For the control of all equipment of this section and connected accessories.
with stainless steel frame, equipped with:

- PLC and 10" touch screen interface to control the following parameters:
 - dwell times
 - water temperatures
 - alarm messages
- Inverters for belts speed adjustment.
- Siren and alarm warning light
- Push switches

Full process automation system powered by PLC: work cycles are completely automatic; parameters can be changed/controlled.
Possibility to have different recipes – menus inside the PLC to configurate automatically the system upon different products.



- PLC with HMI ETHERNET connection (INCLUDED)
- MODEM FOR TELESERVICE (INCLUDED)
- Degree of protection IP54
- Air conditioning and ventilation included.

A6) N.1 KIT TO UPGRADE THE UNIT TO DUAL USE FUNCTIONS

This additional kit will allow the system to work with both direct steam injection and indirect steam heating.

The kit consisting of:

- Larger deaeration tank ;
- Modification to the software;
- Special AISI316 nozzle for steam injection in the product in order to rise the temperature from +130°C up to 145°C with a ΔT of about 15°C;
- One steam modulating valve and by-pass with safety valve;
- Steam filter group;
- Connecting piping and valves.



A7) ADDITIONAL FEATURES as per correspondence

The exchange of correspondence below is part of this quotation.

- Production flexibility for both dairy products and juices temperature: 90-150°C adjustable. Inlet temperature: 4 -10°C Outlet temperature: +20-30°C adjustable. **Accepted but maximum temperature 140°C.**
- CIP system with CIP programs for Intermediate Aseptic Cleaning, End Production CIP Cleaning controlled by PLC software for all components **YES included.**
- All phases like pre-sterilization, production, end of production and CIP Cleaning to be completely controlled by the automation system. **YES correct.**
- Confirmation that The plant can be used as an INDIRECT UHT using indirect steam and also can be used as an INDIRECT-DIRECT using indirect and direct steam. **Confirmed if the item A6 of our Technical Offer is being purchased.**
- Pre-alarm if the sterilization temperature is 3°C below to the fixed value (settable). **Included.**
- When the difference of temperature hot water/product exceeds the limit of +10°C the plant activates an alarm warning that total or aseptic CIP cleaning to be made **Included**
- End of Production phase and automatic passage to the CIP cleaning phase if the drop of product sterilization temperature will be of +5/7°C below the fixed value (settable). **YES possible.**
- The conductivity instrument to be used during internal CIP of the heating unit. It measures the conductivity of the CIP detergents and rinse water as these are circulated or flushed through the unit. The conductivity instrument provides supervision functionality to the internal CIP system, enabling optimization of the CIP process. **Included.**

- fully automated plant, controlled by a PLC system that guarantees a proper thermal treatment. **Confirmed**
- Pre-sterilization of each part of the plant, under aseptic conditions, by means of water at +148°C for 30' continuous. **Correct**
- Production with total security that the processed product comes out of the plant only if aseptic. **It is not clear this question. If the temperature profile is the one set the system will be aseptic there is nothing else we can do, it does not exist a sterility device on line. Only thing we can offer an aseptic sampler from where you can draw a sample as many times you want but the check is to be done in the laboratory.**
- End of Production to empty the installation of the product through a push by water and stand-by with 2 options: Intermediate Aseptic Cleaning (to change product or restart production) or End Production Cleaning. **Included.**
- CIP Cleaning with automatic adjusting of temperatures, cleaning times, solution concentration and flow for a perfect plant cleaning. **Included.**
- program will allow to start production only if the plant has been cleaned and sterilized. **Included.**
- The pre-sterilization of the plant will be possible only if already cleaned. **Included.**
- In the thermal regeneration section possibility to contaminate the already sterilized product in the remote case that eventual micro-holes appear should be zero this happen by auxiliary circuit recycles sterile water so, even in presence of a micro-hole, this won't harm the sterility of the product. Moreover, an overpressure of the product circuit to be foreseen respect the sterile water circuit. **OK this modification with necessary devices will be installed at charge.**
- product only flows in the of the multiple tubes, each thermal exchange module will be easily inspectionable by opening the special aseptic connections in the bolster of each module (for example, for periodic controls of good cleaning). **Correct.**
- Also in the cooling sections the sterile product pressure will be maintained major of the cooling water pressure, always to avoid contaminations in the event of micro-holes. **Correct.**
- Confirmation that All accessories for connection between homogenize , aseptic tank and UHT is included **Confirmed.**
- Homogenizer to be aseptic and non-aseptic , when we use stabilizer Gellan Gum in nondairy milk it should be homogenized after sterilization **The quoted price for homogenizer is NON aseptic, the ASEPTIC version is being quoted separately at charge.**
- Electrical panel should have Air conditioner not Fan. **Included.**
- Using ROCKWELL Automation ,this brand is US brand and we cannot find the software & hardware of this brand in Iran so they should change to SIEMENS. **OK changed to Siemens.**
- More details about CIP system? backflush is considered or not ? **Backflush to be included separately at charge.**
- The brand of pumps to be clarified . **CSF for centrifugal pump and Interpump (Bertoli) for piston pump or homo. All pumps brands are detailed in the quotation.**
- What is vacuum pump in Aseptic tanks section for? **It is not a vacuum pump but a centrifugal pump for the CIP cycles of the aseptic tank.**

- Options to Install VFD for all electromotors(Homo, agitator, pumps,...) **Already included by default.**

PRELIMINARY UTILITIES / CONSUMPTIONS for 8000 L/h UHT unit

The consumptions below are preliminary and not binding, to be confirmed after approval of the P&I and of the final layout.

Total installed power:	105 kw
Power supply:	380 V , 590 Hz, 3-phases + N
Steam consumption at 6 -8 bar:	
• When running only indirect:	about 350/400 kg/h
• When running with steam injection:	about 500/600 kg/h
Chilled water requirement at 2/3°C:	20 m3/h (return at 11/12°C)
Cooling tower water at 30°C:	15 m3/h (return at 40/45°C)
Air at 4 bar (oil free) for aseptic tank:	min. 110 Nm ³ /h when running
Compressed air 8 bar for valves and instruments:	min. 50 Nm ³ /h when running

COMMERCIAL OFFER

ITEM	#	Description of Goods & Services	PRICE EUR
A		UHT MILK PRODUCTION UNIT	
A1	1	Deaerator/deodorization tank DT1500	490'000
A2	1	Homogenizer HPA8000 twin stage	
A3	1	Aseptic sterilizer-cooler unit UHT-TP8000	
A4	1	Milk buffer aseptic tank AT12000	
A5	1	Control-command panel	
		Special discounted price given on March 2022	
A6	1	Kit for dual use: direct and indirect heating with steam injection	45'000
A7.1	1	Differential-pressure modification kit	6'700
A7.2	1	Aseptic version of homogenizer + set aseptic valves	38'000
A7.3	1	CIP backflush circuit accessories	5'000
		TOTAL AMOUNT EX WORKS EQUIPMENT ONLY	584'700
		GENERAL SERVICES	
GS1.1	1	Set of emergency spare parts for one year operation	20.000
GS2.1	15	Technical supervision during commissioning & sterile test (man/days)	15.000
GS2.3	5	Electrical / software supervision during commissioning & sterile test (man/days)	5.000
GS2.5	2	Trips package of technical personnel	4.000
GS4.2	3	Packing and marking of goods into n°3 trucks	11.000
GS5.1	3	Delivery of goods FCA PARMA ITALY custom cleared	3.000
GS8.1	1	Set Technical documentation	0
		TOTAL GENERAL SERVICES	58'000
TOTAL AMOUNT FCA PARMA ITALY			642'700
AGREED FINAL FCA PRICE			620'000

Approved by: ENNIO GHILLANI



PAYMENT TERMS

The DISCOUNT is conditional to following terms:

- Global order of the above listed equipment without any further reduction;
- **Payment as follows: 3**
 - 15% by TT down payment at the order.
 - 15% by TT within two months from the order.
 - 60% by TT when goods are ready for shipment at our plant.
 - 5% by TT within 15 days from the termination of assembling and before testing with product, but in any case not later than 120 days from arrival of goods on site.
 - 5% by TT within 15 days from successful testing with product, but in any case not later than 150 days from arrival of goods on site. If for any reason beyond Fenco responsibility, the Buyer cannot finally testing the equipment, Fenco shall have the right to be paid within max. 150 days from the date of arrival of goods on site.
- **Partial deliveries:** permitted;
- **DELIVERY DATE FCA departure Parma terminal:** expected to be within **220/250 working days** from the execution of following obligations: (i) accreditation of the non-refundable down payment received by the Seller from Buyer *and* (ii) written approval by the Buyer of the final lay-out, flowsheet and/or any other needful technical data which might be essential to start manufacturing the equipment, whichever is last.

VALIDITY of this quotation: 31.05.2022

Approved by: ENNIO GHILLANI



GENERAL SERVICES PRICE LIST

Valid for services rendered within **31.12.2022**

Pos.	Code	SERVICE	Minimum Charges	Select v
	GS1	Set of initial recommended spare parts ⁽¹⁾		
1	GS1.1	Set of spare parts for equipment value ≤ Eur / US\$ 500.000=	4%	
2	GS1.2	Set of spare parts for equipment value Eur / US\$ 500.001 to 1.000.000	3,5%	
3	GS1.3	Set of spare parts for equipment value Eur / US\$ 1.000.001 to 3.000.000	3%	
4	GS1.4	Set of spare parts for equipment value ≥ Eur / US\$ 3.000.000	2,5%	
	GS2	Technical assistance at site for assembling & commissioning ⁽²⁾		
5	GS2.1	Mechanical engineer / fitter / installer: when included in first contract	€. 1000 man/day	
6	GS2.2	Mechanical engineer / fitter / installer: extra contract terms	€. 1000 man/day	
7	GS2.3	Electrical engineer / PLC programmer: when included in first contract	€. 1200 man/day	
8	GS2.4	Electrical engineer / PLC programmer: extra contract terms	€. 1200 man/day	
9	GS2.5	Two ways trip by air: when flying time is ≤ 6 hours ⁽³⁾	€. 1800 each	
10	GS2.6	Two ways trip by air: when flying time is ≥ 6 hours ⁽³⁾	€. 2500 each	
11	GS2.7	Two ways trip by car: company or private car ⁽⁴⁾	ACI tariff + 15%/km	
12	GS2.8	Two ways trip by car: rental car	Rental invoice + 15%	
13	GS2.9	When hotel expenses are paid by Fenco, charge:	Hotel invoice + 15%	
	GS3	Technological assistance at site for testing & production ⁽²⁾		
14	GS3.1	Technologist: when included in first contract	€. 1200 man/day	
15	GS3.2	Technologist: extra contract terms	€. 1200 man/day	
	GS4	Packing and marking of goods at departure ⁽⁵⁾		
16	GS4.1	Per each 20' marine container	€. 2.650	
17	GS4.2	Per each 40' marine container	€. 3.500	
18	GS4.3	Per each truck / trailer	€. 3.500	
19	GS4.4	Per each oversized item / flat rack	± €. 5.450	
	GS5	Delivery and/or shipment of goods to final destination ⁽⁶⁾	Budget only	
20	GS5.1	Delivery FCA : loaded and custom cleared at departure (CT or TRUCK)	€. 800 / each	
21	GS5.2	Delivery DAP arrival: by TIR trucks ≤ 3.000 km distance	€. 5.000 / each	
22	GS5.3	Delivery DAP arrival: by TIR trucks ≤ 6.000 km distance	€. 9.000 / each	
23	GS5.4	Delivery DAP arrival: by TIR trucks ≤ 6.000 km distance, oversized transport	€. 16.000 / each	
24	GS5.5	Delivery FOB Italian port: for delivery by sea (20' and 40' CT)	€. 1.800 / each	
25	GS5.6	Delivery FOB Italian port: for delivery by sea (oversized items)	€. 4.800 / each	
26	GS5.7	Delivery CIF- CFR - DAP arrival: Mediterranean sea	€. 2.000 / CT40'	
27	GS5.8	Delivery CIF- CFR - DAP arrival: Middle East	€. 3.000 / CT40'	
28	GS5.9	Delivery CIF- CFR - DAP arrival: Black sea	€. 3.000 / CT40'	
29	GS5.10	Delivery CIF- CFR - DAP arrival: Red sea & Arabic peninsula	€. 3.000 / CT40'	
30	GS5.11	Delivery CIF- CFR - DAP arrival: North America East Coast & Gulf	€. 3.000 / CT40'	
31	GS5.12	Delivery CIF- CFR - DAP arrival: North America West Coast	€. 5.000 / CT40'	
32	GS5.13	Delivery CIF- CFR - DAP arrival: Central America East / West	€. 4.000 / CT40'	
33	GS5.14	Delivery CIF- CFR - DAP arrival: South America East / West	€. 4.000 / CT40'	
34	GS5.15	Delivery CIF- CFR - DAP arrival: Africa Atlantic coast	€. 4.000 / CT40'	
35	GS5.16	Delivery CIF- CFR - DAP arrival: Africa South & Indian ocean	€. 4.000 / CT40'	
36	GS5.17	Delivery CIF- CFR - DAP arrival: Arabic Sea, India & Gulf	€. 3.000 / CT40'	
37	GS5.18	Delivery CIF- CFR - DAP arrival: Indonesia and South China sea	€. 3.500 / CT40'	

Pos.	Code	SERVICE	Minimum Charges	Select v
		<i>Insurance to be added on top of freight fares</i>		
39	GS5.20	Insurance all risks for transport by truck E.U., of goods value	0,50 %	
40	GS5.21	Insurance all risks for transport by truck East Europe, of goods value	1,20 %	
41	GS5.22	Insurance all risks for transport by sea / air, of goods value	0,75 %	
	GS6	<i>Independent inspection / survey of goods (see GST)</i>		
42	GS6.1	Pre-loading inspection of goods already packed at departure	€. 4.000 per visit	
43	GS6.2	Inspection of goods at departure prior being packed (†)	€. 6.000 per visit	
	GS7	<i>FAT at manufacturer premises when possible (see GST) (‡)</i>		
44	GS7.1	Static test with no moving parts but simulation by PLC control panel	€. 10.000 per FAT	
45	GS7.2	Dynamic test with moving components and simulation of operations	€. 12.000 per FAT	
46	GS7.3	Full FAT test with product / packages and in / out connections	€. 25.000 per FAT	
	GS8	<i>Technical documentation, manuals, software (see GST)</i>		
47	GS8.1	Set of manuals in Italian or English language on USB or SD disk	€. 4.600	
48	GS8.2	Set of manuals in any language, other than GS8.1, on USB or SD disk	€. 6.200	
49	GS8.3	Set of manuals printed on paper 2 copies, drawings A1 size	+ €. 2.000	
(¹)	This amount to be confirmed before signature of a sale agreement. Offers containing filling and packaging equipment and/or special machinery and/or third-party equipment might require higher values for parts.			
(²)	These charges are limited to the terms and conditions specified in the General Sale Terms (GST), this charge does not include traveling costs; living costs & accommodations are included.			
(³)	This charge includes return air tickets, car costs to/from Italian airport, visa if any, vaccination if any; as per (GST). Certain destination or certain traveling dates might have higher fares.			
(⁴)	These charges are based upon the Automobile Club of Italy (ACI) tariff as specified in the General Sale Terms (GST) and approved by the fiscal laws of Italy.			
(⁵)	As per (GST), weight is certified according to EU rules and wood is fumigated and certified.			
(⁶)	As per Incoterms 2010, see our (GST); this fares includes Italian custom clearance at departure; TIR truck meaning a lorry long 13,6 m, with useful loading space of 12,4 x 2,43 x h. 2,70 m.			
(⁷)	Please note that each inspection / survey visit will delay the scheduled delivery date by + 5 working days.			
(⁸)	Please note that each FAT will delay the scheduled delivery date by + 5 working days for GS7.1; by + 10 days for GS7.2 and by + 15 days for GS7.3. All traveling and living expenses of the visitors are excluded.			

GENERAL SERVICES (GS)

In case of disputes about the interpretation of the terms and conditions hereby specified, the prevailing version will be exclusively the one in English language.

GS1) Set of initial recommended spare parts (MANDATORY)

(GS1.X) This section includes the price for a first supply of parts based upon a percentage (**forfeit**) of the Equipment/Goods price. Full list will be available prior to the delivery of goods FCA Parma Italy and typically includes those parts which in case of failure might cause extended stops of the Equipment and/or those parts which according to FENCO experience have shown to be most critical. Obviously, the list will include mechanical, electrical, pneumatic parts, gaskets, seals, controls replacement, etc. See *General Services Price List here enclosed*.

GS2) Technical supervision at site for assembling & commissioning (MANDATORY)

Fenco technicians will help the Buyer's personnel to install, connect and commission into production the supplied Equipment according to terms and conditions better detailed within the General Sale Terms (GST) herewith included. Fenco technicians will also provide training to Buyer's personnel.

(GS2.1) This section includes the price of a service package consisting of n° **(40) man/days** of technical assistance carried out by FENCO's mechanical engineers / fitters at Buyer's site.

(GS2.3) This section includes the price of a service package consisting of n° **(10) man/days** of technical assistance carried out by FENCO's electrical engineer / programmer at Buyer's site, as per General Sale Terms enclosed.

Prices for these services include living expenses during the whole period of technical assistance, more specifically include hotel accommodations, foods / restaurants, accident insurance of FENCO personnel, RCT/RCO insurance covering damages caused to Buyer's personnel or properties up to an accumulated amount of Eur. 3.000.000=.

Prices for these services do not include domestic transports of Fenco personnel from/to closest international arrival airport, from/to hotel to the site which remain at Buyer's charge. In case such expenses have not been included within the contract price, FENCO will charge the Buyer according to the General Services Price List in force at the time of service.

See General Services Price List & General Sale Terms here enclosed

(GS2.5) This section includes the price of a service package consisting of n° **(04) two-ways trips** to/from Buyer's site and/or airport, of FENCO technicians, as per General Sale Terms enclosed.

GS3) Technological assistance at site for testing & production (OPTIONAL)

Fenco specialist/technologist will help the Buyer's operator/s with the quality/laboratory control of the inlet product and outlet product according to terms and conditions better detailed within the General Sale Terms herewith included. Technologist might also help with the formulation of special recipes and/or special products as well as training Buyer's personnel.

(GS3.1) This section includes the price for a service package consisting of n° **(00) man/days** of technological assistance carried out by FENCO's specialist / chemical engineer at Buyer's site. This section includes also the cost for n° **(00) two-ways trip** to/from the Buyer's site as per General Sale Terms enclosed.

See *General Services Price List & General Sales Terms here enclosed.*

GS4) Packing and marking of goods at departure (MANDATORY)

This section includes the packing of all goods into trucks and/or marine containers and marking with identification shipping data.

The packing of goods consists of wooden pallets, crates, cases, boxes and/or moisture-proof barrier bags VCI PPROPAFILM with integrators and salts for control panels and instrumentation. The aim is to provide protection against damages and moisture during transport to final destination. This service is carried out by a skilled-certified sub-contractor on behalf of FENCO. The wooden material is bark free and hot treated, provided with international certification according to ISPM-15/IT 08-084 HT-FITOK and with tracking number of the lot of the original material.

(GS4.2) This price includes the handling of n° **(03)** trucks and/or 40 feet marine containers only; this price is intended to be preliminary and not binding upon FENCO, the final number of trucks and/or containers might change at time of packing goods for shipment, in such case the price for this service will be revised accordingly and difference, if any, shall be charged/credited to the Buyer.

(GS4.4) This price includes the handling of n° **(00)** oversized item usually placed on flat-rack; this price is intended to be preliminary and not binding upon FENCO, the final costs for special / oversized items and its number might change at time of packing goods for shipment, in such case the price for this service will be revised accordingly and difference, if any, shall be charged/credited to the Buyer.

See *General Services Price List & General Sales Terms here enclosed.*

Marking of goods is made with water proof paint for wooden cases/crates and water proof labels for single small items and/or boxes. Marking will have following minimum data:

- Short name of receiver (the Buyer)
- Shipper / Seller name / country (the Seller)
- Place of destination / discharge
- Job number or PO number
- Gross and Net weight

This service (GS4) is mandatory for all deliveries/shipments of FENCO equipment abroad.

GS5) Delivery of goods

This section includes the costs for: loading the goods, clear goods from Italian custom at departure and delivery of all trucks and/or marine containers and/or oversized items (which quantity is listed in the section GS4 hereof) to the Buyer's appointed place of delivery or to Buyer's selected sea port/airport in the country of final destination, according to the agreed Incoterms 2010 transport terms, latest update. The selected and quoted Incoterms 2020 delivery mode for this quotation and/or contract and/or purchase order is **FCA PARMA ITALY loaded into containers/trucks and custom cleared**.

The price of this section is intended to be preliminary and not binding upon FENCO, the final costs for trucks and/or marine containers and/or special / oversized items might change at time of packing of goods for shipment, in such case the price for this service will be revised accordingly and difference, if any, shall be charged/credited to the Buyer.

(GS5.1) (MANDATORY) This price includes the handling of total n° **(03)** trucks or marine container or oversized items usually flat-racks (see section GS4 above); the service provided hereby consists of: (i) supply of certified weight according to UE (European Union) VGM rules (Verified Gross Mass packed containers) ruling VI/2 of the international agreement SOLAS 74 amended by the resolution MSC.380(94) dated 21/11/2014; (ii) load the trucks, containers, oversized items at departure terminal, following domestic safety standards, by mean of skilled personnel and certified handling/lifting devices; (iii) clearing all goods from Italian/UE custom, obtaining the relevant custom exit documents and payment of relevant export/custom fees.

Goods traveling by truck to final destination have to go through custom clearance mandatorily at the departure custom terminal in Parma Italy under the supervision of FENCO custom agent.

Goods shipped overseas into marine containers might go through custom clearance either at the departure custom terminal in Parma Italy under the supervision of our custom agent or at the departure Italian port under the supervision the Buyer's chosen shipping forwarder. In this second case all custom clearance charges are to be paid by the Buyer itself.

See General Services Price List & General Sales Terms here enclosed.

This service (GS5.1) is mandatory for all deliveries/shipments of FENCO equipment abroad.

For any other delivery arrangement please ask FENCO

See General Services Price List & General Sales Terms here enclosed.

GS6) Independent inspection / survey of goods (OPTIONAL)

Pre-loading inspection

Under this section (GS6.1) Fenco will assist and organize the visit of the inspector chosen and fully paid by the Buyer. Inspection shall take place just before delivery/loading and the status of the goods shall be the following: (a) all goods inside its case/cage or on pallets or on flat; (b) cases/cages and/or any kind of box are to be open and goods shall be visible inside.

The accepted surveyors are exclusively the following international companies: SGS, ITS, Lloyds, Bureau Veritas; no other surveyors are acceptable by Fenco.

The scope of the survey is to: (i) check that the packing of goods to be delivered is suitable in consideration of the type of equipment and nature of the trip; (ii) check that the list of items being delivered correspond with the list of goods sold by the contract/agreement signed between the Seller and the Buyer.

Inspection visit is limited to inspect sites located in Northern Italy and during the same day. One Fenco representative will escort the inspector to one or more loading sites during the same day. Any extra day of inspection will be charged to the Buyer at the Price List tariff reduced by 30%.

Machinery inspection

Under this section (GS6.2) Fenco will assist and organize the visit of the inspector chosen and fully paid by the Buyer. Inspection shall take place before the scheduled delivery/loading and the status of the goods shall be the following: (a) all goods placed on the floor not packed, each single machine shall be available for inspection pre-assembled, commercial components shall be available for inspection even though not installed on each single machine; (b) each individual machine shall be ready for inspection possibly in the same status as it will be packed and delivered.

The accepted surveyors are exclusively the following international companies: SGS, ITS, Lloyds, Bureau Veritas; no other surveyors are acceptance by Fenco.

The scope of the survey is to: (i) check that each individual machine match with the purpose for which has been sold; (ii) check that the list of items to be delivered correspond with the list of goods sold with the contract/agreement signed between the Seller and the Buyer.

Inspection visit is limited to inspect sites located in Northern Italy and during the same day. One Fenco representative will escort the inspector to one or more loading sites during the same day. Any extra day of inspection will be charged to the Buyer at the Price List tariff reduced by 30%.

GS7) FAT (Factory Acceptance Test) at manufacturer premises (OPTIONAL)

FENCO offer three different levels for FAT as follows:

(GS7.1) Static test with no moving part and simulation of major operations by PLC / control panel. Under this section the Buyer's inspectors will see the key machinery partially assembled and an operator will show on the PLC / control panel how to have access to the main functions of each machinery. This FAT might delay the scheduled delivery date of about + 5 working days.

(GS7.2) Dynamic test with all possible moving part activated and simulation of major operations by PLC / control panel. Under this section the Buyer's inspectors will see the key machinery assembled and an operator will show on the PLC / control panel how to operate, start, stop and the main functions of each machinery. Only electric power will be connected. No fluids nor product and/or containers will be shown entering/exiting the equipment. This FAT might delay the scheduled delivery date of about + 10 working days.

(GS7.3) Full FAT test with all possible moving part activated and simulation of major operations by PLC / control panel. Under this section the Buyer's inspectors will see assembled the key machinery and an operator will show on the PLC / control panel how to operate, start, stop and the main functions of each shown machinery. For this test the equipment shall be connected with relevant inlet and outlet connections and handling of full containers will be tested (providing the Buyer has sent to the Seller an adequate quantity of them). When product is a fluid the test will be carried out with water. This FAT might delay the scheduled delivery date of about + 15 working days or more.

Under this section (GS7) the Buyer's inspector/s will travel at their own cost and care. The assistance of Fenco is limited, if required, to the logistic matters such as hotels accommodations and taxi. The meeting point will be Fenco's head quarter in Lemignano di Collecchio (Parma) Italy at the date and time agreed with the Buyer.

The FAT cannot last longer than three (3) days and Buyer's inspectors cannot be more than three (3) at the same time.

In case the FAT fails and such failure has been caused exclusively by Fenco for whatever is the reason, and in case Buyer's wish to repeat the test later on, then both parties shall agree on date for such second FAT and there will be no extra charge to the Buyer but each party will bear its own expenses. After each FAT, before Buyer's inspector/s leave/s, a written report has to be drafted and signed by both parties, the report shall list in details all relevant issues rising from the tests and state as a final conclusion weather the equipment is approved for delivery or not. In case not approved for delivery the report shall specify the new approved delivery date.

GS8) Technical documentation, manuals, software (MANDATORY)

(GS8.1) This section includes the cost for the supply of full set of instruction manuals and technical documentation. All files will be delivered to the Buyer copied on USB or SD disk. In case option (GS8.3) has been also chosen, in addition to the digital copy, a paper copy of all documents will be supplied.

Under this section FENCO shall supply:

Technical documentation

- Final layout out of the equipment (which has to be approved in writing by the Buyer);
- Final utilities / connection drawing/s covering product and all fluids and compressed air, showing the "battery limits" of the supply (to be approved in writing by the Buyer);
- Electrical / electronic schematics for connections of each field instrument and motor;
- Electrical / electronic schematics of each supplied control panel;
- Detailed drawing about civil works eventually to be done by the Buyer;

- List of tools and lifting devices, to be supplied by the Buyer on site, required for the installation of the equipment; the list to be delivered to the Buyer at least 15 days before the scheduled arrival of FENCO's technicians.
- List of suggested number and qualification of Buyer's personnel and man power to be available on-site during installation and commissioning of the equipment.
- Any other written info / data that FENCO might consider useful and/or necessary.

Instruction manuals

- Made according CE/UE standards and showing all safety precautions and hazards;
- Risk assessment file by certified entity;
- Showing the purpose for which, the equipment / machinery has been designed;
- Providing instructions how to start, run and stop the equipment / machinery;
- Providing instructions how to empty and clean the equipment / machinery;
- Providing a list of trouble shooting instructions;
- Providing maintenance instructions and recommendations;
- Including necessary drawings, blow-up sketches, info, lists and whatever is necessary in order to identify and order spare parts;
- Technical specifications / details of each individual component such as motor, instruments, pump, valve, PLC, monitor, mechanical parts, etc. (manufacturing drawings not included);

Software / PLC programs

- FENCO will provide one copy on SD/USB disk of all programs used with the supplied equipment;
- All programs / software utilized by FENCO with the supplied equipment are proprietary of FENCO, cannot be disclosed to third parties, sold, copied or used on any other equipment without the written authorization of FENCO.
- Software / programs which are being hacked or modified by the Buyer without written authorization of FENCO will automatically make the warranty on the equipment null and void.
- Costs for software licenses for HMI / PLC units are included;
- When the Buyer has purchased the option of remote supervision and/or VPN connection for debugging service, it is Buyer's duty and cost to carry out all necessary actions/services in order to make the remote connection operational.
- All PLCs, HMI devices, industrial PCs installed by FENCO on the supplied equipment have by default three levels of passwords: 1st level is the device access password which is being given to the Buyer and consent the unit to be switched ON / OFF and read the running parameters; 2nd level is the operator control password which is being given to the Buyer and allow the operator to adjust working parameters such as change of temperatures, speed, etc.; 3rd password level is the one reserved to the installer / developer (FENCO) and consent the main software to be modified, cancelled in whole or partially; this password is NOT delivered to the Buyer without the signature of an NDA (Non-Disclosure Agreement). In such case however the warranty on the equipment will immediately expire even when NDA is signed.

- All FENCO supplied equipment which are controlled / operated through a PLC/HMI units or industrial PC are being delivered with programmed running stops (usually 2 or 3 during a time frame of 6 months from date of first enter into normal production), the scheduled dates will be disclosed to the Buyer before termination of the commissioning time at site. The purpose of such programmed stops is to oblige the Buyer and the Vendor (together) to make eventually necessary adjustments on the equipment and to verify the normal wear of certain critical parts. The programmed stops are essential part of the Performance Warranty and cannot be by-passed or cancelled without undertaking of full liability by the Buyer.

See General Services Price List & General Sales Terms here enclosed.

GENERAL SALE TERMS (GST)

In case of disputes about the interpretation of the terms and conditions hereby specified, the prevailing version will be exclusively the one in English language.

BATTERY LIMITS of FENCO SUPPLY

Unless otherwise specifically agreed and described in this proposal and/or sale contract and/or purchase order, the applicable battery limits for the Equipment and/or Services to be supplied by FENCO are:

ELECTRIC/ELECTRONIC

MATERIALS for power & controls connection

Limits (1) are the main in/out switches in each control panel supplied by FENCO.

Limits (2) are the connecting boxes of each electric motor installed on the equipment.

Limits (3) are the power hook-up terminals of each field instruments and/or device installed on the equipment.

Limits (4) are the control hook-up terminals on each field instrument and/or device installed on the equipment.

Limits (5) are the control terminals of each PLC installed on each supplied control panel.

Limits (6) is the supply of necessary electrical/electronic schemas/drawings/instructions on flash disk.

UPS devices as well as Volt/Hertz stabilizers to protect electronic devices are to be provided by the BUYER in case not specifically listed in the FENCO's scope of supply.

Unless otherwise specified hereby all electric devices will be supplied for AC power 380 – 440 Volts; 50 Hz; 3PH + Neutral + Ground, all electronic and other specific components will be supplied for DC power 12 or 24 Volts.

LABOR / SUPERVISION for power & controls connection

The execution of the power and analogic/digital signals distribution network has to be carried out by the BUYER based upon schemes and instructions given by FENCO. The connection of each motor and each instrument with the supplied control panel has to be done by the BUYER personnel under supervision and assistance of FENCO technicians on site. Depending upon the features of the supplied equipment FENCO might decide to send an electrician and/or an electronic specialist to help Buyer's staff during power and controls connection works.

STEAM:

MATERIALS for steam connection

Limits (1) are the inlet steam flanges of each individual machinery supplied by FENCO under this contract/purchase order/agreement.

Limits (2) per each utility point placed on the supplied equipment FENCO will supply a "matching flange" with bolts.

Limits (3) FENCO to supply steam utilities connections drawings, installation instructions when necessary and all necessary functional data such as pressure, volume, and/or any other data which might be required.

Limits (4) is the supply of necessary steam network schemas/drawings/instructions on flash disk.

LABOR/SUPERVISION for steam connection

The execution of the steam distribution network has to be carried out by the BUYER based upon schemes and instructions given by FENCO. The connection of each utility point placed on supplied equipment with the steam generator low pressure manifold has to be done by the BUYER personnel under supervision and assistance of FENCO technicians on site. When the steam generator is supplied by FENCO a boiler specialist will be sent on site to check the correct execution of the steam distribution network with the boiler itself.

COMPRESSED AIR:

MATERIALS for pneumatic connection

Limits (1) are the air inlet filter/reducer units in each control panel supplied by FENCO.

Limits (2) are the air outlet fittings in each control panel supplied by FENCO.

Limits (3) are air inlet fittings of each field instruments and/or device installed on the equipment.

Limits (4) is the supply of necessary pneumatic schemas/drawings/instructions on flash disk.

Limits (5) FENCO's supply will include plastic flexible pipe and fittings enough to connect each supplied field instrument/device with its pneumatic control panel, exclusively based upon the approved lay-out.

LABOR / SUPERVISION for pneumatic connection

The execution of the compressed air distribution network has to be carried out by the BUYER based upon schemes and instructions given by FENCO. The connection of each field instrument with the supplied control panel has to be done by the BUYER personnel under supervision and assistance of FENCO technicians on site. Note that compressed air must be filtered and dry and oil-free.

WATER/CONDENSATE:

MATERIALS for water/condensate connection

Limits (1) are the inlet/outlet water/condensate flanges of each individual machinery supplied by FENCO under this contract/purchase order/agreement.

Limits (2) per each utility point placed on supplied equipment FENCO will supply a "matching flange" with bolts.

Limits (3) FENCO to supply water and condensate utilities connections drawings, installation instructions when necessary and all necessary functional data such as pressure, volume, temperature and/or any other data which might be required.

Limits (4) is the supply of necessary water/condensate network schemas/drawings/instructions on flash disk.

LABOR/SUPERVISION for water/condensate connection

The execution of the water/condensate distribution network has to be carried out by the BUYER based upon schemes and instructions given by FENCO. The connection of each utility point placed on supplied equipment has to be done by the BUYER personnel under supervision and assistance of FENCO technicians on site.

PRODUCT:

MATERIALS for product connection

When product is a fluid such as for example tomato paste, or fruit juice or fruit puree or any other kind of pumpable food product then FENCO's battery limits are:

Limits (1) the inlet flange and/or valve placed on a receiving or buffer tank making part of a supplied processing line.

Limits (2) the outlet flange and/or valve either manual or automatic, from where finished product leaves the supplied processing line.

When product is a fresh whole fruit or vegetable then FENCO's limits are:

Limits (1) the discharge vat or flume or hopper or similar collecting devices where raw materials can be bulk discharged.

Limits (2) the outlet flange and/or valve either manual or automatic, from where finished product leaves the supplied processing line. In case the end product is a solid such as for example diced or whole fruits/ vegetables then the limit of supply is a discharge belt, to match with the approved lay-out.

When instead the product is a full container supplied by the Buyer which has to be only thermally treated or handled, then the FENCO's limits are:

Limits (1) the inlet belt if included with the supplied equipment.

Limits (2) the outlet belt if included with the supplied equipment.

Important note: all the supplied connections either pipes, fittings, valves, belts and conveyors are included only based upon an approved layout. FENCO takes no liability in case both the Buyer and FENCO have not approved a specific lay-out for the supplied equipment.

LABOR/SUPERVISION for product connection

The correct execution of product connections of any kind is under responsibility of FENCO technicians on site, but only if such service has been specifically included with the purchase price of the equipment. The duty of FENCO technicians is to supervise, instruct and guide the Buyer's man power and engineers in order to complete the installation works and the commissioning of the equipment. All necessary tools, equipment, devices necessary to complete this job, including but not limited to cranes for lifting heavy items, ladders, elevators, etc. have to be supplied by the Buyer. The obligations of FENCO are limited to the compliance with the approved lay-out and contract's technical specifications. More details about FENCO's technicians' services are detailed herein after.

WARRANTY

Fenco warrants to the Buyer that the Equipment, under normal use and service, will be free from defects in material and workmanship as follows:

- **Twelve months** from the date the Equipment is first operated in tests or in commercial service, whichever is earlier.
- **or Eighteen months from shipment date** whichever is earlier
- **Electric/electronic components** follows the UE warranty standards i.e. 6 months only.

Fenco further warrants that the Equipment, under normal use and service, will meet the Performance Standards set forth hereto in (the "Performance Standards" section), and may be disposed of in the normal course without special precautions.

Buyer shall notify Fenco in writing within 30 days of discovering any defect in material or workmanship or failure to meet the Performance Standards. Buyer's failure to notify Fenco within such period shall constitute a waiver by Buyer of its warranty rights, if any, with respect to such defect or failure.

Fenco's obligation under the above warranties is limited to the replacement or repair, as Fenco shall select, of such parts as Fenco shall determine are defective. Fenco shall replace or repair defective parts without charge for the Buyer including the costs of shipping and eventually travel costs for Fenco's personnel if required. However, board and lodging expenses for Fenco's personnel (when requested) remain always at Buyer charge.

The above warranties do not apply to normal maintenance service or to Equipment that has been subject to abuse, negligence or accident, or that has been modified or repaired without Fenco's prior written consent.

The above warranties are in lieu of and supersede any warranty of merchantability or fitness and any other express and/or implied representations and warranties of Fenco. No one is authorized to vary or change the terms or conditions of the above warranties. There shall be no liability for incidental or consequential damages under the above warranties.

Without limiting the foregoing, Fenco does not represent or warrant that the Equipment complies with any industrial or governmental codes or standards except those mandatory in UE / Italy and/or as expressly provided in this preliminary quotation/contract/purchase order. If modification of the Equipment is required by the Buyer, prior to delivery/shipment, in order for the Equipment to comply with any such code(s) or standard(s), Buyer shall give written notice to Fenco of the modifications so required and Fenco and Buyer shall agree on the commensurate increase in the price and delivery terms for the Equipment relative to such modifications.

Compliance of the Equipment with domestic and/or specific international standards shall be clearly specified by the Buyer in details within the purchase Agreement, Purchase Order, accepted offer, Contract, and subscribed by the Seller; generic assumptions of compliance are not receivable.

PERFORMANCE STANDARDS *PERFORMANCE WARRANTY*

The performance warranties provided for by the Seller under this proposal and/or sale contract and/or purchase order are **exclusively** the following:

- a) Guarantee of working capacity:
Fenco hereby warrants that the Equipment under normal use shall be able to process the volumes of raw materials as specified in the Technical Offer hereof; with $\pm 5\%$ allowance.

- b) Guarantee of quality:
Fenco hereby warrants that the Equipment under normal use shall be able to produce a finished product denominated “ UHT milk or aseptic milk” according to international most common known standards of quality for products of the same nature, providing the quality of raw materials and packaging are suitable.

- c) Guarantee of filling /packaging capacity:
Fenco hereby warrants that the Equipment under normal use shall be able to fill and pack aseptically into pre-sterilized bags 100% of the volume of the product/s specified in sections (a) hereof.

Note: above warranted performances are strictly linked and depending upon terms and conditions specified in the technical description of each machinery / line.

GENERAL SERVICES DETAILS

Technical assistance during installation and commissioning

This section includes the service of one or more Vendor's specialists, as Seller shall select, to supervise and coordinate Buyer's personnel during installation and commissioning of the Equipment, as specified into the General Services (GS) sale terms. Seller shall inform the Buyer in due time about (i) the number and technicians traveling to the installation site as well as (ii) the number and qualification of Buyer's personnel required for installation and commissioning. Seller shall also notify the Buyer in due time with the list of tools and equipment necessary for installation and commissioning which have to be available on site at Buyer's care and cost.

The total amount of man/days included in this scope of supply (as a package) has been specified in the GS section hereby, all days exceeding such number will be charged to the Buyer (as per General Services Price List attached) depending upon the qualification of Vendor's supervisor + travelling costs if any. The extra man/days + traveling costs, shall be paid in advance by the Buyer to the Seller exclusively by swift bank transfer.

This section also includes a fixed number of return air tickets, as specified in the GS section hereby and other traveling expenses (such as but not limited to visas, vaccinations, transport costs to/from the Italian airport, etc.) from our headquarters in Italy to the most convenient arrival international airport in the Buyer's country. Buyer has to provide at his own care and cost, unless already included withing the purchase price, all transports for Seller's personnel from/to arrival airport to/from the hotel and from/to hotel to/from installation site.

When the traveling of Seller's service man/men to Buyer's site will take place by company or private car than the relevant costs shall be charged at cost increased by 15% handling fee; the cost per km/mile shall be charged at the published tariff of the Automobile Club of Italy (ACI) valid for that type of car. In case of use of rental car Buyer shall be charged at the invoiced cost plus 15% handling fee.

Unless otherwise specified into this offer, contract, purchase order, all living costs at the site for Seller personnel during service for installation and commissioning are NOT included within the fees GS2 listed in the Commercial Offer unless specifically listed and paid in advance. Prices for these services GS2 DO NOT include living expenses during the whole period of technical assistance, more specifically DO NOT include hotel accommodations, foods / restaurants, domestic transports. While accident insurance of Seller personnel, RCT/RCO insurance covering damages caused to Buyer's personnel or properties up to an amount of Eur. 3.000.000= per each single damage, is included.

Prices for these services do not include, unless otherwise agreed upon between the parties, domestic transports of Fenco personnel from/to closest international arrival airport, from/to hotel to the site, which remain at Buyer's charge. In case such expenses have to be paid by Fenco's personnel, Seller will charge the Buyer according to the General Services Price List in force at the time of the service.

In the case the agreement with the Buyer foresees that such site living expenses as described herein, are at Buyer's charge, then Buyer has to provide at his own care and cost hotel accommodations and foods for the Seller personnel according to the signed contract and/or purchase order. The accommodations for Seller's personnel shall be of reasonable quality according to reasonable western standards, in single room with bathroom, internet connection and a safe sanitary environment. Buyer's shall make available or be charged for 3 (three) meals per day.

When traveling and accommodations expenses are included within the contract / purchase agreement price but not yet paid to the Seller before shipment of the equipment, then those expenses shall be paid in any case before the departure from Italy of the installation Seller's team.

Be aware that Seller, according to Italian rules and trade unions agreements, has no title to oblige nor to command its personnel to work for extra time and/or to live under severe or unusual accommodations, therefore Seller will not take any responsibility in case of any claim and/or dispute rising under these circumstances.

Buyer shall also provide at his own care and cost, at the installation site, communications access services such as internet connections, phone lines, wi-fi in order to consent regular connection of Seller's engineers with the Italian headquarter. In case such expenses are advanced by Seller's personnel then Seller shall charge them back to Buyer + 15% handling fee.

Working time of Seller's personnel is limited to a maximum of 10 hours per day and cannot be increased without the written consent of Seller as well as the consent of Seller's personnel. Working days over a week are 6 and 1 day is mandatory for resting. Each working hour, if agreed, exceeding 10 hours per day will be charged at Eur. 80 (per hour).

The number of man/days specified within the GS and in the Commercial Offer, is not an overall warranty that the installation will be terminated within a fixed time or date. Nor is a representation that the "man/days package" purchased and paid by the Buyer and listed in the Commercial Offer is a service good enough to fully complete the installation and commissioning.

The installation time mostly depends upon the quality and quantity of help and support supplied by the Buyer. It is Buyer's duty to supply man power and installation tools just on time for the fastest and safe erection and commissioning of the Equipment as specified with the purchase order/contract and/or with any further communication from Seller to Buyer. The Buyer's staff will work under the supervision and coordination of Seller's specialist/s but under the responsibility of the Buyer's Plant Director. Seller, in due time before arrival of the Equipment on site, shall notify the Buyer with details about quantity and kind of man power and tools required for the installation and commissioning of the Equipment.

Buyer, before Fenco's technician/s travel to the site, shall notify the Seller with the name and title of the manager appointed as responsible for the installation and commissioning works and who will have to interface with Fenco's engineers. Upon arrival the Fenco's team leader will deliver to the appointed manager and/or Plant Director the accreditation letter introducing himself and/or the other technicians and summarizing the terms and conditions regarding the installation and commissioning works to be executed on site. Such terms and conditions shall comply with those agreed with the contract/purchase order/terms of sale signed by both parties. The accreditation letter can be eventually signed by both parties beforehand by exchanged e-mail before the departure of the technicians from Italy.

The accreditation letter will be delivered in 2 (two) originals, one to be given back signed by the manager on duty. A daily work progress report has also to be signed by the manager on duty and by the leader of the Seller's team. Failure to sign the accreditation letter and/or the daily reports might cause the Seller's team to be called back by Fenco management.

Packaging of goods and delivery

This section includes all necessary wooden packing (if and when necessary) to ensure that goods will not be damaged during transportation to final destination. Water-proof bags are included for special items such as control panels and/or electronic devices. All packing materials are fumigated and certified according to UE standards.

All goods are to be shipped by trucks (when possible) or into 20- or 40-foot marine containers which could be OT or HC type or BOX, goods will be delivered according to Incoterms 2010 as per agreed sale conditions. This section might include transport from Seller's facilities up to Buyer's final destination as per Incoterms 2010, only if agreed and included within the sale price. All risk insurance is included only if agreed and included within the sale price too.

The minimum / mandatory delivery service provided for by Seller is FCA (Free Carrier Parma terminal) which includes: packing of goods, loading of goods into trucks or containers and custom clearance at departure. Also possible is EXW (Ex-works Parma terminal) which does not include any packing of goods nor custom clearance, but only for EU countries.

When agreed delivery is c/o arrival sea port (such as for example CIF / CFR / DAP) then the transport from such arrival port to Buyer's facility (the site) is at Buyer's cost and responsibility. All taxes, duties or any other expense required upon arrival in the country of final destination are to be paid by the Buyer. All fees and taxes on departure will be paid by the Seller based upon the agreed Incoterms 2010.

The price/s for this transportation service/s shown in the preliminary Seller's quotation/s is not binding upon parties as based upon costs of freight at a certain date and based on the assumption of an uncertain number of containers and dimensions of the equipment. The final cost for this service is to be confirmed by Fenco to the Buyer not later than 15 days prior to each delivery/shipment of goods. If any difference is due to Fenco it has to be settled before the delivery/shipment of goods.

Demurrage or retention fees of the containers which might be required by port authorities or by the shipping company upon arrival of the goods at the port of final destination, exceeding the free demurrage time specified in the B/L, have to be paid by the Buyer. The containers shall be returned to the shipping company arrival port parking at care and cost of the Buyer. Seller does not respond for claimed cost of tracking company in case of delay in unloading the Equipment on site.

When goods are delivered by truck the Buyer has the obligation to unload the trucks latest within one day from arrival at the site. If delays are caused by custom clearance issues upon arrival the sole responsible remains the Buyer; in such case the Buyer remains obligated to pay for any kind of additional transport fees. In case the trucking company claims payment of additional retention fees with the Seller, the Seller has the right to back charge such costs to the Buyer.

All containers or trucks once discharged at Buyer's site should not be open by the Buyer without the presence of at least one Seller's engineer. Failure to do so will relieve Seller from any potential responsibility concerning broken parts and/or missing parts. However, if required by the Buyer the Seller might grant written authorization to open and unload the trucks/containers without the presence of Seller's representative, but in such case the Seller will not take responsibility about missing parts.

Goods are always unloaded from containers or trucks at the site under full care and responsibility of the Buyer even in the case Seller's supervisor/s are present; Buyer should be provided with an insurance policy to cover potential damages which might occur during unloading of goods and their positioning into the factory. Seller will not respond for damages caused to the equipment during unloading and its positioning inside the Buyer's facility.

As a general rule, any kind and all Services provided for by the Seller to the Buyer under this agreement / contract / purchase order are to be considered at Seller charge only if and when each individual Service has been clearly included within the Commercial Offer and paid. Assumptions by the Buyer that one or more Services should be included within the purchase price even though not specifically listed and paid, are not receivable by the Seller and definitively rejected.

EXCLUSIONS

Unless otherwise specifically agreed and described in this proposal and/or sale contract and/or purchase order, the goods and/or services listed below are NOT INCLUDED within the scope of supply.

- a) any kind of civil works including foundations, concrete slabs for the supporting of the Equipment and/or its accessories, cement pads, water draining channels, etc. including materials and manpower.
- b) any kind of electrical, electro-pneumatic and electronic connections including labour and materials, i.e. cables, protective sheathing, cables housing trays/conduits, supports and all types of connection, piping for compressed air supply and pressure reducers, etc. as better detailed in the “Battery limits” page here included.
- c) any kind of steam connections between the distribution network and the equipment utilities (manpower and materials) and all kind of steam pressure reducing valves and/or filters and/or condensate traps and/or junctions which are not being specifically included in the scope of supply; as better detailed in the “Battery limits” page here included. All kinds of thermal-acoustical insulation material and labour.
- e) any kind of connections and pipelines (materials and labour) for feeding and/or evacuating water, condensate, CIP and similar fluids; as better detailed in the “Battery limits” page here included.
- f) any kind of power transformers, stabilizers, back up units (UPS), protection/ safety devices which are not expressly listed with the scope of supply. As better detailed in the “Battery limits” page here included.
- g) any kind of equipment, working materials, tools, lifting/moving devices and everything else is necessary for the proper assembly of the equipment on-site, for its testing and commissioning too, including but not limited to unskilled and skilled manpower, consumable materials, welding/cutting and devices, cutters, grinders, drills, keys, etc.
- h) any kind of materials and labour for distribution networks for water, steam, condensate and power including the power sub-station, compressed air generators and nets, condensed collectors and nets, steam boilers and its accessories and for any other fluid that could be necessary for the equipment operations and commissioning, unless it has been listed in the scope of supply.
- (i) any kind of lubricant, cooling or refrigerating fluid, CIP solutions. Some specific lubricant might be included with the machinery in such case Seller will inform Buyer with details.
- (l) any kind of lighting and/or air conditioning and/or heating for the equipment and for the site where the equipment is being installed including wiring, switches, manpower and whatever might be needed.
- m) any kind of taxes, duties, ordinary and special that for any reason might hit the equipment and the services at Buyer’s country.
- n) any kind of modifications to the original equipment that Buyer might request as to obtain equipment approval/certification and/or compliance with safety rules, quality standards, technical regulations, according to domestic standards for which the equipment has not been explicitly designed and sold; except if such modifications have been included with the scope of supply.
- p) any kind of manufacturer’s certificates and/or quality/safety certificate covering materials and/or components embedded with the equipment unless specifically requested hereby.
- q) in general, any kind of goods and/or service which are not specifically listed hereby within the Technical and Commercial Offer, or contract or purchase order.

STANDARD CONTRACTUAL TERMS

Release 2020

ARTICLE 1 - DEFINITIONS

The terms and expressions used in this Contract shall have the following meanings:

- 1.1 **Seller** means FENCO FOOD EQUIPMENT Srl, having its registered office at Viale Amendola 150, 41125 MODENA, ITALY, Fiscal Code IT02688580345, Companies Register (REA) N° MO-405768.
- 1.2 **Buyer**, or Client or Purchaser or End User means the legal entity who is purchasing the Equipment and the Service by means of this Agreement.
- 1.3 **Facilities** or **Site** or **Plant** means the Buyer's facilities where the Equipment is to be installed and the Service performed.
- 1.4 **Agreement** means this agreement, Contract, Purchase Order, Accepted or Approved Quotation or Offer when signed by both parties either on paper or by exchange of digital files, including all appendices hereto.
- 1.5 **Equipment** or Goods or Machinery means all equipment, machinery, instruments, spare parts, and/or other materials which the Seller is required to supply to the Buyer under this Agreement, as described into the "Technical Offer" hereof and as priced into the "Commercial Offer" hereof.
- 1.6 **Service** means the installation, commissioning, technical assistance, calibration, training, manuals, technical documentation and other such obligations of the Seller under this Agreement as described into the "General Services" section hereof and as priced into the "Commercial Offer" hereof.
- 1.7 **Utilities** means all those commercial accessories necessary to run the Equipment but not manufactured by the Seller which are being included within this Agreement, under Seller's warranty, as described into the "Technical Offer" at the section "Utilities & Accessories" hereof and as priced in the "Commercial Offer" under the section "Utilities & Accessories" hereof.
- 1.8 **Warranty** means the period of 12 (twelve) months from the putting into operation of the equipment but not more than 18 (eighteen) months from the date of last B/L or delivery date, during which the Seller shall warrant the piece of equipment in accordance with the terms specified herein.
- 1.9 **Performance Warranty** means exclusively the performances of the Equipment which are guaranteed by the Seller as described into the "General Sale Terms" hereof, under the section "Performance Standards / Performance Warranty".
- 1.10 **Consequential Damages** means damages suffered by the Buyer indirectly and/or directly connected with malfunctioning of the equipment or impossibility to use the equipment exclusively and certainly imputable to the Seller.
- 1.11 **Incoterms**: the parties agree that the meaning of certain terms such as F.O.B., C.I.F., FCA and similar commercial terms of delivery shall have the meanings ascribed to them by the International Chamber of Commerce for the Incoterms applicable at time of this Agreement.
- 1.12 **Shipment** or **Delivery** shall mean the place and date where/when the Buyer has elected to take on charge the Equipment as per terms and conditions specified in the contract, purchase agreement or accepted offer, according to the agreed Incoterms.

ARTICLE 2 – DELIVERY

- 2.1 Unless otherwise specified into this Agreement, all goods are delivered by the Seller to the Buyer under terms FCA departure Parma Italy according to applicable Incoterms.
- 2.2 The terms FCA includes: packing of goods as necessary, Italian custom clearance and loading of containers and/or trucks send by the Buyer.
- 2.3 In case the Buyer fails to collect the goods within the agreed time, the same will be placed in custody at Buyer's disposal, into protected private warehouse at Buyer's cost. Under these circumstances and prior to collect the goods, the Buyer shall pay the costs claimed by the Seller which shall include storage, handling and insurance fees.
- 2.4 The delivery terms are intended to be approximate but not "essential" under this Agreement unless otherwise specified. Reasonable and justified delays will not constitute a justified cause nor breach of Contract to terminate this Agreement.

ARTICLE 3 – PAYMENTS & FUNDS TRANSFER

- 3.1 Payments of the agreed amounts within a fixed time is an "essential" condition of this Agreement and supersede any precedent or subsequent written or verbal agreement between parties. Any delay with the payment will procure an identical delay on delivery of the goods and in general to perform by the Seller. Delays with payments which occur near August or December might procure longer delays on delivery.
- 3.2 Payment is considered done when irrevocably cashed by the Seller's bank. When payment is by means of an irrevocable documentary credit, payment is considered properly done only when the Seller's bank releases its confirmation.
- 3.3 Payment of the price shall be made exclusively by the Buyer to a bank account indicated by the Seller included within this Agreement or with Purchase Order or similar approved documents. E-mail communications of change of bank, change of bank account or any change concerning the transfer of funds, are to be prior confirmed by a phone call with a known manager on duty within Seller's administration staff. Failure by the Buyer to follow this prudential rule will relieve the Seller from any claim caused by transfer of funds to wrong receivers. Furthermore, after receiving from the Seller via e-mail a copy of the invoice for payment, the Buyer, prior to execute the payment, shall contact by phone the sender of the e-mail and confirm verbally the main data concerning the transfer of funds. Seller will not respond whatsoever for loss of funds by the Buyer caused by negligence in following these prudential rules.

ARTICLE 4 – RETENTION OF TITLE

- 4.1 Solely for the purpose of securing payment of the purchase price of the Equipment, Buyer hereby grants to the Seller a security interest in all of the Equipment. This section is not applicable when the Buyer opens an irrevocable and confirmed letter of credit covering at least 95% of the contract amount. Without prejudice to the terms of this section, the risk of any damage to the equipment and any other materials or goods supplied hereunder shall pass to the Buyer in accordance with the Incoterms agreed between the parties.
- 4.2 Buyer agrees that Seller may file, at Buyer's expense, in the Country or State where Buyer has its principal offices, all necessary documents and forms in order to legally procure a security interest on the Equipment in favor of the Seller and the Seller is hereby authorized to execute such documents and forms on Buyer's behalf as Buyer's attorney-in-fact. The Seller will deliver to Buyer copies of any document and form as may be filed by the Seller.
- 4.3 The Buyer hereby acknowledges that the equipment and any other materials or goods supplied hereunder, even where affixed and/or anchored to the ground, may not, in any event, be deemed as being incorporated into or being fixtures or part of the land or property of the Buyer until full payment of the price. By signing this Agreement, the Buyer declares that it grants the all necessary rights in favor of the Seller in order to make the security interest on the Equipment valid and binding upon parties.
- 4.4 The Buyer hereby undertakes not to sell or allow use of the equipment and any other materials or goods supplied hereunder by third parties, as well as not to remove the equipment and any other materials or goods supplied hereunder without the Seller's prior written consent.

ARTICLE 5 – SELLER'S LIABILITY

- 5.1 It is agreed that in the event of non-performance or breach of part of the Seller obligations under this Agreement, the Seller's liability will not exceed a total amount of 5% (five percent) of the Contract price.
- 5.2 Said amount pre-determines the maximum amount of damages payable, subject to the Buyer evidence that it has suffered damages as a result of said (a) non-performance of the Equipment beyond the limits of the "Performance Warranty" hereof and/or other performance limits which might be described within the "Technical Offer" hereof; and/or (b) impossibility to use the Equipment due to reasons exclusively imputable to the Seller, to be proven.
- 5.3 Delay in delivery the Equipment as per terms and conditions of this Agreement shall not be considered as a cause of action to claim for damages under this section.

ARTICLE 6 – SAFETY OF THE SERVICE

- 6.1 With respect to the place where the Service shall take place, as well as the conditions for carrying out of such Service, the Buyer will have the liability and obligation to respect all safety regulations with regard to the machines, accident prevention, industrial hygiene, fire prevention, electric power protection and undertakes to adopt the relevant precautions and to hold harmless the Seller's personnel in relation to any and all potential damages which might be caused to goods or persons.
- 6.2 Without prejudice to the above-mentioned terms of this section, the Seller undertakes to comply with all regulations relating to the safety and hygiene during the Service, to the extent that it falls within its own sphere of competence.
- 6.3 Parties acknowledge that each State might have different levels and rules regarding the health and safety of the workers. It is understood between the parties that Seller personnel on duty for the Service under this Agreement shall comply with the domestic norms and standards for safety. However, Seller's personnel nor the Seller itself can be liable for any accident or damage which might occur at the Site if the Buyer has failed to promptly and exhaustively instruct the Seller personnel prior to the beginning of the Service about the existing safety standards and norms.

ARTICLE 7 – FORCE MAJEURE

- 7.1 Force majeure shall mean any act or event which is unpredictable and beyond the controls of the parties and/or in respect of which a remedy may not be found in a timely manner, such as, for example, but not limited to, natural catastrophes, acts or provisions of governments and/or authorities, embargo, acts of war, fire, explosions, natural disaster, strikes, inability to procure raw materials or components, labor or transport long disputes, risky situations, epidemic, pandemic or other health threats, theft of materials and / or machinery in the Seller's warehouse/premises, unexpected loss of data from the servers of the Seller caused by either hardware problems and/or criminal acts by hackers. Upon the occurrence of any event of force majeure which is such as to prevent either party hereto from fulfilling its obligations hereunder, then the time for the party so affected to fulfil its obligations shall be automatically extended for a period corresponding to the duration of the event of force majeure, except for the Buyer's obligation about payments schedule, without any damages (including liquidated damages) being payable by said party.
- 7.2 The parties hereto are also obliged to give each other notice, within no more than 15 (fifteen) days, of the beginning of and of the end of any event of force majeure, failing which the party in default shall lose its right to rely upon the event of force majeure. Should the parties hereto be unable to carry out their obligations within 3 (three) months after the expiration of the time schedule agreed hereunder due to the force majeure events, then in such case party shall amicably find an alternative solution which shall consider potential damages suffered by the Buyer as well as potential damages of the Seller in consideration of the fact that part of the Equipment and other materials and components might have been

already purchased by the Seller. When an amicable solution is not possible the whole matter shall be settled exclusively by Arbitration as per terms and conditions set forth hereof.

ARTICLE 8 – ARBITRATION AND GOVERNING LAW

- 8.1 In the event of any dispute or claim arising out of this Agreement, the matter shall be submitted to arbitration, as follows: Seller and Buyer shall, within thirty days of the request for arbitration, appoint one arbitrator, and the president of the International Chamber of Commerce of Paris (the "ICC President") shall, within seven days after the appointment of the last arbitrator appointed, select a third arbitrator. If either Seller or Buyer fail to appoint an arbitrator within such thirty-day period, then the ICC President shall appoint it.
- 8.2 The decision of the arbitrators or the decision of the majority of them, rendered in writing, shall be final, conclusive and binding upon Seller and Buyer, and judgment upon any award rendered by the arbitrators may be enforced in any competent court. Regardless about the result of the judgment, Seller and Buyer shall each pay its own expenses in connection with the arbitration, but the compensation and expenses as a result of the awarded judgment, shall be borne in such manner as may be specified in said written decision.
- 8.3 The validity, interpretation and performance of this Agreement and the rights and obligations hereunder shall be governed by the internal substantive laws of the Republic of Italy applicable to contracts made in Italy among residents of Italy. (Therefore, among other things, The United Nations Convention on Contracts for the International Sale of Goods shall not be applicable hereto.)

ARTICLE 9 – ASSIGNMENT

- 9.1 This Agreement shall not be assigned, unless with the written consent of the Buyer and the Seller.
- 9.2 The Seller nevertheless reserves the right to assign, in whole or in part, its own credit to third parties in relation to the payment of sums owed by the Buyer in accordance with this Agreement. In such case the Seller shall inform the Buyer in due time and provide necessary instructions.
- 9.3 The seller is also entitled to implement the obligations arising from this Agreement concerning the Equipment and the Service by assigning some of them in whole or in part to third parties but without prejudice of the "Performance Warranty" agreed hereof.

ARTICLE 10 – BACK CHARGES

- 10.1 Seller shall have no obligation to pay or reimburse any expense incurred by Buyer in connection with the Service i.e. in connection with the installation or commissioning and/or start-up and/or operation of the Equipment, which expense has not been approved in writing exclusively by the administrator or general manager of the Seller, regardless the reason or the claim.

ARTICLE 11 – CONFIDENTIALITY

- 11.1 Each of the parties hereto agrees that it shall not, except to the extent required by law, at any time use or disclose to any third party any information with respect to the other party or its business, confidential information, trade secrets or know-how, other than information (i) that is currently generally available to the public, (ii) that hereafter becomes generally available to the public without breach of this Agreement, or (iii) that comes into the possession of such party on a non-confidential basis from a third-party source.
- 11.2 Buyer shall not permit any competitor of the Seller to view, inspect, or photograph the Equipment or any element of the Equipment or the processes of the Equipment at any time.

ARTICLE 12 – CANCELLATION FEE

- 12.1 If, between the date of execution of this Agreement and the date 8 weeks after the date of scheduled delivery of the Equipment according to the agreed applicable Incoterms, Buyer cancels this Agreement (notwithstanding the pertinent prohibitions), then, in addition to any other remedy that Seller may have, Seller shall have the right to retain, or to receive, as cancellation fee the down payment set forth in the "Payment Terms" section hereof.

ARTICLE 13 – COMING INTO FORCE

- 13.1 This Agreement comes into force when signed by both parties either by mean of a paper document or by exchange of digital files via e-mail or fax; in such case the date of coming into force is the date of the last signature and/or mail and/or fax when received by the other party.
- 13.2 Regardless to the above, the Seller's obligations to deliver, ship or in general to perform within a certain time-frame shall only come into force once the last of the following conditions is met: (a) confirmation by the Seller's bank of the irrevocable letter of credit open by the Buyer, or irrevocable accreditation of the down payment into the bank account of the Seller, and, (b) approval and signature by both parties of the final project/equipment/machinery layout if any, and, (c) official written notification by the Seller to the Buyer of the "job number" released by the Seller's administrator or general manager on duty.

ARTICLE 14 – PATENT, TRADEMARK and COPYRIGHT INFRINGEMENT

- 14.1 Subject to the terms and conditions of this Section 13, Seller warrants to Buyer that, to the best of Seller's knowledge, the Equipment per se, as and when manufactured and delivered by Seller to Buyer, shall be free of any rightful third party claim of direct infringement of any patent, trademark or copyright in the country where the Equipment is being installed.
- 14.2 Seller shall, at its own cost and expense, defend any claim or suit alleging direct patent, trademark or copyright infringement instituted against

Buyer (and/or its officers, directors, employees and agents), but not subsidiaries or customer(s) for the Buyer, and indemnify Buyer (and/or its officers, directors, employees and agents) against any award of damages and costs for direct infringement (including reasonable attorneys' fees) incurred by Buyer as a result of a claim that the Equipment as delivered by Seller to Buyer under this Agreement directly infringed any patent, trademark or copyright of the country where the Equipment is being installed.

ARTICLE 15 – COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same Agreement.

IN WITNESS WHEREOF the parties have executed this Agreement, today _____ of _____, 2020.

For the Buyer

For the Seller

In addition to approving the whole text of this Agreement, in accordance with Article 1341 of the Italian Civil Code, the Buyer specifically approves the following sections and articles of this Agreement and acknowledges that said standard contractual terms have been specifically and expressly negotiated:

- Section "Payment Terms";
- Section "General Services";
- Section "General Sale Terms";
- Article (2) of the Standard Contractual Terms "Delivery";
- Article (3) of the Standard Contractual Terms "Payments & Funds Transfer";
- Article (5) of the Standard Contractual Terms "Seller's Liability";
- Article (8) of the Standard Contractual Terms "Arbitration and Governing Law";
- Article (10) of the Standard Contractual Terms "Back Charges";
- Article (13) of the Standard Contractual Terms "Coming into force".

For the Buyer

§§§§§ END OF THIS QUOTATION §§§§§



1. 分体式全自动CIP系统 Split type full-auto CIP cleaning system

全自动CIP清洗时所有设备（罐体、管道、泵、阀门等）及整个生产线在无人工干预的前提下，在闭合的回路中进行循环清洗。

The operating principle of the full auto CIP cleaning system means that the tank body, pipelines, pumps and all valves and also the whole processing line are cleaned on line no need to disconnect the pipes or the equipments, all cleanings are done at the closed circuit.

系统的主要设备包括：

CIP清洗液储罐（酸罐、碱罐、热水罐、清水罐）；
CIP cleaning liquid storage tanks (acid tank, alkali tank, hot water tank, clear water tank).

两个大型单槽接口罐：

Two set big storage single layer tanks for concentrated acid and alkali.

CIP清洗液CIP回流泵：

CIP forward and return pumps.

二个液泵（碱液回流泵）：

Two discharge pumps for alkaline circulation.

罐内液位自动补偿装置：

In-line auto compensation device or similar type(s).

一个电脑控制屏：

One electrical operation box.

一套控制管路件：

One set of connecting pipe and valve components.

一套自动执行元件及电器材料：

One set of auto performance components and parts and the electrical appliance material.

CIP清洗液储罐：1000L-10000L；
CIP cleaning liquid storage tank: 1000L-10000L.

根据客户要求，可以增设酸液回收双回路、三回路、四回路等，可以实现多个清洗液回路的运行。

According to the customer's requirements, we can make the double circuit, three circuit, four circuit and so on, meanwhile we can make multi circuit operating at the same time.

加热方式可以为：板式、盘管式、列管式。

The heating way: plate type, coil tube type, tubular type.

系统控制参数：

本系统采用PLC编程控制，带彩色触摸屏操作显示整个生产工艺流程及各项控制参数，清洗液温度可设定，对罐内液位可设定，对清洗时间可设定，清洗顺序可设定，清洗液浓度可设定，报警系统故障报警装置。

Technical

This system adopt the PLC program to control, with the colored touch-screen to operate and display the whole process flow and also the tank controlling parameter. The temperature of the cleaning liquid can be installed, it can set the PH value, the cleaning time, cleaning sequence, and also the refluxer PH value. With the system malfunction alarm device.

系统工作原理：

1. 清洗液流量自动控制
2. 清洗液温度自动控制
3. 罐内液位自动补偿控制
4. 罐内酸、碱液位自动补偿
5. 酸液、碱液、热水流量自动控制
6. 系统报警装置

The operating principle of the system:

1. Auto-flow control for the cleaning solution.
2. Automatically regulate the temperature of the cleaning liquid.
3. Auto-compensate for the inside tank liquid level.
4. Automatically-compensate for the acid and alkali concentration.
5. Auto transfer from one cleaning liquid to another.
6. System auto alarm device.



2. 分体式半自动CIP系统 Semi-auto split type CIP cleaning system

清洗液加热方式为自然加热方式，通过温度控制仪设定清洗温度，控制蒸汽调节阀的开启量来控制蒸汽的流量从而保持清洗液在所需的温度；CIP液罐内液位的高低采用高位报警并提示；当清洗液的浓度降低时，通过人工添加浓液稀释，清洗过程仍然通过人工操作相应的控制阀门进行；罐内缺水时进行人工补水；

The heating way for the cleaning liquid is auto-heating. The operating principle: set the cleaning temperature through the temperature controller to control the steam control valve's opening frequency to limit the steam amount making the cleaning liquid keep at required temperature. All the tanks liquid level in the CIP system adopt the auto-alarm. It will be increased the concentrated acid and alkali through manually way when the cleaning liquid concentration reduced. The cleaning process transferring should be operated by the manually to change some relevant pipelines and valves. Workers should increase the water when the tank lack of water.

技术参数 Technical

罐体容量 Tank size	1000L-10000L	
CIP清洗液 CIP tank type	酸罐、碱罐、热水罐、清水罐、回水罐 Acid tank, alkali tank, hot water tank, clear water tank, water recycle tank.	
清洗回路 Cleaning recycle	单回路、双回路、三回路、四回路 Single circuit, double circuit, three circuit, four circuit.	
加热方式 Heating method	罐体内置自然加热式、外置加热式自然、外置电加热 Coil pipe inside, plate, tubular.	
自动控制方式及特点 Automatic type and character	全自动 Full Automatic	1.清洗液流量自动控制 2.清洗液温度自动控制 3.罐内液位自动补偿控制 4.罐内酸、碱液位自动补偿 5.酸液、碱液、热水的流量控制 6.系统报警装置 1.Flow rate auto control, 2.Temperature auto control, 3.Auto compensate the liquid level, 4.Auto compensate the liquid concentration, 5.Cleaning liquids auto transfer, 6.Auto alarm.
	半自动 Semi-automatic control	1.清洗液流量自动控制 2.手动操作，手动控制其他操作 1.Temperature auto control, 2.Manual control with manual operate the other matters.
手动 Manual control	1.手动操作 1. Manual operate on the cleaning process.	





Henan Gems Trading Co., Ltd

ADD: Zhonghaode E-commerce Industrial Park, Guanlin Rd, Luoyang, China

Ms Zoe, Tel: +86 379 67798389, Mob: +86 13007559379(whatsapp)

Skype: zoe199112 Email: zoe@gemsmachine.com

Wechat: lz04280912 QQ ID: 790404984



Gems Machinery

Fruit&Vegetable, Dairy, Meat, Eggs, Nuts Processing Machinery

All for your service needs



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Buyer	Masoumeh Imani	Date	December 10, 2019
Country	Iran	Email	masoumeh.imani@sunich.org
Phone	/	Subject	Almond Milk Machine

Company Introduction:

Gems Machinery Co.,Ltd is engaged in development, design, manufacture and sale of fruit/vegetable/meat processing machinery. Over the years, our company adopts many new ideas, absorbs a wide range of advanced technologies worldwide as well as excellent processing and testing equipment, and takes a reliable strict quality guarantee system and an important after-sales service system to win customers' trust in the industry. We have strong technical force and standard management. Our existing products are related to the fruit and vegetable processing industry and meat product processing industry, including fruit and vegetable juice machine, fruit pulp machine and fruit washing machine. Also supply dairy processing machine, such as milk pasteurizer, milk homogenizer, milk fermentation machine; Meat processing machine such as meat grinder, meat bowl cutter, smoker machine etc; We are willing to join hands with customers for common development and contribute to the revitalization of the food processing industry.





Almond Milk Grinder Machines

Processing Steps Introduction:

- 1. Convey System---Feed Hopper & Soaked Almonds:** This hopper is full of water, pour the raw almonds into it, and soak the almonds.
- 2. Almonds Rinsing:** The machine works smoothly and the speed adjustable. Adopting water bath bubble cleaning, the almonds in the water pass the bubbles in the process of the release effect, and by this movement, something attached to almonds can be cleaned effectively. And this machine also added a spray cleaning function, after almonds are cleaned by soda bath, it is spray-washed again. The function is to remove the dirty water on the surface and improve the cleaning effect.
- 3. Almond Grinder:** By this step, we can get coarse almond milk, the texture is about 200mesh(75 μ m).
- 4. Super-fine Grinder:** After this process, we can get very smooth texture of almond milk, with 40 μ m.(as we talked before, you expect 25-50 μ m).
- 5. Balance/Storage tank and Transfer Pump.**
- 6. Homogenizer:** By ultra high pressure colliding makes the suspension of the flowing liquid material, through the control system of the ultra-high pressure pump, the material to be processed is input into the high pressure jet collider, and the pressure release from the high pressure jet collider after the collision is completed. The maximum flow rate is 160-200m/s, high-pressure high-speed impact occurs, the material reaches the micro-level crushing, thus completing the ultra-fine crushing, emulsifying and dispersing function.

It is widely used in food, dairy products, beverages, pharmaceuticals etc. It can homogenize various types of dairy materials. Under high pressure, which can significantly refine the fat globules in dairy products and make their products edible. It is easy to digest and absorb afterwards, which improves the edible value.



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Technical Parameters & Details:

	<p>Model: GMS-JT180 Grinder</p> <p>Voltage: 380v</p> <p>Power: 22kw</p> <p>Capacity: 600-800kg/h</p> <p>Diameter of Rotor: 180mm</p> <p>Hopper Volume: 13L(can customize)</p> <p>Rotation: 2930rpm</p> <p>Package Weight: 420kg</p> <p>Package Dimension: 981*476*1124mm</p> <p>FOB Shanghai price: USD3475</p>
	<p>GMS-CWM250 Super-Fine Grinder</p> <p>Fineness: 40μm</p> <p>Voltage: 380v</p> <p>Power: 22kw</p> <p>Capacity: 500L/hr</p> <p>Rotation: 2940rpm</p> <p>Dimension: 1590*560*1620mm</p> <p>Weight: 580kg</p> <p>FOB Shanghai price: USD6680</p>
	<p>Product Name: Pump</p> <p>Quantity: 1 set</p> <p>FOB Shanghai price: USD720</p>



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	<p>Product Name: Stator Rotor Quantity: 1 set FOB Shanghai price: USD800</p>
	<p>Product Name: Storage Tank Volume: 50L Material: 304 SS FOB Shanghai price: USD250</p>

Total FOB Shanghai Price: USD11925

Discount Price: USD11650

Shipping Cost to Abbas Port for Free

Total Amount: USD11650 to Abbas Port

Customer Cases





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Terms & Conditions:

1. Terms of Payment: Full payment by T/T or 50% as prepayment.
2. Delivery time: Within 15 days after receive your payment.
3. Quality Guarantee Terms: Quality guarantee term is for two year. Malfunctions which are caused by machine itself and quality will be responsible for our manufacturer. Other malfunctions which are caused by operation mistakes, man-made problems, etc will be responsible for clients-self.
4. Validity time: The period of validity for this quotation is 4 weeks.

Support:

1. Before delivering the machine, we will test and adjust it, so you can use it directly when you get it.
2. Operating video& Instruction will be sent to clients to help them better use the machines.
3. Any problems occur while using, professional advice will be given by us.
4. All kinds of frequently used parts are supplied from us all the year around.

Contact Information:

Tel: 0086-379-67798389

Mobile: 0086-13007559379 (whatsapp)

Skype: zoe199112

QQ: 790404984

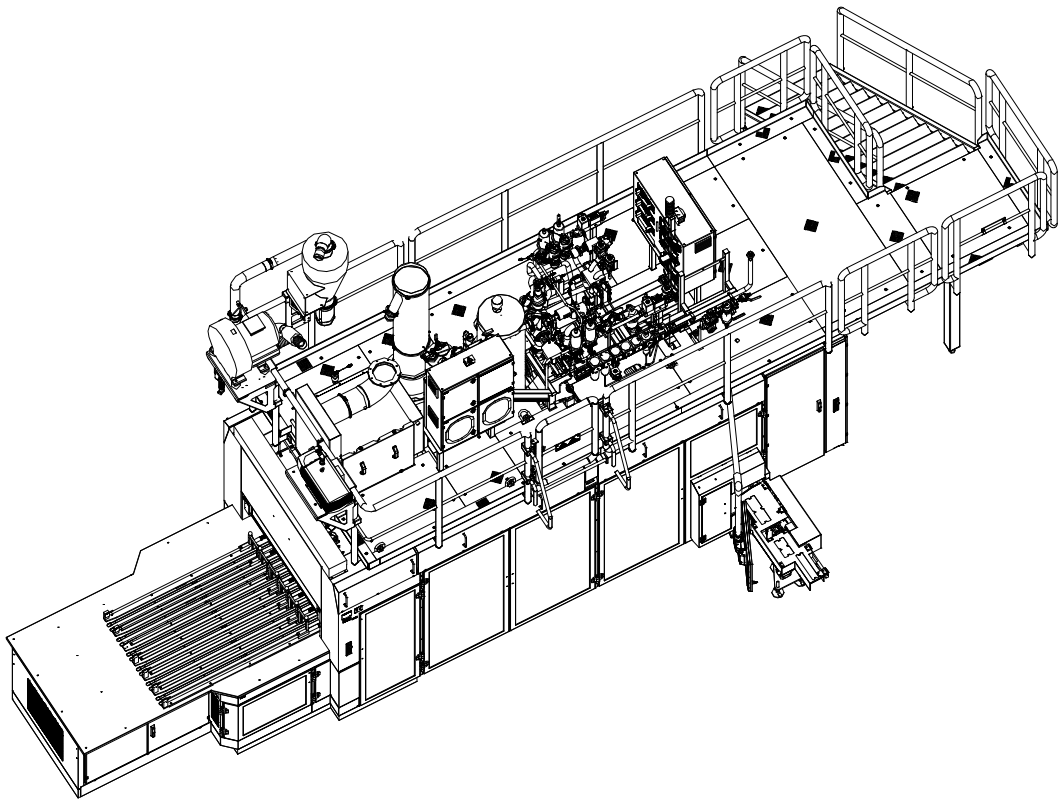
Website: www.gemsmachine.com

E-mail: zoe@gemsmachine.com

Technical Information

Aseptic Filling Machine

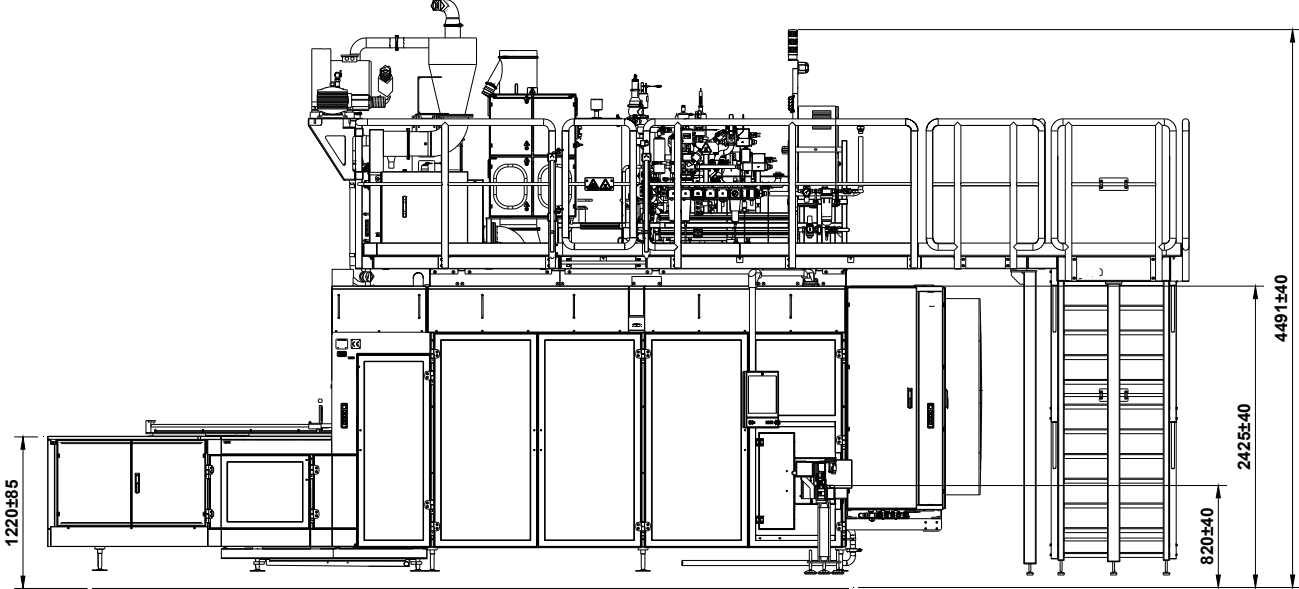
CFA 1224-37



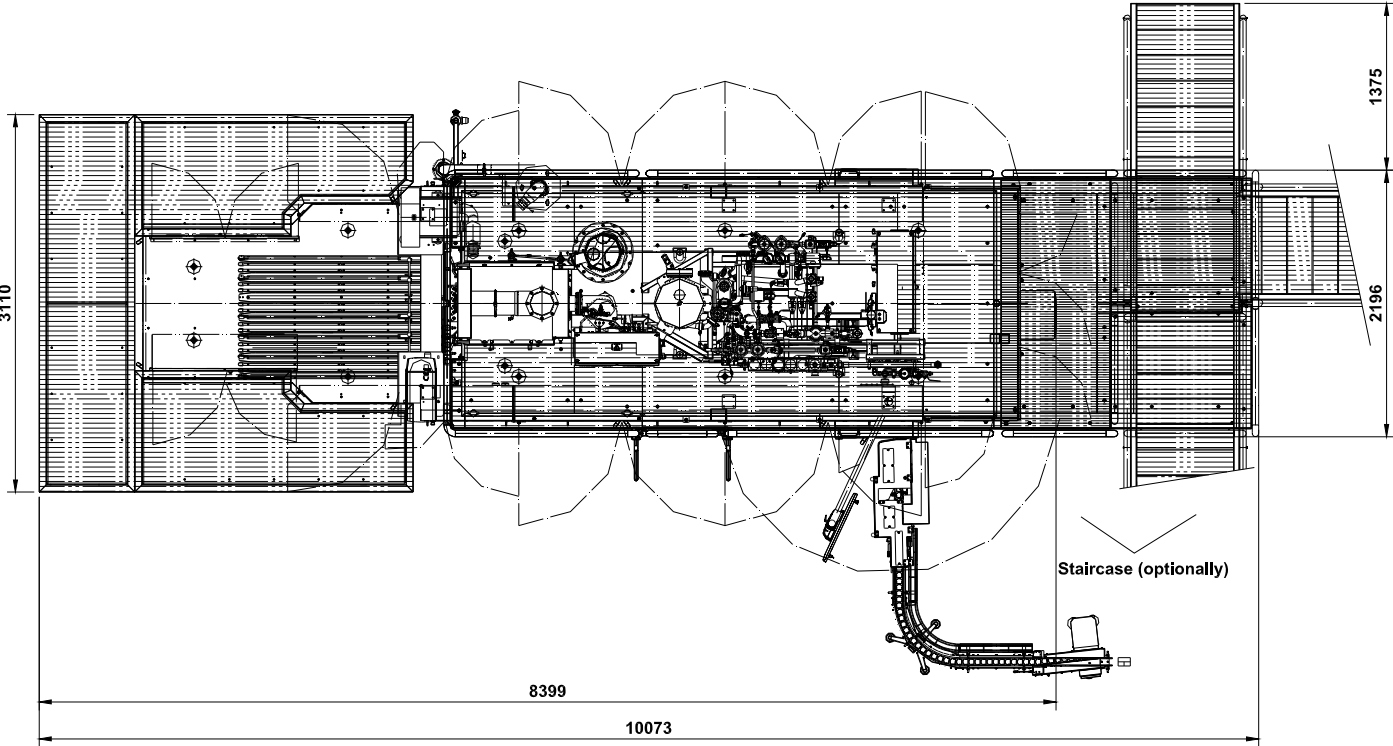
SIG Combibloc

Main Dimensions of the Filling Machine CFA 1224-37

Side view (dimensions in mm)

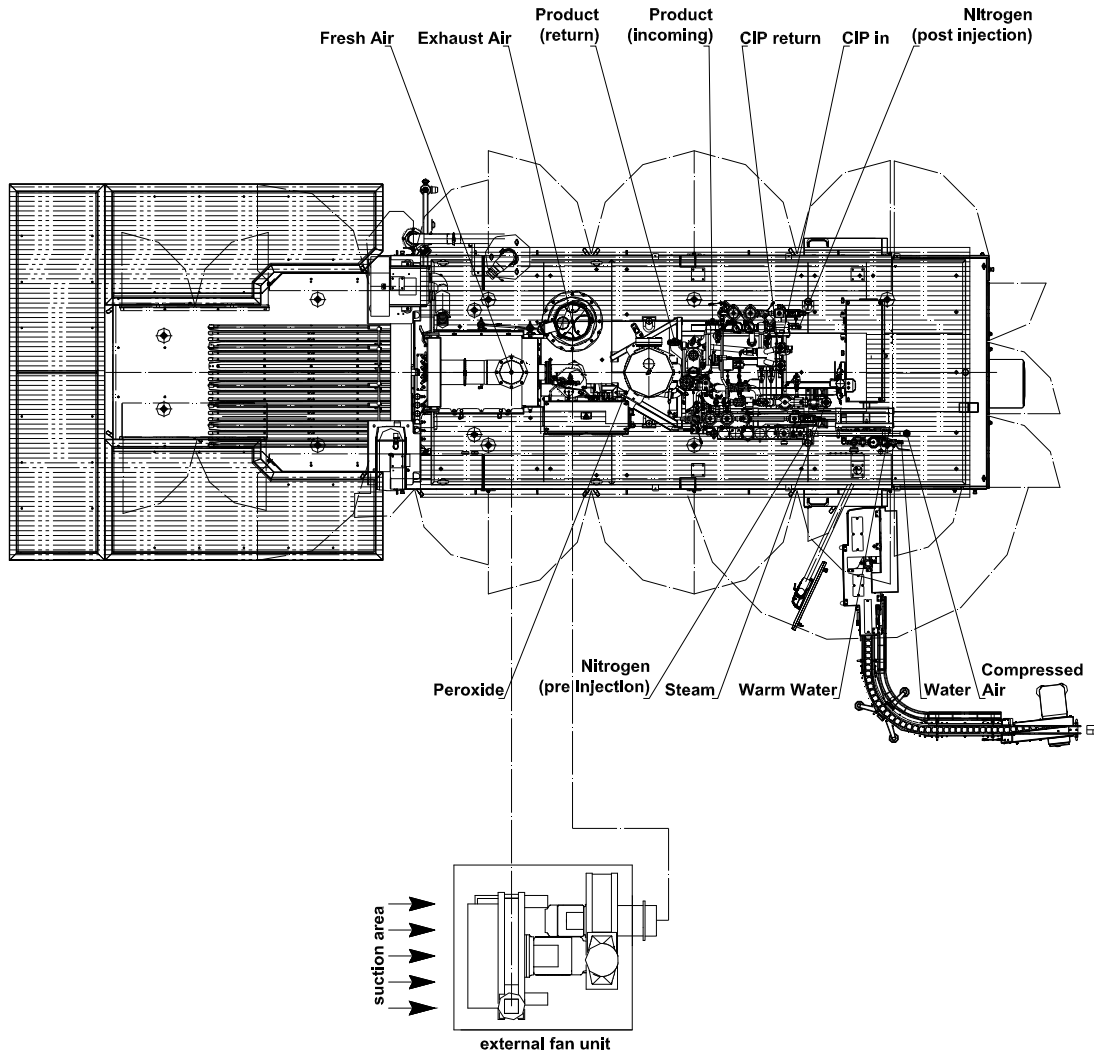


Top view (dimensions in mm)



Valve Assembly and additional Aggregates of the CFA 1224-37

Installation Scheme



Weights and Connection Details

Installation Unit	Weight	Utility Connection
Mandrel Wheel Unit incl. Platform	approx. 3,000 kg	
Chain / Filling Section	approx. 5,310 kg	Electric Power
Valve Assembly incl. Platform	approx. 1,470 kg	Filling Product, Cleaning in Place, Steam Pressurized Air, Water, Warm Water Peroxide, Nitrogen (optional)
Air Supply / Waste Air	approx. 730 kg	to Filling Machine / from Filling Machine / to the outside

Performance data, filling machine	
Machine output	24,000 packages/h
Standard formats	80 ml, 90 ml, 100 ml, 110 ml, 125 ml, 150 ml, 180 ml, 200 ml other volumes/ -combinations upon inquiry
Format changeover	2 minutes, no change of parts
Filled products	Liquid aseptic and non-aseptic foodstuffs (milk, milk drinks, juices, nectares, fruit-juice drinks, water, tea- and coffee- drinks, wine). - non carbonized - low foam building - without particulates - Viscosity*** up to 1,000 mPa*s Special products upon request
Packaging material	Printed structural material Longitudinal seam in the corner Board/PE/Aluminum foil Magazine size: 6,000 package sleeves
Operation	1 person, trained by SIG Combibloc
Product piping	
Supply line pressure:	0.8 - 1.2 bars
during sterilization, steam:	max. 135° C (max. 3 bars)
during sterilization, hot water	
CIP, sterile CIP:	max. 4.5 bars
Supply line temperature:	6° - 30° C
Supply line diameter:	DN 65 (infeed and return flow)
Quantity:	1,920-4,320 l/h + approx. 5% return
Connection (Item 3.1 and 3.1.1):	DN 65, material 1.4404 / 1.4435
Utilities	
Electric power	
Machine connection (Item 5.1):	3 phase, 230/400V, +5/-5%, 50/60 Hz, 100% chargeable centerpoint lead
Min. cross-section	4 x 95/50 mm ² , CU-cable, L <100 m
Max. cross-section	5 x 95 mm ²
Fuse protection	200 Amperes
Total connected load	110 kVA
Consumption:	approx. 40 kWh
Connection, supply air & exhaust(13.1)	3 phase, 230/400 V, +5/-5%, 50/60 Hz, 100% chargeable centerpoint lead
cross-section fresh air fan:	5 x 10 mm ² , CU-cable, L <100 m
cross-section exhaust air fan:	5 x 4 mm ² , CU-cable, L <100 m
Fuse protection fresh / exhaust air:	32 A / 20 A
Total connected load:	20 kVA
Consumption:	approx. 17 kWh
Compressed air	
Residual oil content:	max 0.1 mg/m ³
Residual water content:	5 - 6 g/m ³
Supply line pressure:	7 - 10 bars
Supply line diameter:	DN 32
Connection (Item 3.6):	G 1"
Consumption:	approx. 155 Nm ³ /h
Water	
Supply line pressure:	Drinking water*, low calcium 0.9-1.8 mmol CaCo3/l
Infeed temperature:	2 - 6 bars
Supply line diameter (cooling):	4° - 25° C
Connection, cooling (Item 3.7):	DN 15
Outlet cooling (Item 2.3):	G 1/2"
Cooling consumption (pocket chain):	DN 50 free (catch basin) approx. 400 l/h (at 1.5 bars)
Nitrogen (optional)	
Supply line diameter:	DN 25 / DN 25
Connection (Item 3.10* / 3.11*):	G 3/4" / G 3/4"
Steam	
Supply line pressure:	Saturated steam (approved for the food industry)
Supply line diameter:	4 - 5 bars
Connection (Item 3.3):	DN 25, length < 25 m
Connection capacity:	DN 40 min. 65 kg/h
Consumption (Sterilization):	Supply temperature min. 154° C (min. 10 kg in the first 10 minutes)
Consumption (Production):	25 - 30 kg in 35 minutes
Waste water drain (Item 3.9)	approx. 30 kg/h (steam injection) DN 40
Warm water	
Medium:	Drinking water* (20° - 40° C)
Supply line pressure:	4 bars
Supply line diameter:	DN 20
Connection (Item 3.8):	G 1", material 1.4301
Connected capacity:	min. 150 l/min (at 4 bars)
Pocket chain cleaning:	approx. 450 l/cleaning (at 4 bars)
Package sterilization	
Medium:	H ₂ O ₂ **
Supplied from::	Central supply (barsrel pump)
Storage tank (Item 2.10):	approx. 8 l (DN 10)
Consump. per Aseptic Zone Sterilization:	approx. 1.0/1.0 l (high/low acid-operation)
Consumption (production):	approx. 4.3/8.6 l/h (high/low acid-operation) (basic adjustment)
Auxiliary units	
Connecting pipes:	not included in scope of delivery
Supply air unit	
Quality of intake air	low-dust, odor-free
Temperature of intake air	0° to + 40° C
Connection at filling machine (Item 6.1):	DN 200, material 1.4301
Fan capacity:	2,500 m ³ /h
Filler capacity:	approx. 1,750 m ³ /h
Exhaust fan	
Medium:	Exhaust containing H ₂ O ₂ , + 40° to + 60° C
Connection to filling machine (Item 9.1):	DN 300, material 1.4301
Fan capacity	3,500 m ³ /h
Suction at filling machine:	approx. 3,500 m ³ /h
CIP-Parameters	
CIP-Unit:	not included in scope of delivery
Cleaning agents:	(depends on filled product) water, caustic solution, acid
Supply line pressure (steam):	2 - 6 bars
Medium temperature:	Water, 6° - 80° C 1 - 2% caustic solution, acid, approx. 80° C
Connection to filling machine	
Infeed flow (Item 3.2):	DN 40, material 1.4404 / 1.4435
Return flow (Item 3.4):	DN 40, material 1.4404 / 1.4435
Inlet pressure before filler:	2.7 bars (max. 3.5 bars)
Pressure loss in filler:	2.2 bars
Volume in filler:	approx. 50 l cleaning fluid
Volume in pipelines:	approx. 1.2 l/m (pipe DN 40)
min. volume of medium tank:	200 l + additional pipe
Flow quantity:	10,000 - 15,000 l/h

Equipment List and quotation

No.	Commodity description		Qty	Specifications	Price(USD)
01	Grain Pretreatment system	Jumbo bag	1 set	1 ton bag Function: Ton bags lifting and discharging Material: Carbon Steel Painted Hanging Hoist included Horizontal driving rail with motor Vertical driving chain with motor Ton bag hanger Ton bag platform with sloped hopper Discharging port with access door Stainless steel slide gate valve Loss-in-weight cell included Handheld control panel for horizontal and vertical moving Four legs and foot pads with bolt fixed in ground	12,464
		Malt feeding grist case	1 set	SUS material, with grating	84,758
		Dust Hood	1 set	Stainless steel	
		Bucket Elevator Conveyor		8T/Hr, Stainless steel; Explosion-proof electric machine	
		Combined Gravity Stone, Impurity Remover	1 set	5T/Hr, Carbon steel	
		Screw conveyor	1 set	from stone remover to bucket elevator, Stainless Steel.	
		Bucket Elevator Conveyor	1 set	8T/Hr, Stainless steel; Explosion-proof electric machine	
		Permanent Magnet Drum	1 set	5T/hr, Stainless steel	

		Grist Silo	1 set	5m3 capacity, SUS304, with weighing sensor, pneumatic gate valve	
		Wet Malt Crushing Machine	1 set	5T/hr, SUS304, 2 feeding roller and 2 milling roller, with water pipe, flow meter and regulating valve	
		Low Pressure pulse dust collector	1 set	TBLM-52-I; 8000-10000m3/hr	
		Silencer	1 set	-	
		Control Cabinet	1 set	PLC control with Smart 200 touch screen, ss304 stainless steel	
02	Mash system	10000L Mash tun	1 set	VFD blender	24,038
		10000L Lauter tun	1 set	Milled sieve plate(with Lifting motor of raker)	39,174
		10000L brewing kettle tun	2 sets	Steam heating	45,762
		10000L Whirlpool tank	1 set	Tangential inlet	15,580
		200L Grant	1 set	-	623
		Hops adding tank	1 set	100L each, two tanks; to be equipped with screen basket for other herbs	For free
		150L hop filter	1 set	To filter the hops	623
		Pipe filter	2 sets	-	For free
		3000L Weak wort tank	1 sets	Stainless steel, 2000L	2,155
		100m ² Plate heat ex-changer	1 set	Easy to disassemble & clean. Shanghai Nanhua	12,162
		20 m ² Plate heat ex-changer	2 set	For hot water tank and cold water tank heat exchanging. Shanghai Nanhua	6,660
		Mash pump	1sets	20T/h, lift 12m, LYSF	1,514
		Mash filter pump	1 sets	10T/h, lift 18m, LYSF	1,042
		Kettle pump	1 sets	30T/h, lift 24m, LYSF	890
		Whirlpool pump	1 set	20T/h, lift 24m, LYSF	1,131

		Hot/Cold Water pump	2 sets	20T/h, lift 24m, LYSF	2,012
		Operating platform	-	Stainless steel, matched with brewhouse	1,042
		Wort detection station	1 set	Stainless steel	1,514
		Pipeline and accessories	1 set	Including outdoor exhausting and steam pipelines. Pneumatic valves(86 sets) is the top brand in China LYSF	80,128
		Auto water mixing station	1 set		Included
		Auto wort cooling station	1 set		Included
		Wort aeration station	1 set		Included
		Empty level switch(IFM)	8 sets		included
		Level transmitter(IFM)	7 sets	On MT, BT, KT1, KT2, WT, HLT, CLT	1,870
		Pressure transmitter on each pump(IFM)	7 sets		1,558
		Rope pulling encoder for controlling rake lifting location	1 set		Included
		Foam electrode sensor for boiling monitor(IFM)	2 sets		For free
		Shell-and tube heat exchanger to recover the heat of boiling(Made by HG Machinery)	2 sets		16,026
		Cooling device and pipe for pump	4 sets		Included
		Proximity switch on manhole(Autonics)	8 sets		2,137
		3 rd flow meter on LT outlet	1 set	IFM	1,131
		Inline turbidity meter	3 sets	Sigrist	45,406
		Inline Saccharimeter	1 set	on wort outlet pipe after lauter tun, Anton paar brand	20,477
03	Spent grain system	Pneumatic screw conveying system	1 set	Stainless steel, design according to you site drawing, pump from Shanghai Sunshine	8,903
		Spent grain Temporary storage tank	1 set	1m ³ , stainless steel, matched with lauter tun	

04	Buffer tank and cooling unit	BBT body with all accessories and valves	6 sets	pipelines flow plate Tank top devices valves: mechanical pressure regulating valve, breath valve, spray ball, sampling valve, drain outlet valve, CO2 valve, beer/wort outlet pipe, solenoid valve, Pneumatic angle seat valve	129,000
		Glycol liquor tank	1 set	5000L	5,787
		Chiller(Shanghai Kansa)	2 sets	20HP, air cooling, temperature keeping at -5°C	16,026
		Glycol liquor pump(LYSF)	2 set	20T/h, lift 24m	2,012
		SUS glycol liquor pipeline	1 set		3,739
05 4000L CIP System	4000L double wall caustic tank	1 set	-	4,986	
	4000L single wall acid tank,	1set	-	2,315	
	4000L sterilized tank	1 set	-	2,315	
	4000L hot water tank	1 set	-	4,986	
	Sanitary centrifugal pump with VFD(LYSF)	2 sets	-	1,603	
	dissolving tank with agitator	1 set	100L, made by ss 316L , with agitator	1,425	
	Diaphragm pump(LYSF)	3 sets	-	1,442	
Sanitary piping, Pneumatic valves(18 sets)and fittings, flowmeter*2 sets(IFM), Electrical conductivity meter*2 sets(IFM), CIP controlling cabinet equipped	1 set	Automatic control. CIP flow rate should be 30000 l/h with two pressure line each one equipped by flowmeter and fully automated. CIP heat exchanger to be tubular, Shanghai Nanhua	8,084		
06 Control system	Control system for brewhouse	1 set	PLC touch screen control panel, SS 304 stainless steel cabinet	76,567	
	Control system for fermenter/BBT	1 set	Button type control, SS 304 stainless steel cabinet	2,137	
	The control system would be based on the engineering control room with computer control, All control cabinet is SS 304, and				

	cooling is AC if needed; Main electrical components supplier: PLC(SIEMENS), Touch Screen(SIEMENS), Temperature controller(Autonics), circuit breaker(SIEMENS or Schneider), contactor(SIEMENS or Schneider), thermal relay(SIEMENS or Schneider), intermediate relay(SIEMENS or Phoenix), MCCB(Moulded case circuit breaker, SIEMENS or Schneider), VFD(Danfoss), Power supply(Chinese top brand)			
07 Filtration Unit	3000-4000L disk centrifugal separator	1 set	3000-4000L/hr, supplied by Huading, SS 304 body, With all deaerator and controlling; Detailed spec sheet will be attached with contract	86,360
	10000L/hr candle DE filter, with dosing section	1 set	10000L/hr, supplied by Yangzhou State Run or Run Qiang	27,689
	Duplex bag filter	1 set		27,600
08	Enough spares for all accessories, facilities wearing parts and components, including pump seal to make the warranty time of 36 months	1 set	-	For free
09	Spare part for 6000 hr for all component gaskets in valve , heat exchanger, crusher, separator	1 set	-	For free
10	10 set spare for pneumatic valves , two sets of spare centrifugal pump	-	-	For free
Total price for the above system after discount is USD 819,385.00 (EXW Jinan)				
Trucking cost and port charges: USD 19,000.00				
Total price for FOB Qingdao: USD 838,385.00.				