EQUIPNET

| No | Name | Model | Capacity | Qty. | | Remark |
|----|---|---------|-------------------------|-------|----------|---|
| | | P | art 1: Bottle | blowi | ng syste | em |
| | Automatic 4 cavities Blow Molding Machine | | 5500 bph | 1pc | | <pre></pre> |
| 1 | Preform unscrambler | KM4A-2L | 5500 bph | 1рс | | valve **SMC Pneumatic cylinder **Omron Sensors **Schneider low voltage electric components |
| 2 | Blowing mould | 120 ML | 5500 bph | 1рс | | %Steel |
| 3 | HP Air Compressor | GY-4 | 3.6 m ³ /min | 1рс | | |

[&]quot; All images for illustration only , actual product may vary "

| | | | | 1 | | |
|----|----------------------------|---------------------|-------------------------|---------|------------------|---|
| | (Shangair brand) | | | | | |
| | Air dryer system for HP | | 3.6 m³/min | 1pc | | |
| | Air filter for HP | | 3.6 m ³ /min | 1pc | | |
| | Air Tank | | 0.5 m³/min | 1pc | | |
| 4 | Water chiller | SIB-3A | 3HP | 1pc | | **3HP |
| | | | | | | |
| | | Part 2: V | Nater treatm | ent sy | stem, 2 ton/hour | |
| 1 | PE raw water storage tank | | 2m ³ | 1pc | | ※For storing the raw water |
| 2 | Water pump | CHL-4 | 4T/h | 1set | | ※Nanfang Pump |
| 3 | Silica Sand filter | SYS-4 | 4T/h | 1set | | ※Ø700*1500mm ※FRP material ※Backwash system |
| | | | | | | |
| 4 | Active carbon filter | SSJ-4 | 4T/h | 1set | | <pre></pre> |
| | | | | | | |
| | | | | | | %Ø700*1500mm |
| 5 | Sodium ion exchanger | SN2-4 | 4T/h | 1set | | ※FRP material |
| | ger | 0.12 | , | | | |
| | | | | | | |
| | | | | | | %Ø350*900mm |
| 6 | Precision filter | FSJ-4 | 4T/h | 1se/*t | | |
| 0 | FIECISION IIILEI | 1 00-4 | | | | |
| | | | | | | **And 12pcs pp as spare |
| | | | | | | *With 2 pcs RO membranes |
| 7 | Reverse Osmosis | RO-1-2T | 2T/h | 1set | | **USA Hydranautic membranes |
| - | | | | | | %high pressure pump 5.5 kW |
| 8 | UV sterilizer | DK-34 | 2T/h | 1set | | |
| | | | | | | |
| 9 | Ozone generator | O ₃ -10A | 10 g/h | 1set | | ※Oxygen generating system |
| | | | | | | ※Ozone generating system |
| | | | | | | %Size:1650*2300mm |
| | | | | | | SUS304, supplied by POSCO, |
| | | | | | | S.Korea |
| 10 | Finished water tank | CG-3 | 3T | 1set | | **Thickness: 4 mm |
| | | | | | | *Ladder |
| | | | | | | Observing window |
| | | | | | | |
| | | | 4 9. Eillin | nd nasi | king oveters | |
| 4 | NA: | | | _ | king system | 20. 1 1 |
| 1 | Mixing tank | TPG | 500L | 2sets | | ≪Single layer |

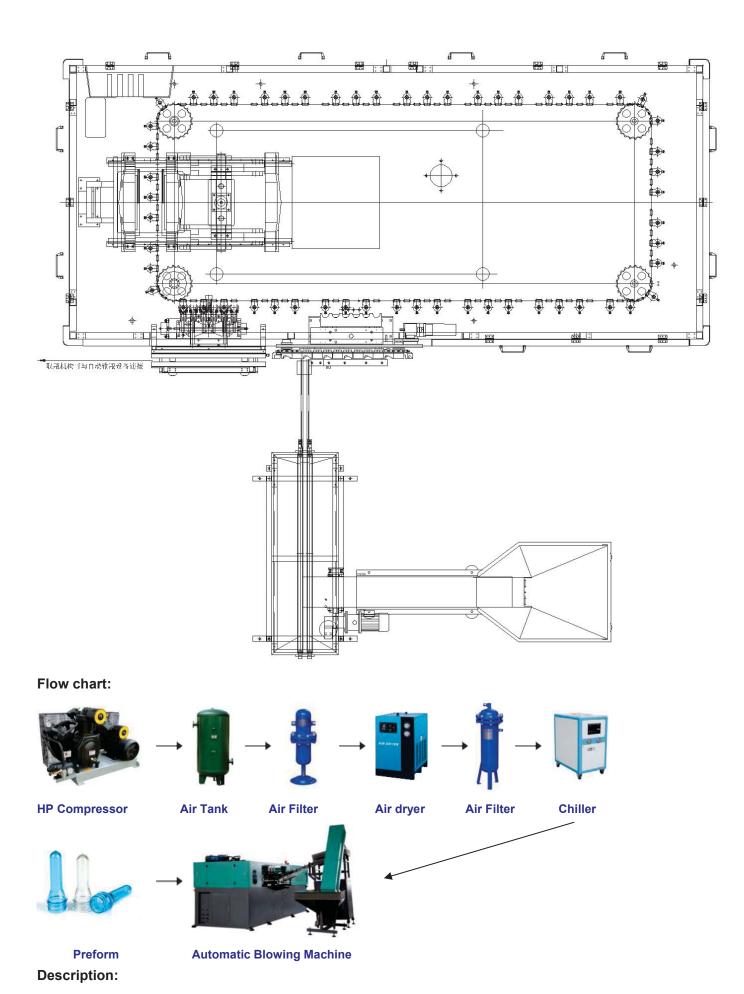
| 2 | CIP system | KM-CIP30 0L | 300L | 1 set | %300L acid liquid tank %300L hot water tank %300L lye tank |
|-----|--|----------------|----------|-----------|---|
| 2 | Hygienic pump | YA-3-24 | 3m³/h | 3 sets | |
| | Balance tank | PHG | 100L | 1 set | **SUS304 |
| 3 | Connected filter | ZPR-H2 | 500L/H | 1 set | ※25 micron |
| 3.1 | Pipe works | | | | ※On-site engineering/welding |
| 4 | CGF washing filling capping Tri-block | CGF14-12- 5 | 4160BPH | 1set | **Siemens PLC+HMI **Siemens low voltage electric components **SUS304, 3mm, supplied by POSCO, S.Korea **German IGUS sliding bushing **NSK bearing **Bottle neck holding transportation system **Aluminum cap sorting silo **14 rinsing heads **12 filling heads, SUS316 **SUS316 Reservior **5 aluminum capping heads |
| 4.1 | Aluminum cap elevator | KM-SG | 4160BPH | 1set | |
| 5 | Light checker | KM-DJ | 4160BPH | 1set | ※Energy-saving lamp ※Strong penetration light ray |
| 6 | Blowing dryer | KM-CGJ | 4160BPH | 1set | |
| 7 | Bottle inverter | | 4160BPH | 1set | SUS304 Bottle inverting system |
| 8 | Code sprayer | VJ1210 | 4160BPH | 1set | **Supplied by Videojet company from USA**You can buy the ink in your country |
| | Automatic shrinking sleeve labeler | | | 1set | |
| | Bottle lifting system | KM-TB250 | 4160DDII | 1set | ※Omron sensor |
| 9 | Shrink tunnel | А | 4160BPH | 1set | ※Panasonic Servo motors |
| | Steam generator | , . | | 1set | %Schneider low voltage electric components |
| 10 | Storage table | | 4160BPH | 1set | %SUS304 |
| 11 | Air conveyor | FC-1 | 4160BPH | 6m | |

| 12 | Flat conveyor with motors | SC-1 | 4160BPH | 23m | |
|----|---|----------------------|---------|------|---|
| | 90 degree turn | | | 2pcs | |
| 13 | Low pressure air compressing system | | 2m³/min | 1set | Supply the compressed air to the filling and packing line |
| | | | | | |
| 1 | Bottle mold | For blowing machine | | 1set | ※Steel mold |
| | Starwheels | | | 1set | * |
| 2 | Guiding plates | For filling | | 1set | * |
| ۷ | Bottle holders | machine | | 1set | ##For holding the bottles while filling ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while is a continuous property. ##For holding the bottles while it is a continuous |
| _ | Screw feeder | For labeling machine | | 1set | ※For sorting the bottles |
| 3 | Label mold | | | 1set | * |
| 4 | Automatic PE film shrink wrapping machine | KM-MB2 | 6000BPH | 1set | |
| 5 | Flat conveyor with motors | | | 9m | |
| | Motor | FC-1 | 6000BPH | 1set | SUS304 cable sorting sink Speed adjusting motor Subject to the final confirmation of the line's layout |

Bottle Blowing Machine

1. Automatic 4 Cavities bottle blowing machine





[&]quot; All images for illustration only , actual product may vary "

KMA4-2L Full automatic blow molding machine is suitable for producing PET plastic containers and bottles in all shapes. It is widely used to produce the carbonated bottle, mineral water, pesticide bottle oil bottle cosmetics, wide-mouth bottle and hot fill bottle etc.

Mould Clamping System

Single cylinder clamps and locks the mould in a very short time, which avoids a very obvious parting line caused by mechanical clamping method.

Preform unscrambling system

While performs are aligned in the unscrambler, there is a photocell on each rail which controls the perform loading motor and aligning cylinder. All these ensure a very precise, high speed and compact mechanical system. And the whole system is very stable and energy saving.

Rigid structure

Rigid nozzle sealing, hard to wear, and well sealed, no leak.

Standard components

Most of the parts are standard ones (such as chains, rails, cylinders, etc), which ensures customer a reliable and easy maintenance.

General description

KMA4 automatic blowing machine adopts our most advanced blowing technologies. This machine is a fully automatic, high intelligent, stable and reliable blowing machine, with simple structure, and low energy consumption. It is very popular and well used in food, beverages, cosmetics, pharmaceutical industry.

Function and advantages

- Man-machine Interface control, easy to operate
- Automatic preform loading and unscrambling
- Preform hopper
- Stable preform alignment, loading preforms according to capacity
- Close structure, low contamination
- Well preform heating system
- Stable rotating system
- Preforms are evenly heated, and easy to blow
- Low energy consumption, heating capacity is adjustable
- Recycling air cooling system in oven (option)
- ➤ Heating system is a mutual feedback and closed loop system, can works in a constant power output, without being affected by voltage fluctuation.

Preform loading, bottle fetching and outputting

All the preform loading and bottle fetching and outputting movements are finished by mechanical transfer arms, which avoid contamination.

Change moulds

The whole moulds changing takes only one hour.

High automation, low contamination

Fully enclosed design, finished bottle is transferred by mechanical arms and conveying belt, the whole production process avoids human contact, thus ensuring a healthy and cleaning environment which meets national health standards.

Stable and reliable performance

All the important parts, such as electric and pneumatic components, seals, bearings, and reducers, etc., are European or Japanese brands, ensuring a high qualified machine and reliable performance.

Human-machine Interface

Taiwan EV HMI, with a variety of parameters setting function, is easy to operate. Operators can modify the

parameters while the machine is running, such as the pre-blowing, second blowing, blowing time, etc.

Easy maintenance

PLC communicates with machine through a specific cable connection. User can control every movement of the machine through this PLC. Once there is a failure, machine will alarm and display the problem. Operator can easily find the reason and solve the problem.

Safety

KMA4 automatic blowing machine is equipped with the following comprehensive mechanical and electrical safety devices to ensure the safety of operators and a long-term stable performance.

A. Safety of operators

This equipment is a fully enclosed structure, equipped with comprehensive and reliable guarding doors, which promises a very safe operation.

B. Safety of equipment

Multi-point detection technology maximized the protection of positioning system, clamping system, and stretching system.

Features:

- Stable performance with advanced PLC.
- Automatic preform conveyor to save human cost.
- Preform self-rotation and infrared pre-heater revolution assure the even distribution of heat, which improve the bottle shaping rate, increase the production.
- High adjusting performance to enable preheat the preforms perfectly by adjust the voltage control area in the PLC, which could adjust the temperature of the infrared lights in the pre-heater, and keep the proper temperature and humidity invariable.
- High safeties with security automatic-locking device in each mechanical action, which will make the production into a perfect safe environment, in case of the breakdown in certain procedure.
- Introduce the FESTO air cylinder to avoid contamination and noise.
- Satisfaction with different atmospheric pressure for blowing and mechanical action by dividing the blowing and action into three parts in the air pressure diagram of the machine.
- Strong clamping force with high pressure and double crank links to lock the mould.
- Two ways of operating: automatic and manual.
- Low cost、high efficiency、easy operation and maintenance etc, profited from the fully automatic technological process.
- Ideal cooling system make the finished bottles without any flaws.

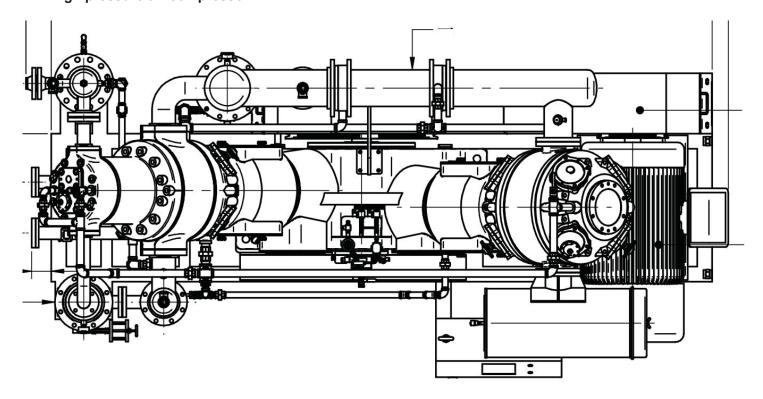
| Model | | KMA4-2L | |
|----------------------------|------------------------------|------------|--|
| | Cavity | 4 | |
| | Theory output | 4000 BPH | |
| | Max.volume | 2L | |
| Blowing part | Bottle mouth maximum overall | 28-38mm | |
| | diameter | 20-0011111 | |
| | Bottle biggest diameter | 105mm | |
| | Bottle maximum height | 330mm | |
| Power consumption | Light tube quantity | 32 pcs | |
| Power consumption | Light tube power | 48 KW | |
| Air pressure specification | Work pressure | 7-9kg/cm2 | |
| All pressure specification | Low-pressure gas consumption | 1000L/min | |

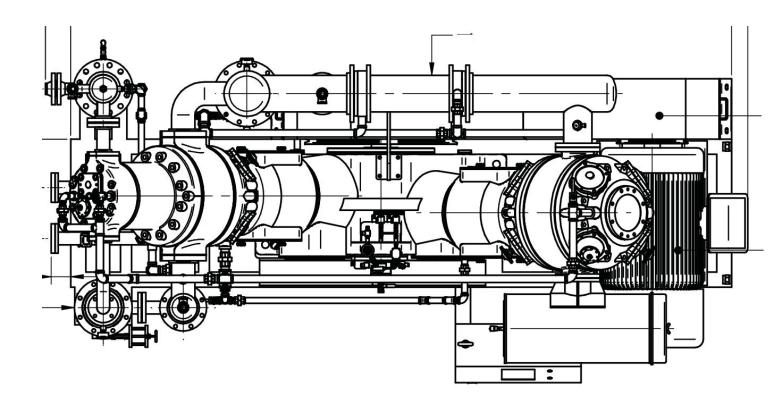
| | Blow bottle pressure | 25-35kg/cm2 |
|-----------------------|---------------------------------|------------------|
| | Higher-pressure gas consumption | 3000Ltr/min |
| | Work pressure | 5-6 kg/cm2 |
| | Temperature range | 10℃ |
| | Consumption | 8000kcal/hr |
| | Forzen water flow | 138L/min |
| Machine enecification | Size of the machine | 4100*1600*1900mm |
| Machine specification | Weight of the machine | 3.9 ton |

Component list:

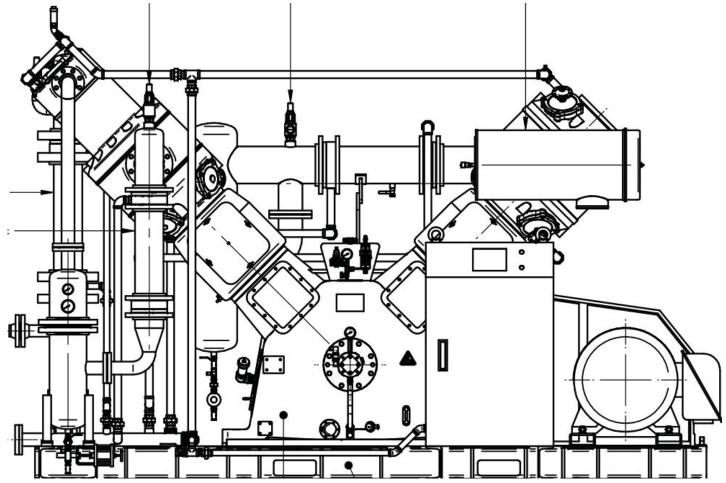
| Items | Supplier, Origin |
|------------------------------|------------------|
| PLC | Xinjie, China |
| Touch screen | Xinjie, China |
| Servo motor | Xinjie, China |
| Servo drive | Xinjie, China |
| First-stage blowing valve | Parker, USA |
| Second-stage blowing valve | Parker, USA |
| Exhaust valve | Parker, USA |
| Stretch valve | FESTO, Germany |
| Action valve | REXROTH, Germany |
| Stretch cylinder | SMC, Japan |
| Mold clamping cylinder | SMC, Japan |
| Bottom drive cylinder | SMC, Japan |
| Mold locking moving cylinder | SMC, Japan |
| Mold sealing cylinder | SMC, Japan |
| Stepping chain | KMC, Taiwan |
| Mold clamping guild rail | HIWIN, Taiwan |

1.1 High pressure air compressor





[&]quot; All images for illustration only , actual product may vary "



Features:

- Automatically synchronize the production capacity with the blower, saving lots of energy.
- Automatically adjust the air pressure for the needs of blowing different size bottles.
- VFD system ensures stable running and prolongs the service of the compressor.
- Easy maintenance, time-saving and cost-saving.
- · Motocompressor On Mentallic Skid
- Set Bullt According To EU Standards
- Three-cylinder Compressor, In "W" Frame Arrangement, air Cooled, single Effect, three-stage Compression .
- Intake Removable Filter, With Silencer
- Normal Inertia Flywheel,For V Belts Transmission
- Splashing Lubrication To All Moving Parts
- Light Alloy Pistons, With PTFE Based Segments
- Cylinder Heads, With Indibidual Valve Pockets
- Hoerbiger Type Automatic Valves, Big Flow Area, Operating Much Below Their Nominal Characteristics.
- SKF Main Ball Bearing On The End Of The Crankshaft
- Two Chamber Blocks Between Casing And Cylinders. Cylinder Side Chamber Is Large Enough To Avoid The
- Piston Rod Part In Contact With The Mechanical Element Could Get In Contact With The Packing
- Air-cooled Aftercooler, Furnished With Safety Valve.

| Model: | GY-4 |
|-----------------|------------------|
| Capacity: | 3.6 m³/min 30bar |
| Pressure: | 30 Bar |
| Rotating speed: | 850 r / min |

| Power: | 45 kW |
|------------|-------------------|
| Dimension: | 2000*1100*1600 mm |
| Weight: | 620 Kg |

1.2 Compressed air cooling drying filtering system



Technical parameters:

| roommon paramotoro. | |
|--------------------------------|----------------------------------|
| Model | NTLN |
| Capacity: | 3.6 Nm³/min |
| Working pressure: | 4.0 Mpa |
| Water filtering capability: | 99% |
| Cooling ability: | 1.5 HP |
| Dew point: | 2-10°C |
| Stroke: | 146 mm |
| Cooling agent: | R22 |
| Initial filter: | Oil ≤ 5mg/m³, Granule dia. ≤ 3um |
| | 3.6 m³, 4.0 Mpa, |
| First stage precision filter: | Oil ≤ 1 ppm |
| | Granule dia. ≤ 0.3 um |
| | 6 m³, 4.0 Mpa, |
| Second stage precision filter: | Oil ≤ 0.01 ppm |
| | Granule dia. ≤ 0.01um |

1.2 Water chiller



Technical parameters:

| Model | SIB-3A | | | | | |
|---------------------------|-------------------------|----------------------------------|--|--|--|--|
| Cooling chility | 8.4 kW | | | | | |
| Cooling ability: | 7,250 kcal/hr | 7,250 kcal/hr | | | | |
| Compressor/output | 2.25 kW | 2.25 kW | | | | |
| Compressor(output power): | Totally closed scroll c | Totally closed scroll compressor | | | | |
| power). | 3 HP | | | | | |
| Refrigerate agent: | Type: | R22 | | | | |
| | Tank: | $0.038 \; \text{m}^3$ | | | | |
| Chilled water: | Flow: | 1.65 m ³ /h | | | | |
| | Connector spc | 1/4 mm | | | | |
| Fan capacity: | 3000 m ³ /h | | | | | |
| Water pump: | Power: | 0.55 kW | | | | |
| vvater pump. | Working pressure: | 200 Kpa | | | | |
| Size: | 830*460*1010 mm | | | | | |
| Weight: | 120 Kg | | | | | |

Water Treatment Equipment



1. Water Source Pump



| Model | CDL 4 |
|-------|-------------------|
| Model | CDL -4 |

| Capacity: | 4 T/H | |
|---|------------------------------------|--|
| Liquid temperature: | Normal temperature type: -15℃~+70℃ | |
| Hot water temperature range: | +70°C~+110°C | |
| Highest ambient temperature: | +40℃ | |
| Max.operation pressure: | 10 bar | |
| Max.inlet pressure is limited by max.operation pressure | | |
| Motor Power: | 1.5 kW | |
| Rotating speed: | 2900 rounds/min | |

2. Water preliminary system



The material of the tanks is FRP, the images are for your reference







Features of the system:

- The connection of each device is made of high-quality stainless steel pipes, and equipped with manual or pneumatic stainless steel butterfly valves.
- The pressure gauge is shockproof.
- All internal pipes are connected with the body by flanges, which is convenient for maintenance and component replacement. The material of internal parts meets the specified requirements, and fasteners are equivalent to the material of internal pipes.
- The internal parts are fixed and strengthened to withstand the impact of water flow.
- The manhole of the container can ensure the access and replacement of parts by the maintenance personnel. The inner surface of the manhole and manhole cover is flush with the inner surface of the container. The hole is equipped with a complete set of parts such as the hole cover, washer, bolt, nut and lifting rod.
- Uniform distribution of water and gas in the internal water inlet, air inlet and water collection device of the equipment.
- All internal devices, pipe fittings and components of the container shall be installed and fixed in the container before shipment to prevent missing parts and damage or loss during transportation.
- Except for special needs, all equipment is not made of plastic material, and the material is equivalent to the anti-corrosion grade of the equipment.
- The bottom outlet device adopts stainless steel winding pipe.
- The device is provided with a support foot.
- In reverse washing, compressed air is simultaneously fed into the water to scrub the filter material. The strength of the compressed air is 18-25 l/s · 2 m.

2.1 Silica Sand filter

Description:

This system is equipped with quartz sand filter, and the filter is filled with refined quartz sand, which is used to intercept suspended matter, colloid and other impurities in the water. Backwashing time of the equipment is determined by inlet turbidity, which depends on raw water turbidity.

In reverse washing, compressed air is simultaneously fed into the water to scrub the filter material. The strength of the compressed air is $18-25 \text{ l/s} \cdot 2 \text{ m}$.

Technical parameters:

| Model | SYS-4 | |
|-------------------|---------------------------------|--|
| Capacity: | 4 T/H | |
| Wall-thickness: | 3 mm | |
| Working pressure: | 0.25 Mpa | |
| Material: | Fiber glass reinforced material | |
| Filtering medium: | High quality sand | |
| Size: | Ø700*1500mm | |

2.2 Active carbon filter

Description:

Activated carbon adsorber is used to adsorb residual chlorine, odor and organic substances and other harmful substances in raw water, reduce the COD content, and prevent residual chlorine into RO device, to ensure the safe use of membrane elements in RO device. If the water contains only a certain amount of residual chlorine, and organic matter, odor or color content is very small, the activated carbon in the adsorber only regular replacement wear or reaction with the residual chlorine of carbon particles. If the organic matter in water, peculiar smell or chroma content are higher, need to replace activated carbon after using period of time commonly,

specific change time should be decided by the organic matter in water, peculiar smell or chroma concentration.

Technical parameters:

| Model | SSJ-4 |
|-------------------|---------------------------------|
| Capacity: | 4 T/H |
| Wall-thickness: | 3 mm |
| Material: | Fiber glass reinforced material |
| Working pressure: | 0.25 Mpa |
| Chaotic degree: | Maximum 5 mg/l |
| Size: | Ø700*1500mm |
| Filtering medium: | Active carbon |

2.3 Sodium ion exchanger

Description:

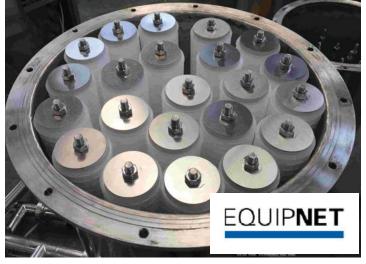
Because the source water contains calcium and magnesium ions, and the desalination rate of reverse osmosis is as high as 97%, the concentrated water side will produce calcium carbonate, magnesium carbonate, magnesium sulfate and other precipitates due to high concentration. The precipitation adheres to the reverse osmosis membrane surface, which will block the channel of the membrane element, causing the increase of pressure difference, the decrease of water flux and desalination rate, and affecting the normal operation and service life of reverse osmosis.

Technical parameters:

| Model: | SN2-4 | |
|-------------------|---------------------------------|--|
| Capacity: | 4 T/H | |
| Size: | Ø700*1500mm | |
| Wall-thickness: | 3 mm | |
| Material: | Fiber glass reinforced material | |
| Filtering medium: | 731 colophony | |

3. Precision filter





Description:

This machine is made of stainless steel as a small tank which contains precision filter membrane, it only allows

un-treated water go through the membrane, and does not allow any liquid go through another part, so it can filter the un-treated water.

Technical parameters:

| Model: | JM-4A | |
|--------------------------|--------------------------------------|--|
| Capacity: | 4 T/H | |
| Working pressure: | ≤0.3 Mpa | |
| Quantity of filter pole: | 4 pieces | |
| Material: | SUS 304 | |
| Filtering medium: | Polypropylene membrane (PP MEMBRANE) | |
| Size: | Ø 320*550 mm | |

4. Reverse Osmosis







Features:

- · Stainless steel main structure.
- It has two membrane-shells, each membrane-shell contains one RO membranes.
- RO membranes are supplied by Hydranautics.
- Able to eliminate over 97% solute salt and over 99% colloids, microorganisms, microparticles and organics, etc.
- The control system of the device adopts the combination of "site manual operation + automatic operation by PLC" mode to complete various data collection and parameter setting in the operation room. If the PLC controller fails, it will not affect the normal operation of the treatment system. On-site manual operation mainly includes: operation of pretreatment filter, chemical cleaning of reverse osmosis unit, and etc.
- Medium / activated carbon filter, installation of inlet and outlet water manual valve, backwash manual valve, positive wash backwashing drain valve, vent valve, pressure gauge, etc.
- Manual valves are installed at the inlet and outlet of the security filter/precision filter. The replacement of the filler is determined according to the increase of the pressure difference of the filter. The service life of the filter element is generally greater than 3 months.
- The high-pressure pump of the single-stage reverse osmosis unit is equipped with high and low pressure protection devices. When the inlet water pressure is lower than the set value or the outlet water pressure is higher than the set value, the high pressure pump automatically stops working, and the high pressure pump is also synchronized with the high and low liquid level control system of the front and rear water tanks.

RO system:

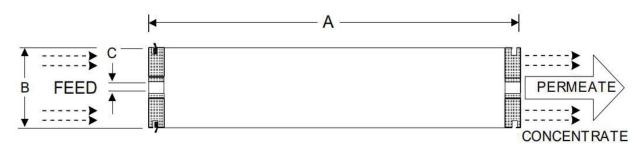
- A. The single-stage reverse osmosis unit is equipped with a concentrate and fresh water flow-meter.
- B. The working efficiency of the single-stage RO unit is controlled by adjusting the concentrate and fresh water valves.
- C. The automatic quick-rinsing process of opening and stopping is set, and low-pressure rinsing is performed to remove the sediments on the side of concentrate water.
- D. Equipped with online electric conductometer (Equipped on the RO water inlet pipe, RO water outlet pipe) to monitor water quality.
- E. The RO membrane cleaning is manual cleaning. The RO cleaning agent will be determined after comprehensive analysis based on various types of information feedback.
- F. All water tanks are equipped with liquid level transmitters, and the signals are introduced into the PLC control cabinet to control the liquid level and alarm.
- G. On-site manual operation and automatic operation are independent from each other, do not interfere with each other. If automatic failure, can manually operate the water treatment system, and the liquid level control is running normally.
- H. The main fault signal is introduced into the PLC controller, and the alarms are displayed on the touch screen,

awaiting to be set right.

Technical parameters:

| Model: | RO-1-2T | |
|-----------------------|-----------------|-----------|
| Feed water: | 4 ton/hour | |
| Product water: | 2 ton/hour | |
| Reject water: | 2 ton/hour | |
| Capacity: | 2 ton/hour | |
| Material: | SUS304 | |
| Filtering capability: | 0.0001 micron | |
| | Model: | CDLF2-140 |
| | Power: | 5 kW |
| Vertical pump: | Capacity: | 8 m³/h |
| | Head: | 140 m |
| | Rotating speed: | 2940 rpm |
| Membrane amount: | 2 pcs | |
| Membrane capacity: | 1 ton/hour | |
| Length: | 2300 mm | |
| Width: | 1650 mm | |
| Height: | 1850 mm | |

4.1. CPA-8040 membrane



Element Details**

| A, inches (mm) | B, inches (mm) | C, inches (mm) | Weight, lbs. (kg) |
|----------------|----------------|----------------|---------------------|
| 40.0 (1016) | 7.89 (200) | 1.125 (28.6) | 27.6 ± 2 (12.5 ± 1) |

Description:

CPA3 is the third generation CPA high rejection brackish water RO membrane introduced in the late 1990's. This membrane at 99.7% rejection is an upgrade to the CPA2 with 10% more membrane area (400 square feet). This resulted in reduced capital costs by requiring fewer pressure vessels and less floor space.

CPA3 membranes also have a thicker (31 mil) feed spacer that exhibits higher tolerance to feed water suspended solids.

| Model: | CPA-8040 | |
|-----------------------------|------------------------|--|
| Dimension | Diameter: 8 inch | |
| Dimension: | Length: 40 inch | |
| Permeate flow: | 11,000 gpd (41.6 m³/d) | |
| Salt rejection: | 99.7%(99.6% minimum) | |
| Configuration: Spiral Wound | | |

| Membrane material: | Composite polyamide | | |
|-------------------------|---|---------------------|--|
| Membrane active area**: | 400 ft2 (37.2m²) | | |
| Feed spacer: | 31 mil (0.787 mm) | | |
| | 1500 ppm NaCl solution | | |
| | 225 psi (1.55 MPa) applied pressure | | |
| Test condition: | 77°F (25°C) operating temperature | | |
| | 15% permeate recovery | | |
| | 6.5 - 7.0 pH range | | |
| | Maximum applied pressure: | 600 psig (4.14 MPa) | |
| | Maximum chlorine concentration: | < 0.1 ppm | |
| | Maximum operating temperature: | 113°F (45°C) | |
| | pH range, continuous (cleaning): | 2-10.8 (1-12.5) | |
| Use and restrictions: | Maximum feedwater turbidity: | 1.0 NTU | |
| | Maximum feedwater SDI (15 mins): | 5.0 | |
| | Maximum feed flow: | 75 gpm (17.0 m³/h) | |
| | Maximum pressure drop for each element: | 15 psi (0.10 MPa) | |
| Manufacturer: | Hydranautics, USA | | |

Electric Components

| · | | |
|---------------------------|--------------------|--|
| Items | Supplier, Origin | |
| PLC | Siemens, Germany | |
| Touch screen | Siemens, Germany | |
| Contactor | | |
| Relay | Schneider, France | |
| Breaker | Schilender, France | |
| Switches | | |
| RO membranes | Hydranautics, USA | |
| Water Pump | Nanfang, China | |
| Stainless steel structure | King Machine | |

4.2. Membrane cleaning system

Description:

After the water enters the reverse osmosis system, it is divided into two paths, one through the surface of the reverse osmosis membrane to get filtered, and the other moves along the surface of the reverse osmosis membrane and gradually get concentrated. In the concentrate water, containing a large amount of salt, organic matter, colloids, microorganisms and bacteria, viruses, etc. If the reverse osmosis system stops, these contaminants would immediately settle on the membrane's surface, causing contamination of the membranes. Therefore, an automatic flushing system should be installed to clean the surface of the membrane while the machine stops.

Water pump:

| Model: | CHL 2-20 |
|-------------|----------|
| Material: | SUS 304 |
| Water flow: | 2m³ |
| Power: | 0.75 kW |

| Manufacturer: | Nanfang, China | |
|---------------------|----------------|--|
| 1m³ rinsing box: | | |
| Volume: | 0.2m³ | |
| Material: | PE | |
| Filter: | | |
| Filter medium: | PP membrane | |
| Filtering capacity: | 10 um | |

5. UV sterilizer machine



Description:

The products adopt a high-intensity, long-lived UV germicidal lamp, the device is reasonable, compact, and adopts the structure of secondary disinfection, so health indicators completely according to the state standard.

| Model: | UV-2 |
|---------------------------------|-----------------------|
| Total power: | 0.7 kW |
| Flow of sterilizing water: | 2000L |
| Working pressure: | ≤4 Kg/cm ² |
| Inlet and outlet pipe diameter: | DG25 mm |
| Steady time: | 3-6m |
| Size: | 800*300*600mm |

6. Ozone generator



| Toolinion parameters. | |
|-----------------------|---------------------|
| Model: | O ₃ -10A |
| Capacity: | 10g |
| Power: | 850 W |
| Oxygen flow chart: | 4 L/min |
| Output size: | 10 mm |
| Air pressure: | 0.1 Mpa |
| Generating tube: | 1 pc 20g |
| Cooling method: | Air cooling |
| Dimension: | 550*400*900 mm |
| Weight: | 50.8 Kg |
| | |

7. Product water tank



| Model: | CG-3 |
|---------------|---------------|
| Capacity: | 3 Ton |
| Material: | SUS 304 |
| Thickness: | 2.8 mm |
| Dimension: | Ø1600*2600 mm |
| Total height: | 2800 mm |

Filling & Post-Packaging Machine

1. Washing-filling-capping Tri-block



Description:

- Welded by SUS304. Product contact is SUS304 food grade;(SUS316 for option)
- High-efficiency rinsing-nozzles can spray water to any part inside the bottle;
- · Corrosion-resistant bearings from NSK or SKF;
- Mechanical valve filling, flow meter filling, weighing filling or laser positioning filling for choice;
- Open design for gear transmission;
- · Bottle transporting system is neck-holding design;
- Equipped with VFD control, more energy-saving;
- PLC control system is equipped;
- All electric components are supplied by the world-famous companies;
- · Capping torque can be adjusted accordingly;
- Cap absence can be detected and up-side down caps can be picked out;
- Online cap sterilizer for choice;

| Model: | CGF14-12-5 |
|----------------------------------|----------------------------|
| Capacity: | 4000 B/H (500ml) |
| Bottle height: | 120-310 mm |
| Bottle diameter: | 50-96 mm |
| Bottle mouth diameter: | 26-40 mm |
| Bottle type: | PET bottle/Aluminum bottle |
| Cap type: | Aluminum cap |
| Material of the water dispenser: | Poly tetra fluoroethylene |
| Rinsing heads: | 14 |

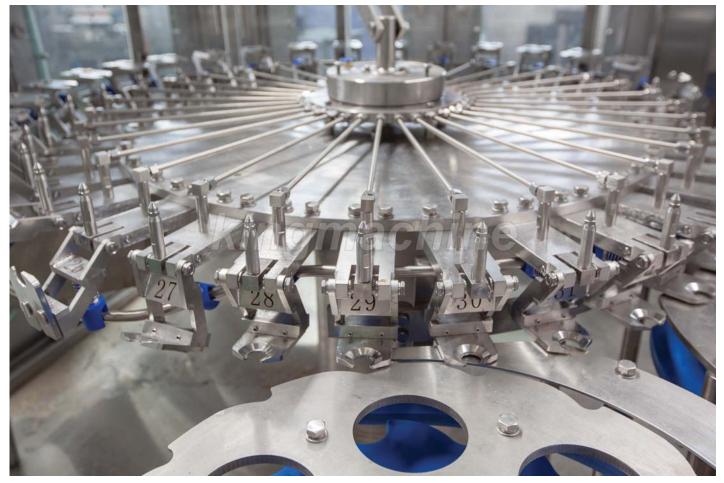
| Rinsing time: | over 2 seconds |
|--------------------------------|--------------------------|
| Filling heads: | 12 |
| Filling temperature: | normal temperature |
| Filling pressure: | 0.2-0.4 Mpa |
| Flow velocity of the valve: | 120-150 ml/s |
| Filling valve: | SUS304 |
| Product reservoir tank: | SUS304 |
| Capping heads: | 5 |
| Capping torque: | 0.6-2.8 Nm (adjustable) |
| Main motor power: | 1.5 kW AC 380V 50Hz IP55 |
| Installation power: | 4 kW |
| Power supply: | 380V, 50HZ |
| Consumption of compressed air: | 0.8 m³/min (0.6MPa/H) |
| Consumption of aseptic water: | 0.4 m³/min (0.2-0.25Mpa) |
| Dimension: | 2280*2050*2200 mm |
| Weight: | 3500 Kg |

Component list:

| Items | Supplier, Origin |
|-------------------------------|------------------|
| PLC | Sigmons Cormony |
| Touch screen | Siemens, Germany |
| Contactor | |
| Thermal relay | Siemens, Germany |
| Switches | |
| Photoelectric electric sensor | Omron, Japan |
| Pneumatic components | Airtac, Taiwan |
| Bearing | SKF, Sweden |

Detailed description

A. Rinsing part:



- Rotating type, used for rinsing containers of alcohol, beverage, pure and mineral water.
- Neck-holding catchers turn bottles upside down, and rinse them by aseptic water.
- Main structure, contact parts of the aseptic water and the cover are made of stainless steel.
- Bottle sensor is installed to prevent wrong-position bottles from being feeding in.
- Pressure gauge and valve stabilizer are installed on the water inlet pipe.
- Able to adjust the height to match the different-height bottles(have maximum and minimum height protection).
- · Has aseptic water recycling system. For choice
- It automatically stops rinsing when bottle-absence detected, and restarts when bottle-presence detected.

B. Filling part



- · Design and manufacture on the basis of German technology.
- The filler is able to adjust the height to match the different-height bottles.(have maximum and minimum height protection)
- Open style gear transmission, high efficient, low noise, long life-service, easy maintenance.
- The motor is adjusted by the inverter, stepless frequency conversion speed regulation.
- Bottle transporting system has simple structure, short changeover time to fit different bottles. Bottom-holding method for transporting.
- PLC system controlled, errors can be displayed on the screen, such as: bottle jammed, cap absence.
- · No bottle, no fill.
- The liquid level inside the filling tank is monitored by the sensor, ensuring stable filling.
- The key electric parts are made by the world-famous companies.

C. Capping Part



- Caps will be unscrambled in the silo, the amount is monitored.
- A flip-over adjuster installed on the slide to avoid up-side-down caps.
- Photoelectric sensors installed on the slide to alarm the cap-absence.
- •The capper is able to adjust the height to match the different-height bottles.(have maximum and minimum height protection)

1.1. Cap hopper





- Waterfall type cap sorting method.
- No damage on the cap.

- Equipment with AC motor and speed reducer.
- Indicator light for cap absence.
- Upside-down caps will be picked out and sent back to the hopper.

Technical parameters:

| Model: | KM-SGJ |
|---------------------|--------------|
| Cap type: | Flat cap |
| Material: | SUS 304 |
| Conveying capacity: | 10000 caps/h |
| Power: | 0.37 kW |

2. Light Checker



Description:

Indispensable equipment for beverage production line, eliminating defective products.

| Model: | KM-DJ |
|-------------------------|---------------------|
| Lighting tube quantity | 3 |
| Power consumption: | 3*20 W |
| Material for framework: | Stainless steel 304 |
| Manufacturer: | |

3. Online type bottles inverts



The image is only for your reference

4. Blow dryer





Description:

- The blower adopts two fan as the air source.
- An air knife type structure, and the size of the sealing can be adjusted.
- The top side and the two vertical sides of bottles can be blown to dry thoroughly.
- Easy for labeling, printing, packing operations.

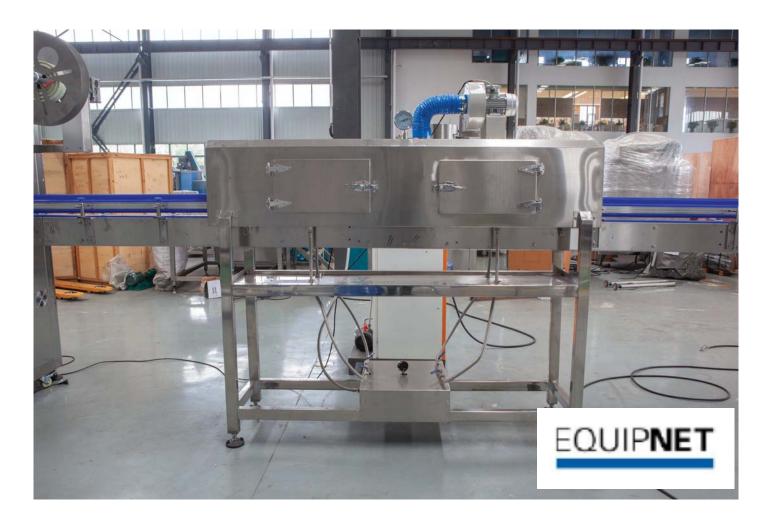
| Model: | KM-CGJ |
|--------------------------|---------------------|
| Capacity: | 2000-2000 B/H |
| Length: | 800 mm |
| Dimension of the blower: | 40*40 mm |
| Power: | 7.5 kW * 2 |
| Material: | Stainless steel 304 |
| Dimension: | 1200*350*1400 mm |

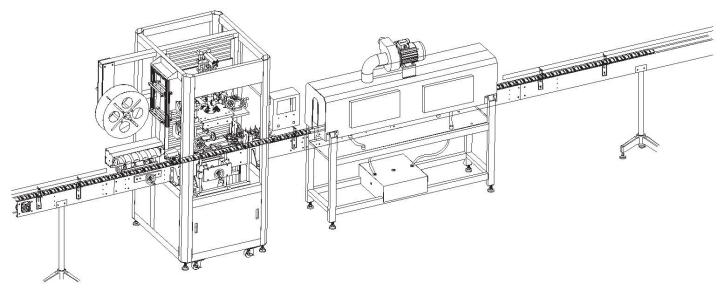
5. Automatic Sleeve labeling machine(for option)











Description:

- The machine is made of stainless steel and high quality of aluminum alloy.
- The feet bolt is not needed, easy to move, suitable for different place.
- The shrinkable film roll with adjustable locking gear, can be adjusted according to different roll 5'-10'.
- The applicable bottles can be square bottle and round bottle
- Without tools, the driven machinery can be adjusted to meet different bottle size
- Particular inserting label ways, i.e. inserting label, it is reasonable and convenient.
- Full automatic feeder, the flat shrinking and tension are adjusted together.

- It is assured to lower error because there is inspection of rolling label cut.
- Particular blade design, blade base can be change by free, changing blade quickly and conveniently.
- It is easy to change the central clamping device without any tools.
- · Oriental rolling label device can be lifting synchronously.
- The separating bottle screw, oriental belt and conveyor are adjusted synchronously..
- Adopting Japanese YASKAWA servo motor and photoelectric sensor, ensuring the precision of label cutting.
- Stainless steel electric controller, adopting Mitsubishi PLC made in Japan.
- Adopting advanced HMI, main component adopts world-famous brand.

Technical parameters:

| Model: | KM-TB250A |
|----------------------|--------------------|
| Label size: | Diameter 30-125 mm |
| Bottle diameter: | 28-125 mm |
| Sleeve label length: | 30-250 mm |
| Thickness: | 0.035mm |
| Label material: | PVC/PET |
| Dimension: | 2440*890*2200 mm |
| Weight: | 750 Kg |

Component list:

| - | |
|----------------------|-------------------|
| Items | Supplier, Origin |
| PLC | Ciamagna Camagna |
| HMI | Siemens, Germany |
| VFD | Panasonic, Japan |
| Contactor | |
| Thermal relay | Schneider, France |
| Switches | |
| Photoelectric sensor | Omron, Japan |

5.1 Bottom label shrinking system



6. Code sprayer









Features:

Speed without compromising quality:

- Ideal solution for a range of slow to moderate speed applications:
- Single line maximum speed of 162 m/min (533 ft/min)
- Two line maximum speed of 59 m/min (194 ft/min)
- Three line maximum speed of 29 m/min (96 ft/min)
- Store up to 100 complex messages for easy recall. Store even more messages using a standard USB memory stick
- Small and portable, the 1220 is easily moved from line to line with minimal connections

Engineered to keep your line running:

- · Videojet's advanced core technology includes all ink system filters and common wear parts
- Intervals of up to 9,000 hours between preventative maintenance
- · Auto cleaning printhead for fast start-ups, even after extended shutdowns
- Optional internal air pump eliminates need for external air, minimizing potential for contaminants to enter the ink stream

No mess, no waste fluid delivery:

- Advanced fluid management reduces makeup consumption to as low as 2.4 ml/hr
- Smart CartridgeTM fluid delivery system to virtually eliminate spills and help ensure the correct fluids are being used

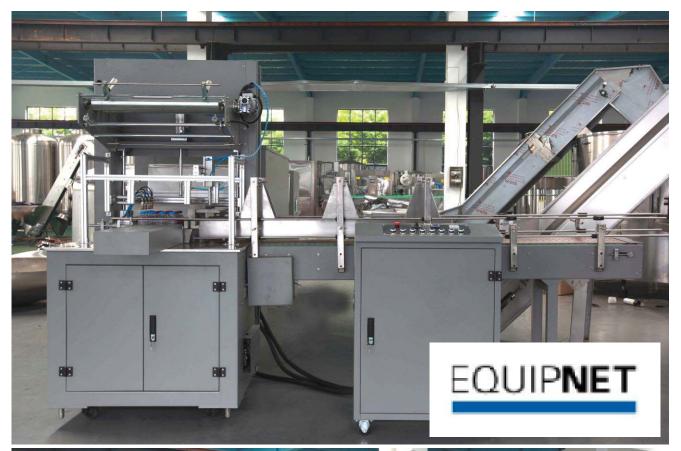
Simple Usability via Videojet standard CIJ interface:

- Bright display with WYSIWYG and function keys for easy operation
- User levels to separate operation from installation and maintenance
- Prompted user fields to help reduce errors.

| • | |
|----------------------------|---|
| Model: | VJ-1210 |
| Line speed capability: | Can print 1 to 3 lines of print at speeds of up to 533 ft./min. (162.5 m/min.) (10 characters per inch, single line of print) |
| Font Matrix Configuration: | 5x5, 5x7, 7x9, 11x16, 17x24 |
| Twin-line: | 5x5, 5x7, 7x9 |

| Tri-line: | 5x5, 5x7 | |
|---------------------------|--|--|
| Nominal Character Height: | Selectable from 0.079" (2 mm) to 0.279" (8.5 mm), depending on font 230 Kg | |
| Throw Distance: | Optimal: 0.472" (12 mm) Range: 0.197" (5 mm) to 0.591" (15 mm) | |
| Keyboard: | Membrane style with tactile feedback, including 72 numeric, alphabetic, and special function keys. PC-style layout to approximate international PC convention. | |
| Display: | 320x240 Bright blue backlit 5.7" LCD display. WYSIWYG onscreen message editing | |
| Custom Logo/Graphics: | Can be created by individual user on printer or PC with optional Videojet | |
| Manufacturer: | VideoJet, USA | |

8. Automatic PE film shrink wrapping machine



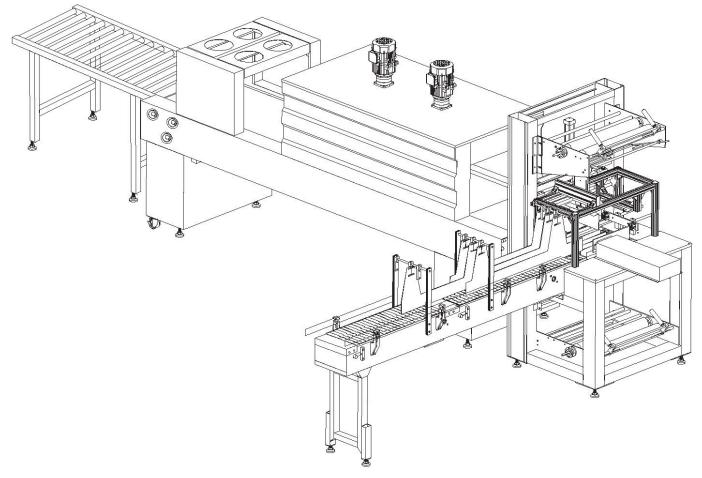












Description:

PE film group packing machine is suitable for wrapping products as pop-top, mineral water, bottles, beer, drinks etc without bottom-tray, working with PE shrink tunnel to pack the goods perfectly, the whole producing process adopts the Germany advanced technology, And the main parts are imported from international famous company, stable capability and long service-life.

Product description:

- Frequency control, secondary bottle transport device.
- The whole set which are push bottle, heat sealing cutting adopt pneumatic structure.
- · Inductive switch control film length.
- Touch screen, PLC control system advanced reliability of the equipment function.
- Circular wind machine, reassure well-proportioned temperature of the shrink furnace.
- Strong cooling system can reassure finalize the design quickly.
- Heat-fast Teflon transport net, transport steady, high strength and stand wear and tear.
- Frequency conversion timing net transportation structure.
- The height of the conveyor belt can be made according to the user, adjustable range±50mm
- Bottle transport machine can satisfy the direction of the user, it can prolong and shorten
- Pterygoid stainless iron heating system, durability.
- Satisfy the bear storage rack device of the short duration for the product, assure consecutive work for the production line.

| Model: | KM-MB2 |
|--------------------------|--------------|
| Material of shrink film: | PE, PVC |
| Thickness of the film: | 0.03-0.15 mm |

| Max packing size: | 600*400*350 mm |
|------------------------------------|---------------------|
| Temperature of the heating tunnel: | 160-260 °C |
| Thickness: | 0.035mm |
| Capacity: | 10-12 package / min |
| Power | 20 kW |
| Actual consumption: | 15 kW |
| Dimension: | 5050*3300*2100 mm |
| Weight: | 1.2 ton |

Component list:

| Items | Supplier, Origin | |
|----------------------|------------------|--|
| PLC | Siemens, Germany | |
| HMI | | |
| VFD | Siemens, Germany | |
| Contactor | | |
| Thermal relay | Siemens, Germany | |
| Switches | | |
| Photoelectric sensor | Panasonic, Japan | |

10. Belt conveyor & Buffering system

