



YOLONG BREWING SYSTEM INTRODUCTION

BREWHOUSE TYPE	3 VESSELS
CAPACITY	400L/BREW
HEATING	STEAM
AUTOMATIC	TEMP-FULL AUTO
DATE	18 TH SEP, 2018

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Introduction

Thank You for purchasing YoLong Brewing System :)

Our machines are hand built and shipped almost completely assembled using high quality components and materials. All additional assembly can be accomplished by hand tightening with no tools required. With proper use and care, this equipment will provide many years of outstanding performance.

NOTICE!

Please review this manual in its entirety prior to any operation of this equipment

Failure to follow all manufacturer' s instructions could result in serious personal injury and/or property damage.

YoLong Industrial Co.,Limited assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

If you have any questions or need assistance please contact us at:

YOLONG INDUSTRIAL CO.,LIMITED

Email: info@yolongbrewtech.com

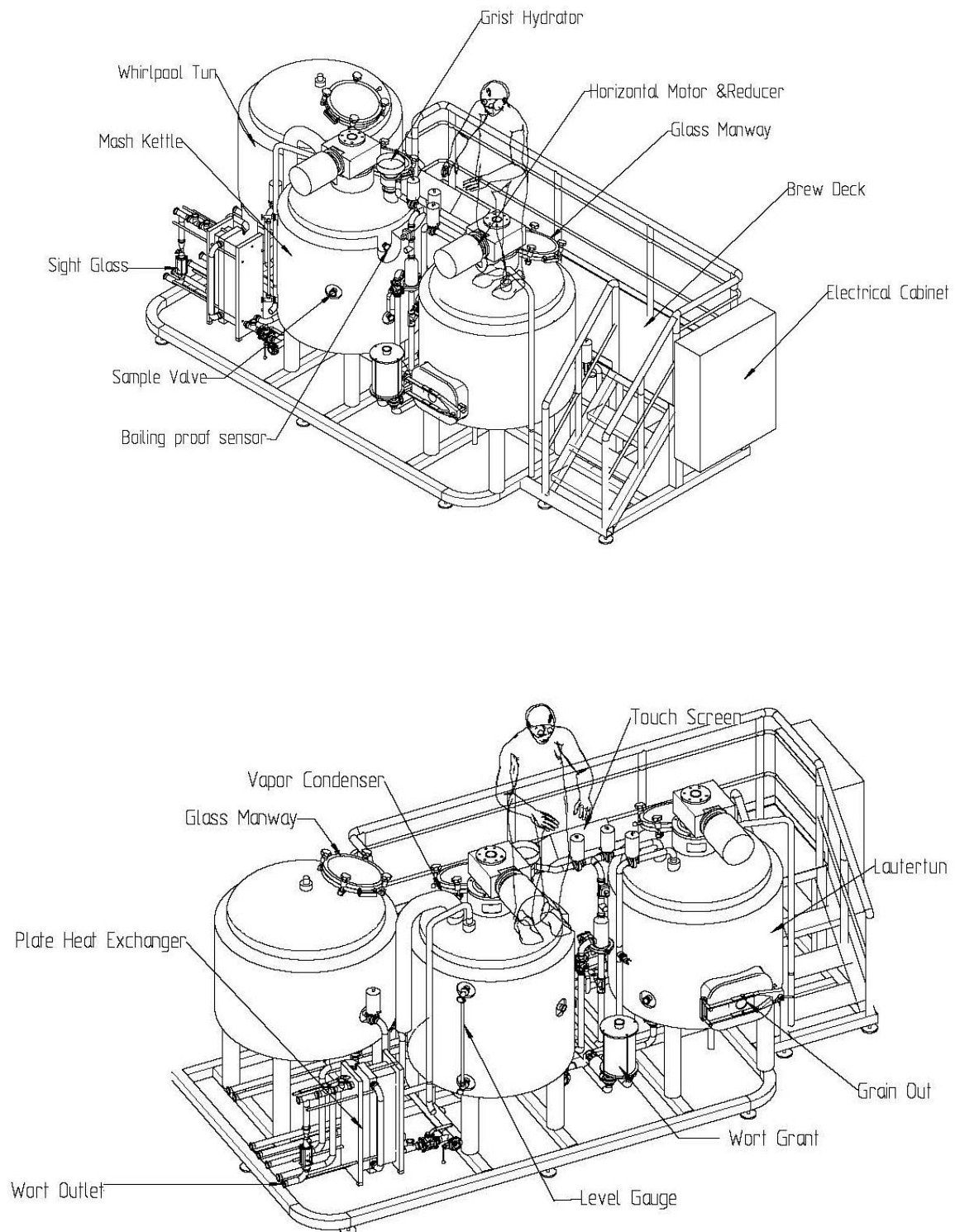
Safety Instructions

WARNING:

To Reduce the risk of serious injury, read the following important precautions before using YoLong Brewing System.

- It is the responsibility of the owner to ensure that all users of this equipment are adequately informed of all precautions.
- Use this equipment as described in this manual, do not use for anything other than its intended purpose.
- DO NOT USE INDOORS! This equipment must only be operated outdoors in adequately ventilated areas.
- The brewing structure must only be used on a level hard surface such as concrete. Do not use on a flammable surface or surface that could be damaged by moisture.
- Make sure that all 4 legs contact the ground evenly, and that the frame cannot rock or sway during use. Shim legs with solid material as needed to correct for uneven surfaces.
- Do not use under covered areas such as patio covers, porches, canopies, or under decks.
- Make sure that there are no flammable materials or substances near the brewery during operation.
- Inspect and tighten all parts before each use. Replace any parts that are worn or damaged immediately.
- Keep children and pets away from this equipment during use.
- DANGER! Water and Electricity Do Not Mix... Make sure that the pump motor is plugged into a GFCI protected circuit. If in doubt consult a licensed electrician before using.
- Do not touch the frame or place anything on the frame during operation, the frame areas around the kettles may become extremely hot.
- Use caution when lighting burners and always approach burner from underneath with long BBQ type lighter to avoid burns.
- Do not leave brewery unattended at any time during operation.
- Do not attempt to tilt or move the brewery unless all kettles have been removed, and gas regulator is disconnected from propane source.
- Always make sure that all gas valves are turned off before connecting propane regulator to source.
- Do not use in windy areas, as this will cause the burners to perform incorrectly and could cause damage to the frame.
- Never store a propane cylinder on the brewery frame.
- Never store a propane cylinder inside of a building or other enclosed area

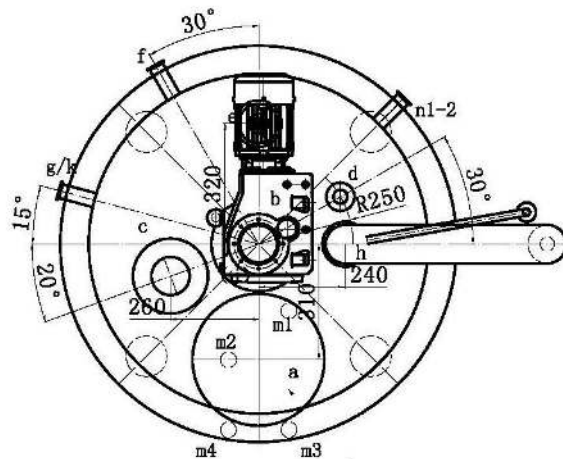
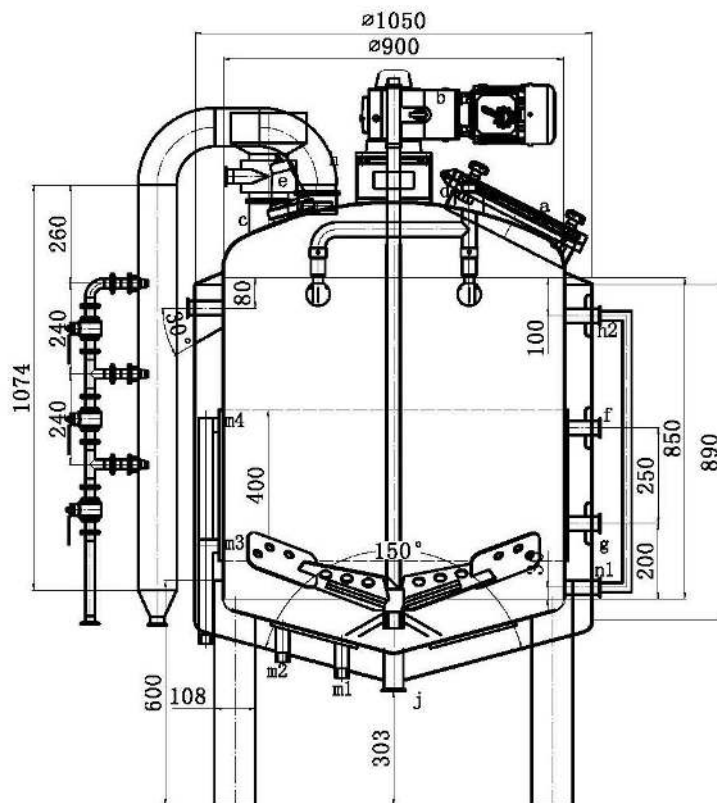
BREWHOUSE OVERVIEW



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Mash Kettle Introduction



xl-4	Steam inlet	ø38.1	Tri-clamp
xl-2	Level gauge hole	ø38.1	Tri-clamp
k	Overflow hole	M20	Tri-clamp
j	Outlet	ø50.8X1.5	Tri-clamp
h	Vapour Vent	ø101.6X2.0	Tri-clamp
g	Thermowell	ø38.1X1.5	Tri-clamp
f	Sample hole	ø38.1	Tri-clamp
e	Sight Gauge	DN80/ø114	NPT
d	CIP	ø76.2-38.1	Tri-clamp
c	Malt inlet	ø101.6X2	Tri-clamp
b	Reducer	ø200	Flange
a	YAB Manway (Glass Cover)	ø350	Welding
Symbol	Usage	Spec	Connecting Style

Mash tun is welded construction with top dished head, cylindrical tun with a conical bottom; All welding is done under protection-gas atmosphere.

Inner diameter: 950mm
 Outside diameter: 1050mm
 Cylindrical height: 850mm
 Vessel height: 1950mm - The distance from ground

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Material thickness:	Inner: 3 mm Cladding: 2 mm
Insulation:	75mm mineral wool
Material:	stainless steel 304

➤ **AGITATOR MACHINE**

Top drive equipped with stainless steel mash agitator.

One reducer with a high efficient standard gear with hollow shaft, flange mounted on top of the tun.

Reducer:

Electrical connect: 400V/3 Ph/50 Hz

Power consumption: 0.55kw

➤ **STEAM HEATED MASH**

The steam heating equipment consists of various valves and devices for steam supply and condensate treatment. Heating of the mash can be done with two dimple section (one on the cylinder and another on the bottom).

Double-walled heating cylinder and bottom

Material: stainless steel 304

System: dimple jacket

➤ **SPECIFICATIONS**

Dished Top Head:

- One DN350mm Round Glass Manway
- One Grist Hydrator, with 4" Tri-Clamp Connection
- One CIP Spray Balls with 1.5" Tri-Clamp Connection
- One Vapor Condenser
- One Horizontal Motor & Reducer
- One Tank Light

Side Wall:

- One Thermowell , 1.5 " Tri-Clamp Connection with 0.5 " FNPT Connection for probe
- One Overboil Sensor with 0.5 " FNPT Connection
- One Sample Valve with 1.5 " Tri-Clamp Connection
- One Level Gauge with 1 " Tri-Clamp Connection Upper Valve & Lower Valve
- One Dimple Jacket Section Heating surface 1.1m²
 - 400mm In Length
 - 45 psig Max Steam Pressure

15° Cone Bottom :

- One 2" Wort Outlet
- One Aagitator Machine System
- One Steam Inlet & Outlet
- One Dimple Jacket Section Heating surface 0.3m²
 - 190mm In Length
 - 45 psig Max Steam Pressure

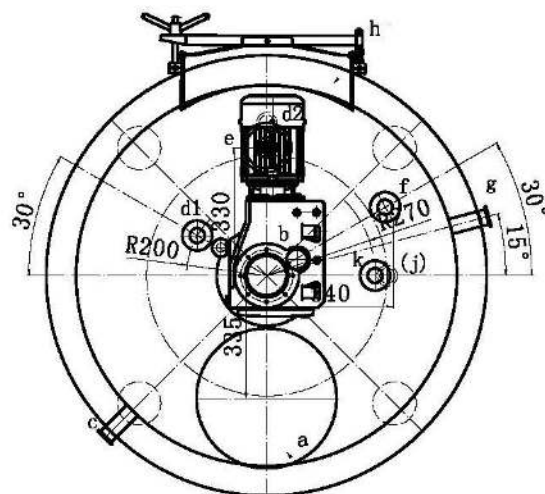
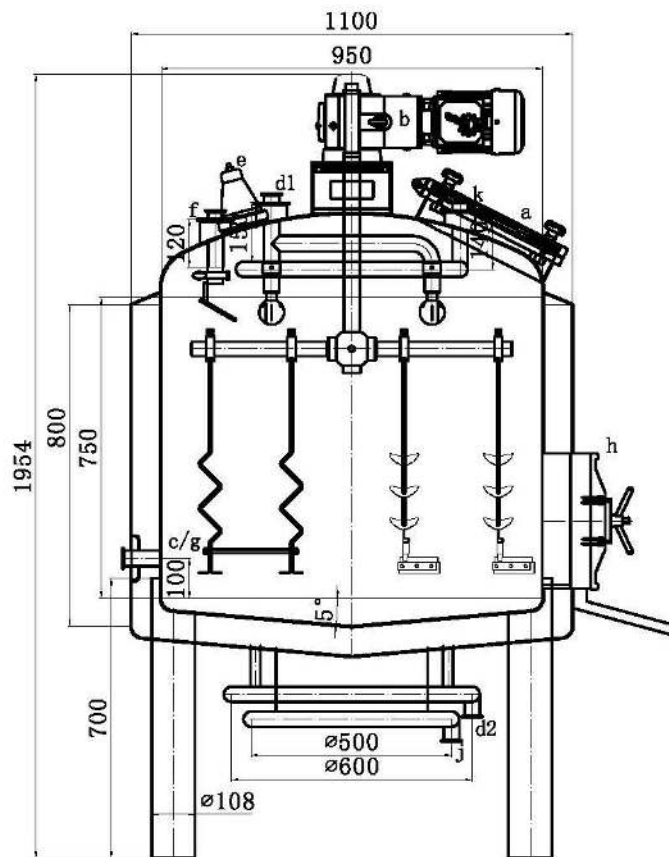
Additional Details:

- 75mm Mineral Wool Insulation
- Four Support Feet

Vessel Specifications:

- Approximate Inside Cylinder Dimensions, Ø 900mm x 850mm
- Approximate Outside Overall Dimensions, Ø 1050 mm x 1950 mm
- Working Volume, 400L
- Total Volume, 566L
- Head Space, 42%
- Vertical Orientation
- Design Pressure, Atmospheric
- Material, 304 Stainless Steel
- Inside Finish, 2B
- Outside Finish, #4
- Inside Welds, #4 Ribbon Polish
- Outside Welds, Clean with Heat Stain Removed

Lauter Tun Introduction



Symbol	Usage	Spec	Connecting Style
k	Sprinkler	ø76.2-38.1	Tri-clamp
j	Outlet	ø38.1X1.5	Tri-clamp
h	Square manway	435X335X160	Welding
g	Thermowell	ø38.1X1.5	Tri-clamp
f	Wort return	ø76.2-38.1	Tri-clamp
e	Sight Gauge	DN80/ø114	NPT
d1-2	CIP	ø76.2-38.1	Tri-clamp
c	Inlet	ø38.1X1.5	Tri-clamp
b	Reducer YAB	ø200	Flange
a	Manway (Glass Cover)	ø350	Welding

LAUTER TUN in welded construction with dished top head, cylindrical tun with a conical bottom; All welding is done automatically under protection-gas atmosphere.

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Inner diameter:	950mm
Outside diameter:	1100mm
Cylindrical height:	750mm
Vessel height:	1955mm - The distance from ground
Material thickness:	Inner: 3 mm Cladding: 2 mm
Insulation:	75mm mineral wool
Material:	stainless steel 304

➤ **RAKING MACHINE**

Knife bar equipped with stainless steel cutting knives.

LAUTER TUN drive with a high efficient standard gear with hollow shaft, flange mounted on top of the tun.

The raking speed can be controlled freely by the frequency converter in the control panel.

Electrical connect:	400V/3 Ph/50 Hz
Power consumption:	0.55 kW

➤ **MILLED FALSE BOTTOM**

Milled false bottom consisting of three segments, which are equipped with peripheral supporting, rails, and central fixed to the tun.

Material:	stainless steel 304
Plate thickness:	4mm
Net open ratio:	more than 12%

➤ **SPECIFICATIONS**

Dished Top Head:

- One DN450mm Access Hatch
- One Self-Circulation Inlet with 1.5" Tri-Clamp Connection
- One Grain Washing Inlet with 1.5" Tri-Clamp Connection
- One Horizontal Motor & Reducer
- One CIP Spray Ball Assembly, with 1.5" Tri-Clamp Connection
- One Tank Light

Sidewall:

- One Thermowell, 1.5" Tri-Clamp Connection with 0.5" FNPT Connection for probe
- One 430*330mm Access Hatch for Spent Grain Removal
- One Rake System (Grain Plough & Discharge Function)

- One Filtration Inlet with 1.5" Tri-Clamp Connection

Cone Bottom :

- One Milled False Bottom
- Four 1.5" Wort Collection Outlet
- Flush nozzle for Washing False Bottom

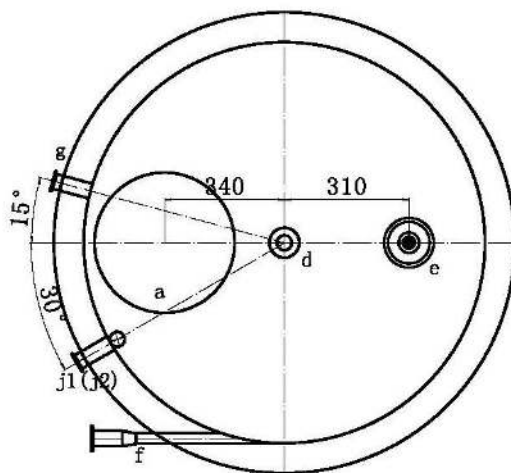
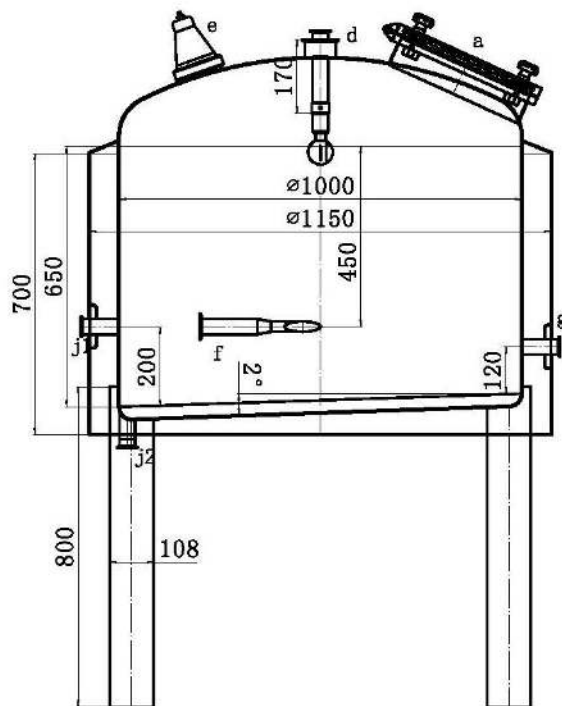
Additional Details:

- 75mm Mineral Wool Insulation
- Four Support Feet

Vessel Specifications:

- Approximate Inside Cylindrical Dimensions, Ø 950mm x 750mm
- Approximate Outside Overall Dimensions, Ø 1100mm x 1955mm
- Working Volume, 400L
- Total Volume, 540L
- Head Space, 35%
- Vertical Orientation
- Design Pressure, Atmospheric
- Material, 304 Stainless Steel
- Inside Finish, 2B
- Outside Finish, #4
- Inside Welds, Removed, Polished to #4 Finish
- Outside Welds, Clean with Heat Stain Removed

Whirlpool Tank Introduction



Symbol	Usname	Snac	Connecting
j1-2	Outlet	ø38.1X1.5	Tri-clamp
g	Thermowell	ø38.1X1.5	Tri-clamp
f	Tangential Inlet	ø38.1-25.4	Tri-clamp
e	Sight Gauge	DN80/ø114	NPT
d	CIP	ø76.2-38.1	Tri-clamp
c			
b			
a	YAB Manway (Glass Cover)	ø350	Welding
Symbol	Usname	Snac	Connecting

The bottom is sloping to the outlet. All welding are done under protection gas atmosphere and grind smooth and flush carefully inside & outside.

Inner diameter: 1000mm
 Outside diameter: 1150mm
 Cylindrical height: 650mm

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Vessel height:	1750mm - The distance from ground
Material thickness:	Inner: 3 mm Cladding: 2 mm
Insulation:	75mm mineral wool
Material:	stainless steel 304

➤ SPECIFICATIONS

Dished Top Head:

- One DN300mm Manway
- One CIP Spray Ball Assembly, with 1.5" Tri-Clamp Connection
- One Tank Light

Sidewall:

- One Thermowell, 1.5 " Tri-Clamp Connection with 0.5" FNPT Connection for probe
- One Tangential Inlet for Whirlpooling
- One Wort Outlet 1.5 " Tri-Clamp Connection

Flat Bottom :

- One Wort Outlet 1.5 " Tri-Clamp Connection

Additional Details:

- 75mm Mineral Wool Insulation
- Four Support Feet

Vessel Specifications:

- Approximate Inside Cylindrical Dimensions, Ø 1000mm x 650mm
- Approximate Outside Overall Dimensions, Ø 1150mm x 1750mm
- Working Volume, 400L
- Total Volume, 510L
- Head Space, 28%
- Vertical Orientation
- Design Pressure, Atmospheric
- Material, 304 Stainless Steel
- Inside Finish, 2B
- Outside Finish, #4
- Inside Welds, Removed, Polished to #4 Finish
- Outside Welds, Clean with Heat Stain Removed

Operating Instructions

1. Lay YoLong Brewing System

YoLong Pilot Brewhouse is skid type. All parts are welded on one ss skid.

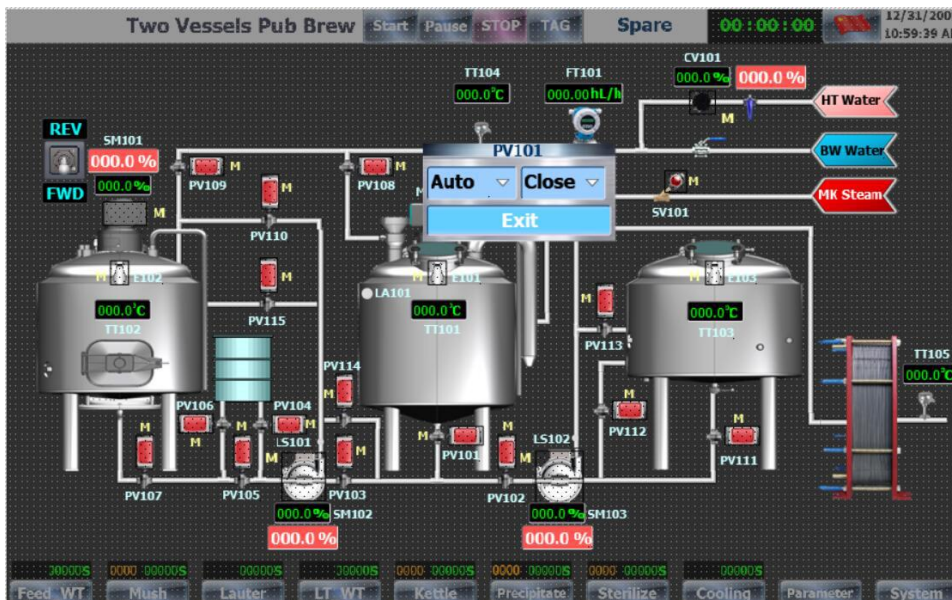
- 1) The area which will lay on brewhouse should be ground and strong. If clients want to lay it upstairs, you **MUST** ask your designer of brewery to find the load-bearing ability of floor to confirm if the feet area can support this brewhouse FULL OF Material.
- 2) The brewhouse should be mounted in house to avoid rain & sunshine.
- 3) There are cabinet and electrical elements mounted on brewhouse, all elements should be away from huge water.

2. Connect Power Supply

- 1) Contact wire (400V, 3Phase,50Hz) with Control Cabinet by L1,L2,L3,N/PE
- 2) Test Wire Connection

Turn On the main switch, start one pump to find if the rotary is correct. If it run in reverse direction. Turn off switch and adjust L1 & L2 connection to re-check pump rotary.

3. Test Actuators Function



1) Test Manual Operation

- a. Choose "Manual" on touch screen
- b. Turn ON/OFF Tank Light
- c. Turn ON/OFF Rake
- d. Adjust Rotary Speed & Direction of Rake
- e. Turn ON/OFF all pumps
- f. Adjust Rotary Speed of all pumps

Turn ON/OFF Pneumatic Butterfly Valves

2) Test Automatic Operation

- a. Fill some water into Mash Kettle to test programme
- b. Choose "Auto" on touch screen
- c. Press Step Programme on bottom of torch screen one by one to confirm all relative valves and pumps start good.

3) Test Temperature Control Status

- a. The temperature control status can be processed with automatic operation testing above.
- b. Fill 400L water into Mash Kettle, open steam inlet and outlet valves to check the temperature rise rate.

4) Test Mixing Station Function

- a. Set "Incoming Water Volume" and "Strike Tem"
- b. Choose Operation on "Auto"
- c. Press "Mash Water Start"

After "Mash Water Stop", check if the volume and temperature in Mash Kettle correct.

4. Cleaning YoLong Brewing System

Cleaning vessels and piping is very important before every brew. Please clean brewhouse as below receipt.

CIP Steps	Temperature	Timer
Water pre-rinse	Ambient	5 mins
Alkaline/oxidizer wash	120° F - 160° F	30 mins – 60 mins
Water Post Rinse	Ambient	10 mins
Acid Wash (Periodic)	Ambient	20 mins – 40 mins
Water Final Rinse	Ambient	10 mins

5. Start Brew

1) Mashing

- a. Set "Incoming Water Volume" and "Strike Tem" on torch screen.
- b. Set Mash Temperature and Mash step on torch screen.
- c. Press "Mash Water Start" and the mixing water will pump into grist hydrator.
- d. Press "Mash Mixer ON" to start agitator of Mash Kettle.
- e. Fill in milled malt from grain inlet of grist hydrator.
- f. Watch mashing process

2) Lautering

- a. Press "MK/LT Transfer Start" on torch screen.
- b. Drain out and clean Mash Kettle.
- c. Open relative valves to Self-Circulate wort to let wort clean and stop.
- d. Transfer wort from Lauter to Mash Kettle by hand
- e. Press "Sparge Start"
- f. Transfer wort from Lauter to Mash Kettle by hand

3) Boiling

- a. Start steam valves of mash kettle to start boiling process.

- b. Add hops
- c. Shut down steam valves when boiling finish.

4) Whirlpool

- a. Press "BK/WT Transfer Start"
- b. Press "BK/WT Transfer Stop" when Mash Kettle is empty.
- c. Press "Whirlpool Start"
- d. Press "Whirlpool Stop"

5) Wort Cooling

- a. Open tap water to Hx inlet & outlet
- b. Open Glycol water to Hx inlet & outlet
- c. Press "Knockout→HX"
- d. Watch Hx outlet wort temperature and adjust speed of pump to keep right temperature of wort

6. Cleaning YoLong Brewing System

CIP Steps	Temperature	Timer
Water pre-rinse	Ambient	5 mins
Alkaline/oxidizer wash	120° F - 160° F	30 mins – 60 mins
Water Post Rinse	Ambient	10 mins
Acid Wash (Periodic)	Ambient	20 mins – 40 mins
Water Final Rinse	Ambient	10 mins

PICTURES & DETAILS ARE BELOW



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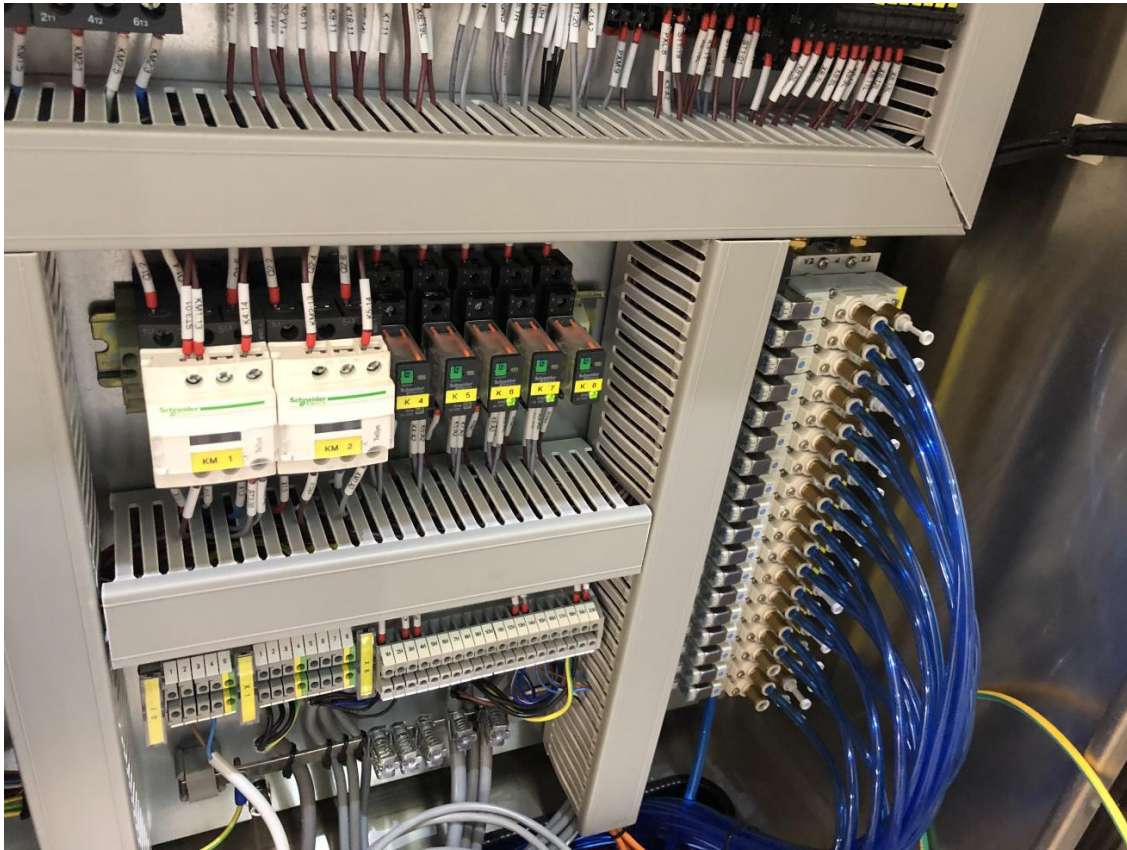












Certification

 ISTITUTO SERVIZI EUROPEI TECNOLOGICI	<p>ISET S.r.l.</p> <p>Sede Legale e Uffici Via Donatori di sangue, 9 - 46024 Moglia (MN) Tel. e fax +39 (0)376 598963 iset@iset-italia.com www.iset-italia.eu</p> <p>Cap. soc. i.v. € 10.200,00 Cod. Fisc. e P.IVA 02 332 750 369 Reg. Imprese 02 332 750 369 REA MN 0221098</p>		
<p align="center">CERTIFICATE OF COMPLIANCE</p> <p align="center">Certificado de Conformidade - Сертификат соответствия - Konformitätserklärung</p>			
<p>1) APPLICANT: Yolong Industrial Co., Limited No.1,Jincheng Road,Binhai Industrial Park,Economic Development Zone,XiangShan county,Ningbo City,China</p>	<p>2) CERTIFICATE NO.: IT1548YL12111810</p> <p>TCF(S) NO.: HK181010009-SR</p>		
<p>3) WITH REFERENCE TO EC DIRECTIVE APPLIED: Machinery Directive 2006/42/EC Low Voltage Directive 2014/35/EU</p> <p>HARMONIZED STANDARDS APPLIED: EN 60204-1:2006+A1:200 EN ISO 12100:2010</p>	<p>4) CERTIFICATION ISET MARK:</p>  ISTITUTO SERVIZI EUROPEI TECNOLOGICI		
<p>5) PRODUCT CHARACTERISTICS: Brewery Equipment</p> <p>MODEL(S): 400L</p>			
<p>REMARK: The verification has been carried out on a voluntary basis. We attest that a TCF is in place. The product(s) satisfies the requirements of the Certification Mark of ISET, in reference to the above list standard(s). The above compliance mark can be fixed on the product(s) according to the ISET regulation about its release. This verification doesn't imply assessment of the production and the product(s).</p> <p>CE Notice of the CE marking: The label of the CE marking: Not less than 5mm height. Before putting the product(s) into market, CE marking and EC declaration are duties of the manufacturer. The manufacturer is responsible to start the CE marking certification procedure and to perform the activities according to all the relative directive(s).</p>			
<p>6) DATE OF ISSUE: 12/11/2018</p> <p>CERTIFICATION MANAGER: </p>		<p>DATE OF EXPIRE: 11/11/2023</p> 	

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