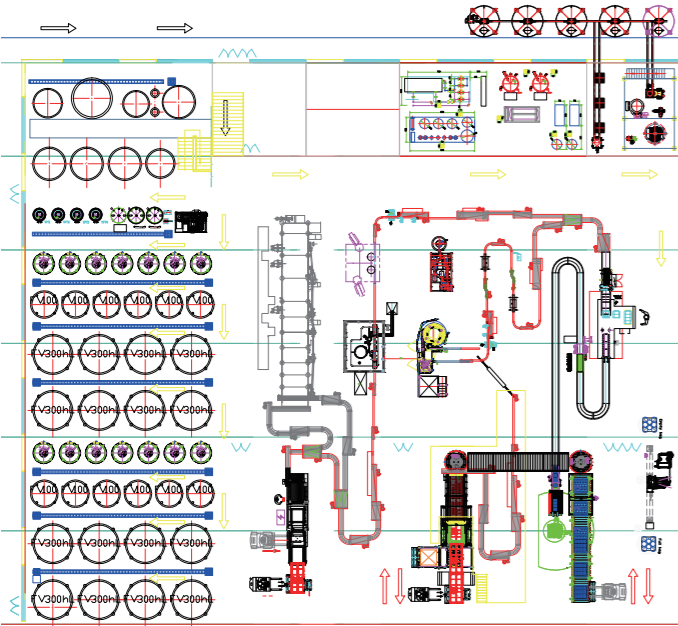


Layout



Equipment list

No.	Quantity	Name	Specification
1-000	Raw material handling system		
	1	Hopper	
	1	Bucket Conveyer	
	1	Permanent Magnet	
	1	Malt buffer tank	SS304
	1	Wet malt mill	capacity: 2.5 T/h
2-000	Brewing system		
	1	brewhouse	5/6 m³
	1	Lauter tun	φ2800mm
	1	Wort kettle	5.5/8.2 m³
	1	Hop dosing tank	80L
	1	Whirlpool	5.2/7/3 m³

No.	Quantity	Name	Specification
	1	Hot tank	15/17 m³
	1	Brewing water tank	5/7 m³
	3	2m³CIP tank	2/2.6 m³
	1	Wort aeration system	
	1	Spent grain tank	6/8 m³
	1	Brewhouse platform	SS304
	1	Wort cooling system	
	1	Hot water heater	
	1	CIP heater	
	1	Secondary steam condenser	
	10	Brewhouse pump	
3-000	Fermentation tank		
	1	Cartesian tank	
	1	Propagation and storage tank	0.5/0.7 m³
	1	Yeast dosing/propagation pump	
	4	5m³Fermentation tank	5/6.5m³ φ1500
	4	10m³Fermentation tank	10/13.5m³ φ2000
	12	20m³Fermentation tank	20/27 m³ φ2500
	1	Hop gun	
	1	De-foaming tank	0.3m³
	3	Fermentation pump	
	10	Piping and fitting plate	
	2	Soaking tun	
	1	Kieselguhr-free filtration system, (optional)	1.0m³/h
	1	Centrifuge (optional)	1.5m³/h
4-000	2	Boiler system: fuel oil and gas fired boiler	2*500kg/h
5-000	1	Compressed air system	1*0.8m³/min
6-000	1	Water treatment system	5m³/h
7-000	1	Cooling system	1*200kw
8-000	Keg & cask system		
	1	Flash pasteurizer system	1.75 T/h
	1	Keg & cask washer and filler	35keg&cask/hr

European Quality  
Chinese Price



LEHUI®  
First for value

# Modular Craft Brewery Turnkey Solution



*If you like, you can buy a complete craft brewery*

• We reserve the right to change the mechanical specifications and designs without prior notice.(2,000 copies will be printed by September 2021)

LEHUI®  
First for value

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Lehui has completed the construction of Panda brewery, Pearl River Beer Group, Chuzhou Craft brewery, Leeds brewery in England, Brains brewery in England, Carlsberg, Ningbo Dayawan and other serval 50hl craft brewery turnkey projects. On the basis of optimizing the above mentioned craft brewery projects, we designed the flexible process and the modularized equipment according to the characteristics of small beach and more varieties, together with intelligent control software system, Lehui launched a new product which is standard 50hl craft brewery to provide a perfect solution.

Product Features



- ▶ It contains all the equipment and technologies for a craft brewery, which is a real turnkey project.
- ▶ It can produce Lager, IPA, Ale, Stout, Porter and other varieties of beer.
- ▶ The special design of the system is to meet the flexible brewing of small batch and more varieties, and also to ensure the high efficiency of large-scale production.
- ▶ All equipment has been specially designed with high level of automation and intelligent brewing system to ensure the consistent taste and quality of beer.



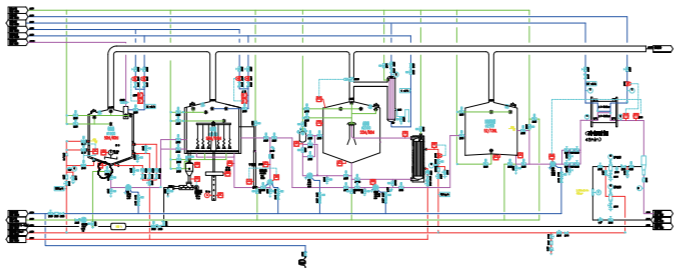
- ▶ The Motech intelligent brewing software system is used in the factory, in the daily production process, you can brew different high quality beer when you follow instruction of the system.
- ▶ Almost all types of beer recipes have been installed into the software, brewmaster can also develop a variety of new products and new processes via Motech control system, and the remote brewing function can also be achieved.
- ▶ The intelligent system has a visual management function, which can be operated through the video remote monitoring, to realize the beer production process and quality management.
- ▶ Output and batches: max 7 brews per day, with an increase of wort pre-run tank and corresponding piping and control system, max. 10 brews per day.
- ▶ Each batch of standard brewhouse capacity is 50hl, but 30hl per brew can also be specially designed.

Standard configuration

- ▶ Including raw materials handling system, brewhouse, cellar, BBTs, filtration system and CIP station etc., packaging lines consist of KWF35 kegging line, casking line, 10000BPH bottling line.
- ❑ **Optional utilities:**  
Boiler, air compressor, refrigerator, water treatment, waste water treatment, generator set and so on.
- ❑ **Automation configuration:**  
Motech intelligent brewing software, recipe production, complete automatic control of brewing process, remote maintenance, remote operation and video remote brewing functions.
- ❑ **Scope of Deliveries:**
  - ▶ Engineering design, including PID, equipment list, layout, basic drawings, list of valves, pumps, heat exchanger, fittings and others, spare parts list.
  - ▶ Process services, including commissioning, providing recipes to ensure qualified beer, training for brewmaster, operators, automation engineers, maintenance workers etc, providing operating procedures, etc.
  - ▶ KPI indicators, utilities standards and indicators etc. can be ensured.

Advantages

❑ Processing flow chart



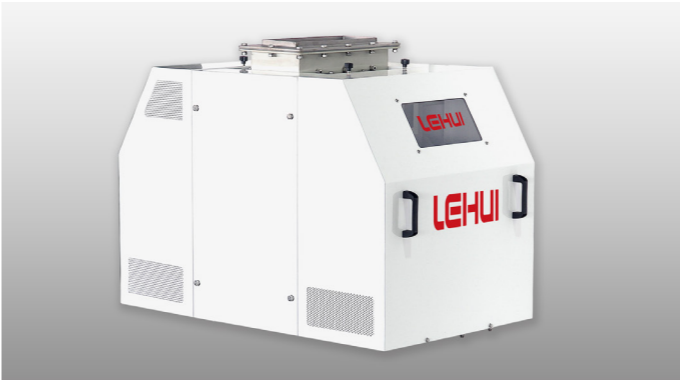
❑ Control interface



Advantages

- ▶ According to the investment and marketing situation, the brewhouse can be equipped with 3 vessels (mash tun, launter tun, wort kettle/whirlpool), 4 vessels and 5 vessels brewhouse can also be added for the increase of production. Fermentation tanks can be firstly installed and added more accordingly. Filtration unit can be equipped later.
- ▶ We know that the use of valve array can reduce the labor intensity which follows “no lighting factory” idea, but the costs are relatively high, so soft tubes can be applied which is the most economical way in the initial stage, pipe plate or valve array can be upgraded according to market situation.

❑ Equipped with a variety of innovation equipment dedicated to craft brewery



- ▶ Such as wet malt mill , mash filter, zero steam emission system, Kieselguhr-free filtration system, high-performance lauter tun, hop gun and other packaging equipment specially designed for craft beer (including bottling line, canning line, kegging & casking line etc.)
- ▶ Zero steam emission system: generally, craft breweries are built in high-end residential areas or high-end CBD, which has standard environment requirements with no pollution, so the steam cannot be exhausted from wort kettle. Lehui Zero steam emission system is well designed which meets the requirements of self dispel aroma, no smell, low noise.

❑ Modular designed factory



- ▶ The whole brewery is divided into several major modules by only connecting modules and related piping and electric wires on site, all the manufacturing and assembly, automation line connecting will be finished at factory before delivery to reduce the total construction cycle, minimize installation costs to achieve quick installation.

❑ Advanced Automatic CIP

Brewhouse 1 Overview CIP							
BH1 CIP							
Order		Start time	End time	Duration	Strength conductivity (ms)	Final conductivity (ms)	
A004.0000-201700854-CIP	CT2 Make Up Thick Causic	5/1/2017 2:14:34 AM	5/1/2017 2:23:12 AM	00:08:38	0.0	0.0	
A004.0000-201700855-CIP	Wort Cooler CIP	5/1/2017 3:03:07 AM	5/1/2017 3:38:15 AM	00:35:08	120.0	1.0	
A004.0000-201700856-CIP	CT1 Make Up Thick Causic	5/1/2017 10:22:45 AM	5/1/2017 10:31:18 AM	00:08:33	0.0	0.0	
A004.0000-201700857-CIP	Wort Copper CIP_Intermediate	5/1/2017 1:19:20 PM	5/1/2017 2:06:06 PM	00:46:46	115.9	1.0	
A004.0000-201700858-CIP	CT1 Make Up Thick Causic	5/1/2017 5:48:56 PM	5/1/2017 5:55:24 PM	00:06:28	0.0	0.0	
A004.0000-201700859-CIP	Wort Pre-heater CIP	5/1/2017 5:06:18 PM	5/1/2017 6:49:17 PM	00:42:59	124.7	1.0	
A004.0000-201700860-CIP	CT1 Make Up Thick Causic	5/1/2017 11:00:31 PM	5/1/2017 11:10:02 PM	00:09:31	0.0	0.0	
A004.0000-201700861-CIP	HV-WPH-WC Line CIP	5/2/2017 12:53:14 AM	5/2/2017 2:09:07 AM	01:15:53	119.0	0.9	
A004.0000-201700863-CIP	CT1 Make Up Thick Causic	5/2/2017 2:09:47 AM	5/2/2017 2:33:53 AM	00:24:06	0.0	0.0	
A004.0000-201700864-CIP	Vapour Condenser CIP	5/2/2017 2:40:02 AM	5/2/2017 4:32:01 AM	01:51:59	107.6	2.0	
A004.0000-201700866-CIP	CT1 Make Up Thick Causic	5/2/2017 3:54:05 AM	5/2/2017 4:30:51 AM	00:36:46	0.0	0.0	
A004.0000-201700867-CIP	Wort Copper CIP	5/2/2017 4:35:09 AM	5/2/2017 7:31:16 AM	02:56:07	129.5	0.9	
A004.0000-201700868-CIP	CT1 Make Up Thick Causic	5/2/2017 7:32:13 AM	5/2/2017 8:01:10 AM	00:28:57	0.0	0.0	
A004.0000-201700869-CIP	Whirlpool CIP	5/2/2017 8:09:28 AM	5/2/2017 9:38:37 AM	01:29:09	120.2	0.8	
A004.0000-201700870-CIP	CT1 Make Up Thick Causic	5/2/2017 11:15:30 AM	5/2/2017 11:27:05 AM	00:11:35	0.0	0.0	
A004.0000-201700871-CIP	Weak Wort Tank CIP	5/2/2017 11:34:17 AM	5/2/2017 12:51:44 PM	01:17:27	119.7	0.9	
A004.0000-201700872-CIP	CT1 Make Up Thick Causic	5/2/2017 1:23:07 PM	5/2/2017 1:28:33 PM	00:05:26	0.0	0.0	
A004.0000-201700873-CIP	Mash Tun CIP	5/2/2017 1:31:29 PM	5/2/2017 1:33:26 PM	00:01:57	0.0	0.0	
A004.0000-201700874-CIP	Mash Tun CIP	5/2/2017 5:03:08 PM	5/2/2017 6:18:31 PM	01:15:23	150.2	0.9	
A004.0000-201700875-CIP	CT2 Make Up Thick Causic	5/2/2017 6:21:46 PM	5/2/2017 6:37:20 PM	00:15:34	0.0	0.0	
A004.0000-201700876-CIP	Wort Cooler Weekly CIP	5/2/2017 6:42:28 PM	5/2/2017 8:03:19 PM	01:20:51	118.1	1.0	
A004.0000-201700877-CIP	CT1 Make Up Thick Causic	5/2/2017 8:11:37 PM	5/2/2017 8:56:48 PM	00:45:11	0.0	0.0	
A004.0000-201700878-CIP	Trub Tank CIP	5/2/2017 9:56:05 PM	5/2/2017 10:41:07 PM	00:45:02	118.1	0.9	

- ▶ Equipped with CIP intelligent management, the program will record the using time of each device, when the production needs to clean, the program will start the automatic cleaning program, and set up protection function that an unqualified equipment cannot be put into production.

❑ High level of automation



- ▶ It can be a “no lighting factory”, that is, to achieve unattended, centralized control and remote control. Based on internet + manufacturing framework, it is easy to custom made recipes for customers by recipe management APP at home or office, and also to understand beer production process and real-time production process and enjoy the beer through video remote monitoring.
- ▶ Brewmaster of OEM can operate the equipment remotely at office or abroad.
- ▶ The craft beer experiercer can remotely operate equipment and comprehensively track the situation of brewhouse and fermentation.