


Inspection report <i>THIS DOCUMENT IS NON-NEGOTIABLE</i>	Inspection Number	
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A- GENERAL INFORMATION


From	TTS	Client name:	
Contact:	Robin Huang	Contact:	
Tel/Fax:	0086-592-5219 260	Tel/Fax:	
E-mail	Inspection@tts-global.net	E-mail:	
Inspector(s)	LCC	Cc:	
Supplier		Product description	Micro beer brewery system 500L Brewery Project
Factory name:			
Inspection location:			
Model No.:			
PO No.:			
Quantity:			
Inspection performed	Full Inspection + Factory verify	Inspection Date	

B- INSPECTION RESULT SUMMARY

	PASSED	FAILED	PENDING	N/A	REASON
OVERALL CONCLUSION			X		Remark 1, 2

C-REMARKS:

1. For Factory verify: Found The actual manufacturer was: xxxxxx 2. Factory claimed the client did not give them the final order, so client's machine was not made now. TTS inspector only can check the raw-material, production process, other similar finished machines for verify. Please see below CHECKLIST for detail.

<u>Authorized signed by:</u> Operation Dept. Manger	 Robin Huang	Date:	
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D-CHECKING LIST

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1. The material

It is the completely Stainless Steel 304. Now each batch of the steel plate will be randomly cut one part to be tested in one authoritative lab (government institute) and have the certificate for the material. Not only the steel plate (sheet), but also the valves, pipes, bolts etc.

Reply: The inspector found a lot of stainless steel in the workshop, but the factory does not provide the certificate for the material, the factory claimed they can cut one part to be tested in one authoritative lab (government institute) and get the certificate for the material as per the client request.



Stainless steel



Stainless steel

2. The thickness of the stainless steel plate

It's important that the inspector is sure that the 3mm interior shell and 2mm exterior shell for tanks. The thinner sheet (plate) will easily distort after welding because of the high temperature. 3mm and 2.5mm, that is about 16% difference in weight.

Reply: The factory claimed no 2mm or 3mm thickness of plates at warehouse in today, but inspector found the thickness was 3.5mm of the interior using plate on site. Factory claimed they can use the client request thickness plates if necessary.



Stainless steel



Size check: 3.5mm



3. The welding

The inspection must make sure the 100% TIG welding with pure argon gas shield. The use of a central system of argon, instead of ordinary gas cylinder, optimizes the welding process. At the photograph, you can see the proper central system of argon vs the ordinary argon gas cylinder.

Reply: Actual found the factory used ordinary argon gas cylinder and ordinary welding equipment, instead of a

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central system of argon

	
Our central system of argon	ordinary argon gas cylinder

	
Ordinary argon gas cylinder	Ordinary argon gas cylinder

4. The polishing

The inspector must to check that the company use polishing equipment to polish the inside of the tanks without dead corner, instead of polish manually and simple.

Reply: The actual finding was closed to the client request.

	
Our polishing and polishing equipment	the polishing is simple

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Polishing equipment



Polishing check

5. The pressure testing

The company should be sure all welding line, valves connection etc are not leakage, by a first hydraulic testing. One is the interior layer testing by water for 60 hours to test the leaking along the welding. Second is the gas testing with 4bar for jacket (steam or glycol) for 48hours to test the leakage. Third is still the inside testing by gas with 3bar after the completely tank is finished by 48 hours at least.

Reply: Only found a simple pressurizing test equipment in the workshop, the factory claimed they would test in strictly and accordance with the requirements of standard, when a new product was finished



Pressurizing test equipment

6. The insulation

The company should use the polyurethane foaming machine to form the insulation. It can make sure the insulation is equal and compact, instead of filled the Insulation manually.

Reply: The factory claimed the polyurethane foaming machine was broken and has been sent to the manufacturers for repairing, So the inspector only see filled the insulation manually in inspection during

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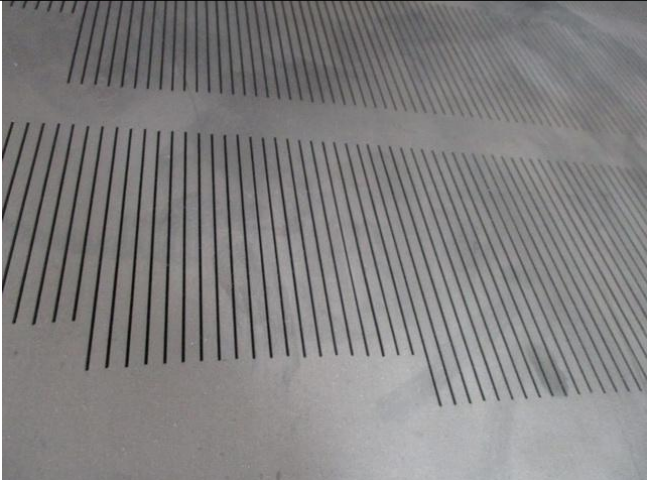
Filled the Insulation manually

7. The False Bottom/Filter

The company must use the Laser cutting V-wire False Bottom/Filter. It is stronger, even and non-pollution of welding. The ordinary False Bottom/Filter is cheaper, uneven and not well finished.

Reply: The factory claimed the filter was purchased from partner factories, and they could request the partner factory make it as per client request.

	
the Laser Cutting False Bottom/Filter	the Ordinary False Bottom/Filter

	
The False Bottom/Filter	The False Bottom/Filter

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The False Bottom/Filter:front view



The False Bottom/Filter:back view

8. The rake

The company must use the new-style rake. The structure is varied so that it can agitate the wort lengthways and transversely. It can help to make the wort flow smoothly.

Reply: The actual finding was closed to the client request.



Varied structure rake



Simple structure rake



The rake



New-style rake

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New-style rake



New-style rake

9.The reducer in the rake

The inspector must check that the company is using the new-style turbine reducer. It is more durable and high-quality. It is better than old-style cycloidal reducer.

Reply: Actual found the reducer was horizontal turbine reducer, instead of vertical turbine reducer



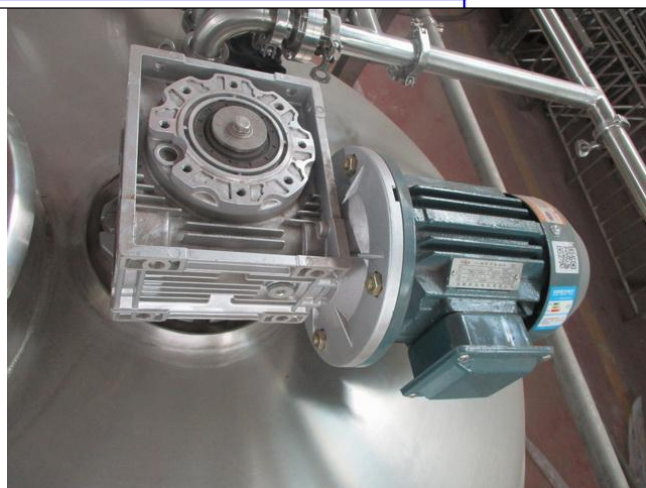
The turbine reducer



the cycloidal reducer



The reducer in the rake



Horizontal reducer

10.The butterfly valve

The company must provide the high quality valve. 30 to 40 valves will be needed in one brewery system. The equipment must have lever-type butterfly valve, which is more convenience than ball handle type.

Reply: The actual finding was closed to the client request.

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lever-type valve	ball handle type valve

	
Lever-type butterfly valve	Lever-type butterfly valve



	
Lever-type butterfly valve	Lever-type butterfly valve


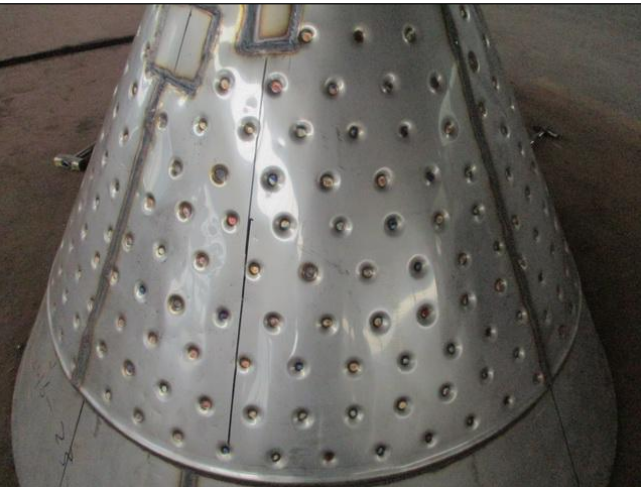
11.The jacket

The company must provide the dimple jacket which has better cooling effect. It expands the cooling area and makes better cooling effect. But the dribbling type plate cooling jacket effect. It is not uniform, and cannot be cooled well. The cost on this is much cheaper, and it is easy to produce. The dimple plate dribbling type plate cooling jacket

Reply: Meet to the client’s requirements.

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The dimple plate	dribbling type plate cooling jacket

	
Dimple jacket	Dimple jacket

12. The wort aeration

The equipment must come with the sanitary wort aeration mounted with stone, instead of the venture. The stone is more expensive than venture, and it has a better aeration effect. The sanitary wort aeration mounted with stone versus the ordinary venture system with is more likely to generate germs after a cleaning process.

Reply: Found no wort aeration in inspection during, The factory said that they has no wort aeration equipment but they can buy it according to the customer's request



	
the sanitary wort aeration mounted with stone	the ordinary venture



13. The pressure gauge

The company must provide the shockproof pressure gauge. It has two scales: psi and bar. It is more accurate and durable. The ordinary pressure gauge is not shockproof; it has just one kind of scale. It is important, that the company provides a certification of calibration of this pressure gauges.

Reply: Meet to the client's requirements.

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the shockproof pressure gauge	the ordinary pressure gauge

	
Pressure gauge	Pressure gauge



14. The carbonation stone

The selection of an appropriated carbonation stone with a bigger size Φ60mmx300mm, and equipped with butterfly valve. Carbonation stone(Φ60mmx300mm) butterfly valve versus a others carbonation stone(Φ60mmx200mm) ball valve.

Reply: Meet to the client’s requirements.

	
carbonation stone(Φ60mmx300mm) butterfly valve	others carbonation stone(Φ60mmx200mm)ball valve



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Carbonation stone	Carbonation stone

15. The chiller

The company must provide a water-cooled chiller. It is good at the output of glycol water. The old-fashioned chiller output Freon, we will need to buy copper pipes and pay for a professional installer to weld, pay for the labor costs additional.



Reply: Not Found chiller during inspection, The factory claimed that they has no chiller equipment but they can buy it according to the customer's request if necessary

	
The water-cooled chiller	the old-fashioned Freon chiller

16. The wort hose

It is important to be sure that the food-grade rubber hose. It will not pollute beer. The company should provide more than 20 meters rubber hose, instead of plica pipe.

Reply: Factory also used the rubber hose on the machine, but no food-grade level certificate was available when inspection. They claimed they can let the hose manufacturer provided the certificate if necessary.

	
Our food-grade rubber hose	plica pipe

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Food-grade rubber hose



Food-grade rubber hose

17.The legs of tanks

The equipment legs must be completely SUS304 heavy duty legs with leveling pad, the exterior shell and interior shell are all SUS304. The leg which exterior shell is SUS304 and interior shell is carbon steel is also OK, but not excellent.

Reply: Found the machines use the stainless material, it can not confirm it is SUS304 or not. Factory claimed it is SUS 304 and they could provide the material certificate if necessary.



The completely SUS304 heavy duty legs



the interior shell is carbon steel



Legs of tanks



Legs of tanks

19.The leveling pad

The company must provide the completely 304 SUS heavy duty foot pad which is welded in a smooth finish, instead of simple foot pad which is not so strong and stable.

Reply: Actual found the foot pad was simple foot pad, instead of heavy duty foot pad, the factory said that they can be

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produce foot pad according to customer requirements if necessary.



304 SUS heavy duty foot pad



the simple foot pad



Simple foot pad



Simple foot pad



Simple foot pad



Simple foot pad

20. The electrical elements

The equipment must include the world wide brand electrical elements with CE certificates (Conformité Européenne or American Certification of quality ISO) such as ABB, Schneider and Siemens.

Reply: Found the world wide brand electrical elements used, such as danfoss, Schneider and Siemens.

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Our worldwide brand electrical element with CE		the ordinary electrical element	
			
Control box		Control box	
			
Electrical elements-Schneider		Electrical elements-Schneider	

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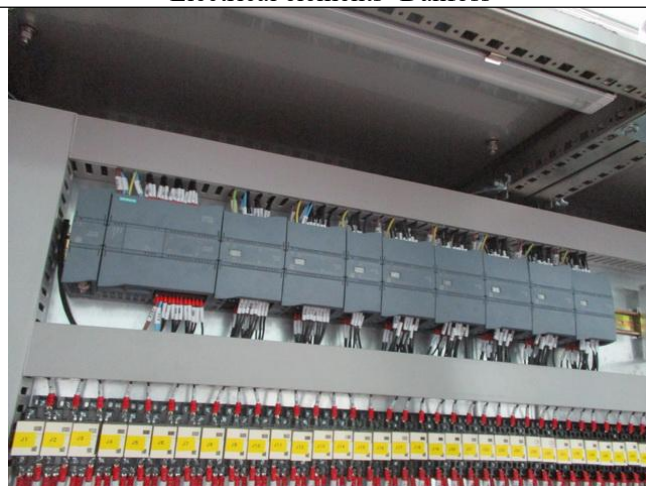
Electrical elements- Danfoss



Electrical elements- Danfoss



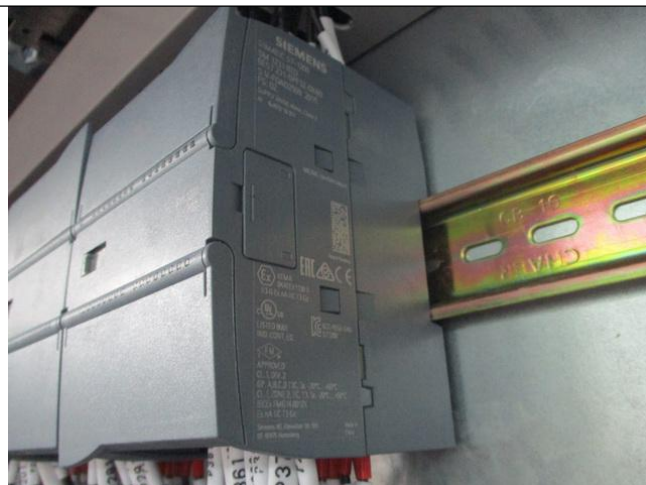
Electrical elements- Danfoss(CE)



Electrical elements- Siemens



Electrical elements- Siemens



Electrical elements- Siemens(CE)

21. Grain miller




The miller must be the new style miller with non-exposed belts which is safer. Germany Buhler technology, completely food-grade stainless steel roller. Miller with exposed belts is a little dangerous in operation.

Reply: The inspector only found 1 set grain miller was in the yard, the factory don't agree to open the packing, because

The above reflects our findings at the time and place of inspection based on random selected samples in accordance with a previously agreed random statistical sampling standards. This report/certificate does not discharge or release sellers/suppliers from their commercial, legal or contractual obligations with regard to quality/quantity of delivery nor does it prejudice the buyer's right of claim toward sellers/suppliers for compensation for any found and/or hidden defects not detected during our random inspection or occurring thereafter. The report/certificate does not evidence shipment.

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the machine needs to be immediately loaded and sent to client. Factory claimed they can made miller as per client request.

		
iller with unexposed belts,completely food-grade rol		miller with exposed belts

	
Grain miller	Grain miller
	
Grain miller	Grain miller

22.VFD

The equipment must have an VFD controled motor on wort pump, grain rake, agitator. VFD in famous worldwide brand, such as Delta, ABB, Schneider and Siemens.

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Reply: Found the VFD controlled motor brand was danfoss on the available machine, but they can buy it(other brand VFD) according to the customer's request



VFD controlled motor

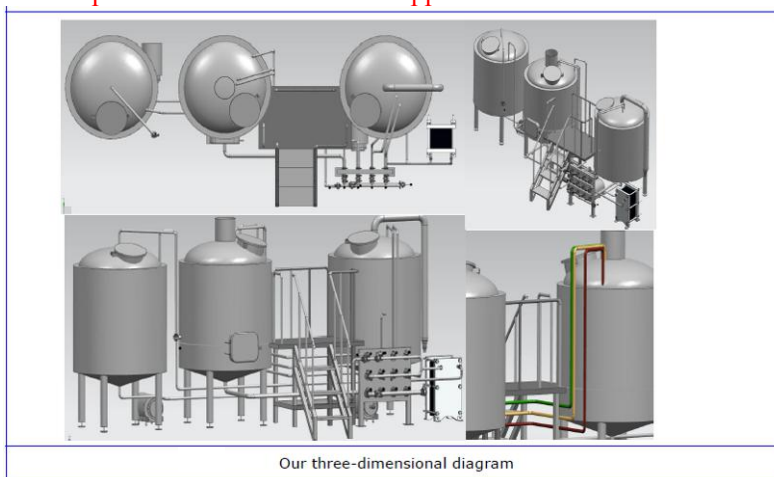


VFD controlled motor

23.The technical support

The company must have experienced engineers for a strong technical support (more than 5 years' experience). They design drawing for every part of equipment. The factory should have the capacity of product the equipment according the drawing accurately. The engineers must provide supply three-dimensional diagram. They can make it easy to installing and connecting the equipments.

Reply: The factory said that can provide the best technical support. The detail need discuss with client at next.



24. CIP arm and CO2 arm

The fermentation and bright tank must come with 2 arms on fermentation tank, one is for CIP, and other is for CO2

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blow off. The CO2 arm can make sure additional gas like O2 is released totally; protect the wort to not be oxidized. The fermentation tank which just has 1 CIP arm can't release O2 totally. 2 arms: CIP arm and CO2 arm 1 arm: CIP arm

Reply: Actual found the available machine was 1 arm (CIP arm) was different from customer requirements (2arms:CIPand CO2 arm), the factory claimed they can be produce 2arm machine according to customer requirements

	
2 arms: CIP arm and CO2 arm	1 arm: CIP arm

	
1 arm:CIP arm	1 arm:CIP arm

25.Manhole

Embedded shadowless manhole in fermenter will have a good insulation. Some fermenters have square area around the manhole. The square area is single layer, no insulation, simple processing. Embedded shadowless manhole square area around the manhole is no insulation

Reply: The actual finding was similar to client request.

	
Embedded shadowless manhole	square area around the manhole is no insulation

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Manhole

Manhole

Manhole(gasket)

Manhole

Other attention from client on mail:

- A specific effort in welding, which are very important in this type of products.

Reply: Actual found the factory used of ordinary argon gas cylinder and ordinary and welding equipment , instead used of a central system of argon

- A confirmation of the thickness of sheets used.

Reply: The factory claimed no 2mm or 3mm thickness of plates at warehouse in today, but inspector found the thickness was 3.5mm of the interior using plate on site. Factory claimed they can use the client request thickness plates if necessary.

- Certification on food grade of the materials used.

Reply: The factory did not provided them to inspector reviewing when inspection.

- Certification of pumps and engines used.

Reply: The factory did not provided them to inspector reviewing when inspection.

- Finally polish quality.

Reply: The actual finding was similar to client request

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- O ring, and seals quality certification.

Reply: The factory did not provided them to inspector reviewing when inspection.

- Pressure gauges, thermometers and electrical equipment (PLC Control, CIP pump and heating control, temperature display and controls) certifications with international standards.

Reply: The factory did not provided them to inspector reviewing when inspection. But found the available machines were used with the internal brands.

- Glycol water chiller certifications. Including compressor.

Reply: The factory did not provided them to inspector reviewing when inspection.

Also, this is our first time purchasing with this company, so it is important for us to have reliable information about the company. All the consolidation and government certifications, permits must be by the same company name.

Yucheng Zeyu Machinery Co, Ltd.

Address: No 226, Hanhuai Road, Yucheng, Shandong,

Tel: +86 -534 777 61 61

Mobile: + 86 - 18753474888

email: dana@zybrew.beer

The personal of contact will be Dana Xing,

Reply: Found The actual manufacturer was: Qihe Haode Equipment Co. Ltd (Manzhiying Road, Qihe Economic-Technological Development Area, Dezhou, Shandong, China), instead of the Yucheng Zeyu Machinery Co, Ltd (No 226, Hanhuai Road, Yucheng, Shandong, China). The factory representative claimed the company: Yucheng Zeyu Machinery Co, Ltd's boss is one of the shareholders of Qihe Haode Equipment Co. Ltd. But not provided any certificate for reviewing.

End

E-PHOTOS



1. Factory view(no name on gate)

2. Factory inside view

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3. Workshop 1 view



4. Workshop 1 view



5. Workshop 1 view(raw materials)



6. Workshop 2 view



7. Workshop 2 view



8. Workshop 2 view

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9. Workshop 2 view



10. Semi-finished products in the yard



11. Sample room view



12. Sample view



13. Sample view



14. Office building view

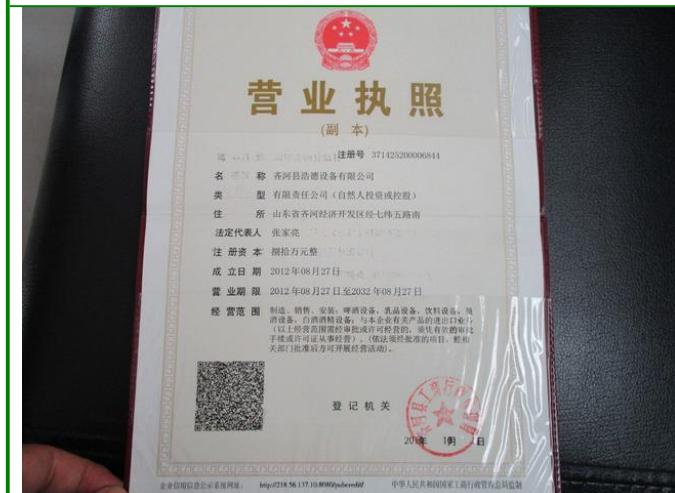
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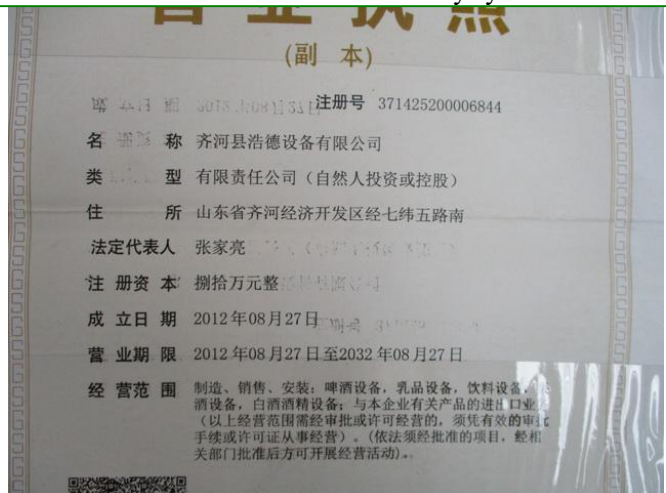
15. Office view



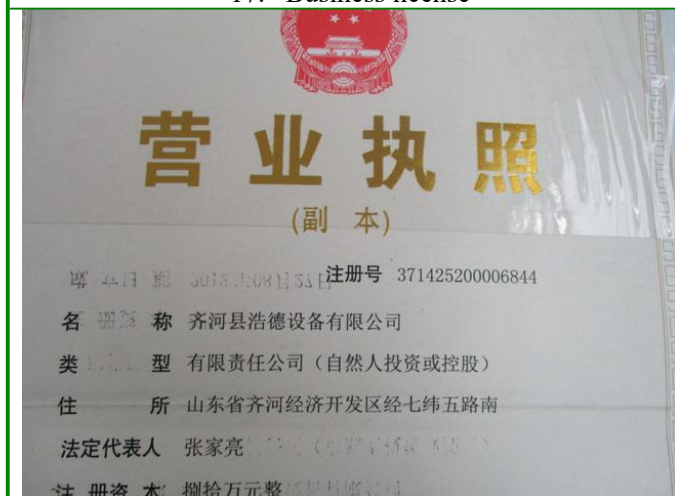
16. Mini- micro beer brewery system



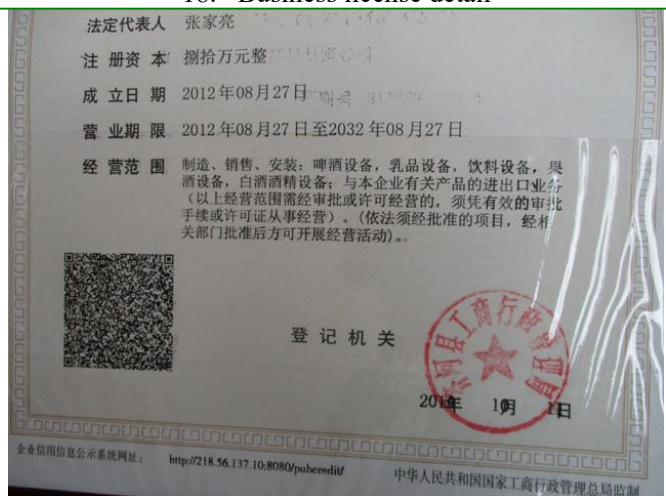
17. Business license



18. Business license detail



19. Business license detail



20. Business license detail

*****END*****