



PREMIER
S T A I N L E S S
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Equipment Description For:

*PUBTECH BREWHOUSE &
SUPPORT EQUIPMENT*



15 BBL Pubtech Direct Fired Brewhouse

Brewhouse Description:

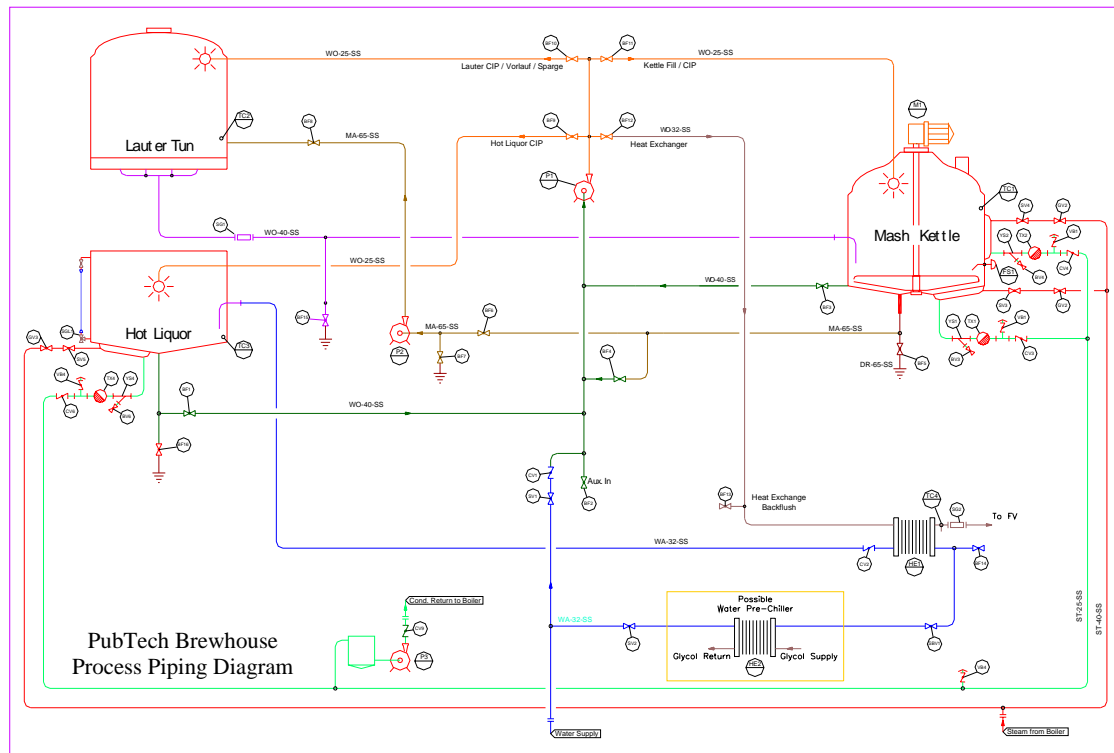
The brewhouse consists of two vessels connected to a common stainless platform assembly. All pumps, motors, heat exchanger, work platform, control panel, valves and process piping are integrated into the brewhouse assembly.



10 BBL Lager/Decoction Pubtech

The PubTech is a manually operated, single batch per day, decoction capable (with upgrades), easy to operate brewhouse. The Pubtech brewhouse is suitable for both high-end brewpub and small-scale microbrewery installations alike. With design and features found on brewhouses twice its price, customers on a tight budget can have the quality and features they desire without sacrifice. Options include decoction capability with mash mixer, lauter rakes, air actuated valves and choice of finishes such as polished stainless steel, copper bands, mirror cladding, etc. The Pubtech is the solution for brewers in search of function with value.

Process piping schematic sample:



The manifold piping has been designed with flexibility, sanitation, ease of operation and economy in mind. All inlet and outlet valves (including optional mash piping) are located at the front of the brewhouse for convenient operation. The piping has been designed for easy disassembly in case of heat exchanger removal/cleaning. All connections to utilities such as water, steam, condensate return, etc. are located on the rear of the brewhouse assembly. Flow rates in all piping is controllable via variable frequency drives on mash and wort pumps. The manifold is easily cleaned (during brewhouse CIP process) and completely drainable.

Combination Lauter Tun/Hot Liquor Vessel

Description:

Vertical, cylindrical vessel (divided horizontally) with a lauter vessel on top of a hot liquor tank. The vessel has a flanged and dished style top with a double-inverted conical floor on the lauter tun and sloped floor on the hot liquor tank. Vessel is supported by tubular legs connected to a stainless steel platform. The legs have 6" (150 mm) fully articulating adjustable stainless feet.

The Lauter Tun has four runoff points under a V-Wire stainless steel false bottom. The slots provide approximately 15-20% open space for lautering. A 3" (DN65) opening in cylinder wall allows the transferring of mash from the Mash/Kettle (optional). The tank is outfitted with a top mounted halogen light. Side mounted out-swing door and top mounted out-swing door provide access to tank interior. All internal welds are ground and polished.

The Hot Liquor Tank has a 5-degree sloping floor with a side outlet. Temperature is maintained with a steam jacket or a side mounted immersion heater. A sight glass / level gauge set is mounted on the front of tank. A side mounted out-swing door provides access to tank interior. All internal welds polished. All external cladding fully welded. Designed for atmospheric pressure.

Process Description:

To conduct decoction mashing (in conjunction with mash/kettle vessel), to separate wort from grain, and to receive, heat and store Hot Liquor.

Materials:

- 11 gauge (3 mm) 304 stainless steel #4 finish: Tank top
- 11 gauge (3 mm) 304 stainless steel #2B finishes: Inner tank cylinder
- 11 gauge - 9 gauge (3 mm – 4 mm) 304 stainless steel #2B finish: Tank floors
- 14 gauge (2 mm) 304 stainless steel #4 finish: Tank outer skin
- 14 gauge (2 mm) 304 stainless steel #2B finish: Steam Jacket

Fittings:

- 1 - 4" (DN100) ferrule for hydrator
- 3" (DN65) ferrule for mash inlet/outlet (option)
- 1 ½" (DN40) ferrule for hot liquor outlet
- 1 ½" (DN40) ferrule for wort runoff and hot liquor inlet
- 1 ½" (DN40) ferrules for CIP, vents, sparge, vorlauf
- 16" (400 mm) round top manway door
- 18-24" (450-600 mm) rectangular outswing side manway for hot liquor
- 18-24" (450-600 mm) rectangular outswing side manway for spent grain removal
- 1" (DN25) sight glass / level gauge for hot liquor
- 2 – ¾" stainless steel half coupler for steam connections
- 2 - ½" temperature wells
- 1 – 2" NPT for immersion heater
- 1 - flange for lauter rakes (option)
- 1 - 2" (DN50) fitting for tank light assembly

Insulation:

- 2" (50 mm) polyurethane foam between inside cylinder and outside skin.

Combination Mash/Kettle Vessel

Description:

Vertical, cylindrical vessel with flanged and dished head and conical floor. Vessel is supported on tubular legs, which are connected to a stainless steel platform. The frame has 6" (150 mm) fully articulating adjustable stainless feet.

The Mash/Kettle has a 15-degree conical floor (steam fired) or a 5 degree sloped floor (direct fired). A top mounted mash mixer system incorporates offset paddles to ensure thorough mixing of the mash (option). Optional paddles are driven by a 2 H.P. (1.5 kW), 36 RPM geardrive and are precision controlled by an AC variable frequency drive. A mash hydration unit mounted to the tank head provides complete hydration/doughing of grain (with mash option). Steam jackets on the bottom and sides of the vessel heat the mash and wort. The mash is transferred from the kettle to the lauter tun via a 3" (DN65) variable speed, high flow stainless transfer pump. Vessel has a vertical extension tube to transfer the wort gently to the kettle with minimal aeration. Tank is outfitted with a top mounted halogen light. Steam vent is equipped with condensate drip ring. All internal welds are ground to a sanitary finish. All external cladding welded. Designed for atmospheric pressure.

Process Description:

To conduct infusion or decoction mashing (in conjunction with lauter tun), to heat water and mash, boil wort, and precipitate proteins and polyphenols during whirlpool.

Materials:

9 gauge (4 mm) 304 stainless #2B finish: Kettle floor
9 gauge (4 mm) 304 stainless #2B finish: Fire chamber
14 gauge (2 mm) 304 stainless #2B finish: Steam jackets
11 gauge (3 mm) 304 stainless steel #4 finish: Flanged and dished top
11 gauge (3 mm) 304 stainless steel #2B finish: Inner tank cylinder
14 gauge (2 mm) 304 stainless steel #4 finish: Tank outer skin

Fittings:

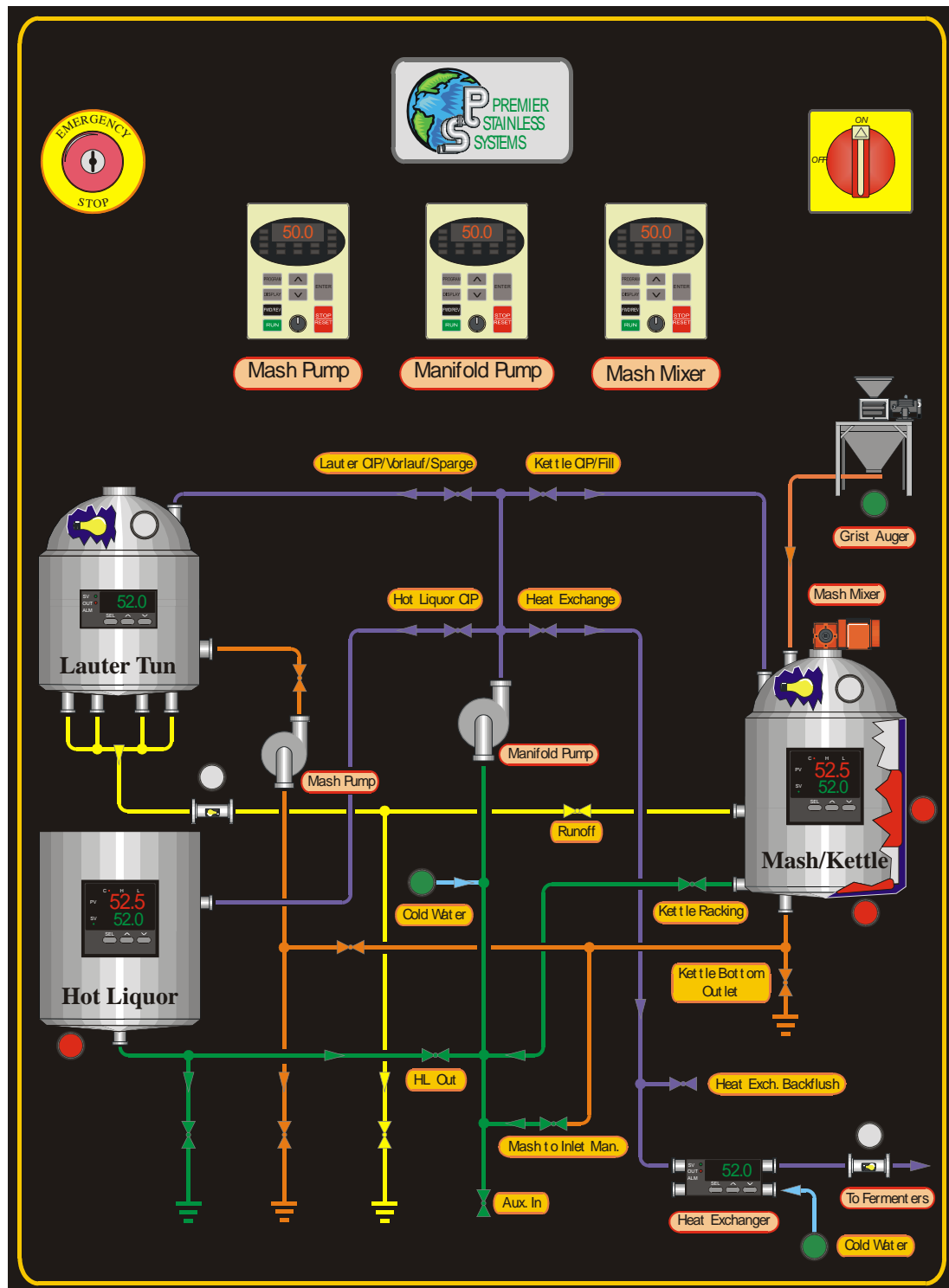
1 - 4" (DN100) ferrule for grist inlet (option)
1 - 3" (DN65) ferrule for mash outlet/drain (option)
2 - 1 ½" (DN40) ferrule for wort racking and tank drain
3 - 1 ½" (DN40) ferrules for CIP, whirlpool, wort inlet
16" (400 mm) round top manway door
1 - ½" temperature well
1 - ½" half coupler for level sensor
1 - flange for mash mixer (option)
4 - 1" half couplers for steam connections
1 - 2"(DN50) fitting for tank light assembly

Insulation:

3" (75 mm) high temperature insulation between inside cylinder and outside skin.

Control System

The control system consists of a hardware-based enunciator/control panel mounted between the two vessels for easy brewhouse operation and control.



All pumps, motors, temperatures, lights, etc. can be controlled manually by the operator using digital instrument panels and pushbuttons on the graphical, color-coded interface panel. Steam valves can be manually over-ridden by push-button control.

Brewery Manifold:

Made entirely of stainless steel tubing 1" – 3" (DN25 – DN65), all welds fully purged with argon then ground and polished. All connections are clamp style with heavy duty clamps and gaskets. All process valves are sanitary butterfly style. Wort runoff piping from lauter tun, as well as heat exchanger outlet has a full view sight glass to monitor wort clarity.



7 BBL Pubtech Manifold

Brewery Pumps:

Wort Pump - 2 H.P. (1.5 kW), 3450 RPM sanitary stainless centrifugal pump with 1½" (DN40) tri-clamp inlet, 1½" (DN40) tri-clamp outlet and variable speed motor control.

Mash Pump – 1.5 H.P. (1.1 kW), 3450 RPM motor, stainless centrifugal, large particle pump with 3" (DN65) tri-clamp ferrules and variable speed motor control.

Grant Pump - 1 H.P. (.75 kW), 3450 RPM sanitary stainless centrifugal pump with 1½" (DN40) tri-clamp inlet, 1½" (DN40) tri-clamp outlet and variable speed motor.

Heat Exchanger:

All stainless steel construction, including heat exchanger end plates. Multi-pass high efficiency plate heat exchanger designed to cool wort using approximately 1.5:1 ratio of cold water to hot wort, designed for 30-45 minute wort transfer.

Wort Aeration:

In-line 2 micron stainless sparge tube inside 1 ½" (DN40) tri-clamp tee with sight glass for visual inspection of aeration levels.

Brewers Platform Assembly:

Platform frame is constructed entirely of 304 stainless steel with a stainless diamond plate deck. A stainless watertight electronics enclosure is mounted to the back of the platform. Stairs are constructed of 304 stainless steel diamond plate deck material. Safety rail is constructed of stainless steel tube.



7 BBL Direct Fired Brewhouse



15 BBL Micro-Brewhouse



15 BBL Micro Manifold



15 BBL Pubtech Brewhouse & 30 BBL Fermenters





10 BBL Pubtech with 10 BBL Serving Tanks





10 BBL Lager Decoction Brewhouse



20 BBL Microbrewery



10 BBL Steam Brewhouse