

# DESTILA<sup>®</sup>

# Brewhouse for 10–25 hl of cold wort

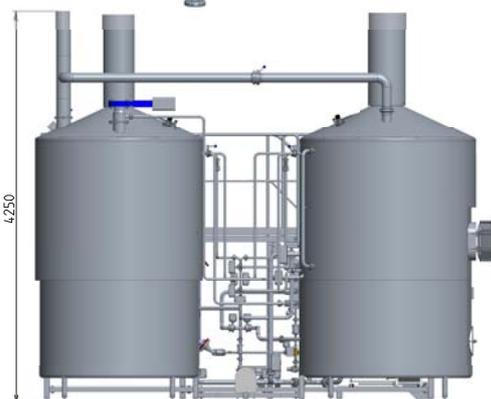
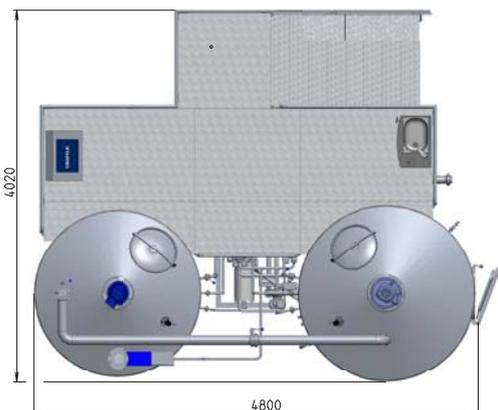
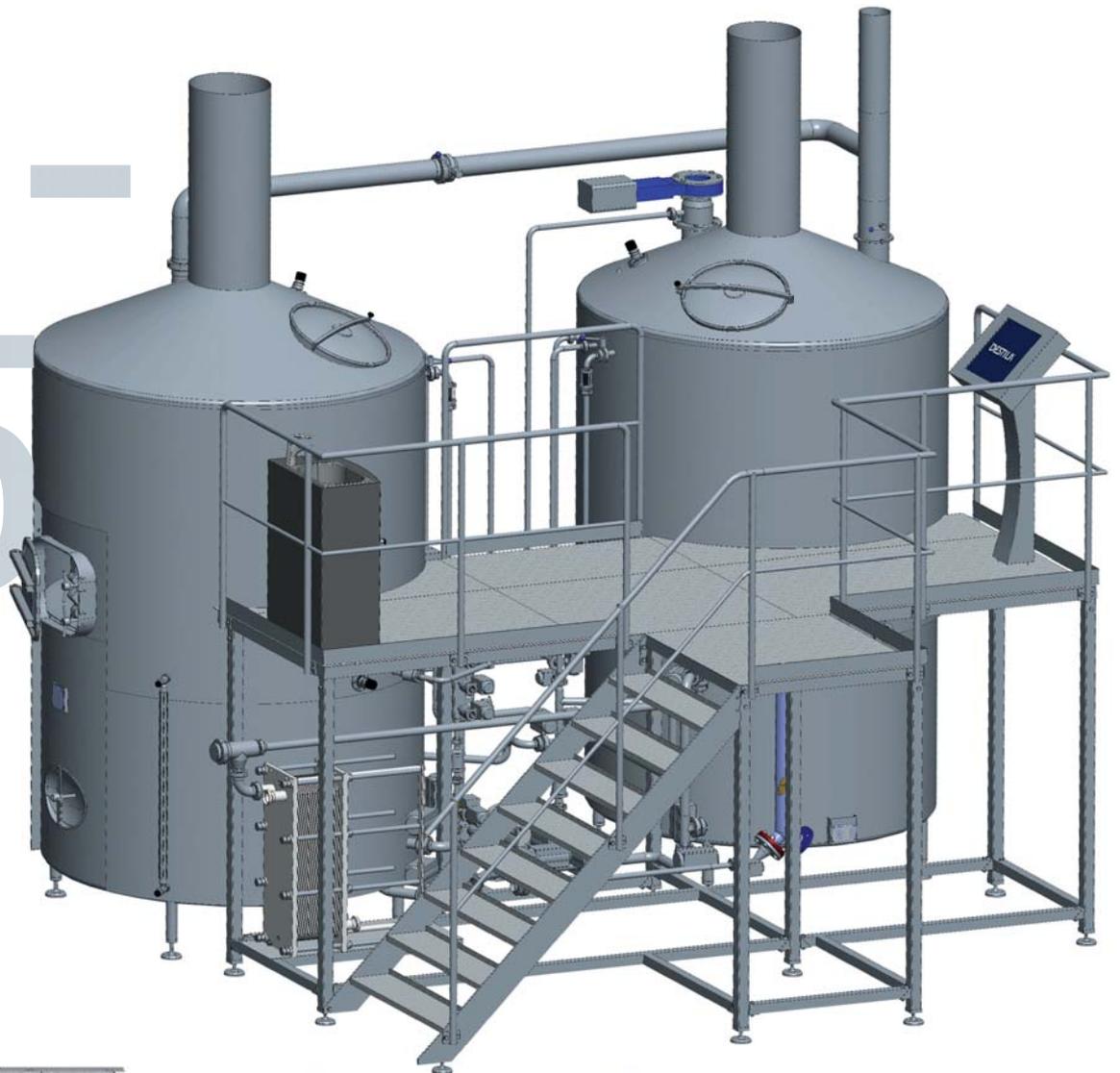
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A three-vessel brewhouse from stainless steel for brewing 10, 15, 20 and 25 hl of cold wort with a steam chimney imitation (the 10-litre brewhouse can also be supplied with copper covers and outer plating).

The brewhouse enables brewing by means of both decoction and infusion.

The mash and wort tub is heated by gas or electric steam generator with the output of 120-300 kg of steam per hour with the working power pressure of 4.4 bar. The vessels and connecting pipes are from stainless steel DIN 1.4301. The inner surface roughness in the vessels is  $Ra \leq 0.8$ . The outer jackets of the vessels are also from stainless steel and they are welded. The outer surface can be brushed or polished. The heat insulation of the cylindrical part of the vessels is from a 50 mm layer of PUR foam. The heating bottom with a side duplicator is insulated with mineral wool. Vessels are washed and cleaned by means of washing heads.

# 10- 25 hl



**Stainless steel  
brewhouse  
20 hl  
(illustration)**

# Brewhouse parts

## Mash and filtration vat

A cylindrical vessel with a flat bottom. Above the bottom there is a stainless-steel strainer from welded trapezoid wire. The vessel is equipped with a stirrer for better wort filtration and a height-adjustable bar enabling malt residue discharge.

ACCESSORIES: the stirring arm drive with FM revolution regulation is situated above the vat and hidden in the steam chimney imitation, side malt residue discharge, nozzles for rinsing the area under the filtration bottom, temperature sensor PT100, manhole, inner LED light in the vessel, steam chimney imitation

## Mash and wort tub

A cylindrical vessel with a slightly conical bottom equipped with a stainless-steel heating bottom and a separately controlled side duplicator in the lower part of the vessel for steam heating. Steam duplicators meet the requirements of the Czech Republic government decree No 219/2016 Coll. (Regulation of the European Parliament and Council No 2014/68/EU) for pressurized vessels. The steam supply valves allow continuous regulation. The vessel is equipped with a stirrer with continuous setting of revolutions.

ACCESSORIES: heating bottom with a side duplicator, the stirrer drive with FM revolution regulation is situated above the vat and hidden in the steam chimney imitation, heat sensor PT100, manhole, inner LED light in the vessel

## Whirling vat

It is situated under the mash and filtration vessel and together they are situated in one jacket. It is equipped with a slightly sloping bottom with a groove for better attachment of the sludge cone.

ACCESSORIES: a tangential nozzle for wort whirling, mash and sludge outlet in the bottom part of the vat, washing head

## Centrifugal pump

It is intended for mash and wort and equipped with an open impeller wheel. It is used for pumping mash and filtration. The pump revolutions are controlled by FM.

## Board wort cooler

A single-stage cooler for wort cooling from +98 °C to the yeast starter temperature. The cooling medium is ice-cold water. The input temperature is +1°C, the output temperature is +70 °C. The wort output temperature regulation is controlled manually or automatically according to the temperature set on the control power of the brewing room.

## Wort aerator, connecting pipeline and malt residue containers

### Operator's ramp

It enables access to the tanks, control elements and control panel of the brewing room.

### Tools for the brewhouse operation

3 saccharometers, 1 cooling cylinder, 1 stainless steel sink, 1 water mixer, 2 x measuring rods, 2 malt residue containers, tools for the technologist, brushes

### Waste vapour condenser

It ensures condensation of the steam generated during brewing and its discharge to sewerage. At the same time, it minimizes the smell in the brewing room area. The discharged steam also heats water which is collected in a hot water vessel. In the pipeline there is a showering head preventing deposition of hop oil sediments.

### Brewhouse control

An operator panel with a touch screen and programmable automatic control (PLC) Simatic S7 1200 by Siemens company.

From the panel it is possible to control pneumatically controlled flaps, pump motors and drives of the brewing room stirrers with continuous revolution regulation by means of a frequency convertor. It also controls automatic hot water heating and ice-cold water cooling and wort cooling. The panel enables setting parameters, programming and running technological processes, changing their modes and displaying and archiving the course of the measured values and error states. It also enables a remote access and control through the Internet.

Brewhouse [hl]	10	20	25
Overall dimensions L/W/H [mm]	4425×2750×3450	4800×4020×4250	6450×3030×410
Platform height [mm]	1400	1830	1830
Empty brewhouse weight including the ramp [kg]	2700	4000	4200
Total filtration vat volume [l]	1530	2835	3250
Maximum filtration strainer load [kg/m <sup>2</sup> ]	150	175	180
Total mash and wort tub volume [l]	1410	2995	3600
Total whirling vat volume [l]	1210	2260	3410
Average load per 1 m <sup>2</sup> with full brewhouse [kg]	310	590	600
Heating steam consumption [kg/hour]	120	240	300
Steam consumption [per 1 batch]	450	900	1125
Electric steamer input [kW]	100	160	200
Water consumption for waste vapour cooling [l/batch]	200	400	500

