Highly effective
Chlorine Evaporator C 6100

Efficient gas production
The evaporator mainly consists of a pipe that is designed as an evaporation coil with a vertical inlet and outlet. The evaporation coil is encased by a steel tank that is filled with water. Immersion heaters below the evaporation coil close to the tank floor guarantee that the water is evenly heated due to free convection. This means that neither a circulation pump nor a mixer is needed for circulating the water.

The liquid chlorine enters the evaporator from the top and flows through the evaporation coil towards the tank floor in counterflow to the hot water, which is circulating upwards. On its way downwards, the chlorine absorbs the water’s heat and evaporates as a result. This design, whereby both fluids are passing each other in opposing directions, ensures that the heat of the water is used effectively and efficiently for evaporating the liquid chlorine.

Controlled safety
The C 6100 chlorine evaporator fulfills all criteria of the declaration of conformity according to the pressure equipment directive 97/23/EC. The evaporation coil of the C 6100 evaporator fulfills the design requirements according to AD-2000 rules, Eurochlor GEST 75/47 and Chlorine Institute Pamphlet 9.

Functions
- Evaporator output of up to 220 kg Cl₂/h
- Evaporation coil design with water as a heating medium
- Hot water tank and evaporation coil made of seamless pressure tank steel
- Electrical heating of the water using immersion heaters
- Sensors for monitoring the temperature, pressure and fill level
- Visual indicators for pressure, fill level and temperature
- Cathodic anti-corrosion protection

Automatically safe
The evaporator has sensors for monitoring the water temperature and water level in the tank. These sensors are used for controlling the electrical heating and the fill level in the tank. Furthermore, they are used for closing the gas pipe to the chlorine gas dosing devices should there be a risk of the liquid chlorine breaking through. Due to the high degree of automation of the evaporator, the plant operator’s monitoring effort is minimised.
## Technical data

<table>
<thead>
<tr>
<th></th>
<th>1,8 dm³</th>
<th>8,3 dm³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation coil volume (model variant)</td>
<td>1,8 dm³</td>
<td>8,3 dm³</td>
</tr>
<tr>
<td>Evaporator capacity kg/h</td>
<td>65</td>
<td>220</td>
</tr>
<tr>
<td>Heating capacity KW</td>
<td>2 x 5</td>
<td>4 x 5</td>
</tr>
<tr>
<td>Volume of warm water tank Litres</td>
<td></td>
<td>175</td>
</tr>
<tr>
<td>Voltage supply</td>
<td></td>
<td>230/400 V, 50/60 Hz</td>
</tr>
<tr>
<td>Contact load rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact thermometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact pressure gauge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorine connection (inlet and outlet)</td>
<td></td>
<td>Flange DN25/PN40 that complies with EN 1092 Form D (groove)</td>
</tr>
<tr>
<td>Permissible ambient temperature °C</td>
<td></td>
<td>0 – 50</td>
</tr>
<tr>
<td>Hydrostatic test pressure bar</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>Operating pressure bar</td>
<td></td>
<td>40 (100 °C)</td>
</tr>
<tr>
<td>Weight kg</td>
<td></td>
<td>275</td>
</tr>
</tbody>
</table>

## Scope of delivery

The C 6100 chlorine evaporator’s scope of delivery includes:
- Chlorine Evaporator C 6100
- Counterflange for assembly on the site pipe line
- Assembly accessories for flange DN25/PN40
- Square hollow key SW 7

## Dimensions

All dimensions in mm

![Dimensions diagram](image_url)
**Standard accessories**

**Control cabinet**
For 1x evaporator with a heating output of up to 20 kW (220 kg Cl₂/h). All sensors are analysed at the evaporator. Control of heater and water refilling. Indication of operating states on the SPS display. Remote signalling of operation notifications and alarms. Control of the motor ball valve.
Voltage supply: 230/400 V, 50 – 60 Hz, protection class IP55.
Dimensions: 1000 x 800 x 300 (H x W x D)

**Motor ball valve with battery system**
For protecting metering equipment against liquid chlorine. Is installed directly at the evaporator outlet. In the event that the power supply is interrupted, the ball valve is closed using battery power.
Voltage supply: 85 – 240 VAC/DC, closing time 11 s.
Inlet: flange DN25/PN40 with a groove; outlet: flange DN25/PN40 with a spring

**Expansion system with a rupture disc, contact pressure gauge and expansion tank**
Under the influence of heat, liquid chlorine expands considerably, creating extremely high pressure. Therefore, all pipeline systems for liquid chlorine must be fitted with a relief system.
Rupture disc DN25 / Monel / 22.5 bar; contact pressure gauge 0 – 40 bar / Ø 63 mm
Inlet 1” NPT internal or external (T-piece included in the scope of delivery)
Expansion tanks available in different sizes

**Pressure gauge for chlorine gas**
0 – 16 bar / Ø 100 mm; 1x max-separator contact
Various measuring ranges, nominal sizes and design with electrical contacts
The Lutz-Jesco App for iPads and iPhone is available from the iTunes App Store. Further information on this can be found at www.lutz-jesco.com