



# Chlorinators

up to 200 kg/h

Product range



safety is our concern

# Water is precious!

**We give water  
quality appropriate for its use.**



Increasing demand for water in public, industrial and domestic applications renders water treatment that makes water suitable for reuse a growing imperative. As the last stage in the treatment process, disinfection is particularly important.

Reliable dosing systems are necessary for responsible addition of disinfectants to water. Through research and development, Lutz-Jesco has created system solutions in this field that set international standards.

For the disinfection of drinking water, swimming and wading pool water, process water, cooling water and waste water, different methods are used. These differ in their technical design and the type of chemicals used. Due to their simplicity of use and reliable properties, chlorine and chlorine compounds have been used successfully in water treatment for decades.

We have specialised in chlorine gas dosing technologies. However different the requirements are, our comprehensive range of well-proven units can deliver doses of chlorine gas under vacuum conditions, or liquid chlorine compounds.

With their matching components, from chlorine dosing to analysis and warning devices, Lutz-Jesco chlorination systems meet all modern system requirements. They are distinguished by their reliability and repeated dosing accuracy.

Our systems are designed according to DIN 19606 and ensure optimum water quality through precisely measured disinfection. We use our know-how and experience to find the best solution - technically and scientifically.

The quality of our precision equipment and our expertise are vital to our customers' success worldwide.



**Chlorine application**

**4**

**Chlorine dosing system**

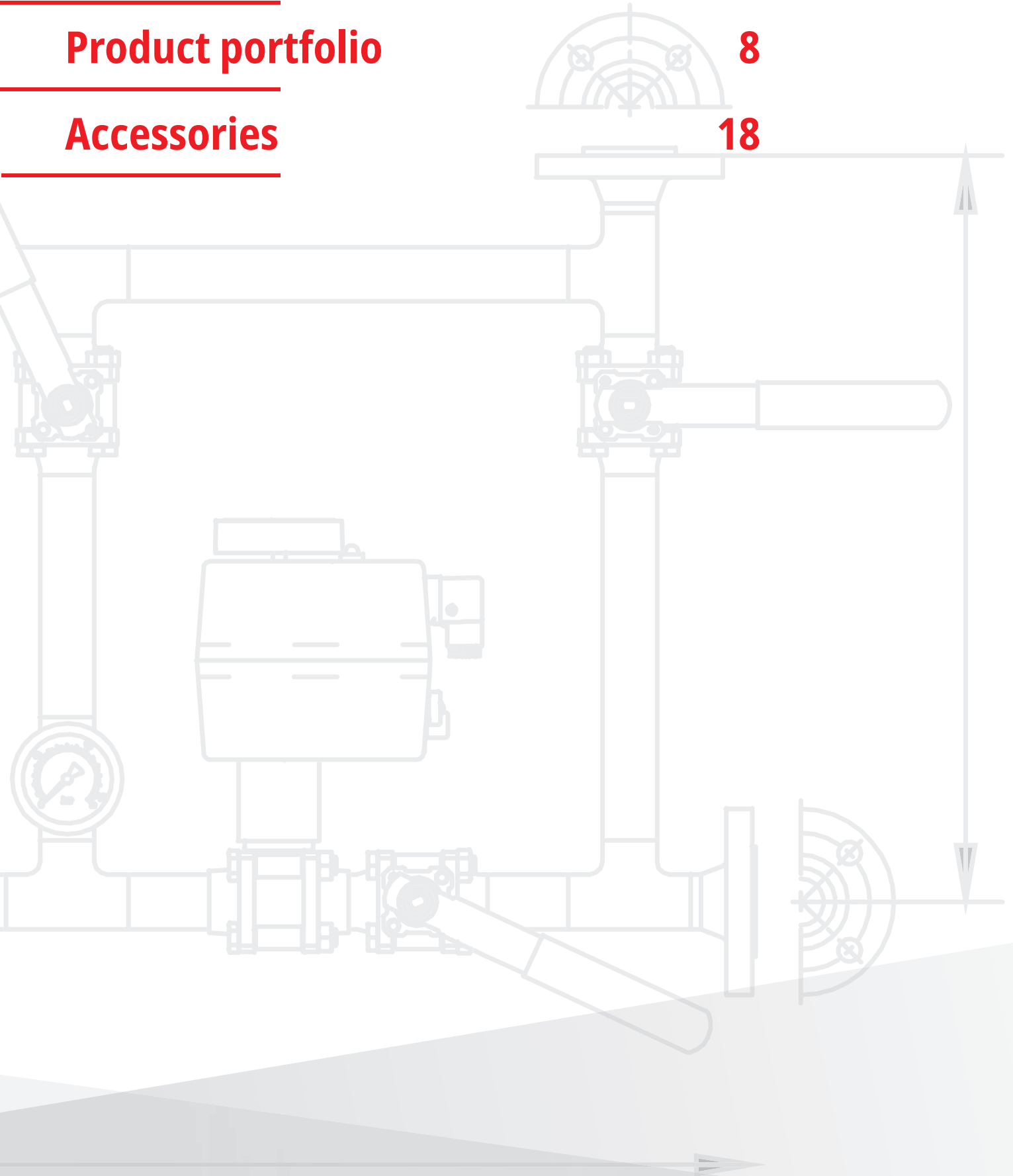
**6**

**Product portfolio**

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**Accessories**

**18**





# Chlorine application with a system

## Mature, safe, proven

Chlorine and chlorine compounds have been used successfully in the field of water treatment for many decades. Lutz-Jesco offers you a comprehensive programme of proven units and modern chlorination systems for the reliable, precise dosing of chlorine gas and chlorine compounds.

Dosing, analysing and warning devices are perfectly coordinated. Chlorinators from Lutz-Jesco comply with the safety regulations according to DIN 19606 through vacuum technology.

- User-friendly
- Makes operation easier
- Increases the accuracy of dosing
- Increases operating safety
- For an optimum degree of automation

## Modular disinfection

The C 2526 and C 2701 chlorinators all have a clear modular structure. Whether as a compact unit with all functions in a free-standing cabinet or a wall-mounted unit - you always have a reliable vacuum system at your disposal.

- Can be used up to 200 kg  $\text{Cl}_2/\text{h}$

## Dosing without breaks

Do you want it automatically right? Then the C 7520 and C 7522 are the perfect devices for you: Automatic changeover valves for uninterrupted chlorine gas supply. Microprocessor-controlled and motorised. Equipped with relay contacts for remote monitoring.

- C 7522: Vacuum version up to 100 kg  $\text{Cl}_2/\text{h}$
- C 7520: Pressure version up to 200 kg  $\text{Cl}_2/\text{h}$



## Safe and reliable

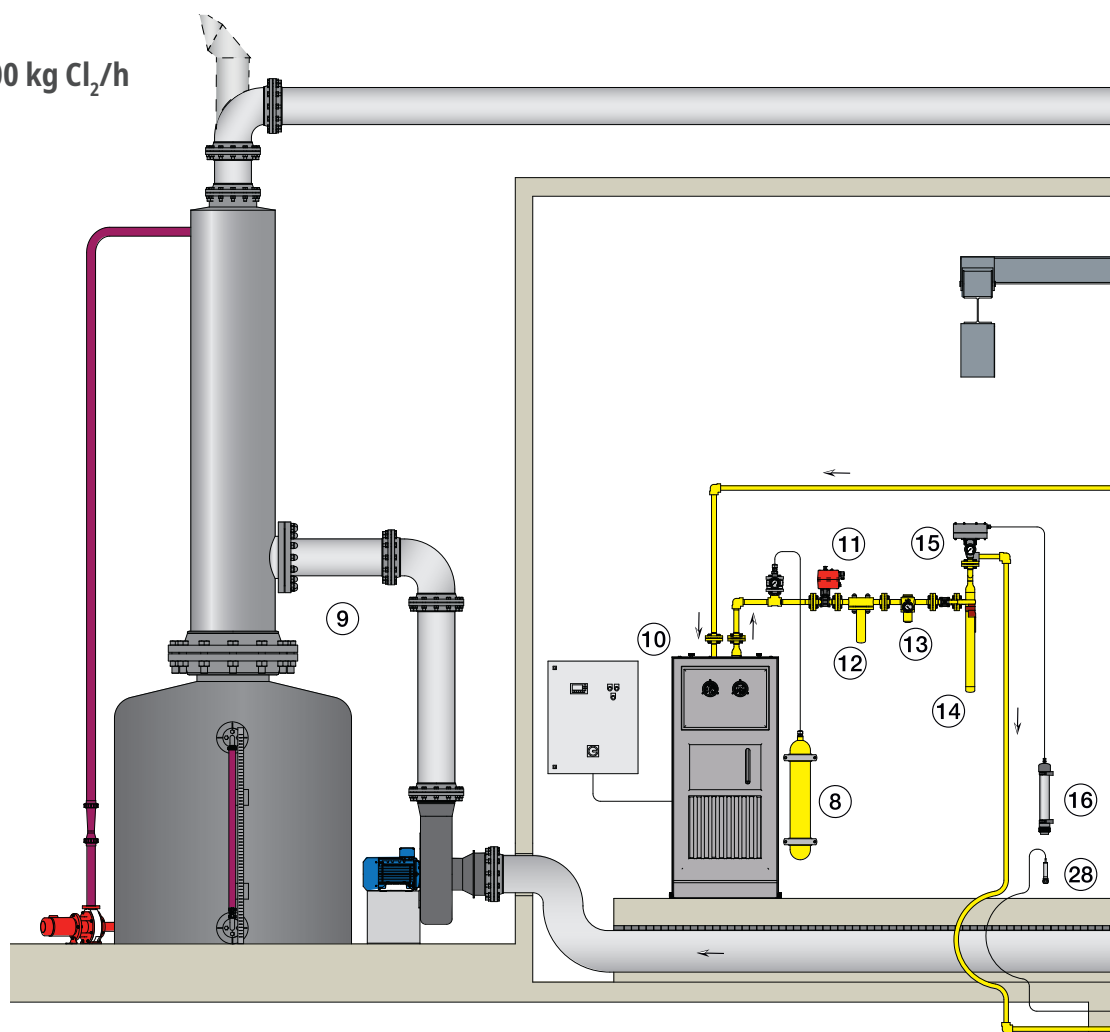
Would you like a little more? With the chlorine evaporator C 6100 you can generate up to 220 kg  $\text{Cl}_2/\text{h}$ . The liquid chlorine is vaporised from the chlorine drums in a evaporation coil located in a heated water bath.

# Chlorine applications with a system

**Example of a chlorinator with gas extraction of up to 200 kg Cl<sub>2</sub>/h with chlorine evaporator**

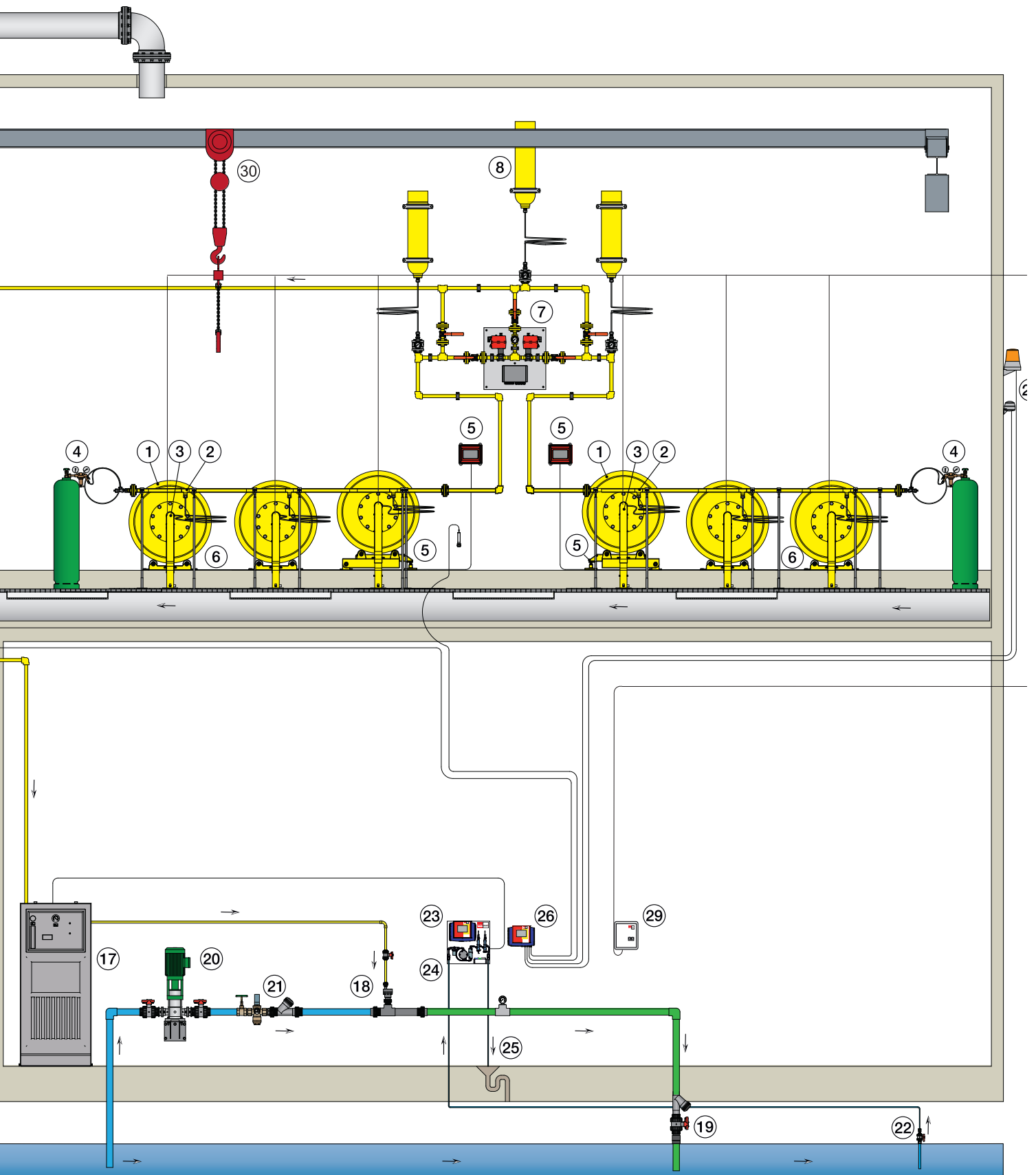
← Flow direction  
 Chlorine line  
 Chlorine solution line  
 Signal line  
 Water line

Note: The above schematic diagram (including key) is an example of a system from Lutz-Jesco GmbH and does not form part of an offer or an order confirmation.



| Item | Description                              |
|------|------------------------------------------|
| 1    | Chlorine tank                            |
| 2    | Collecting pipe with flexible lines      |
| 3    | Valve closing system                     |
| 4    | Nitrogen flushing device                 |
| 5    | Container scales with digital display    |
| 6    | Drum bases                               |
| 7    | Electrical chlorine changeover unit      |
| 8    | Expansion vessel with rupture disc       |
| 9    | Gas scrubber                             |
| 10   | Chlorine evaporator with control cabinet |
| 11   | Motor ball valve                         |
| 12   | Chlorine gas filter                      |
| 13   | Pressure reducing valve                  |
| 14   | Moisture eliminator with heating collar  |
| 15   | Vacuum regulator                         |

| Item | Description                                       |
|------|---------------------------------------------------|
| 16   | Activated carbon cartridge                        |
| 17   | Chlorinator                                       |
| 18   | Ejector with non-return valve                     |
| 19   | Injection nozzle with non-return valve            |
| 20   | Motive water pump                                 |
| 21   | Motive water set                                  |
| 22   | Sample water extraction                           |
| 23   | Measurement and control technology                |
| 24   | Water Sampling Station                            |
| 25   | Water outlet                                      |
| 26   | Gas warning device                                |
| 27   | Alarm horn and hazard warning lamp                |
| 28   | Gas sensor                                        |
| 29   | Control cabinet for pressure safety shutoff valve |
| 30   | Crane with beam traverse for chlorine tank        |



# Chlorine gas vacuum regulator

The current state of the art in chlorinators is vacuum operation. This ensures that the highest safety requirements are met when handling the toxic medium chlorine. As vacuum regulators, the C 2525-V, C 2560-V and C 2700-V fulfil a key function in the operation of chlorinators.

## C 2525-V

- Flow rate chlorine gas: up to 25 kg/h
- Safe operation with vacuum technology
- Integrated safety blow-off valve
- Highly durable materials
- Optional manometer



## C 2560-V

- Flow rate chlorine gas: up to 60 kg/h
- Safe operation with vacuum technology
- Integrated safety blow-off valve
- Highly durable materials
- Optional manometer



## C 2700-V

- Flow rate chlorine gas: up to 200 kg/h
- Safe operation with vacuum technology
- Integrated safety blow-off valve
- Highly durable materials
- Optional manometer

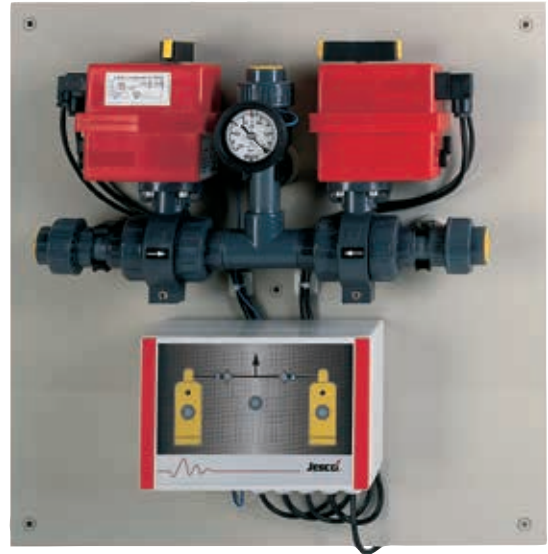


# Electric vacuum changeover switch

Mounted on a wall mounting plate, the C 7522 can be used anywhere. The two servomotors allow manual intervention in an emergency. After an automatic switchover, the C 7522 later switches over briefly for residual emptying, thus ensuring that the gas containers are completely emptied. If demand increases suddenly, it is possible to use both gas container batteries simultaneously for a short time. In the event of an alarm, both valves can be closed.

## C 7522

- to 100 kg Cl<sub>2</sub>/h
- Panel-mounted version or as a mounting set
- Residue discharge
- Burst mode
- Control with indication of operation
- 5 relays for remote signalling
- Manual changeover via key press



## C 7523

- Capacity stages 4 kg Cl<sub>2</sub>/h - 80 kg Cl<sub>2</sub>/h
- Residue discharge
- Control with indication of operation
- 5 relays for remote signalling
- Manual changeover via key press



# Chlorwache Valve Closing System

The valve closing system Chlorwache has the task of interrupting the chlorine gas supply or the chlorine gas leakage directly from a chlorine tank immediately after a chlorine alarm.

- Interruption of the chlorine gas supply directly from a chlorine tank valve
- With control for simultaneous closing of up to 8 valves
- Simple start-up
- Low maintenance effort
- With pressure tank (optional)
- With compressor (optional)



# Pressure chlorine changeover unit

Chlorine gas dosing systems in a water treatment system must be permanently ready for use so that the water can be sufficiently disinfected at all times.

The systems are therefore set up with two supply batteries - one side in operation, the other on standby.

## C 7520

- Capacity range of up to 200 kg/h chlorine gas and up to 1400 kg/h liquid chlorine
- Control with indication of operation
- Relay for remote indication
- Manual changeover via key press



## C 7524

- Capacity range up to 40 kg/h chlorine gas and up to 200 kg/h liquid chlorine
- Residual emptying (optional)
- Control with indication of operation
- 5 relays for remote signalling
- Manual changeover via key press





# Chlorinator

Vacuum chlorinators are used for water disinfection in waterworks, cooling towers and treatment plants for process water. All these uses require automated chlorinators

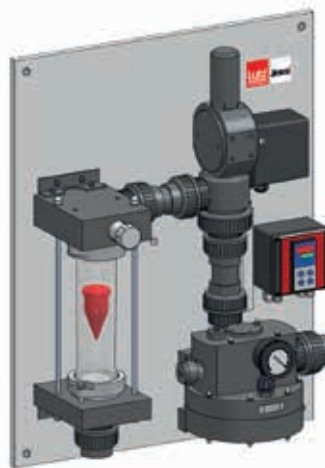
## C 2526

- Dosing up to 25 kg Cl<sub>2</sub>/h
- Vacuum technology compliant with DIN 19606
- Flow meter
- Highly chemical-resistant materials
- Chlorine gas control valve (optional)
- Signal converter (optional)
- Back-pressure regulator
- Vacuum meter



## C 2701

- Dosing up to 200 kg Cl<sub>2</sub>/h
- Vacuum technology compliant with DIN 19606
- Flow meter
- Highly chemical-resistant materials
- Chlorine gas control valve (optional)
- Signal converter (optional)
- Back-pressure regulator
- Vacuum meter



# Chlorine evaporator

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.

## C 6100

- Evaporator output of up to 220 kg Cl<sub>2</sub>/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



# Ejectors and ejector non-return valves

In vacuum chlorine gas dosing systems the vacuum is generated by ejectors which operate on the principle of a liquid beam gas compressor. With this type of pump, in addition to generating the vacuum, a mixture of chlorine gas and water is also created.

## Ejector

- Standard ejectors for up to 60 kg Cl<sub>2</sub>/h
- Large ejectors for max. 100 or 200 kg Cl<sub>2</sub>/h
- Material: PVC-U
- Easy to install in pipes
- No wear parts



If the motive water supply to the ejector is interrupted, the full motive water pressure is present at the suction nozzle of the ejector. Ejector non-return valves prevent water from entering the vacuum line of the chlorinator.

## Ejector non-return valve

- Capacity stages up to 200 kg Cl<sub>2</sub>/h
- Max. pressure stage PN 16
- Simple assembly onto ejectors
- Low opening pressure



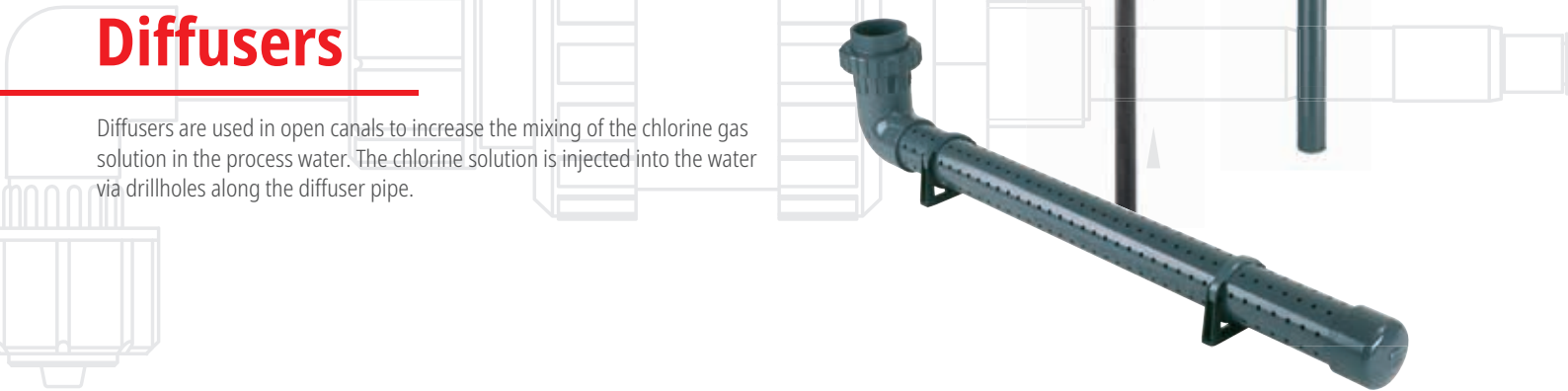
## Injection nozzles

- The injection pipe (type I) enables the spraying of the chlorine solution in the centre of the pipe line, and ensures good mixing
- The non-return valve (type R) prevents fluids from the pressurised system from flowing back into the ejector.
- The shut-off valve (type A) enables the dosing system to separate from the pressurised system and provides a secure shut-off during longer downtimes



## Diffusers

Diffusers are used in open canals to increase the mixing of the chlorine gas solution in the process water. The chlorine solution is injected into the water via drillholes along the diffuser pipe.



## CondiChlor

The dosing of chlorine gas places high requirements on the machinery and materials. If your chlorinator does not fulfil these high standards, this can result in malfunctions and device standstill. This can result in device downtime and the endangerment of persons, even if much effort is invested in the planning and set-up.

### CondiChlor 10K, 25K or 40K

The CondiChlor takes over the tasks of three chlorinators:

- Collection of liquid chlorine from the chlorine gas tank for vaporisation with constant heat supply
- Filtering impurities from the chlorine gas
- Reduction of the chlorine gas pressure to prevent reliquefaction of chlorine gas



## Heating collar

- This provides security against the reliquification of chlorine gas
- For the removal of liquid chlorine droplets in overpressure lines
- Suitable for piping, as well as moisture eliminators, chlorine gas filters and the CondiChlor
- Flush contact with the pipe surface to be warmed.
- Protected against moisture
- Long service life



## Chlorine gas control valve

The C 7700 chlorine gas regulation valve can be used for the proportional or controlled dosing of gases. Its simple wall mounting and compact form mean that it can be deployed everywhere.

### C 7700

- Flow rate with chlorine gas: up to 200 kg/h
- 3-Point step or 4 – 20 mA control
- Linear characteristics
- Mounted on a wall panel
- Manually arrestable at 100 % opening
- Optionally with flow meter and signal converter

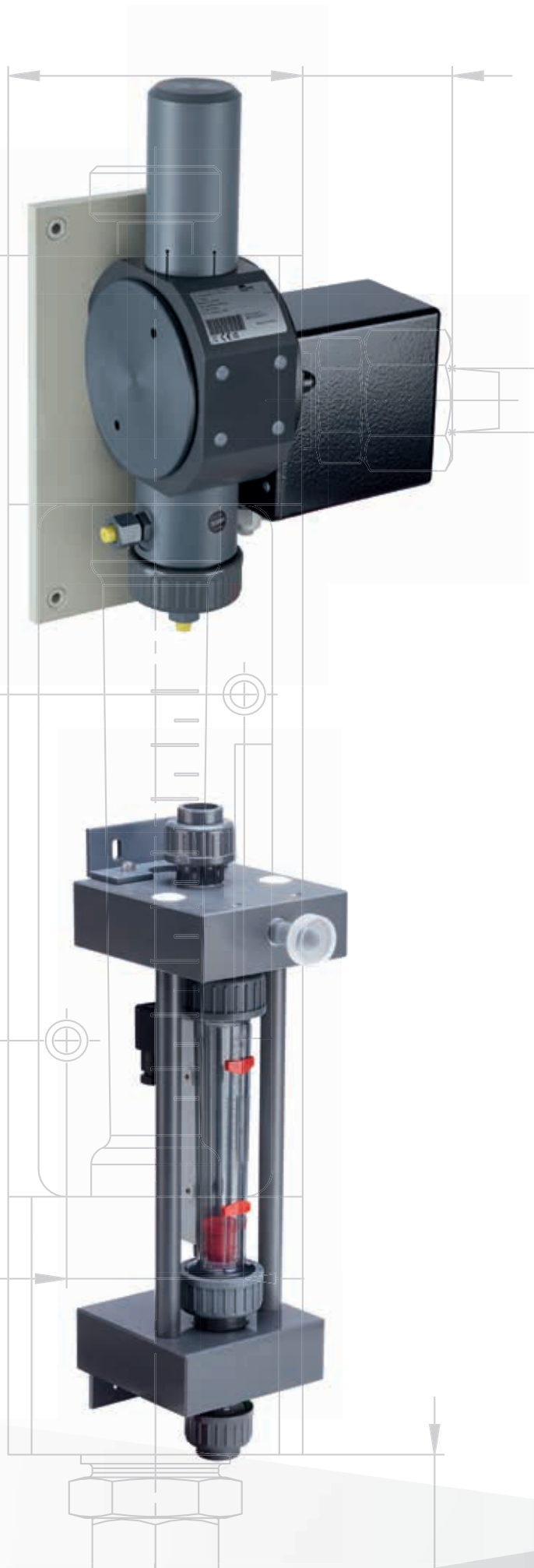
## Flow meter

The scale of the measuring tube of the Lutz-Jesco flow meter is designed as standard for the flow of chlorine gas under standard conditions (0.9 bar absolute at 20 °C).

- Up to 200 kg/h with different measuring tube lengths
- High measuring accuracy
- Local display
- Without auxiliary power
- Simple and maintenance-free design
- Measuring tubes made of borosilicate glass

### With transmitter

- Up to 200 kg/h with different measuring tube lengths
- Measuring tubes made of transparent PVC-U
- Remote signalling of the float position via analogue signal
- Simple and maintenance-free design





## Gas warning device

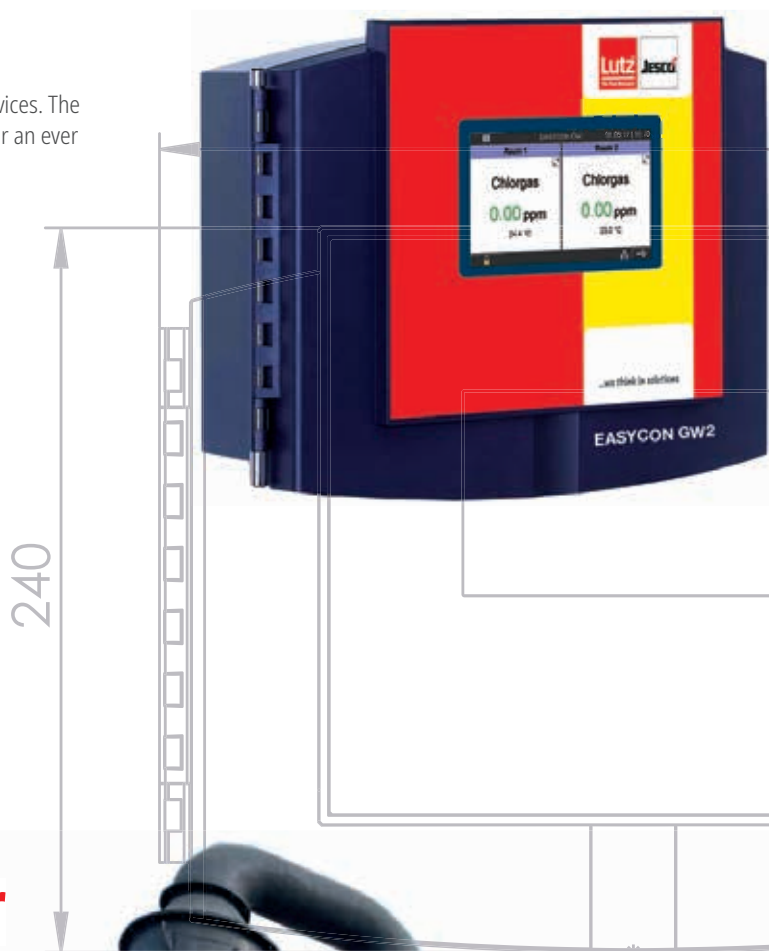
The EASYCON GW is Lutz-Jesco's latest generation of gas warning devices. The progressive development of the semiconductor technology makes for an ever more precise and faster sensor and measurement process.

### EASYCON GW

- For use with chlorine gas, chlorine dioxide and ozone
- Compact wall casing
- Up to 4 sensors and additionally up to 4 temperature sensors
- Two alarm thresholds freely-settable per alarm sensor
- 3 – 9 potential-free relay outputs
- 4 Analogue outputs 0/4 – 20 mA
- Large colour touch-display
- Data is saved on a USB flash drive

### Accessories:

- Signal horn
- Red flashlight or orange flashing light
- Chlortest
- Back-up Power Supply



## Chlorine gas scrubber

In chlorine supply rooms in which the chlorine is extracted from numerous chlorine drums, a water spray system is unsuitable for knocking down the chlorine in the event of a chlorine gas outbreak. Gas scrubbers are used instead. These devices draw in the room air contaminated with chlorine gas and clean the air with an absorption liquid.

- for 1000 kg  $\text{Cl}_2/\text{h}$
- Version as 1- or 2-stage vertical packed scrubber



# Room and protective equipment

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Everything for the complete chlorine room

## Auxiliary equipment

- Container fastenings for bottles
- Crane trolley for fixing the container contents
- Room heatings
- Ammonia solution

## Personal protective equipment

- Self-contained breathing apparatus (SCBA)
- Full face respirator
- Protective clothing
- Full Body Shower
- Eye shower

## Safety equipment

- Water spray systems for precipitating chlorine in the room air
- Signs (warning signs, brief operating instructions)
- Body and eye showers
- Emergency kits for chlorine cylinders or drums

# Accessories

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Even the best chlorinator can still be improved - namely by the right technical periphery. This is also the reason for the particularly extensive range of accessories from Lutz-Jesco. This enables you to turn your chlorinator into an efficient dosing system.

- Chlorine drum up to 1000 kg
- Pressurized manifold
- Flow sight glass
- Auxiliary chlorine valve
- Nitrogen flushing device
- Container scales with digital display
- Drum support
- Expansion system
- Motor ball valve
- Chlorine gas filter
- C 7110 and C 7105 pressure reducing valve
- Activated carbon cartridge
- Motive water pump
- Motive water set
- Sample water extraction
- Water sampling station
- Alarm horn and hazard warning lamp
- Crane with beam traverse for chlorine tank



Order no. P0004EN | State of the art 10.2024 | Subject to technical changes

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