



## Manual control (S920)

This control system is built into the front of the CO<sub>2</sub> scrubber. It does not contain a measurement system for O<sub>2</sub> and CO<sub>2</sub> and is usually used for control by third parties. It can, however, also be used for manual operations. The S920 controls the cell valves and all other valves in the CO<sub>2</sub> scrubber. You can set:

- duration of absorption;
- duration of regeneration;
- duration of emptying/filling lung;
- scrub action interval;
- settings per cell.

## Auto ULO control system (S950)

The Auto ULO control system, or the S950 control, is distinct from all current systems because it is built into the front of the CO<sub>2</sub> scrubber. The system was developed by VA and does not use measurement hoses but takes gas samples in the CO<sub>2</sub> scrubber. This makes the system very reliable and cheaper than a central control system. The only limitation is that an Auto ULO control cannot control more than one CO<sub>2</sub> scrubber and can condition a maximum of 20 cells.

## The central control system (S930)

Our central control system, the S930, is ready for the future. If you wish to expand your chilled area in the future, we can add one or more scrubbers easily and relatively cheaply. Gas analysis takes place centrally. Measurement hoses for taking gas samples are installed for each storage area and are connected to the central measurement cabinet. The S930 can control a maximum of 40 storage cells.

## Software for S930 and S950 control systems

Both the S930 and the S950 processors are fitted with CA/ULO software, as standard. This basic control is characterised by:

- Measurement and registration of O<sub>2</sub> and CO<sub>2</sub> levels;
- Setting interval times for gas measurement;
- Automatic control of CO<sub>2</sub> scrubber if CO<sub>2</sub> is too high;
- Automatic aeration if O<sub>2</sub> level is too low;
- Automatic N<sub>2</sub> administration if the O<sub>2</sub> level is too high;
- Fully automatic calibration;
- A comprehensive alarm system (machine alarm, calibration alarm, alarm for deviant gas conditions);
- Optional: UniCool, a comprehensive software programme for your PC.

In addition, S950 en S930 processors can be equipped with the following software modules:

- Measuring and registering temperature per storage cell;
- Controlling cooling on cell level or controlling a monitoring thermostat;
- The measurement of moisture loss (water meters), controlling humidification units and measuring relative humidity per storage cell;
- Aeration on basis of CO<sub>2</sub> levels;
- Injecting CO<sub>2</sub> (only S930);
- Controlling an extra CO<sub>2</sub> scrubber (max. 8, only S930);
- Controlling an extra O<sub>2</sub> scrubber (max. 8, only S930);
- Alarm for cooling-system leaks;
- Controlling entire central cooling unit (max. 4).







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23

## Our gas analysis equipment: sensitive and reliable

*Van Amerongen provides a range of gas analysis equipment. This primarily concerns O<sub>2</sub> and CO<sub>2</sub> meters. We have portable, manual meters and also meters that are built into the control system. The O<sub>2</sub> meters have a paramagnetic sensor or a galvanic cell. Our CO<sub>2</sub> meters are all dual-wave infrared sensors.*

## Standard built-in O<sub>2</sub> and CO<sub>2</sub> meters

Our built-in O<sub>2</sub> and CO<sub>2</sub> meters actually comprise two printed circuit boards onto which the sensors are clicked. The sensors are therefore very easy to replace, despite the fact that they are built-in. The O<sub>2</sub> meter is equipped with a galvanic cell. The CO<sub>2</sub> meter is equipped with a dual-wave infrared sensor which gives very stable measurement values and, therefore, is not particularly sensitive to temperature fluctuations and time. The CO<sub>2</sub> sensor is available for a range of 0-10% and 0-30% CO<sub>2</sub>.

## O<sub>2</sub> manual meter

This manual meter is intended for manually checking O<sub>2</sub> levels. The meter has a pump for sucking air out from the storage cell through a measuring tap. To save batteries, the instrument automatically switches itself off after 1 minute. The electronic measurement cell is extremely stable and is not affected by the position of the equipment or chemical reactions. The cell can be replaced easily without any soldering work being required.

## Manual meter for O<sub>2</sub> and CO<sub>2</sub>

This manual meter, available in various varieties (brand, type and range), is used for manually controlling gas conditions in storage cells but, with a minor technical adjustment, can also be built in. An extremely stable electronic cell or paramagnetic sensor is used to measure the O<sub>2</sub>, the read out is not affected by the position of the meter and it responds very rapidly. The displays are, automatically given to two decimal places if the O<sub>2</sub> and CO<sub>2</sub> levels are lower than 5% and 2% respectively. The meter has outputs for indicating a reduced gas current or low voltage. These alarms are read out by the control system if the meter is built in.

## Personal oxygen meter

The personal oxygen meter has been especially developed for personnel who work with ULO storage on a day-to-day basis. The meter gives out a 90dB audio signal and a red/green light signal if oxygen levels are dangerously low. The meter has a range of 0-30% oxygen and is calibrated using a two-point measurement. This helps ensure your safety and that of your personnel.





Your dealer

