

## Description of function



**External dimension:**            **W = 1000 mm**  
    **D = 600 mm**  
    **H = 520 mm + metering**

**pumps**

**Capacity:**                            **400 l / h**

The chemically contaminated wastewater is collected in the wastewater storage tank and fed into the neutralisation system through a pump and solenoid valve. Level sensors control and monitor the filling level ("min", "max", "alarm") in the waste water storage tank and in the neutralisation tank and also prevent the pump from running dry.

When the maximum filling level is reached in the neutralisation tank, the inlet valve is closed. At the same time, the mixing/channel pump of the neutralisation system is switched on. Now a circulation in the neutralization tank starts, to ascertain an accurate pH measured value (adjustable). After the predetermined time and reaching the set pH value, pumping is carried out into the sewage.

A pH electrode in the intake pipe of the special pump continuously determines the pH value. This is visibly displayed digitally on the switchboard.

If the neutral pH value is not reached after the circulation time, lye or acid is added by electromagnetic diaphragm dosing pumps from 25 - 140 litre containers. To keep the consumption of lye and acid as low as possible, the lye and acid line leads directly into the mixing circuit. By permanently measuring the pH value and adding lye or acid at intervals, the feared overturning is avoided.

A pH combination electrode in the suction line of the mixing channel pump constantly determines the pH value. This is visibly displayed digitally on the control cabinet. Once the neutral pH value is reached, a variably adjustable remixing time takes place. Afterwards, the neutralised waste water is pumped into the discharge pipe.

The pump switches off after reaching the minimum filling level.

The entire operating process repeats itself **independently and fully automatically**, depending on the inflow quantity. If the setpoint is undercut or exceeded during pumping into the discharge pipe, the neutralisation process takes place again as described.

If the setpoint cannot be reached within an adjustable dosing time, an optical and acoustic alarm message is given and the process is interrupted.

External Alarm messages can be forwarded via a non-floating (230 V / 50 Hz) or potential-free contact.

# Neutralization System Aquaclean

# TC 105

## process flow diagram

