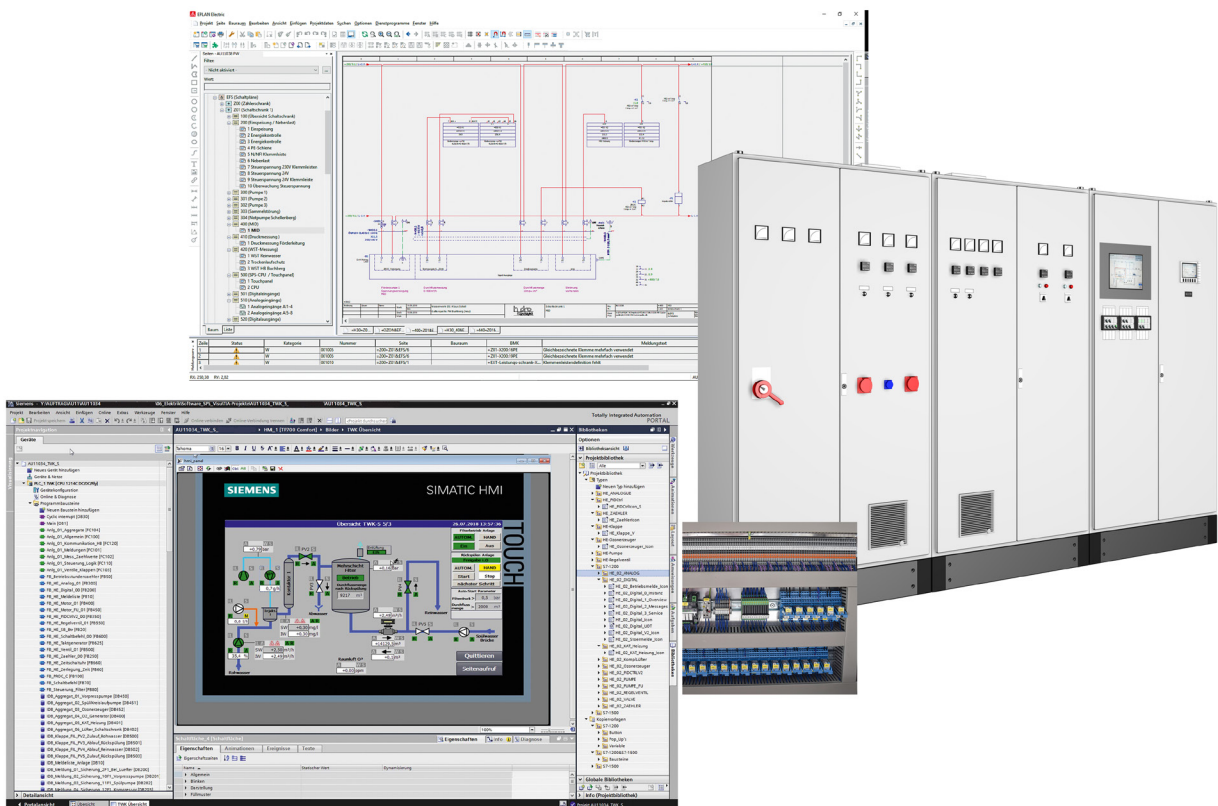




## Systematic Solutions for the Control Technology

**Engineering, Software, Hardware**



## Design

Our engineers and technicians have decades of experience in plant automation. Especially in the field of water-technical systems such as water treatment and water supply/disposal, we have been implementing modern and future-oriented automation and control systems for more than 40 years. Further areas are process and process engineering. Further areas are process and plant engineering.

Within the scope of our range of services, customer-specific requirements and wishes always in the Foreground. We develop the resulting system solutions on the basis of open and modular Systems. This ensures that your requirements for an optimal solution.



Central control cabinet in a waterworks

**Technology** Our independence from manufacturers guarantees economical and task-oriented solutions. The use of common norms and standard ensure open solutions which leave you room to change in the future.

**Competence** The co-operation between our teams for hardware/software engineering, control cabinet construction and installation of electrical equipment leads to complete solutions from one source. We understand ourselves as suppliers of systematic solutions who solve the task set from the project analysis to the start-up and furthermore accompany the plant throughout its entire life cycle. Our plants are therefore maintained and serviced by our own personnel and/or particularly trained operating staff.



Control center in a waterworks



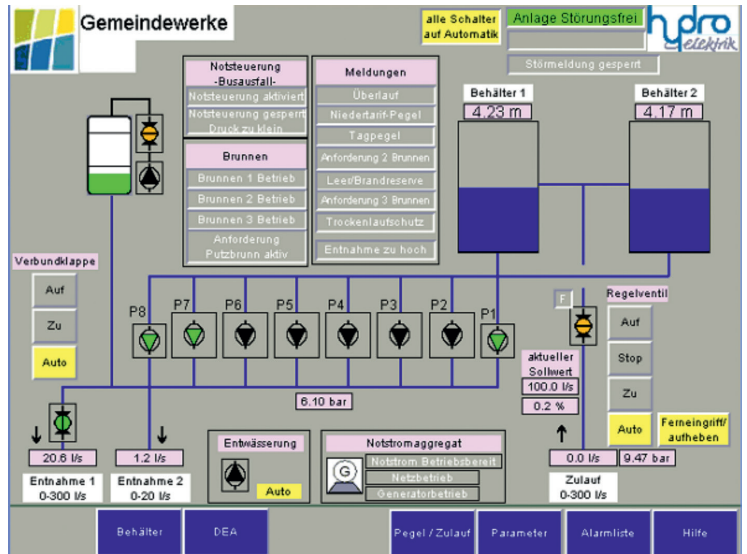
Ozone generator

## Programming

Software off the peg is available inexpensively for almost all the applications on the market. However, these standard packages are limited to standard applications. Customer-specific requirements can usually not be taken into consideration.

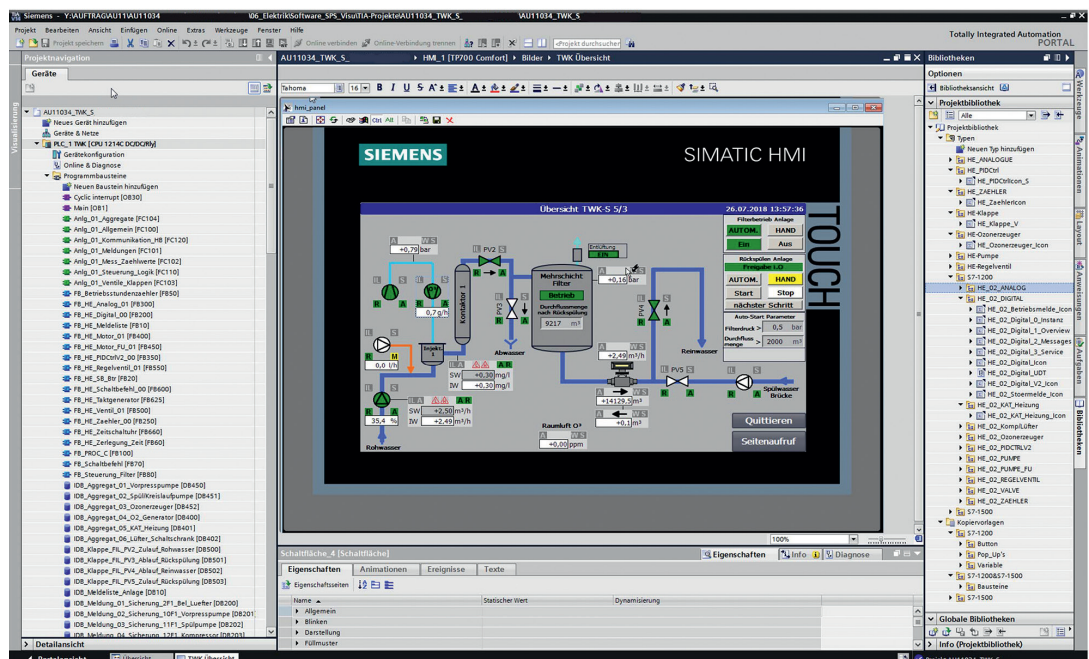
**Services** This is where Hydro-Elektrik takes over. Together with you our specialists elaborate requirement profiles customised to you. These form the basis for the complete software engineering of an overall project.

The spectrum ranges from the control software for the programmable logic controllers (PLC), through the programming of visualization systems to the realisation of complex control systems. Hydro-Elektrik bears the completely responsibility for a project from an idea to its implementation.



Programming/adaptation of visualisation systems and operating units according to customer requirements (e.g. touch panel)

- Features**
- Cost reduction, coordination between different companies is not required.
  - Clear responsibility, no losses through interfaces
  - Only one responsible person



Programming/adaptation of control systems

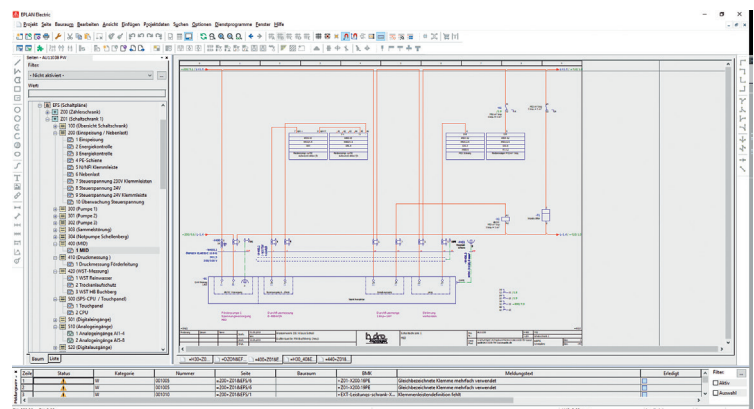


## Circuit Diagram Creation/Control Cabinet Construction

The implementation of the control sequences defined in the software requires electrical power components such as contactors, protective switches, electronic actuators, power circuit-breakers, etc. Our experienced planners draw up object-specific circuit diagrams, conforming to standards by means of modern ECAD systems. On the basis of these circuit diagrams high-quality control cabinets/plants are manufactured and inspected individually.

The direct interlinking of programming, circuit diagram creation and control cabinet construction results in the maximum of dependability, functional reliability and quality.

**Advantage** The close link between manu-facturing and design ensures that projects are realized in short times. This reduces costs and guarantees planning reliability with respect the completion on schedule of the comple-te plants. Our customers receive de-tailed documentations.

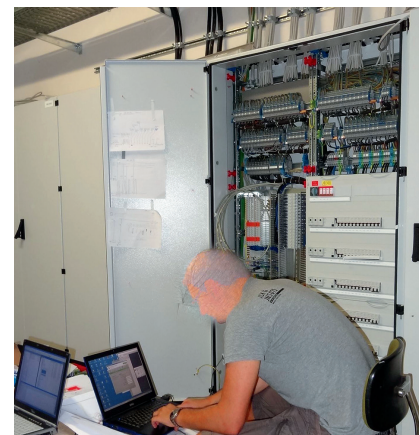


Circuit diagram creation

### Installation/ Start-up



Assembly of a switchgear by our employees



Initial start-up

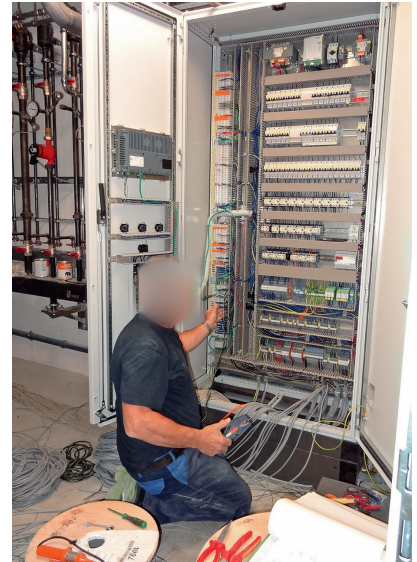
The plants are connected and started up by our employees.

**High quality, flexibility, experience of many years and competent employees as well as our certification in accordance with DIN ISO 9001 makes us your optimum partner.**

## Installation of Electrical Equipment / Starting-up

Our qualified personnel mounts complete switchgears and controlgears - from the power supply to the connection of the external units.

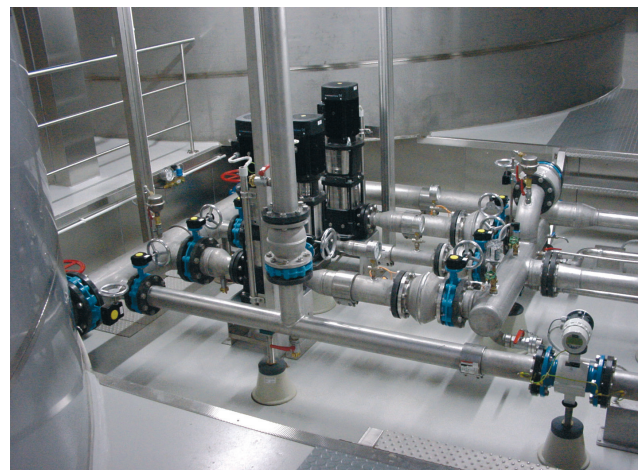
Safety tests as well as a qualified start-up phase with instruction of the operating personnel are obligatory. Extensive detailed documentations are drawn up and delivered for all the objects.



### Example



Pressure booster system with frequency converters



Tapping quantity measurement with pressure booster system

## Service

We are there for you round the clock, ensuring that rapid „first aid“ is also available in case of an emergency. Extensive stockkeeping ensures that the most important components are always available. Our service personnel is responsible for the fault elimination service and primarily also for the preventive maintenance of plants and automation systems.



Hardware stock



Car pool

### Scope of services

- Telephone hotline (7d/24h)
- Telephonic support in eliminating faults
- On-line monitoring in case of implemented remote control systems
- Fault elimination and repairs
- Preventive maintenance and maintenance of electrical plants
- Annual inspections
- and much more...