



Environmental Technology





## From Dingolfing out into the world

SAR Elektronic GmbH is an owner-managed, medium-sized company founded in Dingolfing in Lower Bavaria in 1985. As a result of constant growth, first branch offices were opened in Germany, with more in Europe and beyond.

Today, the company, with more than 600 employees and seven specialist departments, offers pioneering automation solutions for industrial production and process and environmental technology from a single source.

Whether as a general contractor or subcontractor, with SAR, you can rely on the strength and experience of a medium-sized company with flat hierarchies. Our actions are based on extensive experience and founded expert knowledge.

With great commitment, we offer our customers functioning and sustainable solutions that also take ecological and economic aspects into account.

## Specialist department Environmental Technology

We regard orientation towards the latest state of the art, accompanied by practice-oriented research and development, as a basic prerequisite for being able to face the constant challenges of the market with confidence. Another prerequisite is the many years of contact with our customers after the project is completed.

They often provide essential impulses which result in an expansion of our range of products and services. We also actively promote the exchange of experience and are involved with a variety of associations and committees.

The constantly growing number of customers proves our philosophy works.

The term "unique selling point" is often used in company profiles. What makes *Environmental Technology* stand out against its competitors? What is our unique selling point?

We believe our unique selling point is not focusing specifically on the problem at hand, but rather seeing it as a whole and understanding how it relates to process technology.

Having access the chain of services from a single source, while also involving and communicating with participating trades is an additional selling point.

## Range of Environmental Technology products and services

The range of products and services is continuously being developed, partially as a result of requirements and requests from our clients from industry and municipal associations.

They demand powerful and transparent automation solutions, always based on the latest state of the art in order to face current and future challenges in the long term.

Furthermore, our clients have to optimally link their system ecology and economy when implementing automation technologies. In this respect, you profit from our competence in process and environmental technology.

From design to implementation, maintenance and training, you will receive all of the services from the disciplines of process automation, electrical and control technology, instrumentation and control technology.

We automate systems for thermal waste treatment with a combined power and heat supply. In addition, we will provide you with automation solutions for alternative fuel, biomass and industrial power plants along with their specific ventilation and flue gas cleaning systems. Our expertise in water treatment and waste water cleaning for industrial plants is also in demand.

### Consulting – Competent consulting makes decision-making easier!

We can draw on comprehensive experience and numerous comparable projects. Incorrect decisions and developments that would otherwise have to be corrected at a high (financial) cost are avoided.

### Engineering – Basic and detailed engineering in house!

Process and installation-related planning requires in-depth specialised knowledge, an understanding of process technology and close cooperation and involvement of all parties involved in the implementation. Keeping this chain of service in your own hand has proven to be effective for years. Both when planning new systems and modernising and optimising existing systems.

### Control technology – Automation tech., process control technology, production data acquisition and long-term archiving!

The planning and installation of automation technology as well as control systems are the focal point of our range of services for power plants, power generation plants and their ancillary systems. Due to our competent, in-house project managers and qualified installation technicians, we ensure flexibility, punctuality and compliance with the power plant-specific quality standards. In addition SAR also offers tailor-made concepts for recording operating data and long-time archiving.

### Virtualisation – Efficiently used IT infrastructure as a basis for modern process control technology!

Virtualisation decouples the operating system and application from the computer hardware. Energy and space are saved, systems can be quickly and cost-effectively expanded and central maintenance makes updates and service easier.

### Energy data management – Comply with statutory framework conditions while lowering operating costs!

We offer a combination of IT and energy technology from one source. The SAR energy management system collects and compresses data, maps cross-location structures, provides graphical evaluations, creates reports and with the SAR EMS dashboard, you always have an overview.

### Electrical engineering – UPS plants and switching systems for all voltage ranges!

The planning and installation of low and medium-voltage systems round out our range of products and services. Specialists from SAR design the system and coordinate the sub-suppliers. Experienced installation technicians perform the assembly, even in the medium-voltage range.

### Combustion control system – Optimum combustion results with max. energy efficiency and minimum emissions!

The combustion control system SAR-CCS developed by SAR reached market maturity more than 20 years ago and is now successfully in use in more than 100 combustion lines. This wide range of tasks allows our customers to profit from a comprehensive pool of experience while optimising your combustion processes and newly erected plants.

SAR-CCS is continuously under development based on practical experience while taking the latest findings from research and development into account. The control concept is designed to be transparent and easy to understand. A philosophy that all of our developments feature.

### Optimisation – a continuous process!

The operation of a process facility is designed for a cycle of a least 20 to 30 years. Changes in the legal framework conditions during that period, the desire to increase the plant's availability, performance and fuel usage while minimising wear and tear are only a few reasons for necessary changes, optimisations and updates.

Implementing new technologies in an existing system poses special challenges considering the ever shorter downtime and preparation times. Only with conscientious preparation and execution by experienced specialists can these objectives be reached to the satisfaction of everyone involved.

### Sensors & actuators – Knowledge of the market and manufacturer independence as a guarantee for the right sensors and actuators!

According to the projected functional requirements, we combine electrical and MSR components into a calibrated unit. Our own employees produce the control boxes, cabinets and mechanical devices. The measuring and control technology parameters are calibrated and optimised in close cooperation with our customers based on the system-specific and process-related requirements.

### Hydraulics – Innovative solutions for hydraulic drive and control technology!

For thermal processing plants and their combustion processes, it is extremely important to be able to quickly and precisely adjust the corresponding hydraulic movements to the respective requirements. We develop control systems for hydraulic drives for fuel input and grate as a pure software solution. These solutions are designed to be transparent and easy to understand in order to offer the highest level of freedom and avoid manufacturer dependencies.

### Training – intensive and practice-oriented!

Despite all the attention placed on system technology, the system is still controlled and regulated by employees. Their skills ensure that the right action is taken for the respective application. An intensive and practice-oriented training programme at SAR's facility ensures that all of the employees have the same information. At existing plants, the training is also conducted parallel to the operation of the plant which is necessary to gain insights.

### Research and development – Development never stops; it marches on!

Changes in fuel compositions and statutory framework conditions as well as higher requirements with respect to energy usage and system optimisation always pose new challenges. Comprehensive research and development is the key to successfully facing these challenges along with practice-oriented implementation.







SAR Environmental Technology has acquired comprehensive expertise and developed a variety of product applications. Ask about our flyers on:

**SNCR controls** – With the SAR controls, the SNCR process can be optimised while simultaneously offering an open and flexible concept.

**Fire length control** – For reliably detecting the position of the fire on the combustion grate. In combination with the SAR combustion control system, the firing duration can be targeted to ensure complete burn-out.

**Hydraulics** – By analysing and then optimally designing the overall system, we can offer the most modern hydraulic systems which can simultaneously increase the capacity of an application and/or reduce wear and tear.

**SIL consulting** – Minimisation of the risks of a malfunction. SAR advises its customers with respect to SIL and the relevant areas of application and uses that to create SIL classifications and certificates for a new system or a system retrofit.

**Power plant library PPL** – A special modular library for the SIMATIC PCS7 control system which meets the requirements for control technology systems in the energy generation sector with respect to operating philosophy, availability and system allocation (VGB directives).

These and the product flyers and other reference projects can be found at  
[www.sar.biz](http://www.sar.biz)

We have bundled our core competence in the field of combustion technology at  
[www.combustiontechnology.biz](http://www.combustiontechnology.biz)

You can find more information about the Premium Plant Library PPL at  
[www.ppl.biz](http://www.ppl.biz)

Ask for our lists of references!

Get in touch with our customers to get direct information about the work and quality SAR provides.

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