

# ELECTRICAL ENGINEERING AND AUTOMATION

Solutions for complex industrial plants



**Power electronics,  
Automation and  
Process Controls**

**... from Engineering  
to Commissioning**

**KÜTTNER**

## SOLUTIONS STARTING AT THE VERY BEGINNING

A valuable  
concept is  
the result of  
a refined  
consultation



### Engineering

- Performance analysis of existing plants
- Preparation of functional specifications
- Development of automation concepts
- Project management

Within the Teams of our entire group we have comprised a diverse specialized process related Know How.

Our process specialists work closely with the electrical engineers and automation experts.

Together they document the customers' demands and transform these demands into realistic solutions.

On that way we include the knowledge of our automation solution experts.

In addition, we offer our customers comprehensive project management, from the performance analysis up to the functional specifications.

Working for the client, our engineers closely keep an eye on the feasibility and economic efficiency of the project

## ELECTRICAL ENGINEERING LEVEL 0/1 AUTOMATION

### Electrical engineering

- Electrical engineering
- Conceptual engineering up to medium voltage
- Conceptual engineering for whole automation
- Dimensioning of power electronics
- P&I-diagrams and network-planning
- Motor and component lists
- Electrical diagrams
- Layout of switchboards and cabling
- Installation of switchboards

We pay attention to the detailed and comprehensive creation of all necessary construction documents for every project.

All components are planned, drawn, and documented in detail by our employees. With integrated documentation, adaptations



Incoming feeder for an Oxicup plant at TISCO, China

can still be carried out years later, new components can be integrated, or the arrangements modernized.

Following the planning, the professional construction and the building of the switch boards are also carried out by our own technicians in-house.

### Level 0/1 Automation

- PLC technology and programming
- HMI systems and control room solution
- Client / Server Applications
- Network technology based on LAN and WLAN
- Plant and process simulation
- Training for production and maintenance personnel

Hardware and software are extremely important components of every automation solution. We set special value on the fact that the used components are not isolated applications, and can withstand the fast development of hardware components for years. We are open to incorporating the customers' existing hardware



PLC cabinet for Information Technology Commissioning

and software into the planning of new automation systems, and will consider if this makes sense in each particular case. The programming of the required systems is the core competence of Küttner-Automation. With the help of advanced simulation systems, the quality of the software will be tested, and future personnel can be trained.



# INFORMATION TECHNOLOGY COMMISSIONING

## Information Technology

- Database system solutions
- Production planning systems incl. Connections to SAP
- Management reporting
- iIM - industrial Information Management
- Industrial image processing
- Level 2 process optimization at, e.g., converter blowing model and Metallurgy PC

Based on your requirements, we develop and realize individual IT solutions for the areas of material logistics, thermal process technology, and stock keeping up to the delivery of final products. With the help



Control room  
of furnace-  
plant at  
SAARSTAHL

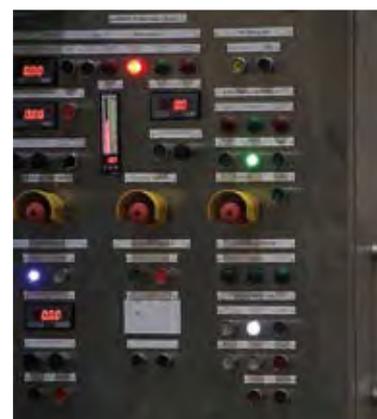
of databases, Intranet, or Extranet all processes can be constantly monitored, supervised, and managed in real time. This saves time and resources for producing businesses.

## Commissioning

- Final inspections of Hardware and Software at manufacturers
- Site administration and supervision
- Cold and Hot commissioning
- Supervision of trial operations until Final Acceptance Test (FAT)

For every project we guarantee the quality of our work not only at the manufacturer, but also on the building site.

Every step is controlled, supervised, and extensively documented.



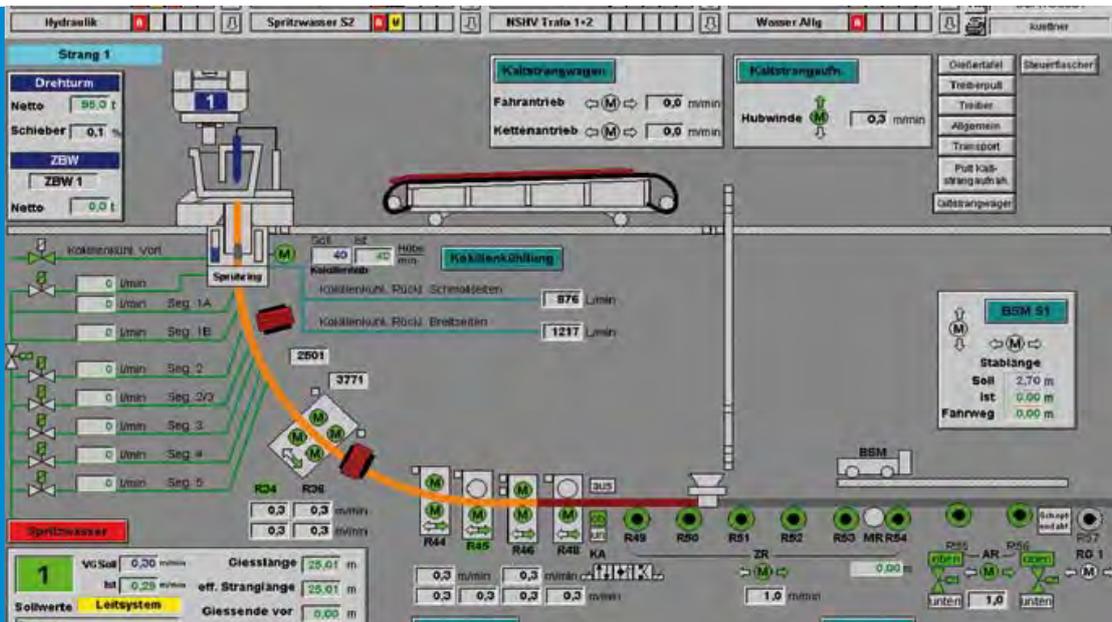
Local control  
system  
carried  
for heavy  
industries

The automation solution is tested for fault-free process suitability under simulated production conditions.

Our experience shows that clients can resume their production as planned

# AUTOMATION - PROZESS OPTIMIZATION BASED ON MOST ADVANCED TECHNOLOGIES

The automation of processes is a key factor to more productivity and higher profitability.



Successful industrial enterprises increase use of technological progress to optimize their production processes.

Today's worldwide growing demands for consistently high quality products, competitive prize creation, short delivery times, and more security at work make automation necessary in many areas.

Things that can be relatively easy to include at the planning of new industrial sites, can be challenging to include in existing arrangements.

Here the modular process optimization offers many advantages to guarantee the productivity of an enterprise and to minimize the down-times of the machinery.

We have not only of the most qualified engineers, technicians and IT-developers, but also decades of experience with the automation of the most diversified industries.



# KÜTTNER GMBH & CO. KG and KÜTTNER AUTOMATION GMBH

The engineering company founded in 1949 by Dr. Carl Küttner has developed into a worldwide active enterprise group, building turnkey solutions for the iron and steel industry, foundries, non-ferrous metal productions, residue recycling industry and waste recycling companies.

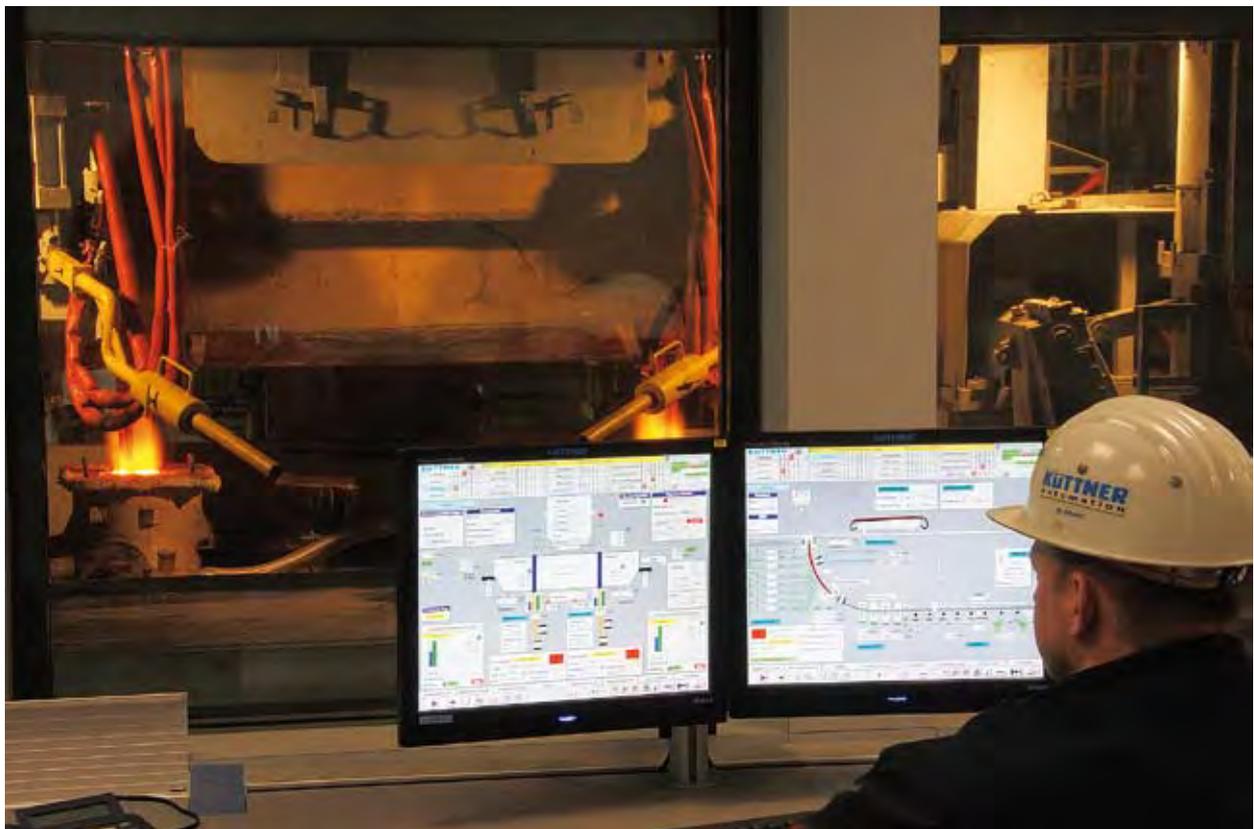
For the automation of our projects, the central department for electrical engineering of the Küttner GmbH & Co. KG

works closely together with the Küttner Automation GmbH.

Apart from that independent projects are realized in the respective areas of expertise.

The Küttner group is active worldwide, with more than 550 employees; and has an international presence with subsidiaries and representation offices.

The majority of the owners are actively working in the enterprises.



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