

# ELARC Electrode Regulation

High performance consistency  
and efficiency with simple  
handling and reporting



## Principles.

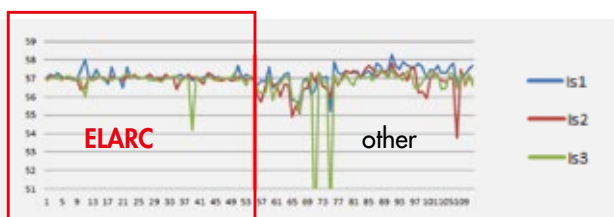
- Controlling the arc in the EAF by determining a physical parameter and keeping it close to the setpoint value.
- Sophisticated regulating mode:
  - Impedance and current supervision (Z+I)
  - Adaptive gain control based on arc stability
- Smart exception management: short circuit handling, heavy pieces detection, non-conductor management.
- Foamy slag indication by means of arc stability index.
- Usage of standard hardware components.

## Concept.

- Electrode regulation must be tuned to the process requirement, not the process to the limitation of the regulator. Tuning must be done by steelplant personnel to always achieve optimal power input.
- ELARC designed to provide best regulating performance and simple handling in terms of parameter tuning and current setpoint adjustment.
- Analysis of performance as an essential part of power input optimisation with ELARC providing the required reporting and analysis tools (e.g. 100 ms high speed trending).

## Advantages.

- Best possible power input. ELARC really keeping the current setpoint.
- ELARC handling the most difficult melting conditions and allowing a consistent power input.
- ELARC made from most reliable and simple hardware components, designed for error-free long-term operation.
- Excellent reporting system designed for easy fine tuning and performance analysis.



Operation example with ELARC (left) and other regulation: ELARC providing a very small electrode current fluctuation, enabling the usage of maximum transformer capacity.



Cabinet with minimum amount of hardware and standard components.

Badische Stahl-Engineering GmbH  
RobertKoch-Straße 13  
D-77694 Kehl/Germany  
Phone (+49) 78 51/877-0  
Fax (+49) 78 51/877-133  
eMail info@bse-kehl.de  
[www.bse-kehl.de](http://www.bse-kehl.de)



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Badische Stahl-Engineering GmbH  
Robert-Koch-Straße 13  
D-77694 Kehl/Germany  
Phone (+49) 78 51/877-0  
Fax (+49) 78 51/877-133  
eMail info@bse-kehl.de  
**www.bse-kehl.de**



BSE America  
1811 Sardis Road North, Suite 210  
Charlotte, NC 28270  
Phone (704) 553-1582  
**www.bse-america.com**



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