



DECTEQ™ MeltNet

Digital Electrode Control System

**EFFICIENT!
E A S Y !
ECONOMIC!**



The **DECTEQ™ MeltNet** is a powerful Tool with improvement of:

- Electrode Consumption
- Energy Consumption
- Commissioning Times
- Maintenance Efforts
- Tap to Tap Time
- Consumption of Refractory

DECTEQ™ MeltNet – Digital Electrode Control

The **DECTEQ™ MeltNet** is a further development of the DEC-PC and DecNT, which is part of the equipment in many steel making furnaces around the world. More than 20 years of experience and 230 systems installed worldwide have lead to the new MeltNet, which is developed for Microsoft Windows platforms and based on new hardware technologies. The MeltNet differs from usual analogue electrode controls not only by its design but also from the larger range of performance and an increased capacity. The most important features of the **DECTEQ™ MeltNet** are:

Universal Control

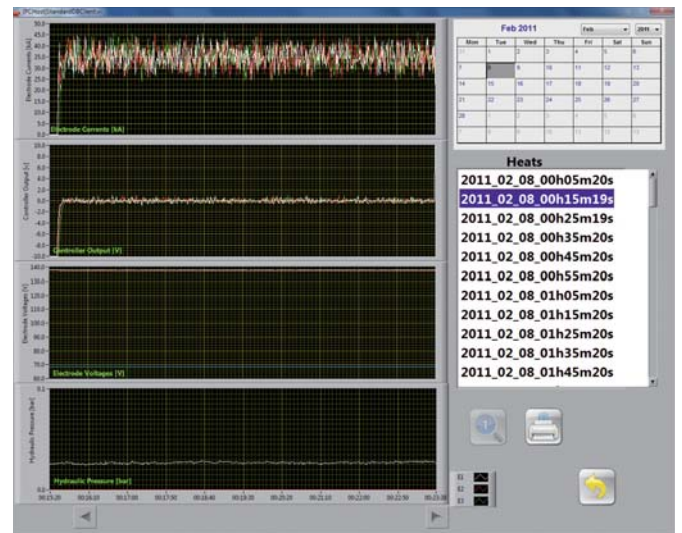
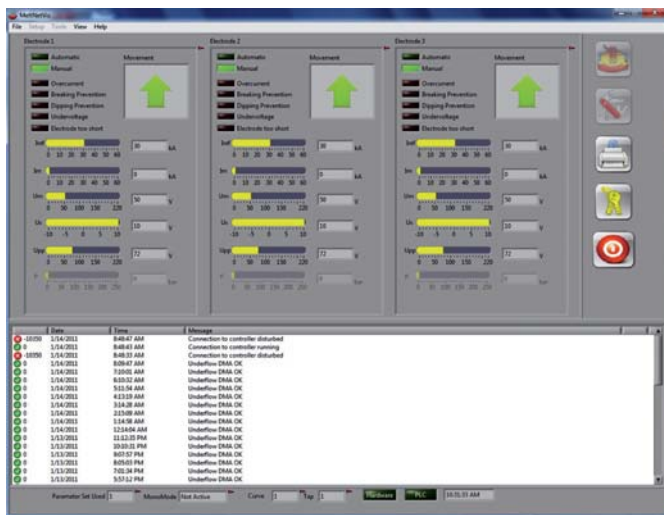
The **DECTEQ™ MeltNet** is a digital electrode control system and can be operated in current control mode as well as in impedance control mode. The system can be used for different types of AC-arc furnaces (Electric Arc Furnace, Ladle Furnace with triple and mono arm design, Conarc or twin shell design).

Process Visualization

All acquired and calculated process values can be displayed graphically in trend curves. This enables an effective watching and analyzing of the heating process. Possible malfunctions and irregular heating events can be recognized very fast and easy.

Database Support

The **DECTEQ™ MeltNet** supports the storage of the process data in a Microsoft Access compatible database. All recorded data can be graphically displayed at any time. This is a powerful feature for analyzing heats, effective troubleshooting and the support of quality management.

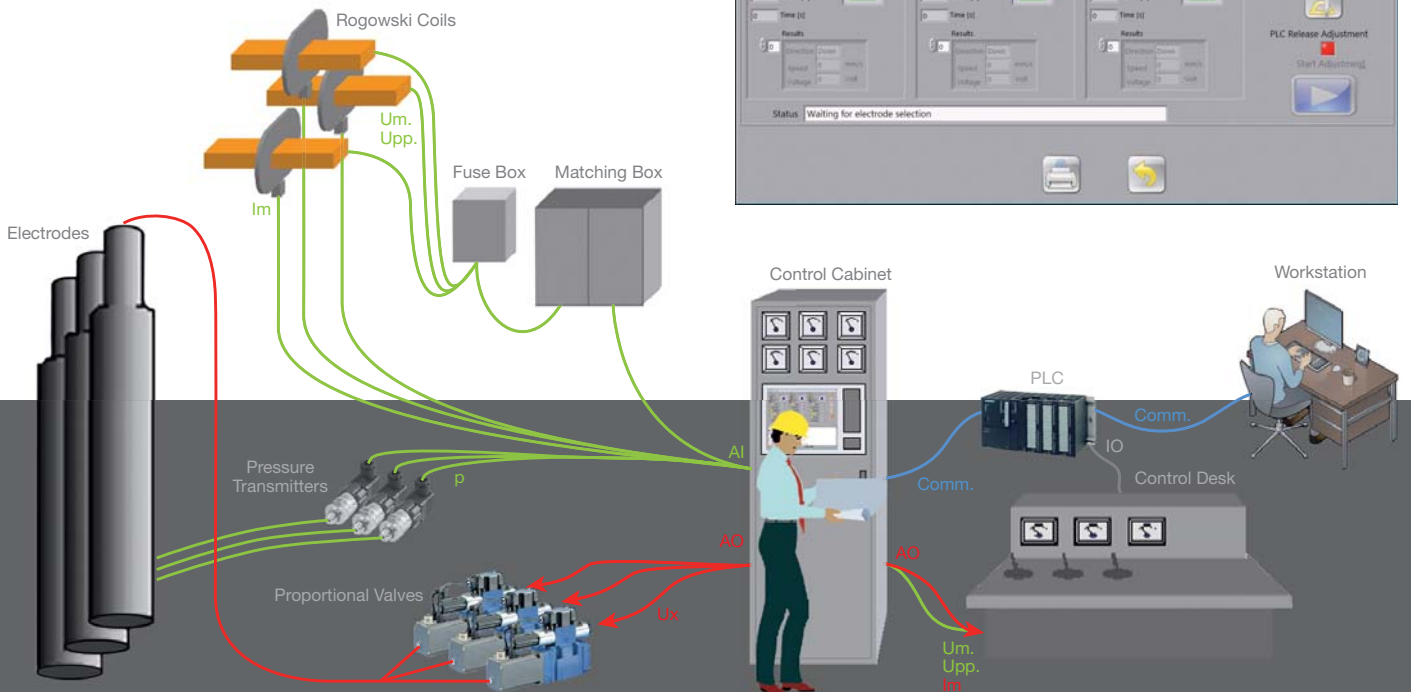


Help Functions

Electrode movement control to the proportional valves is simplified by automatic procedures.



Set up of the DECTEQ™ MeltNet Controller System



DECTEQ™ MeltNet – Hardware

The **DECTEQ™ MeltNet** electrode control system is equipped with high quality hardware components to achieve an optimum performance of the heating process. The well chosen combination of commercially available components and Ferrotron's own components enables a powerful hardware system at lower costs and with better support



Rogowski Coils

Rogowski coil current transducers are used for the high precision measurement of alternating currents.

Mechanical features

- Independent of conductor dimensions and geometry
- Easy to mount on the conductors

Electrical features

- Wide dynamic range
- Wide bandwidth
- Low phase error
- No damage of the coil by large overloads

ASP Box

All process signals are conditioned in analog signal process which is based on long experience in the development of digital control systems for electrical steel making furnaces. The acquired process signals are conditioned and linked to an embedded system that samples with high resolution and accuracy.



Embedded System

The conditioned measuring signals are digitized in a modular embedded system. The MeltNet controller application runs as a standalone unit. Due to the fact that no rotating or moving parts are mounted (e.g. hard disc, fan) this system is ready to work in a heavy duty environment with minimum maintenance efforts. The combination of ASP and Embedded System allows a precise acquisition of all important process signals.

The **DECTEQ™ MeltNet** supports the data exchange with other computers and automation systems (PLC).

Supported protocols are

- TCP/IP
- Profibus DP



Compact RiO

The visualization is installed on an industrial workstation with 17" touch screen.



From any economic point of view the **DECTEQ™ MeltNet** offers to:

- Reduce the production costs
- Increase the productivity and efficiency of Electric Arc Furnaces
- Intuitive user friendly handling

DECTEQ™ MeltNet – Software

The **DECTEQ™ MeltNet** program is a powerful software for commissioning, control parameters adaption and process visualization. The **DECTEQ™ MeltNet** uses the MS Windows support for printers, displays and other hardware devices. The user interfaces are easy to handle and provide a lot of graphical tools.



Setup dialogs for control parameters and adaptation of the proportional valves

For comprehensive information about the **DECTEQ™ MeltNet**, please contact us.



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