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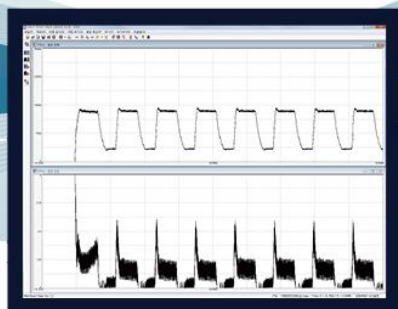
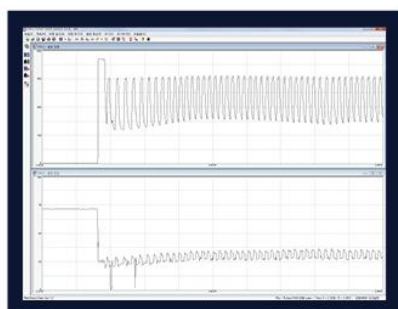
Welding waveform analysis management equipment

Model

WEM-7000

Welding Expert MULTI

Patent No.10-1390385· 10-0561087



Monitech co.,ltd.
www.monitech.co.kr

Main Features

- Real-time waveform analysis of ARC / RESISTANCE / SAW / TIG / PLASMA welding
- Provide exclusive S/W for waveform analysis (Stretch and Shrink, various calculation, analysis and comparison of waveform, etc.)
- 15" LCD and industrial embedded PC are built in a briefcase to enhance portability
- Various output ports (4 USB ports, 1 LAN port and 1 RGB port)
- Waveform sampling maximum 200ks/s



Main Purposes

- Essential equipment for welding related research and process improvement (This is a basic equipment being used in most of large companies, research institutes, universities, etc.)
- S/W installed exclusively for collection and analysis of various welding result waveforms
- The best solution to identify problems in welding process and improvement status (6 sigma management, etc.)
- Used as an standard internal calibration instrument for welding machine and various gauges
- Continuous free S/W update is provided
- In case of research purpose, various combinations of measurement channels are available (Max. 8 channels)

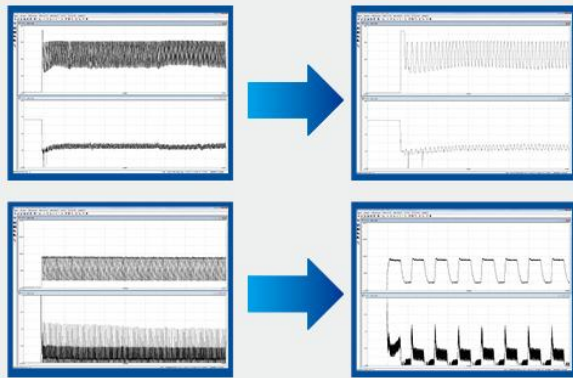
Specification

	ARC/SAW	RESISTANCE	TIG / PLASMA
Model Name	WEM-7000		
Size(mm)	460(W) X 325(D) X 170(H)		
Weight(kg)	About. 8Kg		
Power	AC 100/220V, 50/60Hz (Free Voltage)		
Measurement channel	Current, voltage, feeding speed, etc.	Current, voltage, force, etc	Current, voltage, feeding speed, etc.
Current range	Max 2,000A (AC&DC)	Max 200kA (AC, DC& Inverter DC)	Max 2,000kA (AC & DC)
Voltage range	Max. 100V (200V is also available)	Max. 10V (20V is also available)	Max. 10V (20V is also available)
Feeding speed	Max. 2,800CPM	—	Max. 2,800CPM
Force	—	Max. 1 Ton (10kgf, 30kgf, 100kgf, 1Ton)	—
Others	Combinations of ARC+ RESISTANCE+TIG(PLASMA) are available in a machine <ul style="list-style-type: none"> • ARC + RESISTANCE • ARC + TIG(PLASMA) • SPOT + TIG(PLASMA) • ARC + RESISTANCE + TIG(PLASMA) Interlink with a high speed camera is available (optional)		

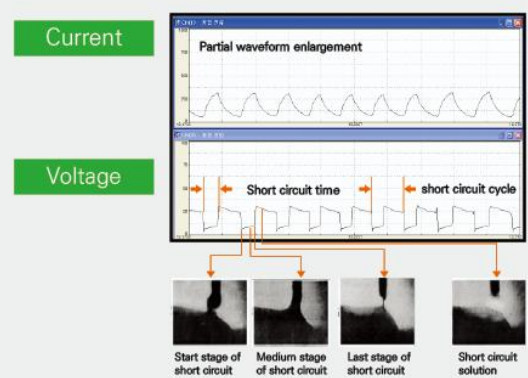
Examples of Software Functions

- Evaluation of overall performance of welding machines
- Evaluation of usability of welding materials
- Evaluation of ARC stability during welding
- Evaluation of feedability of welding wires
- Evaluation of characteristics of ARC Start
- Evaluation of pulse waveform during pulse welding
- Automatic calculation of the number of normal short-circuit and abnormal short circuit
- Automatic creation of dynamic resistance graph of resistance welding
- Real-time force change of resistance welding (optional)
- 4 types of measuring method and Autozero function
- Size Stretch & Shrink analysis and comparison of waveform
- Continuous measurement for a long time (related to the number of sampling units)
- Various built-in functions including texting and converting measured values to EXCEL format

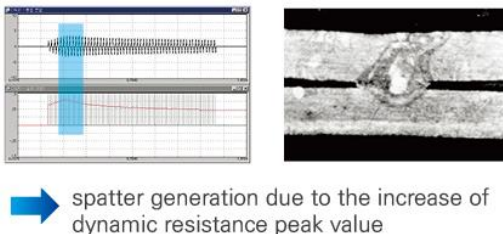
Examples of enlargement of ARC/ RESISTANCE waveform



Short circuit transfer waveform of ARC welding



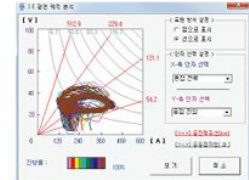
- Waveform generating spatter in resistance welding



- Waveform calculation by section



- Current and voltage distribution curve



Main Clients

- Heavy Industry

POSCO Research Institute, Samsung Heavy Industries, Hyundai Heavy Industries, Hyundai Steel, Dongkuk Steel, Volvo, Hanjin Heavy Industries and Construction, Doosan Infracore, STX Offshore and Shipbuilding, Daewoo Shipbuilding & Marine Engineering, Sungdong Shipbuilding and Marine Engineering, etc.

- Automobile · Battery

Hyundai Motor, Kia Motors, Sejong Industrial, Hwashin, Dong Wha Industrial, LG Electronics, Samsung Electronics, Nexcon Technology, Power Logics, Teckraf, SKME, Samsung SDI (Vietnam Plant), etc.

- Institutes · Universities

Korea Institute of Industrial Technology, RIST, Pukyong National University, Hanyang University, Yonsei University, Chonnam University, Chonbuk University, Korea Polytechnics, POSTECH, Dong-Eui University, Korea Aerospace University, Korea Electrotechnology Research Institute, Institute for Advanced Engineering, etc.

- Welding materials · Welding machines

KISWEL, Chosun Welding, SeAH ESAB, Korea Weldtech, Korea KOBE Welding, Hyosung Power & Industrial Systems, Maeil Precision Machinery, Easywel, etc.

Real-time welding quality control and inspection solution

Real-time welding monitoring system

- 01. Welding quality monitoring system (ARC/SPOT/TIG)
- 02. Intelligent welding monitoring system (NUT & BOLT Projection welding)
- 03. Welding calibration master equipment (ARC/SPOT/DUO)
- 04. MICRO SPOT welding monitoring system
- 05. High speed thermal imaging welding monitoring system
- 06. Ultrasonic welding monitoring system
- 07. Laser welding monitoring system

Welding process measurement and equipment

- 08. Welding force measuring gauge (FORCE)
- 09. Current and force gauge (HANDY)
- 10. Advanced current and force gauge (HANDY PRO)
- 11. Measuring analyzing equipment for WPS/PQR (WPS)
- 12. Welding waveform analysis management equipment (MULTI)

Inspection and integrated monitoring S/W

- 13. Integrated management and control system (MIS)
- 14. Inspection record computerized management system for the Initial, middle, and final products (IM)



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ISO 9001 / ISO 14001 / INNOBIZ / Venture

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