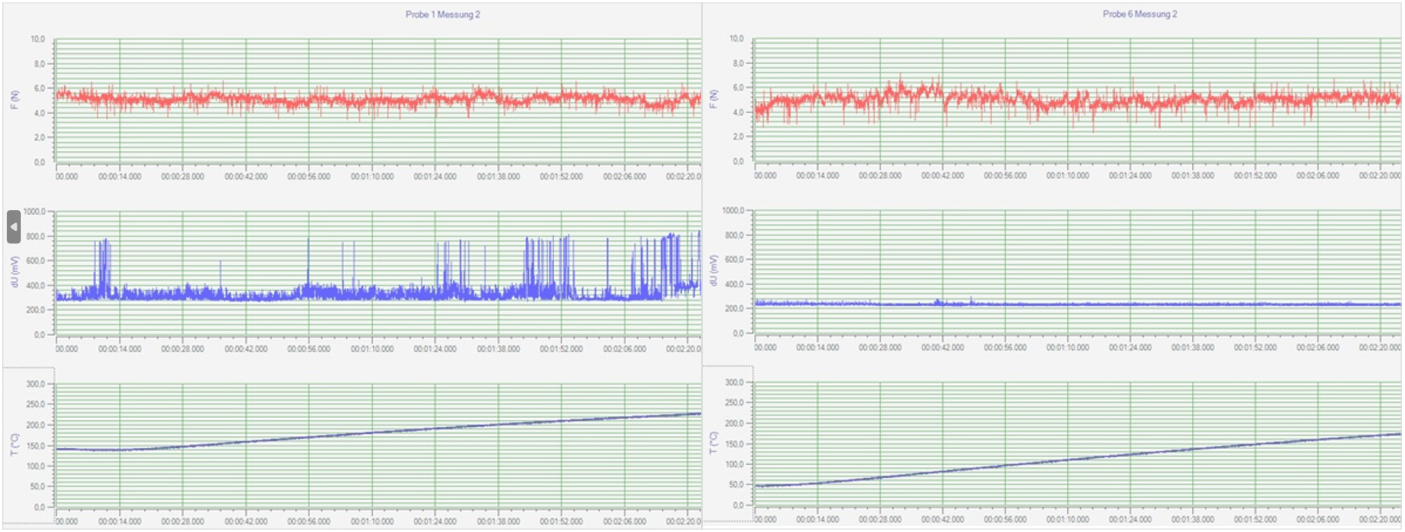
WWTE TV - WELDING WIRE TEST EQUIPMENT

brief description

test & record the properties of welding wires without welding process for quality assurance

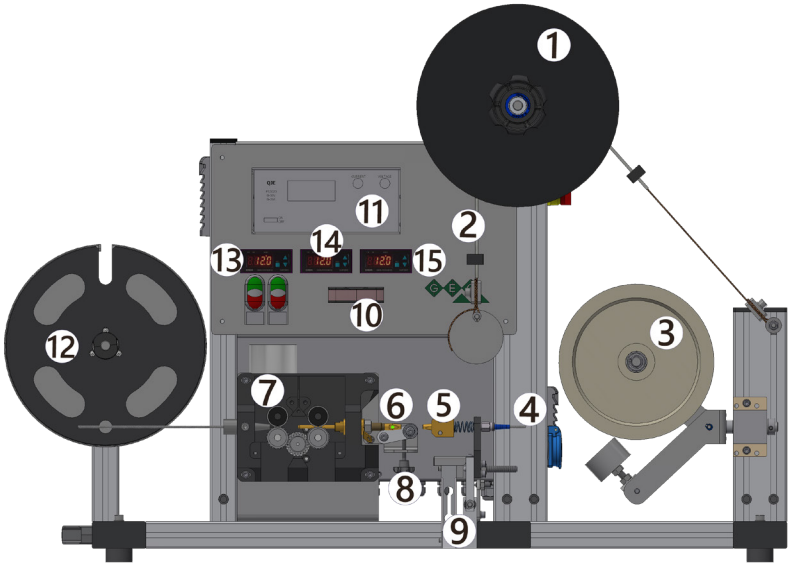
Wire Diameter	Ø 0,8 to 1,6 mm
Wire Material	stainless steel, ferrous & non-ferrous materials/flux cored wire
Measurable Parameters	feed resistance F(N) voltage drop in the contact tip dU (mV) at currents currents 1-20 A and temperatures up to 300°C contact tip temperature T(°C) (20-300°C)
Wire Speed	5 to 20 m/min (infinitely adjustable)
System dimensions	1200 x 600 x 700 (825 mm)

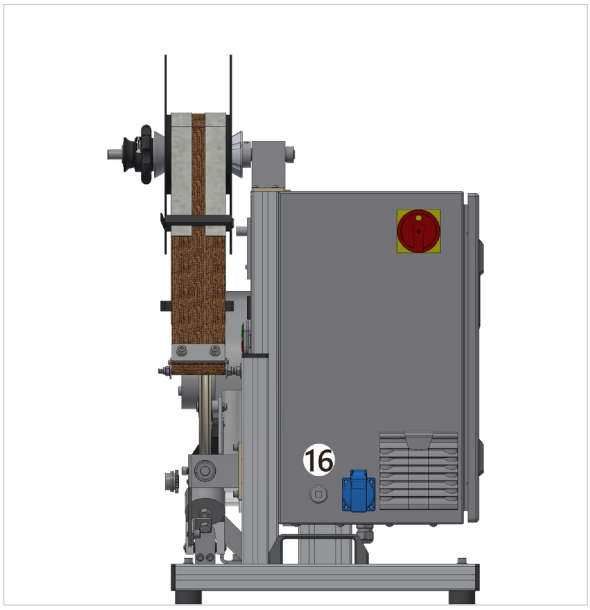


Example: comparison of the measurement results of 2 welding wires

System with integrated data logger and USB interface for connection to a PC or labtop (not included). The QuickDAQ software and the necessary drivers are supplied on data carrier (USB stick or CD). The software is license-free and can be installed on multiple computers.

PROCESS





- Welding wire is pulled off the welding wire reel (1) with a constant braking force. The braking force is ensured by a band brake (2).
- The pendulum deflection roller (3) ensures a constant wire position when entering the drive unit.
- The wire is pulled by the feed unit (7) at a constant speed through the short feed hose with pre-bends (4) and the contact tips (5) and (6). The speed can be infinitely adjusted in the range 5-20 m/min on the display (13).
- The pressure of the wire on the wall of the contact tip can be finely adjusted using the adjustable deflection roller (8).
- The first contact tip (5) and the feed tube (4) are mounted together on a force sensor (9). The measurement signal for the friction (driving strength) is shown in Newtons directly on the display of the signal converter (10) and is also sent to the data logger. The USB connection is located on the side of the control cabinet (16).
- A constant current of 1 to 20 A is applied to the two contact tips during the wire run. The current (A) can be regulated on the power supply unit. The voltage drop is measured and the measurement signal is galvanically isolated and sent to the data logger.
- The first contact tip (5) can be heated to a temperature of 300 °C during the wire run (corresponds approximately to the temperature of the contact tips during welding). The temperature in °C is shown on the display (14) and also transmitted to the data logger in an electrically isolated form.
- The time for the measurement is set on the timer (15).
- Following the measurements, the welding rod is wound up in a drum and can be removed as a coil (12).
- For data recording and storage the WWTE TV device is connected to the USB interface of a personal computer (PC is not included). The necessary QuickDAQ programme is included in the scope of delivery.

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