## PWD 3000 Cu / Cu-Al

Cable holding device featuring water flow system

This special holding device allows high precision cable resistance measurements on stranding machines even all main parts of it (the compactor and the cable take up mechanism) are grounded!

No necessity for isolating machine parts!

The precision holding device PWD 3000 is used for the determination of the electric resistance per meter of power and medium voltage cables. The measurement is based on the 4-pole method according to Kelvin in order to eliminate the feed line resistances.

The measuring current is supplied via pneumatically operated jaws, the measuring voltage picked-up via spring-supported taps, with a distance between the taps of 1000 mm (+/- 0,2mm).

The current jaws and thus the current feeding points are arranged at a sufficient distance to the taps in accordance with DIN / IEC to ensure a constant and uniform distribution of the current across the actual measuring distance.

The cable section is placed in two inner troughs which are filled with flowing water when the pump is running and are containing the potential bars for picking up the measuring voltage; it is here where the actual measurement takes place at a constant (water-

) temperature.

The Microohmmeter which is part of the equipment additionally measures the (water-) temperature via a probe, and converts the previously measured resistance value to 20°C (or e.g. 23°C if wanted).

The standard holding device PWD 3000 Cu is suitable for copper cables (stranded cables and sector-shaped conductors) of a size between 10mm<sup>2</sup> and 1200mm<sup>2</sup> (Ask for larger sizes!).

The PWD 3000 Cu-Al allows the measurement of aluminium cables (round and shaped conductors). The design is more complex than the standard variant in order to include all wires of the cable into the measurement. This is necessary due to a potential anodized situation inside the cable.

The Microohmmeter which is part of the equipment contains double measurement inputs for resistance and temperature (PT100). It allows with its waterproof touch panel the selection of resistance range (including auto range), reference temperature, cable idenfication, setting/locking parameters and tests of the whole equipment with a calibrated reference rod. Interfaces are for printer, USB and LAN (optional).

The outer trough serves as a water reservoir. The current jaws, the pneumatic equipment, the pump, all connections, etc. are provided on a massive, twist-proof aluminium rail or lift table outside of the outer trough and are therefore not exposed to the water.

## **High Precision Holding Devices**

Pneumatic Cable Holding Device for determining the Cable Resistance on non isolated Stranding Machines



## **Features**

- Holds diameters from 10 mm<sup>2</sup> to 1200 mm<sup>2</sup>
- Current max. current 50 A
- Integrated water flow system for homogeneous object temperature during measurement
- Acryl covers for secure operation
- Can be connected to any air pressure system providing 8 bar
- Model PWD 3000 Cu for copper
- Model PWD 3000 Cu-Al for Aluminium and Copper

Questions?

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Here you will get technical assistance as well as complete information regarding features, prices, shipment and reselling.

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