

SWT 316 Manual



The SWT 316 is a measuring probe that is specially designed to measure surface temperature of rotating cylinders in a paper machine. This manual is also valid for SWT 315 (earlier model).

The SWT 316 measuring probe consists of a measuring head mounted on the end of a telescopic rod by means of a universal joint and a ball joint. The ball joint and measuring head can easily be adjusted to a suitable angle in relation to the rod. The universal joint in its turn ensures that the measuring head is in correct contact with the cylinder surface. The probe is connected to the Swema 3000 or SwemaTemp 20 digital instrument so that it forms a single unit. If it is desired to have the display instrument and measuring probe separated, a 10 m long extension cable (Part No. 262.222) can extend the short cable between the instrument and SWT 316.

The measuring head has four self-lubricating wheels mounted on a casing. When measurement is in progress, these wheels roll on the cylinder and keeps the contact pressure constant during the measurement.

METHOD OF MEASUREMENT

The thin metal wafer, with an attached Ni100 temperature sensor, is in contact with the rotating cylinder and measures the temperature of the rotating cylinder.

MEASUREMENT

When carrying out measurement, connect the sensor to the measuring instrument, On Swema 21 the selected type of sensor should be Ni (Ni100) on the display, set the ball joint to the desired angle and raise the protective cover.

Place the measuring head on the cylinder so that all the wheels of the "carriage" roll on the surface. It doesn't matter for the measuring values in which direction you place the sensor. Hint: If possible, place the sensor so that the protective cover points in the same direction as the cylinder rotation. The reason for this is because the risk to scratch the paper cylinder surface with the cover is less if it follows the rotation.

Press the measuring head lightly against the cylinder. The universal joint now ensures that the carriage is brought into alignment on the surface of the cylinder and, if positioned correctly, runs lightly on the surface.

The SWT 316 is designed for measuring the temperature of rotating cylinders. On conclusion of measurement, lower the protective cover over the element.

MAINTENANCE

Clean the thin metal wafer and keep it free from dust, lint and the like by brushing it carefully with a soft brush. It is important to exercise care when cleaning the sensor and to make sure that the element is not deformed or moved out of position.