



TONISCO
system

P.O. Box 36 FIN 33531 Tampere
Phone: +358 3 2611 724
Fax: +358 3 2614 145
Email: sales@tonisco.fi

TONISCO
AA 11

TONISCO AA 11 - installing PT 100 temperature sensors under pressure

TONISCO System Oy has since late 60s manufactured equipments to accomplish branching under pressure in various pipe networks. Using these equipment it is possible to make the most of repair- alteration- or service works under pressure and by not disturbing the function of the network itself.

In most industrial processes, power plants and district heating networks the Pt100 temperature sensors are widely used to monitor the operating temperatures. The whole process is often forced to be shut down to assemble a new pocket or to replace an existing pocket for the temperature sensor. To avoid the production losses in such cases TONISCO System Oy has developed a simple method of how to make the assembly of a Pt100 pocket under pressure without disturbing the ongoing process.

FUNCTION

To the desired spot a TONISCO nipple shall be welded electrically. The outer thread fits to the drilling device and the inner thread is to connect the actual probe.



1.

TONISCO drilling valve is connected to the nipple. The valve construction is serviceable and the operation range 0-180 C ja 0-60 bar.



2.

Special drill is attached to the end of Jr. Drilling device and the drilling equipment is mounted for the drilling.



3.

TONISCO Jr. drilling device is attached to the drilling valve. Drilling is made under pressure.

To prevent long chips the feed must be variable.



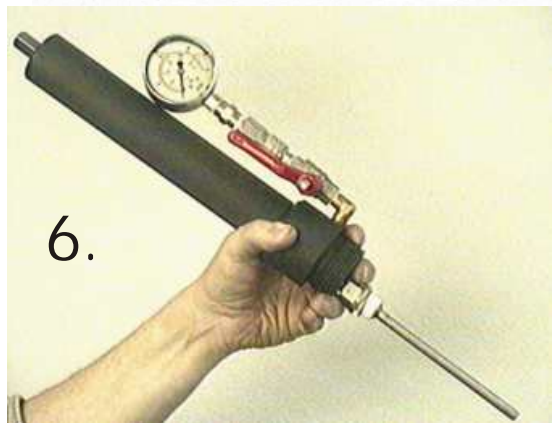
4.

After the hole is ready the shaft is let reversed to outmost position. The drilling valve can now be closed by pushing the sluice plate in.

The drilling device can be removed from the drilling valve, disassembled and packed to the transport box.



5.



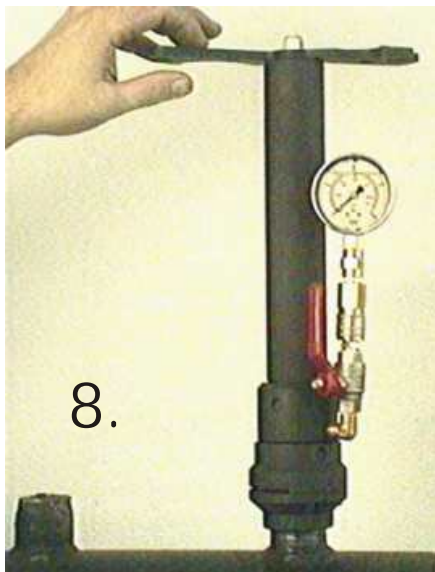
6.

The pocket of the temperature gauge with the copper plate and the Teflon tape covered thread is connected to the installing shaft and pushed into the installing tube.



7.

The installing tube is winded to the drilling valve and the sluice plate is pulled out.



8.

By simultaneously rotating and pressing the shaft in, the pocket shall be winded to the thread of the nipple. Tightness of the connecting thread is controlled by opening the control valve. When the connection is tight, the installing tube can be removed and the shaft can be loosened.

Before the final tightening all the drilling waste between the surfaces will be removed using the cleaning brush.



9.



10.

The actual Pt100 measuring instrument can now be installed into the pocket and the wires connected. This way the whole installation procedure is carried out without interrupting the flow.

30 v. Poraustekniikkaa



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Puh: +358 3 2611 724

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PL36 33521 TAMPERE Finland

Email:sales@tonisco.fi www.tonisco.fi