Successful field test of MULTICAL® 21 at Hammel Waterworks

50 MULTICAL® 21 have been thoroughly field tested at Hammel Waterworks and waterworks manager, Finn Kjær, has subsequently decided to replace all water meters by new Kamstrup ultrasonic water meters for remote reading.

Hammel Waterworks is situated in an area of outstanding natural beauty on the outskirts of the small town of Hammel, surrounded by 6.2 acres of fenced woodland. The waterworks supplies 3,600 consumers with water, and the total number of installed water meters amounts to 2,950 units.

As most Danish waterworks the works at Hammel uses mechanical impeller water meters, with the function of which Finn Kjær has been quite satisfied so far.

Some years ago Kamstrup presented Hammel Waterworks with their first model of an ultrasonic water meter. At that time, however, Finn Kjær was not prepared to make the change, and the size and material used did not suit him. However, he was asked about his own requirements to a future water meter, which would be attractive to Hammel Waterworks. Thus, he has good reason to claim that he has had a few grains of influence on the development of the present MULTICAL® 21.

MULTICAL® 21 passes the test, sharply oberved by the trained eye of Finn Kjær

When Kamstrup looked for suitable waterworks to test the new ultrasonic water meter, MULTICAL® 21, in the field waterworks manager, Finn Kjær, was never in doubt. He was pleased to be offered the possibility of testing the water meter at his works and find out for himself whether it functioned to his satisfaction. At the same time he would be able to compare the counts with those of his mechanical water meters, and he found that the counts matched all right.

The installations Finn Kjær selected for the field test were a mixture of installations in basements, normal installations in houses and installations in meter wells.

During the testing period the ultrasonic water meters functioned impeccably, there were very few adjustments to be made, and the consumers gave the new water meter a good reception.

Finn Kjær, waterworks manager at Hammel Waterworks

From the point of view of Finn Kjær the ultrasonic water meter has the following advantages:

- MULTICAL® 21 is both easy to install and very easy to operate
- Big display with clear figures that are easy to read
- Leak surveillance is included, enabling the works to discover pipe burst, running taps or lavatory cisterns, before the damage grows too big
- The ultrasonic principle means that the meter has no moving parts which can be damaged, and it is more resistant to impurities in the water.
- Two alternately flashing dots in the display show that the meter is running
- Furthermore, Finn Kjær values a Danish producer with a well functioning service organisation.

Some time ago Finn Kjær visited a Danish exhibition for heating, water and sanitation, at which MULTICAL® 21 was presented. According to Finn Kjær the general response to MULTICAL® 21 at the exhibition was very positive, indeed.

Reading now and in the future

The mechanical water meters used today are read by the consumers. Hammel Waterworks sends out cards for self-reading once a year to be returned with current readings within a couple of months.

This yearly reading procedure by means of self-reading cards can be quite a trial. Despite reminders, about one hundred self-reading cards are lost or never returned, and Hammel Waterworks must send a person to each address to collect the missing data. The mail system sometimes provides other challenges - on one occasion a self-reading card passed through Vienna on its way from the consumer to the water works.

During the trial period the 50 ultrasonic meters were read by means of the USB Meter Reader. And the reading process was a success too. All data were received, even though it turned out when dismounting the meters that one of them was actually mounted underneath a thick iron plate.

When the whole meter population has been replaced by MULTICAL® 21, the plan is to read all meters via Wireless M-Bus and hand-held terminal.

Finn Kjær mentions that he has heard that Kamstrup considers developing an end-user reading possibility, maybe in the form of a USB Reader, which will give the consumers access to keep an eye on their own consumption. Finn Kjær finds this a very good idea, and in his opinion the consumers will find it interesting too. The access to following one's own consumption will inspire the consumers to economise on the precious drops of water.

New plans for the future at Hammel Waterworks

Finn Kjær has already decided to replace the whole meter population of Hammel Waterworks by MULTICAL® 21. Today he has 700 ultrasonic water meters with the logo of Hammel Waterworks in his warehouse ready to be installed at the consumers. The remaining water meters will be replaced during 2011.

The best solution from an economical point of view is to replace all meters at a time, says Finn Kjær. When all meters have been replaced and remote reading established, resources, which were earlier used for sending out self-reading cards, registration of consumption figures, manual collection of missing meter data and extra billing, will be released. These resources can be used for advising consumers of improved consumption habits to the benefit of the environment.

Hammel Springs. A natural spring, right in the backyard of Hammel WaterWorks.