



Test-pad-holding unit for the determination of the water retention value (WRV) according to ISO 23714:2007 in the manufacture of pulp and paper

The water retention value (WRV) is an important parameter in the manufacture of pulp and paper. It is an indication of the ability of a sample of wood fibre or pulp mass to retain water. The WRV changes in the course of the manufacturing process – for instance it rises continuously during the grinding process as a result of the increasing separation into fibres. The WRV consequently provides valuable information on the impact of the individual steps in the pulping process on the fibres produced and to what degree the pulp mass is suitable for paper manufacture.

The method used to determine the WRV has been standardized and is described in the international standard ISO 23714:2007. Whereas in the past the sample holders were specially manufactured and therefore expensive, or had to be fabricated for their intended use, Hettich now offers a test-pad-holding unit of type A.1 as given in ISO 23714:2007 as standard centrifuge accessories.

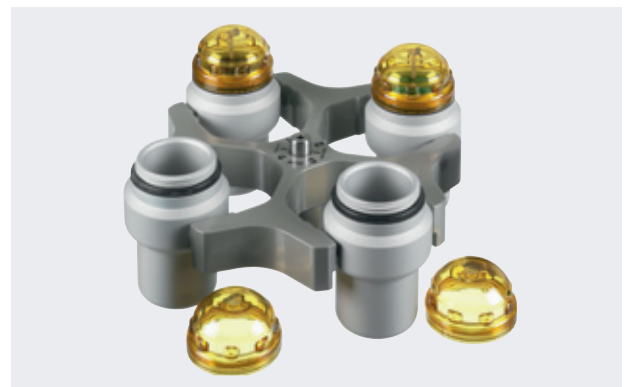
## Hettich products to determine the WRV in accordance with ISO 23714:2007



**UNIVERSAL 320 R**  
Benchtop centrifuge, refrigerated



**Carrier (centrifuge bucket) 1430 and insert SK 05.09**



**Swing-out rotor, 4-place**  
with carriers (centrifuge buckets) 1430 and lids 1382



**SK 05.09:** plastic adapter and test-pad-holding unit

## The test-pad-holding unit

The test-pad-holding unit has 3 parts, all of stainless steel:

- A test-pad basket, 35 mm in height, with an internal diameter of 25 mm
- A fine-mesh wire with an aperture of 125 µm and a mesh diameter of 90 µm
- A bottom-perforated vessel that accommodates the precision-fit wire and the stainless steel basket holding the sample under analysis.

For centrifugation, the filled test-pad-holding unit is placed in a plastic adapter that retains the water released during the centrifugation process.

The entire insert fits into a standard centrifuge carrier and can be sealed with a lid.

Test-pad basket

Wire

Bottom-perforated vessel



3-part stainless steel test-pad-holding unit

## Summary of the advantages of the centrifuge insert

- The test-pad-holding unit is of stainless steel
- The centrifuge carrier remains free of corrosion since no liquid accumulates in it – it is retained in the plastic adapter
- Simple and safe to use
- The sample can be easily removed from the test-pad-holding unit after centrifugation for further processing
- Easy to clean
- The carrier lid reliably prevents evaporation during centrifugation
- Fits into standard centrifuge accessories

## Method

See ISO 23714:2007

“Pulps – Determination of water retention value (WRV)“

## Ordering information

Centrifuge and accessories	Cat. No.
UNIVERSAL 320 R, refrigerated	1406
Rotor, 4-place	1494
Carrier (centrifuge bucket)	1430
Lid for carrier 1430	1382
Entire insert: Test-pad-holding unit with adapter	<b>SK 05.09</b>

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