

With UWS technology to your advantage

We have been developing standard-compliant system technology since the introduction of VDI 2035. Thanks to our head start in experience, we can provide you with devices that easily fulfil the requirements set out in the standards.

- Our bypass process also treats residual water and removes impurities.
- The conductivity is stable at $< 100 \mu\text{s}/\text{cm}$.
- Low resin consumption.
- Optical requirements of the new standard are easily achieved thanks to our bypass process and device technology.

Two-point measurement is possible with our measuring devices.

Our filling devices can be used to fill the heating system with drinking water. Each of our filling devices fulfils the requirements of DIN 14336 and treats the hot water in accordance with VDI 2035 in a single work step. Advantage: Significant time saving.

With a UWS filling device, any necessary subsequent treatment of the hot water in the partial flow is carried out with very little effort.

OUR WATER. SAFE.

YOUR CONTACT

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Updated VDI 2035

Important changes at a glance



Old

NEW!

Advantage/disadvantage compared to the old VDI 2035

Guideline divided into **3 sheets**.

Sheet 1: Stone formation
Sheet 2: Water-side corrosion
Sheet 3: Exhaust-side corrosion

Only **2 sheets** left.

Sheet 1: Stone formation and water-side corrosion
Sheet 2: Exhaust-side corrosion

Advantage: No more cross-reading between sheets, easier to understand connections.

pH value (for aluminium): 8.2 to 8.5
pH value (other materials): 8.2 to 9.5

pH value (for aluminium): 8.2 to 9.0*
pH value (other materials): 8.2 to 10.0*

Advantage: Slightly greater leeway when setting the pH value.

Maximum total hardness of the water with low-salt operation **< 0.11 °dH**
(with a specific system volume of > 50 litres/kW and > 200 kW)

Maximum total hardness of the water with low-salt operation **< 0,3 °dH**
(with a specific system volume of > 50 litres/kW and > 200 kW)

Advantage: Less effort (the lower the total hardness must be, the higher the effort).

The pH value of the filling and top-up water is not representative, as this will adjust over the next few weeks due to self-alkalisation. A measurement is only useful after 10 weeks at the earliest.

Disadvantage: Filling with conventional mixed bed resins often lowers the pH value to < 7. This can lead to the onset of corrosion in the short term.

The measured values must be documented.

Advantage: Documentation very important for later complaints.

Measurement and documentation of the parameters total hardness, conductivity and pH value as well as visual inspection of the hot water during maintenance is **not mandatory**.

Measurement and documentation of the parameters total hardness, conductivity and pH value as well as visual inspection of the hot water during maintenance is **mandatory**.

Advantage: Changes become visible quickly. Stone formation and corrosion can be counteracted in a timely manner.

The measurement is carried out with electronic measuring devices. The pH meter must be calibrated using the pH7 **single-point measurement**.

The measurement is carried out with electronic measuring devices. The pH meter must be calibrated using a **two-point measurement** pH7/10.

Advantage: Higher accuracy.

Commissioning consists of the following points: Flushing according to DIN 14336 - Filling - Heating up - Testing/ documenting.

Advantage: Clear definition of the steps to be taken.

If the pH value has not been measured and documented since commissioning until the next maintenance, it should be measured and documented during this maintenance. This applies to all systems.

Advantage: Unwanted stone formation and/or corrosion are recognised. This allows the causes to be investigated and counteracted accordingly.



Water treatment by adding chemicals should be limited to exceptions.

* Measurement tolerance of max. ± 0.2 when complying with the conditions specified in VDI 2035