## Linseis Water Vapor Generator

Optional the Linseis STA can be equipped with a water vapour generator


1 I water will be transferred into 1673 I water vapor at 1013 mBar
the following equation is an example for a gas flow of $6 \mathrm{l} / \mathrm{h}$ at the sample for $61 / \mathrm{h}$ water vapor a water flow into the evaporator of $3,586 \mathrm{ml} / \mathrm{h}$ water is needed.

If a H2O partial pressure e.g. of 4 kPa (is needed (at $101 \mathrm{kPa}, 1013 \mathrm{mBar}$ ) inert gas must be mixed with the water vapour

This gives a partial pressure of 4\%
calculated for a total flow of $100 \mathrm{ml} / \mathrm{min}$ or $6 \mathrm{l} / \mathrm{h}$

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4 kPa = 4 % Vapor = 4 ml/min water vapour ( }2,39\mu\textrm{l}/\textrm{min}\mathrm{ water)
    +96 % Gas = 96 ml/min Gas
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$2,39 \mu \mathrm{l} / \mathrm{min}$ water flow and $96 \mathrm{ml} / \mathrm{min}$ gas flow is needed
$0,5 \mathrm{kPa}=0,5 \%$ vapour $=0,5 \mathrm{ml} / \mathrm{min}$ water vapour $(0,299 \mu \mathrm{l} / \mathrm{min}$ water $)$

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+99,5 \mathrm{ml} / \mathrm{min} \text { gas }=99,5 \mathrm{ml} / \mathrm{min} \text { Gas }
$$

$0,299 \mu \mathrm{l} / \mathrm{min}$ water flow and $99,5 \mathrm{ml} / \mathrm{min}$ gas flow is needed

