



# STEAM ACCUMULATORS

The push to reduce carbon emissions is ever increasing. An often overlooked source of CO<sub>2</sub> emissions is blown off steam. Steam that could often have been avoided being produced in the first place. Or steam that could have been used to reduce CO<sub>2</sub> emissions later on. Steam accumulators store steam and reduce fossil fuel.

## CHALLENGES

Many processes have rapidly changing steam consumption or production profiles. Boilers balancing the steam pressure on the grid are often not able to keep up with these changes. This results in either steam production running above demand for prolonged times or grids not being able to absorb steam that could have displaced fossil fuel use later on. To keep the pressure in a safe range, excess steam is therefore blown off. Often, this is taken for granted.

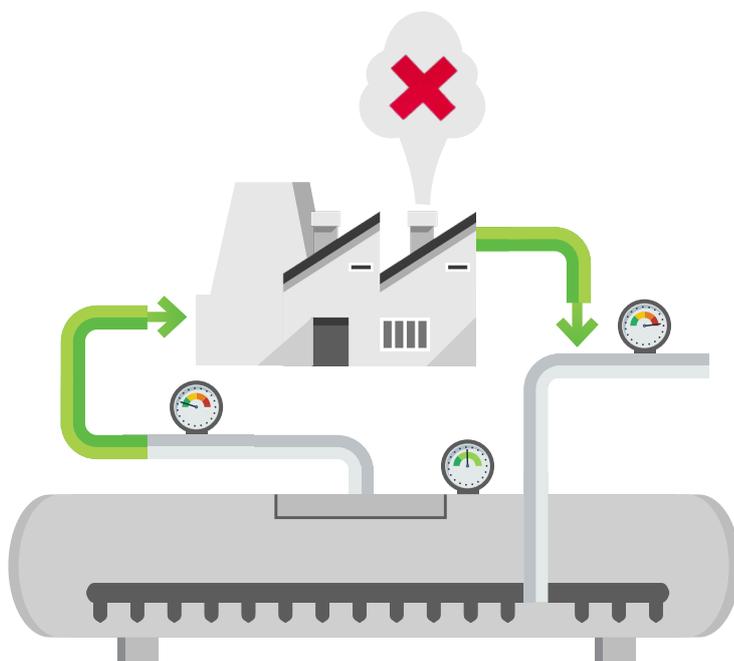
## STORK STEAM ACCUMULATORS, A PRODUCT THAT WORKS

Steam accumulators are large pressurized water containers. When high pressure surplus steam is available, it is stored by injection in the water, heating it up and rising the pressure. When there is a requirement for steam, the stored steam is released to the medium/low pressure steam grid.

## STEAM ACCUMULATOR SOLUTIONS

Depending on your requirements we can provide the steam accumulator as a separate product or as an integrated solution.

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Depending on your requirements we can provide the steam accumulator as a separate product or as an integrated solution. Stork Steam Accumulators are designed to match your process conditions. Our team of specialists will help you understand the steam production and consumption imbalances in your process. This yields an optimized accumulator for maximal return on investment and enhanced process operation.

## FULL PROJECT MANAGEMENT OR AS STANDALONE PRODUCT

Are you considering a steam accumulator but struggling with business cases and project development? We can help you develop a robust investment strategy and improve your business case with energy flexibility. Our support can vary from feasibility studies to turnkey engineered projects including engineering,

procurement, on-site construction and commissioning. Once the accumulators are installed we can provide the regular periodic maintenance and inspections. On top of that we provide re-optimizations and modifications turn-key as your processes evolve.

## STORK STEAM ACCUMULATOR

Stork is a renowned OEM of boilers, burners and pressure vessels. Delivering high quality is at the core of our company values. A solid and experienced team of engineers who understand your process guarantees delivering the optimal solution. A Stork Steam Accumulator can accept superheated and saturated steam as well as hot water as a heat source and supply both when demand exceeds production.

## STORK STEAM ACCUMULATOR SOLUTIONS

Stork Thermeq can open up the possibility to provide a highly optimized integrated solutions package for your process. For instance, combining the steam accumulator with an E-boiler opens up the possibility to further reduce energy costs and make even more money by producing steam from surplus renewable energy that can be used later on. So whether you are looking for a steam accumulator as an energy buffer in your existing factory, or want to optimize your new plant right

from the start by integrating a solutions package, Stork Thermeq can provide the optimal solution.

## WHY STEAM ACCUMULATORS?

- Reduce steam venting
- Reduce CO<sub>2</sub> emissions
- Reduce fuel consumption
- Instant access to hot water or steam
- Reduce or even eliminate the need for surplus backup steam generation

## Standard Accumulator

Pressure	Up to $\pm 30$ Barg operating
Size: L/D	Up to $\pm 32$ m/5 m
Response time	$\pm 2$ s to start charge/discharge
Control speed	$\pm 20$ s to full flow
Stored Steam	$\pm 10-15$ ton steam/charge
Charge/discharge speed	$\pm 3$ Minutes/complete charge
Design life time	$\pm 25$ Years
Higher pressures/sizes available on request	



## STORK

Stork is a global operations, maintenance and modifications provider. To accommodate the energy transition Stork designs, builds and services state-of-art clean energy plants converting biomass, fuels, waste streams and biofuels into heat and power.

## CONTACT US

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**STORK**