sera

TREATMENT OF WATER VAPOR

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STABLE STEAM CYCLE FOR EFFICIENT POWER PLANT PROCESSES

Reliable treatment of water vapor in power plants and waste incineration plants through precise dosing technology

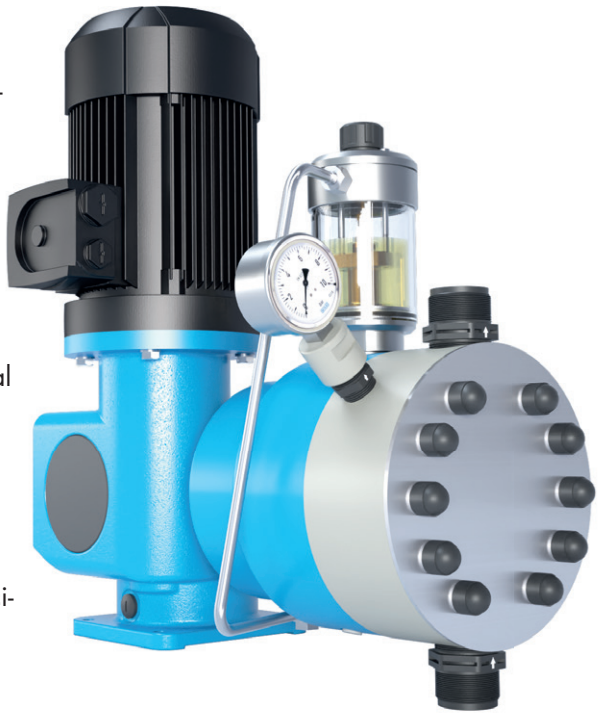
In power plants and waste incineration plants, steam is the central working medium for energy generation. However, without targeted chemical treatment, steam operation inevitably leads to corrosion, deposits, and chemical imbalances—with direct consequences for efficiency, plant availability, and component service life.
The continuous and demand-based dosing of corrosion inhibitors, oxygen scavengers, and other additives is therefore an essential component of a safe and economical steam cycle: it protects boilers, pipes, and turbines, stabilizes the water-steam chemistry, and ensures trouble-free plant operation.

Challenges in steam and boiler operation

- Corrosion caused by oxygen and aggressive media in the steam cycle.
- Deposits impair heat transfer and efficiency.
- Unstable water-steam chemistry increases maintenance costs and the risk of failure.
- High pressures and temperatures put strain on materials and components.
- Untreated systems lead to efficiency losses and rising operating costs.

The solution from sera

- **Targeted dosing:** Precise addition of corrosion inhibitors and oxygen scavengers such as ammonia, hydrazine, or ascorbic acid
- **Designed for high pressure:** Reliable use in steam applications up to 140 bar.
- **Modular system:** From individual units to complete dosing systems – tailored to the plant concept.
- **High process reliability:** Multi-layer diaphragm and integrated overload protection for safe continuous operation.
- **Designed for the media:** Chemical-resistant materials and optional gas-tight design.
- **Easy integration:** Suitable for indoor and outdoor installation, even in EX areas.



sera dosing systems ensure stable water-vapor chemistry, provide lasting protection for boiler and steam systems, and enable safe, efficient, and economical operation of power plants and waste incineration plants.

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FS-300500 Treatment of water vapor EN 01/2026 sera is a registered trademark of sera GmbH.
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