

# ZeroGas

SPRAY SMART | DEAERATOR™

## Deaerator "Spray-Type"



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## Why a deaerator?

Make up water treatment of thermal circuits is crucial in order to achieve the best performance of the whole system and to extend the "Life Cycle" of all the equipment.

Cannon Artes, on the market since 1977, has developed **specific solutions** for all issues related to this field. One of the biggest challenges of make up water treatment is O<sub>2</sub> and CO<sub>2</sub> removal.

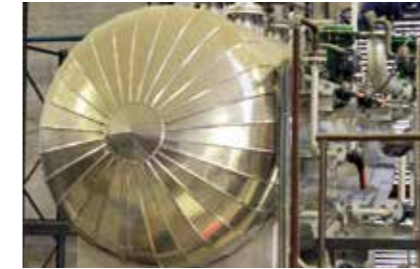
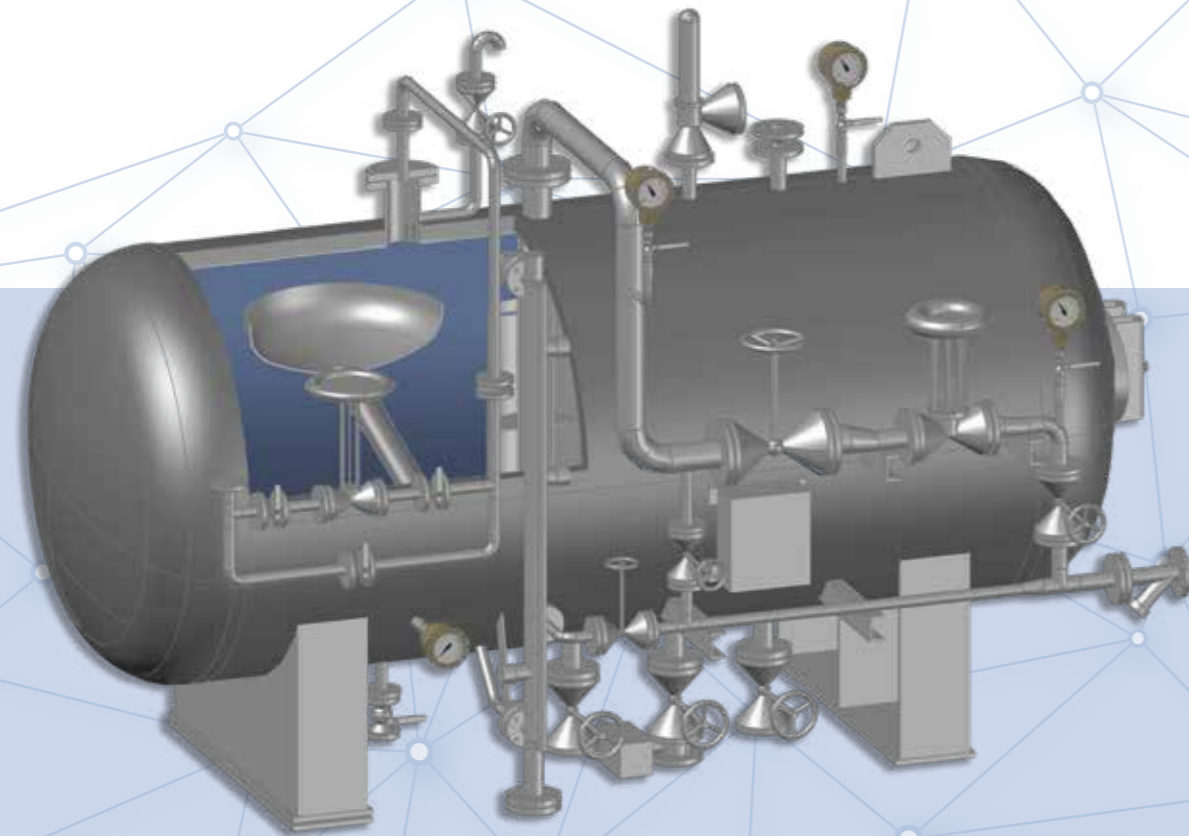
Oxygen represents a catalysing element for the corrosive process on metal surfaces of the boiler or other parts of the circuits.

Cannon Artes has a long tradition in the **design and manufacturing of Zerogas Thermophysical Deaerators**, used for gasses removal even in critical processes.

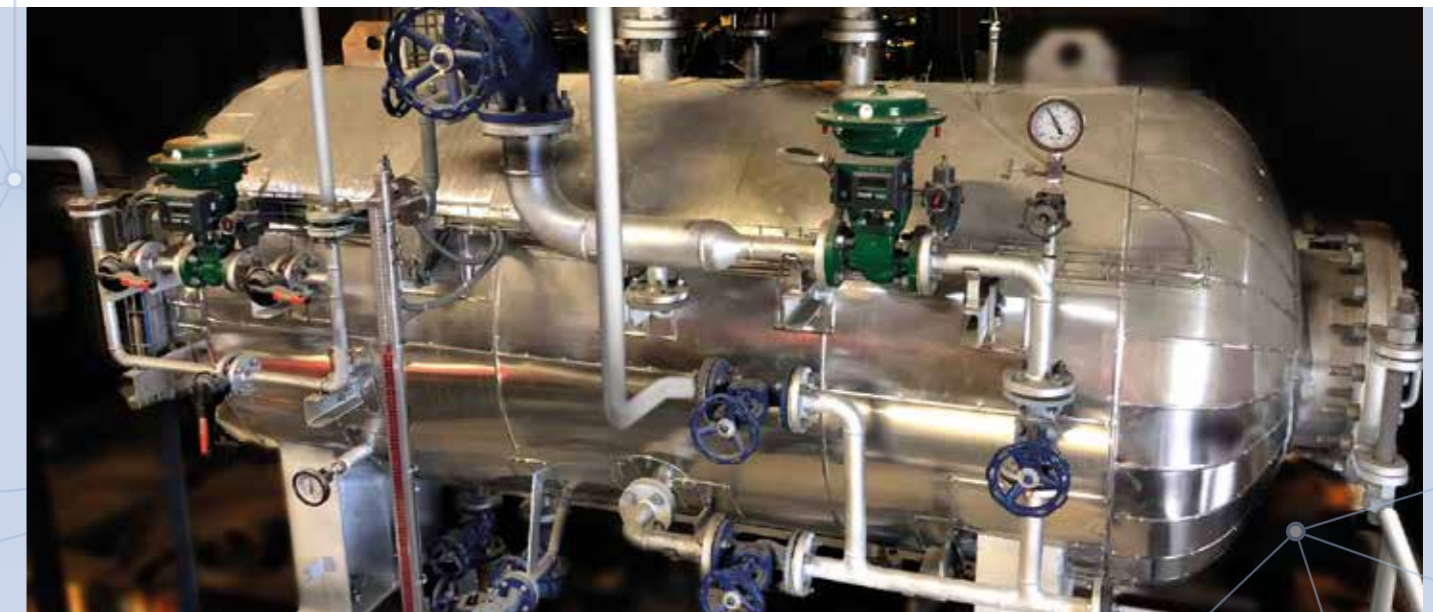
Cannon Artes is able to supply the most advanced solutions for plant management, integration and remote control.

**Zerogas Spray Smart** represents the perfect

solution for boiler room revamping also thanks to the Company's ability to supply "tailor made solutions".



**Zerogas**  
SPRAY SMART | DEAERATOR™



## Zerogas Spray Smart - Deaerator "Spray-Type"

Thanks to the tireless activity of its own **R&D** department, Cannon Artes has developed a new model of "integrated" deaerator, the **Zerogas Spray Smart Deaerator**. This unit meets customers' needs with a more compact design. The main characteristics of the **Spray Smart deaerator** is the **absence** of the traditional **vertical tower**.

Gasses removal occurs in a dedicated section inside the drum. The steam keeps in contact with condensate and makeup water inside a particular pipe. Spray nozzles atomize the fluids to promote

perfect contact between steam and water. Gasses are removed through a physical effect and a scrubbing effect generated inside the piping. The liquid phase releases the dissolved oxygen to vapour which, in small part, is discharged (rich of oxygen) into the atmosphere through the vent. The package is easy to install thanks to its more **compact and lighter design**. All units can be managed by the existing system in the boiler room or be equipped with a **dedicated PLC**, that can be integrated in the SCADA system of the factory.

## Zerogas Spray Smart Advantages

The **advantages** of the Spray Smart solution are the following:

- **Compact and light** design;
- O<sub>2</sub> concentration in deaerated water ≤ 20 ppb without chemical dosing (respecting the limits required for "tube" steam boiler feeding);
- **High Energy Efficiency** due to vent flow rate reduction;
- **Tailor Made** Solution to guarantee performance at different operating conditions;
- Design without **PED** Certification if required;
- **Global Reliability** of the whole **system** due to the high quality of pressure vessel manufacturing designed according to the most important international standards;
- The modularity of the package caters for a broad **range** of flow rates.