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## Water Treatment/Distillation Units/Reverse Osmosis/Pure Steam Generators STILMAS PSG-DTS

### Images

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### Product details

|                              |         |
|------------------------------|---------|
| <b>Category:</b>             | Sold    |
| <b>Machine:</b>              | PSG-DTS |
| <b>Machine code:</b>         | IT343   |
| <b>Manufacturer:</b>         | STILMAS |
| <b>Year of construction:</b> | 2000    |

### Description

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### MAIN FEATURES OF STILMAS PSG-DTS

Instant start: pure Steam is immediately available thanks to the design of the "Accumulator boiler" technology. The unit can switch from standby to full capacity in seconds

High flexibility: the production capacity can be automatically varied from 0 to 100% according to the request  
Unique purification system: gravitational purification principle for better vapor purity guarantee

High quality Steam: the quality of steam produced is constant in terms of pyrogen content, heating value and drying fraction, regardless of pressure and production scope

Simple and clean mechanical construction: the decontamination chamber without baffles or defrosters, ensuring the best inspection capacity, minimizes the risk of corrosion, for the longest expected life of the equipment.

Extremely limited maintenance. Absence of moving parts, expansion joints or mechanical seals

Compact construction and low height. Little extra head space is needed for disassembly and inspection.

### PRINCIPLE OF OPERATION

The design of STILMAS PSG-DTS pure steam generators is based on the technology of the radiator. The system consists of two parallel bodies: the heat exchanger and the evaporator/decontamination column. The feed water is fed to the decontamination column (main body) while the industrial steam is fed to the supporting side of the heat exchanger. Industrial steam heats the feed water to the evaporation temperature, creating a strong circulation within the two bodies.

The Steam develops in the evaporator where its low speed and the height of the decontamination column eliminate any possible entrainment of impure water droplets. A pressure transducer, installed in the evaporator, controls the ingress of industrial steam to the heat exchanger, thus ensuring a constant pressure of the pure steam produced. Supply water flow

it is controlled by a level transmitter installed in the evaporator.

### REDUCTION OF NON-CONDENSABLE GASES (NCG)

Stilmas has developed two alternative solutions to meet the NCG requirements of EN 285.

The first solution consists of an intermediate tank in which the preheated feed water is sprayed by separating the liquid from the gas which is then extracted outside.

This solution can adapt any clean steam generator to allow the NCG content to be achieved.

The Second Solution, Stilmas Gasbuster<sup>®</sup>, is integrated into the PSG. The degassing process occurs when the preheated feed water enters the decontamination column and is sprayed by separating the liquid from the gas which is then extracted by a small stream of clean steam.

With both solutions, Stilmas PSG can deliver much lower NCG content than required by international standards.

### CONSTRUCTION FEATURES

The system is entirely made of AISI 316L stainless steel. the standard finish of the active surface is smooth and flush with passivation; mechanical or electrochemical polishing can be performed on request.

The heat exchanger is of casing and tube type with double sheet metal execution; the tubes expand on the plates, avoiding any welding for a totally hygienic execution, and a better resistance to expansion efforts.

The design and construction of the decontamination chamber, which is a completely empty column, ensure the best inspection ability. The absence of welds in this area drastically reduces the risk of corrosion, for a very long service life of the equipment.

The overall design of the building, together with the decontamination process described, ensure a very compact design and require extremely limited space for maintenance.

400V, 50 Hz, ph: 3+N+T