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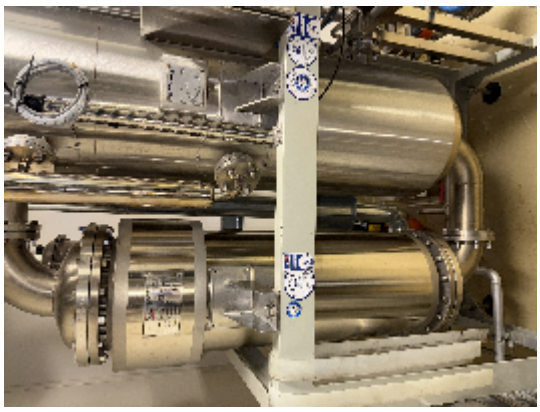
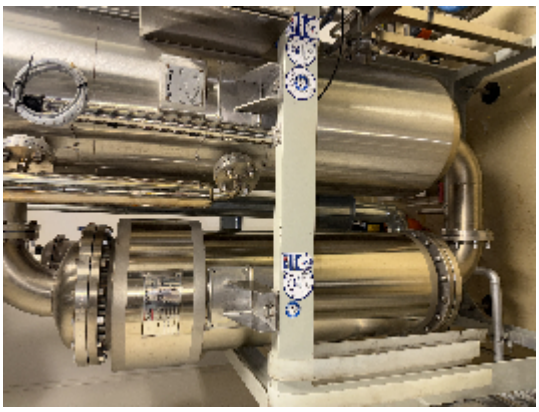
Pure Steam Generator STILMAS PSG-DTS

Images





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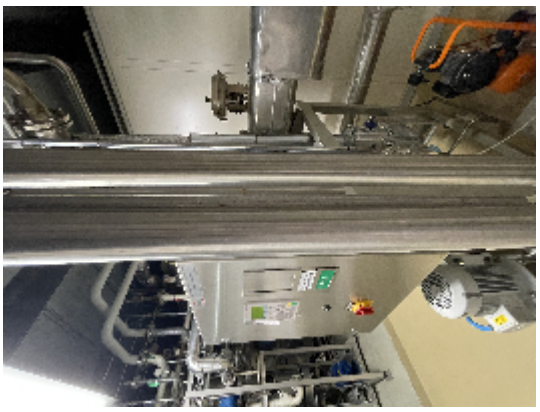

Product details

Category:	Water Treatment/Distillation Units/Reverse Osmosis/Pure Steam Generators
Machine:	PSG-DTS
Machine code:	25-1565
Manufacturer:	STILMAS
Year of construction:	1992

Description

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KEY FEATURES OF STILMAS PSG-DTS
Immediate start-up: pure steam is immediately available thanks to the ‘Accumulator boiler’ technology design. The unit can go from standby to full capacity in just a few seconds
High flexibility: production capacity can be automatically varied from 0 to 100% according to demand
Unique purification system: gravitational purification principle for better steam purity guarantee
High-quality steam: the quality of the steam produced is constant in terms of pyrogen content, heating value and drying fraction, regardless of pressure and production flow rate
Simple and clean mechanical construction: the decontamination chamber without deflectors or defrosters ensures optimum inspection capability and minimises the risk of corrosion for a longer service life of the equipment.
Extremely low maintenance. No moving parts, expansion joints or mechanical seals
Compact construction and low height. Little extra headroom is required for dismantling and inspection.
OPERATING PRINCIPLE
The design of STILMAS PSG-DTS pure steam generators is based on thermosiphon technology. 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 support side of the heat exchanger. The industrial steam heats the feed water to the evaporation temperature, creating a strong circulation inside 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 entry of industrial steam into the heat exchanger, thus ensuring a constant pressure of the pure steam produced. The feed water flow 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, separating the liquid from the gas, which is then extracted to the outside.
This solution can adapt any clean steam generator to enable the NCG content to be achieved.
The second solution, Stilmas Gasbuster®, is integrated into the PSG. The degassing process occurs when the preheated feed water enters the decontamination column and is sprayed, separating the liquid from the gas, which is then extracted by a small flow of clean steam.
With both solutions, Stilmas PSG can provide NCG contents much lower than those required by international standards.
The plant is made entirely of AISI 316L stainless steel. The standard finish of the active surface is smooth and flush with passivation; mechanical or electrochemical polishing can be carried out on request.
The heat exchanger is of the shell and tube type with double sheet metal construction; the tubes expand onto the plates, avoiding any welding for a totally hygienic construction and better resistance to expansion stresses.
The design and construction of the decontamination chamber, which is a completely empty column, ensure the best inspection capability. The absence of welds in this area drastically reduces the risk of corrosion, ensuring a very long service life for the equipment.
The overall design of the construction, together with the decontamination process described, ensures a very compact design and requires extremely limited space for maintenance.
400V, 50 Hz, ph: 3+N+T
Fluid capacity 200
design pressure 6 bar
design temperature 165
hydraulic test pressure 9 bar