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Steam turbine generator wind chamber air duct

Combined-cycle power plants are the most prevalent technology used to generate electricity in the United States, and of the 278 gigawatts (GW) of combined-cycle power plants, about ...

Next, we describe the duct burner system that is used to increase steam production. In the final section, we review the selective catalytic reduction (SCR) system, its components, and operation.

To address the thermal issues in the 4.5 MW direct-drive permanent magnet synchronous generator (DD-PMSG), this paper proposes a novel forced air-cooling ventilation system.

Turbine exhaust enters the HRSG at high velocity, at a low elevation. The momentum of TEG flow entering the HRSG causes its velocity to be higher at the bottom of the duct burner and lower at the ...

Instead of individual combustion chamber cans, compressed air is introduced into an annular space formed by a chamber liner that may be situated in some designs, around the turbine assembly.

Inlet air ducts are crucial components of the inlet air system in combined-cycle steam turbines. They facilitate the delivery of conditioned air to combustion chambers, impacting efficiency and performance.

Another way to boost efficiency is to install a recuperator or heat recovery steam generator (HRSG) to recover energy from the turbine"s exhaust. A recuperator captures waste heat in the turbine exhaust ...

Thus, an air cooling system and method for a heat recovery steam generator (HRSG) inlet solving the aforementioned problems is desired.

Duct burner is a unique tool that expands the operating range of HRSGs. Renewable technologies can be integrated with duct burners for an uninterrupted power or steam supply.

To detect and quantify air leaks within the ACC system. The presence of air reduces the temperature differential needed for effective heat.

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