

VENTCON – FLASH STEAM VENT CONDENSER

Turn Waste Steam into Real Savings



VentCon is a high-efficiency flash steam vent condenser by i-kcal, designed specifically to recover waste energy from flash steam vented in boiler deaerator systems. Built with precision, stainless-steel construction, and a compact vertical design, VentCon ensures your plant significantly cuts fuel costs, reduces emissions, and delivers a rapid return on investment.

KEY FUNCTION

VentCon captures and condenses valuable flash steam vented from boiler deaerators and condensate tanks, transferring this latent heat into boiler make-up water or process fluids. This substantially reduces energy loss and boiler fuel consumption.



BENEFITS

- Immediate and significant fuel savings.
- Fast return on investment, typically within 6–12 months.
- Low maintenance with robust stainless-steel construction.
- Reduces carbon emissions and promotes sustainability.
- Compact and easy-to-install design, suitable for retrofitting.
- Improved boiler and system efficiency, less blowdown.

WHY IS IT NEEDED?

VentCon captures and condenses valuable flash steam vented from boiler deaerators and condensate tanks, transferring this latent heat into boiler make-up water or process fluids. This substantially reduces energy loss and boiler fuel consumption.

HOW IT WORKS AND DEPLOYMENT

VentCon integrates easily into existing vent lines. Flash steam flows into VentCon's stainless-steel heat exchanger, where it meets cooler feed water in a counter-current flow, condensing steam and transferring heat efficiently. The condensed pure water returns to the system, and heated feed water is utilized effectively. Installation involves minimal piping adjustments and no major system modifications.

ROI CALCULATION

- Flash Steam Flow: **150 kg/hr** (Typical of Deaerator Vent)
- Steam Cost: **₹2 per kg**
- Annual Operation: **8000 hours**

Annual Steam Loss Cost: $150 \text{ kg/hr} \times ₹2/\text{kg} \times 8000 \text{ hrs} = ₹24,00,000/\text{year}$

With VentCon recovery efficiency of ~95%, Annual Savings: **₹22,80,000/year**

Typical payback period: **Less than 1 year**

INDUSTRIES WE SERVE



BREWERY



CHEMICAL



CORRUGATOR



DAIRY



F & B



OIL & GAS



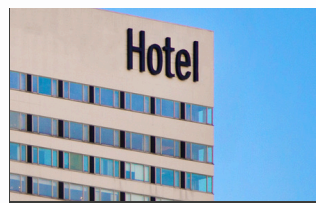
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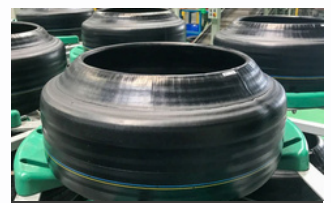
PLYWOOD



HOTEL



TEXTILE



TYRE





i-Kcal is committed to consistently deliver INTELLIGENT Heating & Cooling solutions, Which are not just INNOVATIVE, but also INTEGRATES engineering science with various aspect of process plants making them future ready.

At its core, i-Kcal Systems Engineering LLP, is committed to consistently deliver best in class integrated and agile engineering services, systems and turnkey EPC solutions to meet complex and evolving customer needs. The foundation of our success lies in our commitment to the three tenets; "Safety, Quality, Integrity". When you discover i-Kcal, you'll find a company ready and capable to deliver a variety of thermal engineering and consultancy services, wide range of customized systems and quality products with a process focused on efficiency, communication, and quality control.



MORE RESOURCES



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