COMBUSTION TURBINE INLET AIR COOLING UNITS

- *Optimum solutions for turbine-generator systems' combustion inlet air cooling used in the Energy Sector*
- *Manufactured as packaged unit consist of highly efficient cooling coil, air filter and drop eliminator*
- *Made of high corrosion resistant materials assuring long operation life in corrosive ambient*
- *High efficient products thanks to use of high production technology and high quality materials*
- *Performance Guaranty by certified Friterm Design Software, approved by accredited laboratories*

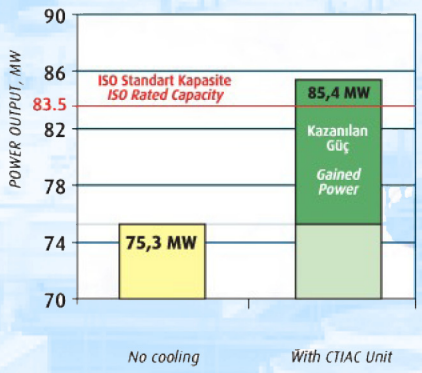
Air Heating and Cooling Coils Using Water Software COILS 5.5 FRT 1

EUROVENT CERTIFIED PERFORMANCE

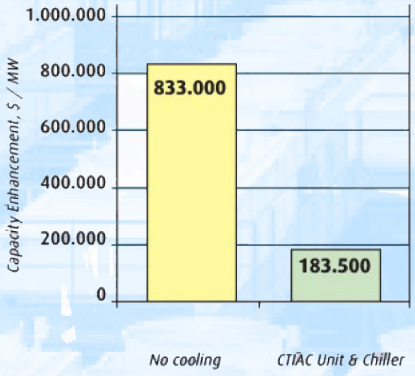
	ID NO
F2522 - 3/8"	COILS-02-04-001
F3833 - 5/8"	COILS-02-04-002
F4035 - 1/2"	COILS-02-04-003
F4035 - 5/8"	COILS-02-04-004

ADVANTAGES OF THE SYSTEM

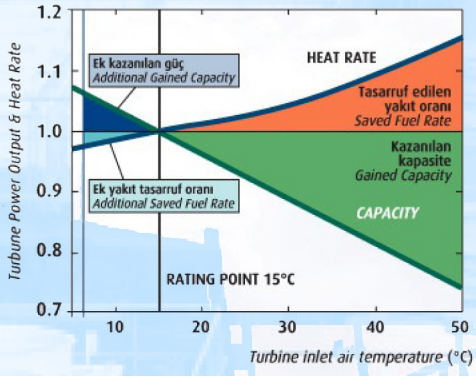
Effect of CTIAC on Net Power Output of the 83.5 MW Industrial CT



Effect of TIC Technology on Increamental Cost for Capacity Enhancement for the 83.5 MW Industrial CT



Turbine Power Output and Heat Rate versus Inlet Air Temparature



Examination is for 83.5 MW Industrial CT at ambient temperature 31°C dry-bulb and wet-bulb temperature is 18°C.
Reference: Turbine Inlet Cooling Association (TICA, http://www.turbineinletcooling.org)

The rated capacities of all CTs are based on the standart ambient air conditions of+15°C, 60% relative Humadity and 14,7 psia at sea level, as selected by the International Standarts Organzation (ISO).
Reference: 2000 ASHRAE Systems and Equipment Handbook, Chapter 7, COGENERATION SYSTEM AND ENGINE AND TURBINE DRIVERS

- *Increased power output (Capacity Enhancement)*
- *Increased fuel efficiency (Heat Rate Improvement)*
- *Turbine Life Extension.*
- *Increased Combined-Cycle Efficiency*
- *Reduced capital cost ($/kW) per unit of power plant output capacity*
- *Improved predictability of power output by eliminating the weather variable*
- *Reduces NOx emissions, Environment Friendly Technology*
- *Increased power output of steam turbines in combined-cycle systems*
- *Close circuit system prevents impurity in cooling circuit*
- *Prevent Legionella bacteria*
- *Easy maintenance*
- *Less space required*