Inlet Chilling System

**Product Description**
- An inlet chilling unit will cool the compressor air intake, increasing air density and thus engine output.
- The inlet air can be cooled via water chillers or air cooled chillers. Water chillers are more efficient but require a continuous supply of cool water.
- **The inlet chilling process is mounted on a skid and outlined below:**
  - First the air passes through an inlet screen and barrier filter to prevent debris from entering the unit.
  - The air is then cooled to its dew point.
  - Chiller coils using a water and glycol mixture cool the air further. The chiller coils can also be used as the cooling coils in an anti-icing system during the winter.
  - The air is dehumidified using a drift eliminator to prevent water from damaging the engine.
  - To limit icing concerns at IGVs, the cooling should be limited to 8°C.
  - The system control system can be either Woodward (Micronet, Netcon) or GE (Mark VI or Mark VIe).

**Customer Value**
- The inlet air cooling system allows increased power output at constant base load or reduction of engine load without affecting power.
- Depending on weather, the gross power output can increase by 3 MW.
- The chiller coils can be used for anti-icing in the winter, an excellent method to increase power year round.
- Cooled air can also be cycled throughout engine to prevent heat related damage.

**Applicable Units:**

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