



TURBINE TIPS

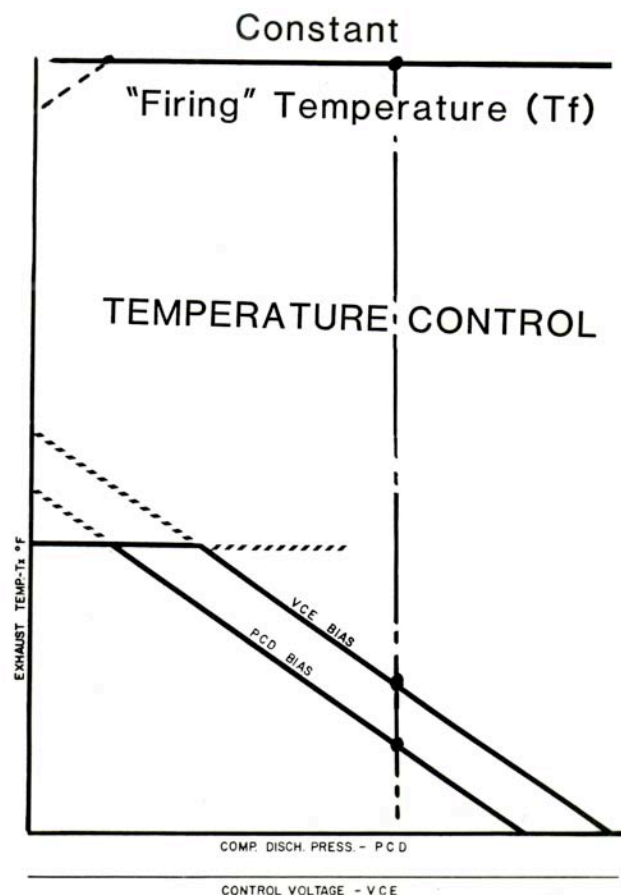
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How To Determine If Your GT is Operating At Rated Base Load (Firing Temperature (T_f))

Did you ever wonder how to determine if your gas turbine is operating at rated (base load) *firing temperature* (T_f)? In order to achieve the best performance from your gas turbine, you need to “fire” the gas turbine at a high enough temperature. For most GE gas turbine Speedtronic™ control systems, the exhaust temperature is “biased” by a pressure signal from the discharge of the compressor (called either PCD or CPD, depending upon the vintage, Mark II and newer). Earlier machines used a control voltage signal called VCE.



Go to the “Contact Us” on the **PAL Home Page**. Fill in the appropriate information.

Then, under **Comments And/Or Questions**, send the following information and we’ll tell you if you are operating at the optimal firing temperature level. Please realize, however, that the accuracy in the calculation depends upon the input data you provide. And accurate data depends upon calibrated gages and correctly functioning thermocouples.

1. **Average Turbine Exhaust Temperature (Tx)** in °Fahrenheit.
Note: Reject any faulty thermocouples.
2. **Compressor Discharge Pressure (PCD or CPD)** in gage pressure (psig).
3. **Site Elevation** (feet above sea level).
4. **Barometric Pressure** (uncorrected to sea level, call local airport). Or if you can read compressor inlet pressure directly, give it to us in absolute pressure (psia).
5. **Ambient Temperature (Ta)** in °F.

In a future **TIP**, we’ll tell you how to calculate your Heat Rate and Thermal Efficiency.