

## Auto tuning your PV/T Vacuum Furnace

With a fully loaded furnace place the Honeywell Controller in Hold at any temperature above 900°F (500°C) the closer to the braze temperature the better the accuracy will be at Braze temperature the cycles most critical point.

Start Auto Tune from the Honeywell Controller by pressing the F3 button on the “Control Utility Screen” notice that the label changes from “AUTOTUNE OFF” to “AUTOTUNE ON” this will place all Furnace Zones in Auto Tune simultaneously. You can view the status of the Auto Tune progress by viewing the Honeywell Controller “ZONES AUTOTUNING” Screen. Zones in the process of being Auto Tuned are labeled “TUNING” as each zone becomes tuned it will assign new values for Gain, Rate and Reset and the label will change to “TUNED”

The Auto tune sequence.

- Poor Tracking of Setpoint indicates that auto tuning is necessary.
- (Auto Tune Starts) sends 100% power to each zone.
- Power reduced to 0%, calculations computed on cool down.
- Power up to 100% again for a shorter duration.
- Power Level reduced to 0% PID calculations computed.
- New values for PID are written to Honeywell Controller and auto tune stops.
- Tracking of Setpoint resumes.

