



Espresso D'Milan

Temperature Setting for Heat Exchangers

1. Base pressure stat settings where one bar equals 253 degrees. Pressure stats can be more accurate than PIDs if you get one of the small ones built in Los Angeles by Little Giant. .05 bar to activate which gives a reaction range of 1 degree f. Temperature differentials between boiler and head also self regulate static head temperatures during switch cycling.
2. Heat exchangers have cold water injectors that can be modded to increase or decrease the thermal differential between initial extraction temperatures and saturation extraction temperatures. In the early days, you could order different tubes for the purpose. Italian roasters could specify certain tubes for there coffee blends. As you get into the nuances of heat exchangers and Italian theories of extraction, you may grow to appreciate your machine over that of twin boiler designs.
3. Most important for Americans; a flow restrictor in the heat exchanger is inserted at the upper pipe fitting of commercial machine to regulated the static head temperature (non use). You can use a ball valve to find your own sweet spot.

If you have a pre-infused machine, you'll want the water to run a little 'crispy' in the first 5 seconds of the extraction and then drop to the desired brew temperature. E61's are designed that way. Excessive head flushing defeats the purpose. Head temperatures for these machines should NOT run under 240-245.

If head temperatures are too excessive, especially if boiler setting exceeds 1.3, the flow restrictor is the best bet. Otherwise a pressure setting of about .9 would produce better results, especially with darker coffees