

Espresso machine temperature stability

(too old to reply)

D. Ross

16 years ago

Permalink

It used to be that a.c was the main source of information of information about inter- and intra-shot temperature fluctuation in espresso machines. Now these discussions seem to be going on in several forums, and it is hard to keep track of which machines have their definitive tests in which location. (Easier I suppose for Andy and Jim, who seem to be able to post extensively on several forums at the same time.) For example, someone on another forum recently said that E61 machines were much more stable than the Techno; but the last discussion I can remember here was a post by Jim S. comparing an intra-shot fluctuation of 2C on his Tea with Duncan's 0.5-0.8C fluctuation measurements on the Techno.

I assume finding the definitive numbers will get worse as the Scace device becomes as common as chichi tampers (and Greg can finally afford that Alfa Romeo Brera he's been eying).

Is anyone trying to keep track of these numbers? If not, should we do so here? It would be nice to have somewhere to point to when comparing machines.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>



Read More

Ken Fox

16 years ago

...

I certainly can't speak for anyone other than myself, but in my opinion a.c. is the logical place for complex or "scholarly" type posts to occur. For one thing, google archives a.c. for free and it is hard to imagine the other forums having the longevity that one can assume that google will have. Posts that are archived by google are eminently searchable, if for no other reason that if google can't do searches than what the hell can they do?

I occasionally post on other forums but generally it is within a thread that someone else started that either refers to me in some way or that has piqued my interest.

Most threads here and elsewhere are simply repetitions of prior material and add nothing to our understanding of coffee or espresso; these can go where they go and stay where they stay; they aren't worth replicating in more than one place. When it comes to original and unique material, however, I think there should be an effort to do it here or to do it here in addition to wherever it got started.

ken

AIMac

16 years ago

For one thing, google archives a.c. for free and it is hard to imagine the other forums having the longevity that one can assume that google will have. Posts that are archived by google are eminently searchable, if for no other reason that if google can't do searches than what the hell can they do?

I don't think any of the other forums actually are searchable - the search engines a slow, ineficiently refinable and the results tedious to work through - CG being the worst although this is probably a result of the base on which the site is built.

jim schulman

16 years ago

Post by AIMac

I don't think any of the other forums actually are searchable - the search engines a slow, ineficiently refinable and the results tedious to work through - CG being the worst although this is probably a result of the base on which the site is built.

BBS search engines are a joke. Google's site search works very well.

--

jim schulman

<***@ameritech.net>

D. Ross

16 years ago

jim schulman <***@ameritech.net> wrote:

| On 17 Nov 2005 19:24:05 -0800, "AIMac" <***@mallesons.com>

| wrote:

|

| >I don't think any of the other forums actually are searchable - the

| >search engines a slow, inefficently refinable and the results tedious

| >to work through - CG being the worst although this is probably a result

| >of the base on which the site is built.

|

| BBS search engines are a joke. Google's site search works very well.

For those of us with nearly-complete archives on the HD, AGlobS works even better:-)

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>**Barry Jarrett**

16 years ago

none of it matters now that the LM GS3 is on the way. ;)

Java Man

16 years ago

In article <***@4ax.com>, ***@rileys-coffee.com says...

| *Post by Barry Jarrett*

| none of it matters now that the LM GS3 is on the way. ;)

All hail.

Rick

D. Ross

16 years ago

Barry Jarrett <***@rileys-coffee.com> wrote:

| none of it matters now that the LM GS3 is on the way. ;)

I understand the GS3 is already obsolete, because its pump technology is so

'yesterday'...:-)

No surprise that I agree with Ken as to the advantages a.c has over the private forums that seem to be proliferating, but even if someone were to maintain such a list elsewhere, at least we could point to it when the occasion arose.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

DaveB

16 years ago

Google NEEDS a forum JUST for:

"inter- and intra-shot temperature fluctuation discussion in espresso machines."

God knows there is enuf written about it!

Danny

16 years ago

Post by DaveB

"inter- and intra-shot temperature fluctuation discussion in espresso machines."

God knows there is enuf written about it!

It's never "enuf" if the goalposts move due to new machines etc.

--

Regards,
Danny

<http://www.gaggia-espresso.com> (a purely hobby site)

<http://www.dannyscoffee.com> (UK advert for my mobile espresso service)

<http://www.malabargold.co.uk> (UK/European online ordering for Malabar Gold blend)

swap Z for above characters in email address to reply

jim schulman

16 years ago

Post by D. Ross

| none of it matters now that the LM GS3 is on the way. ;)

| I understand the GS3 is already obsolete, because its pump technology is so

'yesterday'...:-)

No surprise that I agree with Ken as to the advantages a.c has over the private forums that seem to be proliferating, but even if someone were to maintain such a list elsewhere, at least we could point to it when the occasion arose.

Andy and I posted the details of the versalab grinder threads here, and included pointers. The only reason nobody has done the same for the GS3 is that right now both Mark and Chris seem to be in the

burbbling phase. Chris, being a pro, may get around to actually describing the machine in a week or two. If Mark stays true to form, it'll be a year or two before there's a paragraph without "bay-bee" in it.

--

jim schulman
<***@ameritech.net>

D. Ross

16 years ago

jim schulman <***@ameritech.net> wrote:

| Andy and I posted the details of the versalab grinder threads here,
| and included pointers.

Yes, and they were very interesting. I'm also looking forward to seeing what Greg has to say about the performance of the DRM burrs in a more conventional grinder. Modern coffee grinder technology is clearly still very primitive.

What I was suggesting here, though, is not just a pointer to one set of values for one machine, but a tabulation of what we already know (and continue to find out) about the machines people in these groups are sufficiently interested in to measure, from the DeLonghis to the Marzoccos. This could either be maintained elsewhere (CG would be an obvious place) or posted and reposted here as necessary.

| The only reason nobody has done the same for
| the GS3 is that right now both Mark and Chris seem to be in the
| burbbling phase.

Understandable with a new toy.

| Chris, being a pro, may get around to actually
| describing the machine in a week or two. If Mark stays true to form,
| it'll be a year or two before there's a paragraph without "bay-bee" in

Mark's honest enthusiasm is what makes his stuff such a joy to read. While I think it is important for us to get the technical details recorded - otherwise machine comparisons become nothing but vacuous advocacy - a less technical record of how much fun it was to have and use a machine is probably more useful for the prospective buyer, and is certainly more

entertaining than cold analyticity. After all, most of us are here because we love coffee in its myriad forms, and we love the toys that make coffee in *their* myriad forms.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

Marshall

16 years ago

...

Mark's enthusiasm has never had much effect on me. It's pure coincidence that I've bought a Silvia, Rocky, Mazzer Mini, Hario Nouveau, Illy "Nude" cups, Nissan Thermos "silver bullet" and can holder, Mini Santos Arggggh! When will that man stop writing!

Marshall "can't blame the Zaffiro on Mark"

jim schulman

16 years ago

Post by D. Ross

a less

technical record of how much fun it was to have and use a machine is probably more useful for the prospective buyer, and is certainly more entertaining than cold analyticity.

For those of us who attended, our encounters with the machine probably sated our appetite for this type of description. I should be more aware of those only looking at pictures needing a sense of how it feels on the counter.

One of the things that particularly impressed me, and that may get short shrift (see below) was that this is designed to be a home machine, not a catering machine, not a bar machine, but an honest to goodness home machine, sized for standard countertops. I know that in it's cups per hour stats it probably equals commercial one groups, but that's more Bill Crossland's racecar builder mentality trying to squeeze as much power out of it as possible. It has a tank, btw fillable with 18 inch shelving over it, since the tank swings out. The gauges and controls are at the top and angled upward, so one can see them without stooping when the machine is on a 3 foot counter top (a fact I like about the Tea).

Price competition has made most countertop equipment throw away junk, rather than solid kitchen appliances. This includes espresso machines,

even 2K super autos. Here we favor commercial equipment, or the very few domestically aimed machines built to last, since we want coffee makers built to last 30 years, like stoves or fridges. This machine strikes me as exactly that -- a coffeemaker that's a high end domestic appliance and works and lasts accordingly. For this it has my profound respect

Of course, If alties have any say, my guess is that the home appliance aspect will be gone in the next round, since faux-commercial, no matter how inconvenient, seems to sells better..

--

jim schulman

<***@ameritech.net>

jim schulman

16 years ago

Post by D. Ross

What I was suggesting here, though, is not just a pointer to one set of values for one machine, but a tabulation of what we already know (and continue to find out) about the machines people in these groups are sufficiently interested in to measure, from the DeLonghis to the Marzoccos. This could either be maintained elsewhere (CG would be an obvious place) or posted and reposted here as necessary.

This is a good idea. Most of the machines represented here have had their temperatures taken at one time or another.

However, different techniques and Schomer baskets probably aren't directly comparable; fo instance my measures are only high/low from 10 seconds after pump activation to shot end, while others have chart recordings, and my tc is below the puck level so it doesn't interfere with tamping whereas others have theirs above puck level or built into the shower screen.

Maybe Greg's device will allow more standardized measures in the future.

On a side note, my suspicion is that the measurement standard they proposed for the WBC will not fly. It is repeatable, and precise defined. But if I were an HX manufacturer, I'd reject it out of hand, and refuse to allow my machines to be rated by it. Repeating the measurements on a declining time interval will lead to declining shot temperatures on any HX machine. A "perfect" HX machine is one that is

rock stable when used at an even shotmaking pace, and which remains that way under different steaming loads. But basic physics makes it impossible for the machine to remain at the same temperature at different shot making paces unless all the lower ones are cleverly flushed to match the fastest pace. So the WBC measurement standard will not say anything about such machines' performance in a competition..

--

jim schulman

<***@ameritech.net>

g*@earthlink.net**

16 years ago

Hi:

It seems like a good time to chime in here. My hope is that the measurements get standardized so that bogus temperature crap doesn't get repeated forever and taken as fact. To that end I'm glad that the thermofilter looks like it's getting acceptance as a standard method. Hand in hand with the thermofilter is the WBC standard for doing the measurement. Jim, I'd like to clarify that the goal of the WBC standard is to expose the warts of espresso machines and to establish some sort of uniformity of measurement and of data analysis. We (John Sanders, Barry Jarrett, Bill Crossland and myself) decided that it was not in the best interest of the coffee community to hide machine warts or to favor one type of machine over another, so the WBC standard specifically does not allow temperature equilibrating group flushes. It is our opinion that the ideal espresso machine should exhibit the same thermal behavior under all use conditions, and the WBC standard certainly demonstrates which machines come closest to this ideal.

The WBC standard (which is posted on Home Barrista in the "On the bench" section) measures brew temperatures over a variety of duty cycles, from greater than 10 minutes idling time, to idling time of 15 seconds between shots. Since we are interested in the relative conformity of machine performance to the ideal that a machine should produce the same temperature always, we make measurements under very intermittent conditions, but the standard does not use data taken at very intermittent duty cycles in the data analysis. We felt that to include the intermittent data in the analysis would not give a true representation of how the machines would perform in real life, because in real life any barrista that's worth a feces will take the

appropriate steps to flush the group if the machine has sit for any length of time, and the performance characteristics that can not be altered by the barrista are related to continuous duty cycle. If the machine can not maintain temperature in high duty cycle environments, then there is nothing that the barrista can do to compensate.

Jim, I'd like to discuss data that I have examined in general terms, to argue in favor of using the WBC standard for all brew temperature measurements. Taken as a group, heat exchanger machines tend to start out hot, and cool off, but the data that I have examined shows that this type of generalization is not correct in all cases. I have seen data from a hx machine that exhibited extremely good stability from intermittent duty through continuous duty, and I have seen some pretty abysmal performers. The WBC measurement series seems to be long enough (it takes over a half hour to do for chissakes) and intense enough to get hot machines to come to an equilibrium temperature condition, if there is one for that specific machine. I argue that 20 minutes of use at duty cycles of 2 minutes and shorter is plenty long enough to test for equilibrium.

Twin boiler machines I have tested generally run cold when used in intermittent duty. This fact is certainly exposed in all of its glory by the WBC standard, as clearly as the warts of hx machines are exposed. So I don't feel that any one type of machine gets preferential treatment.

I'm pretty pleased with the results that we've gotten so far using the WBC standard. It works on a variety of levels. It's pretty ruthless in exposing warts of machinery. It does a good job of quantifying performance and differentiating between machines, and it seems to do so fairly, based on the measurements that I've taken and the data that I reduced for this year's WBC selection trials. The results seem to correlate with taste, so I'm pretty happy there as well. The WBC standard also works because the standard does not pick winners and losers. It doesn't say that a declining temperature profile is better than a flat one, and it doesn't say that your temperature has to be 203.5 degrees F. But it does standardize how to make the measurements so that when we throw these numbers out they actually mean something.

-Greg

g*@earthlink.net**

16 years ago

I see a mistake in what I wrote. The second paragraph oughtta read that" we make measurements under very different duty cycles, but the standard does not use data taken at very intermittent duty cycles in the data analysis."

-Greg

jim schulman

16 years ago

*Post by g***@earthlink.net*

The WBC measurement series seems to be long enough (it takes over a half hour to do for chissakes) and intense enough to get hot machines to come to an equilibrium temperature condition, if there is one for that specific machine. I argue that 20 minutes of use at duty cycles of 2 minutes and shorter is plenty long enough to test for equilibrium.

Granted, by using only 5 through 14, you are basically running the machine on a roughly 1 shot per 2 minutes to 1 shot per 1 minute cycle (adding in shot and 25 seconds for PF fill and empty and 25 for the shot). But you are specifying a 2 second flush before and after. Why two? Why not three? Why not whatever the manufacturer calls for? Did you grab 2 seconds out of the air, or is it based on testing with LM machines? If I were a competing manufacturer, I'd be totally suspicious.

Again, suppose a manufacturer puts a group head sensor into the machines and specs a flush to either the desired shot temperature or some fixed offset from that. Your test procedure would then mandate operating the machine incorrectly. If a manufacturer says that based on their own measurements, a flush of say 1 or say 4 seconds, but not 2 seconds, is required for proper operation during a busy period, again, your test procedure mandates improper operation. Moreover, the WBC competitors are free to do flushes as they see fit; and would presumably start their own taste testing following the manufacturers' guidelines.

I don't see how you have a leg to stand on here. You've specified a tough test with tight intervals, and that's fair. You've specified realistic shot times and volumes, and pf handling times, fair again. The flush amounts are not like this, they are simply arbitrary. Uniformity to no purpose at all, since using a manufacturers

recommendation would not alter the test one whit or make the results any less comparable.

Remember, this is not a procedure to get the parameters for a thermal model of the machine, nor to find out how good it is in some absolute, operation independent sense I still cannot fathom, but to test it's performance for admission to WBC sponsorship. If your test procedure violates best practice for a given machine, you aren't being fair. And fairness trumps engineering purity for this purpose.

*Post by g***@earthlink.net*

Twin boiler machines I have tested generally run cold when used in intermittent duty. This fact is certainly exposed in all of its glory by the WBC standard, as clearly as the warts of hx machines are exposed. So I don't feel that any one type of machine gets preferential treatment.

It's not your feelings that will matter, but those of the manufacturers who want to underwrite the WBC events.

--

jim schulman

<***@ameritech.net>

Barry Jarrett

16 years ago

On Fri, 18 Nov 2005 16:26:10 -0600, jim schulman

Post by jim schulman

shot). But you are specifying a 2 second flush before and after. Why two? Why not three? Why not whatever the manufacturer calls for? Did you grab 2 seconds out of the air, or is it based on testing with LM machines? If I were a competing manufacturer, I'd be totally suspicious.

iirc, it was pretty much pulled out of air. it is totally unrelated to any warm-up flush needed by a marzocco (which tends to need at least 8 to 15 seconds of flush to warm up, depending upon the particular machine setup). we needed a number for the standard, as "blip the pump" just wouldn't cut it (even though my sister reminds me that "goofy" is a recognized legal term in wisconsin). one second is too short to reliably handle, and three seconds seemed to be too long. the important act was a screen flush, in keeping with the wbc standard procedures.

Post by jim schulman

Again, suppose a manufacturer puts a group head sensor into the machines and specs a flush to either the desired shot temperature or some fixed offset from that. Your test procedure would then mandate operating the machine incorrectly. If a manufacturer says that based on their own measurements, a flush of say 1 or say 4 seconds, but not 2 seconds, is required for proper operation during a busy period, again, your test procedure mandates improper operation.

let's jump this hurdle when it happens. i'm not holding my breath that it ever will.

Post by jim schulman

The flush amounts are not like this, they are simply arbitrary. Uniformity to no purpose at all, since using a manufacturers recommendation would not alter the test one whit or make the results any less comparable.

the uniformity was a requirement of the testing procedure, but you are mistaken that it was without purpose. as i mentioned above, the screen flush is part of established wbc procedure. flush time had to be quantified for the test. pick a number. <shrug>

i think you're looking for bad intent which isn't there. you're welcome to disagree with the wbc performance criteria (inter- and intra-shot temp stability), but let's not make this out to be a stacked deck in favor of marzocco. there was no need to even do that.

--barry

jim schulman

16 years ago

On Sat, 19 Nov 2005 03:24:13 GMT, Barry Jarrett

Post by Barry Jarrett

i think you're looking for bad intent which isn't there. you're welcome to disagree with the wbc performance criteria (inter- and intra-shot temp stability), but let's not make this out to be a stacked deck in favor of marzocco. there was no need to even do that.

I'm not looking for bad intent; I know you guys, but competitors of LM sure will. If the WBC catches on with the public to the extent that sponsors are lining up, then those not making the grade will be crying foul.

I'm not up on WBC procedure; I thought the screen flush was the one after the shot, and that nothing was speced for prior to the shot. And again, I may be utterly dense, but I still see no way the test is compromised if a manufacturer ask for no flush or 5 second flushes prior to each shot rather than 2 second ones. A constant flush is as irrelevant to what is being measured as, for instance, a constant warm up time prior to the test's start, and less relevant than other things not specified, like pressure or thermostat settings, inflow water temperature, etc etc.

--

jim schulman

<***@ameritech.net>

Barry Jarrett

16 years ago

On Fri, 18 Nov 2005 21:56:20 -0600, jim schulman

Post by jim schulman

I'm not looking for bad intent; I know you guys, but competitors of LM sure will. If the WBC catches on with the public to the extent that sponsors are lining up, then those not making the grade will be crying foul.

if they're not making the grade, then they need to do better. as greg mentions, the protocol exposes LM weaknesses as well as any other marques'. as greg also mentioned, a heat exchanger machine was one of the best performers in the wbc tests. also, i've not heard that any marques were bitching about the tests. the simple answer to bitching is, "do better." right now the test is the test, just like the competition is the competition. we can pick nits 'til the cows come home, but the answer remains, "do better." afaik, there's nothing that says the protocol can't be changed (this is version 1.0, afterall), but so far it seems greg has done a pretty solid job.

Post by jim schulman

I'm not up on WBC procedure; I thought the screen flush was the one after the shot, and that nothing was speced for prior to the shot. And again, I may be utterly dense, but I still see no way the test is compromised if a manufacturer ask for no flush or 5 second flushes prior to each shot rather than 2 second ones.

the test is compromised if the manufacturer asks *for anything*. a manufacturer might have a valid point if they specify a particular procedure in their operating manual, but so far, *again*, no manufacturer (afaik) makes any such specification. to return to an auto analogy, a manufacturer requiring a flush for "stability" would be akin to a car manufacturer requiring double-clutching for "synchronesh" gearing. it's almost a defacto admission of failure to meet performance standards.

--barry "and then there was michelin at indy"

g*@earthlink.net**

16 years ago

Jim, with respect to hx manufacturers bitching, one of the manufacturers sent an engineer with the machine to oversee its useage. My understanding is that he was satisfied with how things were done. This is significant because if there was gonna be bitching, I thought it would have come from them. I would also like to add that all players knew the test method before they submitted machines. The data is real interesting and I suspect that the data specific to each manufacturer will be useful to them.

I can't help but feel pretty annoyed with some of what you wrote. We

spent a ton of time and effort discussing things that you brought up. The technical justification for each part of the test is written out so that the reasoning is pretty transparent. With respect to flushing time, the 2 second figure was chosen because it was our consensus that 2 seconds pretty much mimicked good barista practice. In particular, impugning Bill Crossland sticks in my craw. Your assumption of bias has no basis in fact as far as I'm concerned. I recognize that manufacturers may bitch when their machines get exposed. At the time this was written, no one was beating down our door, begging us to let them help, so we did the best job we could and as far as I'm concerned It's a real good first crack at this. It can be changed in the future if and when things warrant revisiting it. Right now I think it's pretty much on target, based on the data I analyzed for this year's trials. I'll be interested in what you think after you run this procedure on your equipment, and whether or not the test exposes things you know to be true with your machines based on your experience with them.

-Greg

jim schulman

16 years ago

...

I apologize if I came across as impugning you and the other authors; that was not my intention; for the usenet record, I have nothing but respect and awe for these guys. I don;t think the standard was "cooked" to suit LM or other double boiler machines.

However, when I read the standard, I simply couldn't help thinking that this it how it looks. The decreasing intervals on shot times, the preset, machine independent flushes, are all directly contrary to HX (or lever) machine practice, where either a steady pace or compensating flushes are mandated -- not by the design of any particular machine, but by the fundamental thermodynamics of the system. Of course, high heat capacitance designs like the Cimbali HX and head or the E61 head/thermosyphon/hx can to some extent compenstate, but the physics will eventually catch up (I'm sorry, I'm not familair with other manufacturers so cannot tell how well their designs do).

I know sales reps and distributors make ridiculous claims for their machines; that after all is there job. But I doubt the engineering

departments that would submit machines would be so blithe. For instance, one day I came across a page accidentally unpassworded at the Jolly Cafe site (I curse myself that I didn't copy it) meant for their bars. It specified the shot temperature they preferred for every major machine model (varying from 93 to 97! C), the pstat settings required, and the flush required for idling machines. I assume from this that info like this is regarded as both SOP and proprietary in Italy.

The vibe I get from you is that you believe with few exceptions, Italian machine manufacturers neither know nor care about their machines performance. I think this is in error. Sadly they treat the info as proprietary, and don't think much of US distributors or buyers, so don't share the information here. A conversation with Micheal or Angelo will quickly convince anyone that Italian espresso people do know a good deal, but aren't very talkative about it. Right now, the WBC may not have entered their radar screens. If it does, I still find it unlikely that they won't want to negotiate the test standards.

Such negotiation happens for every test standard in every industry. As I say, I respect you guys, and know you've done your best. Overall, the protocol is rather neat. However, it is not a mathematically certain deduction from first principles, nor is it theoretical physics. It contains a lot of engineering judgments. Such judgments are always subject to political negotiation where fairness counts for more than elegance. To think otherwise is somewhat other-worldly.

--

jim schulman
<***@ameritech.net>

Barry Jarrett

16 years ago

On Sat, 19 Nov 2005 01:57:41 -0600, jim schulman

Post by jim schulman

The vibe I get from you is that you believe with few exceptions, Italian machine manufacturers neither know nor care about their machines performance.

i don't think that is the case at all. i know they know about machine performance, but, in some cases, i think it's a matter of "can't fix it? feature it!"

once again, as soon as a manufacturer provides the information for

"proper" out-of-the-box performance, then we can work on incorporating that into the standard (as jack notes, a simple "manufacturer recommendation" clause is all that is needed).

but, as no manufacturer currently provides that information, you are raising a straw man. it may be common knowledge that a hx machine requires a cooling flush, but the extent of the flush required depends upon machine design, p-stat setting, and idle period. it's not readily quantifiable for a standard, so absent manufacturer data (and it is hoped they should know their machines better than anyone) such a flush should be eliminated from the test.

and, again, as greg noted, a hx machine, without any cooling flushes, performed very well at the wbc trials. if other designs don't, that is more an issue with those designs than with the test.

Post by jim schulman

Such negotiation happens for every test standard in every industry.

i think, given his day job, that greg is pretty familiar with the establishment of technical standards. ;) that's why he was approached for this in the first place.

--barry

jim schulman

16 years ago

On Sat, 19 Nov 2005 16:10:12 GMT, Barry Jarrett

Post by Barry Jarrett

once again, as soon as a manufacturer provides the information for "proper" out-of-the-box performance, then we can work on incorporating that into the standard (as jack notes, a simple "manufacturer recommendation" clause is all that is needed).

That's all I ever asked for.

Just as you don't find instructions on how to properly drive landcruisers or porsches in the glove box booklet; I doubt this information will ever find it's way into the shiny "congratulations for buying ..." machine manuals. When a manufacturer submits their stuff for testing, I have a feeling the testers get information not in the shiny booklets.

And now to be fair to me -- read the responses to my request. I was told, repeatedly

1. it's impossible, since it messes up the test
2. good barista practice calls for 1 or 2 second "thermal

equilibration flushes," rather than ones that actually thermally equilibrate.

--

jim schulman

<***@ameritech.net>

Barry Jarrett

16 years ago

On Sat, 19 Nov 2005 11:28:00 -0600, jim schulman

Post by jim schulman

Just as you don't find instructions on how to properly drive landcruisers or porsches in the glove box booklet; I doubt this information will ever find it's way into the shiny "congratulations for buying ..." machine manuals. When a manufacturer submits their stuff for testing, I have a feeling the testers get information not in the shiny booklets.

actually, you do get some critical performance data in the glove box manuals (maybe not on the newer grocery-getter landcruisers, but the old ones have info), and there are operational placards in the vehicle (porsche: "do not open sunroof at speeds in excess of 160mph"; landcruiser (paraphrase): "don't drive this like a car" and some fairly detailed transfer case instructions).

espresso buyers are lucky to get info on how to turn the machine on, let alone how to operate it. this is a well-known deficiency. i'm not so sure that wbc testers get more information than the basic "here's the button you push to brew".

Post by jim schulman

And now to be fair to me -- read the responses to my request. I was told, repeatedly

1. it's impossible, since it messes up the test

personally, i do feel it messes up the test, which was intended to document the out-of-box performance over a variety of duty cycles. if a manufacturer is willing to put flushing specifications in their operators manual and make it part of the recommended operating procedure, then the wbc standards committee will need to take that into account, but, again, so far no manufacturer has done so. in any case, the "scoring" of the machine is under a fairly constant duty cycle (which may make your whole point moot), and machine selection involves more than just the machine score.

Post by jim schulman

2. good barista practice calls for 1 or 2 second "thermal equilibration flushes," rather than ones that actually thermally equilibrate.

no, you were told the flush was a screen flush and not a thermal flush. i just re-read the spec and yes, it's written as "simulate temperature equalization flush," but i think that might be an editing error; my comment draft from last year doesn't have that. greg???

--barry

Jack Denver

16 years ago

If the information is kept secret from end users, what earthly good is it? Even in badly translated Italian manuals, it would not be that hard for the manufacturer to say "For the performance that is the best, please to allow the running of the pump for the period of the 5 seconds before the commencement of the brewing of the coffee." In a modern program type machine you could even have a "flush" button (with some inscrutable European icon) that was pre-programmed for the correct interval. This is not rocket science.

...
.net>

Jack Denver

16 years ago

It really sounds to me that this is a tempest in a teapot. IF this became an issue, you could alter the standard to say that the equalizing flush will be 0 to 5 seconds (in one second increments) as specified by the manufacturer, but if no specification is given, the default flush is two seconds.

...

Barry Jarrett

16 years ago

On Sat, 19 Nov 2005 08:36:20 -0500, "Jack Denver"

Post by Jack Denver
It really sounds to me that this is a tempest in a teapot.

exactly.

Ken Fox

16 years ago

Greg,

Something major is being missed; how any of this relates to how espresso tastes.

I will reject out of hand any measured results of temperature stability of one machine vs. another, until a panel of people with tastebuds I respect can sit down and do a blind tasting of espressos brewed under varying profiles and can show, with some measure of statistical significance, that

this matters. Until then, we are counting angels dancing on the head of a pin.

End of my criticism.

ken

...

Malachi

16 years ago

Thank you.

Ken Fox

16 years ago

Post by Malachi
Thank you.

To which I will add that all of this stuff is proceeding in a wholly 100% assbackwards direction from my prior work as a physician and sometimes (in an earlier period), researcher and minor published author.

Here's a little primer, boys and girls, of how meaningful scientific research is usually conducted. It starts with an OBSERVATION, one that is related to an OUTCOME. Let's make up a silly example; you observe that all your friends who smoke are dropping like flies with diseases like lung cancer or heart disease. You wonder, could it be the cigarettes? You can study this indirectly with population data, but you want to do an active experiment, and it's a bit unethical to force people to smoke, so you take a bunch of rats and force some to smoke and others don't smoke and serve as "controls." Later, you see how your smoking rats compare to your nonsmoking rats and subject your observations to statistical testing. This would be (potentially) meaningful research, which maybe you could extrapolate to human beings.

Now, take what we are doing with all the speculation with temperature and pressure and pump types and whathaveyou in espresso machines. We take some things that are easily measured, assume that elegant is better than "inelegant," and then refine our measurement techniques. Of course, we haven't bothered to prove that those things that are easily measured are more important than those things that aren't, we just take that on faith. Then we write up protocols that indirectly pick winners and loses (e.g. machines that can be used in these barista competitions vs. the losers that cannot) based on measurement of things that we can't prove matter at all, like temperature stability at levels defined by such a protocol. But, we

CAN measure it, and that is all that matters (I guess).

Greg is a real scientist which (if I ever was) I am certainly not now. Notwithstanding this, I am sure he can agree that all of this measurement stuff establishes only one thing; that you have measured something that you can't prove (at least yet) really matters.

SO, if you are going to omit the part of scientific research that starts with an observation of an end result that maybe is related to a process variable, which is exactly what we are doing with this temperature stability stuff, then at least we need to go back one step and test the variable and see if it really matters. And this has not been done and until it is done, all of this is wasted effort.

ken

Barry Jarrett

16 years ago

On Fri, 18 Nov 2005 23:26:31 -0700, "Ken Fox"

Post by Ken Fox

SO, if you are going to omit the part of scientific research that starts with an observation of an end result that maybe is related to a process variable, which is exactly what we are doing with this temperature stability stuff, then at least we need to go back one step and test the variable and see if it really matters. And this has not been done and until it is done, all of this is wasted effort.

to me, it is clear that temperature **is** a taste affecting variable. this is easily demonstrated.

what is not clear is whether a flat-line brew temperature profile is better/worse/indifferent compared to a variable brew temperature profile.

in order to test the effects of temperature on taste, we first must be able to reliably measure the brew water temperature, and then we must have machines which will reliably provide that brew water at that temperature. greg's device allows us to do the former, and greg's protocol allows us to do the latter.

i don't see how developing a measurement device and protocol interferes with or detracts from the desire to "test the variable and see if it really matters." in fact, i can't think of how we could test the variable without measuring it.....

--barry

D. Ross

16 years ago

| SO, if you are going to omit the part of scientific research that starts
| with an observation of an end result that maybe is related to a process
| variable, which is exactly what we are doing with this temperature stability
| stuff, then at least we need to go back one step and test the variable and
| see if it really matters. And this has not been done and until it is done,
| all of this is wasted effort.

Suppose however that one has reason to believe that some other explanatory
variable, say bean color, has a much higher effect on taste. One still has
to control the obvious confounding variables, like temperature, and to do
that one needs to be able to accurately measure and control that variable.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

D. Ross

16 years ago

"Ken Fox" <***@Hotmail.com> wrote:

| I will reject out of hand any measured results of temperature stability of
| one machine vs. another, until a panel of people with tastebuds I respect
| can sit down and do a blind tasting of espressos brewed under varying
| profiles and can show, with some measure of statistical significance, that
| this matters. Until then, we are counting angels dancing on the head of a
| pin.

Ken,

Since I've spent the last couple of weeks on this NG making fun of all the
new technology, now let me take the other side. Even a fairly crippled
palate like mine can detect a 1F difference in the cup. I'd be hard-pressed
to say that cup A at 90C is better than cup B at 90.5C, and it is possible
that the optimal flavor profile is actually some kind of cubic spline
varying by several degrees over the course of the shot, and that that
happens to be *exactly* the profile of a 1952 Arduino lever machine, but it
is clear that temp plays a big role in the flavor.

As I understand it, the main reason this stability is a goal for the WBC machines is to make sure that temperature questions play as *little* a role as possible in distinguishing contestants. By putting all contestants on the same machine, with stable temp and pressure, and all with the same coffee blend and grinder, it means that the barista's art can be judged solely on its own merits.

What impact this all has on the coffee you get in a coffeehouse is a different, and interesting, question. One cafe near here has a big LM machine, a Swift grinder, and the baristas seem adequately trained. The espresso they serve has a lovely appearance and mouthfeel, but I always regret ordering a straight shot because I simply don't like the coffee they use - to me the shots are pure lemon peel. (Good iced, though.)

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

Ken Fox

16 years ago

...

David,

I am not addressing this solely at you, but thank you for giving me the opportunity to respond to your post.

I have made many observations in my life that I was quite certain were correct at the time, however over time I have come to see that many of these observations were not actually correct. One example that is slightly relevant was that at one time I was absolutely convinced that my rotary pump driven machine pulls better shots than my vibe machine. I don't know how many times I pulled shots on one machine or the other and either extolled them or criticized them and attributed their fine points or their deficiencies to the pump contained within them. After one month's worth of ownership of my new (at the time) rotary machine, I felt I could never go back to using the old vibe machine, I had "outgrown it."

The only problem with this was that when Jim S. and I meticulously setup the two machines to run at the same temps and pressures, I couldn't tell the difference in a consistent fashion when presented blindly with drinks

produced by the two machines. That was almost 2 years ago now but I don't think I'll do better when we retest it this coming winter.

Home users have made me shots on their machines that took 12 seconds to pour but that they thought took 25 or 30 seconds, but they didn't time them ever so they were fooled.

You say that you can tell 1 degree F differences and I have no reason to doubt you, but, the mind plays tricks.

ken

Barry Jarrett

16 years ago

On Fri, 18 Nov 2005 23:39:18 -0700, "Ken Fox"

Post by Ken Fox

You say that you can tell 1 degree F differences and I have no reason to doubt you, but, the mind plays tricks.

taste resolution is certainly questionable, but given a large enough temperature interval, i'm sure just about anyone can distinguish between shots at different temperatures. maybe i'm spoiled and take it for granted.... my 4-group LM has two brew boilers, which can be set at different temperatures, so shots can literally be brewed side-by-side at different temps. i'd put money that you could detect a 10F temp difference by the smell of the shots alone.

--barry "provided your nose works" ;)

D. Ross

16 years ago

| I have made many observations in my life that I was quite certain were
| correct at the time, however over time I have come to see that many of these
| observations were not actually correct. One example that is slightly
| relevant was that at one time I was absolutely convinced that my rotary pump
| driven machine pulls better shots than my vibe machine. I don't know how
| many times I pulled shots on one machine or the other and either extolled
| them or criticized them and attributed their fine points or their
| deficiencies to the pump contained within them. After one month's worth of
| ownership of my new (at the time) rotary machine, I felt I could never go
| back to using the old vibe machine, I had "outgrown it."

I completely agree that any definitive statements about the effect of temp on taste should ideally be backed up with blind or double-blind tests. However, I believe there are essential differences between the rotary/vibe pump situation and this one. The differences people traditionally posit in taste as a function of pump type are rather vague - mouthfeel, body, clarity, and so on. Temperature differences on the other hand are associated with concrete flavor attributes: more or less bitter or sour, citrus, chocolate - that's about the extent of my own ability, others can detect stuff like hung pheasant and blueberries.

The other, more essential difference between the situations is that many people - not just tyros like me, or people on a.c with PIDs on their machines, but also roasters and shopowners experimenting with new blends - regularly tune the temp of their machines when switching blends. This (for me at least) involves pulling many shots, and adjusting the temp up and down until a temp is found where a sequence of shots taste as one wants. This is not scientific by any means, but as I do this regularly I have as much belief in the effect as I do that pressure on my car's gas pedal has an effect on acceleration, and for much the same reason. I don't have similar faith (for example) in the difference in shot quality between my Gaggia and my Techno, as the framework in which I compare them is not as adjacent steps of a larger coherent process.

In any event - for the subject at hand - even if you choose to reserve judgement on the question (as you should, since what is revealed truth to me is merely hearsay to you), as the perception is widespread that small changes in temperature have detectable effects on taste, for the sake of the WBC it is reasonable to ask that brew temperatures should be consistent and repeatable.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

Barry Jarrett

16 years ago

On Fri, 18 Nov 2005 22:32:51 -0700, "Ken Fox"

Post by Ken Fox

I will reject out of hand any measured results of temperature stability of one machine vs. another, until a panel of people with tastebuds I respect can sit down and do a blind tasting of espressos brewed under varying profiles and can show, with some measure of statistical significance, that

this matters. Until then, we are counting angels dancing on the head of a pin.

unfortunately, you are rejecting the very thing required for your proposed taste test. ;)

g*@earthlink.net**

16 years ago

No, it's not being missed, Ken. I'm not the only one who think it matters. However, wrt the WBC standard, we were asked to develop this by the WBC folks, who do care about this. Regardless of your personal belief, the standard does what it's supposed to.

-Greg

Ken Fox

16 years ago

*Post by g***@earthlink.net*

No, it's not being missed, Ken. I'm not the only one who think it matters. However, wrt the WBC standard, we were asked to develop this by the WBC folks, who do care about this. Regardless of your personal belief, the standard does what it's supposed to.

-Greg

Greg,

I am certainly open to suggestion and in fact have had few original thoughts in my entire life.

I just don't want this thing (striving for a certain level of temperature stability) to eclipse what really matters, which is how the damn stuff tastes. I can see future threads on a.c. extolling how X machine meets this criteria and Y machine does not, as many people who read and post on a.c. and the other places tend to exhibit what I would call "concrete mentation." It could well be that machines A,B,C meet the requirements that have been spelled out, but that X and Y do not. It could also be that there are other advantages of X and Y that don't relate to the temperature issue or that do but it could turn out that they have a leg up in the (unknown) effects of temperature profiling that cancels out any imputed detriment from lack of consistency. Who can possibly know?

In the end the only things that should matter to your typical home user altie type is the taste of what is in their espresso cup, taking into consideration such other issues as frequency of mechanical failure and other hassles of home ownership. Pulling something completely out of the ether, if someone told me there was a terrific machine out there that would best my machine(s) by a modest amount but that require a lot more maintenance and repair work, I'd say, "thanks, but no thanks;" to me, a machine that won't

pull a shot reliably for me at 6:30am when I want that damn shot, well the hell with it. But that is just me.

I think there is a lot of good equipment out there that will pull reliably good shots on a regular basis for the majority of attentive users. I think we tend to overestimate the importance of equipment in the espressomaking equation once we get beyond a certain level of gear. What is more, most of us do not live in places where we can go out to cafes and expect drinkable espresso, so whatever the WBC and all the other barista competitions accomplish, it is not going to be something that we will have the privilege to witness. Instead, faced with bad choices in our own areas we will continue to make and drink our own espressos at home. In that setting the beans we use and how they are roasted, plus our own basic barista skills, will overwhelm minor differences in equipment capabilities.

Given this (irrefutable) fact, it is my personal opinion that these standards you and the others have set up have very little relevancy to the typical home user altie.

Just my opinion, that is all.

Best,

ken

J. Clarke

16 years ago

...

You're probably right on all your points, however I don't see why you're on about it. If a bunch of people want to have an international barista competition and want to make up rules for it, more power to them. If you don't think the rules of the competition are relevant to every day life, well, the rules of football aren't very relevant to every day life either, and so what?

The likelihood of a champion coming out the local starbies is vanishingly small, but they have to come from _somewhere_ and you may luck out and find that one of the top level competitors works locally to you. If WBC becomes popular you may see local competitions developing, which should improve quality for everybody. Who knows, you may even decide in a fit of insanity to enter one yourself.

Further, if wbc becomes popular enough that ordinary people have heard of it and starbies can't field a competitor who places near the top, that's a corporate embarrassment to them that they will likely have to address. And there's also the possibility once it comes out that Starbucks dreck is far from championship quality people will start demanding something resembling championship quality of starbucks and go elsewhere if starbies can't deliver.

Beyond this, in local competitions anybody halfway competent should beat the Starbucks crew, and when they do, wherever they work can advertise "WBC Chicago champion" or some such, which gives them cred that might be able to pull enough business from starbies to actually stay afloat.

Personally I'd be far more concerned that starbies might wangle themselves into a position to influence the judging and bias it toward "the starbucks taste" than I would with the details of the rules pertaining to machine performance.

Now, if you have some ideas that might make the competition more interesting or think that the current rules are unfair to the competitors in some way, that's another story, but that doesn't seem to be what you're saying.

Post by Ken Fox
Best,
ken

--

--John
to email, dial "usenet" and validate
(was jclarke at eye bee em dot net)

Barry Jarrett

16 years ago

On Sat, 19 Nov 2005 20:49:26 -0700, "Ken Fox"

Post by Ken Fox

Given this (irrefutable) fact, it is my personal opinion that these standards you and the others have set up have very little relevancy to the typical home user altie.

correct. the standard wasn't developed with home users in mind.
heck, even greg's device wasn't developed with home users in mind. of course, your cimballi wasn't developed with home users in mind, either, but, yet, there it sits! ;)

Ken Fox

16 years ago

Post by Barry Jarrett

On Sat, 19 Nov 2005 20:49:26 -0700, "Ken Fox"

Post by Ken Fox

Given this (irrefutable) fact, it is my personal opinion that these

standards you and the others have set up have very little relevancy to the typical home user altie.

correct. the standard wasn't developed with home users in mind. heck, even greg's device wasn't developed with home users in mind. of course, your cimballi wasn't developed with home users in mind, either, but, yet, there it sits! ;)

I just thought it was important to state this before the unavoidable threads begin appearing that indicate that certain machines are better than certain other machines, when the basis for the statement has no relevancy whatsoever to the home user.

As a matter of fact, my dog is one of the few things I have that was developed with home users in mind

People can become so wrapped up in equipment that they forget that (assuming a certain level of equipment as a baseline) the main requirements for making good espresso at home are good freshly roasted beans and basic barista skills. Without these, the "best" machine in the world will produce drek, and with these, a sub-\$1000 equipment investment will produce better shots than 99% of the cafes out there.

ken

Barry Jarrett

16 years ago

On Sun, 20 Nov 2005 11:10:32 -0700, "Ken Fox"

Post by Ken Fox

People can become so wrapped up in equipment that they forget that (assuming a certain level of equipment as a baseline) the main requirements for making good espresso at home are good freshly roasted beans and basic barista skills. Without these, the "best" machine in the world will produce drek, and with these, a sub-\$1000 equipment investment will produce better shots than 99% of the cafes out there.

yep. the machine can't save the user from their own inadequacies (and that holds for many endeavors).

Java Man

16 years ago

...

That is inevitable. One defense against it is to collaborate on a testing standard for home machines. If CoffeeGeek and HomeBarista were using such a standardized testing regimen, it would be a major step forward. I suspect it could have a lot of influence on the design of machines intended for home use.

Rick

Andy Schecter

16 years ago

Post by Ken Fox

As a matter of fact, my dog is one of the few things I have that was developed with home users in mind

That's right, now that I remember, even your toaster is a "commercial" model. Probably your toothbrush is rated for commercial duty. :-)

Post by Ken Fox

People can become so wrapped up in equipment that they forget that (assuming a certain level of equipment as a baseline) the main requirements for making good espresso at home are good freshly roasted beans and basic barista skills. Without these, the "best" machine in the world will produce drek, and with these, a sub-\$1000 equipment investment will produce better shots than 99% of the cafes out there.

Agree 100%, but the fact that you have to interject this into practically every discussion we have here is really getting old (for me). Many of us already have "excellent" freshly roasted beans and at least "basic" barista skills. We DO notice that machine choices make a difference, and we'd like the machines to improve even as we improve our technique.

--

-Andy S.

picture page: <http://tinyurl.com/eh0x>

Ken Fox

16 years ago

...

Was it the reference to my dog that got you going, Andy? Dogs have many attributes missing in espresso machines, even the most temperature stable ones:-)

The problem with what you seek is that there is no commercially viable market for it. It is not as if the espresso machine is some sort of new invention that just came on the scene; these things have been around for decades and there have been incremental improvements made over time.

No self respecting Italian would ever buy one of these newfangled improved machines, since he gets his espressos around the corner at the cafe. French people drink plonk and don't care. The Japanese, Chinese, and most other Asians prefer tea. This leaves your market for an improved machine as home users in North America and a few outcasts in Australia, New Zealand, Germany, and a few other places I failed to mention. Most North Americans prefer that their espresso be drowned in copius quantities of milk, which will surely hide most sins, and will not allow the benefits of fine temperature control to show through.

So, if you are addressing only the commercial market then even so, the usual customers of these establishments (even the best ones) don't often order

straight shots. OK, I'm sure there are a handful of cafes where people order straight shots, but not very many of them on this continent. Is it an intelligent economic decision for even a very fine cafe to pay up for very fine temperature control, or is that money better spent on technology that will speed up drink production for the drinks their customers actually order, e.g. milk drinks?? The question answers itself.

A couple of weeks ago I was discussing with my father that hatchet job piece that Jon Stossel did on ABC tv, comparing cheap stale coffee to expensive stale coffee. My father's reaction was that the percentage of consumers who "care" about freshness in coffee is so small as to be insignificant and that the comparison Stossel did was what average consumers would be interested in. This is coming from a man who has had fresh espresso, liked it, but drinks preground decaf as his usual coffee intake:-) Although my father is much more intelligent than your average coffee consumer, I think his taste is reflective of average consumers.

So, this leaves you back where you were when you started; there was and is no significant home or commercial market for a machine that has ultra tight temperature control. If you care about such things, you can buy an expensive piece of commercial equipment and put it into your home and maybe modify it, as many (including myself) have done, you can modify a piece of consumer level equipment as you have done, or you can hope against hope that someone is going to sell you something that satisfies your wants at a price level that is "reasonable." As much as I admire LM's efforts in producing this new machine, I would submit that the prices that have been discussed are way beyond the means of most people and even of most elites, except perhaps successful entrepreneurs including designer yogurt producers:-)

I admire what you, Greg, Barry, Bill C., and the rest are doing, but the applicability of this to most home espresso fiends is close to zero. Since very few people reading this are ever going to have one of these machines in their homes, or any other machine capable of very fine temperature stability, it behooves you guys to treat this whole thing as a research project that tests more than whether fine temperature control itself can be attained. I am certain that for a lot of money, fine temperature control can be attained. The real question is does it matter, and the only way to really prove that is with blind tasting.

ken

p.s. as to your comment about "many of us" already having barista skills and good coffee, I think you overestimate the number of people like us

Andy Schecter

16 years ago

Post by Ken Fox

The problem with what you seek is that there is no commercially viable market for it.

<snip>

Post by Ken Fox

there was and is no significant home or commercial market for a machine that has ultra tight temperature control.

Not a problem at all; I do this as an amateur. Worrying whether there's a market or not is up to the people at La Marzocco, Whole Latte Love, etc.

Post by Ken Fox

I admire what you, Greg, Barry, Bill C., and the rest are doing

Really? Seems the opposite, since you make regular posts telling us that what we're doing is a waste of time.

Post by Ken Fox

p.s. as to your comment about "many of us" already having barista skills and good coffee, I think you overestimate the number of people like us

My estimate was 14.3. Is that too high?

--

-Andy S.

picture page: <http://tinyurl.com/eh0x>

Andy Schecter

16 years ago

Ken:

Rereading my reply to your post, my tone seems harsh and cynical. My apologies to you.

--

-Andy S.

picture page: <http://tinyurl.com/eh0x>**Ken Fox**

16 years ago

sorry, I replied already:-)

Besides, having had the pleasure of meeting you in person, I don't give a whole lot of importance to this sort of online squabbling.

ken

Post by Andy Schecter

Rereading my reply to your post, my tone seems harsh and cynical. My apologies to you.

--

-Andy S.

picture page: <http://tinyurl.com/eh0x>**Andy Schecter**

16 years ago

Post by Ken Fox

Besides, having had the pleasure of meeting you in person I don't give a whole lot of importance to this sort of online squabbling.

In that case, forget about the apology. I meant to say, you're an idiot and your mother wears army boots.

--

-Andy "doing my part to keep alt.coffee a kinder, gentler place" S.

picture page: <http://tinyurl.com/eh0x>**Ken Fox**

16 years ago

...

show me a link to where I said that

Post by Andy Schecter

Post by Ken Fox

p.s. as to your comment about "many of us" already having barista skills and good coffee, I think you overestimate the number of people like us

My estimate was 14.3. Is that too high?

my estimate was 87, but it could even be 187

Post by Andy Schecter

--

-Andy S.

picture page: <http://tinyurl.com/eh0x>**jim schulman**

16 years ago

On Sun, 20 Nov 2005 16:57:02 -0700, "Ken Fox"

Post by Ken Fox

I admire what you, Greg, Barry, Bill C., and the rest are doing, but the applicability of this to most home espresso fiends is close to zero.

If the same technology was available at \$450 rather than \$4500, would you still say the same thing?

I don't believe in trickle down economics; but I sure believe in trickle down engineering. The stuff the lunatics are using today at \$4500 will be available for the nominally sane people who don't see any reason to pay 500% more for a 5% improvement at \$450 tomorrow tomorrow. So be happy there're lunatics around today.

More generally, I've seen this pattern of posts before. When people here switched from saecos to silvias, from Silvias to Livias, and now from Livias to LMs, there seems to be a huge vanity driven sour grapes thing that is similar to the stages of grief:

One has settled down into the comfortable assurance that whatever one's gear is at the moment delivers the best espresso possible; then something comes along to upset that assumption:

1. Denial -- the new gear is no better than than mine, and the adopters are getting ripped off
2. Anger -- the adopters are just snobs trying to make me look cheap, and 2nd rate, how dare they.
3. Bargaining -- I'll make this minor upgrade, and it'll be as good as your major one.
4. Depression -- This is like a damn arms race, and I can't keep up
5. Acceptance -- I've taken a nd mortgage and gotten the newest thing.

If you want to sidestep all this, say after me, "my espresso isn't the best in the world, but I still like it" Paste it on you rbathroom mirror until the GS3 post go away.

--

jim schulman
<***@ameritech.net>

Ken Fox

16 years ago

Jim,

If you are pointing this response to me specifically (which I hope you are not), you clearly know this Kuebler-Ross analogy (to my posts) is rubbish. For one thing, I could write a check for the new LM tomorrow and wouldn't give the expense another thought again, ever. If it turned out to be a stupid purchase it wouldn't even rank in the top 10 of my stupid lifetime

purchases, so buyer's remorse would be unlikely to set in, either. I could unload my Cimbali on ebay if I wanted to and that would be that.

I had a chance to see the new LM in person, as you did, in Seattle. It is one helluva cool looking machine and anyone who buys one I am certain will be happy with it. Bill Crossland is one cool dude and I appreciate him having shown the machine to me. All the other dudes working on this temperature (stability) project, most of whom I've had some personal contact with, are also cool dudes.

If testing shows this machine to be the cat's meow, and clearly better than anything else, I'll applaud the new owners and wish them well. Most probably I won't buy one because I'm one lazy ass person and I'm used to the machine I have and I know how to work on it. Lazyness has its virtues. I had exactly the same reaction to the Versalab grinder broohaha that went on here a few months ago; honestly, if I'd wanted one or two or three of those Versalab things I would have bought them. Anyone who knows me knows that if I want to buy something that isn't horrendously expensive, I just buy it. Now THAT's something that I regret:-)

I also know that some of the fine differences in taste that I hear others describing here seem to be beyond my capability to appreciate; I just don't have a palatte that easily distinguishes between a 93 point shot and a 95 point one. What's more, truth be told, about 2/3 of my straight shots end up in cappas, so I probably only drink one regular (caffeinated) straight shot each day. Since the decaf I drink is almost always in straight shots, I could count that but even I can tell that straight decaf isn't anything I'd get all that worked up about even at its best.

Getting back to the point at hand: there is an assumption that tight temperature control produces better shots. Mind you, I don't have an opinion that it doesn't do so, but I also regard the issue as unproven.

As to the point of "trickle down engineering," this is a case much better made with mass market consumer electronics. The home espresso machine market is so tiny as to be virtually unaffected by this sort of thing, in my opinion. How much would it cost per unit for the mfrs. to put electronic temperature controls in their machines rather than those ubiquitous pstats? A few bucks? We are not talking new cutting edge technology here, we are talking about a few bucks more for a (non-pid) electronic temperature

control and a digital readout. But, it is not being done; where's the trickle down there?

What is more, I think it is MUCH more likely that in a few years it will be hard to buy any kind of home equipment other than very cheap steam toys or superautos. To the extent that there is any sort of mass market for expensive home espresso gear, it will be for superautos for nondiscriminating consumers, rather than for minute refinements in ~\$1000 home semi-autos and automatic machines. There are more vacuum cleaners sold on a single day than there are e-61 home espresso machines sold in a whole YEAR.

I submit that our interest in this sort of stuff is off the radar screen and is destined to remain so.

ken

...

jim schulman

16 years ago

On Sun, 20 Nov 2005 23:39:20 -0700, "Ken Fox"

Post by Ken Fox

f you are pointing this response to me specifically (which I hope you are not),

No, the point about the outcry when expenditures jump a scale of magnitude is more general; it just seemed a good place for posting it.

--

jim schulman

<***@ameritech.net>

D. Ross

16 years ago

| I don't believe in trickle down economics; but I sure believe in
| trickle down engineering. The stuff the lunatics are using today at
| \$4500 will be available for the nominally sane people who don't see
| any reason to pay 500% more for a 5% improvement at \$450 tomorrow
| tomorrow. So be happy there're lunatics around today.

This is pretty clearly what happened with double-boiler machines for home use. Only after early adopters started using and lauding the Techno (and perhaps the odd Unic) did people see a market for such machines, and so the Spaziale S1 and Expobar Brewtus eventually followed. The GS3 is just next year's entry into the category. (Of course, in this case it is trickle up, not down, as even with the inflated Euro and shipping increases the Techno

is half the likely price of the GS3, and the other dual-boilers are even less).

Admittedly, sometimes the trickle-down is a bit misguided - the \$800 dual-boiler KA Pro, for example, or the \$600AU PID-equipped Sunbeam thermoblock machine, neither of which is superior to cheaper older-technology home machines.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

AIMac

16 years ago

...

I bought a Techno 4 months ago and was thinking about this. Fortunately with my technique I can't even get the Techno to deliver the the best espresso it is capable of so still have plenty of work to do.

I read Mark, Andy, Greg and Chris' posts (as persons with a GS3) with great interest, just like I'd read an academic work or journal article. Who knows what it will add to espresso in the end, but for now it is at the very least interesting to read.

I can't tell the difference between 93 and 95 degrees either, but hopefully one day I will.

D. Ross

16 years ago

| I just thought it was important to state this before the unavoidable threads
| begin appearing that indicate that certain machines are better than certain
| other machines,

Just because potential buyers by their nature tend to overfixate on things like technical specs, that doesn't mean that we shouldn't aim for the best possible measurements of those specs, or for technologies that improve those specs. If these technologies come at a cost - either in terms of money, or fragility, or what have you, then the best thing is to make sure those considerations are known too.

The great thing about a.c is that there's always someone around to correct a

mistake or otherwise put things into context.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

Ken Fox

16 years ago

...

David,

I'm not saying don't measure and I'm not saying don't try to get the best possible specs. What I AM saying is that the specs themselves and the measurements themselves should not be an end unto themselves. Until the specs and measurements are correlated with what really matters, e.g. taste, they are of very limited utility unto themselves.

ken

D. Ross

16 years ago

"Ken Fox" <***@hotmail.com> wrote:

| I'm not saying don't measure and I'm not saying don't try to get the best
| possible specs. What I AM saying is that the specs themselves and the
| measurements themselves should not be an end unto themselves. Until the
| specs and measurements are correlated with what really matters, e.g. taste,
| they are of very limited utility unto themselves.

From the POV of what espresso machine a home user should buy, I agree; the espresso quality is limited by the weak link in the production chain, and I think temp stability is very rarely the weak link, even when you include some of the more notoriously unstable home machines.

Hell, for all I know the thickness of the dispersion disk might be a more important factor; and of course, the quality of the coffee beans and the skill of the blender and roaster easily trump everything else.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

...

None of this is new and I apologize for restating the obvious, but I will.

When I started with this ng some time back, I was using Lavazza beans and hadn't a clue what steps were needed to produce good shots, even though I already had good equipment. As a result of this ng and the people I have met through it, I became a home roaster and learned basic barista skills. Over time I bought a newer rotary pumped version of a Cimbali Junior and with the help of Jim Schulman and another anonymous individual, PID'd the boiler of it. I went through a progression of home roasting devices, finally ending up with a 1 lb. sample roaster, and have had the pleasure of using green beans from some of America's best suppliers and roasters.

Over

time I have also solicited feedback from roasters to get an idea of how my roasting skills are evolving. Often, the feedback received was not positive!

There was an immediate HUGE improvement in the espressos I produced when I

started using fresh coffee and learned basic barista skills. This happened early in this progression as I am sure it has happened for many reading this. After the initial huge improvement, there have continued to be small incremental improvements, also nothing unusual compared to others here. If I had to list the incremental improvements I actually noticed, they would be such things as improvements in my roast technique, which is now quite a bit different than it was even a year ago. When I got a bottomless PF I also learned that my basket distribution and packing techniques could bear improvement, which they have. Have I noticed any actual taste improvement

from PID'ing my boiler? That's a tough call although Jim and I certainly did measure improvements in temperature stability.

Here's my point: assuming a decent level of equipment to begin with, the noticeable differences an altie is apt to see in his espresso end product most probably will come from improving the quality of their raw materials (e.g. the beans) and basic barista skills. Sure, there are people out there who already have the best possible coffee to work with and terrific barista skills, but there aren't many of them. Some of you reading this will think you are among that group but in reality you aren't. When was the last time

you sent samples of your roasted beans off to other alties or to pros you respect in order to get their opinions? Do you ever serve your espressos to other alties or other people who have a fine level of appreciation of quality espresso?

It is easy to convince oneself that because one's posts appear on the same board as Barry Jarrett, Jim Schulman, Andy S., Greg S., and other talented individuals, that one knows what one is doing. I wish that this was the case.

So, to the typical a.c. reader or lurker, I say this: maybe espresso machine technology is about to improve markedly with better temperature control. That is all well and good and I hope it is the case. In any event, the improvement you will get from this sort of thing is small and incremental. Don't expect that you can just write a big check and god shots will magically appear out of your PF. If you want to make clearly noticeable improvements in your espresso drinks, look first to the quality of the beans you use whether you roast them or not, and improve your barista skills. This is where the major gains are to be made even for people who think they already know it all.

ken

jim schulman

16 years ago

On Mon, 21 Nov 2005 09:18:36 -0700, "Ken Fox"

...

I think this point gets to the heart of the matter.

In an ideal world, the demand for better equipment comes from those who are so skilled that they've run into the limits of their old equipment. This is what produces innovation. Better equipment as a criutch is usually automation and design changes aimed at elimintating stupid errors which compromise the quality for good users - e.g. crema enhancers and superautos.

Home roasters, I think are most familiar with hitting the wall on equipment -- off the shelf home roasters are so poor that one doesn;t need to be Carl Staub to outgrow them. The fact is that most homeroasters end up using highly idiosyncratic rigs they'd slowly come up with themselves.

Grinders are next, most people get cheap ones to start, and quickly realize that these are a problem. I personally feel the current commercial grinder is more of a limit than the current commercial espresso machine; but the jury is still out on that -- I know there's an incremental improvement to be had with commercial conicals, but the cost/improvement trade off is steep, and despite all my tasting so far, it's unclear whether the improvement is anything that could be described as a qualitative step up.

(in racing or barista competition, any step up is important, since any edge, no matter how small 'wins.' In regular espresso, winning isn't the point, so the step up should be what I call qualitative -- a readily apparent and savored improvement)

In espresso machines, there's no real doubt the latest dual boiler models, including the GS3, have achieved a new level of temperature stability compared to the best machines of three to five years ago. Here we have brew heads and brew paths tweaked, after several models experience, to specifically take advantage of PID controls. So the improvement is no surprise, but rather an expectation. The only numerical question is exactly how much.

The old standard is roughly 0.5C-1C intra-shot and 1.5C to 2C intershot stability (depending on measurement scheme); it is achieved by all dual boilers and many well operated HX machines. Whether the new standard cuts it in half or by 90% is irrelevant to the qualitative question: "is the difference readily apparent and savored"

Over on H-B, Chris is basically saying yes to this, since he is claiming that there's lots of blends that have dramatic taste differences at even 0.25C extraction changes. I personally think this assessment is overoptimistic, since these blends also have the same dramatic differences for me at 0.0C extraction differences. His point is that that shots made in identical conditions by good baristas don't vary. Instead, variation has been due to hidden machine variation that the new designs eliminate. (This suggests a new way of testing how good these machines are -- less shot to shot variation compared to existing ones).

Getting back to the original point. We can argue the numbers endlessly, but it seems likely that the audience formed by the internet coffee community, both pro and am, is the most accomplished and the most likely to benefit from quality innovation. If we can;t tell the difference, it seems unlikely anyone else will. I think one of the interesting developments of the last few years is that this fact has sunk in for many manufacturers and distributors, so that some of us are now getting prototypes to test.

--

jim schulman
<***@ameritech.net>

Java Man

16 years ago

Post by jim schulman

Over on H-B, Chris is basically saying yes to this, since he is claiming that there's lots of blends that have dramatic taste differences at even 0.25C extraction changes.

How sure can we be that other variables were held to the same degree of precision as brew temperature? I've not read any discussion about holding the dose constant, and I wonder why. Perhaps shot quality is far less affected by deviation in dose, but I'd like to see that established by testing before I would accept that the dramatic taste differences are really due to 0.25C brew temperature changes.

Rick

Barry Jarrett

16 years ago

On Mon, 21 Nov 2005 19:19:00 GMT, Java Man

Post by Java Man

How sure can we be that other variables were held to the same degree of precision as brew temperature? I've not read any discussion about holding the dose constant, and I wonder why. Perhaps shot quality is far less affected by deviation in dose, but I'd like to see that established by testing before I would accept that the dramatic taste differences are really due to 0.25C brew temperature changes.

chris has enough experience that he's probably consistent to plus/minus a tenth of a gram on dosing.

--barry "maybe better"

D. Ross

16 years ago

Barry Jarrett <***@rileys-coffee.com> wrote:

| On Mon, 21 Nov 2005 19:19:00 GMT, Java Man

| <***@letterectomyTELUS.net> wrote:

|
 | >How sure can we be that other variables were held to the same degree of
 | >precision as brew temperature? I've not read any discussion about
 | >holding the dose constant, and I wonder why. Perhaps shot quality is
 | >far less affected by deviation in dose, but I'd like to see that
 | >established by testing before I would accept that the dramatic taste
 | >differences are really due to 0.25C brew temperature changes.
 |
 | chris has enough experience that he's probably consistent to
 | plus/minus a tenth of a gram on dosing.

How good is the Swift? Not in the sense of how does it compare in *quality*
 to a good barista - I assume the latter is better - but in variability? It
 seems that it would be natural to do these micro-temp experiments using a SO
 coffee and auto grinder/tamper just to minimize noise.

- David R.

--

Less information than you ever thought possible:

<http://www.demitasse.net>

Barry Jarrett

16 years ago

Post by D. Ross

How good is the Swift?

it's pretty close.... i don't remember off the top of my head. i've
 got data around someplace.

CoffeeKid

16 years ago

Post by jim schulman

If Mark stays true to form,

it'll be a year or two before there's a paragraph without "bay-bee" in

Ouch. I'm slayed.

Mark, who has not uttered "baybee" (speeel it rite, pleze) once in the
 LM threads on CG.

jim schulman

16 years ago

Post by CoffeeKid

Post by jim schulman

If Mark stays true to form,

it'll be a year or two before there's a paragraph without "bay-bee" in

Ouch. I'm slayed.

Mark, who has not uttered "baybee" (speeel it rite, pleze) once in the
 LM threads on CG.

Seems like I'm a curmudgeonly minority of one on this. Keep the baybees rolling; since I want to see as many of them out the door as possible, as soon as possible.

--

jim schulman

<***@ameritech.net>

Continue reading on *narkive*:

SEARCH RESULTS FOR 'ESPRESSO MACHINE TEMPERATURE STABILITY' (NEWSGROUPS AND MAILING LISTS)		
9 replies	Any details on the KitchenAid Pro Line espresso machine yet? started 18 years ago	alt.coffee
13 replies	Just bought a KitchenAid ProLine espresso machine... started 17 years ago	alt.coffee
18 replies	Espresso Machine Review started 17 years ago	alt.coffee
10 replies	Very portable espresso machine started 18 years ago	alt.coffee
9 replies	the "presso" manual espresso machine started 17 years ago	alt.coffee

about - legalese