

# TROUBLESHOOTING & FAQ

The following list describes problems that may occur and questions that may arise when you make espresso commercially. We have divided them into categories to help you diagnose issues as they arise.

## Troubleshooting: Boilers & Steam Wands

*Question* ***My steam wand is too aggressive. Milk keeps spilling out of my milk pitcher.***

*Diagnosis* This could be caused by excessive steam boiler pressure. It could also be that you have very large holes in the steam wand tip.

*Treatment* Check the pressure gauge. If it higher than 1.3 bars or higher than usual, ask a qualified person to assist with the issue.

If you serve large drinks or you steam milk for more than one drink at a time (as we recommend), try using a larger milk pitcher to steam in. You can then transfer your milk into a smaller pitcher if you don't like pouring with a large pitcher.

*Question* ***It is taking too long to heat up my milk.***

*Diagnosis* This might result from insufficient boiler pressure or a blockage in the steam wand tip.

*Treatment* First, check that your steam wand tip is not blocked by milk residue. Consult a qualified person before attempting to unscrew the steam wand tip.

Check the pressure gauge. If the pressure is lower than one bar this will greatly reduce the speed at which your milk heats up. Consult a qualified person before attempting to increase the boiler pressure. Be aware that with some single-boiler machines, when you increase the steam boiler pressure you also increase the water temperature at the group head. An easier solution might be to use a steam wand tip that has larger holes.

*Question* ***My steam wand tip is droopy and won't stay in position.***

*Diagnosis* A spring, positioned where the steam wand attaches to the machine, provides some tension. When a steam wand tip becomes droopy, the spring needs to be stretched or replaced in order to increase the resistance.

*Treatment* A qualified person can service the steam wand.

*Question* **My steam wand tip is squeaky and/or won't move freely.**

*Diagnosis* Over time, the housing builds up residue.

*Treatment* A qualified person can service the steam wand and apply some food-safe silicone lubricant to allow the steam wand to move freely.

*Question* **My steam wand makes a horrible squealing noise every time I steam milk.**

*Diagnosis* You might have underaerated your milk.  
You might not have opened up the steam wand valve far enough.  
It could also be that you have insufficient pressure in your steam boiler.

*Treatment* Increase you aeration to 20% or more. If your machine has a twisting knob, be sure you spin it around far enough. Older machines can lose pressure if you draw a lot of water out of them for making drinks such as teas and americanos. If you have a very high demand for these sorts of drinks involving hot water, consider obtaining the hot water from a kettle or an urn. This remodeling of the bar layout/workflow will require careful planning in collaboration with the management team because it can present potential hot water hazards.

## **Troubleshooting: Milk**

*Question* **My milk is too bubbly.**

*Diagnosis* This usually signifies that you added air to the milk late in the process, you overaerated your milk, or both.

*Treatment* Entrain air before the milk warms to body temperature. Don't attempt to aerate milk over 50% except to make cappuccinos, which traditionally require around 66% aeration.

*Question* **My milk isn't foamy enough.**

*Diagnosis* When milk is underaerated, you have increased the volume by less than 20%.

*Treatment* Spend more time at the beginning of the steaming process with the steam wand at the surface.

If your machine has a rotating steam wand valve, you might need to open the valve a little more.

*Question* **The last drink I make foams differently and tastes different from the first drink I make from the same bottle.**

*Diagnosis* Your milk might be unhomogenised. In unhomogenised milk, the cream floats to the top and eventually forms a separate layer.

*Treatment* If your milk is unhomogenised, give the bottle a good shake before you portion the milk out, in order to mix in the cream.

*Question* **The foam begins breaking up immediately after I finish steaming my milk.**

*Diagnosis* The milk may have gone sour, there may have been some change in the cows' diet, or lipolysis is occurring.

The effect could also be the result of UV light damage.

*Treatment* Sour milk can't hold its foam at all. Sometimes, when the cows' diet changes (e.g., when they go back out to pasture after eating silage for a season), the milk will foam differently.

In some cases, a natural enzyme in milk called lipase can multiply, and this can stop the milk from foaming. This process is called lipolysis.

Check to ensure that your milk is not being stored in direct exposure to sunlight.

## **Troubleshooting: Drinks**

*Question* **The foam on my drinks breaks up faster than it does when I use my colleagues' milk.**

*Diagnosis* When large bubbles are mixed amongst smaller ones, the bigger bubbles tend to steal the air away from the smaller ones, with the result that the milk foam quickly breaks up. This fascinating process is called Ostwald ripening.

*Treatment*

To make only small bubbles, you need to add the air at the beginning of the steaming process and not aerate your milk by more than 66%. You might find that a level of aeration closer to 30% will produce smaller bubbles.

*Question* **When I split my milk, the first drink is always foamier than the second.**

*Diagnosis* Refer to the Four Quarters Method protocol (see Lesson 4.4) for instruction.

*Treatment* Do not delay the milk-splitting process by more than 10 seconds after steaming. Wipe, purge, then immediate split the milk. It could be that you are pouring less than three-quarters out with the first split of your milk. Alternatively, if you're pouring the milk out too slowly, the foam may be separating.

*Question* **Customers have complained that my drinks are too cold, but they feels very hot on my hand when I'm heating the milk.**

*Diagnosis* Customer complaints about serving temperature usually begin when their drink temperature is below 55° C. Unheated ceramic cups will take 5° C from a drink. Perhaps the cups are also stacked too high on your machine and the highest cups aren't being preheated properly by the machine.

*Treatment* Be sure to restock cups onto the top of the espresso machine. It is warm up there. Don't stack them more than three rows high.

Regularly use a digital thermometer to test that you are not serving drinks below the company standard.