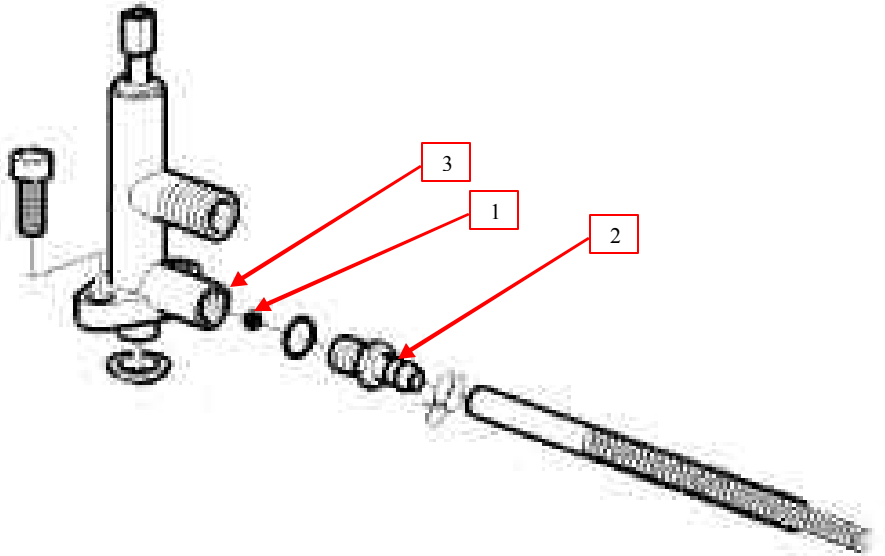


A Discussion About Gaggia Espresso Machines With Self-Priming Valves

The Gaggia steam valve with the self-priming feature is a source of potential problems and machine failures. The self-priming valve is designed to permit air-pressure in the boiler to escape, eliminating the possibility of an air-lock, which prevents the boiler from filling properly. The pea-valve¹ in the unit is designed to prevent the flow of steam and hot water from the boiler to the water reservoir, but it often fails, permitting steam and hot water to heat the water in the reservoir. Since the oscillating (vibe) pump is rated to only 25° Celsius, this heating may lead to premature pump failure.

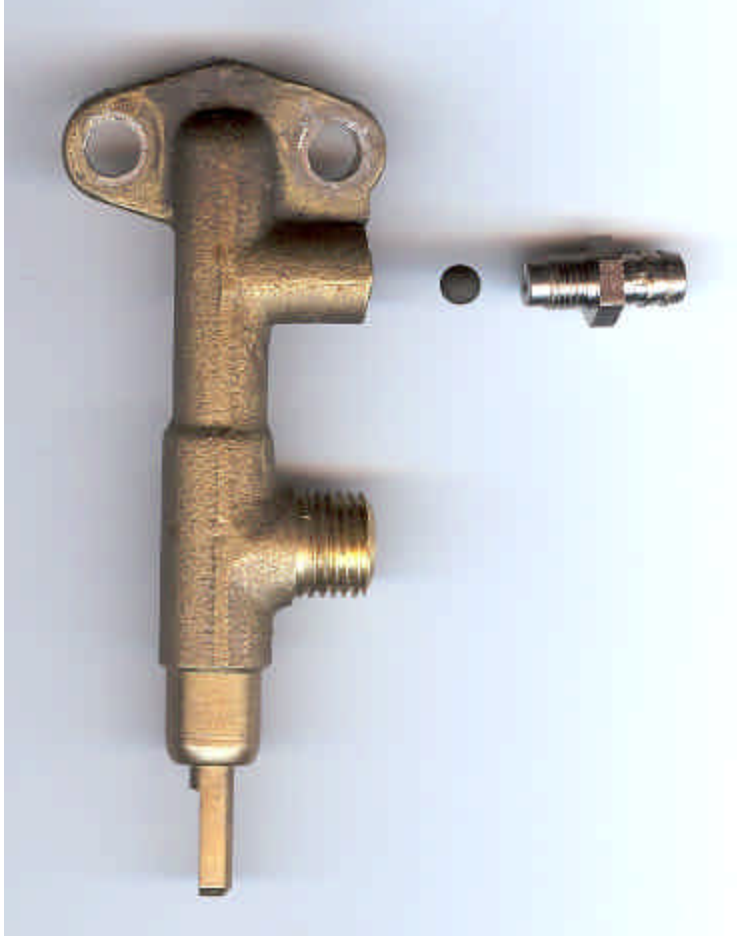
The self-priming feature is a recent addition to the Gaggia steam valves, and the steam valves without this feature worked very well. So it would seem that logic dictates the replacement of the steam-valve with a pre self-priming model, or disabling the self-priming valve in some way. But, different Gaggia models use different steam valves and some versions cannot be found without the self-priming feature. If you cannot locate a steam valve without the self-priming valve for your particular model, you'll find the simplest solution is to disconnect the rubber tube from the fitting, and cap the end of the barb-fitting².

A better fix is to remove the barb fitting² completely and insert a 1/16-27 NPT pipe plug in its place³. The plug isn't an exact fit, but using a PTFE based pipe sealant to seal the threads will provide a leak free joint. This is a one-way mod, meaning the threads get bugged a bit and once you've made this mod you shouldn't expect to reverse it (Of course, since it stops the problem who the Hell would want to reverse it?).



Gaggia could eliminate the need for this mod if they'd just redesign the self-priming valve, but they're satisfied that it's a non-issue - that the little rubber ball is doing its job of preventing the flow of steam and hot water from the boiler to the water reservoir.

Note: By eliminating or disabling the self-priming valve on your Gaggia it becomes necessary to use the old method of priming a dry pump and boiler. Simply open the steam valve before turning the pump on and let the pump pull water from the reservoir until water flows from the steam wand in a steady stream. The boiler is now filled and you can proceed to make espresso.



The picture at left shows the parts of the self-priming valve (except for the plastic seal that's inside the barrel of the valve body).

This mod requires the removal of the barb fitting, the ball valve, and the plastic seal.

In their place insert a 1/16-27 NPT pipe plug. Coat the threads with Teflon pipe dope before installing.



McMaster-Carr Part #: 50785K267

