



# TECHNICAL DOCUMENT

## 4004 Pump Head Troubleshooting and Replacement

Pump Head Part # MV-1100

Pump Motor Part # MV-1101

This document is intended to troubleshoot and repair a failed pump head

The signs you need to troubleshoot your pump head are-

A very loud noise when the pump is running

No pressure out of the group when using full pressure

If your pump is making a very loud and vibrating noise, this is a sign of low water pressure to the pump head. Make sure the water is turned on and check your water filters.

If you hear this same loud noise when the machine is auto filling the steam boiler, this is the first sign your water filters need to be replaced. This sound will get worse and damage your pump head and possibly pump motor.

To diagnose if a pump / pump head has failed. Watching the gauge on the pump head turn the pump on and off via the espresso machine brew button 10 times. If the pump head does not come on all 10 times you have a failed pump head or motor. If even one time the head does not come on it's time to replace the pump head as this will cause inconsistencies in extraction.

To remove the pump head undo the ring clamp as shown below

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Remove the pump head and do the same 10 cycles on and off test to make sure the pump motor is working properly. 99% of the time it's the Pump Head that fails but it's still important to test. If the motor is not spinning test incoming power to the motor and make sure the motor can spin freely



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If the motor is turning proceed to testing the pump head. Spin the shaft with a wrench to test how much force is required to make the internals move. If it's a struggle to turn you indeed have a damaged pump head and must replace.



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Do the same test with the new pump head. Our Mavam pump heads complete with all the fittings in place but you still need to lubricate the shaft that connects to the inside of the motor. Use an all purpose lubricant or grease.



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Reconnect the pump head and tighten down the ring clamp to the point the pump head cannot turn on the motor and is facing in the correct position.



When you first turn on the new pump it might pulse. This is because the pressure is set above or at max pressure.

You will need to back out the adjustment on the side of the pump head until pulsing stops then set the pump pressure and lock the lock nut.

You will need to set the pump to 9 bar or the cafe's set pressure.

If you need assistance adjusting the pump head, see our Pump Adjustment Document 4003