

Removing, Disassembling and Cleaning

Your Pro 800 Group Head

This instructional will cover completely removing and disassembling your Profitec Pro 800 group head from your machine. We will cover what some of the parts do, how they work, and where to look for key buildup points. We will also cover maintenance, such as replacing the gaskets on the plunger, lubricating them and the internal group sleeve, as well as mounting gaskets between the group and the front panel of the machine. **You do not need to remove the housing from the machine to do this.**

You will want to drain the machine before going through this instructional ; to drain the boiler to a sufficient level:

- 1) Turn the machine on and wait for it to heat up.
- 2) Once it has heated, turn the machine off, and open the hot water wand.
- 3) Wait for as much water to drain possible, the pressure from the boiler will push the water out. It will cease to flow once it has drained as low as it will go.

Note(s):

- 1) **The group head weighs ~16lbs, please be careful when removing it from the machine and handling it ; it is heavy.**
- 2) It is a safe bet that you will need to replace the gasket behind the group that goes between the group and the front panel of the machine. I would recommend purchasing that and new plunger seals (there are 4 in total) if you anticipate on going through this write-up. Since you're already going in there, it would be good preventative maintenance.
- 3) I would recommend removing the group lever before doing this. It's just an extra piece that does not need to be in your way. It just unscrews from the top of the group.
- 4) You may need to do what's calling, "shocking" to get some of these nuts/parts to break free. Shocking is where you take another tool, such as a wrench, and strike the tool you're using to undo a part, in order to help break it free.

Tools/Parts:

3x plunger seal - Pro-P1012.1
1x teflon plunger seal - Pro-P1012.2
1x group head to boiler seal - Pro-P2532
4mm allen wrench
6mm allen wrench
13mm wrench
19mm wrench
8inch adjustable wrench
Food safe silicone lubricant

First start by removing the x4 nuts from the outside of the group head using your 13mm wrench. They are around the outside where it backs up to the front panel. **Once they are removed, please be careful, as the group will just be balancing on lugs. As mentioned under the notes section, the group is very heavy:**



You'll see, once you've started to remove them, the lugs that were mentioned previously:



The lugs do not need to be removed, you should be able to remove the group, with the dip tube attached, from the machine in one piece. If you're working on an older machine, one of the seals we recommend having on hand is between the group, and the front panel. If this gasket is older, it very well may crumble/break apart as you remove the group:







Once the group has been removed, you'll need to remove the dip tube. This piece is where the water travels through to make it to your group. To remove it, use your 19mm wrench on the nut portion of the dip tube that is close to the back of the group. **As mentioned in the notes, you may need to shock this part to get it break free:**



Once the dip tube has been removed, you will want to look it over for any scale buildup. If you do happen to see some buildup, you can soak it in a mixture of water and descaler, then scrub it down with a synthetic/light bristled brush to knock any stuck buildup off.

You can then set that part aside, as we're now going to start looking at and disassembling the group. The group head is comprised of two parts, the upper and the lower half. The upper half houses the spring and plunger for the lever, the lower half is the flood chamber for the group. To separate the two, it is the x4 4mm allen screws around the outside of the group body:



These ones can be a little tough to get free, and you should get them nice and snug when putting them back on as well. There is no gasket that seals the two halves together, just the seals from the plunger and these allen screws. **You will most likely need to shock these to get them to come free:**



You do not need to apply excessive force when shocking. Just continue to make solid, firm taps on the allen wrench and they will come loose. Once all 4 allen screws are off, the two halves just pull apart from each other. You will have to twist and pull a little, they will be sealed together quite well. Once you get them apart, we're going to focus on the top half first with the plunger, as this is where most maintenance will occur:

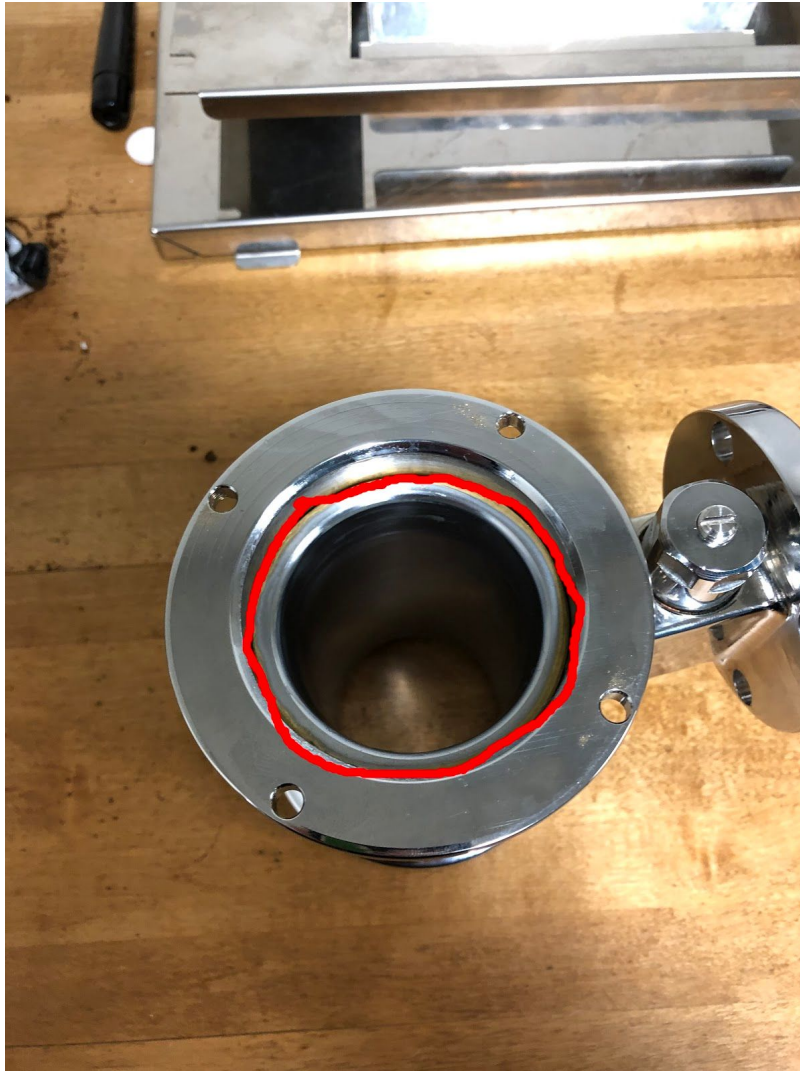


There are x4 gaskets that seal the group head to make sure water stays in the flood chamber. 3 rubber ones, and 1 teflon one. **The teflon one is supposed to be cut, as teflon does not stretch. When you're replacing these seals, it's important to take note of how they go on. They do not all go on facing the same way:**



You can see that the top one has the tapered side facing up, then the teftlon gasket, then the lower two have the tapered sides facing in towards each other. When you're replacing your seals, make sure they go on just like this. When you're replacing them, you will need to use a flathead or awl to pull them off, they can get very stiff and brittle as they age. You may need to just cut them off if they're not willing to pull off. You can also see the amount of lubricant that is on there. You can be quite gracious with the amount of food safe silicone lubricant you use when putting the new ones back on and relubricating.

Now that we've covered the top half, let's look at the lower half. There's a few key things to point out about the lower half. Let's start with the internal group sleeve:

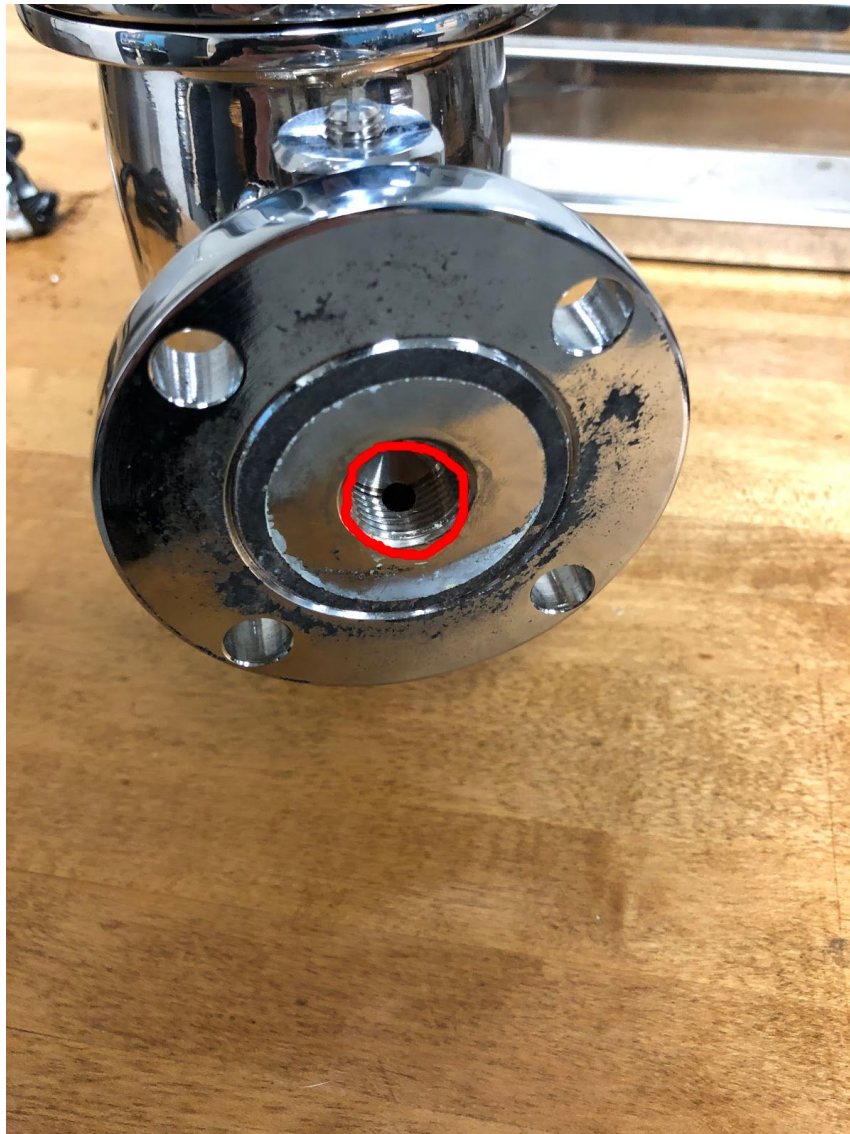


The group sleeve is the flooding area of the group. This is what holds your water as it comes in. When you're doing maintenance on the machine, a light amount of lubricant should be applied to the inside diameter of it so when you put the two halves back together, the plunger will travel into it smoothly. This piece is also where your water comes into the group. There is a water channel that runs around the outside diameter of it ; between the group body itself, and the outside of the sleeve. Your group then floods via 4 small holes around the inside diameter of the group sleeve itself:



While you've got the group apart you'll want to check these holes to make sure there isn't scale buildup in or around them. You should be able to use something like a bent paper clip to poke them if they look like they have buildup, or if you used an awl to get the gaskets off, the tip may fit in there. **If there seems to be excessive buildup, I would recommend sending the machine in for a professional descaling, as there's not really a good way to clean the sleeve channel.**

The next piece on the lower part of the group is the flood control for the group. This is located between the group head, and the back of the group neck. We'll start by showing you where the water comes into the group from the boiler before it moves to the flood control:



The water enters the group here, and then takes an upward path to the flood control. You will want to check this hole for buildup, and clean any out that is readily visible.



When water comes in, the pressure lifts a metal ball inside and allows water into the group. You turn the flathead screw to adjust the flood of the group. This works via the metal ball that is underneath it. By adjusting this, you limit how much float the ball has, ultimately controlling the flow rate of the water into the group. You can open this and check inside for buildup as well. To remove the adjustment portion, you would want to use you 8inch adjustable wrench to unscrew it, underneath will be the ball that was referenced:



If you tip over the group, the ball will fall out - **do not lose this**. Underneath is the nut that acts as a channel for the water that lifts the ball:





This can unscrew and come out. It requires a 6mm allen wrench. In the picture, you can see the other hole off to the left, that the water will eventually pass through to flood the group. Once out, it will just be an open cavity. You can check the piece itself for buildup, the cavity for buildup, as well as the outlet hole to the group.

Once you're done checking over the group, replacing any of the seals and lubricating, you can reassemble and your machine should be good to go.