

# Making Clearance to Remove Pump Elbow

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## Introduction

This will cover replacing the boiler side elbow on your Expobar Office Lever. On some of the Levers, the elbow near the boiler side will have room to rotate, on others, there is not enough room to rotate it and other steps must be taken to be able to replace it. This specific instruction covers how to replace an elbow that does not have enough clearance to make a full rotation to be unscrewed. These elbows typically need to be replaced once they start leaking, or if you're looking to upgrade from the old style to the new style. Please refer to the notes below before proceeding with the replacement.

### **⚠ Please note**

- 1) This write up is specifically for machines that do not have enough clearance for the boiler side elbow to rotate. If yours does, you can follow this video [here](#).
- 2) You will need to drain your boiler before you do this. Draining instructions can be found [here](#).
- 3) Housing removal instructions can be found [here](#).
- 4) This machine has the old style elbows, and this write up will follow as such. General removal is the same even if you have the new style ones too.

### **Tools:**

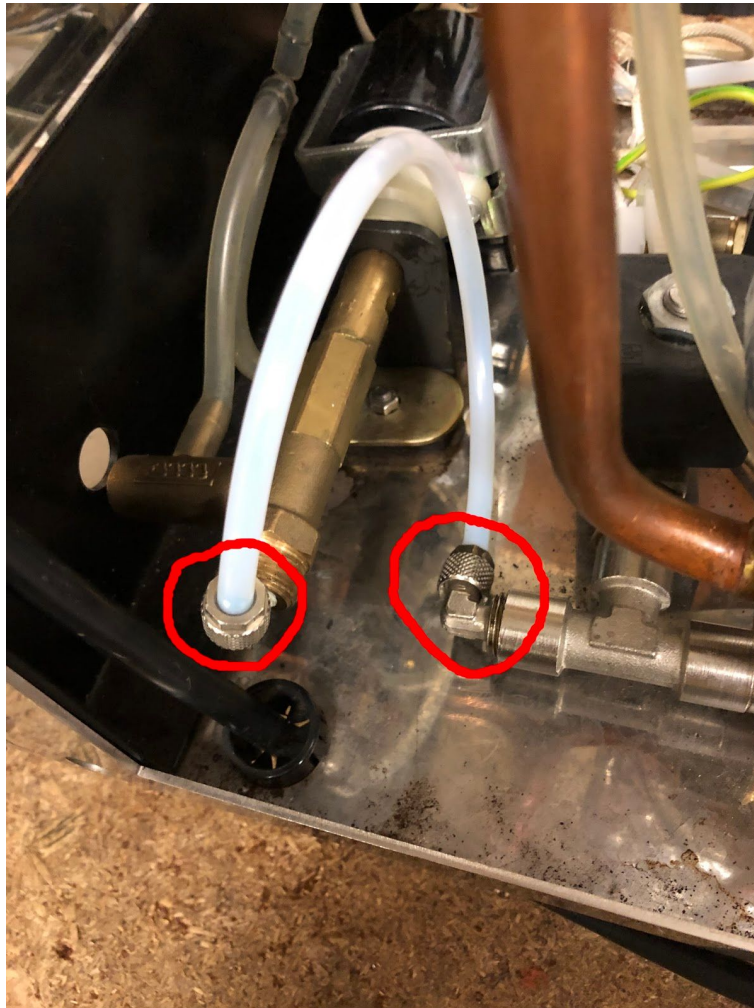
1-inch wrench/8-inch adjustable wrench  
10mm wrench  
Phillips head screwdriver

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## Step 1:

Once you have the case removed from your machine, locate the pump elbows. They should be up near the front right of the machine:



## Step 2:

The elbow on the left is very easy to remove. Simply unscrew the nut at the top with your 10mm wrench. It should unscrew from your OPV. It's the elbow on the right that we'll really be focusing on, as that is the one that can have some clearance issues.

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### Step 3:

Start by removing the nut on the right elbow with your 10mm wrench. Once you've got the nut free, the tubing just pulls off the end of the elbow.



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## Step 4:

Next, you will need to remove the screws that brace all of the piping underneath the boiler to the machine. If you locate your autofill valve, the screws that brace everything are screwed into the bottom of the machine, directly underneath the autofill. Below is a picture so you can identify that part.



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## Step 5:

If you look directly underneath that on the bottom of the machine, you will see the two screws that need to be removed. Use a Phillips head screwdriver for this step.



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## Step 6:

Once those have been removed, you'll notice the boiler has a lot more play to it; it can move side to side. Next, we will need to undo the pipe that comes off the bottom of the heat exchanger on the boiler. **Make sure you have drained your boiler as instructed before doing this.** You will need the 1-inch wrench or 8-inch adjustable wrench.



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## Step 7:

In doing this, you now allow the boiler to be pulled backward. The boiler will need to be held backward for the duration of the elbow replacement, as you will not be able to get the elbow on or off without the boiler held back. Below is a demonstration of how the boiler can be held.



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## Step 8:

You'll need a wrench to break the elbow free, but once free it can usually be undone by hand. Your 10mm wrench should work fine to break the elbow free, if you have too much wiggle room, you could go down to a 9mm.





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## **Step 9:**

Once the elbow has been replaced, you can put everything back together, and the replacement is complete.