

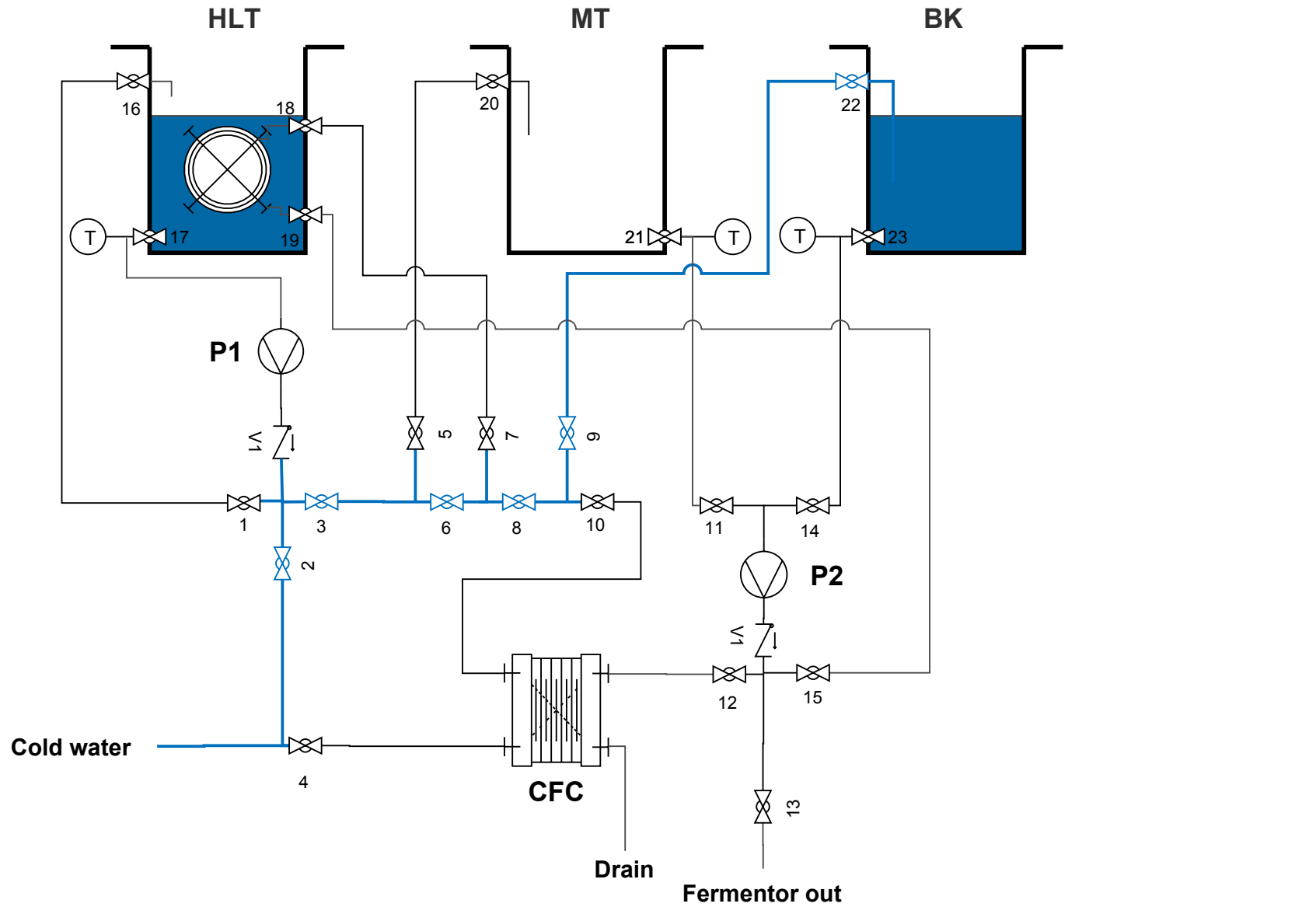


Fill HLT with cold water



From the cold water input, the water can flow to the HLT, MT, BK and the CFC. This is driven by the tap pressure.
To fill the HLT, open valves 1, 2 and 16.

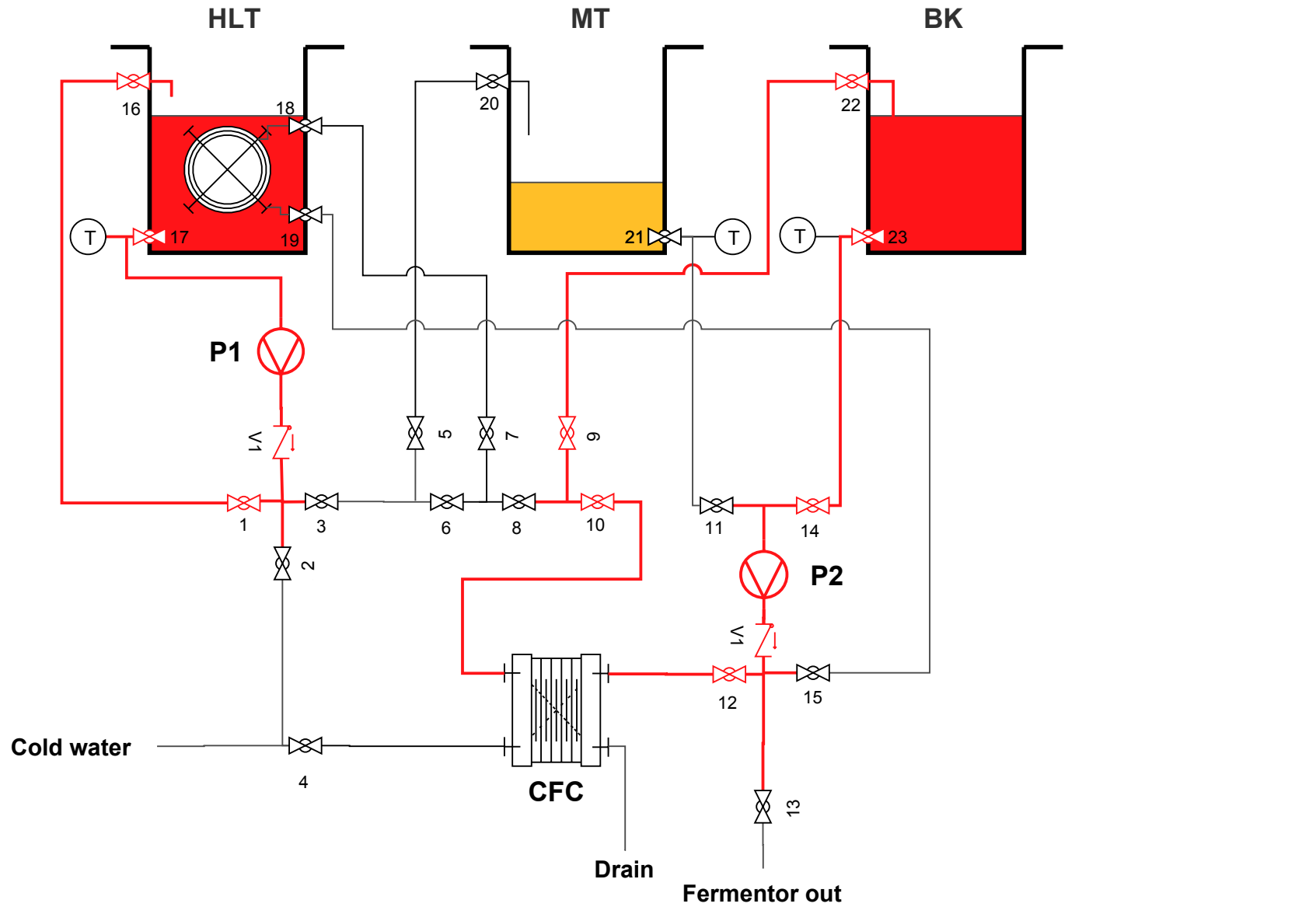
 manual ball valve
  one-way valve



Fill BK with cold water

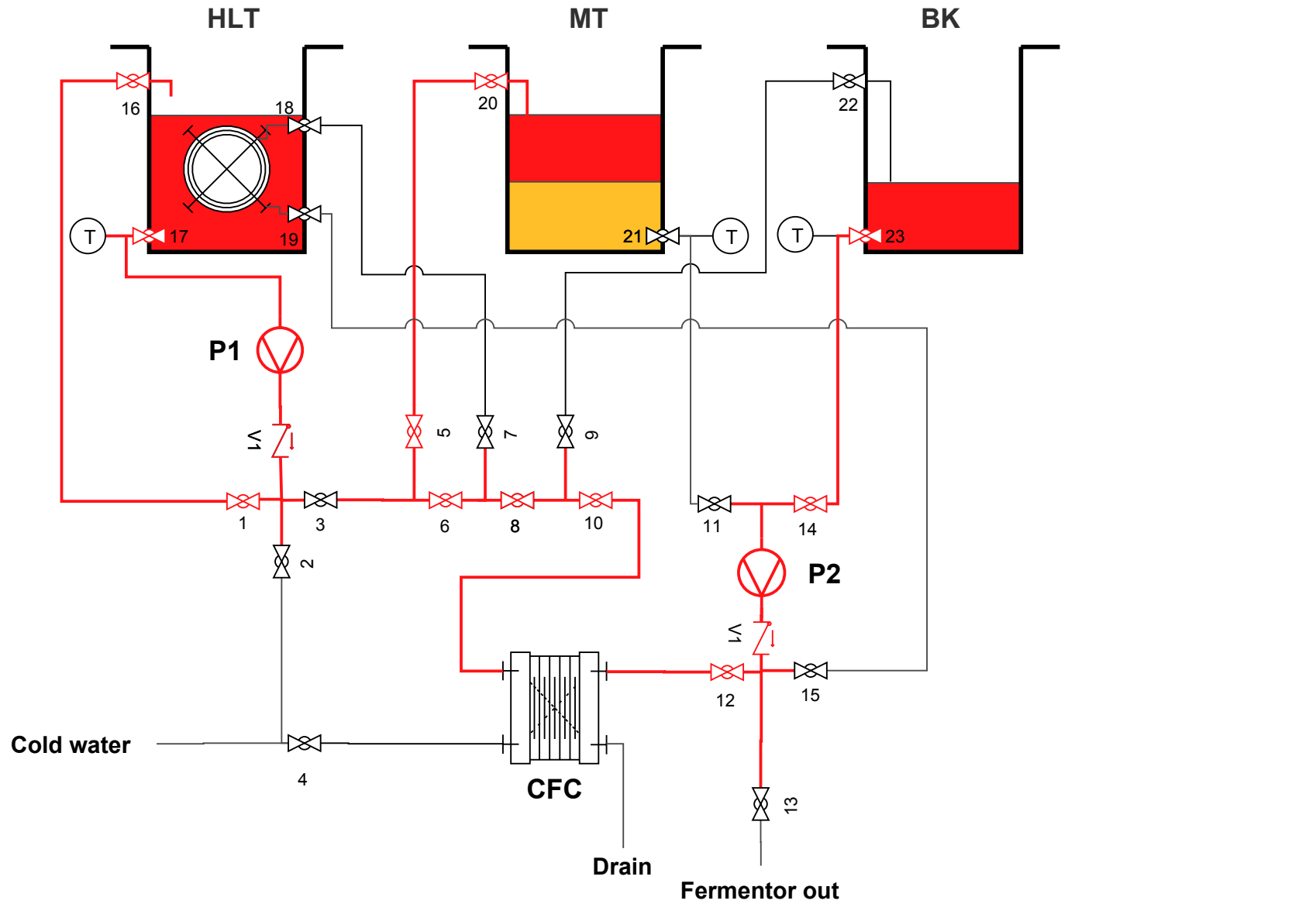
The BK is filled with water after the HLT is full. This water is used for mash in. By using the water from the BK, we can measure the mash volume in the BK before mashing and the HLT stays full. System opens 2, 3, 6, 7, 9 and 22.

 manual ball valve
  one-way valve



Heat HLT and BK
 The HLT is heated to the first mash temperature, the BK is warmer to account for temperature losses later when grain is added. The BK and HLT are circulated while heating. In the meantime, grain is added to the MT. Valves 1, 16, 17 and 9, 10 12, 14, 22 and 23 are open. Pump P1 and P2 are running.

⊗ manual ball valve ↯ one-way valve

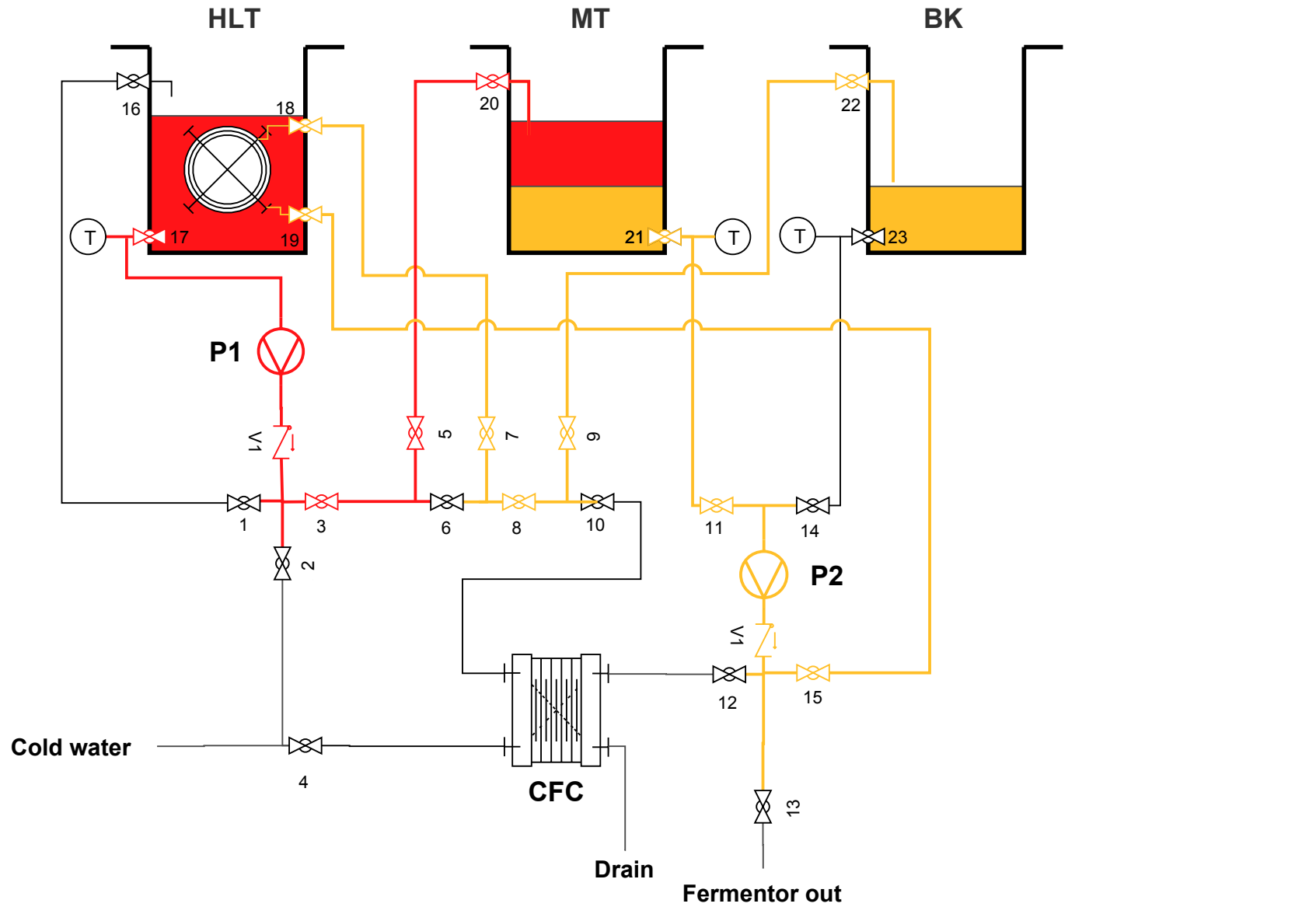


Mash in

Hot water from the BK is pumped onto the malt in the MT.

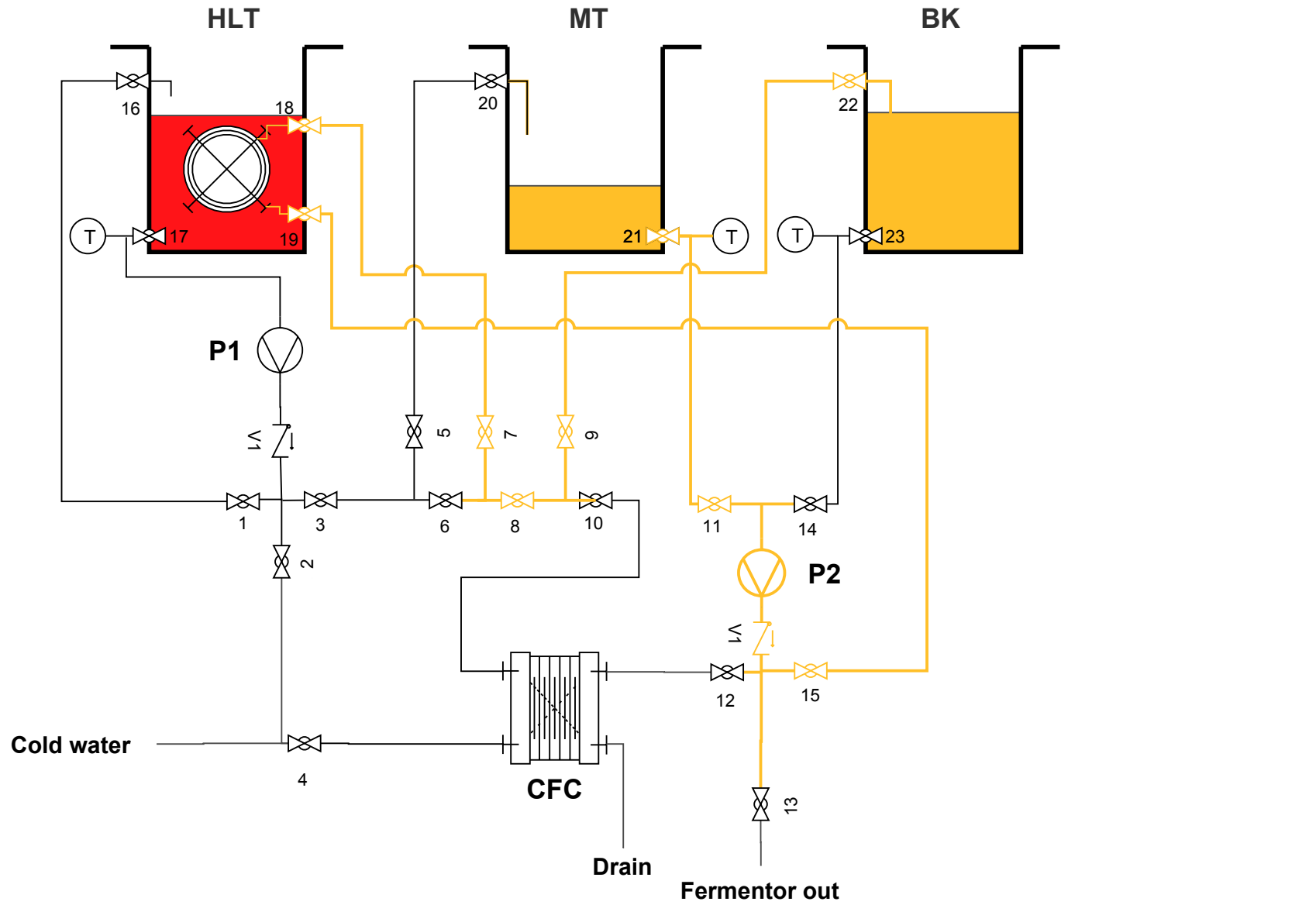
Valves 1, 16 and 17 as well as 23, 14, 12, 10, 8, 6, 5 and 20 are open.

Pump P1 and P2 are running.



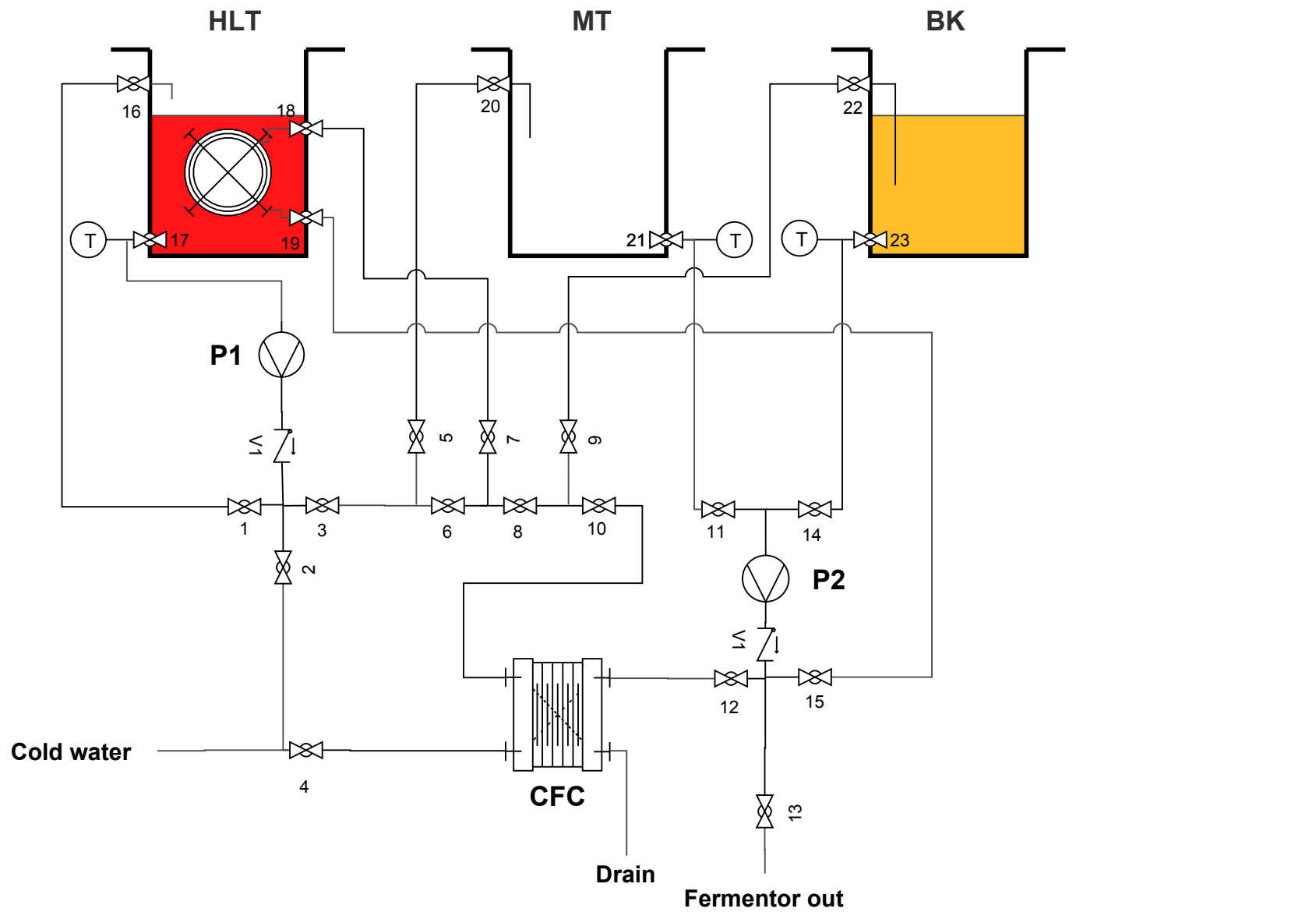
Sparge
 After mashing the wort is pumped to the BK. Water from the HLT is pumped to the MT for sparging.
 Valves 3, 5, 17 and 20 as well as 7, 8, 9, 11, 15, 18, 19, 21 and 22 are open.
 Pump 1 and Pump 2 are running.

⊗ manual ball valve △ one-way valve



Sparge out
 Water flow from HLT is stopped. Valves 3, 5, 17 and 20 are closed.

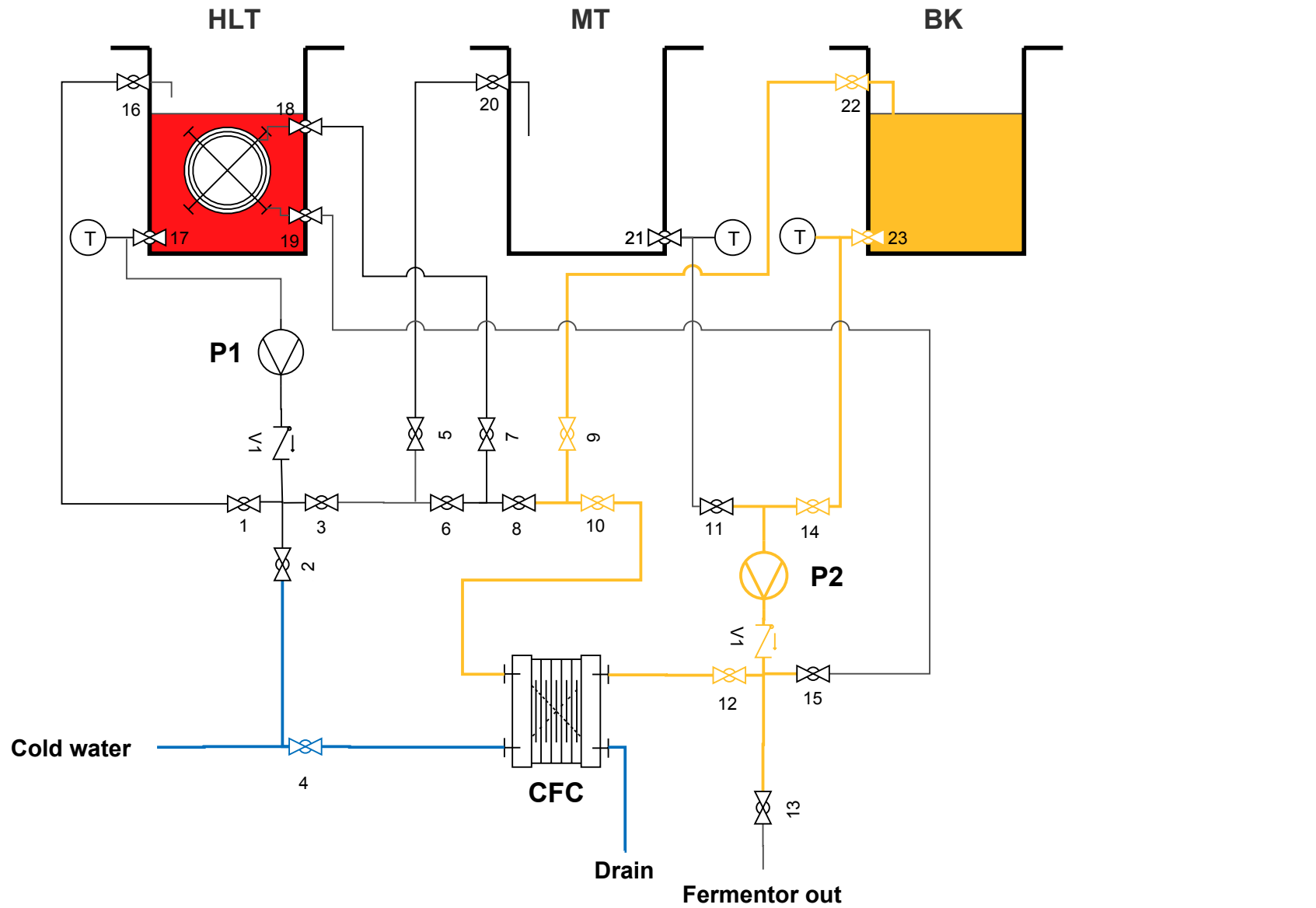
 manual ball valve
  one-way valve



Boiling

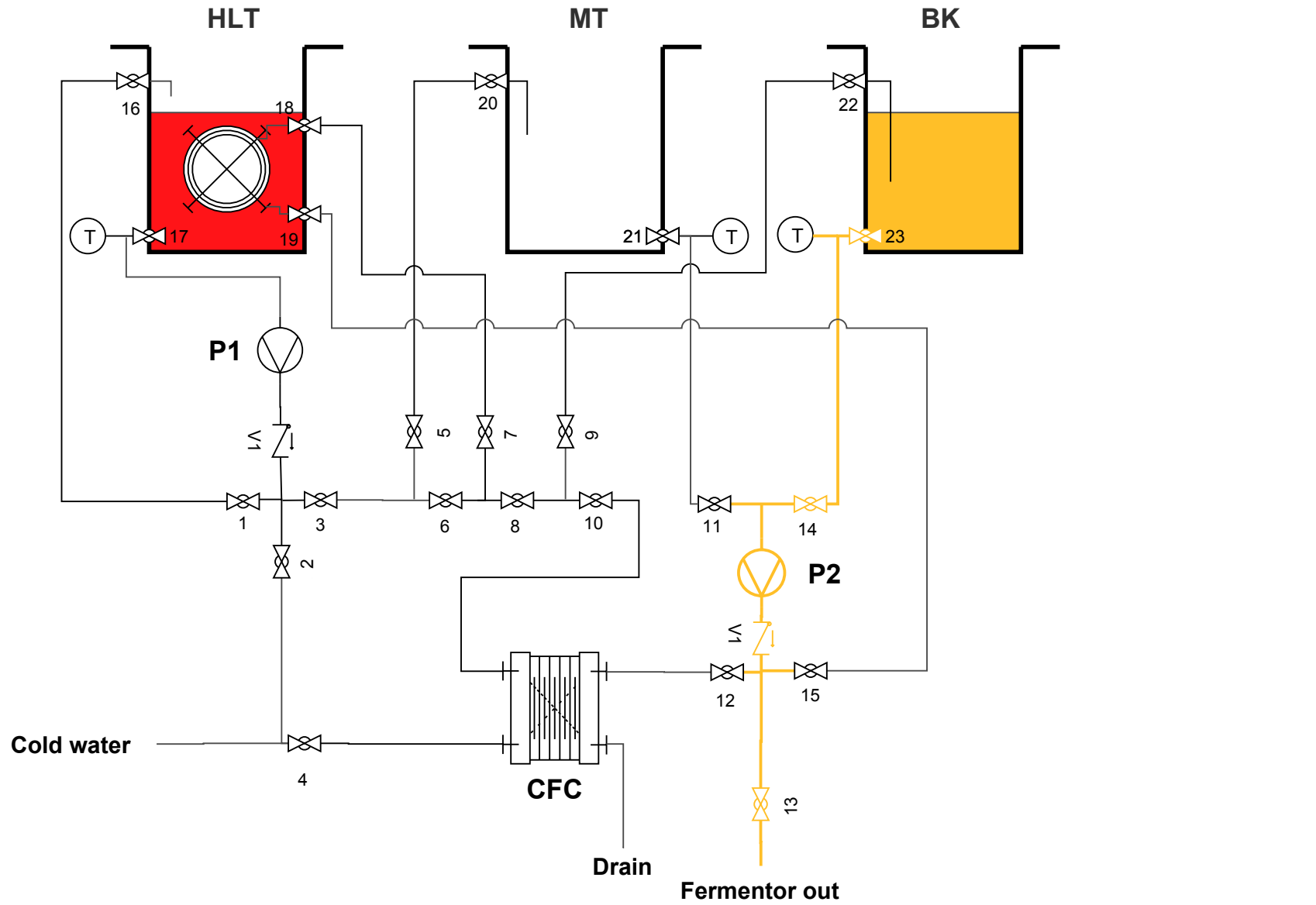
During boiling all valves are closed and the pumps are not running.

⊗ manual ball valve ↗ one-way valve



Cooling
 After boiling the wort is circulated through the CFC until pitch temperature is reached. Cold water is ran through the CFC to the drain.
 Valves 9,10, 11, 12, 14, 22 and 23 as well as 4 are open.

⊗ manual ball valve ▷ one-way valve



Fermentor out
 After cooling the wort is collected in a fermentor.
 Valves 13, 14 and 23 are open.
 Pump P2 is running.

⊗ manual ball valve ↗ one-way valve