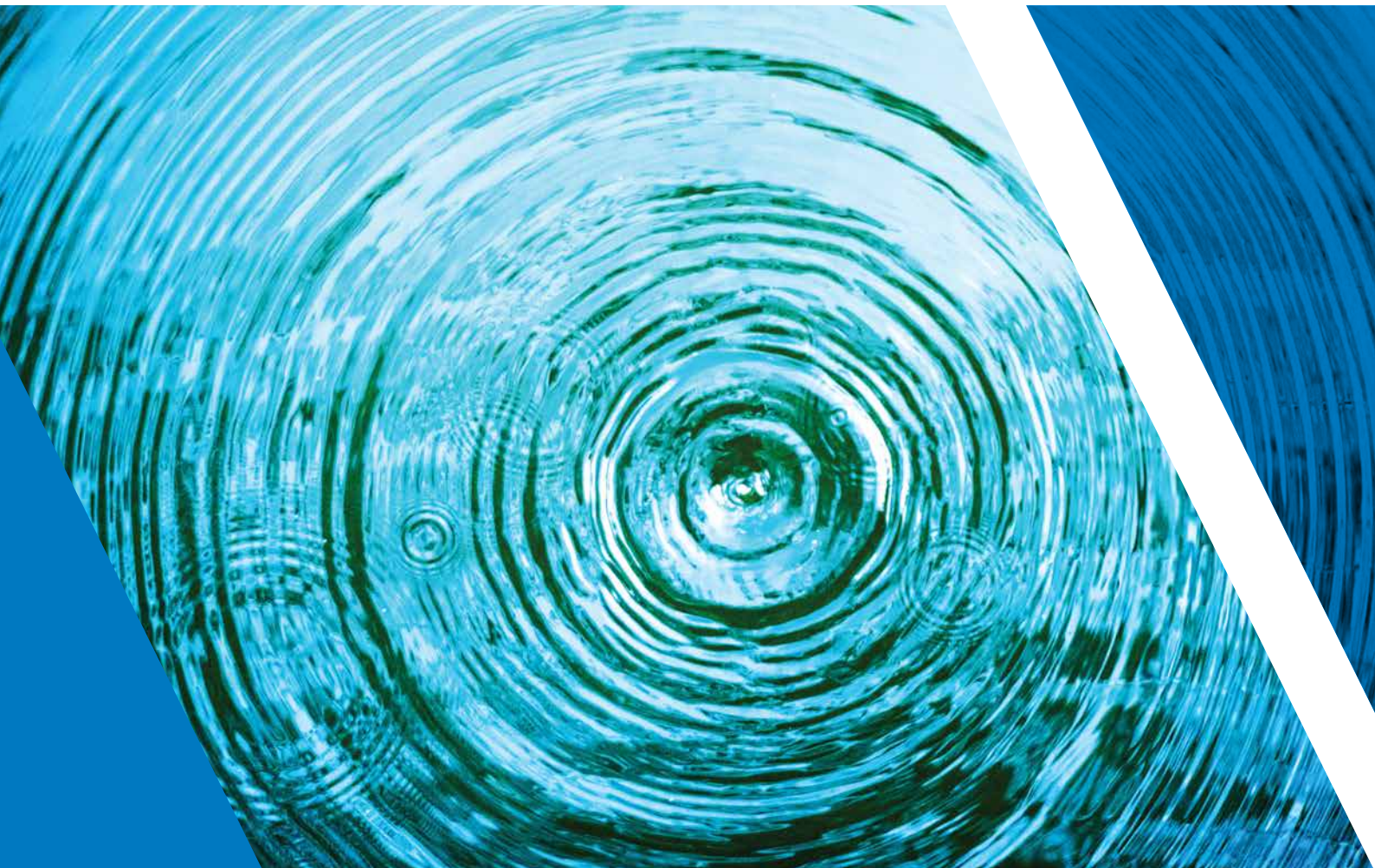


iDROSET® Series CF

Comfort in balancing

Application guide





Balancing Method

We describe the balancing process of an installation with more than one static balancing valve.

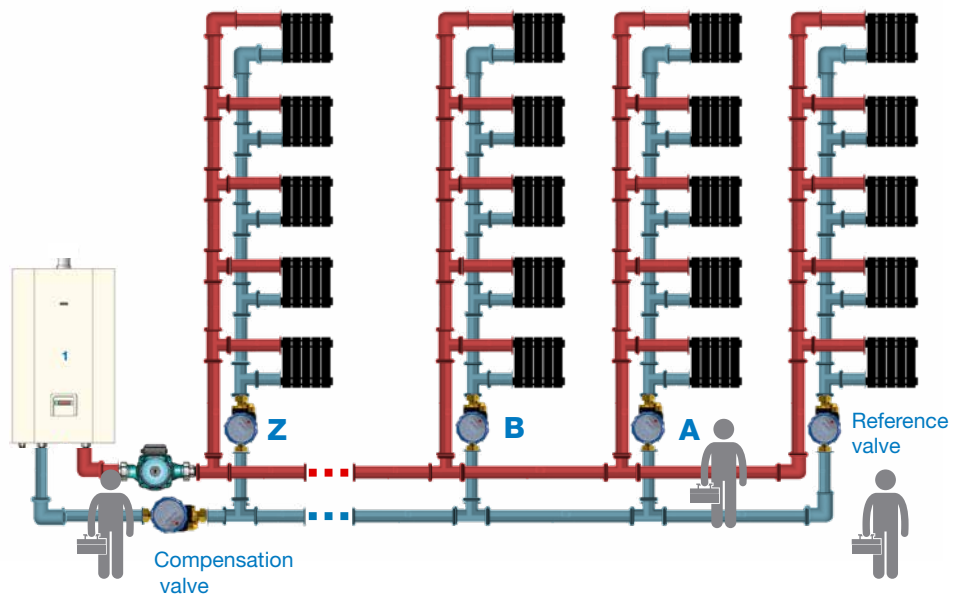
➔ After preliminary operations:

Compensation and reference valve

Once the flow has been adjusted in one section of the system using the balancing valve, this will cause the flow rate to change due to the new conditions. To avoid going back to the valves already balanced each time you have set a new one, it's necessary to install a control valve in the downstream of the circuit. It is the compensation valve. Meanwhile, the unit of the line with the higher drop pressure will be used as reference valve. See the next sample:

Preliminary operations

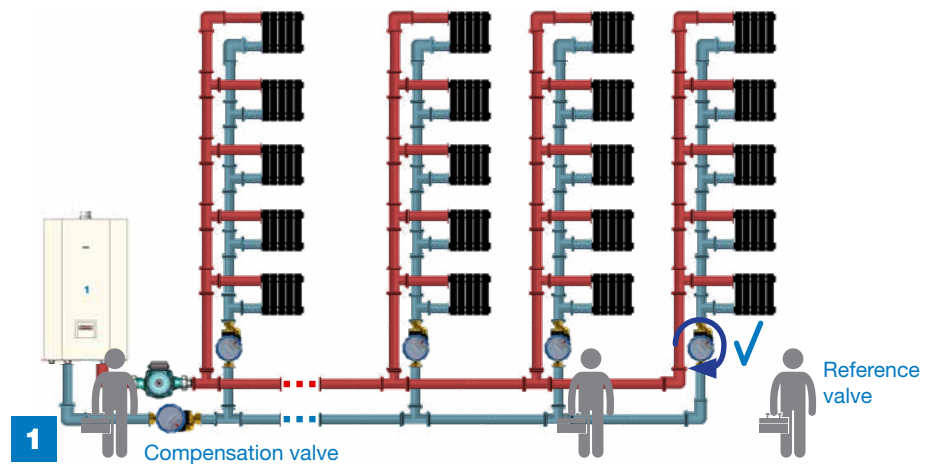
- Verify that the circuit(s) has been completely flushed out to remove any direct or contaminants that may be in the system.
- Verify that all shut-off and regulation valves are fully open.
- Verify that the circuit is full and the static pressure is high enough to avoid cavitation and vacuum points.
- Verify that the circuit is clear of any air.
- Proceed with the other standard operations for setting the system (direction of rotation of the pump, pressure in the expansion vessels, etc.)
- Set the pump (or pumps) in constant speed according to the maximum flow rate and maximum pump head needed. It is only needed to make the initial balancing of the circuit. After that, the pump should be set to self-adjusted mode operation.



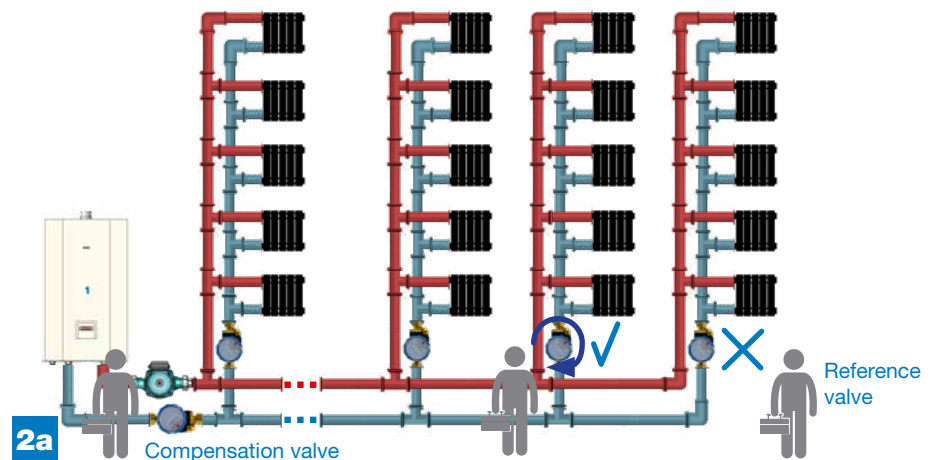
The balancing process needs three operators: one to check the reference valve, one to control the compensation valve and the last one to adjust all the others valves. Since the CF valve does not need an external device, the process is simple.

Step by step

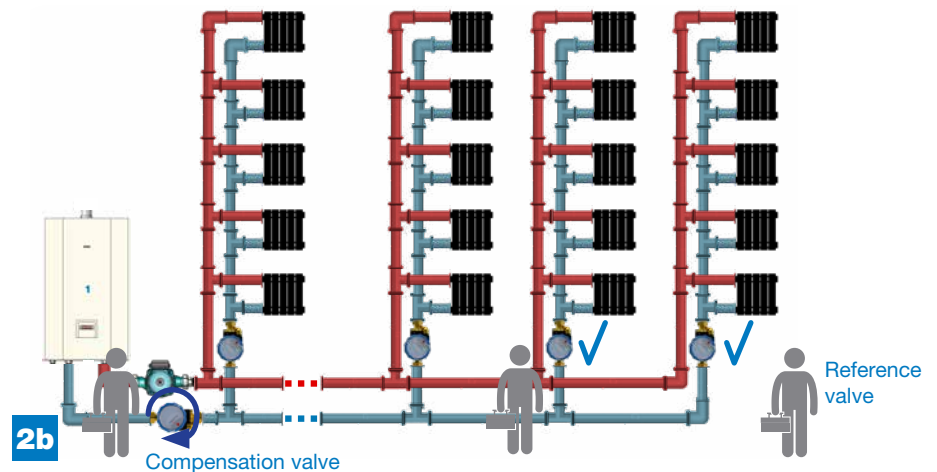
1. The first operator sets the reference valve to the flow rate required by the project. When there is not enough flow rate because all the valves are opened, partially close the next valves to adjust the reference valve.



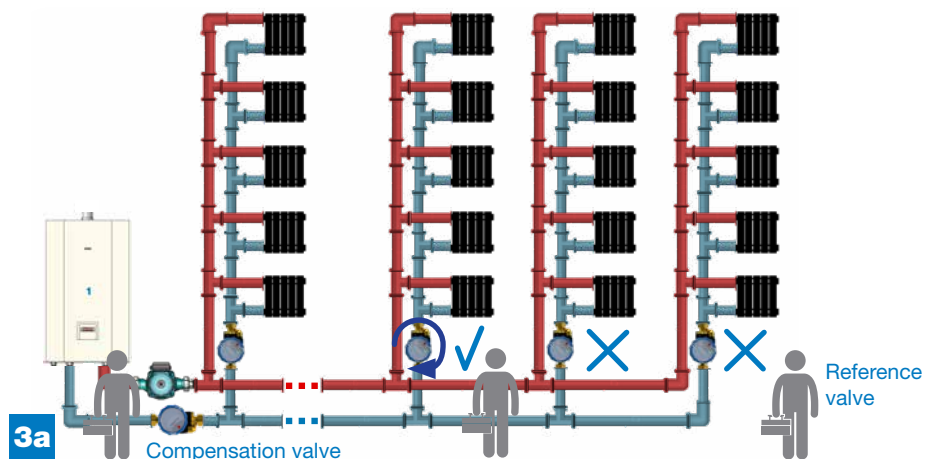
2a. The second operator adjusts the second valve to the flow rate required. This will create a variation of flow rate in the reference valve.



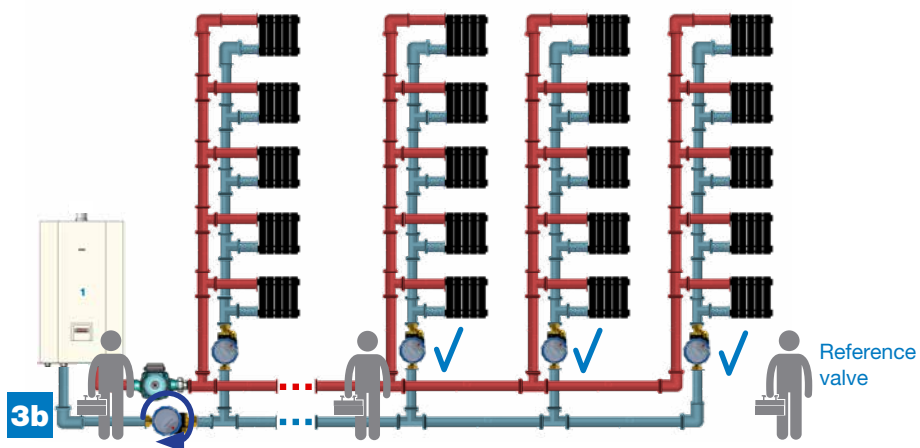
2b. The third operator adjusts the compensating valve until the reference valve is again at the required flow rate (visually controlled and communicated by the first operator).



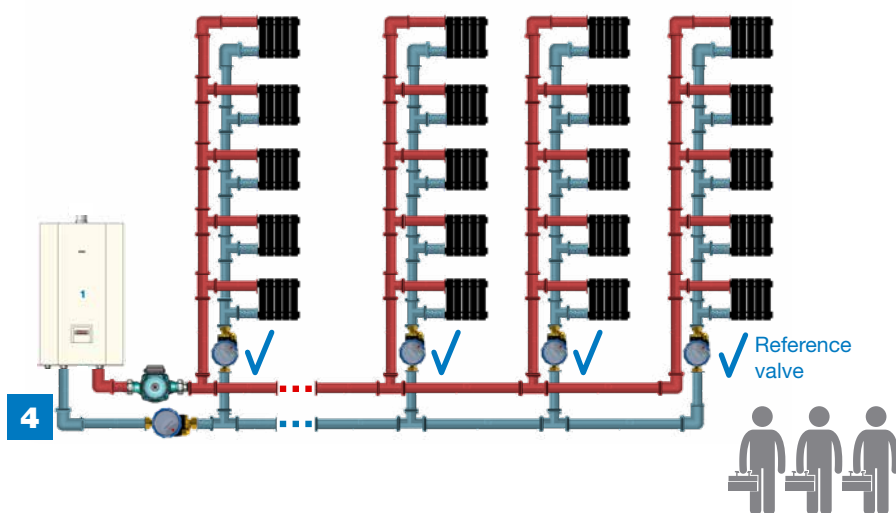
3a. Now the two first valves have been adjusted to the correct flow rate. The second operator goes to the next unit to adjust its flow rate too. As before, the flow rate is modified in the previous ones.



3b. The third operator adjusts the compensating valve until the reference valve will achieve the required flow rate (visually controlled and communicated by the first operator).



4. Continue this process until all valves have been adjusted. In this way, every valve will be adjusted to right flow rate.



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