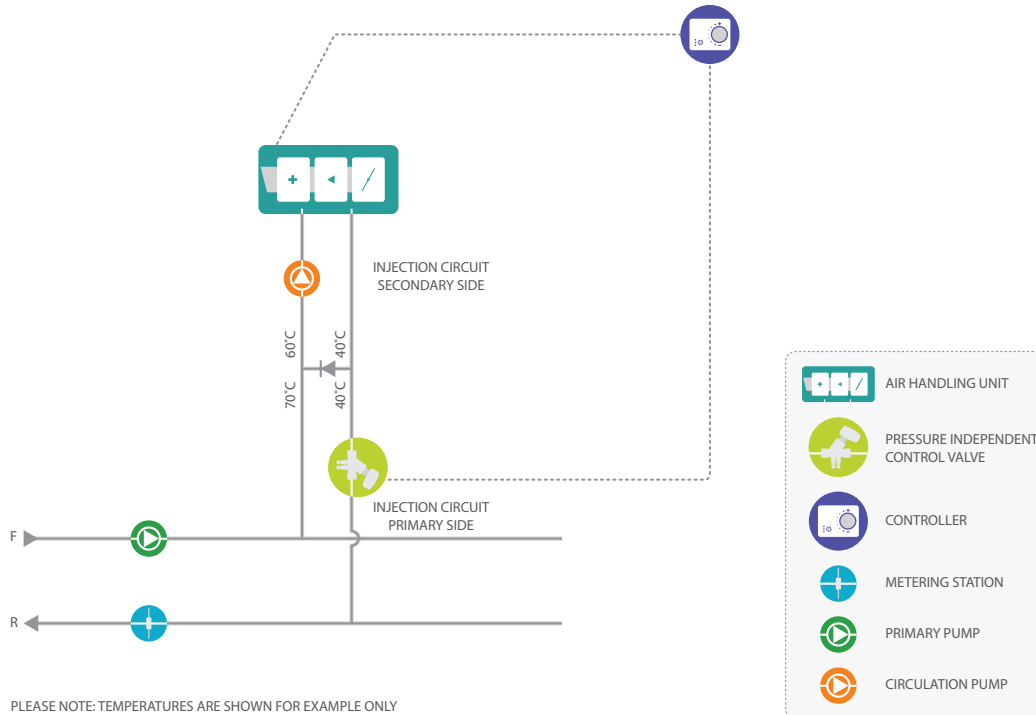


Air Handling Unit with PICV injection circuit



Function

The air temperature of the Air Handling Unit is controlled by a sensor in the outlet. The secondary side of the injection circuit circulates a constant flow through the coil maintaining a uniform temperature throughout the entire coil.

When the control system calls for higher or lower temperature on the air outlet, the PICV valve opens or closes to allow heating or cooling water from the primary side of the injection circuit to enter the secondary side. The temperature in the coil then changes giving an almost direct relation between the temperature in the coil and the power output from the coil.

Benefits

- The PICV ensures balancing of the primary flow and eliminates the use of both static balancing valves and differential pressure control valves.
- AHU's with a large coil area have a uniform temperature in all parts of the coil, providing a precise temperature control.
- Direct relation between coil temperature and power output.

Considerations

- Requires a small circulation pump on the secondary side of the injection circuit.
- A metering station can be installed if additional flow verification is required.



Frese OPTIMA Compact
Pressure Independent Control Valve