



Description:

The complex system of heating and air conditioning of office and working premises integrated with the process cooling. The system of heating and air conditioning of offices is used as an energy source for the heat pump air-water (1). Heat pump works in the regime 40/45 in the winter time, that is 12/7 in the cooling period. Apart from the central heating, the heat pump is used for heating of the consumer hot water in the tank (3). A part of a process water works in the regime 18/27. The same water from the return, before reaching the cooling tower(2), transmits the part of a heat via convector of heating subsystem of the production area. Return cooling water is cooled in the a cooling water tower (2) and then returned to the cooling water tank (4). The final temperature of the cooling water of 18 ° C is achieved by adding cooled water to the heat pump (1) which is located in the other part of the same tank. After that, the water of the system 18/27 goes back into the system trough pumping aggregates of the same cooling water. The second part of the process water that works in the regime 18/21 by a separated circulation pump drains in the another part of the cooling system of process water.