Energy saving for heating

Water heating allows you to easily regulate the temperature in the heated rooms, creating a favorable microclimate.

1. Due to the fact that the increase in heat output of water heaters is significantly influenced by the average temperature pressure, preference should be given to the countercurrent scheme of the organization of the movement of the coolant and heated water.
2. For efficient operation of air heating heaters, the heat transfer surface (steam, compressed air, etc.) should be periodically cleaned. The heat transfer coefficient depends on the cleanliness of the heat transfer surfaces.
3. For heating of industrial, administrative and household premises it is necessary to apply water, and also air heating.
4. In rooms with low air temperature, determined by the conditions of production, a small number of employees should use autonomous air heating with air supply only to the work area.
5. When choosing a heating system, keep in mind that the steam heating system is characterized by ease of execution, as well as low metal content.
6. A serious disadvantage of steam heating is the overconsumption of heat, reaching 20%, due to the complexity of temperature control, as well as the occurrence of hydraulic shocks, which create noise in the heated room.
7. At steam heating as a heat carrier it is necessary to use steam with pressure to 0,15-0,17 MPas.
8. It is necessary to exercise constant control over the insulation of windows and doors. Leaks and lack of insulation increase the heat consumption for heating up to 60%.
9. Installation of a heat-reflecting film (thermal screen) in the interframe space of a window will allow to save up to 10% of heat energy for heating of the building.
10. Transfer of the heating system to the next mode during non-working hours, holidays and days off will save 10-15% in relation to heat supply of the building.
11. The introduction of facade regulation of the heating system will save 2-3% in relation to the heat supply of the building.
12. Reducing the internal temperature in residential buildings at night will save 2-3% in relation to the heat supply of the building.
13. Removal of deposits (scale) from the walls of boilers and heat exchangers will reduce heat consumption by 30% or more.
14. Restoration of thermal insulation on the pipelines of heating systems and hot water systems will reduce heat loss by 7-9% of total heat consumption.
15. The use of temperature regulators in hot water systems will save about 50% of thermal energy, and when installing temperature regulators in the heating system, the expected savings will be about 15%.
16. Installation of a reflector, which is a heat-insulating gasket with a heat-reflecting layer between the heater and the wall, will save 2-3% of total consumption.
17. Installation of efficient water valves will save up to 15-20% of hot water.
18. Installation of condensate drains increases the efficiency of steam-using equipment by reducing the share of flight steam by 5-10%.
19. Transfer of the system from the heat carrier "steam" to the heat carrier "hot water" will allow to save 20-30% of heat.
20. The use of closed schemes for collecting and returning condensate saves up to 15% of thermal energy.
21. The presence of infiltration of cold air in heated rooms leads to the need for additional consumption of 10-15 kcal per cubic meter of cold air.
22. Heat of secondary energy resources, including continuous purging of boilers and evaporation from the deaerator, can be used for the needs of low-potential thermal processes: heating, ventilation, hot water, cold.
23. Replacement of tubular heat exchangers with plate and the use of energy-efficient heaters

will save 10-20% of heat.

According to PMKEU "PATRIOT"