

ANALYSIS OF THE EFFICIENCY OF THE USE OF THE CATERING SERVICE AND CATERING EQUIPMENT SYSTEM IN BUILDINGS OF HOTEL-RESTAURANT HOUSEHOLD

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The restaurant industry, along with the hotel, needed and requires the introduction of innovative solutions in energy supply and application of energy saving systems for heaters, in particular: deep fryers, stemware boilers, steam convection units, dishwashers, marmite, autoclaves. At present, heat devices in catering companies are significant consumers of electric energy, and in the context of growing tariffs and energy instability, the issue of reducing electricity costs, simplifying energy supply systems are relevant and economically necessary for solution. For catering companies, energy saving issues are one of the priority issues, because it is this factor, along with the cost of raw materials, forms the cost of products that determines the competitiveness of the institution, the possibility of flexible re-equipment, modernization, improvement of the quality of service, improvement of working conditions of employees, introduction of innovative methods of making culinary and confectionery products.

Typically, catering companies, with the organization of both a shop floor and a non-operating manufacturing structure, provide a three-phase network with a significant amount of capacity for generating heat supply, which usually requires considerable material costs. It is almost impossible to eliminate the necessity of production in such a system at present because most of the machines operate at a voltage of 380 V and only a small part of the auxiliary equipment, toasters, rotors, microwave ovens, saucepans, plate heaters, etc., operate at a voltage of 220 V. If we consider the average restaurant restaurant, then the thermal equipment for one day of its work consumes an average of 120–250 kW of electricity, if we calculate the current tariffs, then each enterprise spends a considerable amount of money every day for pr heat treatment process is raw and bring it to a state of readiness cookbook that in today's conditions is a key issue in the development of modern production.

The use of electrode boilers as promising energy-efficient heat-generating devices was proposed for the provision of heating facilities for the hotel industry. For restaurant facilities, electrode heating is also promising for use, but taking into account certain changes and in accordance with the needs of production processes. So, among the whole variety of heaters used in hot shops, the most energy-intensive are stemware boilers. Taking into account that boilers intended for the preparation of first and second dishes, side dishes in significant volumes – from 100 to 1000 servings, no alternatives to equipment, it is necessary to carry out measures for their modernization through the use of innovative electrode heaters. When using electrode heating in heating systems, the necessary condition is the arrangement in the system of an expanding reservoir to eliminate such, at first glance, “disadvantage” as vapor formation on the surface of the electrodes. Therefore, electrode heating systems are open. The phenomenon of vapor formation on the surface of the electrodes, which is so uncomfortable for heating systems, is a positive phenomenon for heat generating systems for stevovarial boilers, where the main task is to heat water in the steam generator with the formation of steam and transfer it to the steam and water shell, which provides uniform heating throughout the surface. However, it should be noted that for the efficient use of the electrode heating system in the surgical equipment, the system should be closed. In order to ensure the operation of the electrode heating system, it is necessary to use a steam generating scheme that would ensure: the minimum time for the boilers to enter the operating mode and the minimum electricity consumption for steam. The scheme should be simple to operate, have a small metal capacity, be universal for use in machines with different production capacities, provide safe operation and do not harm the environment.