

The invention relates to the automation of heat-power processes, namely to processes for automatic control of the black gas burners operation provided for use in the hot-water and steam boilers, heat generator and other industrial heat plants, burning natural gas or liquefied combustible.

Summary of the invention consists in that in the process for automatic control of the gas burner operation, the test for leak-proofness of the main valve is carried out before lighting of the burner, by creating in the closed volume between the main and the operating valve an air pressure, equal to the atmospheric one, and within 60 sec. with an interval of 10...60 sec. there are carried out measurements of the pressure and temperature, the test for leak-proofness of the operating valve is carried out after shut down of the burner, by creating in the closed volume between the main and the operating valves a gas pressure, equal to the inlet pressure of the burner, and within 60 sec. with an interval of 10...60 sec. there are carried out measurements of the pressure and temperature, and the ratio between the pressure values and the corresponding temperature values serves as a criterion of leak-proofness of the valves.

The result consists in providing the possibility of a separate, readily technically realizable and reliable test for leak-proofness of the main and operating valves of the gas burner.