

The invention relates to devices for disposal of solid domestic and industrial waste and can be used to generate producer gas with its subsequent use to produce electric or thermal energy.

The gas generator for processing of solid domestic waste contains sluice raw material loading feeders, which include a receiving hopper (1) and sluice valves (2), fitted with mobile gates with seals and electrical drives, and a reactor (3) for pyrolysis. The reactor (3) consists of a vertical cylindrical body (4) with loading (5), reaction (6) and ash (7) zones, a producer gas discharge manifold (8), which is located in the upper part of the body (4), a vaporescent circuit made in the shape of a water jacket (9), mounted on the outside of the body (4) around it and equipped with a pipeline (10) for water vapor supply from its upper part in the reactor (3) through a water vapor delivery nozzle (16), a hollow conical fire grate (11) with a perforated lateral surface, rigidly fixed in the ash zone (7), above which is located with the possibility of rotation an agitator (12), mounted on a shaft (13), which passes through the grate (11) and is driven by an electric motor-reducer (14), regulated by a control system, at the same time the axis of the agitator (12) is aligned with the axis of symmetry of the grate (11). The reactor (3) further consists of an igniter (17), installed in the ash zone (7), and a branch pipe (15) for air supply in the reactor. The water vapor delivery nozzle (16) and the branch pipe (15) for air supply in the reactor are installed in the lower part of the grate (11). In the lower part of the reactor (3) are installed sluice solid residue discharge feeders.

The technical result of the invention is optimization of the temperature regime and the pyrolysis process behavior intensity, providing a low level of harmful emissions during operation, complete removal of ash residue from the fire grate in a continuous operation regime.

Claims: 5

Fig.: 3

