## a 2019 0043

The invention relates to thermal power engineering, in particular to devices for smokeless combustion of fuel with low methane content.

The device, according to the invention, comprises a housing (1) with an internal chamber (2) for preparation and mixing of fuel components, in which are placed a wire mixer (3) and a magnetite catalyst (4) with a system of through holes (5), one end of the housing (1) being equipped with a superheated steam supply manifold (8) with a valve (9), and the opposite end - with an ignition device (6) and a furnace with an embrasure (7). The housing (1) is equipped from above with a gaseous fuel supply manifold (10) with a valve (11). The lower part of the housing (1) communicates with an air flow chamber (13) by means of an oxygen-enriched air supply manifold (12), the chamber (13) being connected to a blower (14) and equipped with a porous cylindrical diaphragm (15) with annular magnets attached to it (16), and a nitrogen-containing air flow control gate (17).

Claims: 1 Fig.: 1

