

The invention relates to a plant for producing methane and feed supplement.

The plant consists of a bioreactor and an electrolyzer. The bioreactor includes a cylindrical body (1) with a conical bottom (29), filled with charge (2) for the attachment of microflora and is equipped with treated liquid inlet (3) and outlet (5) branch pipes, a methane discharge branch pipe with hydraulic hitch (15), a sediment discharge branch pipe (30), an inclined partition (8), not reaching the bottom and separating the body into acetogenic (10) and methanogenic (14) zones. In the lower part of the methanogenic zone (14) is installed a bubbler (13), under which is horizontally placed a tubular unit of the electrolyzer (17), comprising a porous ceramic tube (18) with electrolyte, inside which is coaxially installed a cylindrical anode (25), and outside the tube – a cathode (26), made in the form of a perforated pipe with wire electrodes (27) fixed thereon. At the same time, the tubular unit of the electrolyzer (17) is connected by means of electrolyte inlet (19) and outlet (20) branch pipes, located outside the body (1) of the bioreactor, with an intermediate reservoir (22), equipped with a water batcher (23), a level gauge (24) and a pump (21). The bioreactor is equipped with a pipe (12) with hydraulic hitch (11), connecting the upper part of the acetogenic zone (10) with the bubbler (13), the treated liquid inlet branch pipe (3) is equipped with a microadditive batching mixer (4), and the output branch pipe (5) is connected to an annular chamber (6), mounted outside the upper part of the body (1), in line with it.

Claims: 1

Fig.: 2

