

The invention relates to biogas production plants, namely to an anaerobic biohydrogen and biomethane producing reactor.

The reactor, according to the invention, comprises a cylindrical thermostated body (1) with conical bottom and equipped with a heat exchanger (2), inside which are diagonally placed partitions (4), forming a flow passage (5) and dividing the body into chambers for biohydrogen (6) and biomethane (9), equipped with a volumetric load (3), in the upper part the cylindrical body (1) is connected to a charging capacity (7), equipped with a float valve (8), and with a mixer (10) and a batch bin (12), connected to a vertical pipeline (13), inside which on an axle (14) is placed a screw feeder (15), and in the lower part of the axle (14) is placed a blade agitator (16), in the lower part of the reactor is installed a capacity, separated by a partition into two portions (17, 17'), equipped with level sensors (34, 34'), sludge and liquid phase drainage nozzles (32, 32'), and gas removal pipelines (26, 26') with contact chambers (27, 27') for cleaning thereof; the reactor further comprises pipelines (19, 19', 22, 22', 29, 29'), fitted with ejectors (21, 21') and pumps (20, 20', 30, 30') for the recycling of biomass and gases between the cylindrical body (1) and the capacity, electromagnetic valves (24, 24', 28, 28', 31, 31', 33, 33') and a control unit (35).

Claims: 1

Fig.: 1

