

Biogas Digester Recirculation Slurry Pump

About the Project :

Pune based Primove Engineering was the first Company to start the pilot plant in 2016 for the commercial production of bio-CNG (Compressed Natural Gas) to power the public vehicles. This was a renewable green energy and was an alternative to fossil fuels.

Process :

Biogas is produced by fermenting the biomass (eg. sludge, organic residues, agri-residues, waste materials, etc.) under the exclusion of oxygen. The of biogas produced consists of roughly 50% methane, 49% carbon dioxide and the rest trace gases. To use it as a fuel, it is upgraded to 100% methane by pressure swing adsorption process. The resulting biomethane is subsequently brought to a high pressure by compression which is known as bio-CNG. This is how biogas is converted into a fuel.



Primove initially tried with a self-priming pump to pump the bio-digester slurry which contains large solids. Following problems were faced by Primove with self-priming pumps.

- a) Chocking problems in the impeller.
- b) Heavy leakages through gland packing.

Primove approached KISHOR PUMPS for the solution to the above problems. KISHOR PUMPS took the challenge and with their design expertise, offered a VORTEX pump to resolve the above issues. KISHOR PUMPS got the order and supplied the VORTEX pump with a very lesser delivery time. The pump was supplied to the site nearby Pune and supervision of commissioning was taken care by KISHOR PUMPS.

Benefit to Customer :

The pumps were successfully commissioned and PRIMOVE experienced the following distinct benefits,

- a) Choke less pump due to Vortex design
- b) Energy efficient
- c) User Friendly