



SLIDING VANE or "PUMP" MIXING?

DIGESTER GAS MIXING COMPRESSORS

The Utile Engineering Company Ltd, is a leading "turnkey" supplier of "continuous anaerobic digester gas mixing systems", utilising our **sliding vane gas compressor** technology which, time and time again proves to be the most efficient and cost effective method to mix, absorbing in the region a 1/3rd of the power required for "pump" mixing.

Centrally based in Northamptonshire our manufacturing facility is ideally positioned to service the UK Market. Gas Compressor design and technology has been the cornerstone of our manufacturing business for over 90 years and continues to thrive in the AD sector both home and overseas.

Gas mixing requires a reliable gas compressor to work in conjunction with the most efficient and effective mixing systems. Utile are the only UK company that designs, manufactures and installs the whole package. For many years, Severn Trent have recognised that continuous unconfined gas mixing, using very efficient sliding vane gas compressors, provides the best results for both reliability and whole life cost.



16 Utile Gas Compressors installed at Minworth STW for Severn Trent Water

With power usage coming under ever increasing scrutiny, it has been shown that "pump mixing" absorbs almost three times as much power as a sliding vane machine for the same duty point.

The introduction of a small, metered amount of oil to the gas compressors may therefore be seen to be a small price to pay for the longer life, reduced maintenance, power consumption, noise levels and downtime that result. All of these factors

contribute to a considerably lower whole life cost.

Several Water Companies and Contractors have recognised that significant savings in running costs can be achieved by selecting less expensive to run and maintain, lubricated sliding vane machines over "pump" mixing.

With the advent of CHP, the reduced power absorbed by a sliding vane machine results in huge increases in available power that can be exported from the site to provide a significant income. Under "Pay to Save" schemes, payback for selecting/removing "pump" mixing units and installing sliding vane machines can be achieved in a matter of months.

The benefit to the Operator is that they are supported by the UK manufacturer who has a proven track record for a very reliable system with excellent power consumption and low capital cost.

It is logical to select robust and reliable equipment which requires the least amount of maintenance. This is one reason why water companies, contractors and commercial clients choose Utile to Design, Manufacture, Supply, Install, Commission and Train.

The sliding vane gas compressor uses a simple, well proven design to compress the gas inside the heavy duty Ductile Iron cylinder resulting in a quiet machine that delivers pulsation free gas.

This is in contrast to a "Pump" type unit that relies on high velocity sludge flow through feed pipe work to mix accurately, that can result in bore erosion. This coupled with nozzle wear inside the tank means high maintenance. This is expensive and the downtime comes with a reduction in overall mixing efficiency and as a consequence, results in less gas production.

GAS COMPRESSORS / BOOSTERS • GAS & AIR MIXING SYSTEMS • AIR BLOWERS & VACUUM PUMPS

The Utile Engineering Co. Ltd. Irthlingborough, Northamptonshire, NN9 5UG, ENGLAND

Telephone: + 44 (0) 1933 650216 Facsimile: + 44 (0) 1933 652738 Email: sales@utileengineering.com www.utileengineering.com

SHEET – UD004



SLIDING VANE or "PUMP" MIXING?

DIGESTER GAS MIXING COMPRESSORS

Sludge pump seal failures could result in sludge on the floor, having Health & Safety issues for Operators to deal with as well as the obvious maintenance aspects.

Sludge pumps are also intolerant and susceptible to a varying sludge depth. They tend to require a stable head (fixed sludge depth) to ensure suitable mixing.

Maintenance routines for the Utile sliding vane gas compressors on site typically require the refill period to be less than once every two months. Checking of blades for wear is annual and can be carried out without having to dismantle the machine; a simple removal of an eyebolt is all that is needed.

Utile also manufacture oil free sliding vane compressors for those applications where one is suitable. We have a team of engineers to complement the manufacture and installation service. We will commission and maintain gas compressors and offer service contracts to ensure longevity of compressors, boosters, mixing systems and gas holders. All of our engineers are suitably qualified and certificated for working in Zoned areas on gas systems.

All Utile equipment for use in association with biogas, including gas boosters, is built in accordance with DSEAR and ATEX. With a proven track record for the manufacture and design of complete systems, it is no wonder that people are turning to Utile for all their latest requirements.

In conclusion, it is important to consider, not only the short term capital cost, but both the direct and indirect whole life cost. Utile are able to demonstrate a comparative whole life cost analysis to show that Utile are still the best option for biogas digester mixing on the market today.



Supplier No: 76538



206776



GAS COMPRESSORS / BOOSTERS • GAS & AIR MIXING SYSTEMS • AIR BLOWERS & VACUUM PUMPS

The Utile Engineering Co. Ltd. Irthlingborough, Northamptonshire, NN9 5UG, ENGLAND

Telephone: + 44 (0) 1933 650216 Facsimile: + 44 (0) 1933 652738 Email: sales@utileengineering.com www.utileengineering.com

SHEET – UD004