

# **PRODUCT APPLICATION PRESS RELEASE**

26<sup>th</sup> November 2018

For Immediate Release

## **CHOPPER PUMPS SUCCEED IN THE BATTLE AGAINST BLOCKAGES**

### **The Problem**

Disposable wipes and the problems they cause to the UK's sewerage systems have been in the mainstream media again. Given the scale of the problem it's hardly surprising because of the 366,000 sewer blockages occurring in the UK around 80% are caused by the presence of 'non-flushable' items. The biggest offender is wet-wipes and despite manufacturers' assurances that wipes are biodegradable there are still few controls over the manufacture and use of them, or guidelines on how they should be disposed of.

Non-flushable items continue to cause waste water companies immense problems with sewerage systems becoming inundated with laminations of wipes combined with fats and greases. The man hours and costs associated with manually lifting pumps and clearing the blockages are eye-watering. For example in one region alone North West Water, the costs have been estimated at around £10m per year.

The UK's water companies have the responsibility to invest in the correct equipment to deal with the liquid waste they are paid to transport and process and this includes waste water pumps which can handle large spherical solids. In most cases they do, with single channel, vortex and other designs of pumps. However, disposable wipes are not large spherical solids, at least not until they've been given the conditions and opportunity to form them.

Over time wipes laminate with fats and greases which bonds them onto surfaces of lift stations and large diameter sewers resulting in restricted flows, backing-up and eventually blockages in the system. Whilst the ideal solution maybe to ban the manufacture and distribution of disposable wipes and the practice of tipping fat into the waste system, this is unlikely to happen any time soon.

## **The Solution**

Through their experiences with a number of the UK's water companies in dealing with blocked sewers, Huntingdon based P&M Pumps the UK distributor for Vaughan Chopper Pumps, have succeeded in providing a solution by replacing failing submersible pumps.

For example, at Anglian Water's pumping station in Cambourne two Vaughan 30kW / 1460rpm SE6W chopper pumps were specified to handle flows up to 400m<sup>3</sup>/hr at heads of 17.8. A simple and quick retro fit was all that was required utilising all the existing installation hardware and this provided an effective solution to prevent blockages and instances of drains 'backing-up'.

The innovative design of the Vaughan Chopper pump makes it particularly effective in the most challenging solids pumping applications that cause other solids handling pumps to fail when faced with the challenge of non-flushable items. The seal design on Vaughan submersibles has proven to be reliable and durable assisted by the patented upper cutter design. Stray solids that may be trapped within the mechanical seal chamber are shredded and removed by the impeller pump out vanes turning against the upper cutter.

In addition, solids are then chopped by the cupped and sharpened impeller blades turning across the cutter bar, creating a smooth 'slicing effect' enabling the conditioned slurry to be easily pumped upstream through the piping system without plugging.

Finally, a centered nut with a tooth cuts stringy materials that tend to wrap at the pump inlet and where non-fibrous hard solids are present there is the option for a (removable) disintegrator tool which agitates and breaks up large solids to prevent suction blockage.

## **The Benefits**

Through their experiences at Anglian Water and numerous other waste water treatment sites in the UK, P&M Pumps have demonstrated that Vaughan Chopper Pumps are an effective solution to the most challenging 'solids pumping' situations where other types of chopper, macerating or whole solids passing pumps have struggled.

In most cases, retrofitting a Vaughan Chopper Pump into a problematic area improves the whole process and will be self-financing, with unrivalled payback periods in some cases being a matter of months, thereafter minimising the effect to the budget holders. ENDS

More information on Vaughan Chopper Pumps available from:

[matt@pumpmix.co.uk](mailto:matt@pumpmix.co.uk) [www.pumpmix.co.uk](http://www.pumpmix.co.uk) Tel: 01487 830123.

P&M Pumps , Sawtry, Huntingdon, UK.