Mono® NOV's Compact Mutrator Solves Sewage Problem At Park

A Compact Mutrator, comprising a Mono progressing cavity pump connected to a tri-hammer macerator, has provided an economical and effective solution to the problems faced by a town council. Increased use of the facilities at a multiuse community services centre in a Cheshire public park overloaded the existing septic tank.

The services in Woodbank park are used by Stockport Metropolitan Borough Council staff working in the area, as well as members of the public using the sports facilities and visiting the park.

The council wanted a simple and reliable alternative to handle raw effluent and enable them to link into a foul sewer some 500m away from the community services building. Engineers orignally opted to install a conventional submersible pumping station but recognised that with only a 240 volt single phase power supply available, the pumps could clog easily and give costly maintenance problems.

As a consequence, Mono's Compact Mutrator system was supplied, installed and commissioned. The package comprises duty/standby units housed in a aesthetic GRP kiosk complete with control panels, level controls and all necessary valves and heaters. Operation is balanced between the two units by automatic alternate duty selection.

The Compact Mutrator combines a low maintenance Mono progressing cavity pump with a tri-hammer centrifugal type macerator fitted in the suction line. The tri-hammer macerator finely grinds all material prior to entry into the pump thus eliminating blockages.

The Mutrator is situated above the sump which collects raw sewage. The progressing cavity action of the pump lifts the sewage from the sump into the cutting chamber, where solid waste is ground by the macerator using the centrifugal effect of the impeller and cutter ring. The macerator incorporates a seal design external to the pumped liquid in its own oil bath, thus ensuring extremely long life of the seal.

Careful selection of the equipment ensures that heavy objects such as stones and metal remain in the sump and do not cause problems.

The simplicity of the pump design minimises wear and offers high abrasion resistance. It can be run at low speed, while maintaining high head capability, further reducing wear rates and, in some cases, consuming less than 50% of the energy of conventional centrifugal sewage pumps.

A spokesman for the council commented: "The Mutrator offered an excellent solution which was compact and highly effective in preventing clogging of the system. It has proved extremely reliable and is virtually maintenance free requiring only simple routine checks by staff".



Mutrator: M18E5CAC1
Product: Sewage
Capacity: 1.6 l/s

Pump Speed: 600 rpm

Drive: 2.2kW motor



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