### >> IMPROVING EFFICIENCY IN SUMP PIT EMPTYING (WITH CENTRIFUGAL PUMP RANGE)

Recently, a client of ours, an OEM specialising in Bespoke Machinery Factory Installations, faced significant challenges when it came to the emptying of sump pits. After discussions with their technical team, we were able to specify a range of Centrifugal Pumps capable of accommodating varied flow rates and pressures.

### **Project Overview**

When it comes to the management of wastewater, the use of reliable equipment is paramount. Our client faced substantial challenges with their previous pump supplier, which resulted in incorrect specifications for their differing head and pressure requirements. This led to operational inefficiencies and compromised reliability in their sump pit emptying projects. Looking for a reliable solution, they turned to Tapflo UK, a trusted provider of process pumps, to address their needs.

### **Application Details**

The projects carried out by our client involved the emptying of sump pits, typically averaging around 2 meters deep, across various wastewater treatment plants. These projects presented a range of flow rates and discharge pressures, which called for a versatile solution.

With the requirement for adaptability, we proposed a standardised Industrial Centrifugal Pump range with sizes capable of accommodating varied flow rates and pressures through either pressure regulation or inverters, depending on site conditions. Furthermore, through collaborative discussions with our client, we tailored our pump solutions to meet their specific project requirements. By leveraging existing level sensors in the sumps, which allowed for higher flow rates and shorter operating times, pump performance was enhanced, improving overall system efficiency.



### **Components of the System**

Understanding the diverse nature of the projects, we selected two pump models to fulfil the requirements across all sites. The chosen models were:

- √ 33x Industrial Self-Priming Centrifugal Pumps
- √ 4x Self-Priming High-Performance Centrifugal Pumps

Technical specifications for these pumps as standard are as follows:

## 33x Industrial Self-Priming Centrifugal Pumps (CTS | CE 1CGV-22):

- ✓ Max capacity: 58m³/hr
- ✓ Max Discharge Pressure: 40m
- ✓ Self-Priming: Up to 6m





# 4x Self-Priming High-Performance Centrifugal Pumps (CTXS I 65175/175-1SGV-75):

- ✓ Max capacity: 58m³/hr
- ✓ Max Discharge Pressure: 40m
- ✓ Self-Priming: Up to 6m





These pumps were specifically designed for heavy-duty applications, meeting the differing flow rates and discharge pressures present in the sump pit emptying operations.

Delivered in batches over the course of 2024 as per the client's requirements, the initial batch comprising 6x Industrial Self-Priming Centrifugal Pumps and 4x Self-Priming High-Performance Centrifugal Pumps was swiftly assembled, rigorously tested, and dispatched from the Tapflo Factory within a remarkable 4-week timeframe, ensuring minimal downtime for our client and the end users where the old pumps needed to be removed.

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#### **Solutions and Benefits**

### Benefits of the Tapflo Self-Priming Centrifugal Pump range incudes:

- Customisable design allows for the addition of optional extras (a lubricated seal for safety, and foot valve for quicker starting after stoppage of the pump)
- ✓ No need for additional pumps or equipment for self-priming Ideal for highly aerated liquids
- ✓ Easy installation and maintenance. Only the suction pipe has to be immersed and the pump can be located at a convenient area. Disassembly of the pump can be done without interference with the pipework
- ✓ Self-priming up to 5 m
- ✓ Easy maintenance and cleaning
- ✓ Hygienic and Industrial solution
- ✓ Simple and compact design

Furthermore, the implementation of our specialised Centrifugal Pump solutions offered several significant advantages to our client:

- ✓ **Enhanced Efficiency:** By using standardised pump models capable of adjusting to various flow rates and pressures, operational efficiency was markedly improved. This adaptability allowed for streamlined operations across their diverse projects, minimising downtime and maximising productivity
- ✓ **Spares & Repairs:** Offering commonality in spare parts and service requirements across the same pump types simplifies repair processes for operators so they can work with standardised components
- ✓ Reliability and Consistency: Our pumps provide reliable and consistent performance, ensuring uninterrupted sump pit emptying operations. This reliability translated into increased confidence for our client and their end-users, fostering long-term trust and satisfaction
- ✓ **Timely Delivery:** Our commitment to prompt delivery was exemplified by the swift turnaround time of the initial batch of pumps. This punctuality not only met but exceeded our client's expectations, demonstrating our dedication to customer satisfaction and project success.

In conclusion, our partnership with our client exemplifies our capability to deliver customised, efficient, and reliable pump solutions tailored to unique project requirements.

By addressing the challenges of sump pit emptying operations with precision and expertise, we have enabled our client to achieve heightened efficiency, reliability, and ultimately, enhanced performance across their wastewater management endeavours.