Case Study: Water Based Dye Transfer



ENQUIRY

Castle Pumps have been working for a good few years now with a manufacturer of site machinery for the quarry, mining, aggregate and forestry industries. They originally approached us when they were in need of a pump to be used with one of their large-scale colouring trommels. The trommel works by moving mulch, wood chippings, aggregates and sand in large volumes along a conveyor whilst spraying it with dye to colour it for landscaping.

The pump in question was to be used for transferring this water-based dyes to feed their machinery, and must have a hydraulic motor rather than an electric one. After being happy with initial orders, they have been ordering in quantities from us ever since.

KEY CHALLENGES

- 1. Heavy duty for regular onsite use.
- 2. Hydraulic rather than electric motor.
- 3. Ease of maintenance.





EQUIPMENT SUPPLIED

4 x Boyser FMP-30 Peristaltic Pump

Flow 33.3lpm Pressure 8 bar

Fluid Water based dye

Orientation Horizontal
Inner Hose Material Natural rubber
Suction/Discharge 1 1/4" BSP
Drive Hydraulic motor



SOLUTION

It is very important for OEMs to have components that are able to uphold the quality of their machinery. Failure of the pump can impact the reputation of the whole colouring trommel, and for that reason we knew just how important specifying a heavy duty and reliable solution was. This was one of the factors that led Castle Pumps down the peristaltic pump route; a pumping technology known for its rugged construction.

The beauty of the peristaltic pump design is that it only has a single wetted part that comes into contact with the fluid and needs maintaining. Not only does this mean maintenance is simple and inexpensive, it means there are no seals to wear and leak or valves to clog. With downtime of a site's colouring trommel impacting production, we suggested that with every pump ordered the customer orders a spare inner tube with the lubrication grease, so that maintenance can be carried out immediately when required.

The good news is that peristaltic pumps from Boyser, the manufacturer we represent, are also available with hydraulic motor which was another tick in the box for this enquiry.