

CASE STUDY

Pumping Abrasive Paper Coatings

Stora Billerud, Skoghall, Sweden



Discflo pumps have been installed at the Skoghall division of Stora, one of Sweden's largest carton manufacturers. They are being used on the company's new carton machine - considered to be the fastest, most productive board machine in the world - to pump a highly viscous, abrasive liquid. Since installation in October 1996, the pumps have run for 18 months to date without any problems. Stora expects them to greatly reduce their annual maintenance and spare parts bill.

The company chose the Discflo system for several reasons. Firstly, because of its unique non-impingement design, it is technically superior in abrasive and viscous service applications to the progressive cavity pumps that Stora previously used. Although the PC pumps were able to handle the paper coatings, they required constant maintenance. In effect, Stora was spending twice as much on maintenance every year as the pumps originally cost. In addition, the PC pumps produced a pulsated flow, leading to problems further down the line.

The Discflo pumps solved both of these problems. The disc pump technology works on the principle of boundary layer viscous drag, which eliminates impingement of the product on the working parts of the pump and so greatly reduces pump wear. Plus, it gives a smooth, non-pulsating flow of product through the pump.

Another important factor for Stora was the Discflo pump's proven success in the paper industry in pumping similar viscous and abrasive fluids. As there were only a few Discflo installations in Sweden handling this type of product, Stora contacted Union Camp in Virginia, in the United States, who had installed a Discflo system in 1994 to pump cooked starch in the coatings kitchen. At the time contact was made, the US pump had been running continuously for 18 months with no downtime - an impossible achievement with other types of pump.

The Challenge

High maintenance and parts bills from existing PC pumps

Paper coatings are abrasive and viscous

Pulsation of pumps caused problems down the line

The Discflo Solution

Discflo 'non-contact' pumping ideal for minimizing abrasion

No wear or breakdown in first 18 months of operation

Laminar, pulsation-free flow prevents pulsation problems



Call Discflo now to find out how our pumps can solve your problems.