

# CASE STUDY

## Pumping Sugar Crystals

*Tully Sugar Mill, Queensland, Australia*



Sugar crystal damage has been eliminated at the Tully Sugar Mill in Queensland, Australia, thanks to the Discflo Disc pump. The 403-2HHD Discflo pump replaced a centrifugal pump, which degraded the sugar crystals in the Magma C low grade fugals with its impeller. The centrifugal unit also had tight clearances, disallowing the lightening of the magma solution while pumping.

Since the Discflo pump was installed in 1993, it has achieved many successes. It has allowed the lightening of the magma, reduced wear from abrasion, and eliminated the breakdown of sugar crystals, so the quality of the sugar crystals remains unchanged after pumping.

This is achieved thanks to the Disc Pump's unique pumping action, based on 'boundary layer effect' and 'viscous drag' to achieve a pulsation-free, laminar flow through the pump with minimal contact between the pumpage and wet end. The result is no damage to delicate and shear sensitive products.

### The Challenge

Centrifugal pump impeller degraded sugar crystals

High abrasive wear from magma

Could not lighten magma solution while pumping

### The Discflo Solution

Discflo 'boundary layer effect' prevents crystal damage

No close tolerances in Disc pump reduces abrasive wear

Discflo pump allows lightening of magma



Another benefit is that the Discflo pump can be run dry. Tully Sugar Mill has operated the pump dry, allowing air to be ingested into the pump, without any problems. The Disc pump has a design capacity of 112 GPM at 35 ft TDH.

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