

# THE CHOCOLATE PUMP



## QTS TWIN SCREW PUMP SAVES MAINTENANCE, QUALITY & ENERGY COSTS FOR NESTLÉ.

### Challenge / Issue

Nestlé approached Q-Pumps for a 'pumped' solution to eliminate a number of high maintenance and power hungry augers use to convey chocolate.

It was imperative that a pumped solution did not damage the small sugar crystals in the chocolate product as this would affect the texture, consistency & appearance of the finished product.

The combined auger drive power requirement was 22kw and costs associated with the continuous repairs and parts replacement were excessive; with downtime being the highest costs contributor.

### Solution and Results

A QTS200 Twin Screw Pump set was provided for an 'off-line' trial to ensure the pump handled the chocolate without affecting the quality.

The trial results proved successful and with the approval of the project reliability, maintenance and quality teams the pump was installed into their production process.

This trial also gave our team knowledge around the unique characteristics of Nestle's chocolate, enabling an optimal pump system selection.

Subsequently, Nestlé installed 1 x QTS100, 1 x QTS200, 2 x QTS300 and x1 QTS 400 Twin Screw Pump sets each having our Chocolate Seal System. The combined energy requirement was reduced to 50%.

Nestlé have enjoyed hassle-free operation for over 3 years. To date, no seal replacement has occurred which could be an industry first for hygienic chocolate pumping. The only maintenance required is a seal support system fluid change on a monthly recurring basis.

### Pump Performance Rating

QTS MODEL	QTS 400
MAX PRESSURE	25 bar
MAX PRODUCT FLOW	129.5 m3/hr
MAX CIP FLOW	193.08 m3/hr
MAX VISCOSITY	1,000,000 cP
MAX SOLID	38.10 mm

## NESTLÉ



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