

FOOD & BEVERAGE INDUSTRY

Quick STUDY

Hydra-Cell
Seal-less Pumps

www.Hydra-Cell.com

Location:	Spain
Application:	Spray coating confectionery
Media:	• Dextrose • Sugar syrups
Model No.:	D10XKSEHFEYC
Flow Rate:	3 gpm (12 l/min)
Pressure:	200 psi (14 bar)
Hydra-Cell Advantages:	• Tolerance of hot, aggressive liquids • Minimal pulsations through multiple diaphragm design • Low purchase price • Low operating costs



Spray Coating with Sugar Syrups

A Spanish manufacturer of drum coating machinery for the confectionery industry is now fitting Hydra-Cell pumps as standard original equipment in place of the traditional dosing pumps previously installed. The pump is required to deliver a variety of sugar and sugar-free hot liquids to spray nozzles applying coatings to products such as chocolate lentils, licorice, chewing gum, peanuts, and almonds.

The original pumps were seal-less single-diaphragm metering pumps and could handle aggressive liquids, but their slow-stroking delivery, with large volume per stroke, was not ideal for spray coating because of the pulsing effect - and the more viscous liquids tended to block suction and pressure valves. The acquisition cost of the pumps was another key disadvantage to a manufacturer of original equipment.

The Hydra-Cell D10, also seal-less, has no problems with aggressive liquids at the required temperatures 158 to 176°F (70 to 80°C) and viscosities; however, its high-speed, low-volume-per-stroke delivery provides virtually pulse-free flow, ideal for spray coating. It is substantially less expensive than traditional metering pumps, both to buy and operate. It needs little maintenance, spare parts cost less, and it draws only 1.5 hp (1.1 kW) of power, saving energy, as well.

Characteristics of Fluid Pumped:

☐ Contains Abrasives ☐ Corrosive ☐ Solids in Suspension ☒ High-temp. (>158°F/70°C) ☐ Non-lubricating ☒ High-viscosity (>500 cPs)