Expert Solutions in Seal-less Hygienic Transfer

ECCENTRIC DISC PUMPS

Where Innovation Flows

LIQUID SUGAR MARKET

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Liquid Sugar Processing Challenges:

Liquid sugar under all its aspects (such as glucose, sugar syrup, caramel) is used in many industries: food (confectionery, sauces, chocolate), beverages, pharmaceutical, and many more. These widely used products, however, lead to difficult challenges in many processes in day-to-day operations:

- Difficult dynamic sealing, often leading to leakages
- Consequence of above, a water flush is almost always necessary leading to high potable water consumption
- Ordinary shaft sealing systems showing a limited life time
- Abrasiveness of some sugar based liquids
- Frequent downtime and maintenance
- As liquid sugar is often being added in recipes or used to coat, a need for a constant flow rate, even vs. a variable viscosity or pressure

Pharmaceutical syrup manufacturing

Glucose transfer from storage tank to process
- Seal-less
- Constant flow rate vs. wear in spite of an abrasive liquid

Chocolate bar manufacturing

Glucose transfer to chocolate mixing tank
- Seal-less
- Constant flow rate vs. wear

Sweets manufacturing

Glucose based colorant transfer to coating machine
- Seal-less
- Constant flow rate vs. variable viscosity and pressure

Sweets manufacturing

Glucose transfer for recipe formulation
- Seal-less
- Constant flow rate vs. variable viscosity and pressure

Chewing gum manufacturing

Glucose truck unloading
- Seal-less
- Line Stripping

Beverage Production

Glucose transfer from storage to process and recirculation to avoid crystallization. A 24/7 operation
- Seal-less
- Constant flow rate even if pumping parts are wearing
Mouvex Eccentric Disc Pumps:
The Solution for the Challenges of Liquid Sugar Process

- Unique seal-less design means the end of flush water consumption and frequent downtime and maintenance operation
- Easy to maintain: no seals, no metal/elastomer friction, only two pumping parts
- Consistent performance (flow, pressure and volumetric efficiency) thanks to low slippage
- Total wear compensation when pumping an abrasive liquid. No performance loss
- Product recovery (pipeline stripping), means profit recovery
- Non-pulsating, smooth flow
- Self-priming to take ingredients from drums
- High volumetric efficiency allowing accurate formulation
- Clean-in-Place (CIP) capable for the ultimate in convenience and cleanliness

Mouvex Technology

Eccentric disc pumps consist of a cylinder and pumping element mounted on an eccentric shaft. As the eccentric shaft is rotated, the pumping element forms chambers within the cylinder, which increase in size at the intake port, drawing fluid into the pumping chamber. The fluid is transported to the discharge port where the pumping chamber size is decreased. This action squeezes the fluid out into the discharge piping.

Mouvex Principle