PSG-Blackmer

- Industry: Chocolate
- Product: Sliding vane pump
- Value Proposition: Superior for early-stage Cocoa bean processing
- # 1208

The main challenge in the production of chocolate – which begins during a process where cocoa beans are refined into a “chocolate liquor” – is handling a liquid that can be highly viscous, from 50,000 to 75,000 SSU (10,994.73 to 16,494.73 cP), and somewhat abrasive, while also being extremely shear sensitive. Too much shear can lead to the separation of the oils and butter in the chocolate liquor, resulting in a substandard product. Additionally, so that the chocolate is kept in the proper liquid state, it must be heated to and maintained at a temperature between 150°F (65.6°C) and 200°F (93.3°C) during production.

Sliding Vane Pumps

The Blackmer solution for chocolate handling, especially during early-stage cocoa bean processing, is the positive displacement (PD) NP Series Sliding Vane Pumps, which is part of its Iron Line.

Blackmer arguments for sliding vane pumps vs alternatives

- Lobe Pumps are typically mechanically sealed and even when utilizing two mechanical seals, they will eventually fail – usually quite quickly – so they will need to be replaced frequently.
- Air-Operated Double-Diaphragm (AODD) Pumps The pump's diaphragms have temperature limitations that can limit their operational window and service life.
- Gear Pumps Are not self-adjusting, so they will not maintain volumetric consistency when pumping fluids with higher viscosities.