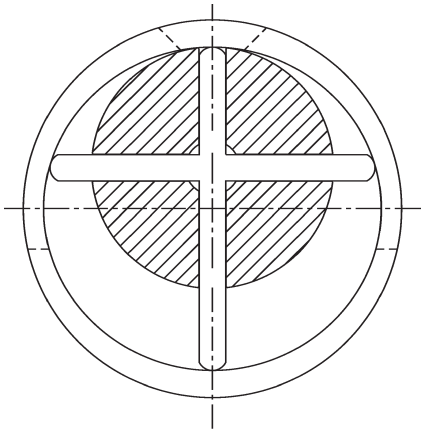
Cambridge RANGE

BAYNFLAX

BCAM 007A

SLIDING VANE CHOCOLATE PUMPS

The Baynflax Cambridge Range of Sliding Vane Chocolate Pumps are of the positive displacement type. Whereas the total dynamic head developed by a centrifugal, mixed flow, or axial flow pump is uniquely determined for any given flow by the speed at which it rotates, positive displacement pumps and those which approach positive displacement will ideally produce whatever head is impressed upon them by the restrictions to flow on the discharge side. Actually, neglecting slippage, the maximum head attainable is determined by the power available in the drive and the strength of the pump parts.



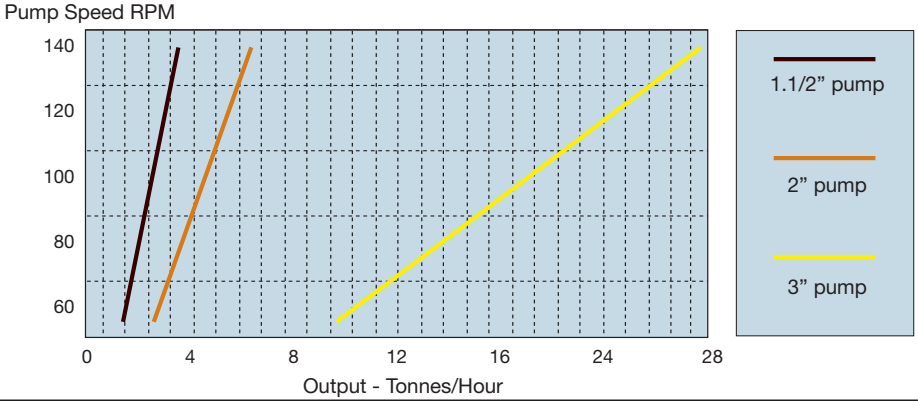
In sliding vane pumps mechanical displacement of the fluid is produced by the rotation of the offset rotor in which two sets of sliding vanes are retained. These two vanes provide a doubling of the capacity when compared to single vane pumps. Because internal clearances, although small, are a necessity in pumps of this type they cannot be truly classed as positive displacement. However in most practical respects they can be considered as such.

The nature of this system of displacement creates a pulsation in the discharge flow from the pump, which is more pronounced at low rotor speeds.

As a result of these positive displacement characteristics a Baynflax Cambridge Range Chocolate Pump will provide a throughput of chocolate which is determined by the size of pump, speed of rotation and state of wear of the internal vanes and liner. The Chart below provides an indication of the outputs to be expected for each size of pump, measured against the speed of rotation. Whilst speeds below 80 rpm can be used the pulsation of flow is likely to be pronounced. Speeds above 120 rpm on the other hand will greatly increase the rate of wear of the vanes and liner.

The Horsepower of the drive required is determined from the total head against which the pump will operate, at the speed of rotation selected. This total head is determined from the sum of the resistances to flow provided by the length of the pipeline, the height of discharge and the number of bends, tees and other restrictions such as valves and filters contained in the pipeline. The charts overleaf give a range of Horsepowers required, at three different pump speeds, in order to overcome a total head in the range of 20ft to 120ft.

Motorised Chocolate Pump Performance Curves



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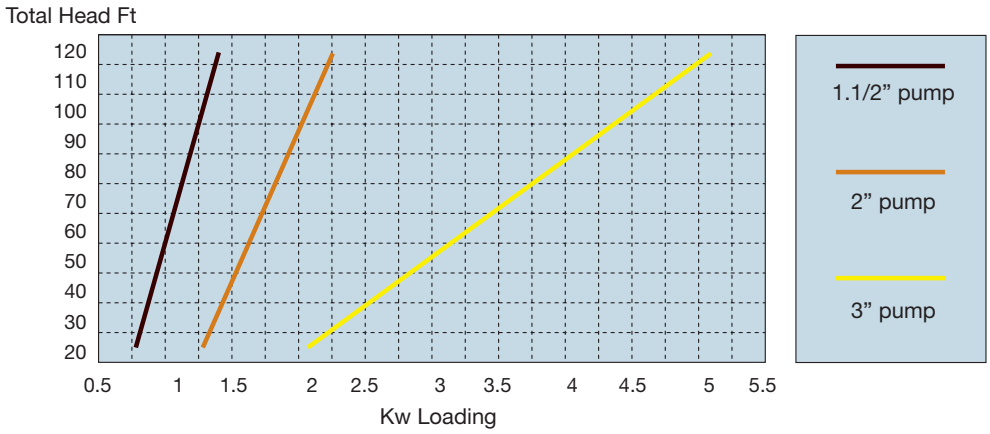
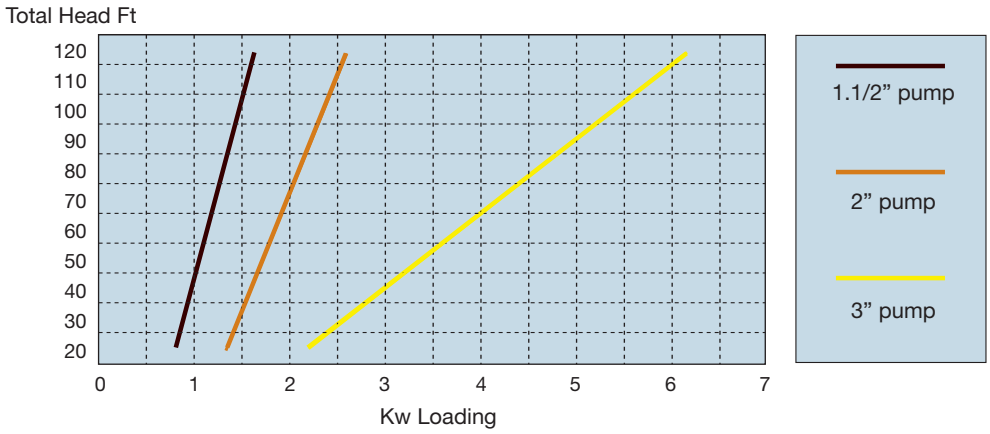
SLIDING VANE CHOCOLATE PUMPS

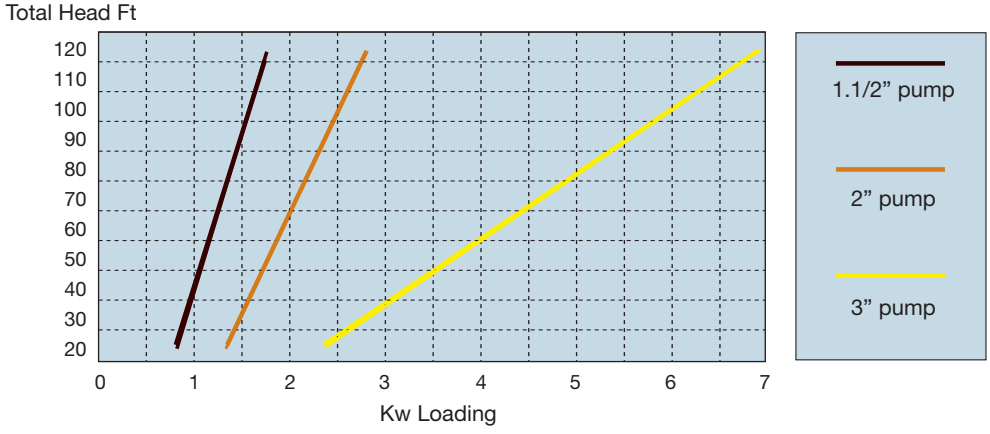
Motorised Chocolate Pump Performance Curves - Pump Speed 80 RPM



Motorised Chocolate Pump Performance Curves - Pump Speed 103 RPM



Motorised Chocolate Pump Performance Curves - Pump Speed 120 RPM



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