

Advantages



VOGELSANG

Sludge Pump
Division

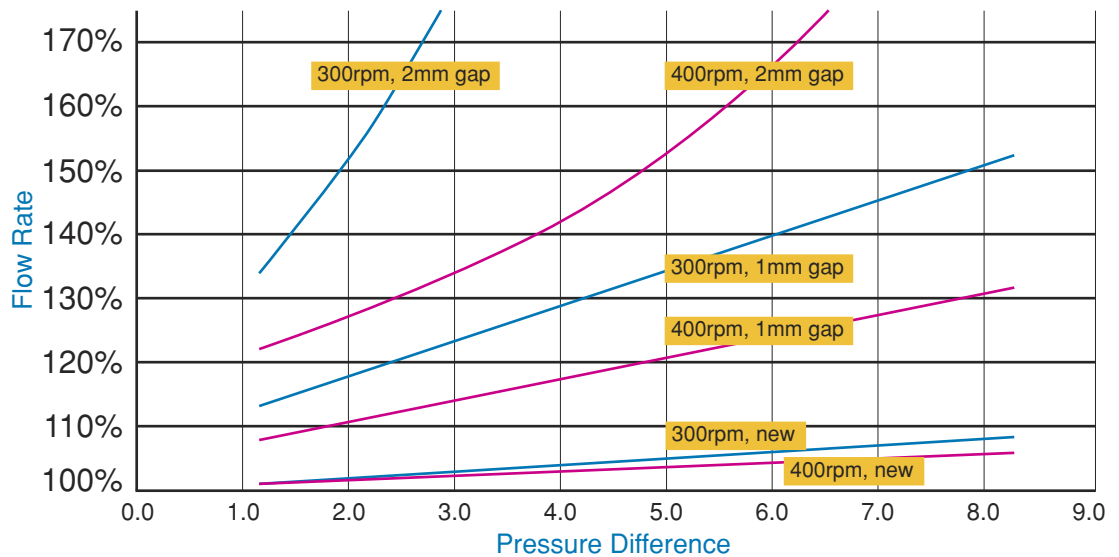
4-Wing Lobes achieve longer operational lifetime

Comparison of Four vs. Three - Wing Lobe in the same Vogelsang VX186 Pump

● VX186 4-Wing Lobe



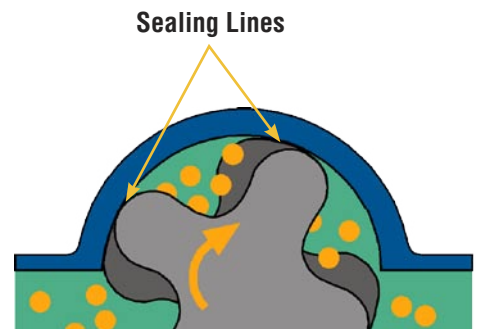
● VX186 3-Wing Lobe



Tech Tip Advantages of Vogelsang 4-Wing HiFlo Rotary Lobes

4-wing HiFlo rotary lobes, when compared to the 3-wing lobe, have an improved internal sealing effect. The greater the number of wings, the greater the number of sealing lines which increases resistance to internal backflow. The number of gaps is decisive for pump "tightness". This is illustrated to the right, where the upper housing segment is shown. In this view there are always two sealing lines against the housing segment. Due to the wing's helical design, an average of 1.5 contact lines are actually effective.

Under certain operational conditions an increased output flowrate of up to 50% can be expected. The chart above illustrates the performance of the same pump using both lobe designs as the lobe wear increases. The gap greatly influences the tightness of a rotary lobe pump. A diameter value of 2.0 mm means that the gap has increased to 1.0 mm.



Vogelsang HiFlo®
Sludge Pump



The volumetric flowrate increases proportionally to the increase in internal leakage compared to the theoretical volumetric flowrate. This means lower rotational speed and greater pump pressure. This applies particularly to worn pumps. In summary: the greater the wear, the greater the flowrate gain from a four-wing lobe.

These results apply to all Vogelsang models and without changing the housing dimensions, as the design relation between tip diameter and axle distance allows the addition of another wing to the lobe without falling below the toothing limits. Once outside the toothing limits, adverse backflow occurs in the middle area between the rotary lobes.

The advantage for Vogelsang pump users is that no modifications to the pump is required to upgrade to four wing lobes. The conversion can be done on-site by one person in minutes without disturbing any of the connected piping.

For more information, visit our website at www.vogelsangusa.com, to locate a local distributor, or contact Vogelsang direct at 800-984-9400.

Sludge Pumping, Macerating & Distributing Products

800 984 9400
vogelsangusa.com