

PUMPING SYSTEMS DESIGNED FOR PAPER & PULP APPLICATIONS

Pulp & Paper Industry

Robust Pumps that Handle High Viscosity & Temperature





ROBUST, RESILIENT, RELIABLE!

High performance pumping, low energy consumption.

Vogelsang has been a leader in the pumping industry for over 80 years. During this time, we've been responsible for most of the major innovations in positive displacement rotary lobe pump design. Our rotary lobe pumps have quickly become popular in the paper and pulp process industry.

Due to the nature of our pump and lobe design as well as the materials we choose, liquids such as coatings, pigments, tall oil soap, black strap liquor or cooked starch can be moved throughout your process with no damaging pulsation or liquid shearing.

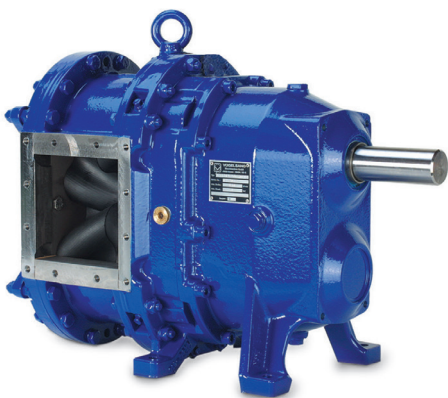




The VX HiFlo Rotary Lobe Pump Product Line.

Vogelsang offers a full line of Rotary Lobe Pump models to suit various applications and operating conditions. The VX HiFlo Q series is our standard design and works well in most applications requiring a positive displacement pump. For increased flow and medium pressure, we offer the VX HiFlo QD series which features a much larger wet end and outboard bearing configuration to eliminate deflection. For high flow and high pressure applications, the Marathon QD M2 series handles pressures to over 200psi in a two stage outboard bearing configuration.

All Vogelsang pumps can run dry without damage, self prime and run in forward or reverse. Vogelsang pumps are great for suction lift applications up to 25'. Due to our convoluted HiFlo Lobe design, the pump delivers pulsation free pumping action making it ideal for applications such as dewatering feed.



HiFlo VX Q Series VX136



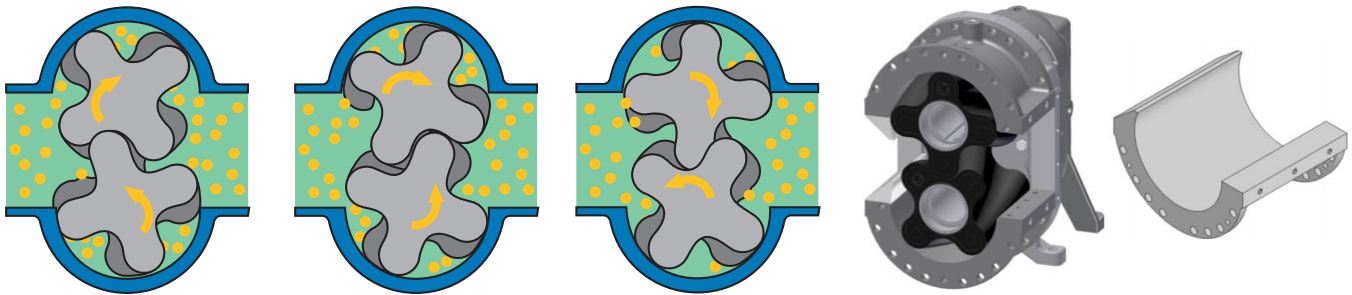
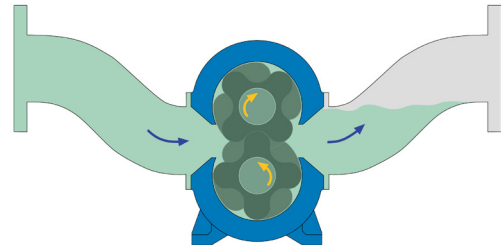
HiFlo VX QD Series VX186



HiFlo VX QD M2 Series VX186

How the Rotary Lobe Pump Works

Two intermeshed lobes are affixed each to gear driven shaft. The shafts rotate in opposite directions. The rotating motion of the lobes creates an expanding cavity on the suction side. This allows fluid to enter and fill the suction side of the pump. The rotors carry the fluid around the housing to the discharge side where it is expelled out of the pump by the closing cavity.



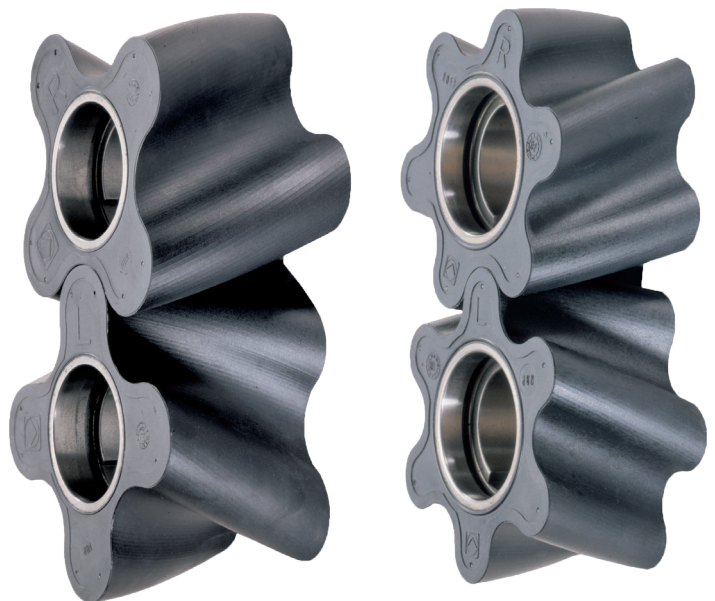
Hard solids are passed through the pump within the cavities between the lobe and outer housing. Vogelsang offers a true unique solids passing design, all build into our Dynamic Injection housings. This design allows for solids passing, without damage to the lobes, and extends operation life. The Vogelsang pump can pass most any solid that can fit in the cavity. Maximum non-compressible solid size varies by pump model up to 2.4" (61mm).

Pulsation Free, High Abrasives & Low Shear

The state of the art in positive displacement pumps. The HiFlo Lobe has increased capacity compared with former lobe designs while eliminating pulsation. The convoluted design of the HiFlo Lobe provides a large cavity that's perfect for harsh and abrasive sludge. This design also makes it possible to achieve a required pressure at a slower rpm which results in less damage to lobes and minimal wear to the rest of the pump.

The gentle pumping action of the HiFlo Lobe is also friendly to shear sensitive liquids. This also applies to applications where large amounts of entrained air is present in the liquid.

Vogelsang offers six wing lobe options in the VX100 series and four wing for the VX136 & VX186 series. There are several elastomer options for maximum chemical compatibility, abrasiveness and temperature requirements.



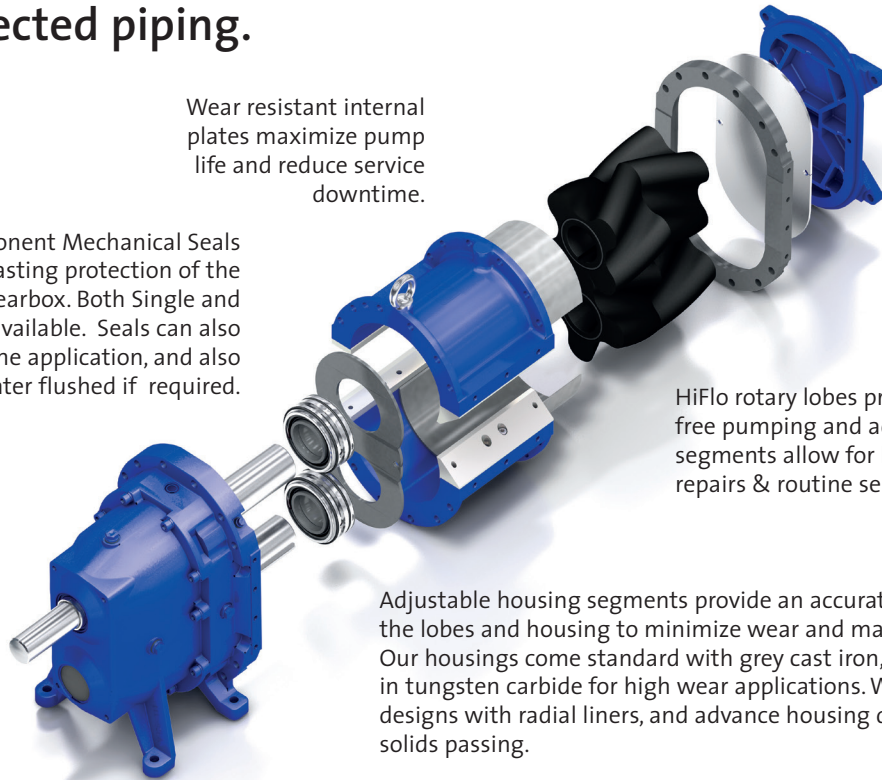


Maintenance is performed in place without disturbing connected piping.

Wear resistant internal plates maximize pump life and reduce service downtime.

Robust Cartridge or Component Mechanical Seals provide long lasting protection of the buffer chamber and gearbox. Both Single and double mechanical seals are available. Seals can also have an air gap if required by the application, and also be water flushed if required.

No step down shafts. We have maximized the diameter of our shafts to prevent wear lobes, seals and bearings caused by shaft deflection.
The lowest shaft deflection in the industry!



HiFlo rotary lobes provide pulsation-free pumping and adjustable housing segments allow for low cost wetend repairs & routine service.

Adjustable housing segments provide an accurate gap between the lobes and housing to minimize wear and maximize efficiency. Our housings come standard with grey cast iron, and also available in tungsten carbide for high wear applications. We also have designs with radial liners, and advance housing designs to assist solids passing.

QUICK & EASY INLINE MAINTENANCE

VX Pump Series Performance Specifications:

Model	Capacity		Displacement		Max. Solids		Flange Size		Max Pressure				Max. Speed	
	gpm	m ³ /h	gal/100rev	l/100rev	in	mm	in	mm	Q: psi	bar	QD: psi	bar	rpm	1/min
VX100	45	13-57	3-13	7.7	29	.79	20	2.5	65	145	10			1000
	64	22-84	5-19	11.1	42	.79	20	3.0	80	131	9			1000
	90	26-1114	6-26	15.6	59	.79	20	4.0	100	102	7			1000
	128	40-167	9-38	22.2	84	.79	20	4.0	100	58	4			1000
VX136	70	44-198	10-45	33.5	127	1.57	40	4.0	100	145	10	174	12	800
	105	66-308	15-70	50.2	190	1.57	40	4.0	125	145	10	174	12	800
	140	88-396	20-90	66.8	253	1.57	40	6.0	125	116	8	174	12	800
	210	132-616	30-140	100.4	380	1.57	40	6.0	150	73	5	145	10	800
	280	176-793	40-180	133.7	506	1.57	40	6.0	150			116	8	800
	420	264-1233	60-280	200.5	759	1.57	40	6.0	150			87	6	800
	140M2	44-198	10-45	33.5	127	1.57	40	6.0	125			232	16	650
	210M2	66-308	15-70	50.2	190	1.57	40	6.0	150			232	16	650
280M2	88-396	20-90	66.8	253	1.57	40	6.0	150			203	14	650	
420M2	132-616	30-140	100.4	380	1.57	40	6.0	150			174	12	650	
VX186	92	88-440	20-100	94.0	356	2.40	61	6.0	125	145	10	174	12	600
	130	132-638	30-145	132.9	503	2.40	61	6.0	150	145	10	174	12	600
	184	176-881	40-200	188.1	712	2.40	61	6.0	150	116	8	174	12	600
	260	264-1277	60-290	265.8	1006	2.40	61	8.0	200	73	5	145	10	600
	368	352-1761	80-400	376.2	1424	2.40	61	10.0	250	44	3	116	8	600
	390	396-1915	90-435	398.6	1509	2.40	61	10.0	250	44	3	102	7	600
	520	528-2554	120-580	531.0	2012	2.40	61	10.0	250			87	6	600
	736	704-3522	160-800	752.4	2848	2.40	61	14.0	350			44	3	600
	184M2	88-440	20-100	94.0	356	2.40	61	6.0	150			232	16	600
	260M2	132-638	30-145	132.9	503	2.40	61	8.0	250			232	16	600
	368M2	176-881	40-200	188.1	712	2.40	61	10.0	250			203	14	600
520M2	264-1277	60-290	265.8	1006	2.40	61	10.0	250			174	12	600	



APPLICATIONS

Coatings

Our pumps are quickly becoming very popular in the pulp and paper industry for the applications such as coatings, tall oil soap, black strap liquor and cooked starch.

People like our pumps because they are versatile, long lasting and easy to maintain. People also choose Vogelsang because we offer engineered products specifically designed to the requested operating conditions. Because the liquids and chemicals in the paper industry vary in makeup, we offer chemical compatibility testing prior to finalizing orders. This ensures your pump installation is correct the first time.

Vogelsang pumps are the ideal choice for pumping heavy coatings and pigments such as Kaolin Clay, Titanium Dioxide and polyethylene. Our pumps offer a smooth pulsation-free flow that will not shear the liquid.

One of the primary challenges of pumping coatings is hardening of the coatings left in the pump during downtime. When the coatings begin to dry, they can seize mechanical seals causing a catastrophic failure of the pump and contamination of the liquid. In applications where there is potential for this issue, we offer a water flushing option to keep the seals clean.

Another challenge is chemical compatibility. Vogelsang offers several choices for housing and wear plate material for various levels of abrasives or chemical makeup. We also offer numerous elastomer options for lobes and O-rings that will be compatible with type of coating to be used.

A feature that is popular with coating applications is that our pumps can pump in reverse on the fly. Stripping out hoses has never been easier!

Run dry is a concern for most Progressing Cavity pump users. Vogelsang pumps can run dry without damage should a tank run out of coating.



Tall Oil

Pumping Tall Oil Soap as a byproduct of the pulping process presents challenges in the areas of heat, pH and viscosity. The high alkalinity can be a problem for certain materials in the wet end of the pump. Vogelsang overcomes this by providing numerous choices of metals, coatings and elastomers for maximum compatibility.

High temperature ranging up to 210°F is also a challenge in this application. We can supply high temperature elastomers, mild steel or stainless steel lobes.

Certain types of soap has viscosities from Weak Black Liquor (water-like) reaching up to 60,000cp and contain high amounts of entrained air, froth and fine grit. These conditions present challenging conditions for gear pumps. Vogelsang pumps can handle these conditions due to our advanced sealing system and abrasives handling.

Paper Making Additives

Cooked Starch is a common ingredient in the paper making process. It can be a challenge to other types of pumps.

The temperature can get as high as 210°F and a smooth non-pulsating pump is perfect for handling this application.

Again, chemical compatibility is key when working with chemicals and Vogelsang has the material choices to work in most any application.

Soap, Power House Area

Soap is produced in the Black Liquor cycle and may be difficult to pump. It often has a wide range of viscosities and contained high amounts of entrained air and froth.

The Vogelsang pump has proven to be very reliable at successfully handling soap applications in all operating conditions.



VOGELSSANG
ENGINEERED TO WORK

Our Company:

Innovation and progress have been hallmarks of Vogelsang for over 80 years and have made us a leading designer and manufacturer of pumping, solids handling and process products. Time and time again we have achieved significant milestones of innovation and product development. Today, we manufacture some of the most innovative and reliable products for municipalities, industry and agriculture. Our products are proudly made and assembled in Ravenna, Ohio, USA.

Our Product Range:

We offer solutions for the following areas:

- Industry & Processing
- Wastewater treatment
- Biogas
- Railway waste water disposal
- Agriculture

How to Reach Us:

Vogelsang is present worldwide. Visit us online for more information about our company and wide range of services:

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We Offer a Broad Range of Products:

- Rotary lobe pumps
- Grinding technology
- Distributors
- Spreading technology
- Supply and disposal systems
- Complete solutions

We also offer customized solutions for your specialized applications.

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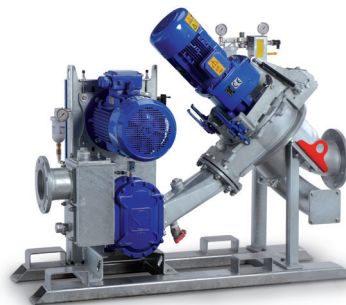


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RotaCut®

Inline macerator cuts and separates damaging solids suspended in liquid process stream.



BioCut®

Pump & RotaCut® combines the power of both products into one compact unit.



XRipper® XRP QG

Low-maintenance, drop-in alternative to other inline twin shaft grinders.



HiFlo® Rotary Lobe Pump

Designed to handle viscous liquids and tough solids.



RotaCut® RCX48 & RCX58

Inline macerator offers higher pressure, lower headloss and maximum solids reduction.



XRipper® XRC with SIK

Efficient shredding of coarse matter in wastewater channel applications