

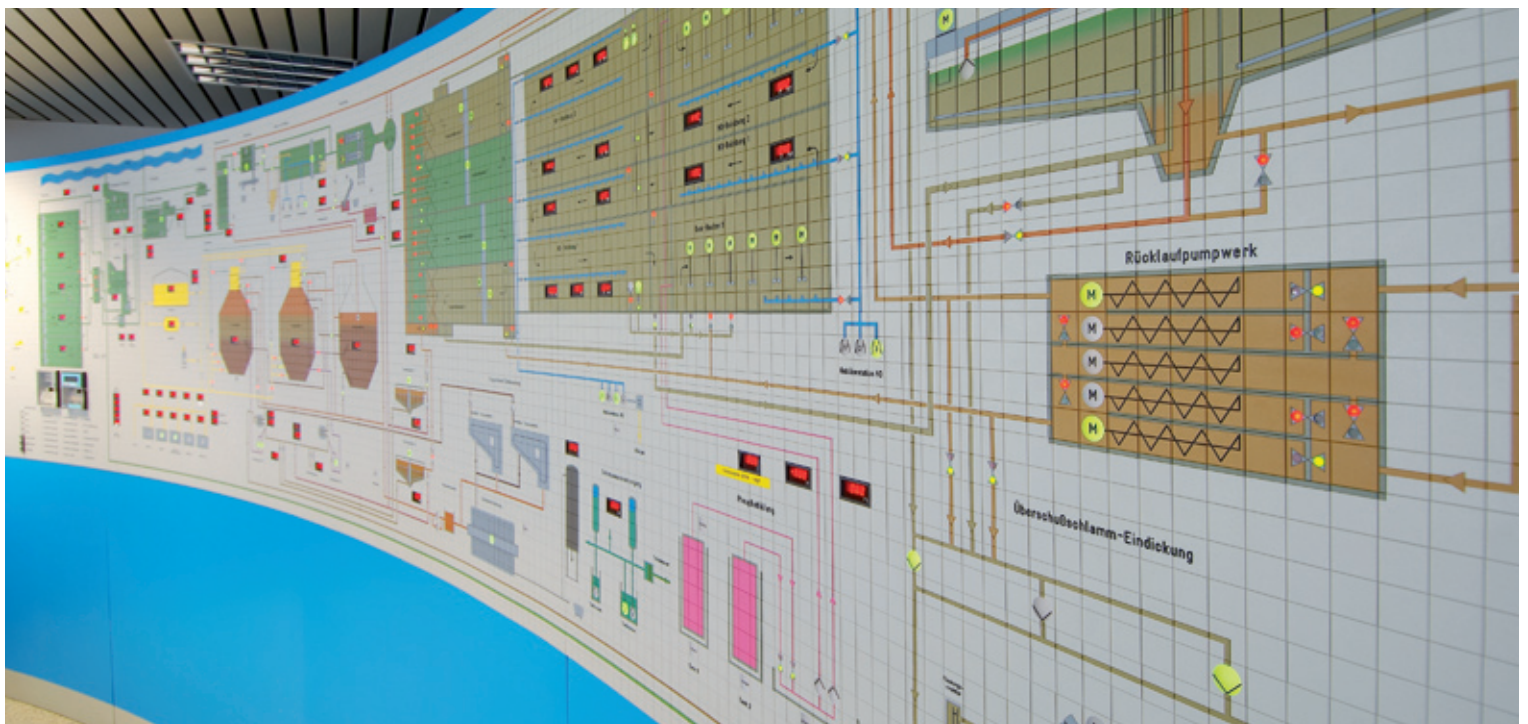


# Vacuum and Pressure Solutions for Environmental Engineering





Elmo Rietschle. Leading the Field.



## Why Elmo Rietschle?

From our point of view, of course, we see many reasons why you should work with our company for your vacuum and pressure application products:

- Our long history of product and application know-how
- Precise knowledge of processes in environmental engineering
- High quality products
- A global service network with on-site support
- Knowledgeable, personal consultation from our engineers
- Unmatched range of vacuum and pressure technologies

But that is not enough from your point of view – your expectations are higher. And rightly so. The decisions you make regarding partners with whom you want to work also depend on whether the following value-added parameters are fulfilled:

- Fair market pricing
- Competitive operating costs
- Environmental compatibility and durability
- On-time delivery
- Low maintenance costs
- Competent after-sales service

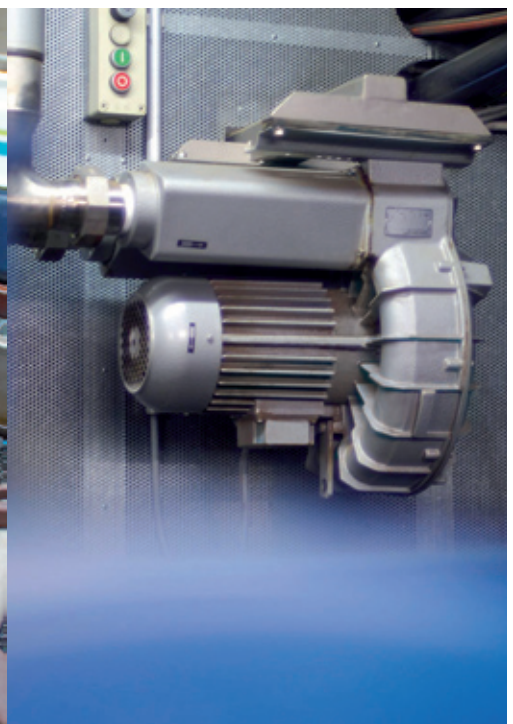
Only after all of these prerequisites and requirements have been met can you be sure that you have made the right decision.

With vacuum pumps and compressors from Elmo Rietschle, you acquire more than “just” a first class product that precisely fits your needs – you have a solution. Once that is done, you do not have to worry about our pumps and compressors for the time being – we keep our promises. Take our word.

## Peace of Mind.



## Vacuum and Pressure for Applications in Environmental Engineering



## Suction vehicles for wastewater cleaning

The suction pressure necessary for removing wastewater and cleaning sewer networks is provided by vacuum pumps.

## Digester gas compression

The pump's operating liquid cools the digester gas by absorbing the heat of compression, thus providing an almost isothermal mode of operation. The cooling function of the operating liquid simultaneously acts as a flame arrester and reduces expenditures for explosion protection. The contaminated raw gas is cleaned, partially dried, oxygenated and returned to the wastewater treatment process.

## Wastewater disposal

Using central vacuum systems wastewater can be collected, drained and disposed of in complete housing areas at the same time.

## Biogas production

A thorough mixing of the sludge in the sludge tanks increases the gas yield and reduces its retention time in the reactor. During the process, the gas is withdrawn from the upper part of the digestion tower, compressed and reintroduced through the nozzles at the bottom.

## Wastewater purification/oxygenation of activated sludge tanks

Compressors supply the pressure required for maximum oxygen yield.

## Fish and prawn pond aeration

In order to increase the water's oxygen content, air is drawn from the atmosphere and forced through an inlet into the tube aerator. It is then diffused into the water through tiny openings and then rises in fine bubbles.

## Compressed air in wastewater treatment plants

A thorough mixing of sludge with oxygen increases the gas yield and reduces its retention time in the tank.

## Further Applications

- Evacuation systems
- Gas recirculation
- Small domestic sewage plants
- Drying systems

	F-Series Radial	G-Series Side Channel	L-Series Liquid Ring	V-Series Rotary Vane	R-Series Rotary Lobe	C-Series Claw	S-Series Screw
Suction vehicles for wastewater cleaning		●	●		●		
Digester gas compression			●				
Wastewater disposal			●				
Biogas production			●	●	●	●	
Wastewater purification/oxygenation of activated sludge tanks		●	●		●		
Fish and prawn pond aeration	●	●	●				
Compressed air in wastewater treatment plants		●			●		
Evacuation systems	●	●			●	●	●
Gas recirculation	●				●	●	●
Small domestic sewage plants		●			●	●	
Drying systems		●			●		



**F-CEVF**



**F-CEV-S / F-CEV-D**



**G-BH1**



**G-BH2  
VELOCIS**



**L-BL**



**L-BV2**



**V-VC**



**V-VTE  
V-DTE**

## Environmental Engineering

There are many processes in environmental engineering that require vacuum or compressed air. The decision for a certain technology or possible combination is made by our application specialists in close cooperation with our customers. Many factors like operating costs, noise emission or maintenance frequency are taken into consideration and we will find the ideal solution for you. Our long tradition in this industry, our committed engineers and the unique choice of technologies at Elmo Rietschle make sure we keep our promise.



**R-WVB**



**C-VLR  
ZEPHYR**



**F-RER/ F-REL**

- Aluminum cast housing and impellers
- Cost efficient and robust
- Life-time lubricated bearings
- Process safe and resilient
- Quiet and low vibration operation



**F-Series**  
Radial



**G-BH7**

- Maintenance friendly and wear free
- Very quiet as a result of sound engineering
- Dust resistant
- UL/CSA approved
- ATEX approved
- Up to 40,000 operating hours
- 50/60 Hz voltage range motors



**G-Series**  
Side Channel



**L-BV3**



**L-BV5**



**L-BV7**

- Monoblock design
- Excellent resistance to corrosion
- No sediments
- High resistance to wear
- Increased water carryover available
- UL/CSA approved
- ATEX approved
- Can also be used as closed system or in pump set combinations



**L-Series**  
Liquid Ring



**V-VLT**  
**V-DLT**

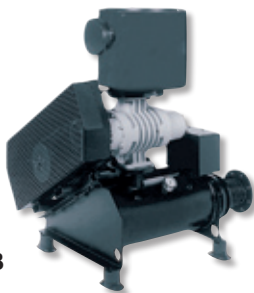


**V-VTA**  
**V-DTA**

- Dry running or oil lubricated
- Low noise level
- Maintenance friendly
- Long up-times
- Can also be used in pump set combinations



**V-Series**  
Rotary Vane



**R-WPB**

- Robust and economical
- Dry running
- Modular design
- Process safe and resilient
- Also available as single aggregate
- Comprehensive accessories
- Worldwide service
- Frequency control available



**R-Series**  
Rotary Lobe



**C-DLR**  
**ZEPHYR**

- Long up-times
- Maintenance friendly
- Dry running and contact free operation
- Targeted discharge of cooling air
- Process safe and resilient
- High efficiency



**C-Series**  
Claw



**S-VSI**  
**TWISTER**

- Dry running and contact free operation
- Long up-times
- High water vapor tolerance
- Short evacuation time due to high suction capacities
- Low compression temperatures



**S-Series**  
Screw



We are at home throughout the world – and near you. Our service personnel speak your language. Take our word.



- Corporate Headquarters
- Sales/Service location
- Manufacturing location
- Distributor

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**Gardner  
Denver**

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