

Vacuum and Pressure Solutions for the Plastics Industry

 **Elmo
Rietschle**
A Gardner Denver Product





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 the plastics industry
- 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.

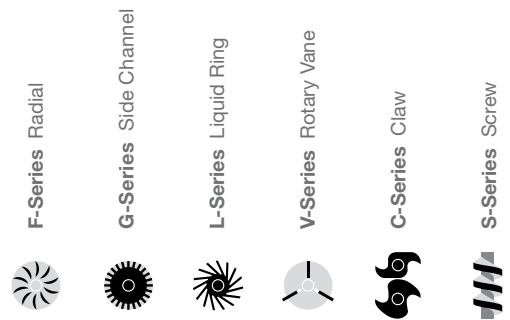
With vacuum pumps and compressors from Elmo Rietschle, you acquire more than “just” a first class product that precisely fits your needs – you have a solution. Once that is done, you do not have to worry about our pumps and compressors for the time being – we keep our promises. Take our word.

Peace of Mind.



Vacuum and Pressure for Applications in the Plastics Industry





Calibration

The thermoplastic molten tube leaving the machine is cooled and, if necessary, calibrated under press quenching with the help of vacuum pumps.

Plastic welding

The hot air that is needed for welding is heated to between 200° to 300°C using heating cartridges and is accelerated to a high velocity using a blower.

EPS foaming

Using a side channel blower, pre-expanded polystyrene balls are blown into a mold where steam is then applied. At final polymerization, the balls are cured into the molded component. To ensure that the molded components do not lose their shape when removed from the mold, they must be cooled with water. With the vacuum pumps, the water vaporizes in a flash.

Extruder degasification

Vacuum pumps remove air pockets and moisture from the melted plastic mass. They extract all of the low-molecule substances, ensuring optimal quality: smooth surfaces, greater strength, better insulation capabilities and a lower outgassing rate.

Granulate conveying

Plastic molding presses / extruders are automatically loaded with the help of our blowers or vacuum pumps. For this purpose, a vacuum is produced in the material container. The granulate is conveyed through the air in the tube.

Contact-free plastic film redirection

Continuous plastic sheets and films are redirected contact-free with air that is applied on turning bars.

Vinyl chloride gas extraction and compression

When the PVC is produced, liquid vinyl chloride is pressurized to polymerization in the autoclave and polymerized PVC is formed.

The gaseous monomers that are produced as a result are pumped, compressed and liquefied under vacuum.

Cooling & drying extruder products

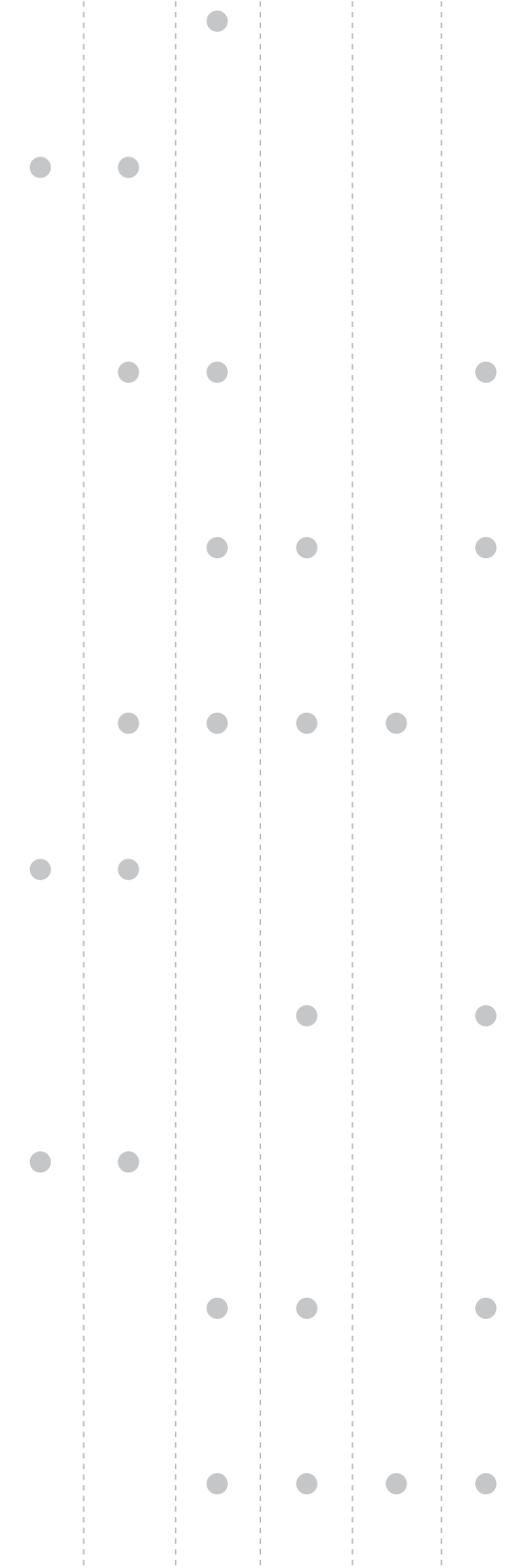
The hot plastic material that is discharged from the extruder must be cooled down quickly. This is done using blast air or by cooling the material in a water bath, followed by a drying process.

Deaeration of rubber components / evacuation

In production stations that manufacture rubber components, vacuum is used for evacuating from the die cast mold thereby preventing the formation of air pockets and accelerating the rubber mass.

Gluing plastic parts

In the production of glued composite materials, panels are secured to each other with an adhesive and pressed into a sheet. The sheet sack is evacuated for this purpose, so that the atmospheric pressure can produce the required compression.





Pumps and Compressors. Systematically.

The wide range of applications in the plastics industry requires the use of complex support processes. Pneumatic conveying is a typical example where successful solutions can only be designed in close cooperation between our engineers and the customer.

Energy efficiency, ease of maintenance, up-times, environmental compatibility and operating costs are only a few of the parameters that must be reconciled. The result of this joint decision-making process is a product or system that is optimal for your situation.



F-RER



F-REL



F-CEV

- 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-BH1



G-BH2
VELOCIS



G-BH7



G-SAP/G-SAH

- Maintenance friendly
- Wear free
- Very quiet as a result of sound engineering
- Dust resistant
- VL/CSA approved
- 50/60 Hz voltage range motors



G-Series
Side Channel



L-BV2



L-BV3



L-BV5



L-BV7

- Monoblock design
- Excellent resistance to corrosion
- No sediments
- High resistance to wear
- Increased water conveyance available



L-Series
Liquid Ring



V-VC

- 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



C-VLR ZEPHYR

- Long up-times
- Maintenance friendly
- No oil in the compressor chamber
- Cooling air is directly discharged
- Process safe and resilient



C-Series
Claw



S-VSI TWISTER

- Dry running
- Long up-times
- High water vapor tolerance
- Short evacuation time due to high suction capacities
- Water shock resistant
- Flushing / CIP capable
- 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.



**Gardner
Denver**

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