

# **Vacuum and Pressure Solutions for Woodworking Applications**







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 needs:

- Our long history of product and application know-how
- Precise knowledge of woodworking applications
- · 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 Solutions for Woodworking Applications



F-Series Radial

L-Series Liquid Ring

K



V-Series Rotary Vane







Vacuum is used to clamp work pieces to the tables of machining tools. To ensure that the work piece cannot move during the machining process, a minimum vacuum level must be maintained or exceeded.

#### Timber drying

To speed the drying process, vacuum pumps are used to gradually lower the pressure within the timber drying chambers. Drying times may be cut from weeks to just three or four days. The chamber may be later pressurized with steam and the air removed to prevent the wood from cracking and changing color by oxidation. Radial fans may be used to circulate the steam which heats the wood to dry it. The condensate from the steam removes solvents, fatty acids plus other elements from the drying chamber as it is drained away.

#### **Impregnation**

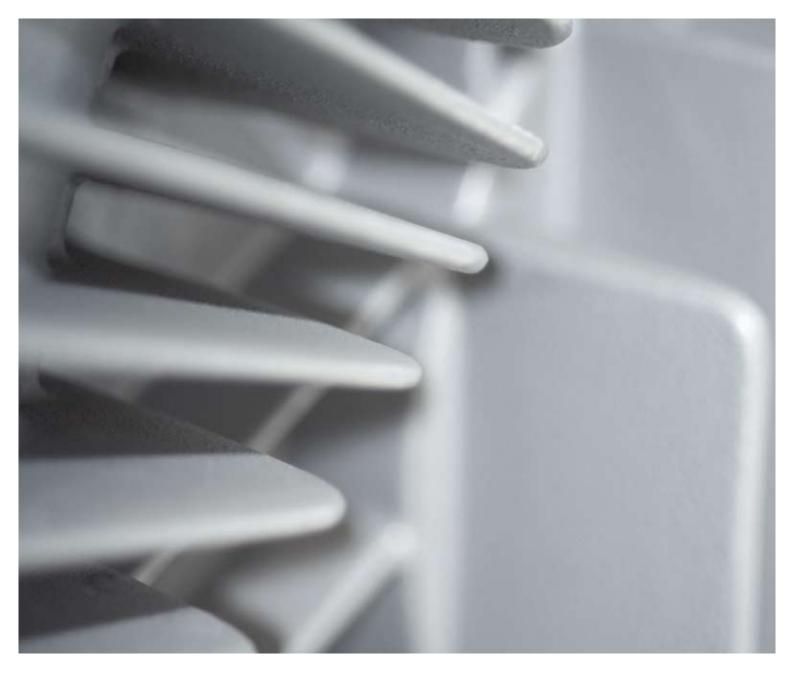
Wood may be protected from the destructive influences of heat, moisture, insect and micro-organism attack. This protection may be applied either before or after the wood is processed into a finished item. Soaking the wood in preservative is a common practice, but preservative only penetrates a few millimeters under the surface of the wood. Further protection may be achieved when the wood is first de-gassed and dried under vacuum, because then the preservative is able to penetrate much further past the wood surface. Subsequent positive pressure in the treatment chamber will encourage even deeper protection.

#### **Extraction systems**

Wood dust and shavings from woodworking machines can be removed to bulk containers for recycling with mobile or central vacuum systems. Filters are used to trap the wood and separate it from the air, protecting the pumps from harm by contamination.

#### Coating & bonding / veneering / form surface coating

The fine quality surface finishes applied to some timber products may be achieved under vacuum conditions. Components may be formed, shaped, bonded and veneered in a vacuum bag or on a vacuum table. The labour, energy and material costs associated with these processes may be reduced, particularly where larger items are being processed.



## Woodworking

There are many processes in woodworking 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 such as 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.



F-RER/F-REL

- · Aluminum cast housing and impellors
- · 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 with FC

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



**G-Series**Side Channel



L-BL2 Compact



L-BV5



L-BV7

- High resistance to wear
- Increased water carryover available
- UL/CSA approved
- 50/60 Hz voltage range motors
- Can also be used as closed system or in pump set combinations
- Very low water consumption
- Available with integrated cooling for working spindle (L-BL2 Compact)





V-VC



V-VTR

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



V-Series Rotary Vane



**C-VLR** (Wood Applications) ZEPHYR



C-VLR ZEPHYR

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





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 maintenance costs





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





Elmo Rietschle is a brand of Gardner Denver's Industrial Products Division and part of Blower Operations.