

ROBUSCH®

by Gardner Denver

Product Range

Screw • Rotary Lobe • Pumps





by Gardner Denver

In a competitive global market, our long history of supplying compressed air solutions that suit the customers' exacting requirements sets us apart from the rest.

Using modern machining systems and state-of-the-art production processes, our product range is constantly evolving. Taking care of our ecosystem is part of Robuschi strategy, focusing on promoting environmentally friendly solutions, enhancing energy saving and protecting natural resources.

With a presence in over 50 countries, we offer local service capability, ensuring our advanced technology is backed by technical support.



Our product range



Low Pressure Screw Compressors

- RSW
- Robox Screw
- Robox Energy



Rotary Lobe Blowers

- RBS
- Robox Lobe • CRBS - GRBS
- Robox Aqua
- Robox Lobe Biogas • CRBIO - GRBIO
- RBS Inox
- RB-DV
- RBS/AV



Liquid Ring Vacuum Pumps

- RVS • LRVS • CRVS • KRVS



Centrifugal Pumps

- Promix • Prochem



Industries and Applications

...the perfect solution for every industries

Our team of highly skilled and experienced engineers is focused on developing products that offer maximum benefits to our customers with flexible configurations and even more optimized technical features.



Robuschi - the perfect partner for your evolving needs.

The industrial sectors where it is possible to install our production range are unlimited, due to our different technologies we are able to offer the solution that best suits your needs and plant configurations.

- **Aquaculture**
 - **Automotive**
 - **Cement**
 - **Chemical-Pharmaceutical**
 - **Electronics**
 - **Energy**
 - **Food**
 - **Glass Industry**
 - **Iron and Steel**
 - **Medical**
 - **Mining**
 - **Oil & Gas**
 - **Plastics**
 - **Pulp & Paper**
 - **Shipyards**
 - **Tanning Industry**
 - **Textiles**
 - **Wastewater Treatment**
 - **Woods**
- ...and many other industries...



Low Pressure Screw Compressors



The low-pressure compressor unit, **Robox Screw**, combines unique characteristics of the “oil-free” RSW screw compressor, with the consolidated characteristics of Robox compact units.

It is available in pressure version up to 2,500 mbar(g) and in vacuum version up to 300 mbar(a).

- Efficient thanks to its unique RSW patented rotors, which reduce the number of revolutions and enhance the capacity-pressure ratio
- Low noise emissions as a result of high-efficiency internal compression, silencers and a noise-reducing enclosure
- Simple installation and configuration
- Flexible to ensure the operation at the point of best efficiency
- Oil free for a more environmentally-friendly operation (Class 0 certification, according to ISO 8573-1)
- Ease of maintenance thanks to its simple and robust construction
- Maximum energy saving
- Vacuum adjustment for vacuum version, thanks to Robuschi patented vacuum valve, VSM/V, granting a high precision vacuum limitation (+/-2%) all over the working range and avoiding any waste of energy
- Customised with a wide range of options available



Robox Energy is the state-of-the-art screw blower, which combines the unique characteristics of RSW screw technology, with the advanced features of a permanent magnet motor.

It can reach pressure up to 1,000 mbar(g) and capacity up to 2,600 m³/h.

Robox Energy Triple Impact will give the following advantages:

- **Cost Reduction through Superior Pump Technology:**
Energy savings of up to 30 % compared to rotary lobes will substantially reduce the total costs of ownership for your compressor/blower. A permanent magnet motor is at the core of this game changing technology
- **Cost Reduction through Smart Process Control**
Robuschi's expert engineers will analyze the different steps in customer's wastewater plant and by using Smart Process Control they are able to assist them in setting up Robox Energy, providing just the right amount of air needed in the process
- **Reduction in Space and Footprint**
With its compact layout that reduces the space requirements by 30 %, the ROBOX has been designed to fit into even the most challenging conditions

Rotary Lobe Blowers

RBS is the innovative three lobe rotary positive displacement blower equipped with a special low pulse system to reduce pressure pulsations.



Robox Lobe is the low pressure blower package, based on RBS series, operated by an electric motor through a special belt drive, including all accessories and noise enclosure.

- Robust
- Cost efficient
- Dry running
- Maintenance friendly



Robox Aqua is a compact rotary lobe blower package, specifically designed for the needs of the aquaculture industry.

- Modular design
- Direct coupling
- Reduced noise levels
- Small footprint
- Ease of access





Robox Lobe Biogas and **CRBIO - GRBIO** are blower packages, especially developed for the conveying and compression of biogas, as well as natural and landfill gases.

- Reliable
- Safe
- Resistant
- Full range of accessories
- ATEX certification
- Customised solutions for different biogas applications



CRBS - GRBS consist of table top blower packages with RBS series and fitted with all the necessary accessories.

- Robust
- Dry running
- Maintenance friendly
- Customised according to customer specifications



Rotary Lobe Blowers

RBS Inox - All components in this series are constructed from stainless steel (AISI 316 or DUPLEX), to provide excellent corrosion resistance in a variety of heavy-duty applications such as wastewater treatment, ozone and evaporation processes.

- Different configurations available with various sealing systems
- Excellent resistance to corrosion
- Maintenance friendly





High Vacuum Blowers

The **RBS /AV** PD blowers are rotary lobe compressors used for vacuum installation as booster in combination with primary vacuum pumps when operating at their lowest pressure limit.

Vacuum Blowers

RB-DV (air injection vacuum blower) are three-lobe rotary blowers suitable to operate as dry exhausters up to 90% of vacuum.

It is possible to supply RB-DV as a complete vacuum package, **Robox Lobe DV**.

- Patented and unique air inlet design
- Low noise
- Cool operating temperatures (not overheating on a dead head)
- Low maintenance thanks to its robustness and heavy-duty operation



Vacuum Pumps



The **RVS** series are liquid ring vacuum pumps and thanks to innovative features, they are able to suck in gas and vapors, without contamination from lubricants, even with dragged fluid and virtually isothermal gas compression. The series can achieve up to 33 mbar (a) and capacity up to 4200 m³/h.

Thanks to its construction characteristics, the liquid ring vacuum pumps are renowned for low water consumption, minimum noise level and vibrations, reliable service and easy maintenance.

The variety of construction materials allows for a large field of applications.

Furthermore, the vacuum portfolio is wide-ranging with complete packages (**LRVS**, **CRVS**, **KRVS**) in total or partial water and oil recirculation versions. They can also be used as compressors for pressures up to 2 bar g. max.



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Centrifugal Pumps



Robuschi centrifugal pumps, recently renewed with a fluodynamic design and a consequent increase in performance, capacity and efficiency, are of two families:

Prochem, chemical process pumps

Promix, centrifugal pumps for slurry

The following series belong to **Prochem** family:

RNS with closed impeller: suitable for moving clean or slightly turbid liquids and mainly used in the chemical and petrochemical industries;

RKNS with recessed open impeller suitable for moving liquids with suspended solid particles or filament impurities and used mainly in the chemical and petrochemical industries.

The following series belong to **Promix** family:

RACNS series with open channel impeller:

mainly used in the paper, sugar and food industries;

RCNS - RCPNS series with closed channel impeller:

generally used in the paper and sugar industries and in the waste water treatment plants;

RKCS series with recessed open impeller:

used in the paper and sugar industries and in in the wastewater treatment plants.



Performances

Capacity (m³/h)

		300	700	800	2.600	2.850	3.280	4.100	4.200	9.400	10.100	10.500	14.000	25.000
Robox Screw														
Robox Energy														
RBS														
Robox Lobe														
Robox Aqua														
CRBS - GRBS														
Robox Lobe Biogas														
CRBIO - GRBIO														
RBS Inox														
RB-DV														
RBS/AV														
RVS - LRVS - CRVS - KRVS														
Promix - Prochem														

Pressure (mbar g)

Robox Screw		400	1,000	2,000	2,500
Robox Energy		400	1,000	2,000	2,500
RBS		400	1,000	2,000	2,500
Robox Lobe		400	1,000	2,000	2,500
Robox Aqua		400	1,000	2,000	2,500
CRBS - GRBS		400	1,000	2,000	2,500
Robox Lobe Biogas		400	1,000	2,000	2,500
CRBIO - GRBIO		400	1,000	2,000	2,500
RBS Inox		400	1,000	2,000	2,500
RVS - LRVS - CRVS - KRVS		400	1,000	2,000	2,500
Promix - Prochem		Available according to PN 10 - PN 16 standards.			

Vacuum (mbar a)

Robox Screw		500	300	200	100	33	20	0	0,001
RBS		500	300	200	100	33	20	0	0,001
Robox Lobe		500	300	200	100	33	20	0	0,001
CRBS - GRBS		500	300	200	100	33	20	0	0,001
Robox Lobe Biogas		500	300	200	100	33	20	0	0,001
RBS Inox		500	300	200	100	33	20	0	0,001
RB-DV		500	300	200	100	33	20	0	0,001
RBS/AV		500	300	200	100	33	20	0	0,001
RVS - LRVS - CRVS - KRVS		500	300	200	100	33	20	0	0,001

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