


The Atlas Copco logo is positioned in the top right corner of the page. It consists of the company name "Atlas Copco" in a white, italicized serif font, centered between two horizontal white bars. The background of the entire page is a dynamic, high-speed photograph of water splashing, with numerous bubbles and droplets of varying sizes, creating a sense of movement and energy. The color palette is dominated by various shades of blue and cyan.

Atlas Copco

A semi-transparent blue triangular graphic is overlaid on the bottom left of the page. Inside this triangle, there is a white technical drawing of a circular mechanical component, likely a vacuum pump rotor or housing. The drawing includes various lines, circles, and dimension lines with numerical values such as 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0, 23.0, 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0, 37.0, 38.0, 39.0, 40.0, 41.0, 42.0, 43.0, 44.0, 45.0, 46.0, 47.0, 48.0, 49.0, 50.0, 51.0, 52.0, 53.0, 54.0, 55.0, 56.0, 57.0, 58.0, 59.0, 60.0, 61.0, 62.0, 63.0, 64.0, 65.0, 66.0, 67.0, 68.0, 69.0, 70.0, 71.0, 72.0, 73.0, 74.0, 75.0, 76.0, 77.0, 78.0, 79.0, 80.0, 81.0, 82.0, 83.0, 84.0, 85.0, 86.0, 87.0, 88.0, 89.0, 90.0, 91.0, 92.0, 93.0, 94.0, 95.0, 96.0, 97.0, 98.0, 99.0, 100.0. The drawing is a detailed cross-section showing the internal structure of the component.

AW Liquid Ring Vacuum pumps

Plug and play modules and
engineered systems

Why Atlas Copco Liquid Ring Vacuum Pumps?

Liquid ring vacuum has always been and will continue to be one of the best technologies for extreme vapor loads. Atlas Copco liquid ring pumps are ideal for pumping wet or dry gasses with a high tolerance for liquid carryover, especially in condensable processes such as distillation, drying, filtration and evaporation.

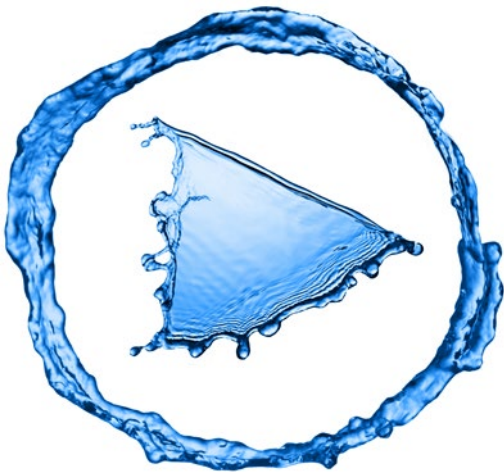
The AW product lines come in a variety of capacity ranges from our small AWC-dedicated style pumps to our AWL designs suited for larger industry. With the available single and dual stage designs, they have optimized performance at pressure levels from atmosphere down to ultimate. They are also available in multiple material options to suit demanding processes – we have a solution for all applications.



AW Liquid Ring Vacuum Pumps

The right design to meet your needs

Atlas Copco AWC, AWS and AWL single-stage liquid pumps are optimized for operation above 200 mbar(a), making them perfect for applications such as filtration or wet conveying, with an ultimate pressure of 30 mbar(a)*, they are the best in class solution for cyclical pump down applications such as evacuation, impregnation or sterilization. Our AWD dual stage pumps are finely tuned machines dedicated to providing consistent high performance at operation pressures below 200 mbar(a). The two synchronized pumping chambers work in series to enable the best in class performance on continuous critical process applications such as bottling, degassing & solvent recovery.



Plug and play modules

Atlas Copco takes the hassle out of selecting your vacuum system. All AW liquid ring pumps can be offered as custom or pre-engineered plug and play modules, suitable for operation in once through partial recirculation or total recovery mode. With over 50 years of experience in LRVP technology and customers spanning the globe, we know how to put together a liquid ring module that works for you. When also combined with our Elec Cab, we can maintain all of the benefits of liquid ring technology whilst saving water and saving energy using VSD control. Add easy to install accessories from our standard range to complete your installation.

Engineered systems

For more complex requirements, our project teams are here to develop a unique engineered system tailored to your needs. Atlas Copco liquid ring pumps form the backbone of multistage systems in materials of your choice based on the specifications you need. With the help of Atlas Copco vacuum engineers, the possibilities are endless.



AWC single-stage

High-performance, single-stage pumps with a modular-based system design

The Atlas Copco AWC range of liquid ring vacuum pumps is ideal for use in a variety of industrial vacuum applications where the process involves high levels of vapor, liquid carryover or solid contamination. The AWC standard liquid ring pump systems are available in once-through, partial recirculation or total recovery configurations. At the heart of each variant is our flat port plate design single-stage liquid ring pump element that is optimized for operation across the rough vacuum pressure range.

The AWC product line is available with motor sizes from 1 kW to 15 kW and with flow ranges from 25 to 400 m³/h (15 to 271 cfm). The AWC range of liquid ring pumps make use of an optimized design that allows for efficient seal liquid consumption while maintaining a stable flow performance across the entire operating range.



APPLICATIONS

- Plastic extrusion
- Filtration
- Degassing
- Drying
- OEM suitability
- Hospital disinfection
- Priming

Our AWC pumps are perfectly suited to wet applications where key considerations include process contamination, space restrictions or dedicated point of use vacuum.



APPLICATIONS

- Tyres
- ePS
- Filtration
- Drying
- Evaporation
- Chicken evisceration
- Pulp and Paper
- Cosmetics

AWS single-stage

Reliable performance from atmospheric pressure down to ultimate vacuum

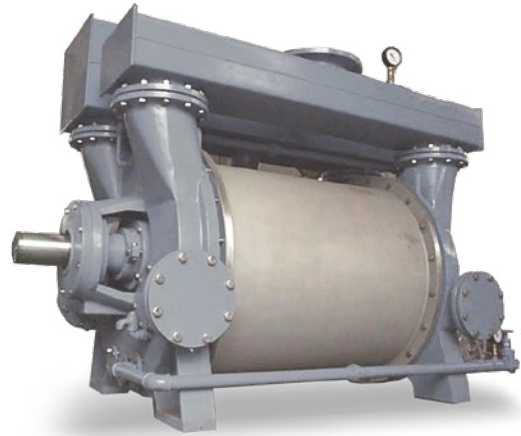
Atlas Copco liquid ring pumps are ideal for pumping either dry or wet gases with a high tolerance for liquid carryover, especially in condensable processes. The pumps are available in a variety of materials that can be selected to suit the pumped process media. All AWS liquid ring pumps are available as part of standard preconfigured modules manufactured according to Atlas Copco design principles for easy installation, use and service.

AWS single-stage liquid ring vacuum pumps feature a high-efficiency impeller design and state-of-the-art compression technology to achieve reliable and efficient vacuum performance from atmospheric down to ultimate vacuum. Our AWS series are flexible, dependable and sure to deliver the performance needed with a low service demand.

AWL single-stage

Outstanding performance and durability at high capacity ranges and rough vacuum pressures

Atlas Copco AWL liquid ring pumps are ideal for pumping either dry or wet gases with a high tolerance for liquid carryover, especially in condensable processes. The AWL range of pumps offer economical vacuum solutions to processes requiring high flow requirements at vacuum pressures down to 160 mbar(a). The series are supplied to customer defined material and drive configurations. The AWL series is supplied in configurations meeting customer specifications. With multiple options for materials of construction and also drive arrangements, the AWL pumps are ideal for the largest industrial applications in a variety of environments.



APPLICATIONS

- Filtration
- Mining
- Pulp and Paper
- House vacuum
- Sugar and Food



APPLICATIONS

- Distillation
- Evapouration
- Degassing
- Power
- Chemical applications
- Bottling

AWD two-stage

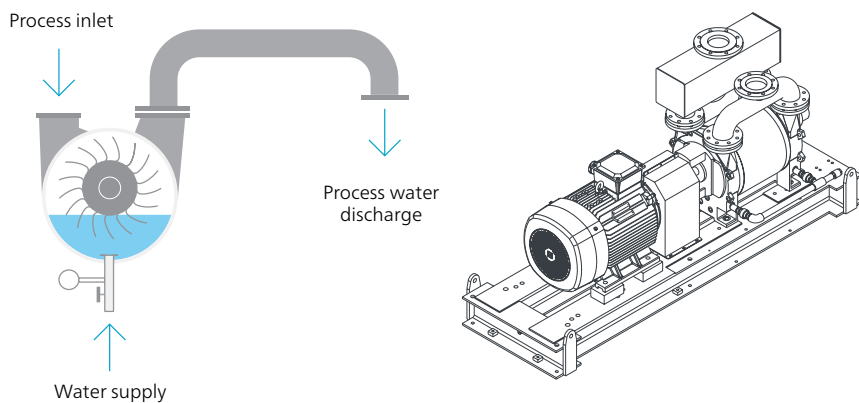
Peak performance at low suction pressures

Atlas Copco liquid ring pumps are ideal for pumping either dry or wet gases with a high tolerance for liquid carryover, especially in condensable processes. The pumps are available in a variety of materials that can be selected to suit the pumped process media. All AWD liquid ring pumps are available as part of standard preconfigured modules manufactured according to Atlas Copco design principles for easy installation, use and service.

Designed for extreme reliability the AWD liquid ring pumps deliver optimized performance for deeper vacuum levels in the harshest of conditions.

Plug and play modules

Three modes of operation

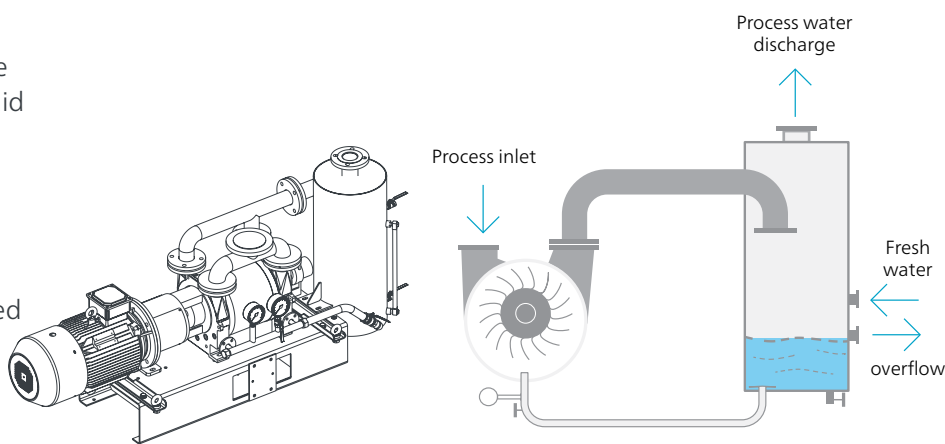


ONCE-THROUGH POWER PACK

This is the simplest module. It comprises a pump complete with electric motor, drive and base frame. These systems are ideal where an ample supply of seal liquid is available, which can be subsequently discharged to drain. The liquid/gas mixture is discharged to drain through the discharge line.

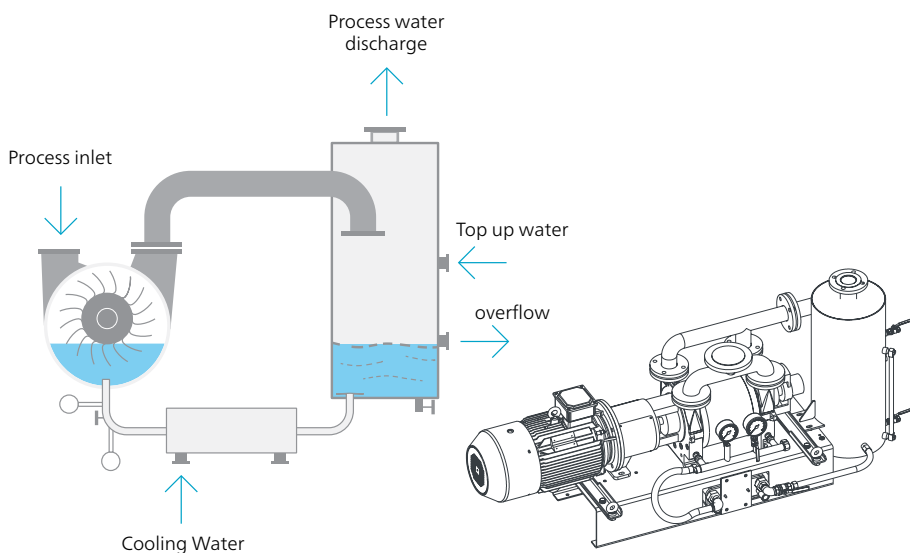
PARTIAL RECIRCULATION

In this case, the liquid/gas mixture is separated in the discharge separator. The recovered service liquid is then mixed with fresh seal fluid to maintain a constant temperature in the pump. The excess liquid, equivalent to the make-up supply, goes in to the drain. The minimum amount of fresh make-up fluid is used to ensure cavitation-free operation at the required suction pressure. It offers typical water savings of 50% compared to once-through operation.



TOTAL RECOVERY

Total recovery is a closed loop system that is used when the seal fluid is in short supply or when contamination may be a problem. To enable total recirculation of the seal liquid, the recovered liquid must be cooled prior to re-use. In this case, a heat exchanger is utilized between the discharge separator and the pump. It offers typical water savings of up to 95% compared to once-through operation.

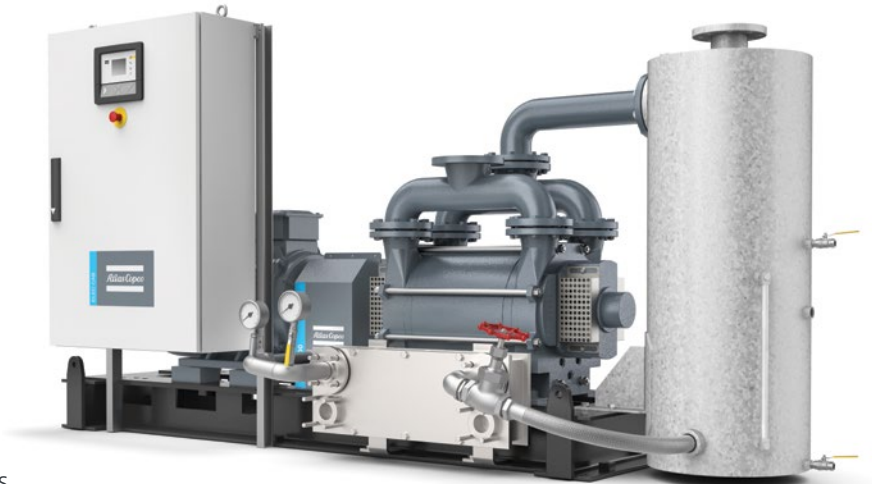


AW LRP + ELEC CAB

Atlas Copco's ELEC CAB is the ideal partner for the Atlas Copco AW range of liquid ring pumps. This powerful combination brings enhanced functionality to our LRP products and provides additional value to the proven and reliable technology of liquid ring pumps. Integrated VSD and pressure set point control allow process optimization and energy savings.

ADVANTAGES OF OUR AW LRP + ELEC CAB COMBINATION:

- Optimized performance to suit the process conditions
- Variable Speed Drive with a typical turndown ratio of 35 – 60 Hz
- Pressure set point control
- Reduced energy consumption when compared to traditional vacuum relief valves
- Adaptation of the vacuum supply to the exact demand
- Control and monitoring functions
- Equal wear for multiple pump systems



Liquid ring engineered systems: Ideal for complex duty applications

Engineered systems benefit from bespoke design with your specification and objectives in mind; our sales team will be happy to discuss your requirements. They are built for complex duty applications such as vapor recovery, degassing, distillation, CPI, multiple vapor loads, and high capacities. Embrace any of our core vacuum pump ranges, -AWC, AWS, AWD or AWL liquid ring vacuum pumps are available for both single and two-stage operations with capacities from 25-37500 m³/h (15 - 22072 cfm) and vacuum levels down to 30 mbar(a) (25 torr). Furthermore, we can design and engineer these systems for specific environments, with material certification, project-approved vendors, enhanced quality assurance and testing, all handled by our in-house contract management team. Our electrical engineers have experience designing and fitting control systems for intelligent pump management.





Atlas Copco Industrial Vacuum
atlascopco.com

