

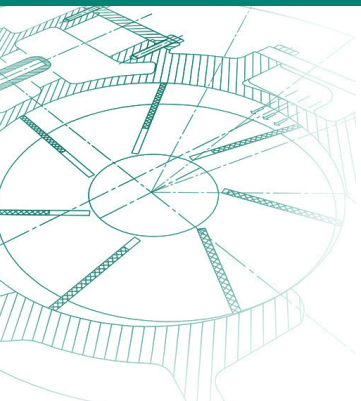
AIR GENERATION

"A SERIES" ROTARY VANE AIR COMPRESSORS

Compressed air solutions for high savings

Compressed air plays a critical role in nearly every industrial manufacturing process and represents as much as 15% of the total energy consumed in production. Since 1923, Pneumofore rotary vane compressors have been **legendary for performing reliably over multiple decades at a very competitive cost of operation**. Substantial energy savings, low maintenance needs, trouble-free operation, and easy installation – all result from the simplicity of the rotary vane design and from Pneumofore's innovative technology. Today, this unique expertise has culminated in the A Series: versatile, durable, high-efficiency, high-performance air compressors ranging from 5,5 to 630 kW installed power. Demanding excellence at every level, Pneumofore clients worldwide choose this turnkey solution to enjoy **guaranteed performance**, to achieve the **lowest possible Life Cycle Cost**, and to realize a **fast return on investments**.

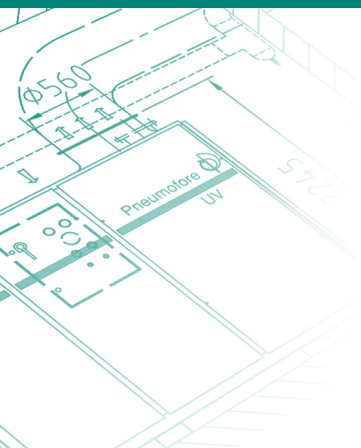
TECHNOLOGY



high efficiency and low maintenance

The rotary vane design, Pneumofore's core expertise, guarantees lasting durability, consistent air purity, and high savings in energy and maintenance costs. Requiring **no transmission gears or belts**, the simplicity of this layout with **direct coupling** from motor to air end and **only two roller bearings** for moving the core parts provides the following advantages: limited friction, decreased power loss, minimized damage potential, and **reduced maintenance needs**. Alone the idle running, with lubrication through suction, reduces the energy requirements to 18%, compared to other screw or vane machines with 30% to 70% consumption. The vanes' **active sealing**, a feature specific to Pneumofore technology, ensures constant performance and high efficiency even after decades of operation in harsh environments. Pneumofore's patented system of **intensive coolant injection** maintains low air and oil temperatures during compression, resulting in **lower power consumption** and **higher air purity** without coolant vapor contamination.

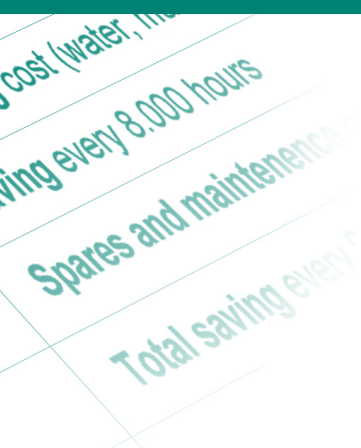
PRODUCTS



durability, and reliability over decades

The A Series air compressors were designed to meet the highest criteria for trouble-free, constant performance in any type of setting. They are preferably installed as machines for constant operation, best if 24/7. With a pressure range from 2,5 to 10 bar(g) and a capacity range from 67 to 5.360 m³/h, these air-cooled units provide **flexibility** for industrial applications with no compromise in durability. The high efficiency aluminium coolers, the thermoregulation system for the coolant flow, and the motor fan maintain the installed components at a low temperature and guarantee **stable performance even in extreme climate conditions**. The A Series come in three different versions for each model, according to the delivered pressure range, and in a variety of customized versions to better suit the manufacturing process requirements. To prove the point, the A Series air compressors are supplied with an **optional warranty of up to 5 years**.

ENVIRONMENT



machines that fit customers' needs

Easy to install and deploy, the A Series air compressors are truly "Plug&Play". Their **fully automatic** operation, their compact footprint, and their low noise level provide trouble-free integration into the process. The **air-cooling** system of the A Series compressors, as opposed to water-cooled systems, drastically cuts down the installation costs and eliminates expenses related to water connections, water treatment and disposal. **Fully compliant with major international regulations for safety and ergonomics**, every unit in the A Series also ensures **environmental protection** through superior purity of delivered air and condensate with a residual coolant carryover of less than 1mg/m³. Various built-in features reduce the units' noise level, enable heat recovery, and facilitate easy, safe operation – all contributing to a better working environment.

MAIN FEATURES

ROTARY VANE TECHNOLOGY

The simplest and most reliable solution for compressed air production

Hard aluminium alloy vanes for **heavy duty 24/7 operation**

Active sealing for higher efficiency and constant performance

Only two bearings and few moving parts for **low temperature and low maintenance** needs

Direct coupling to 4-poles motor at 1.450 rpm for 50 Hz, with IP55 protection. Low rotation speed and **long durability**

PERFORMANCE AND RELIABILITY

Designed to produce sufficient compression in a single stage, resulting in a **high compression ratio**. Intensive coolant injection for improved performance

Air cooling system, for constant performance in any climate

Single stage **pressure from 2,5 to 10 bar(g)** with **capacity from 67 to 5.360 m³/h**

Sturdy construction with active sealing and few moving parts, easy to access and maintain, very reliable and durable

Thermoregulation of coolant flow, motor fan and high efficiency aluminium coolers for **constant performance, even in extreme climate conditions**

Reduced rotation speed for less vibrations, noise and wear

Lower cycle temperatures to reduce wear, coolant consumption and leakage caused by dilation of parts. Less energy is needed for cooling and the purity of delivered air is enhanced

PLUG&PLAY

Ready-to-use machines that can be easily and directly connected to the air plant and the power supply, with no need of foundations

Fully automatic operation for immediate use: intake valve, coolant temperature control, thermostat, auxiliary control switches and safety gauge

No water connection needed

Complete and **easy-to-use control panel**

ENERGY AND COST SAVINGS

Air cooling system through an aluminium radiator and electric fan thermostat for operating without cooling water

No expenses for water connections, water treatment and disposal

No need of foundations and reduced installation investments

Less maintenance, with fewer parts suffering little wear. Single-stage rotary vane units offer cleaner and more reliable operation, significantly reducing maintenance costs

Direct axial coupling to the motor for high compression ratio and low rotation speed, with fewer moving parts, **lower energy consumption** and simplified maintenance

Patented coolant injection for low compression work and low power consumption

Idle running with lubrication for reducing the energy requirements to 18% of installed power

Return on investment shorter than 2 years when replacing water-cooled or screw air compressors

ENVIRONMENT FRIENDLY

High efficiency with lower power consumption

Coolant separation in 3 phases: centrifugal separation, mechanical trap and final coolant separation through a borosilicate filter element with coolant recovery, resulting in a superior **purity of the compressed air** without treatment and residual coolant carry over of 1 mg/m³

Compact design and reduced foot print for space economy

Long intervals for ordinary maintenance schedule

Closed-loop lubrication circuit to ensure negligible coolant consumption, to avoid the air and environment contamination with harmful substances and to reduce the maintenance

Soundproof canopy 80 dB(A) for low noise

SPECIAL VERSIONS

Pneumofore compressed air solutions are also available in special versions to meet every industrial requirement.

A VS Series - with **frequency converter** to lower the power consumption and to ensure the constant pressure during the process

A HC Series - air-cooled units for **hot climates** up to 55° C [131° F] with oversized cooling circuits, larger electrical motors and fans

A W Series - **water-cooled** compressors for installation in sites with low or no ventilation

A HR Series - vane compressors with both **air and water-cooling** for optimal seasonal **heat recovery**

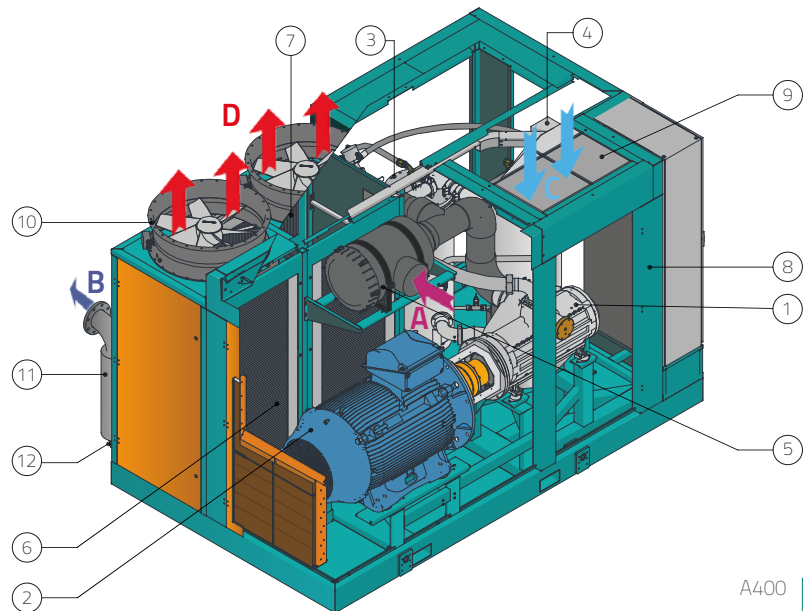
A S Series - customized machines and **special** versions. Tailored cabin size, skid, stainless steel or dedicated wiring for PLC

PARTS AND ACCESSORIES

A SERIES AIR COMPRESSOR COMPONENTS

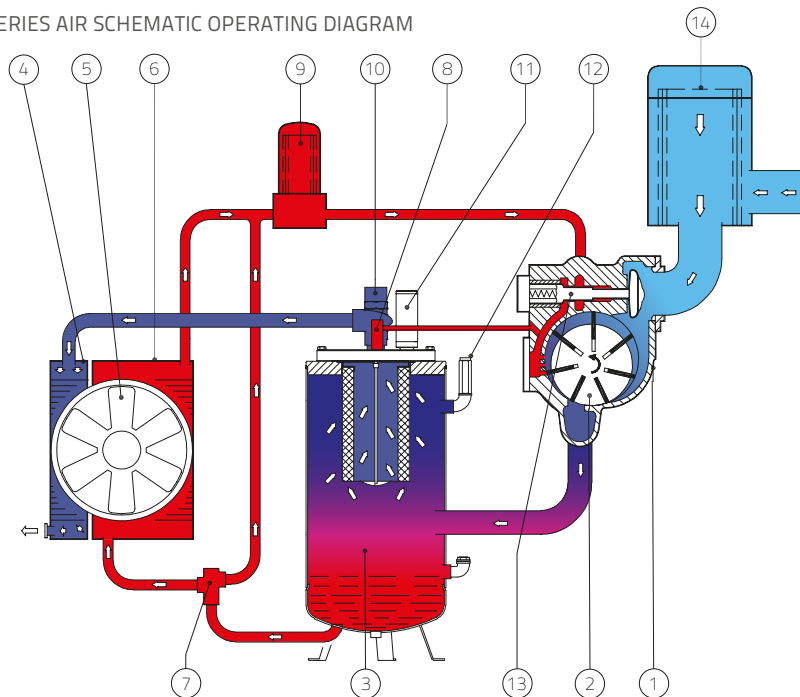
1. Air End
2. Electric motor
3. Coolant tank and separator
4. Control panel
5. Air filter
6. Coolant cooler
7. Air cooler
8. Cabin
9. Filter for cooling air inlet
10. Fan
11. Condensate separator
12. Electronic drainer

- A. Air inlet
- B. Compressed air outlet
- C. Cooling air inlet
- D. Cooling air outlet



A400

A SERIES AIR SCHEMATIC OPERATING DIAGRAM



- Coolant circuit
- Air circuit
- Air / Coolant

1. Air End
2. Rotor
3. Coolant tank and separator
4. Air cooler
5. Fan
6. Coolant cooler
7. Thermostatic valve
8. Coolant scavenge
9. Coolant filter
10. Minimum pressure valve and check valve
11. Discharge valve
12. Safety valve
13. Regulator piston
14. Air filter



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**SINCE
1923**

SWISS ENGINEERING
ITALIAN DESIGN
GLOBAL PRESENCE

A Series - Sep 18

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