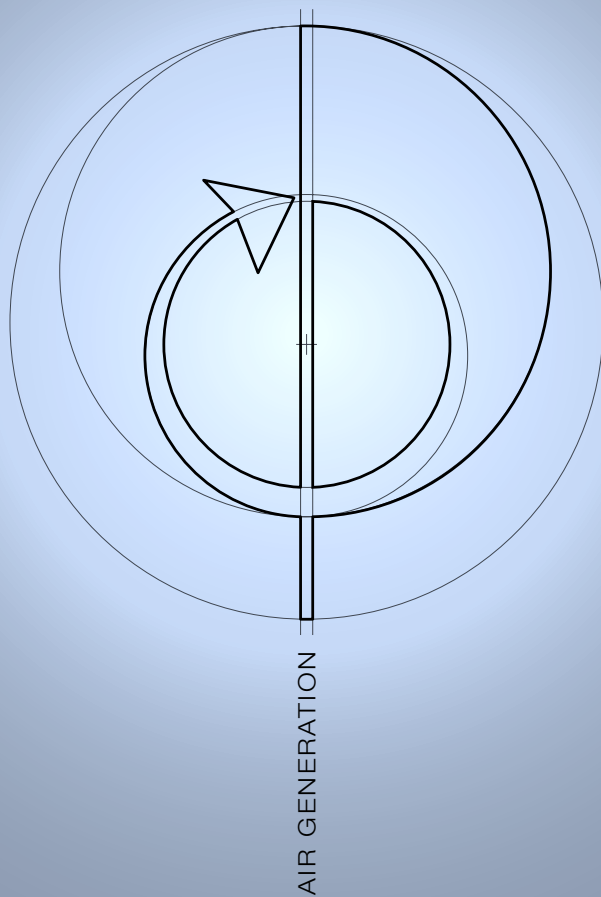


A SERIES

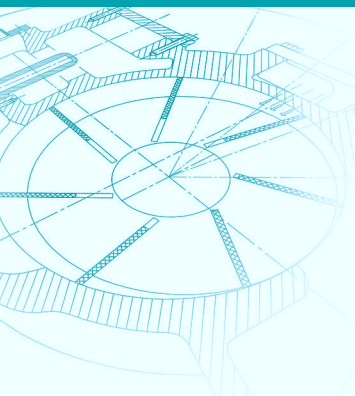


# A SERIES ROTARY VANE AIR COMPRESSORS

Every installation is a **success story**

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 280 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**.

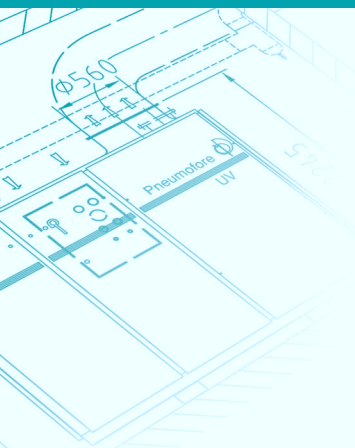
## TECHNOLOGY



## high efficiency and low maintenance

The rotary vane design, Pneumofore's core competency, 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, ensure constant performance and high efficiency even after decades of operation in harsh environments. And 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.

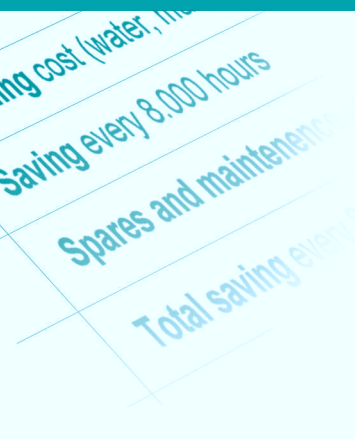
## PRODUCTS



## durability, and reliability over decades

The A Series air compressors were designed to meet the highest needs 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 2.037 m³/h, these air-cooled units provide **flexibility** for industrial applications with no compromise in durability. The high efficiency aluminum 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 a 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.

# A SERIES

# Quality and Adaptability

Pneumofore compressed air solutions are available in a complete range of standard and special versions to meet every industrial requirement.

## SPECIAL VERSIONS

**A.4 Series\_** rotary vane compressors, **single stage** for pressure from **2,5 to 4 bar(g)**, [37 to 58 psi], lubricated, air cooled, ready-to-use

**A.8 Series\_** air cooled rotary vane units, most popular models, for pressure from **4 to 8 bar(g)**, [58 to 116 psi], single stage, sound proof cabinet, lubricated, ready-to-use

**A.10 Series\_** vane compressors for pressure from **8 to 10 bar(g)**, [116 to 145 psi], lubricated, air cooled, up to 280 kW

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

**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

**A Ex Series\_** explosion proof compressors for ATEX zone 1 and above

## A SERIES COMPRESSORS TECHNICAL DATA

Model		Pressure Range		Capacity				Nominal Power				Absorbed Power *				Idle Running Power				Dimensions		Noise		Weight	
				50 Hz		60 Hz		50Hz		60 Hz		50Hz		60Hz		50 Hz		60 Hz		L x W x H		50 Hz	60Hz	kg	lbs
		bar(g)	PSI(g)	m³/h	cfm	m³/h	cfm	kW	HP	kW	HP	kW	HP	kW	HP	kW	HP	kW	HP	mm	inch	db(A)			
A10	A10.4	2,5-4	36-58	70	41	83	49	5,5	7,5	7,5	10	5,5	7,4	6,4	8,6	1	1,4	1,4	1,9	1.275	50	72	73	300	661
	A10.8	4-8	58-116	68	40	75	45	7,5	10	11	15	7,8	10,4	9	12,1	1,4	1,9	1,9	2,6	706	28				
	A10.10	8-10	116-145	67	40	74	44	9	12	11	15	8,9	11,9	10,3	13,8	1,6	2,2	1,9	2,6	1.600	63				
A20	A20.4	2,5-4	36-58	106	62	126	74	9	12	11	15	9	12,1	10,5	14,1	1,7	2,3	1,9	2,6	1.275	50	72	73	340	750
	A20.8	4-8	58-116	102	60	115	68	11	15	15	20	11,8	15,8	13,8	18,5	2	2,7	2,4	3,3	706	28				
	A20.10	8-10	116-145	101	59	113	66	15	20	18,5	25	13	17,4	15,1	20,3	2,7	3,7	3,4	4,6	1.600	63				
A30	A30.4	2,5-4	36-58	175	103	207	122	15	20	18,5	25	14,8	19,8	17,3	23,1	2,8	3,8	3,5	4,8	1.275	50	72	73	420	926
	A30.8	4-8	58-116	168	99	189	112	18,5	25	22	30	18,5	24,8	21,6	28,9	3,4	4,6	4,1	5,6	706	28				
	A30.10	8-10	116-145	167	98	187	110	22	30	30	40	21,5	28,8	25,1	33,6	4,1	5,6	4,8	6,5	1.700	67				
A35	A35.4	2,5-4	36-58	210	124	249	146	18,5	25	22	30	18,5	24,8	21,6	28,9	3,4	4,6	4,1	5,6	1.275	50	73	74	440	970
	A35.8	4-8	58-116	204	120	230	135	22	30	30	40	22	29,5	25,7	34,4	4,1	5,6	4,8	6,5	706	28				
	A35.10	8-10	116-145	202	118	227	133	30	40	37	50	25,9	34,7	30,2	40,5	5,5	7,5	6,4	8,7	1.700	67				
A60	A60.4	2,5-4	36-58	362	213	429	252	30	40	37	50	30	40,2	35	46,9	5,5	7,5	6,5	8,8	1.385	50	72	73	1.015	2.238
	A60.8	4-8	58-116	355	209	408	240	37	50	45	60	37	9,6	43,2	57,9	6,8	9,2	7,7	10,5	1.280	41				
	A60.10	8-10	116-145	353	208	405	238	45	60	55	75	42,6	57,1	49,7	66,6	8,2	11,2	9,2	12,5	2.000	75				
A90	A90.4	2,5-4	36-58	560	329	663	390	45	60	55	75	45	60,3	52,5	70,4	7,7	10,5	9,2	12,5	1.385	54	73	74	1.250	2.756
	A90.8	4-8	58-116	550	324	633	372	55	75	75	100	55	73,7	64,2	86	9,4	12,8	11,9	16,2	1.280	51				
	A90.10	8-10	116-145	548	322	628	369	75	100	90	125	65,7	88	76,7	102,8	12,8	17,4	16,4	22,3	2.000	87				
A120	A120.4	2,5-4	36-58	860	506	1.018	599	75	100	90	125	75	100,5	87,5	117,3	12,7	17,3	16,5	22,4	2.065	81	74	75	1.600	3.527
	A120.8	4-8	58-116	755	444	868	510	75	100	90	125	75	100,5	87,5	117,3	12,7	17,3	16,5	22,4	1.080	42				
	A120.10	8-10	116-145	752	442	861	506	90	125	110	150	90	120,6	105	140,8	15,2	20,7	20	27,2	2.150	79				
A180	A180.4	2,5-4	36-58	1.420	835	1.634	962	132	175	150	200	132	176,9	154	206,4	20,1	27,3	27,5	37,4	2.570	101	78	79	2.300	5.071
	A180.8	4-8	58-116	1.110	653	1.277	751	110	150	132	175	110	147,4	128,3	172	16,8	22,8	24,3	33	1.570	62				
	A180.10	8-10	116-145	1.105	650	1.270	747	132	175	150	200	129	172,9	150,5	201,8	20,1	27,3	27,5	37,4	2.000	79				
A260	A260.4	2,5-4	36-58	1.720	1.012	2.037	1.198	160	220	185	250	160	214,4	186,6	250,2	26,2	35,6	33,1	45	2.870	113	79	80	2.800	6.173
	A260.8	4-8	58-116	1.525	897	1.760	1.035	160	220	185	250	160	214,4	186,6	250,2	26,2	35,6	33,1	45	1.570	62				
	A260.10	8-10	116-145	1.518	893	1.740	1.023	200	270	220	300	191,5	256,6	223,4	299,5	32,6	44,3	42,1	57,3	2.210	79				

Hz = frequency cfm and m³/h compressed air flow rate at the rated pressure.  
At standard reference conform to ISO 8778 : 14.5 PSI(a), 68°F, 65% Relative Humidity

\* = Total machine absorbed power with class IE2 efficiency electric motors, all auxiliaries included.  
Performance according to ISO 1217 : 2009 (E), Annex C

Pneumofore strives to constantly improve its products and reserves the right to modify technical data with no prior notification. Contents of this document are for informational purposes only and do not constitute a guarantee extension of any kind.

# MAIN FEATURES

## ROTARY VANE TECHNOLOGY

The simplest and most reliable solution for compressed air production

Hard aluminum 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 performances

Air cooling system, for constant performance in any climate

Single stage **pressure from 2,5 to 10 bar(g)** with **capacity from 67 to 2.037 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

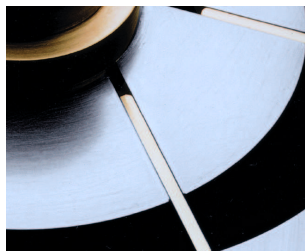
Long intervals for ordinary maintenance schedule

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

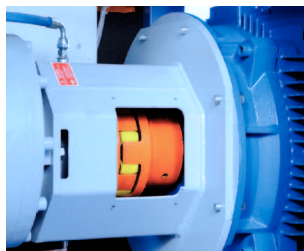
**Soundproof canopy** 80 dB(A) for low noise

## PARTS AND ACCESSORIES

perfection technology



Rotor detail



Direct Coupling

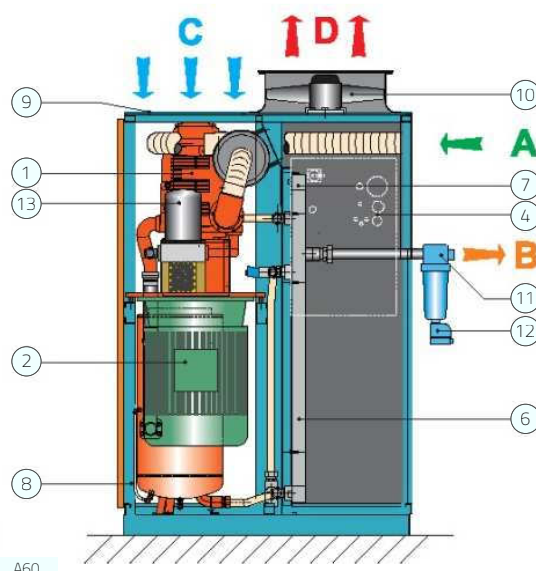
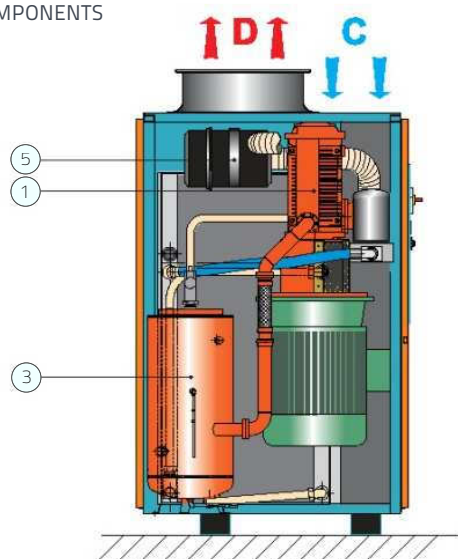


A120

### A SERIES AIR COMPRESSOR COMPONENTS

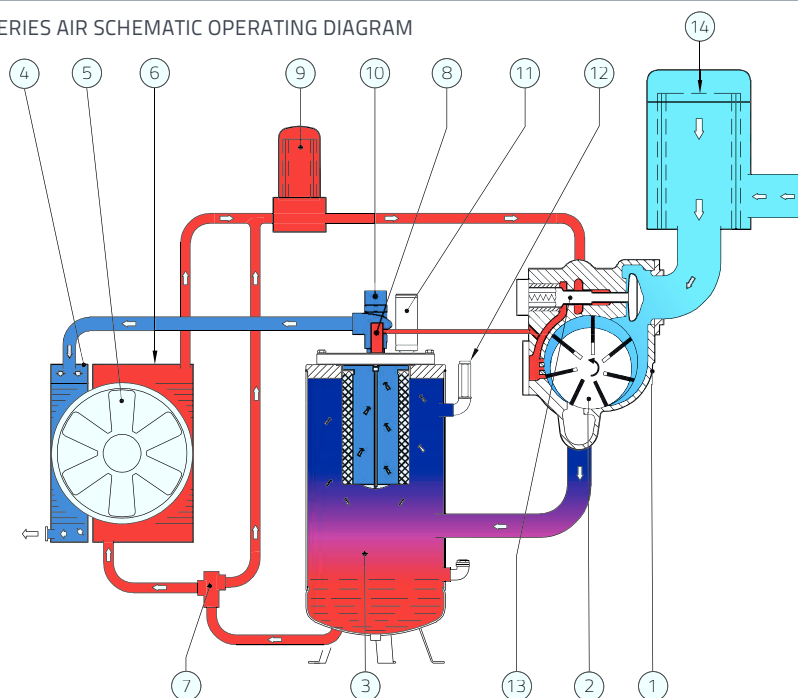
1. Cylinder
2. Electric motor
3. Coolant tank and separator
4. Control panel
5. Air filter
6. Coolant cooler
7. Air cooler
8. Cabin
9. Filter for cooling air inlet
10. Fan
11. Condensate separator
12. Electronic drainer
13. Coolant filter

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



A60

### A SERIES AIR SCHEMATIC OPERATING DIAGRAM



- Red: Coolant circuit  
Blue: Air circuit  
Purple: Air / Coolant

1. Cylinder
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



**Pneumofore S.p.A.**

Via N. Bruno, 34 - 10098 Rivoli (TO) ITALY  
Tel. +39 011.950.40.30 - Fax +39 011.950.40.40  
info@pneumofore.com - www.pneumofore.com

A Series - September 2012

Trademark and logo Pneumofore® are registered worldwide.  
It is strictly forbidden to make unauthorised copies of this  
document. No dissemination without written permission.  
© Pneumofore S.p.A. - all rights reserved.