

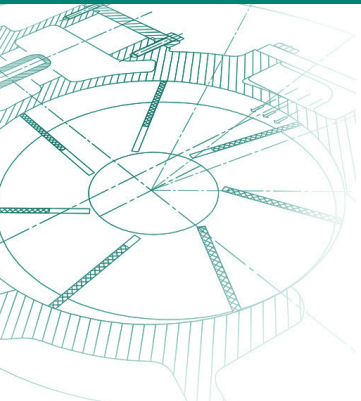
AIR GENERATION

# "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**.

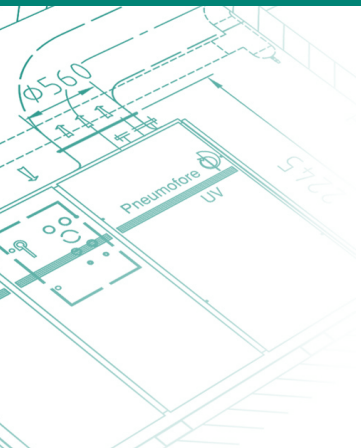
### TECHNOLOGY



## 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.

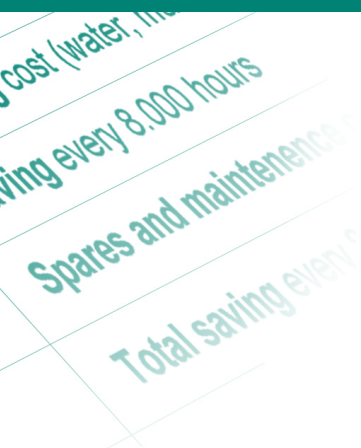
### PRODUCTS



## 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 m<sup>3</sup>/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/m<sup>3</sup>. 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 m<sup>3</sup>/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/m<sup>3</sup>

**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**

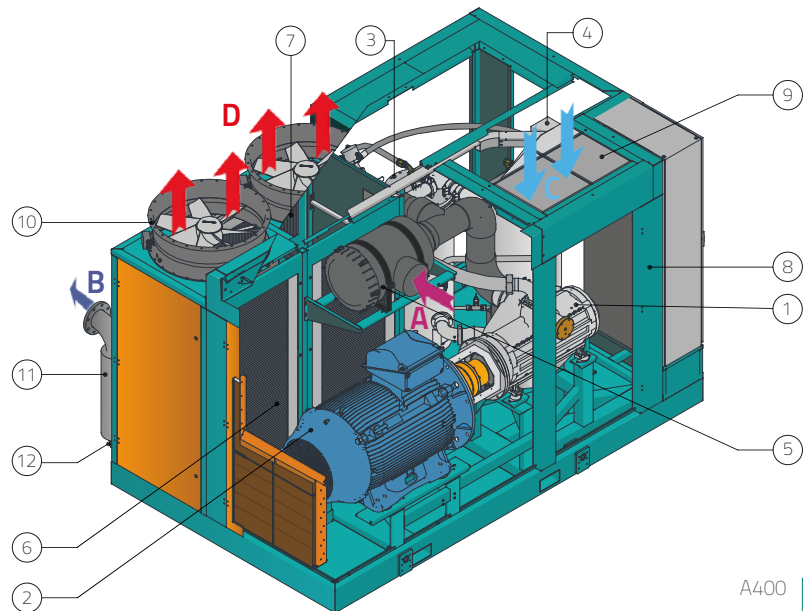
**A S Series** - customized machines and **special** versions. Tailored cabin size, skid, stainless steel or dedicated wiring for PLC

# PARTS AND ACCESSORIES

## A SERIES AIR COMPRESSOR COMPONENTS

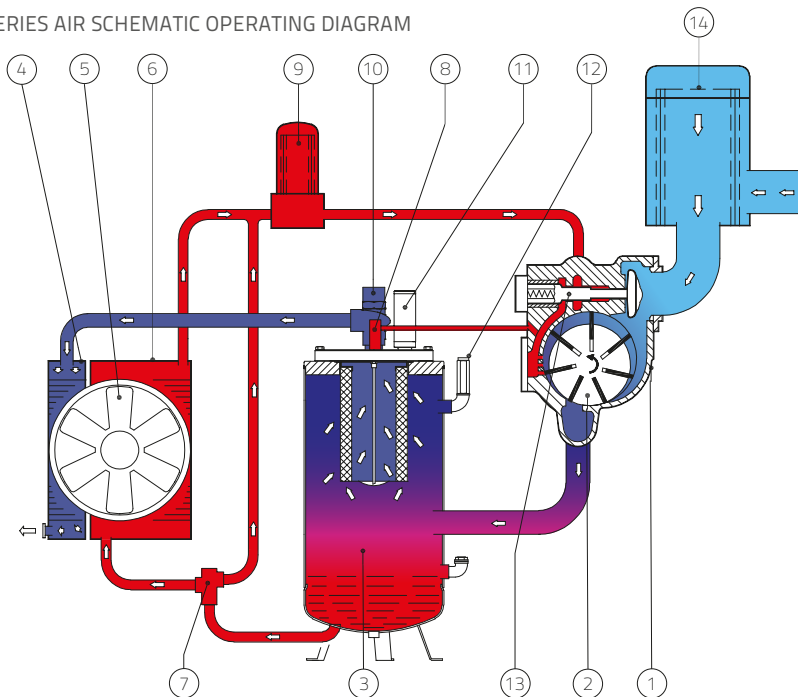
1. Air End
2. Electric motor
3. Coolant tank and separator
4. Control panel
5. Air filter
6. Coolant cooler
7. Air cooler
8. Cabin
9. Filter for cooling air inlet
10. Fan
11. Condensate separator
12. Electronic drainer

- 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

# "A SERIES" COMPRESSORS TECHNICAL DATA



A400 and A35 open view

## HIGHLIGHTS

Rotary Vane design for low Life Cycle Cost and fast payback time

Direct coupling and low rotation speed from 1.045 to 1.760 rpm

No need of periodic overhauling for the air end

Three operative pressure ranges [2,5 to 4 bar(g) - 4 to 8 bar(g) - 8 to 10 bar(g)]

Air cooled - no foundation or water connections required

Variable Speed Drive and Hot Climate versions optional

Patented intensive coolant injection

Model	Pressure Range		Capacity				Nominal Power				Absorbed Power *				Idle Running Power				Dimensions L x W x H	Noise		Weight			
			50 Hz		60 Hz		50 Hz		60 Hz		50 Hz		60 Hz		50 Hz		60 Hz			50 Hz	60 Hz	kg	lbs		
	bar(g)	PSI(g)	m³/h	cfm	m³/h	cfm	kW	HP	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	7,5	6,4	8,7	1	1,4	1,4	1,9	1,275	50				
	A10.8	4-8	58-116	68	40	75	45	7,5	10	11	15	7,8	10,6	9	12,2	1,4	1,9	1,9	2,6	706	28	72	73	380	838
	A10.10	8-10	116-145	67	40	74	44	9	12	11	15	8,9	12,1	10,3	14	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	9,1	12,4	11	15	1,7	2,3	1,9	2,6	1.275	50				
	A20.8	4-8	58-116	102	60	115	68	11	15	15	20	12	16,3	14,3	19,5	2	2,7	2,4	3,3	706	28	72	73	425	937
	A20.10	8-10	116-145	101	59	113	66	15	20	18,5	25	13	17,7	15,6	21,2	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	15,1	20,5	18,1	24,6	2,8	3,8	3,5	4,8	1.275	50				
	A30.8	4-8	58-116	168	99	189	112	18,5	25	22	30	18,8	25,6	22,6	30,7	3,4	4,6	4,1	5,6	706	28	72	73	480	1.058
	A30.10	8-10	116-145	167	98	187	110	22	30	30	40	21,8	29,7	26,2	35,6	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	18,8	25,6	22,6	30,7	3,4	4,6	4,1	5,6	1.275	50				
	A35.8	4-8	58-116	200	120	230	135	22	30	30	40	22,3	30,3	26,8	36,5	4,1	5,6	4,8	6,5	706	28	73	74	510	1.124
	A35.10	8-10	116-145	198	118	227	133	30	40	37	50	26,2	35,6	31,4	42,7	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	30,4	41,4	36,5	49,7	5,5	7,5	6,5	8,8	1.385	55				
	A60.8	4-8	58-116	355	209	408	240	37	50	45	60	37,4	50,9	44,9	61,1	6,8	9,2	7,7	10,5	1.280	51	72	73	1.015	2.238
	A60.10	8-10	116-145	353	208	405	238	45	60	55	75	42,9	58,4	51,5	70,1	8,2	11,2	9,2	12,5	2.000	79				
A90	A90.4	2,5-4	36-58	560	329	663	390	45	60	55	75	45,4	61,8	54,6	74,3	7,7	10,5	9,2	12,5	1.385	55				
	A90.8	4-8	58-116	550	324	633	372	55	75	75	100	56,5	76,9	67,8	92,2	9,4	12,8	11,9	16,2	1.280	51	73	74	1.250	2.756
	A90.10	8-10	116-145	548	322	628	369	75	100	90	125	66	89,8	79,2	107,8	12,8	17,4	16,4	22,3	2.000	79				
A120	A120.4	2,5-4	36-58	860	506	990	582	75	100	90	125	75,4	102,6	90,5	123,1	12,7	17,3	16,5	22,4	2.065	82				
	A120.8	4-8	58-116	755	444	868	510	75	100	90	125	76	103,4	91,2	124,1	12,7	17,3	16,5	22,4	1.080	43	74	75	1.800	3.968
	A120.10	8-10	116-145	752	442	861	506	90	125	110	150	90,3	122,9	108,4	147,5	15,2	20,7	20	27,2	2.150	85				
A150	A150.4	2,5-4	36-58	1.030	606	1.230	724	90	125	110	150	90	122,4	108	146,9	15,2	20,7	20	27,2	2.350	93				
	A150.8	4-8	58-116	875	515	1.006	592	90	125	110	150	90	122,4	105	142,9	15,5	20,8	20	27,2	1.750	69	77	78	2.100	4.630
	A150.10	8-10	116-145	871	512	1.001	589	110	150	132	175	110	149,7	129	175,5	17	22,8	24,5	33,3	1.900	75				
A180	A180.4	2,5-4	36-58	1.420	835	1.634	962	132	175	150	200	133	181	153	208,2	20,1	27,3	27,5	37,4	2.570	101				
	A180.8	4-8	58-116	1.110	653	1.277	751	110	150	132	175	111,1	151,2	127,8	173,9	16,8	22,8	24,3	33	1.570	62	78	79	2.300	5.071
	A180.10	8-10	116-145	1.105	650	1.270	747	132	175	150	200	130	176,9	149,5	203,4	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	200	250	161,6	219,9	185,8	252,8	26,2	35,6	33,1	45	2.870	113				
	A260.8	4-8	58-116	1.525	897	1.760	1.035	160	220	200	250	161,6	219,9	185,8	252,8	26,2	35,6	33,1	45	1.570	62	79	80	2.800	6.173
	A260.10	8-10	116-145	1.518	893	1.740	1.023	200	270	250	300	192,8	262,3	221,7	301,6	32,6	44,3	42,1	57	2.210	87				
A400	A400.4	2,5-4	36-58	2.330	1.371	2.560	1.505	200	270	250	340	204	272,1	241	312,9	33,5	45,5	33,1	45	3.700	146				
	A400.8	4-8	58-116	2.300	1.354	2.300	1.354	250	340	250	340	255	346,9	256	348,3	40,8	57	40,8	55,5	2.250	89	79	80	5.500	12.125
	A400.10	8-10	116-145	2.285	1.345	2.285	1.345	315	430	315	430	305	415	308	419	54	68	54	73,4	2.330	91				
A520	A520.4	2,5-4	36-58	3.440	2.024	4.074	2.396	320	440	400	500	323	440	372	506	52	71	66	90	4.300	169				
	A520.8	4-8	58-116	3.050	1.794	3.520	2.070	320	440	400	500	323	440	372	506	52	71	66	90	2.250	89	79	80	5.200	11.464
	A520.10	8-10	116-145	3.036	1.786	3.480	2.046	400	540	500	600	386	525	443	603	65	89	84	115	2.330	91				
A800	A800.4	2,5-4	36-58	4.940	2.742	5.360	3.010	400	540	500	680	400	544	460	626	67	91	66	90	5.100	201				
	A800.8	4-8	58-116	4.600	2.708	4.600	2.708	500	680	500	680	510	694	512	697	82	114	82	111	3.700	146	79	80	10.900	24.030
	A800.10	8-10	116-145	4.570	2.690	4.570	2.690	630	860	630	860	610	830	616	838	108	136	108	147	2.330	91				

Hz = frequency      cfm and m³/h compressed air flow rated pressure.  
At standard reference conform to ISO 8778 : 1 bar(a), 20°C, 65% Relative Humidity

\*= Total machine absorbed power with class IE3 efficiency electric motors, all auxiliaries included.  
Performance according to ISO 1217 : 2009 (E), Annex C



UNI EN ISO 9001 and  
UNI EN ISO 14001  
certified



**Pneumofore**

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

**SINCE  
1923**

SWISS ENGINEERING  
ITALIAN DESIGN  
GLOBAL PRESENCE

A Series - Sep 18

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