

Major Products

Air Compressors

- Oil Injection Reciprocating Air Compressor
Standard Model : 5HP ~ 20HP
- Oil Injection Screw Air Compressor
Standard Model : Belt Driving 10HP~30HP
Direct Driving 25HP~500HP
All-In-One Type 10HP~30HP
- Inverter Type Screw Air Compressor
Standard Model : 50HP ~ 200HP
- Oil Free Reciprocating Air Compressor
Package Type : 1HP ~ 7.5HP
Bare Type : 1HP ~ 15HP

- Oil Free Scroll Air Compressor
Standard Model : 3HP ~ 50HP
All-In-One : 3HP ~ 20HP
Dental : 2HP ~ 5HP
- Oil Free 2nd Stage Screw Air Compressor
Standard Model : 75HP ~ 400HP

Related Equipments for Air Compressor

- Air Dryer
Refrigerate Type / Desiccant Type /
Membrane Type / Deliquescent Type
- After-Cooler

- Air Receiver Tank
- Cooling Tower (For Water Cooled Air Compressors)
- Filters
- Drain Valves for Condensate Water Discharging
- Condensate Water Separator

OIL FREE AIR COMPRESSOR



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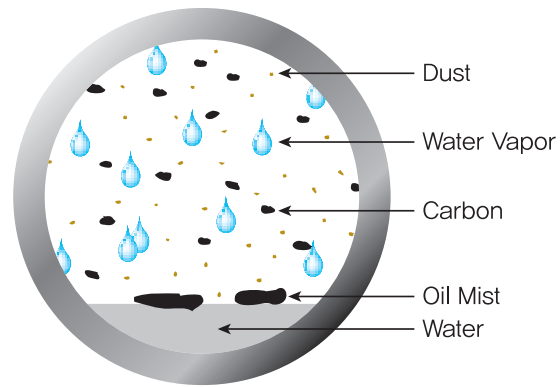


COAIRE
COMPRESSOR

Compressed air & Oilfree Scroll

>> Compressed air of oil injection type air compressor

- Typical air feed contains about 1.8 billion particles of air-borne dust, water vapor and oil mist, which, when fed into the compression process, is transformed into 2 billion particles of dust and oil vapor (avg. 0.03mg/m³) within the output air. Combined with the heat of compression and residual lubricants (i.e. grease) this processed air contains many hydro carbon by-products.
- This vapor laden compressed air stream can cause machines and tools to malfunction. Coats of paint can easily separate or produce "pin holes". When used in food processing or medical purposes, there is a risk that harmful matter may be ingested.
- Oil mist contamination can increase the expense of water treatment as the oil is included in the condensed water as an output of separation during dryer or filtering process.



Cross section of A/C pipe

Oil mist is the most difficult element to separate from the output air stream. Methods such as cooling or regenerated desiccant dryer or filters are commonly employed to remove dust and water particles; but the oil mist filter does not offer the complete separation of the oil vapor, which can cause more problems in the secondary process as the mist will pass through and corrupt the filters and dryers. So, the surest way to prevent adverse effect lies in preventing the oil mist from occurring.

>> Compressed air of Oilfree scroll air compressor

- The oil-free scroll compressor products of Kyungwon are developed to operate **without the use of oil** during the compression process, resulting in 'oil-free' high grade compressed air.
- With the installation of a convenient dryer and filter, our oil-less scroll compressor products are able to produce pure compressed air of the first quality that meets the ISO standards.
- There is no additional cost involved as the condensed water removed by the dryer and filters does not contain any oil, heading off any requirements for water treatment.

ISO 8573.1 Compressed Air Quality

Quality Class	Dirt		Water	Oil
	Particle Size (in μm)	Max. Concentration (mg/m ³)	Max. Press Dew Point (°C)	Max. Concentration (mg/m ³)
1	0.1	0.1	-70	0.01
2	1	1	-40	0.1
3	5	5	-20	1
4	15	8	3	5
5	40	10	7	25
6	-	-	10	-

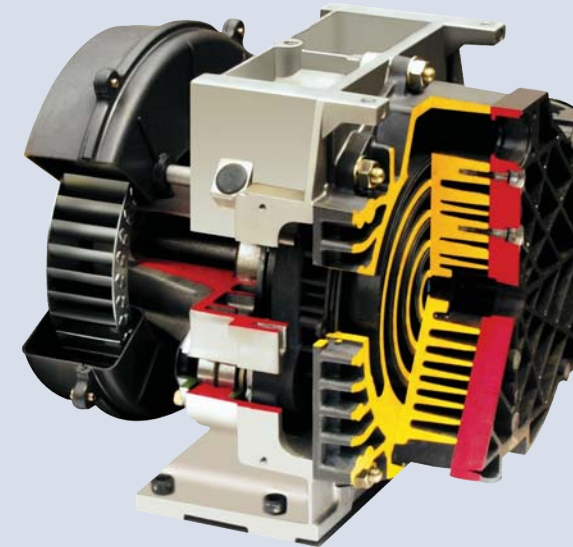
The importance of producing high quality compressed air has become highly significant and popular as modern industry demands quality air, free of particles of dust, oil mist and water vapors in all processing endeavors.

ISO Quality Standards for the types of compressed air is as follows:

Quality Standard of Compressed Air for Each Category of Use

Application	Quality Class			Application	Quality Class		
	Dirt	Water	Oil		Dirt	Water	Oil
Photographic	1	1	1	Pneumatic Cylinder	3	3	5
Conveyance of food / Beverages	2	3	1	General Works Air	4	4	5

Kyungwon Oil-free Scroll Air Compressor - Silent and Capable; Producing High Quality Air



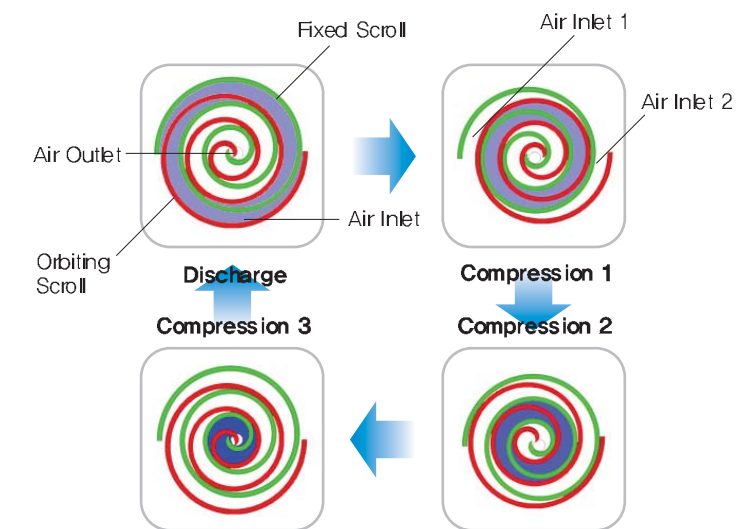
OILFREE SCROLL AIREND

Based on more than 40 years of experience in producing air compression products, Kyungwon has been able to develop and manufacture the first oil-less scroll air compressor products in 2004, with numerous citations including the government approvals of Net Technology (NT) and New Excellent Technology (NEP).



>> PRINCIPLE OF SCROLL AIR COMPRESSOR

- The motion of the rotation scroll causes the decreased volume (compression) of the feed air in the shape of a crescent moon formed between the fixed scroll and the rotating scroll, which compress the feed air before being output to the outlet.



>> Application of Oilfree Scroll Compressor



- Medical equipment**: Medical-grade Gas supply, Air-vacuum, Dental clinic
- Golf range**: Clothes and shoe cleaning, Practice range management equipment
- Paint**: High-precision paint
- Food processing**: Packing, Mixer, Screening, Packaging
- High-precision semi-conductors**: Various machining centers, Semiconductor equipment
- Printing**: High-precision printing, Book binding
- Pharmaceutical, Chemical**: Drug and chemical product manufacturing

Kyungwon Oilfree Scroll Technology

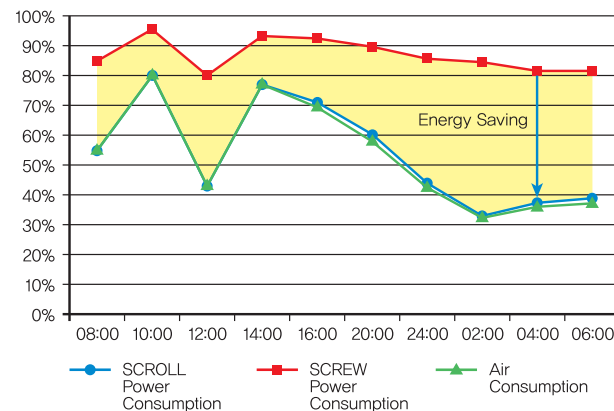
Best Performance

- The optimized output outlet of the scroll air end is designed to maximize energy saving and the output volume.
- The standard stainless steel tanks are designed to produce optimally-controlled air without any additional after cooler.
- Corrugated type high performance after cooler and large capacity cooling fan enable scroll air compressor produce optimized air without any additional after cooler installation.



Energy Saving

- **Energy saving through the sequential control:** the inrush or starting current affecting the current peak loading is designed to be minimal by applying the sequencing process of starting up the series of air compressors.
- **Energy saving based on the pyramid control process:** Kyungwon scroll compressor products consist of a series of compressors, which offer flexibility to various conditions required by independent or unmanned automatic operations. The control process proves to be the most effective energy saving device by utilizing the amount of air being consumed to minimize the power consumption.



High Reliability

- The simple mechanism of the Scroll Air End provides the industrial durability by the small number of components being used.
- The specially treated coating after the high-precision fabrication offers desirable weather resistance and durability in extreme conditions.
- The heavy-duty Sirocco fan to cool the Scroll Air end and the 2-way cooling method of the after cooler offers stable operation at the ambient temperature of 50°C.
- The suction filter unit offers 99.9% of dust elimination and provides a clean, compressed air supply.
- The controllers are CE-approved and passed EMI and EMC testing requirements.
- The use of a rotary (time-shifting) control process is used to offer sequential operation as programmed for the operation time to balance the average usage hours and to maximize the overhaul cycles.



User Friendly

- The controller suitable for the capacity is selected to enable Tandem, time-shifting and emergency jump operations and to provide language supports including English and Chinese interfaces.

Use of proven and reliable components

Feature (Apply to AL~AL10)

- ▶ Compact design to offer ultimate convenience.
- ▶ Timer function programmable to carry out various operations (Automatic pause delay, manual pause delay, operation delay, load delay)
- ▶ The alarm and shutdown functions are designed to provide stable operation. (Detection sensors for pressure, upper or lower limit of temperature)
- ▶ The built-in hour meter provides added convenience. (Operation hour, maintenance cycle check, elapsed time after the latest service)
- ▶ The resident self-diagnostic functions are designed to protect your valuable tools and machines. (To detect the on or off status of pressure and temperature sensors)



Tandem Controller

Intelligent Micom Controller

Feature (Apply to AL15 ~ AL40)

- ▶ 5" large sized LCD panel
- ▶ The key pad is designed in consideration for the operator movements.
- ▶ Multi-language interface (Korean, Chinese and English) is a built-in function for international use.
- ▶ The Pull-down Menu makes the operation or handling easier.
- ▶ The operation history saved up to 160 items is a safeguard for stable operation.



Standard Controller

Wide selection of models and options to meet all customer demands

Feature (Apply to AL50)

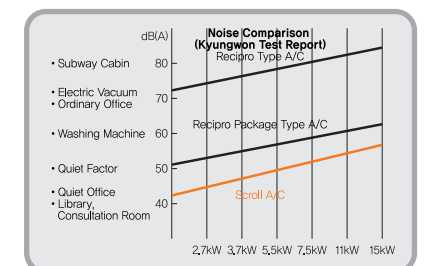
- ▶ 5.7" large sized touch Screen
- ▶ Large touch-screen LCD display makes visual monitoring and handling easier. The large selection of input and output terminals allows the operation up to 60HP.
- ▶ The Pull-down Menu makes the operation or handling easier.
- ▶ The reliable multi-phased control allows maximum energy-saving and efficiency.



Touch Screen Controller

The most minimal noise level of 49dB among the competitors

- The scroll mechanism designed to minimize the torque fluctuations through the continuous cycle of air feed, compression and output, and the sound insulation treatment of the front cover are designed to keep the noise levels at a minimum.
- The balancing design of crank shaft and rotor scroll and the special sound insulating rubber that supports the Air end and Motor base feature complete vibration- and sound-preventing structure.



Large selection of models and numerous customer centers

- The total air solution producer manufactures a large selection of models ranging from AL series of 3~50 HP, to AL T series (Tank Mount), AL D series (Dental), and AL A series (all in one) to best meet all customer demands.
- The company has approximately 40 official agencies across the country and numerous customer centers, in order to provide its customers with the best possible service.



Various Model

» AL Series



● Automatic ON/OFF through AL3, AL5 pressure sensors

- 100% oil-free condensed water drastically reduces the cost for water treatment.
- The stainless tank is provided as a built-in standard.
- A Micom Controller is a built-in standard for all Kyungwon products.
- Service room temperature: ambient temperature of +25°C (per standard 5HP)
- The opening of covers from the four sides allows convenient service access for maintenance and inspection.
- 3 ~ 5HP products comes in the 'without Tank Type.' (AL3N ~ AL5N)

● Tandem control interface with the array comprising two units of AL7 and AL10 compressors

- The combination of two compressors allows for a time-shifting operation suitable for the commissioned work environments to optimize the life span of the compressors.
- The automatic On/Off functions are in sync with the air output demands and allow 50% of energy saving.
- The operation temperature of +15°C (per the standard of AL10)



● Array of multi-units of AL15, AL20, AL25, AL30, AL40, and AL50 compressors

- Multi-control system is adopted for the array of multiple operation ranging from 3 to 10 units as required by the output air demands to provide optimal operation efficiency.
- Rotary control and emergency jump operation (Bank-up function) is possible.
- The Pull-Down Menu makes the operation easier.
- Timer operation for daily or weekly basis is possible.
- The operation temperature of +15°C (per the standard of AL40)



Various models of Kyungwon products will satisfy all your requirements.

» AL A Series

All in one functions inclusive of compressor, dryer, filter and tank!

●AL A Series Feature

- Model : 3 ~ 10HP (AL3A ~ AL10A)
- The all in one functions including the cooling dryer allow instant operation capabilities without the need to install separate piping installations.
- The stainless tank is provided as a built-in standard.
- Dew Point : 10°C
- Filtration : 5 Micron
- 7.5 ~ 10hp models come in with the built-in dryer. (AL7 ~ AL10J)



» AL D Series



Dental Oil-free Scroll Compressor – Solution for problems such as “oil, noise, and stench”

●AL D Series Feature

- 100% Oil-free provides highest quality of compressed air.
- The stainless tank is provided as a built-in standard.
- Filter is provided as a built-in standard. (1 Micron)
- One unit set is capable of operation for up to 6 chair units.
- Reliable sound insulation and the vibration-preventing structure enable a pleasant dental operation.

» AL T Series

The portable scroll compressor (Tank Mount) designed to provide the lowest noise and vibration possible.

●AL T Series Feature

- Compact Size – Easy installation
- Receiver Tank mounted type
- The built-in Pressure Switch allows automatic ON/OFF control's.
- The comfortable sound and vibration level, and the convenient maintenance requirements are designed to best meet any customer demands.



Specification



AL Series

Model	Max. Working pressure		Capacity		Motor Power		Noise	Dimension (LxWxH)	Air Delivery	Weight
	kgf/cm ² G	psig	LPM	CFM	kW	HP				
AL3	8.0	113.7	271	9.6	2.2	3	49	700x640x1070	15(1/2)	123
	9.9	140.8	219	7.7						
AL5	8.0	113.7	416	14.7	3.7	5	50	700x640x1070	15(1/2)	130
	9.9	140.8	352	12.4						
AL7	8.0	113.7	687	24.3	2.2x1	3x1	52	650x1160x1300	25(1)	243
	9.9	140.8	571	20.2	3.7x1	5x1				
AL10	8.0	113.7	832	29.4	3.7x2	5x2	53	650x1160x1300	25(1)	266
	9.9	140.8	704	24.9						
AL15	8.0	113.7	1248	44.1	3.7x3	5x3	56	1080x1280x1355	25(1)	455
	9.9	140.8	1056	37.3						
AL20	8.0	113.7	1664	58.8	3.7x4	5x4	58	1080x1280x1735	25(1)	530
	9.9	140.8	1408	49.7						
AL25	8.0	113.7	2080	73.5	3.7x5	5x5	59	1080x1280x2115	25(1)	605
	9.9	140.8	1760	62.2						
AL30	8.0	113.7	2496	88.1	3.7x6	5x6	62	1720x1280x1355	32(11/4)	900
	9.9	140.8	2112	74.6						
AL40	8.0	113.7	3328	117.5	3.7x8	5x8	63	1720x1280x1735	32(11/4)	1000
	9.9	140.8	2816	99.4						
AL50	8.0	113.7	4160	146.9	3.7x10	5x10	65	1720x1280x2115	32(11/4)	1200
	9.9	140.8	3520	124.3						

Model name index

AL30	A	E	D	Electricity	C	220V / 3PH / 60Hz
					E	380V / 3PH / 60Hz
Model	Type	Electricity	Pressure	F	440V / 3PH / 60Hz	
				A	6.0 kgf / cm ² G	
				D	8.0 kgf / cm ² G	
				H	9.9 kgf / cm ² G	

1. Type – Standard Model : No marking, A : All-in-one type, J : Built in Dryer, D : Dental, T : Tank mounted type
2. Inquiries on specifications other than listed for power and pressure should be directed to us.



AL T Series

Model	Max. Working pressure		Capacity		Motor Power		Tank Volume	Dimension (LxWxH)	Air Delivery	Weight
	kgf/cm ² G	psig	LPM	CFM	kW	HP				
AL3T	8.0	113.7	271	9.6	2.2	3	130	1274x542x920	15(1/2)	120
AL5T	8.0	113.7	416	14.7	3.7	5	130	1274x542x920	15(1/2)	127
AL7T	8.0	113.7	687	24.3	2.2x1	3x1	250	1720x823x1028	20(3/4)	225
					3.7x1	5x1				
AL10T	8.0	113.7	832	29.4	3.7x2	5x2	250	1720x823x1028	20(3/4)	232



AL D Series

Model	Max. Working pressure		Capacity		Motor Power		Tank Volume	Dimension (LxWxH)	Air Delivery	Weight
	kgf/cm ² G	psig	LPM	CFM	kW	HP				
AL2D	6.0	85.3	161	5.7	1.5	2	38	545x556x898	15(1/2)	70
AL3D	8.0	113.7	271	9.6	2.2	3	38	545x556x898	15(1/2)	75
AL5D	8.0	113.7	416	14.7	3.7	5	38	545x556x898	15(1/2)	80



AL A Series

Model	Max. Working pressure		Capacity		Motor Power		Noise	Dew Point	Tank Volume	Filtration	Dimension (LxWxH)	Air Delivery	Weight
	kgf/cm ² G	psig	LPM	CFM	kW	HP							
AL3A	8.0	113.7	271	9.6	2.2	3	49	10	38	5	700x640x1376	15(1/2)	180
	9.9	140.8	219	7.7									
AL5A	8.0	113.7	416	14.7	3.7	5	50	10	38	5	700x640x1376	15(1/2)	190
	9.9	140.8	352	12.4									
AL7A	8.0	113.7	687	24.3	2.2x1	3x1	52	10	38	5	850x1160x1800	25(1)	380
	9.9	140.8	571	20.2	3.7x1	5x1							
AL10A	8.0	113.7	832	29.4	3.7x2	5x2	53	10	38	5	850x1160x1800	25(1)	392
	9.9	140.8	704	24.9									

Oilfree Reciprocating Air Compressor

The oil-free round-trip type compressor is the masterpiece of Kyungwon's endeavor in the area of oil-less compressor industry.



Package Type P-U Combination

(Pressure Switch & Automatic Unloading)

- The operation can be switched by means of P-U switch. Users can select and use automatic unload operating mode or pressure-switching mode depending on their own choice of usage.
- Since sound adsorption and anti-vibration materials are installed inside the package, this system is suitable for places requiring less noise and vibration. (Less than 75dB(A))
- Since an extra auxiliary air tank is supplied users do not need a separate air vessel. (Except for 1HP)



Technical Data

Spec.	Model	AC-P1CA3	AC-P2CA3	AC-P3CA3	AC-P5CA3	AC-P7.5CA3
Motor	kW(HP)	0.75(1)	1.5(2)	2.2(3)	3.7(5)	5.5(7.5)
Bore x Stroke	mm	60x50	82x50		90x60	
No. of Cyl.	-	1		2		3
Piston Displacement	m ³ /min	0.141	0.285	0.417	0.657	0.985
Free Air Delivery	m ³ /min	0.084	0.165	0.255	0.430	0.640
Max. Working Pressure	MPa	0.7				
	kgf/cm ²	7				
Air Receiver	Main(l)	25				
	Sub(l)	60		100		
Air Outlet	inch	3/8 Ball Valve			1/2 Ball Valve	
Dimension(LxWxH)	mm	860x660x800			1115x700x935	
Weight	kg	109	168	196	242	328

*The dimension and specifications may be subject to change without prior notice for improvement or other purpose.

Feature

The adoption of the new flapper valve improves the volumetric efficiency.

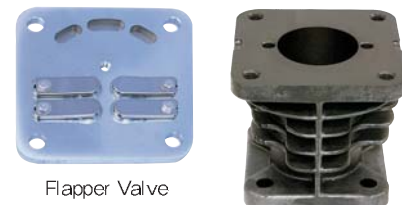
The durable Sandvic valve steel and the nickel-coated rust-proof valve spacer are Kyungwon's latest triumphs.

Adoption of a piston ring developed by Kyungwon to improve the sealing performance.

The Teflon ring that contains graphite to improve the resistance to heat and friction ensure the longer life span and the minimal leakage possibilities during the compression process.

An epoch-making heat cut piston pin featuring a high insulation was adopted.

We use a revolutionary "Heat Cut" piston pin that is designed to maximize the heat insulation between the piston and the connecting rod. Heat transfer is encapsulated within the piston pin thereby, extending the life of the bearings,



Flapper Valve

Coated Cylinder



Leak Cut Piston Pin

Heat Cut Piston Pin

Clean Air

Low
Vibration

Energy
Saving

Simple
Design

Various
Model

Bare Type (pressure Switch System)

(Pressure Switch System)

- Users may choose between pressure switching mode and automatic unloading mode.
- The system of 10HP or higher is designed for use in tandem mode.



Technical Data

Spec.	Model	AC-B1PA1	AC-B2PA1	AC-B3PA1	AC-B5PA1	AC-B7.5PA1	AC-B10PA2	AC-B15PA2
Motor	kW(HP)	0.75(1)	1.5(2)	2.2(3)	3.7(5)	5.5(7.5)	7.5(10)	11(15)
Bore x Stroke	mm	60x50	82x50		82x50			
No. of Cyl.	-	1		2		3	2-2	3-2
Piston Displacement	m ³ /min	0.141	0.285	0.417	0.657	0.985	1.314	1.970
Free Air Delivery	m ³ /min	0.084	0.165	0.255	0.43	0.64	0.85	1.25
Max. Working Pressure	MPa	0.7						
	kgf/cm ²	7						
Air Receiver	l	66	130	160		250	270	
Air Outlet	inch	3/8 Hose Cock		1/2 Ball Valve		3/4 Ball Valve		1 Ball Valve
Dimension (LxWxH)	mm	1160x383x817	1160x407x842	1274x434x890	1464x477x954	1464x503x1045	1850x665x1120	1850x665x1220
Weight	kg	84	105	134	188	250	355	499

*The dimension and specifications may be subject to change without prior notice for improvement or other purpose.