



Main Office: (3N a 602Ho, Sihwa Industrial Complex) #1280-1,
Jungwang-dong, Sihung-si, Gyeonggi-do, 429-450 Korea
www.coaire.co.kr



2008 New Models



COAIRE
COMPRESSOR

The history of compressors in Korea was established and advanced by Kyungwon Machinery. (Since 1968)

Since the company was established in 1968, it has developed reciprocating type compressors for the first time in Korea. In 1986 the company was also the first in Korea to develop and supply screw compressors after establishing technological ties with SRM of Sweden, and it developed oil free scroll compressors in 2004 for the first time in Korea. To put it simply, the company has created a new history of compressors in Korea.

In 2008, Kyungwon launched the upgraded AS series, which makes the company justifiably equal to world-renowned makers.

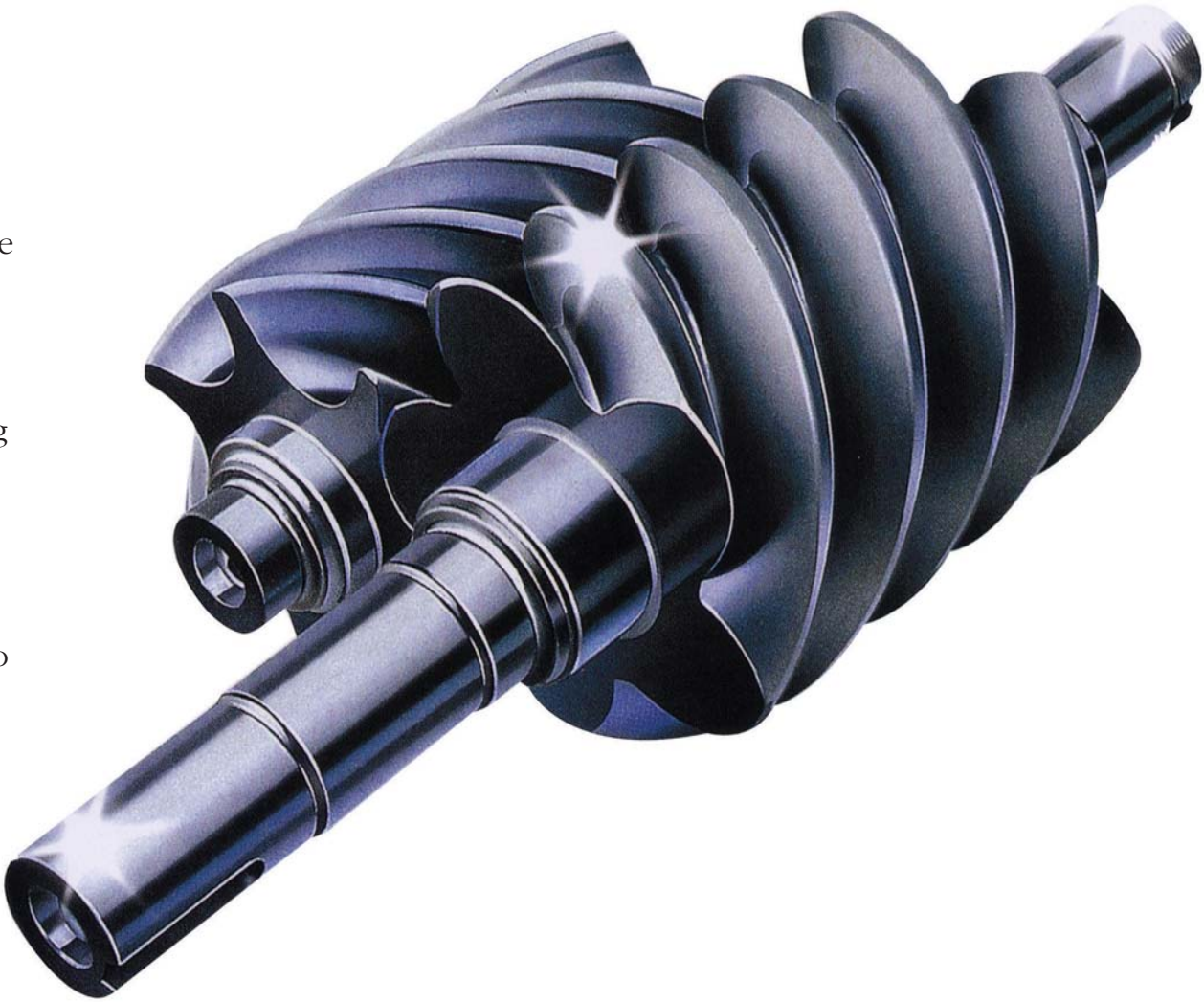
The company has about 40 official agencies across the country and numerous production bases and customer centers around the world in countries such as the US, China and Asian countries in order to provide its customers with the best possible service.

Kyungwon Machinery, as a total air solution producer, manufactures such compressors as oil injection type reciprocating and screw air compressors and oil-free type reciprocating, screw and scroll compressors, as well as driers and filters, which will best meet any customer demands.

In the future, the progress of compressors in Korea will continue to be written by Kyungwon, which is determined to do its best to be a leader in compressors throughout the world.

SRM Licensee (Technical tie-up companies)

COMPANY	NATION	YEAR
GHH-RAND	Germany	1952
Atlas Copco	Sweden	1954
Ingersoll-Rand	USA	1958
Comp Air	England	1959
Gardner-Denver	USA	1963
Hitachi	Japan	1966
IHI	Japan	1972
KYUNGWON	Korea	1986



Major Products

Air Compressors

- Oil Injection Reciprocating Air Compressor
Model : 5HP ~ 20HP
- Oil Injection Screw Air Compressor
Model : Belt Driving 10HP~30HP
Direct Driving 25HP~500HP
All-In-One Type 10HP~30HP
- Inverter Type Screw Air Compressor
Model : 50HP ~ 200HP
- Oil Free Reciprocating Air Compressor
Model : Package Type : 1HP ~ 7.5HP
Bare Type : 1HP ~ 15HP
- Oil Free Scroll Air Compressor
Model : 3HP ~ 50HP
All-In-One : 3HP ~ 20HP
Dental : 2HP ~ 5HP
- Oil Free 2nd Stage Screw Air Compressor
Model : 75HP ~ 400HP

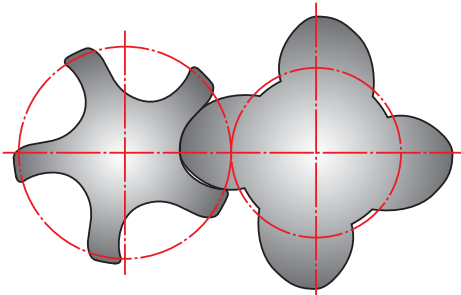
Related Equipments for Air Compressor

- 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 Discharging Condensate Water
- Condensate Water Separator

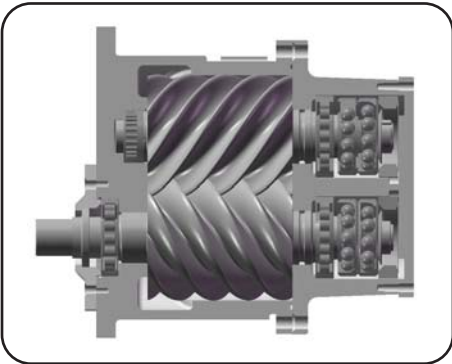
Strong Power

Strongest Airend

- The volumetric efficiency is maximized by the latest profile of Kyungwon's unique design and the know-how of SRM, which optimizes the sealing lines and minimizes blow holes.
- The strongest airend, with improved sealing line between rotors by Kyungwon's state of the art technology and maximized rotors strength by enlarged Root Diameter, is equipped.
- The 4+5 asymmetric profile improves the heat insulation efficiency by 9%, compared to the conventional profile.
- Kyungwon's airend ensures the high efficient flow rate of air per unit power and curtails the customer's operation expenses.
- The direct drive type that directly couples the airend with motor for products with 25 HP or higher reduces loss from the belt slip to zero.

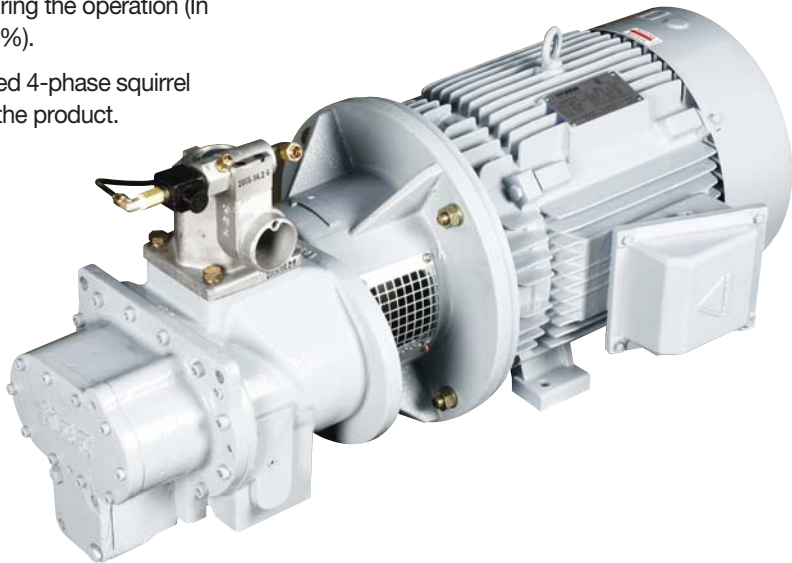


4+5 Rotor Profile



Highly Efficient Motor

- The highly efficient motor manufactured using state of the art manufacturing facilities and testing omni-function allows minimum operation power consumption during the operation (In case of 100HP model, the efficiency is 94.5%).
- Selection of SKF bearings and the low-speed 4-phase squirrel cage induction motor will extend the life of the product.



Quiet Operation

A Private Conversation During Noiseless Operation (Only 65dB(A) for 50HP model)

- The uniquely designed double casing for the airend minimizes the air compressing noise.
- The Silencer and Sirocco Fan were manufactured after being designed from the simulation of cooling air flow, which allowed successful reduction of noise from air friction.
- Stainless flexible tubes are used for the rotating and joint parts to prevent vibration at the same time to significantly reduce the noise level.
- A high density sound-absorber is used to minimize the sound level.
- The quick venting by uniquely designed Quick Venting Valve eliminates the unloading noise.



Superiority in Noise Level

Left Side	
AS30	70dB(A)
AS50	68dB(A)
AS100	74dB(A)

Front Side	
AS30	68dB(A)
AS50	65dB(A)
AS100	72dB(A)



Rear Side	
AS30	71dB(A)
AS50	67dB(A)
AS100	75dB(A)

Right Side	
AS30	71dB(A)
AS50	66dB(A)
AS100	75dB(A)

※ The values measured in accordance with ISO 2151 Edition 1-1972.

User Friendly Design

Easy Operation

- Key-pad is designed in consideration of operator movements.
- Multi-language interface (Korean, Chinese and English) is built-in function for international use.
- The pyramid control interface makes it easier for beginners to use
- Large-screen LCD display makes visual monitoring easier
- The operation history saved up to 160 items is a safeguard for stable operation.



Standard Controller

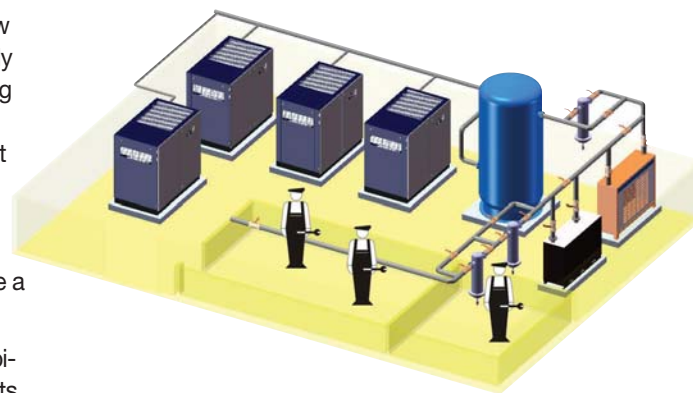
Easy Maintenance

- Maintenance is performed with minimum time and effort by simply opening the front door from which most of the replaceable components are accessed.
- The flange with high quality O-ring of separator tank minimizes the parts to be changed and therefore, curtails the maintenance costs.
- The oil-level is accurately indicated by adopting the oil-level gauge of the float-type.
- 1" of oil drain port reduces the service time while replacing oil.
- The analogue pressure and temperature gauge that are attached to the Separator Tank are a useful reference during maintenance.



Easy Installation

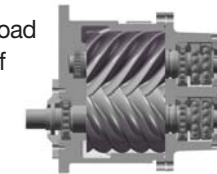
- The low-level operation noise and vibration of Kyungwon Screw Air Compressor ensures easy and friendly installation, especially in the work shop with the added benefit of minimizing the piping length.
 - The short piping requirements reduce the operation costs that may be increased by the pressure loss.
 - The short piping requirements also minimize the installation costs.
 - The quiet operation of the screw compressor does not require a separate room and minimizes the installation costs.
- Kyungwon Screw Air Compressor can operate under high ambient temperature conditions, thus minimizing the ventilation ducts.
 - Installation costs of ventilation ducts can be minimal.
 - The work shop is less crowded because of the minimal installation requirements.



High Reliability

Outstanding Durability

- The cooling system designed by the airflow simulation keeps inside at low temperature and maintains a stable discharged air temperature.
- The capable cooling fan and motor makes the machine operate stably at the ambience temperature of 50° C.
- The double bearing system that has a preload structure takes pride in its high durability of 100,000 hours.



Top-Class Components

- The Suction Filter, Oil Filter and Oil Separator are developed and produced by various renowned European companies through OEM, and their quality has been vigorously and successfully tested.
- The suction valve, by-pass valve and other valves assure stable operation in any condition since the products have passed more than 500,000 durability tests.
- The Kyungwon's Genuine Oil is developed in partnership with world-renowned oil refinery companies, ensuring the quality and the life span.
- The Kyungwon's Microprocessor controllers are certified by EMI, EMC and CE.



Kyungwon's Perfect 5-Step Quality Test System

- **3-D Simulation Design** : The design of all Kyungwon's products is performed and finalized under simulation of actual using conditions.
- **Parts ALT Test [Accelerated Life Test]** : All the components used for Kyungwon's products are rigorously tested by ALT.
- **Performance Test** : Thorough performance tests are performed in accordance with ISO and KS standards.
- **Simulation Test** : Simulation tests are conducted in more severe conditions than the actual operation in order to test the durability of the product.
- **Field Test** : Field tests are thoroughly conducted in our various customers' site after the successful completion of all process testing.



Variable Speed Drive (AS V Series)

Features & Benefits

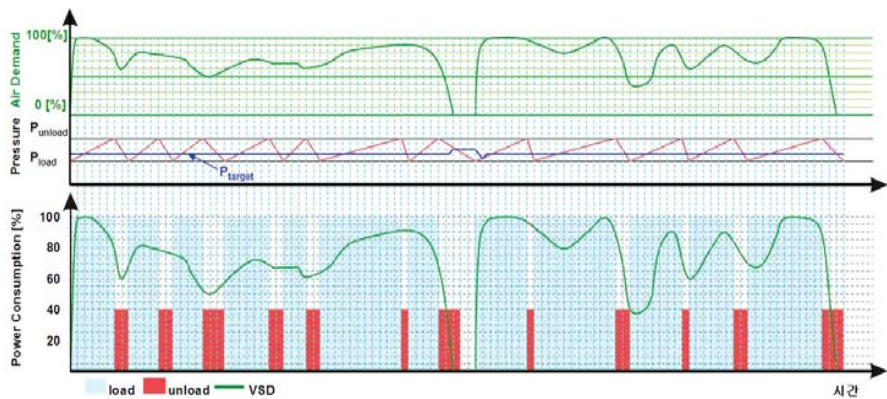


- Highly efficient inverter with CE and UL certified technology and various EMC solutions
 - Setting the target pressure so as to reduce energy by up to 30%
 - Controlling the rotation speed based on the load rate
 - Freely setting the discharge pressure
- ① Inverter & Control Box ② Main Motor
③ Separator Tank ④ Airend
⑤ Suction Filter Ass'y ⑥ Oil & After Cooler
⑦ Inverter Controller

VSD Operation Examples

Application and Examples

- Load rate : 76.7%
- Total electric consumption :
 - Load electricity : 89.2%
 - Unload electricity : 10.8%
- When adopting VSD vs. the standard 10.8% more energy saving compared with the same input condition
- Target pressure setting additionally reduces the energy by 5% of the compressor capacity.



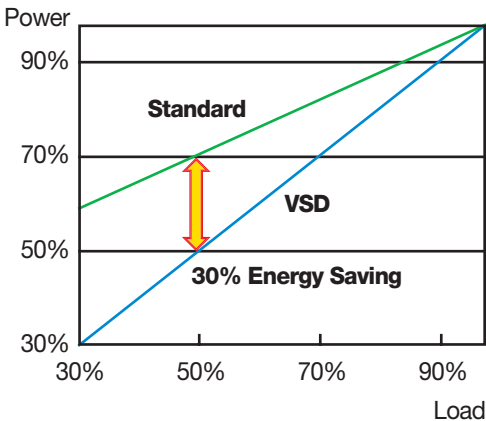
Controller for Inverters

- Controlling the speed of motors in accordance with the demand for compressed air
- Using text messages to show the condition of the compressor and inverter
- Strengthening the resistance force against noise by using products that have passed EMC tests



Effects of the VSD Screw Compressor to Save Energy

- Saving electricity during unloading operation : Free changes in speed is quickly and precisely performed to meet the changes in the amount of air needs by the system.
- Required compressed air equals the amount of compressed air produced : The loss of energy caused by the production of unnecessary compressed air can be prevented.
- Setting the target pressure so as to reduce electricity : VSD screw that can control constant pressure. The minimum pressure required by the system can be set, and the compressed air (target pressure) energy can be saved in accordance with the demand from the system. If the target pressure is set, the electricity can be additionally reduced per 1 bar by 5 % of the capacity of the compressor.
- The soft start through the inverter prevents the loss of electricity caused by the overshoot of the electric current during operation and reduces the stress on the operating motors (extending the life of motors).



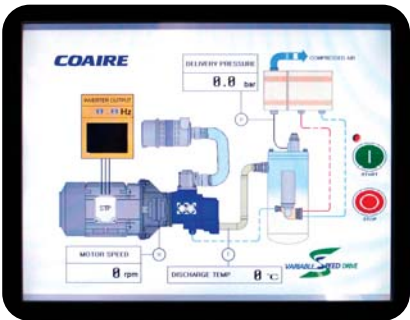
Application of VSD Screw Compressor

- The system has a big variation in air consumption.
 1. System with a big variation of the amount of compressed air during operation.
 2. System with a big variation of the amount of compressed air during night and day time.
 3. System with monthly or seasonal variation of the amount of compressed air.
- A plan has been made to multiply facilities on the production lines.
- Large capacity facilities to operate many compressors at the same time : Standard Screw (=Base Load) + VSD Screw (=Top Load)
 1. A precise system needs to have a small range of pressure changes
 2. The system requires a certain type of constant pressure when compressed air is consumed.



Option

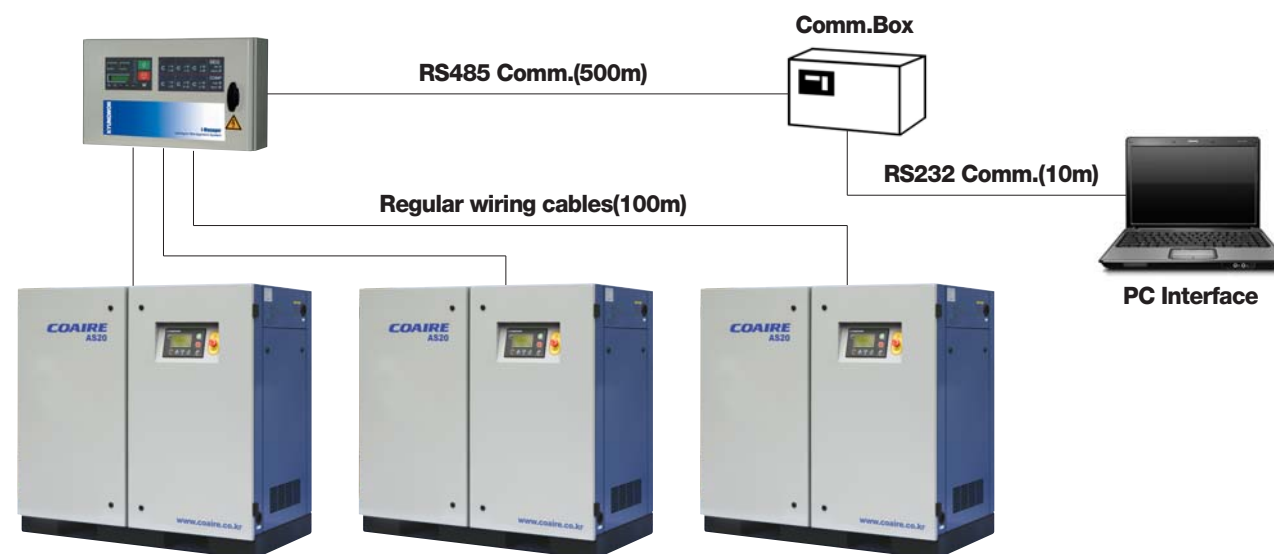
- 10" Touch Screen
 1. The condition of the operation can be easily recognized.
 2. A journal does not have to be kept to record the operation. (The records can be stored in an excel file after the data has been backed up.)
 3. The environment can be set, operated, and maintained without special know-how.
 4. Trends in the use of compressed air can be (daily, weekly or mon-thly) analyzed by referring to graphs.
 5. Scheduled operation is possible.



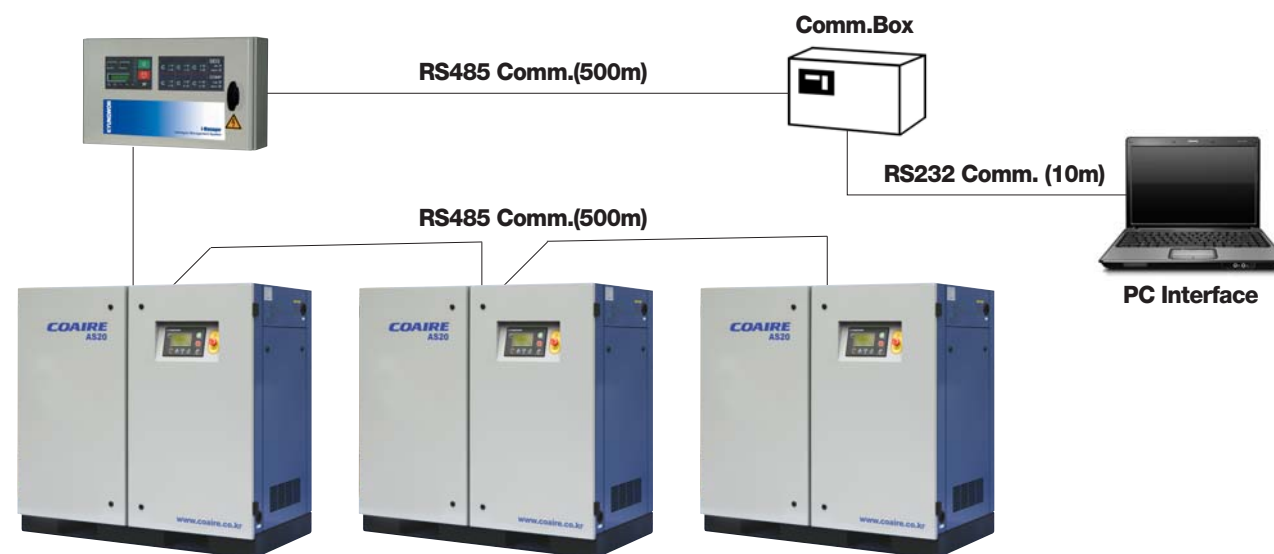
Intelligent Management System

Management System [I-Manager]

I-Manager is developed to control the number of compressors up to 12 units in an integrated and comprehensive management system.



➡ I-manager schematics example (1).

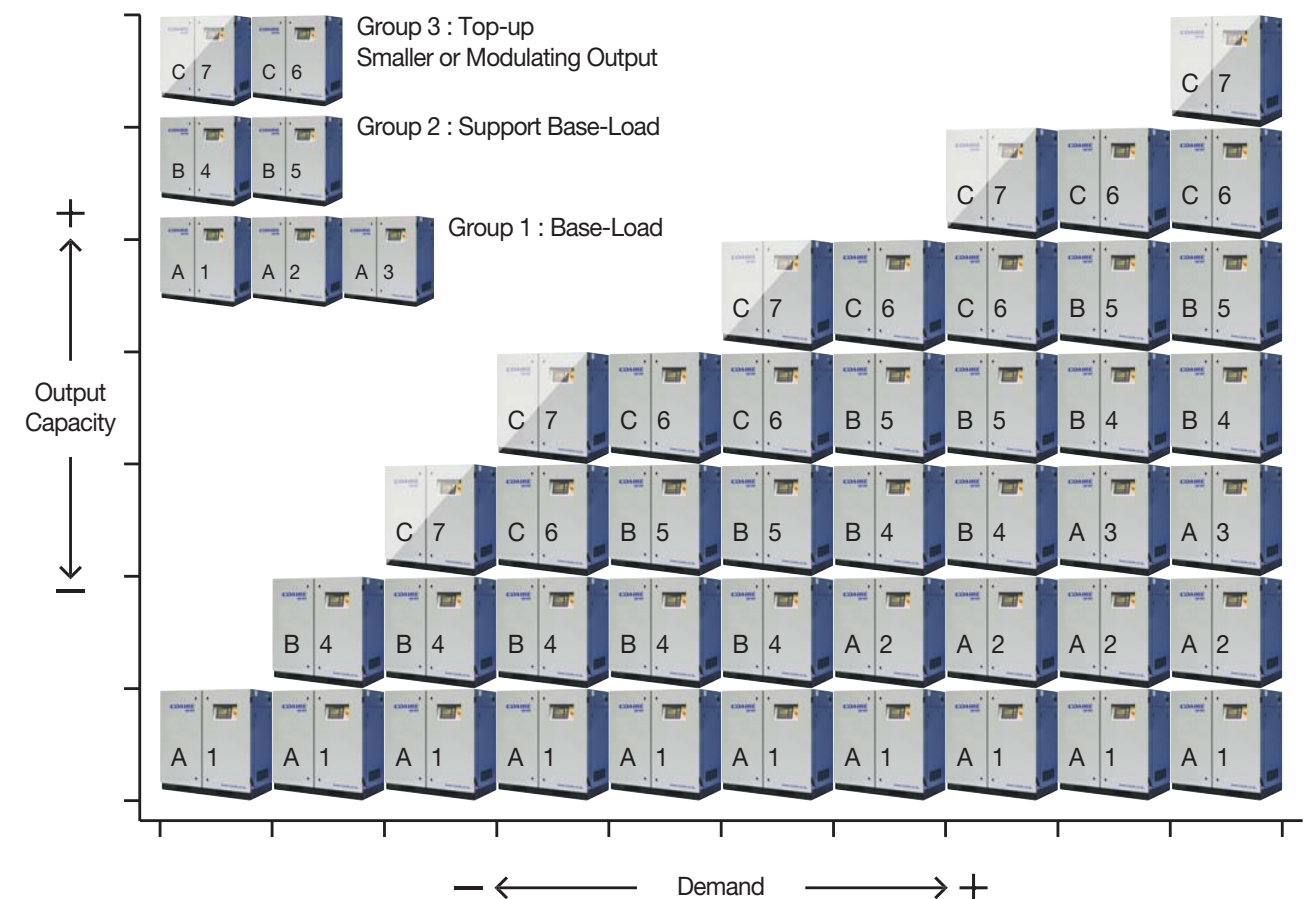


➡ I-manager schematics example (2).

I-Manager Features and Benefits

I-Manager Features and Benefits

1. Time Rotation
 - With simple programming, time rotation among the controlled units is activated during the operation for an extended period of time.
 - To group or prioritize a group of units for time rotation.
2. Equal Running Hours
 - The equal running hours on the units enable simultaneous maintenance.
 - recommended when the system consists of units with the same capacity.
3. FIFO Rotation
 - First in, first out controlling methods.
 - recommended when the system consists of units with the same capacity but with larger load variables.
4. Energy Rotation
 - recommended when the system consists of units with various capacity and with focus on minimum energy onsumption.
 - I-Manager will calculate and control the units for minimum energy consumption when the compressor capacity is entered.
5. Pyramid Mode
 - Flexible operation based on the air supply demands for the large-scale system with several compressors.



Various Model

AS Series



- Capacity : 25~50HP
- Direct Coupled Type
- Standard Full Micom Applied
- Highly Efficient Motor
- Sirocco Fan
- High-pressure, High-efficient Cooler
(Working Press. 16Kgf/cm2G)
- Float Type Level Gauge
- Option : 10" Touch Screen

- Capacity : 75~250HP
- Direct Coupled Type
- Standard Full Micom Applied
- Highly Efficient Motor
- Sirocco Fan
- High-pressure, High-efficient Cooler
(Working Press. 16Kgf/cm2G)
- Float Type Level Gauge
- Option
 - 10" Touch Screen
 - Water Cooling Type
 - Reactor Starter



- Capacity : 300~500HP
- Direct Coupled Type
- Standard Full Micom Applied
- Highly Efficient Motor
- Dual Tower Separator Tank
- World-renowned Airend
- Option
 - 10" Touch Screen
 - Water Cooling Type
 - Reactor Starter
 - High Voltage

Various models of Kyungwon products will satisfy all your requirements.

AS B Series (Belt Drive Type)

- Capacity : 7.5~30HP
- Narrow 3V Belt
- Compact and Simplified Piping Structure
- Spin-on Type Separator
- Convenient Compact Micom Controller
- Option : Standard Micom



AS A Series (All-In-One Type)

- Capacity : 7.5~30HP
- Receiver Tank Volume : 500 ℓ
- Dew Point : 10℃@8.5kgf/cm2G
- Filtration : 1 micron
- Driving Method
 - Belt : 7.5~30HP
 - Direct : 25~30HP
- Option
 - 0.01 micron Filter
 - 4℃ Dew Point
 - 650 ℓ Tank

AS V Series (Inverter Type)

- Capacity : 50~200 HP
- CE Certified Inverter
- Direct Coupled Type
- Highly Efficient Motor
- Exclusive Controller for Inverter
- High-pressure, High-efficient Cooler
(Working Press. 16Kgf/cm2G)
- Option : 10" Touch Screen
Water Cooling Type



Specification

AS Series

Compressor Type	Max. Working pressure		Capacity		Motor Power		Noise	Dimension (LxWxH)	Weight
	kgf/cm ² G	psig	m ³ /min	cfm	kW	HP	dB(A)	mm	kg
AS25	7.0	100	3.25	115	18	25	65	1400x830x1350	550
	8.5	120	2.80	99					
	9.5	135	2.55	90					
AS30	7.0	100	3.90	138	22	30	65	1400x830x1350	590
	8.5	120	3.70	130					
	9.5	135	3.00	106					
AS40	7.0	100	4.80	170	30	40	65	1400x830x1350	610
	8.5	120	4.30	152					
	9.5	135	3.80	134					
AS50	7.0	100	6.50	230	37	50	65	1660x1030x1607	780
	8.5	120	5.80	205					
	9.5	135	5.30	187					
AS75	7.0	100	10.30	364	55	75	72	2000x1210x1857	1610
	8.5	120	9.00	318					
	9.5	135	8.30	293					
AS100	7.0	100	13.70	483	75	100	75	2000x1210x1857	1650
	8.5	120	12.30	434					
	9.5	135	10.30	363					
AS150	7.0	100	21.30	750	110	150	78	2550x1470x2030	2500
	8.5	120	18.50	653					
	9.5	135	16.60	586					
AS200	7.0	100	28.10	990	150	200	79	2700x1740x2080	2950
	8.5	120	24.80	875					
	9.5	135	24.50	864					
AS250	7.0	100	33.50	1180	190	250	81	2700x1740x2080	3250
	8.5	120	29.50	1040					
	9.5	135	27.50	970					
AS300	7.0	100	41.66	1467	225	300	84	3400x1800x2250	4095
	9.0	128	36.44	1285					
	13.0	185	29.13	1027					
AS350	7.0	100	48.89	1724	265	350	87	3600x1800x2250	4400
	9.0	128	43.28	1526					
	13.0	185	35.36	1247					
AS400	7.0	100	53.30	1880	300	400	89	3600x1800x2250	4700
	9.0	128	48.34	1704					
	13.0	185	39.51	1393					
AS500	7.0	100	63.96	2255	375	500	91	4000x2000x2250	5700
	9.0	128	59.28	2090					
	13.0	185	50.23	1770					

Model name index

AS100	A	E	E	Electricity	C	220V / 3PH / 60HZ
					E	380V / 3PH / 60HZ
					F	440V / 3PH / 60HZ
Model	Type	Electricity	Pressure	Pressure	B	7.0 kgf / cm ² G
					E	8.5 kgf / cm ² G
					G	9.5 kgf / cm ² G

1. Type - Standard Model : No markings, B : Belt Drive Type, A : All-In-One Type, V : Inverter Type.
2. Inquiries on specifications other than listed for power and pressure should be directed to us.

AS B Series (Belt Drive Type)

Compressor Type	Max. Working pressure		Capacity		Motor Power		Noise	Dimension (LxWxH)	Weight
	kgf/cm ² G	psig	m ³ /min	cfm	kW	HP	dB(A)	mm	kg
AS10B	7.0	100	1.10	39	7.5	10	64	977x802x1150	185
	8.5	120	0.90	32					
	9.5	135	0.73	26					
AS15B	7.0	100	1.61	57	11	15	65	977x802x1150	195
	8.5	120	1.46	52					
	9.5	135	1.32	47					
AS20B	7.0	100	2.60	92	15	20	68	1400x930x1350	480
	8.5	120	2.20	78					
	9.5	135	2.10	74					
AS30B	7.0	100	3.90	138	22	30	69	1400x930x1350	560
	8.5	120	3.40	120					
	9.5	135	3.00	106					

AS A Series (All-In-One Type)

Compressor Type	Max. Working pressure		Capacity		Motor Power		Receiver Tank Volume [Liter]	Dryer Dew Point (PDP)		Filter Pore Size	Noise	Dimension (LxWxH)	Weight
	kgf/cm ² G	psig	m ³ /min	cfm	kW	HP		°C	°F		dB(A)	mm	kg
AS10A	7.0	100	1.10	39	7.5	10	360	10	50	1 Micron	65	1460x802x1770	375
	8.5	120	0.90	32									
	9.5	135	0.73	26									
AS15A	7.0	100	1.61	57	11	15	360				67	1460x802x1770	424
	8.5	120	1.46	52									
	9.5	135	1.32	47									
AS20A	7.0	100	2.60	92	15	20	500				69	1950x930x1950	710
	8.5	120	2.20	78									
	9.5	135	2.10	74									
AS30A	7.0	100	3.90	138	22	30	500				69	1950x930x1950	780
	8.5	120	3.40	120									
	9.5	135	3.00	106									

AS V Series (Inverter Type)

Compressor Type	Max. Working pressure		Capacity		Motor Power		Noise	Dimension (LxWxH)	Weight
	kgf/cm ² G	psig	m ³ /min	cfm	kW	HP	dB(A)	mm	kg
AS50V	7.0	100	2.10~6.50	75~230	37	50	65	1660x1130x1610	960
	8.5	120	1.70~5.80	60~205					
	9.5	135	1.50~5.30	53~187					
AS75V	7.0	100	3.00~10.30	106~364	55	75	72	2400x1210x1860	1730
	8.5	120	2.70~9.00	96~318					
	9.5	135	2.20~8.30	78~293					
AS100V	7.0	100	3.80~13.70	134~483	75	100	75	2400x1210x1860	1770
	8.5	120	3.40~12.30	120~434					
	9.5	135	3.20~10.30	113~364					
AS150V	7.0	100	6.80~21.30	240~750	110	150	78	3000x1470x2030	2650
	8.5	120	6.10~18.50	215~653					
	9.5	135	5.81~16.60	205~586					
AS200V	7.0	100	8.90~28.10	314~990	150	200	79	3200x1740x2080	3200
	8.5	120	8.43~24.80	298~875					
	9.5	135	8.30~24.50	293~864					