

Heart to Heart

our way of saying that we view things from our customers perspective. Through this market-oriented approach to doing business, we want to contribute to society.

OIL FLOODED SCREW COMPRESSORS

KOBELIONSG
SCREW COMPRESSOR

OIL FLOODED SCREW AIR COMPRESSORS

SG15-90A
SG22-90AV
15-90kW



KOBE STEEL GROUP Overseas Base



About KOBELCO

KOBELCO is a corporate brand of KOBE STEEL GROUP who is a major steel producer in Japan founded in 1905.

KOBE STEEL adopts diversified farming system and has 8 major business unit, Iron & Steel, Aluminum & Copper, Welding, Machinery, Engineering, Construction Machinery, Mobile Crane, and other business unit like Real Estate.

Each business unit is leading Japanese industry with its 'Only One / Number One' technology.

Now the consolidate subsidiaries are more than 200, and total numbers of employee reaches 35,469 in 03.2012.



Fortune 500 company Magazine as one of the world's top 500 corporations

Group Name: Kobe Steel, LTD.
Unified Trademark: KOBELCO
Founding Date: Sep.1, 1905



KOBELCO COMPRESSORS DEVELOPMENT HISTORY

About KOBELCO Compressors



Kobelco has a long history of compressors manufacturing and technologies since it produced a high pressure reciprocating compressor for the first time in Japan in 1915. It made Japan's first oil-free screw compressor in 1956. In addition, it began to get involved in the production of centrifugal compressor in 1966, thus becoming one of the world's few comprehensive compressor manufacturers that can produce all piston, screw, centrifugal compressors.

Kobelco, as a material producer, is acquainted with material characteristics and properties, as well as material processing technology. It can develop and produce high efficiency, high performance, high quality products. Its experienced techniques and proven product quality, as well as the eternal pioneer spirit and the pursuit of a more perfect quality make it the industry leader.

Nowadays, Kobelco produces oil-injected and oil-free screw compressors in Japan, US and China and supplies to all over the world.

1915年 Japan's first high pressure compressor

1956年

1966年

1988年

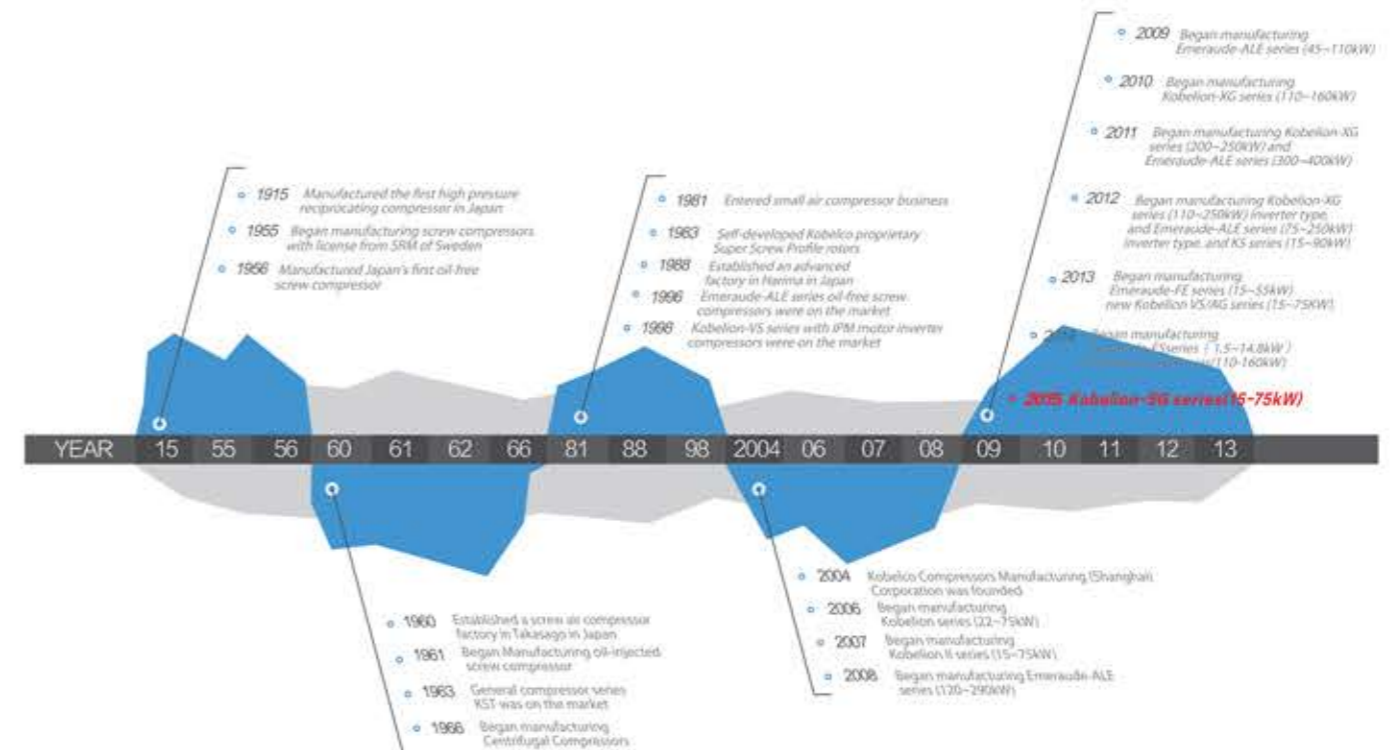
1997年

2004年

2015年

KOBELCO MSG

Kobelco factory is certified by ISO9001 Quality management, and ISO14001 Environmental Management.



Inherit history and experienced expertise!

Kobelion series oil flooded screw compressors incorporate Kobelco's half a century's expertise in screw compressor research and manufacture. It takes the highest flow capacity worldwide as the center, and also has both the highest performance and the best quality in the global market.

State-of-the-art Airend from Japan **Energy saving**

Kobelion series adopts large diameter screw airends made by Kobelco in Japan, to ensure high quality and performance.



Adapt to harsh ambient temperature **Reliability**

It has abundant cooling margin and can run safely even at extreme ambient condition.



Optimized controller **Easy to operate**

Function-rich controller facilitates operation and saves time. There is an option for group coordination of upto 8 units. (Optional)



High efficient drive system **Reliability**

Kobelion series adopts gear transmission, avoiding energy loss caused by belt drive, as well as avoiding sophisticated belt adjusting and replacing work. Non-coupling design can reduce energy loss, increase reliability, as well as lower maintenance cost by cutting down parts quantities.



KOBELIONSG

SCREW COMPRESSOR

Kobelion is derived from the combination of Kobe Steel Group's trademark "Kobelco" and "Lion". We select the king of all animals -- the lion, as the series name, because we can provide customers with the newest choices and get their trust. Proven high reliability isn't a transient glory, but a permanent value beyond era and nations. It represents various beginnings of the prelude to the ballrooms.

• SG15-90A
• SG22-90AV
15-90kW

Proven reliable crystal of technology

We have been innovating ceaselessly to provide you with the optimized compressed air solution since it produced Japan's first high pressure piston compressor in 1915.

High efficiency and energy saving

This series adopts gear transmission without coupling design in order to reduce energy loss. Kobelco's patent — Energy Saving Logic function.

High reliability

High efficient inlet/outlet systems to ensure adapting to high ambient temperature.

Easy maintenance

Easy for maintaining and long interval period.

Low noise

Lower pulsation noise, improve tone quality.

Inverter driving --The Perfect reflection of high performance and energy saving!

KOBELIONSG INVETER

The combination of the most advanced motor technology and inverter technology, to reflect excellent reliability and energy saving.

Expertise by many years' experience, and dedicated design!

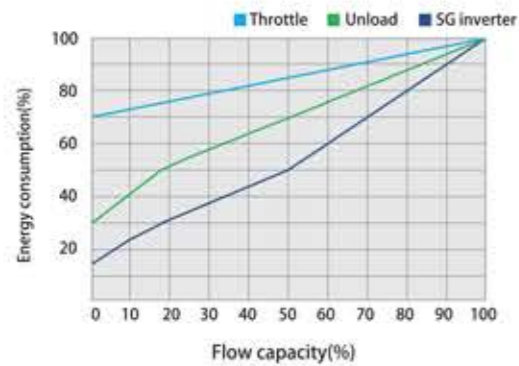
STANDARD KOBELIONSG

Gather Kobelco's mature screw compressor technology to ensure high efficiency and reliability.

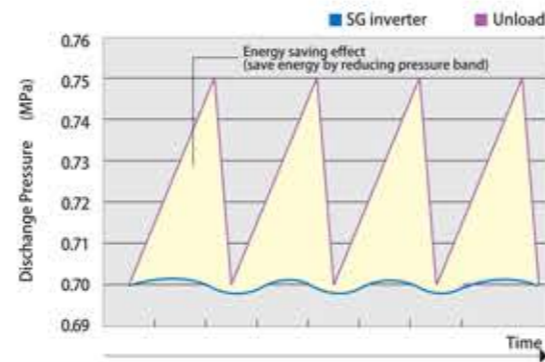
Adopt wide range capacity control function and constant pressure control to reduce power consumption

Kobelco's exclusive inverter and Energy Saving Logic control can get optimized energy saving effect, no matter what load condition it is. They can trace the pressure changes quickly and contain the pressure fluctuation in $\pm 0.01\text{MPa}$, supply necessary flow capacity by optimized power.

Energy saving characteristics



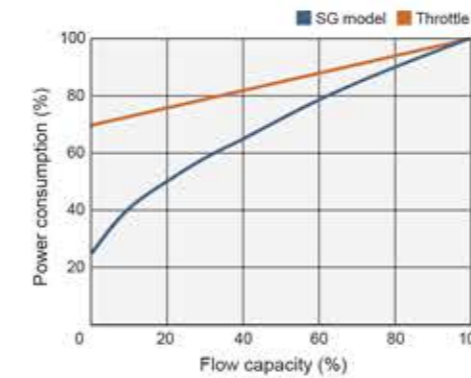
Capacity regulation



Unload regulation reduces energy consumption

SG series adopt unload/load mode which has better energy consumption efficiency compared to previous modulating mode.

In addition, big unloading valves are treated by special oxidized aluminum membrane. It assures steady air supply and energy saving by loading and unloading.



Can start up with certain remaining pressure

It can supply air at certain remaining pressure. It is better than other companies' models which require 1 minute starting delay, to avoid pressure drops beneath lower limit.

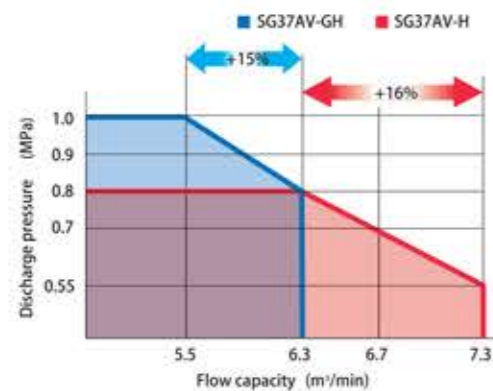


Adopt increase capacity range control in low pressure

Wide Range Control

It significantly expands the flow capacity range when running in low pressure, increases the maximum flow capacity, and provides the best solutions for energy-saving requirements.

Wide capacity range regulation



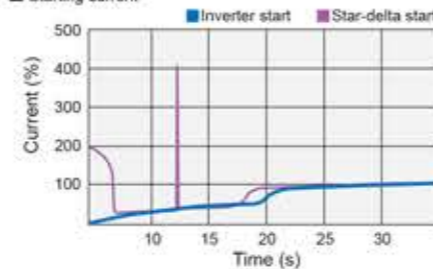
Other characteristics

High frequency reactor is a standard configuration to filter out high frequency harmonics produced by inverter. Forced cooling on inverter prevents trip at high temperature in summer. Coating on electronic panel can resist dirt and moisture effectively and enduringly.

Inverter starter

Reduce starting current and torque to realize steady soft startup, as well as lower electrical devices cost.

Starting current

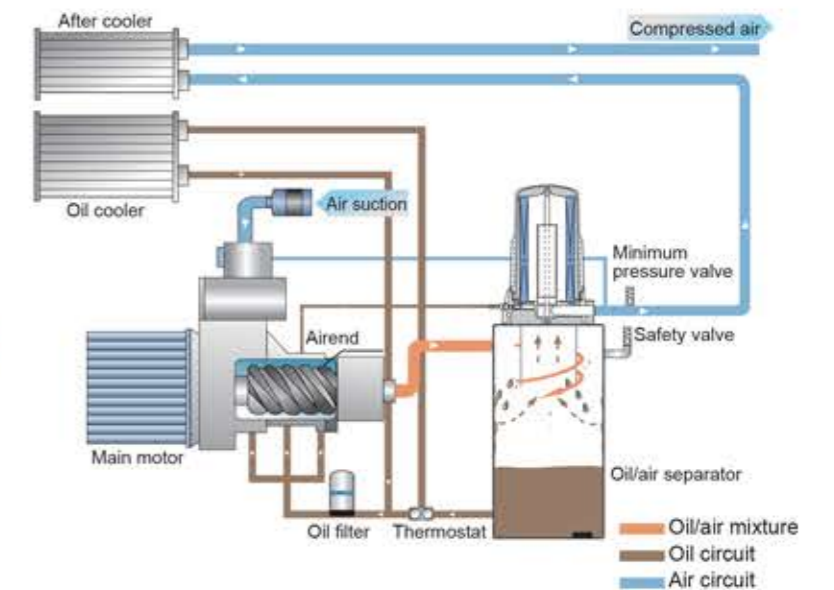


High efficient inlet/outlet systems

Cold/warm cooling air sections and professional air duct design, which consider fully of internal flow pattern and thermal pattern, ensures adaptation to high ambient temperature, as well as reducing noise. It also considers fully of temperature rises around thermal sensitive parts and controller.



Flow diagram





Elaborate design of all details



Guarantee high quality air

Supply clean air

SG series ensures air quality by adopting high efficient air inlet filter and oil filter.

Inlet air treatment

As countermeasure of dusty ambient, to adopt centrifugal separation and filter separation, to improve dust collection efficiency and reliability,



Oil treatment

Reduce remaining oil in the outlet air to less than 1.6ppm by 3 steps high efficient oil separation: centrifugal force, gravity, and filtration.

1st Step Centrifugal separation

The mixture of compressed air and oil from a screw rotates in the oil separator, oil is separated by centrifugal force.

2nd Step Gravity

The oil which is separated by centrifugal force to the inner wall flows down to the bottom by gravity.

There are several magnets at the bottom of the separator to filter out metal scraps in the air stream, in order not to scratch the separating element.

3rd Step Filtration

Adopt big separating elements to suit its flow capacity.

The cylindrical separating element is mainly composed of fiber, to filter out the remaining oil mist.



High efficient oil filter

Adopt big oil filter with high separating efficiency to ensure clean oil, as well as prolong oil and related parts' service life.



High efficient coolers

Oil coolers and after cooler are separated to not only improve efficiency, but also avoid damaging coolers due to different temperatures, so as to prolong their lifetime.



No condensate accumulation

No condensate appears due to thermostat, needn't remove condensate.

Kobelco Tough Grease

Adopt Kobelco's patented TOUGH grease to improve motor efficiency by 2%, as well as ensure more stable running because of its long service interval and high temperature endurance.

※ Only 55-75kW



Oil

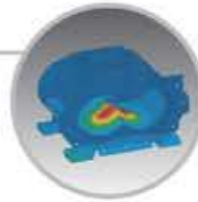
Newly developed high performance synthetic oil (Extra oil). RBOT test time can be up to 5 times longer than ordinary air screw compressor service time, with sludge volume less than 1/10.



Low noise

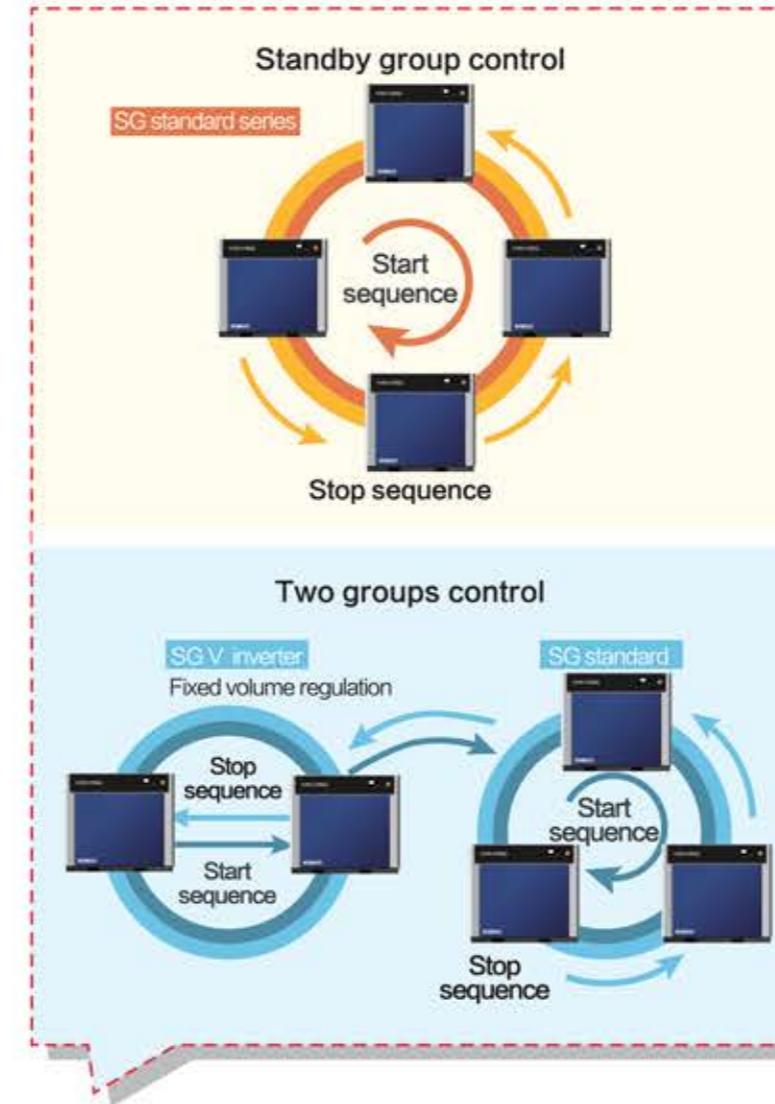
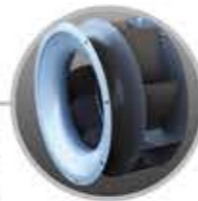
Adopt advanced new FEM analysis, new designed structure, Optimized muffle material, etc. to achieve super low running noise.

Consider fully of sound pressure/sound tone/sound volume by adding insulation boards and air duct etc, to reduce noise which is the lowest in its category.



Centrifugal fan

The low speed centrifugal fan produces a large amount of cooling air with high efficiency and very low energy consumption.



Group control (Optional)

By installing a Kobelco proprietary communication module of RS485, there are up to 8 air compressors that can be group controlled.

For standby group control, the standby compressors will startup one after another if the compressed air is insufficient after the first compressor starts.

For two groups' control, we can put fixed speed units and inverter units at two different groups respectively, to achieve more ideal energy saving effect.

Intelligent control system

IP65 protection, LCD high resolution display with background light.

Automatic operation with abundant icon display. Several communication ways can be chosen.

Qualified by IEC61000 EMC test, certified by UL, CE.



Standard functions

It can self-diagnose, display data, caution, and emergency stop the machine, etc. It protects components such as motor, fan, etc in the air compressor.

Daily management handling is very easy, such as operation mode setting, pressure setting, language setting, as well as screen display, etc.

It displays abundant informations about air compressor's operation and maintenance, let operator know its operation status timely.

Running log can be read. It can record up to 50 latest mal-function events.

It can switch language setting between Chinese and English.

It can be reset automatically.

Powerful communication function(Optional)

By installing a Kobelco proprietary communication module of RS485, controller can set communication protocol of RS485 by software, or select MODBUS as a means of communication between master and slave compressors, or connect with other same configured controllers as a network for ISC control. Customer can remotely control the air compressor by the I/O interfaces on the controller.

Specifications

Provide a full range of services

SG V INVERTER SERIES

Model	Max. pressure (MPa)	Flow capacity(m ³ /min)				Motor power (kW)	Outlet Connection	Noise dB(A)	Dimensions(mm)			Weight (kg)
		0.55MPa	0.7 MPa	0.8 MPa	1.0MPa				W	D	H	
SG22AV-H	0.85	4.1	3.7	3.4	-	22	R ₁	58	1,500	880	1,350	730
SG37AV-H		7.3	6.7	6.3	-	37	R ₁ 1/2	65	1,740	970	1,550	940
SG55AV-H		10.5	10.0	9.5	-	55	R ₂	66	2,050	1,280	1,750	1,680
SG75AV-H		14.6	13.5	12.7	-	75	R ₂	67	2,050	1,280	1,750	2,240
SG90AV-H		17.2	16.2	15.4	-	90	R ₂	69	2,050	1,280	1,750	2,420
SG22AV-GH	1.05	3.4	3.4	3.4	2.9	22	R ₁	58	1,500	880	1,350	730
SG37AV-GH		6.3	6.3	6.3	5.5	37	R ₁ 1/2	65	1,740	970	1,550	940
SG55AV-GH		9.5	9.5	9.5	8.6	55	R ₂	66	2,050	1,280	1,750	1,680
SG75AV-GH		12.7	12.7	12.7	11.1	75	R ₂	67	2,050	1,280	1,750	2,240
SG90AV-GH		15.4	15.4	15.4	13.9	90	R ₂	69	2,050	1,280	1,750	2,420

SG SERIES

Model	Max. pressure (MPa)	Flow capacity (m ³ /min)	Motor power (kW)	Outlet Connection	Noise dB(A)	Dimensions(mm)			Weight (kg)
						W	D	H	
SG15A	0.75	2.5	15	R ₁	57	1,500	880	1,350	640
SG22A		3.7	22	R ₁	58	1,500	880	1,350	700
SG30A		5.4	30	R ₁ 1/2	61	1,740	970	1,550	840
SG37A		6.7	37	R ₁ 1/2	65	1,740	970	1,550	890
SG45A		8.1	45	R ₁ 1/2	65	1,740	970	1,550	1,070
SG55A		10.0	55	R ₂	66	2,050	1,280	1,750	1,640
SG75A		13.5	75	R ₂	67	2,050	1,280	1,750	2,190
SG90A		16.2	90	R ₂	69	2,050	1,280	1,750	2,350
SG15A-H		0.85	2.25	15	R ₁	57	1,500	880	1,350
SG22A-H	3.4		22	R ₁	58	1,500	880	1,350	700
SG30A-H	4.9		30	R ₁ 1/2	61	1,740	970	1,550	840
SG37A-H	6.3		37	R ₁ 1/2	65	1,740	970	1,550	890
SG45A-H	7.6		45	R ₁ 1/2	65	1,740	970	1,550	1,070
SG55A-H	9.5		55	R ₂	66	2,050	1,280	1,750	1,640
SG75A-H	12.7		75	R ₂	67	2,050	1,280	1,750	2,190
SG90A-H	15.4		90	R ₂	69	2,050	1,280	1,750	2,350
SG15A-GH	1.05		1.86	15	R ₁	57	1,500	880	1,350
SG22A-GH		2.9	22	R ₁	58	1,500	880	1,350	700
SG30A-GH		4.3	30	R ₁ 1/2	61	1,740	970	1,550	840
SG37A-GH		5.5	37	R ₁ 1/2	65	1,740	970	1,550	890
SG45A-GH		6.6	45	R ₁ 1/2	65	1,740	970	1,550	1,070
SG55A-GH		8.6	55	R ₂	66	2,050	1,280	1,750	1,640
SG75A-GH		11.1	75	R ₂	67	2,050	1,280	1,750	2,190
SG90A-GH		13.9	90	R ₂	69	2,050	1,280	1,750	2,350

※For details please refer to "Specification Manual".

Model name explanation

SG 37 A V- H

Series	Motor output	Cooling method	Starting system	Pressure
SG	15~90kW	A: Air cooled	Nil; Star-delta V: Inverter	Nil; 0.75MPa H: 0.85MPa GH: 1.05MPa

- Notes:
- Power supply: 380,415V/50Hz/3ph/3wire
- Flow capacity: Value converted to inlet conditions
- Air inlet conditions: 1 bar, 20°C, 0%

KOBELCO NET WORK

Kobelco has set up a sales/service network around the world to meet customers' requirement more perfectly. It can provide various services from daily technique support to technology proposals.

Our sales and service staff carefully listen to customers' opinions, and transfer them to technology departments to guide development of Kobelco's compressors. We will ceaselessly strive to provide customers with the most suitable and the highest quality compressors.

