Heart to Heart

our way of saying that we view things from our customer's perspective. Through this market-oriented approach to doing business, we want to contribute to society.
KOBE STEEL GROUP Overseas Base

KOBE STEEL GROUP

About KOBELOCO

KOBELOCO 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.

KOBELOCO COMPRESSORS DEVELOPMENT HISTORY

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

Kobelco factory is certified by ISO9001 Quality management, and ISO14001 Environmental Management.
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 Air end from Japan**
  - Energy saving
  - Adapt to harsh ambient temperature
  - Reliability

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

- **Optimized controller**
  - Easy to operate
  - Reliability

Function-rich controller facilitates operation and saves time. There is an option for group coordination of up to 5 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.

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.

- **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.

- **The highest flow capacity**
  - It adopts big diameter screw airend to offer the highest capacity in the world.
  - SG 5V inverter models adopt wide range control to discharge big air capacity when pressure is low.

- **High reliability**
  - High efficient in/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!

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

■ 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 ±0.01 MPa, supply necessary flow capacity by optimized power.

■ Energy saving characteristics

■ Capacity regulation

■ Adopt increase capacity range control in low pressure

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

■ 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.

■ Unload regulation reduces energy consumption

SG series adopt unload/load mode which has better energy consumptions 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.

■ Inverter starter

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

■ Flow diagram

- Compressed air
- Air suction
- Minimum pressure valve
- Oil cooler
- Oiler separator
- Oil filter
- Thermostat
- Oil mixture
- Oil circuit
- Air circuit

■ 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.
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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 a 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 1.6 ppm by 3 steps high efficient oil separation: centrifugal force, gravity, and filtration.

Centrifugal separation

- The mixture of compressed air and oil from ambient 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 prolonging oil and related parts service life.

- High efficient coolers
  Oil cooler 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.
  (Oily to 307650)

- Oil
  Newly developed high performance synthetic oil (Extra oil), RBO1 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 muffler 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.

Standby group control

Two groups control

Group control (Optional)

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 malfunction 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 BOC control. Customer can remotely control the air compressor by the I/O interfaces on the controller.
## Specifications

### SG V INVERTER SERIES

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<th>Model</th>
<th>Max. pressure (MPa)</th>
<th>Flow capacity (l/min)</th>
<th>Motor power (kW)</th>
<th>Connection</th>
<th>Dimensions (dB(A))</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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### MODEL NAME EXPLANATION

- **SG** 37 A V— H
  - **Series** Motor output Cooling method Starting system Pressure
  - **Motor output:** 15~75kW
  - **Cooling method:** Air cooled
  - **Starting system:** Inverter
  - **Pressure:** 0.75MPa, 0.85MPa, 1.05MPa

### KOBELOCO 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.

Note:
- Power supply: 380V/415V/50/60Hz/3ph/3wire
- Flow capacity: Value converted to inlet conditions
- Air inlet conditions: 1 bar, 20°C, 0%