

SCREW, RECIPROCATING AND CENTRIFUGAL COMPRESSORS

FOR EVERY APPLICATION AND LOCATION

SCREW

RECIPROCATING

CENTRIFUGAL

CUSTOM-ENGINEERED COMPRESSION SOLUTIONS FOR EVERY APPLICATION AND LOCATION

Kobelco Compressors America, Inc. (Kobelco) began manufacturing compressors in 1915 and today is a global leader in compressor technology, engineering, and innovation.

Kobelco designs, manufactures, and packages compressors for virtually any process gas application. We pride ourselves on producing superior compressors that reduce installation costs for the enduser, run efficiently, and protect the environment.



With more than 100,000 sq. ft. of production space, the factory can handle skid tested and mounted systems of any weight or size.

Kobelco understands the design philosophy of the entire compressor package, ensuring its compressor packages are designed and built as an integral system. This is one of the most important considerations for a well-planned, well-executed, and completely successful compressor project.

Kobelco offers three major types of gas compressors: rotary screw, reciprocating, and centrifugal. Each system is custom-engineered for optimum performance and outstanding return on investment.

After selecting the best possible Kobelco compressor solution for any application, we perform all necessary engineering and manufacturing in-house at our facility in Corona, California.

Kobelco takes full responsibility for the entire compressor package, from proposal through project execution, including start-up and after-sales service. After installation, Kobelco fully supports each unit in the field. Customers benefit from ongoing support through our worldwide manufacturing, sales, and service facilities, as well as by the accumulated knowledge of an organization that has remained at the forefront of the industry for nearly a century.



More than 100,000 sq. ft of Production Facility



Certifications

- ISO 9001
- ASME "U" Stamp
- NBBI "R" Stamp
- SELO Certification
- KOSHA Certification



Testing

To ensure that all compressor packages that leave our facility are top-notch, Kobelco performs standard tests and at the customer's request we can perform more detailed compressor tests.

To accurately predict performance, Kobelco has programmed more than 90 years of research and experience in the compression field into our testing procedures. Complete calculations are prepared for such items as inertia balance, torsional vibration, crosshead pin loads, and many other items. These calculations provide a prediction of the compressors performance under actual operating conditions. All compressors undergo a mechanical running test before leaving our Takasago facility, where we have multiple test benches. We also have a new, state of the art, 20MW test bench capable of handling even the largest compressors.

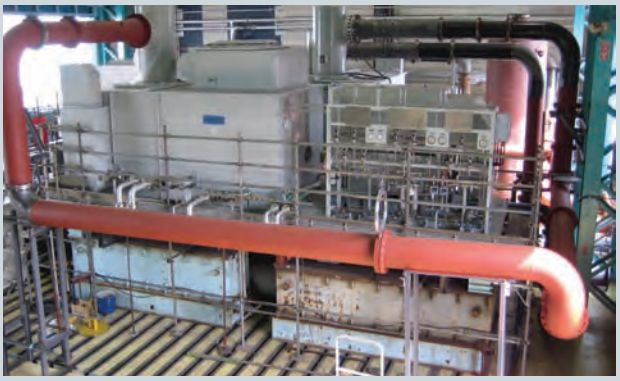


The 20MW inverter motor unit installed in our Takasago facility is one of the largest compressor drivers in the world



20MW Test Facility Capacity

Building area (including electric room)	2,707m2
Capability of crane	140T/60Tx2, 60T/30Tx1, 30T/10Tx2
Drive facility for compressor test	20MW Inverter motor system
Drive facility for string test	5MW inverter power supply unit
Closed loop test facility	High pressure (4MPa), 3 loop line with 3 gas coolers
Correspondence to test Spec	JIS/API/ASME-PTC etc.



String Test of
Kobelco Oil-Free Screw Compressor

Kobelco also performs pneumatic and hydrostatic tests on all applicable equipment prior to shipment. We can also perform string tests, which allow us to ensure that your compressor package will perform optimally in the field. This is especially important when the compressor package is being used offshore or in hard to access locations.

After Sales Service

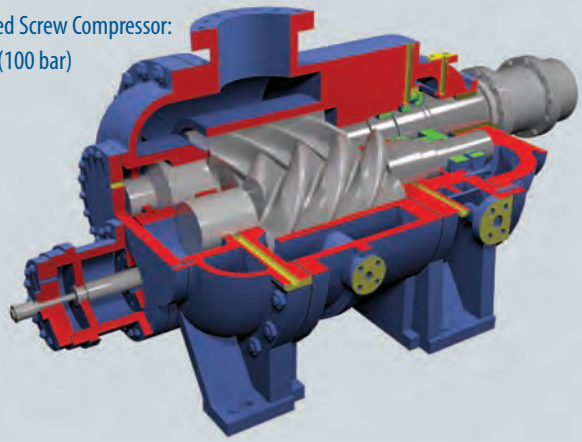
Kobelco's aftersales department has a dedicated team of engineers that support customers globally with consultation and troubleshooting throughout the operating life of the equipment. Kobelco has service centers located in Corona, Houston, Japan, and Brazil, ideal for compressor overhaul and repair, no matter where the equipment is located. A complete line of original equipment manufactured (OEM) parts are also available to ensure optimum continued performance of all Kobelco compressors. Spare parts are held in stock for emergency purposes to support customers with quick repairs to shorten unscheduled outages. Field service supervisors can be quickly dispatched worldwide to support customers and help them maintain their compressor systems' maximum operating performance and reliability.

Kobelco strives to lower the total cost of ownership while maximizing reliability and availability of its customers' equipment. The results are optimum performance and lowest overall cost of ownership.



SCREW GAS COMPRESSORS

Kobelco offers oil-free and oil-injected screw gas compressors, both compliant with API 619 standards. Kobelco screw compressors can compress a variety of gas with the widest pressure and capacity ranges available from any screw compressor manufacturer.



Oil-Injected Screw Compressor:
1,500 psi (100 bar)

Oil-Injected Screw Compressors

Oil-injected screw gas compressors have no compression ratio limit and a wide, stepless turndown capability (from 100% to 20%) for superior savings on power and money. Kobelco's oil-injected screw compressors have the world's highest pressure capability, up to 1,500 psi (100 bar). Oil-injected screws are best suited for dealing with low molecular weight gases, high compression ratios, and for services with fluctuating suction pressure and operating load conditions, such as hydrogen, helium, ethylene, propylene, and fuel gas boosting applications. Kobelco pioneered the tandem oil-injected screw compressor. This innovative compressor has two sets of screws connected by a coupling in one casing. This allows for high-pressure ratios, a smaller foot print, and less auxiliary equipment.

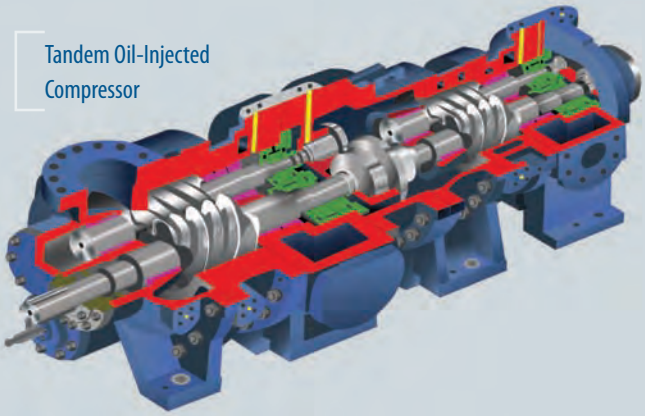


KS5039MEH Tandem Compressor
for Hydrogen Service



Fuel Gas Boosting Compressor:
1,000 psi (69 bar)

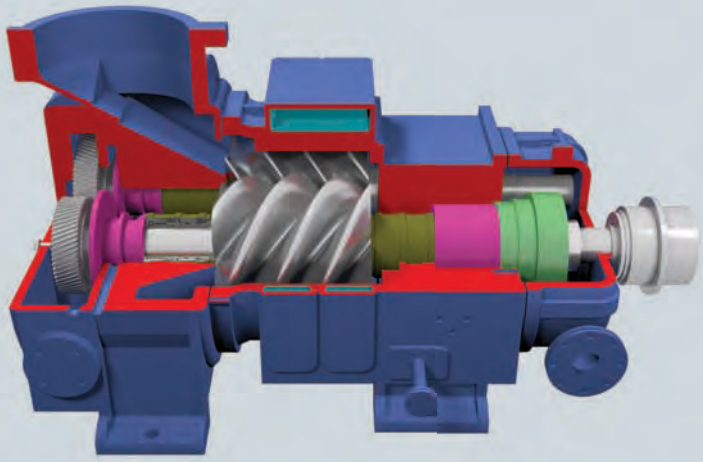
Tandem Oil-Injected
Compressor





LNG BOG
Compressor

Oil-Free Screw Compressor:
84,000 cfm (142,000 m³/h)



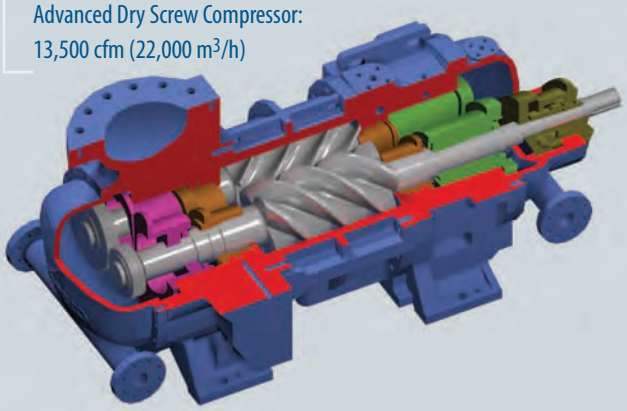


KS80 Oil-Free Screw
Compressor

Oil-Free Screw Compressors

Oil-free screw gas compressors meet the challenges of difficult gas services, including: offshore vapor recovery, refinery flare gas recovery, and petrochemical polymer forming gases. Kobelco has the most cutting edge oil-free screw gas compressor technology and the world's largest capacity: up to 84,000 cfm (142,000 m³/hr).

Advanced Dry Screw Compressor:
13,500 cfm (22,000 m³/h)

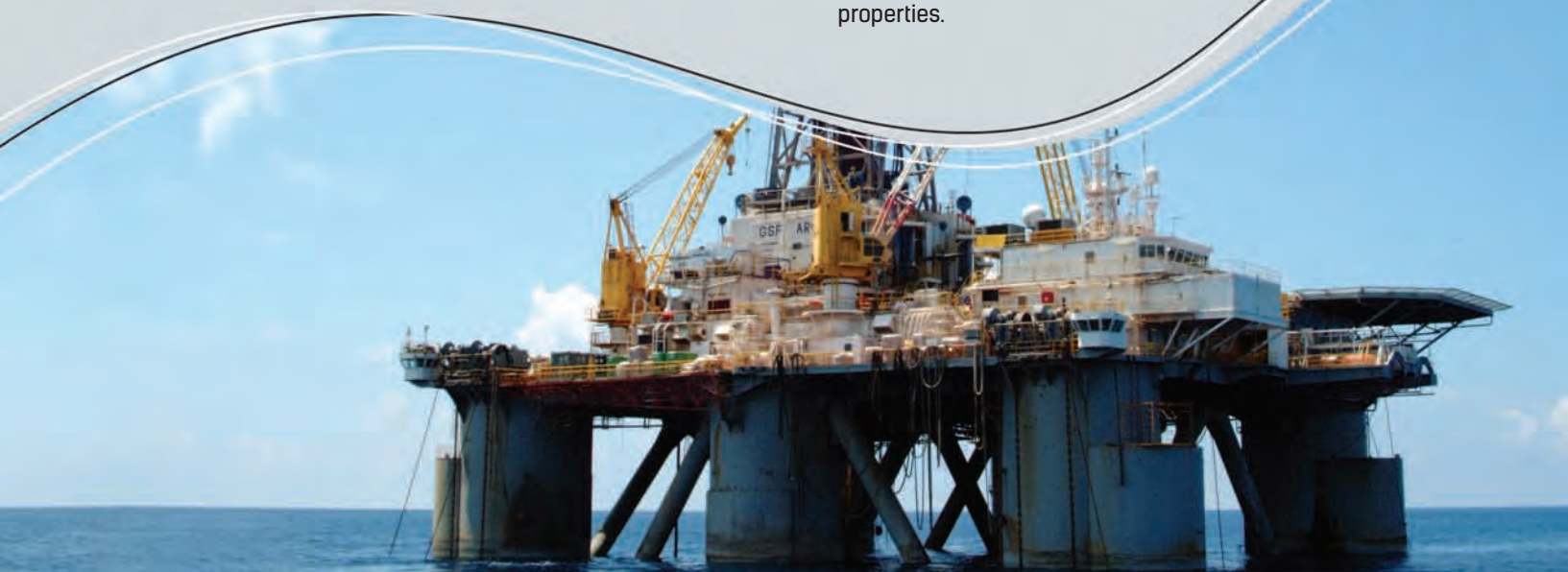




Advanced Dry Screw for Flare
Gas Recovery in Refinery

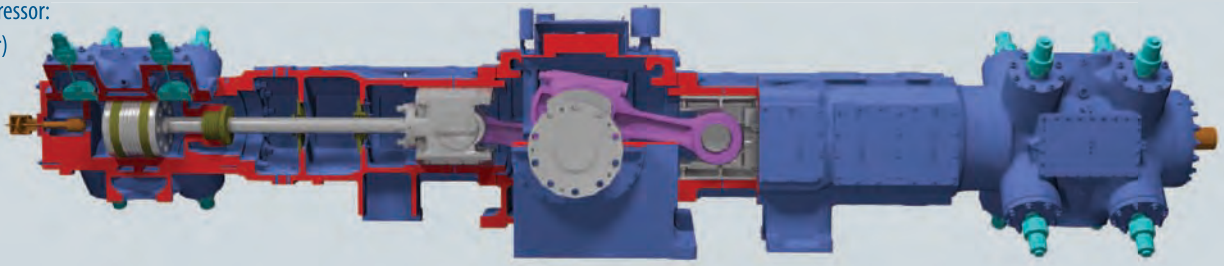
Advanced Dry Screw Compressors

Kobelco saw a need to create an advanced dry screw gas compressor, contributing to the protection of our environment by recovering harmful gases once flared to the atmosphere. This compressor takes the best of the oil-free and oil-injected compressors, to make a dry screw compressor a low cost solution, compact and capable of handling gases with a changing molecular weight or corrosive properties.



RECIPROCATING GAS COMPRESSORS

Reciprocating Compressor:
15,000 psi (1000 bar)



Reciprocating gas compressors have the highest efficiency and are suitable for high-pressure services and ultra-low temperature applications because they are positive displacement compressors. They are built to API 618 standards and are commonly used in refinery and power applications. Kobelco has been providing reciprocating compressors since 1915, with thousands of reciprocating compressors installed around the world. We offer reciprocating gas compressors with an ultra-high-pressure capability of up to 15,000 psi (1,000 bar).

Kobelco can provide both lubed and non-lubed reciprocating compressors. Typically, lubed compressors are used in refineries while non-lubed compressors are commonly used in ultra-low temperature environments, like LNG BOG applications, and petrochemical applications.

Kobelco reciprocating compressors serve in a wide variety of heavy industry applications and are well suited for processes including: fuel gas boosting, PSA, and hydrogen and ethylene compression. Kobelco also has extensive worldwide experience with cryogenic gases such as LNG BOG and ethylene BOG, reaching temperatures as low as -260 °F (-160 °C).



Largest Reciprocating
Compressor (KR70)



LNG BOG Receiving Terminal
-183 °F (-119 °C)

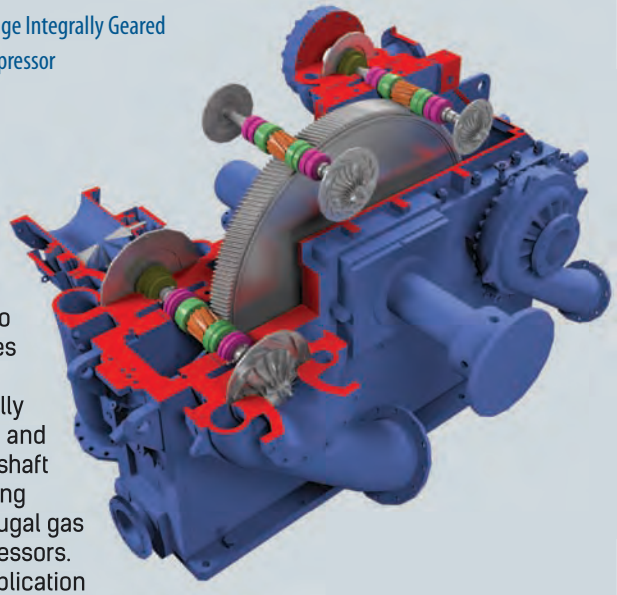
Kobelco's multiple capacity control methods for reciprocating compressors provide maximum efficiency and a range of options. We offer a variety of capacity control methods, including: a fixed volume pocket, suction valve unloaders, bypass controls, a remote control variable clearance pocket, or hydraulic stepless controls. All of these options are available either alone or in conjunction with each other.

Kobelco is also at the forefront of fuel cell vehicle applications, which require pressures of 70 MPa. Kobelco easily reaches this pressure and has already installed hydrogen compressors at multiple hydrogen fueling stations in Japan.

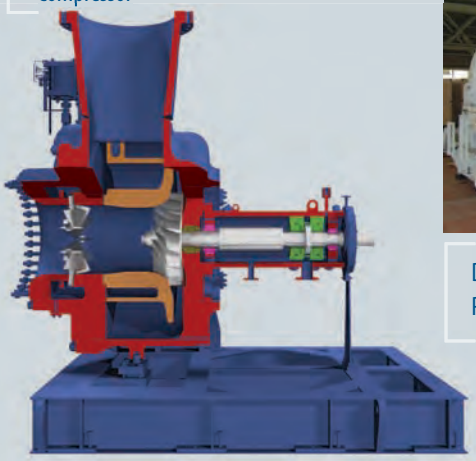


CENTRIFUGAL GAS COMPRESSORS

8 Stage Integrally Geared Compressor



Single Shaft Overhung Compressor





DH Compressor for PP/PE Process

Kobelco provides both integrally geared and single shaft overhung centrifugal gas compressors. The application range for centrifugal compressors extends up to 1,450 psi (100 bar) and 235,000 cfm (400,000 m^3/h). Kobelco supplies compressors that meet API 617 and API 672 standards.

Centrifugal compressors are widely used for a variety of process gas and air services in refining, petrochemical, air separation, and energy services. Since 1966, Kobelco has successfully installed thousands of centrifugal compressors in a variety of applications.

Integrally Geared Centrifugal Compressors

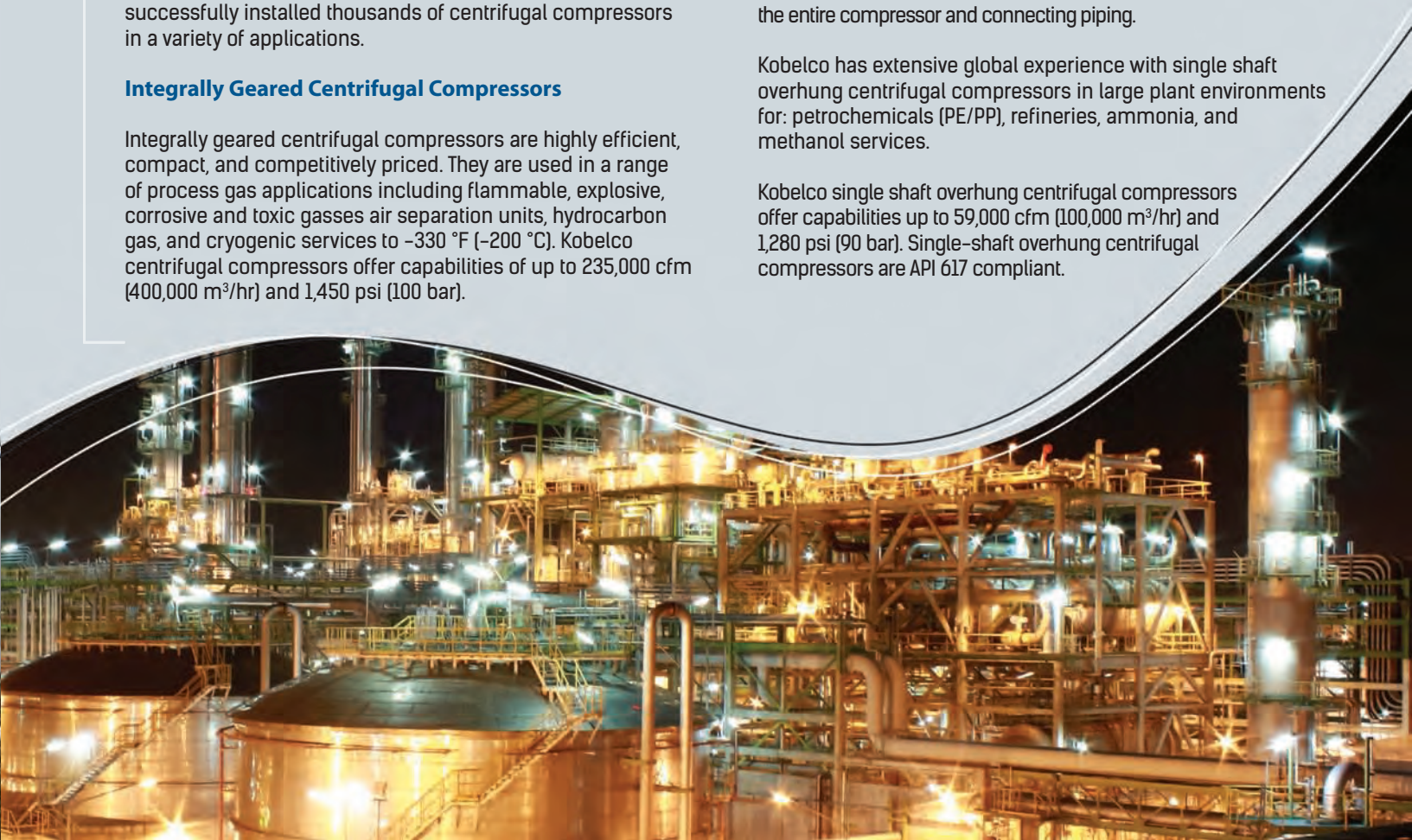
Integrally geared centrifugal compressors are highly efficient, compact, and competitively priced. They are used in a range of process gas applications including flammable, explosive, corrosive and toxic gasses air separation units, hydrocarbon gas, and cryogenic services to -330 °F (-200 °C). Kobelco centrifugal compressors offer capabilities of up to 235,000 cfm (400,000 m^3/hr) and 1,450 psi (100 bar).

DH Model, Single Shaft Overhung Centrifugal Compressors

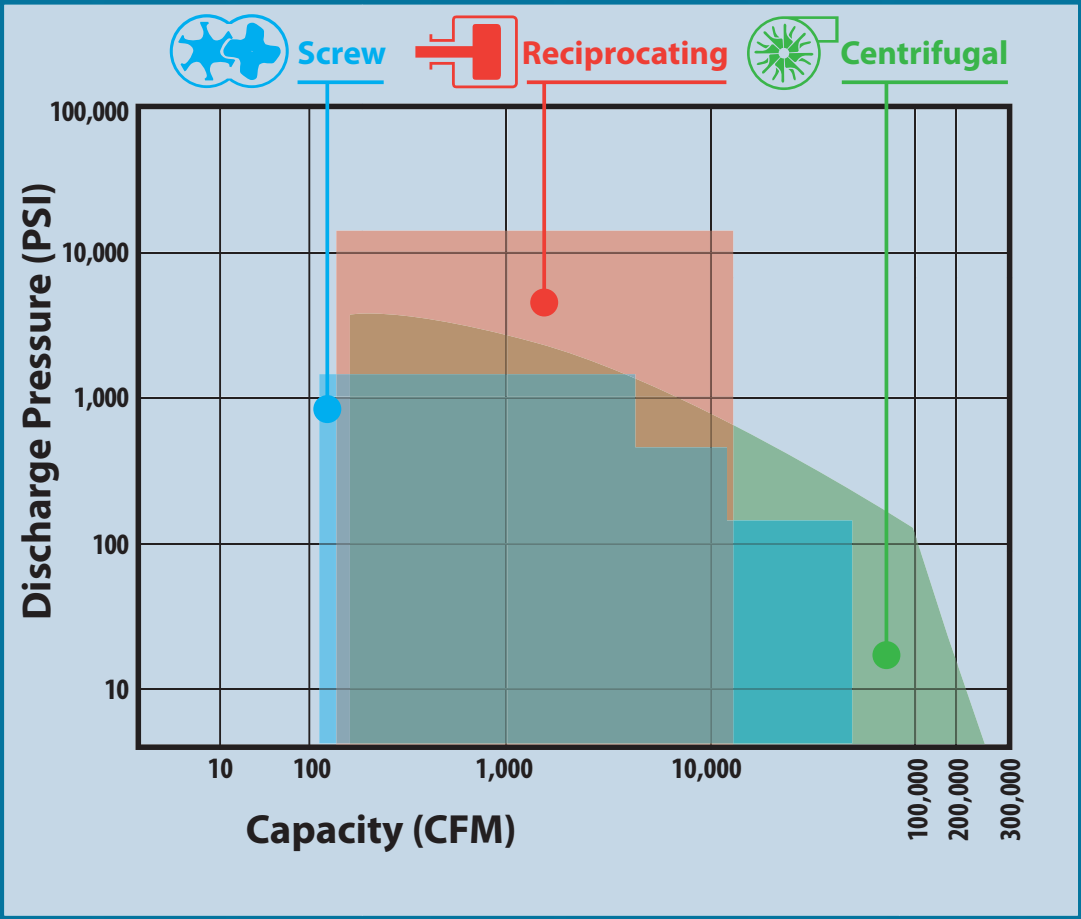
Single shaft overhung centrifugal compressors are industry proven. The DH model offers high pressure output, an open-faced impeller, and the ability to handle large capacities. The open-impeller design eliminates powder build-up and the easy open back-end design allows for convenient maintenance without the need to disassemble the entire compressor and connecting piping.

Kobelco has extensive global experience with single shaft overhung centrifugal compressors in large plant environments for: petrochemicals (PE/PP), refineries, ammonia, and methanol services.

Kobelco single shaft overhung centrifugal compressors offer capabilities up to 59,000 cfm (100,000 m^3/hr) and 1,280 psi (90 bar). Single-shaft overhung centrifugal compressors are API 617 compliant.



KOBELCO COMPRESSOR RANGE



OFFICES

Kobelco Compressors America, Inc.,
Headquarters:
1450 W. Rincon Street
Corona, CA 92880
Phone: 951-739-3030

Kobelco Compressors America, Inc.,
Sales Office:
1415 Louisiana St., Suite 4111
Houston, TX 77002
Phone: 713-655-0015
Email: sales@kobelco-kca.com
Website: www.kobelcocompressors.com

SALES OFFICES WORLDWIDE

Tokyo, Japan
9-12, Kita-shinagawa 5-chome
Shinagawa-ku, Tokyo, 141-688 Japan
Phone: +81-3-5739-6771
Fax: +81-3-5739-6991

Munich, Germany
Luitpoldstrasse 3
80335 Munich, Germany
Phone: +49-89-543-4478-0
Fax: +49-89-543-4478-69

Dubai, UAE
Dubai Airport Free Zone
Office No. 6EA-123
P.O. Box 54657, Dubai, U.A.E
Phone: +971-4-238-4009
Fax: +971-4-238-4011

Wuxi, China
Hongshan Mechanics & Optics Electronics Industrial Park of
New District of Wuxi, People's Republic of China
Phone: +86-510-8502-4889 ext 98849

Jurong, Singapore
60 Pandan Road
Jurong, Singapore 609294, Republic of Singapore
Phone: +65-6261-5807
Fax: + 65-6261-3719

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