

Linea de Compresores Kobelco

FRIMONT

Equipos y Sistemas Frigoríficos

Kobe Steel, Ltd. was the first in Japan in manufacturing the high pressure reciprocating compressors. Since that time, Kobe Steel has been doing its best to satisfy demands for higher quality compressors with larger capacities and wider applications for the industrial world. Kobe Steel today has an extensive line of various kinds of compressor. The expansion of this compressor line together with 100,000 manufactured units shows that Kobe Steel today is responding to all client's requirements while being ready to challenge increasing demands of tomorrow's industry.

Main Events in Compressor Development

| | |
|---|------|
| First to manufacture high pressure reciprocating compressors by our own design. | 1915 |
| Manufacture of screw compressors under license from Svenska Rotor Maskiner Aktiebolag, Sweden. | 1955 |
| First to succeed in manufacturing oil-free screw gas compressors in Japan. | 1956 |
| Manufacture of oil-flooded screw air compressors. Manufacture of reciprocating compressors and gas engines under license from Cooper Energy Services, U.S.A. | 1961 |
| First to succeed in manufacturing oil-flooded screw refrigeration compressors in Japan. | 1963 |
| Manufacture of centrifugal compressors. | 1966 |
| Manufacture of heat pumps with screw compressors. | 1971 |
| First to succeed in manufacturing oil-flooded screw coke oven gas compressor in the world. | 1974 |
| Manufacture of packaged type centrifugal compressor VGP and VG7 series. | 1975 |
| Manufacture of oil-free screw compressors equipped with roller bearings. | 1976 |
| Manufacture of the world largest rotary lobe blowers by our own design. | 1977 |
| Development of super rotor profile providing remarkable performance improvement for oil-free and oil-flooded screw compressors. | 1983 |

COMPRESSORS

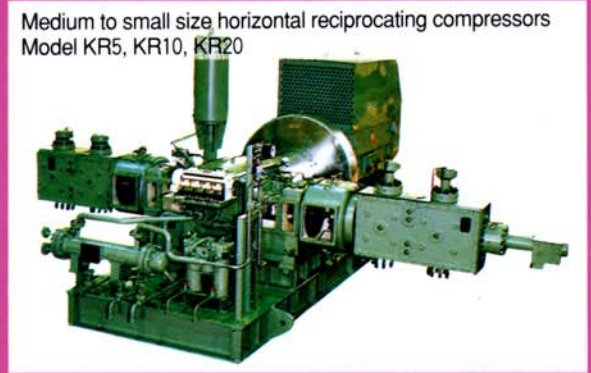


Reciprocating Compressors



Applications
Large size compressors for various gas compression fields such as oil refinery plants, petrochemical and chemical plants, and energy industries such as LNG BOG.

Available Range
Up to 17,000 kW



Applications
Medium to small size compressors for various services such as petrochemical and chemical plants, and utility compressions. High speed compressors for oil and natural gas field services, and compressors for cryogenic industries are also available.

Available Range
Up to 1,600 kW

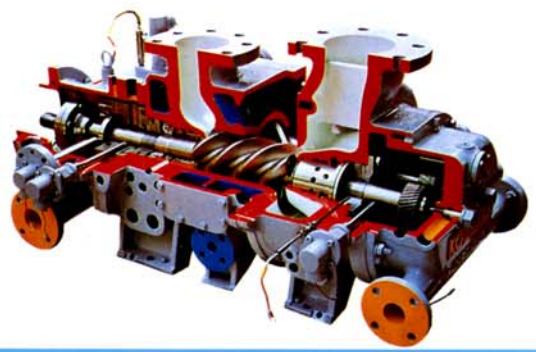


Applications
Vertical type compressors, suitable for restricted installation area. Used for various applications such as hydrogen filling, chemical plants, utility compressions.

Available Range
Up to 650 kW



Screw Compressors



Packaged screw compressor
Model KS-B, BT, AL, KST



Applications

Complete compact packaged air compressors. Two series, oil-free type and oil-flooded type are available and used for various applications of air and nitrogen.

Available Range

Oil-free type / Capacity ranging 300~6,800m³/h and discharge pressure 1~10.5kgf/cm²G
Oil-flooded type / Capacity ranging 26~6,360m³/h and discharge pressure 5.5~8.5kgf/cm²G

Screw refrigeration compressors
Model KS-LX, SX, NB, TX, LTX, LG, LTG



Applications

All refrigeration and air conditioning services such as cold stores, freezing units for fishing boats, water chillers, brine coolers, chemical process cooling, dehumidifying system and heat pump systems, etc.

Available Range

Refrigeration capacity: 10,000~10,000,000kcal/h
Evaporating temperature: -75~+10°C
Refrigerants: Fron (HCFC, HFC), NH₃, Propane, Propylene, etc.

Oil-flooded screw gas compressors
Model KS-LV, TV, NB, XNH, EH



Applications

Medium and small size compressors, with energy saving merit. Used for various applications such as hydrogen, coke oven gas, city gas, methyl-chloride, carbon dioxide gas for food industry, helium for cryogenic systems and fuel gas for gas turbine.

Available Range

Capacity ranging 100~20,000m³/h and max. discharge pressure 60kgf/cm²G

Oil-free screw gas compressors
Model KS-LZ, SZ, EX



Applications

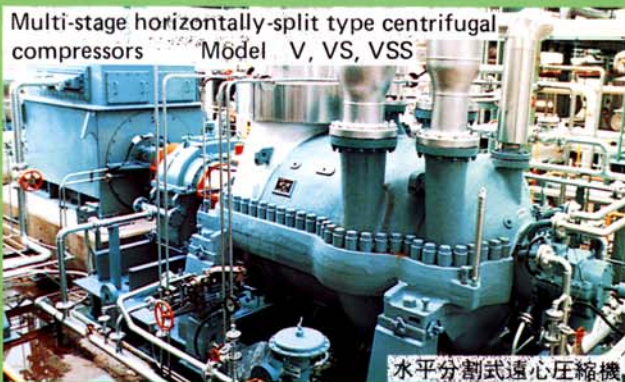
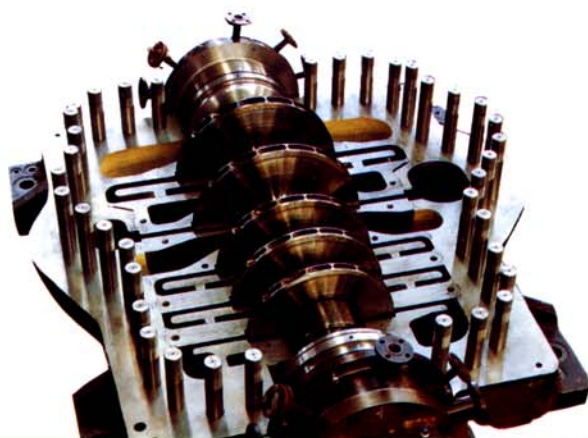
All industrial fields including petrochemical, general chemical and oil refining synthesis gas, combustion gas, oxygen, hydrogen, air, etc.
All fields which need to compress excessively dirty or polymerized gas.

Available Range

Capacity ranging 300~70,000m³/h and max. discharge pressure 30kgf/cm²G



Centrifugal Compressors



Multi-stage horizontally-split type centrifugal compressors Model V, VS, VSS

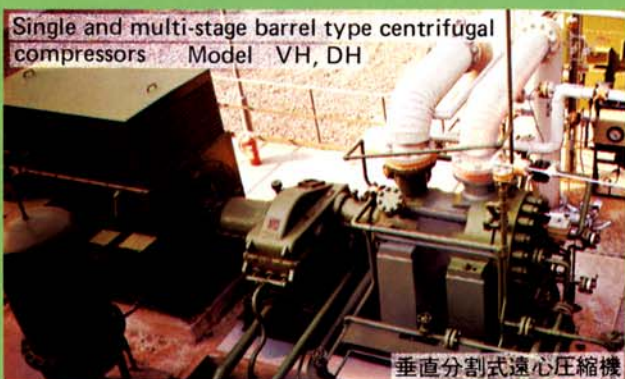
水平分割式遠心壓縮機

Applications

Various kinds of gas compressors for chemical and petrochemical industry, e.g. air, nitrogen and oxygen compressors for air separation plants, air and NH₃ compressors for ammonia plants, etc.

Available Range

Capacity ranging 750~340,000m³/h and max. discharge pressure 50kgf/cm²G



Single and multi-stage barrel type centrifugal compressors Model VH, DH

垂直分割式遠心壓縮機

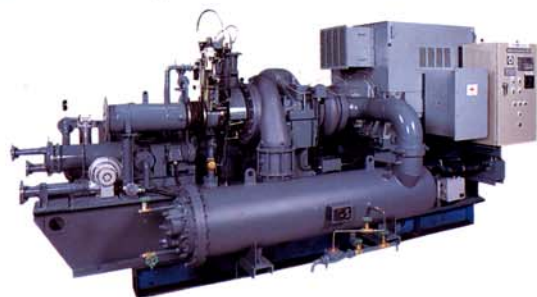
Applications

High pressure compressors for chemical and refinery plants, e.g. synthesis gas compressors for ammonia and methanol plants, recycle gas compressors for chemical and petrochemical plants, e.g. refinery, synthesis alcohol plants.

Available Range

Max. capacity 85,000m³/h and max. discharge pressure 350kgf/cm²G

Isothermal type centrifugal compressors Model VC VG, VGP



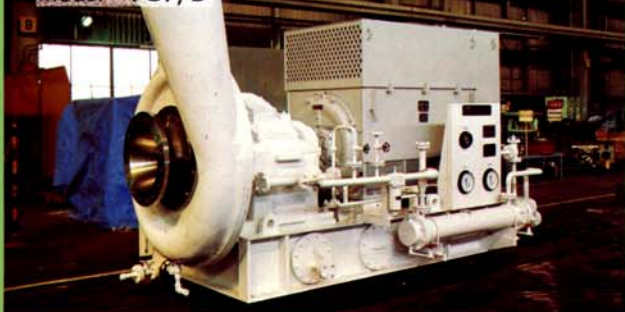
Applications

Highly efficient compressors of air, nitrogen and other gas services for air separation plants, ammonia and other chemical plants.

Available Range

Capacity ranging 2,700~400,000m³/h and max. discharge pressure 50kgf/cm²G

Single-stage scroll casing type centrifugal compressors Model VG7, D



Applications

Low compression ratio air and gas compressors for various industries, e.g. steam compressors for evaporation system.

Available Range

Capacity ranging 2,000~340,000m³/h and max. discharge pressure 30kgf/cm²G



Rotary Lobe Blowers

Rotary lobe blowers
Model KR



Applications

Blowers for dirty gas, e.g. direct reduction gas containing iron oxide. Vacuum pumps for larger capacity.

Available Range

Capacity ranging 10,000~90,000 m³/h and max. differential pressure of 1 kgf/cm² at each stage



COMPRESSORS