

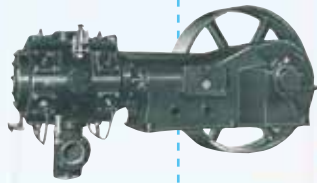
Oil Free Scroll Air Compressors

HITACHI
Inspire the Next



History of HITACHI Air Technology

1910



- 1911: 75kW Reciprocating First Compressor in Japan

1930



- 1954: Oil Free 22kW Reciprocating



- 1946: First Bebicon*1

1970



- 1967: Oil Free Bebicon*1

1980



- 1980: First DSP Series Oil Free Rotary Screw

- 1977: Smallest 5.5kW Oil Injected Rotary Screw

- 1976: Oil Injected Packaged Rotary Screw Series

- 1968: First Oil Free Rotary Screw DS series

- 1982: World's Smallest Single Stage Oil Free Rotary



- 1969: First Vortex Blower



- 1981: Vortex Blower E Series

1990

2000

2010



●1986: World's Smallest Air Cooled Oil Free Rotary

●1984: World's Smallest Single Stage Oil Free Rotary



●1985: World's First Oil Injected Scroll Bebicon*1



●1995: Oil Free Scroll SRL Series



●1992: Vortex Blower G Series



●1999: New Generation Oil Free Rotary Screw DSP Series

●2000: World's First Variable Speed Drive Oil Free Rotary



●2002: New Generation Oil Injected HISCREW2000*2Series



●2001: Package Scroll Bebicon*1



●2005: New Oil Free Scroll SRL Series



●2009: New Multi-Drive Oil Free Scroll

*1: Brand Name of Small Compressors

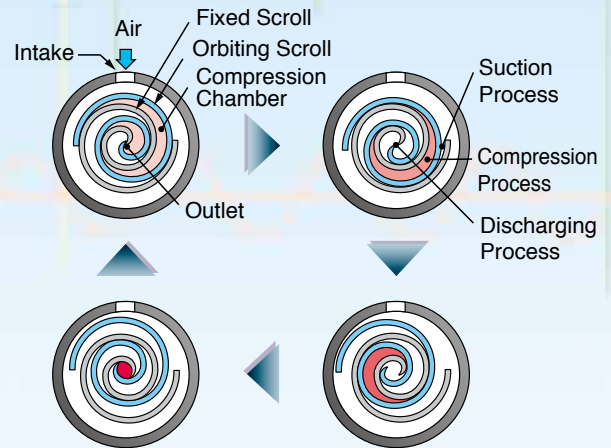
*2: Series Name of Oil Injected Rotary Screw Compressors

Establishment in 1910 as a machine repair shop, HITACHI has evolved in providing a variety of Innovative, Technologically Superior, and Value Oriented products for our customers. Founded in Harmony, Sincerity and a Pioneering Spirit, our ongoing mission is to "Contribute to Society through Technology". The Past, Present, and Future of Hitachi Air Technology Group Products represent our passion for continuing this mission.

Innovation Through Technology

Scroll Compression Principle

HITACHI's history of success and proven experience in Scroll Technologies has enabled Worldwide Innovation in building the World's First Scroll for air compression. With over 20+ years experience in scroll compression, our quest for improvement is evident in the design and our application. To initiate compression, two scroll members comprised of: 1) Orbiting scroll member and 2) Fixed scroll member are mated to create compression chambers. The continual rotary movement of the orbiting scroll member compresses air from the atmosphere creating Oil-Free and Contaminant-Free air for the discriminating compressed air application.



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Proprietary Scroll Wrap

(Patent USP 6808373)

Hitachi's patented wrap design with Labyrinth seal provides superior performance and reliability. Alumite surface treatment also contributes to extended scroll life.

High Performance Cooling

High performance air cooling system stabilizes discharge temperature.

After Cooler



Environmentally Friendly

Oil-Less Design

HITACHI Oil-Free Scroll Technology is 100% Oil-Less -NO Oil At All !

This results in a package that has zero harmful emissions into the environment.



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Low Sound and Vibration

HITACHI Oil Free Scroll Compressors are designed for Industry Leading Sound by providing:

- Full Enclosure as Standard
- Mechanical and Electrical Vibration Isolation
- Design for the Minimization of Leak Paths

Energy Efficiency

HITACHI Control Methodology

Hitachi's Microprocessor control ensures the greatest efficiency of operation.

Proprietary control logic provides package performance under a variety of conditions.

HITACHI Multi-Drive Control (applicable on 7.5 kW–16.5 kW models)

Multi-Drive control method is added to the conventional Pressure Switch Control method.

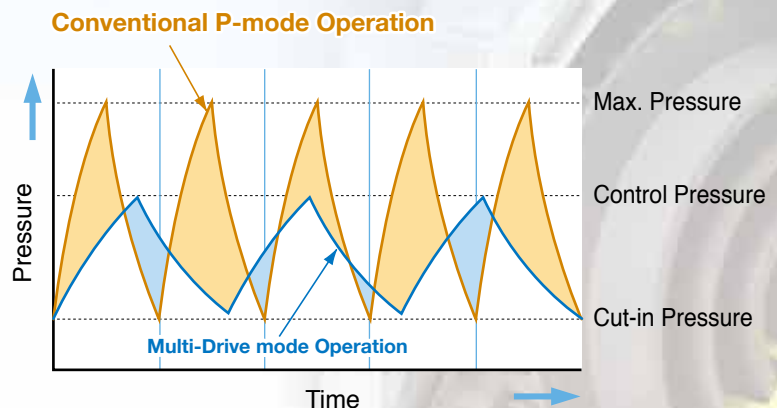
It is also possible to easily change between Multi-Drive control and Pressure Switch control by operation of switch button. Under Multi-Drive control mode, the operation of SRL heads is modified automatically responding to the need of air. So, optimized operation which can keep the necessary pressure is possible.

Multi-Drive Mode

The operation of the compressor is automatically controlled to ensure that the pressure is kept at the necessary pressure (control pressure). Unnecessary power consumption is prevented by not allowing the pressure to reach the maximum pressure. Therefore energy-saving is realized.

P-Mode

Operates the same as the conventional Pressure Switch Control method. If the pressure reaches the maximum pressure, the operation of compressor will stop. Then when the pressure decreases to the cut-in pressure, the operation of compressor will automatically restart.



HITACHI Innovative Design

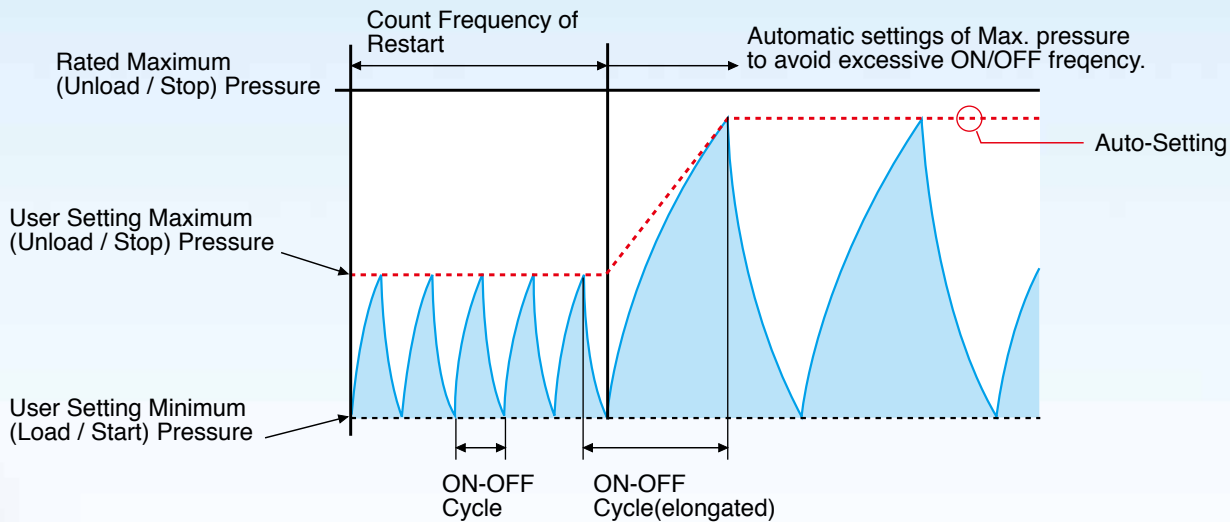
Hitachi's unique tip seal with special material provides:

- Increased Performance (Low Leakage)
- Extended Service Intervals
- High Efficiency

Versatility of Design

Cycle Control Logic

Hitachi's unique pressure control method provides high reliability. When maximum pressure is set low for energy saving, short cycle of On-Off may occur. In that case, the maximum pressure is automatically raised to elongate the On-Off cycle and ease the excessive restarting frequency.



Maintenance Friendly

HITACHI Oil Free Scroll Compressors are constructed to enable easy accessibility for inspection and maintenance. Incorporation of leading technologies allows the final product to consume less space, enabling conservation of the work environment.



HITACHI Innovative Technologies enable Reliable, Environmentally Friendly

Manufacturing Excellence

- Hitachi Compressors (since 1911)
- Hitachi Motors (since 1910)

Maintenance Friendly

- Easy Accessibility for Inspection and Maintenance
- Space Saving Structure

Industry Leading Sound

- Quiet Enclosure Standard
- Design for the Minimization of Leak Paths

Control Design

- Standard Microprocessor Control
- Cycle Control Logic protects from rapid cycling.
- Multi-Drive Control on 7.5 kW–16.5kW models



the SRL Compressor Series to provide Compressed Air at the Lowest Energy Cost.

Oil-Less Design

- Eliminates Environmental Emissions
- Conserves natural resources



High Performance Cooling

- Stabilizes Discharge Temperature

Proprietary Tip Seal and Unique Scroll Wrap

- Increased Performance (Low Leakage)
- Extended Service Intervals
- High Efficiency

Special Alumite treatment

- Extends Scroll Life
- Limits life cycle cost

Space Saving

- Unit is compact in overall dimension.
- Panel accessibility promotes space conservation.

Aftermarket Services

HITACHI factory authorized service and maintenance available.

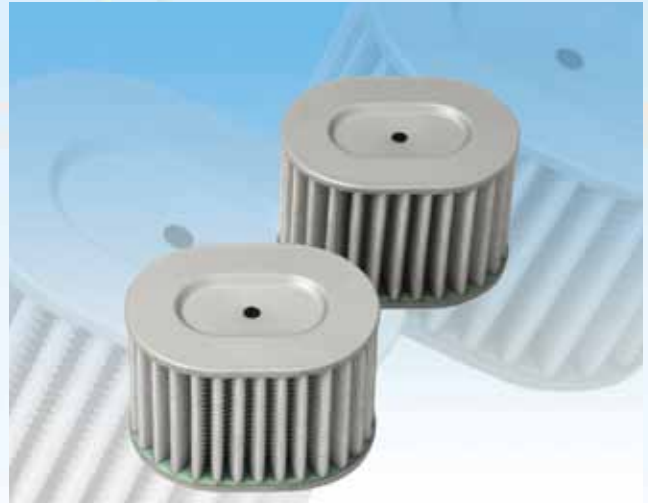
Face Seal, Back Tube

- Ensure high reliability of compression



Intake Air Filter

- Ensure high efficient filtration, and high quality of oil-free air



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V-Belt

- Easy-to-Maintain



Tip Seal

- Hitachi's unique technology to minimize air leakage



Various Applications in Industries

Pharmaceutical



Food & Beverage



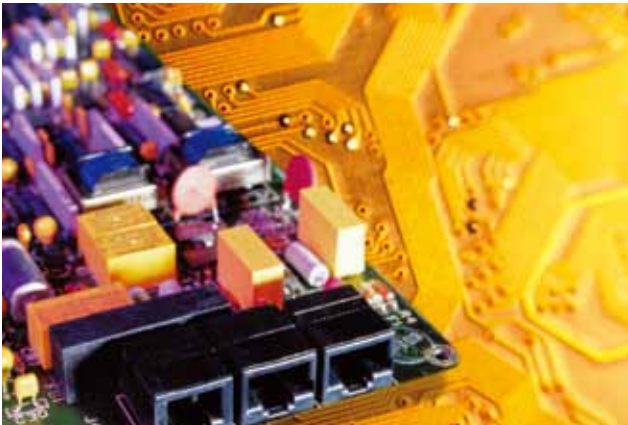
Chemical



Research and Development



Electronic



Diversified Industrial



By applying our comprehensive abilities to the development, engineering, manufacturing, sales and service we are able to supply high value-added products and solution systems which meet our **customers' needs**.

We know that we can contribute to our customers' business by creating and providing beneficial value-added solutions with our total competencies.

Safety Precautions

■ Application

- The compressor described in this catalog utilizes only air as a gas. Never use any gases other than air.
This could result in a fire hazard or damage to the equipment.
- Hitachi Compressors are not designed, intended or approved for Breathing Air Applications.
Hitachi assumes no responsibility or liability for compressors used in breathing air applications.

■ Installation

- Install these compressors indoor. Environments susceptible to moisture such as precipitation or vapors should be avoided
— this could result in fire hazard, electric shock, rusting, or shortened life of parts.
- There should be no explosives, flammable gas (acetylene, propane, etc.) , organic solvent, explosive powder, or flame used near the compressor — it may cause fire hazard.
- Avoid using the compressor at a place where there is corrosive gas such as ammonia, acid, salt sulfurous acid gas, etc.
— this could result in rusting, shortened life, or damage to the equipment.

■ Usage

- Before use, be sure to read the instruction manual thoroughly for correct use of the compressor.
- Do not modify the compressor or its components—this could result in damage or malfunction.

Specifications in this catalog are subject to change with or without notice, as Hitachi continues to develop the latest technologies and products for its customers.

 **Hitachi Industrial Equipment Systems Co., Ltd.**

Hitachi America Ltd.

www.hitachi-america.us/airtech