

# Oil Free Scroll Air Compressors

**HITACHI**  
Inspire the Next

## 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.us/airtech](http://www.hitachi.us/airtech)





















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

# History of HITACHI Air Technology

1910	1930	1950	1970	1980	1990	2000
<ul style="list-style-type: none"> <li>●1911: 75kW Reciprocating First Compressor in Japan</li> </ul> 	<ul style="list-style-type: none"> <li>●1954: Oil Free 22kW Reciprocating</li> </ul> 	<ul style="list-style-type: none"> <li>●1946: First Bebicon*1</li> <li>●1967: Oil Free Bebicon*1</li> </ul>  	<ul style="list-style-type: none"> <li>●1968: First Oil Free Rotary Screw DS series</li> <li>●1977: Smallest 5.5kW Oil Injected Rotary Screw</li> <li>●1976: Oil Injected Packaged Rotary Screw Series</li> </ul> 	<ul style="list-style-type: none"> <li>●1980: First DSP Series Oil Free Rotary Screw</li> <li>●1981: Vortex Blower E Series</li> <li>●1982: World's Smallest Single Stage Oil Free Rotary</li> <li>●1969: First Vortex Blower</li> </ul>   	<ul style="list-style-type: none"> <li>●1984: World's Smallest Single Stage Oil Free Rotary</li> <li>●1985: World's First Oil Injected Scroll Bebicon*1</li> <li>●1992: Vortex Blower G Series</li> </ul>   	<ul style="list-style-type: none"> <li>●1986: World's Smallest Air Cooled Oil Free Rotary</li> <li>●1995: Oil Free Scroll SRL Series</li> <li>●2001: Package Scroll Bebicon*1</li> <li>●1999: New Generation Oil Free Rotary Screw DSP Series</li> <li>●2000: World's First Variable Speed Drive Oil Free Rotary</li> <li>●2002: New Generation Oil Injected HISCREW2000*2 Series</li> <li>●2005: New Oil Free Scroll SRL Series</li> </ul>       

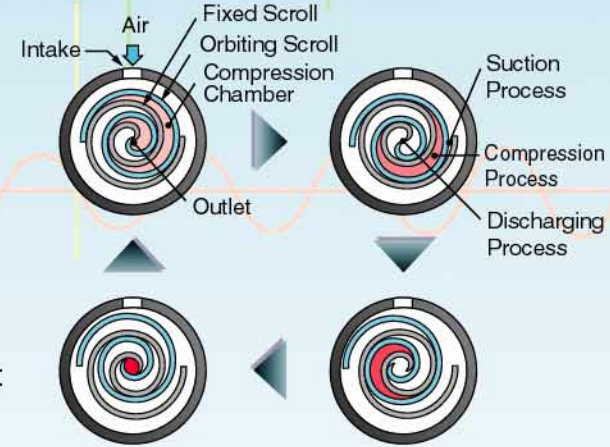
\*1: Brand Name of Small Compressors  
\*2: Series Name of Oil Injected Rotary Screw Compressors

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.



## 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.

## Multi-stage Cooling

Usage of primary and secondary air cooling stabilizes discharge temperature.



# 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.



## 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 Innovative Design

Hitachi's unique tip seal with special material provides:

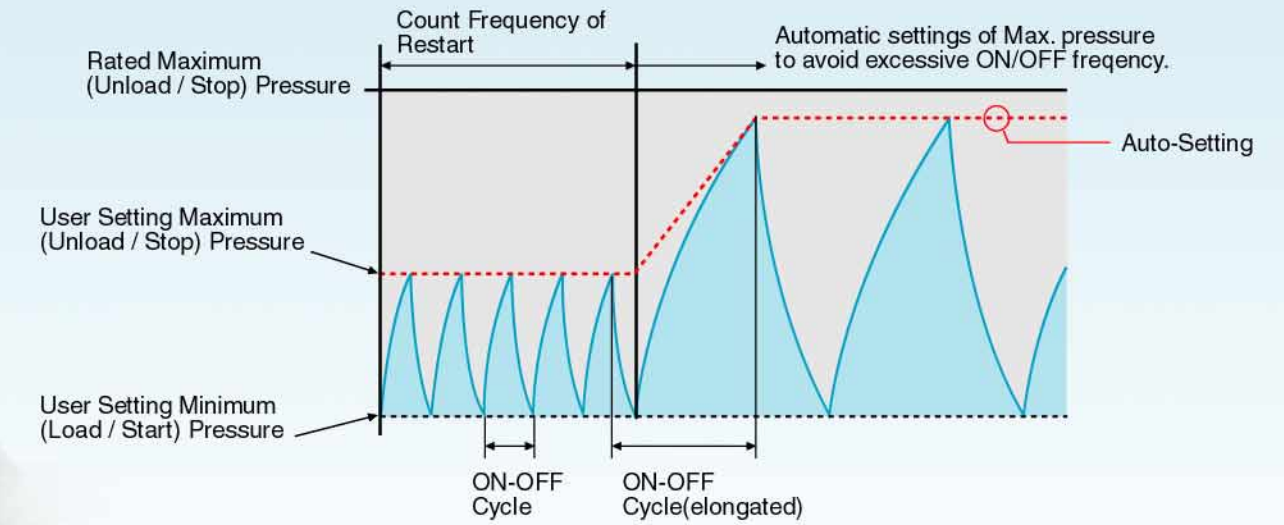
- Increased Performance (Low Leakage)
- Extended Service Intervals
- High Efficiency



## Versatility of Design

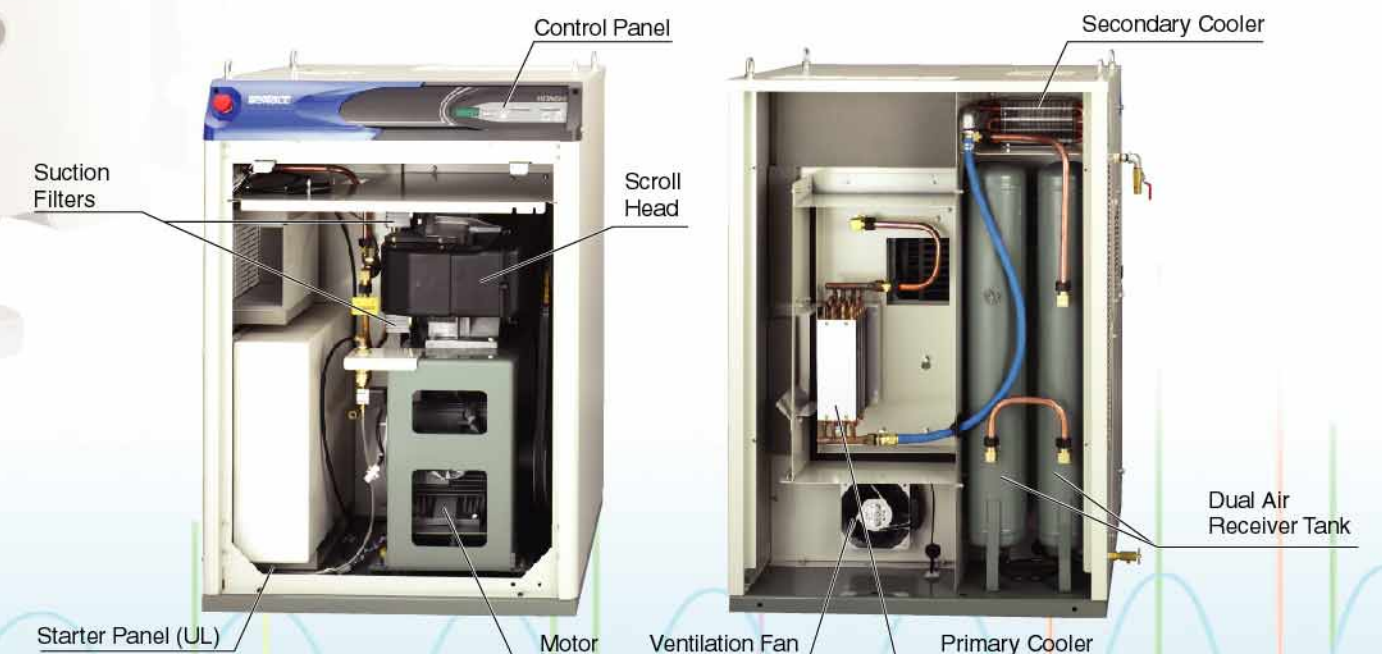
### Cycle Control Logic

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

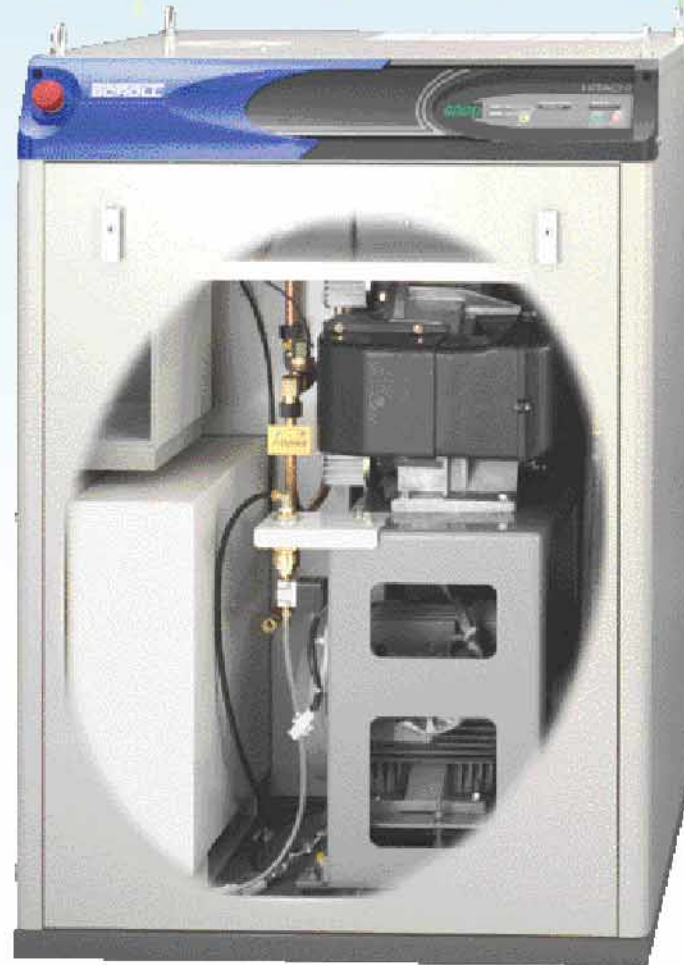
- Easy Accessibility for Inspection and Maintenance
- Space Saving Structure

### 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.



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

### Oil-Less Design

- Eliminates Environmental Emissions
- Concerns natural resources

### Multi-stage Cooling

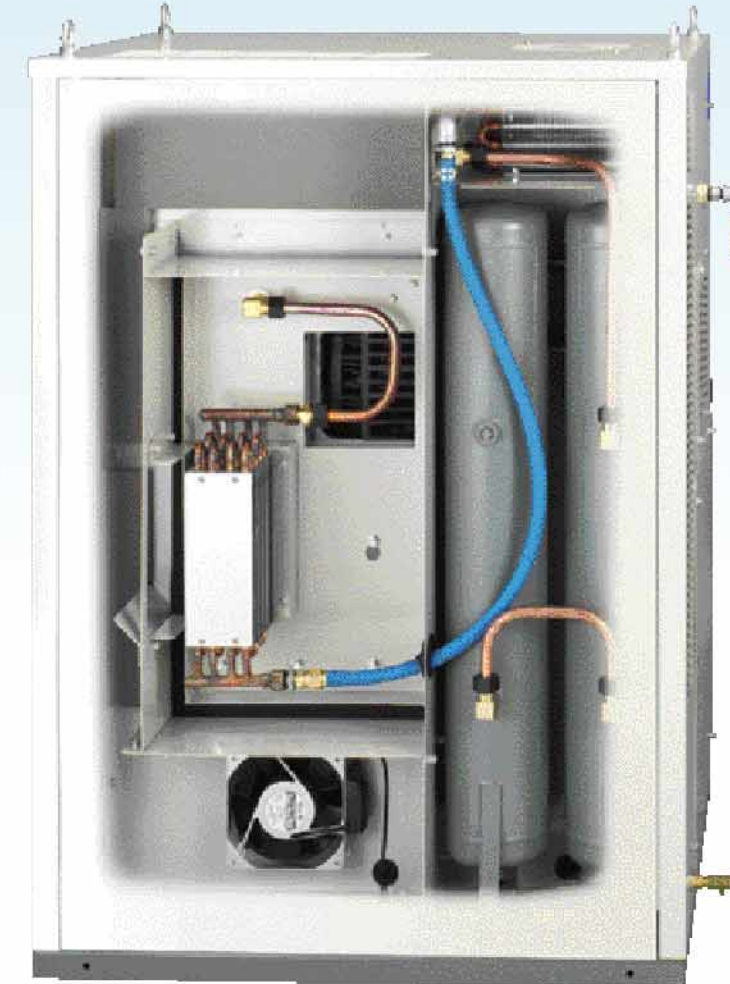
- Stabilizes Discharge Temperature

### 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.

## Wide Application in Industries

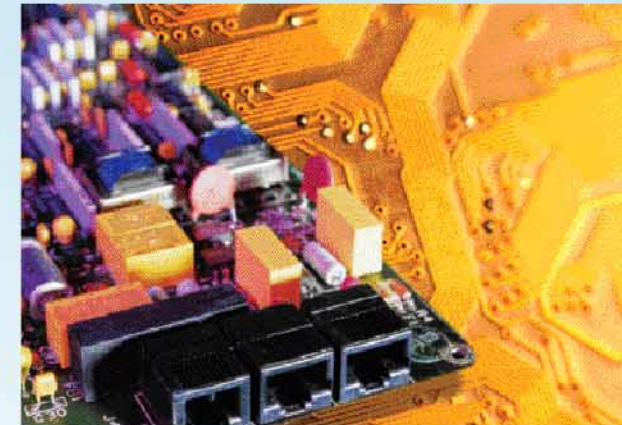
### Pharmaceutical



### Food & Beverage



### Electronic



### Chemical



### Research and Development



### Diversified Industrial



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

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

## Aftermarket Services

HITACHI factory authorized service and maintenance available.

