

## Application

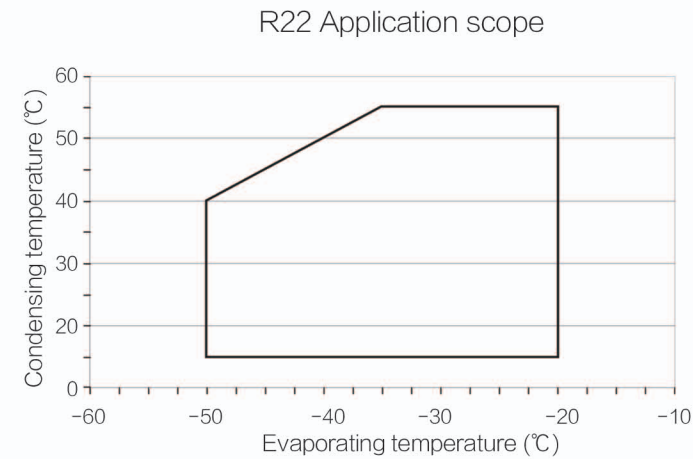
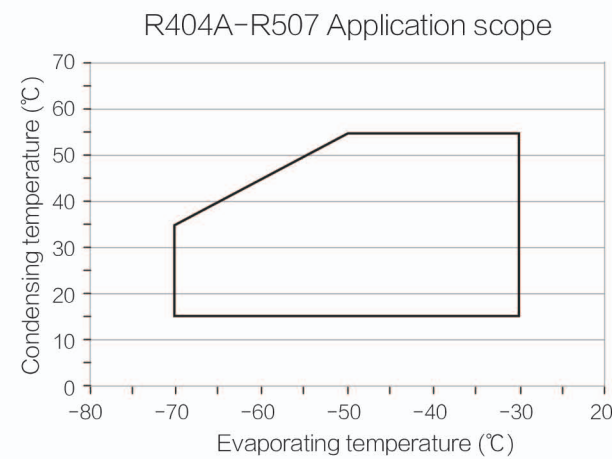
The compressor can be widely applied in ice making, refrigeration, concrete cooling, ice storage, etc.



# RefComp

## SB Semi-hermetic Double-stage Piston Compressor

### Application scope



Application range of Full Load Running  
Suction superheat=20K

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### Table of Technical Parameters

Model	Inside diameter of discharge port(mm)	Inside diameter of suction port(mm)	Dimension (mm)			Discharge amount (m³/h)		Rated power of motor(kW)
			Length	Width	Height	Low pressure stage	High pressure stage	
SB4 L1200	28	35	724	488	505	43	27.6	8.8
SB4 L1400	28	35	724	488	505	51.5	32.4	10.3
SB6 L1600	35	35	820	548	525	64.7	32.4	11.8
SB6 L2000	35	35	820	548	525	75	37.5	14.7
SB6 L2500	42	42	820	548	525	86.1	43	18.4
SB6 L3000	42	42	820	548	525	102.9	51.5	22.1

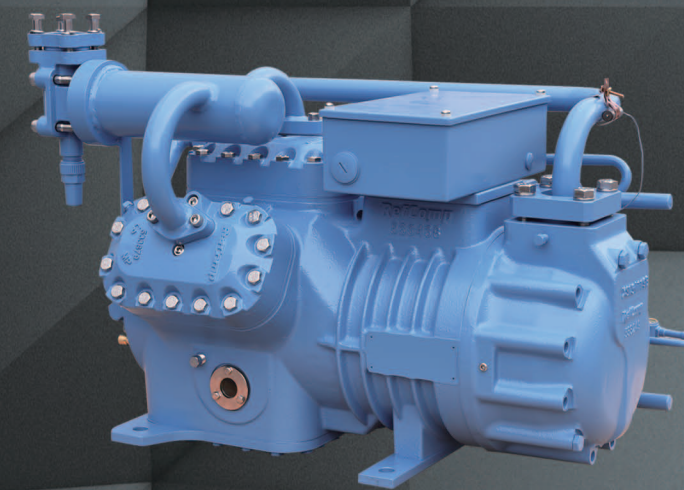
## RefComp Italy

The World Famous Brand for Screw Compressor and Piston Compressor

Focusing on commercial refrigeration compressor

25 years of experience in semi-hermetic compressor manufacture

The classical tradition, manufacturing Art is born, and innovation is endless.



## RefComp

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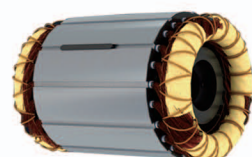
## RefComp SB Double-stage Piston Compressor

RefComp SB series compound two stage piston compressors cover six models, with HP stage displacement ranging from 27.6–51.5m<sup>3</sup>/h and motor power ranging from 12–30Hp. SB two stage semi-hermetic piston compressor is applicable to refrigerant: R22, R404A and R507, and has the feature of high efficiency, durability, compact structure, small vibration, etc. Final discharge of the compound compressor is after two consecutive compression stages. In the first-stage compression, the refrigerant gas from the evaporator is sucked in from the suction end and compressed into the intermediate cavity, which is also the suction cavity of the second-stage compression. In the second-stage compression, the refrigerant gas sucked into the intermediate cavity is compressed to the final discharge pressure and then discharged. Compared to the single-stage compressor, the compression ratio of each stage of the double-stage compressor can be reduced, thus reducing the discharge temperature and improving the efficiency.



### Housing

- Working pressure: 28bar;
- Optimized design of suction air ways, low suction resistance and sufficient cooling of motor; straight-through middle air runner, reduction of the loss along the way; little discharge throttling loss and low energy consumption;
- Small size, integration of the filter, shut-off valve and temperature sensor, and compact structure.



### Motor

- Various kinds of operating voltage and frequency, meeting voltage requirements of various areas.
- Special custom material, compatible with various refrigerants such as R22, R404A, R507A and R410A.

### Motor protection

- The INT69B2 protective module is used to prevent the motor from too high temperature and phase loss.
- 6 PTC thermistors in series are used to prevent the motor burnt out due to high temperature;
- The system operation information is tracked for real-time feedback of the motor and system operation state.



### Safety valve

- The safety valve is built in the housing and connected to the intermediate cavity and low-pressure cavity. It is used to prevent the pressure inside the housing from exceeding the safety value.
- The safety valve conforms to high design requirements and is sealed reliably. It is characterized by reliable sealing, accurate opening, full opening at the appropriate time, stable discharge and prompt return. It is also safe and reliable.



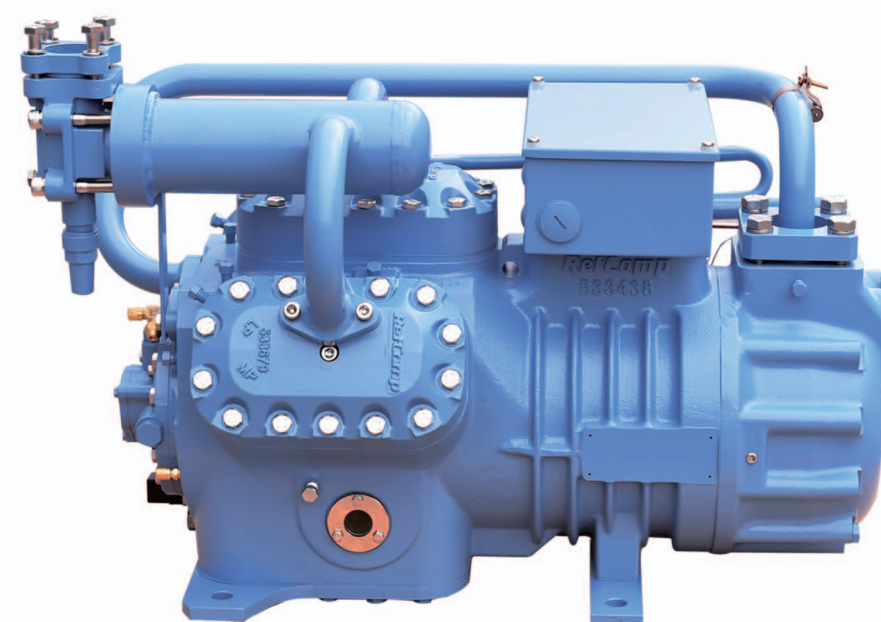
### Suction filter

- With the built-in high-density suction filter, impurities in refrigerant gas can be removed, and the motor can be protected.
- The suction filter is set in the suction pipe, and has a compact structure. It can be replaced easily.



### Shut-off valve

- Some suction/discharge shut-off valves can rotate 360°. Shut-off valves are compact, flexible and easy to install.



- The valve plate design is reliable, using the impact-resistant spring steel valve.
- The space requirement is minimal, and the size design is compact.
- Little vibration and low noise. 4-cylinder and 6-cylinder structure, optimized mass balance design, and quiet operation.
- High refrigeration capacity and low energy consumption.
  - a. Adopt the high-efficiency working valve.
  - b. Design the minimum dead point clearance.
  - c. Use the high-efficiency and large-capacity motor.
- High-reliability drive components
  - a. The surfaces of the eccentric shaft and crankshaft are hardened.
  - b. Use large-capacity oil pump.
  - c. Use low friction bush and aluminum piston.
  - d. The surface of the piston ring is hard chrome plated.
- The differential oil pressure lubrication supply system is equipped with the two-way gear pump.
- With the subcooler, the compression efficiency is further improved.