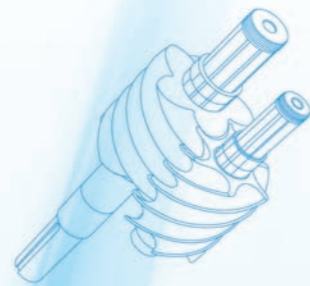




## BSR SERIES SCREW REFRIGERANT COMPRESSOR



FUSHENG INDUSTRIAL CO., LTD

#### Headquarters

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•TEL : +886-2-2507-2211      •FAX : +886-2-2504-7870

#### Sanchong Factory

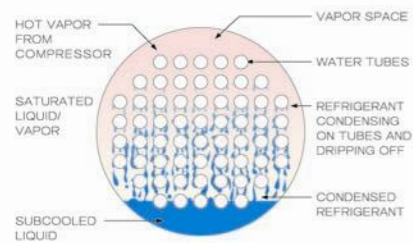
No.60, Sec. 2, Guangfu Rd., Sanchong Dist., New Taipei City 24158,  
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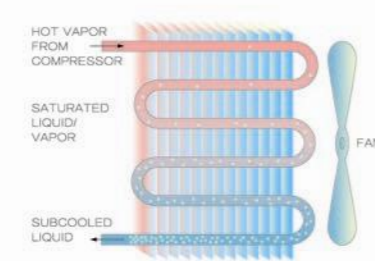
Web site : [www.fusheng.com](http://www.fusheng.com)

Email : [machinery\\_sc@fusheng.com](mailto:machinery_sc@fusheng.com)

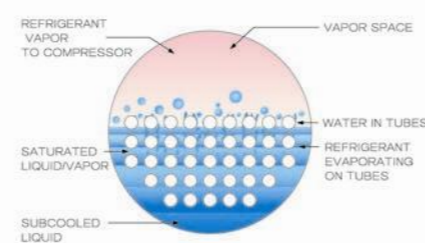
## APPLICATIONS:



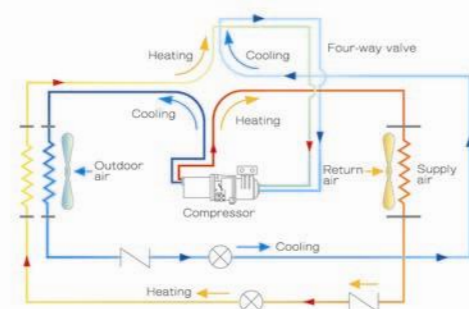
Water-cooled chillers



Air-cooled chillers



Flooded chillers

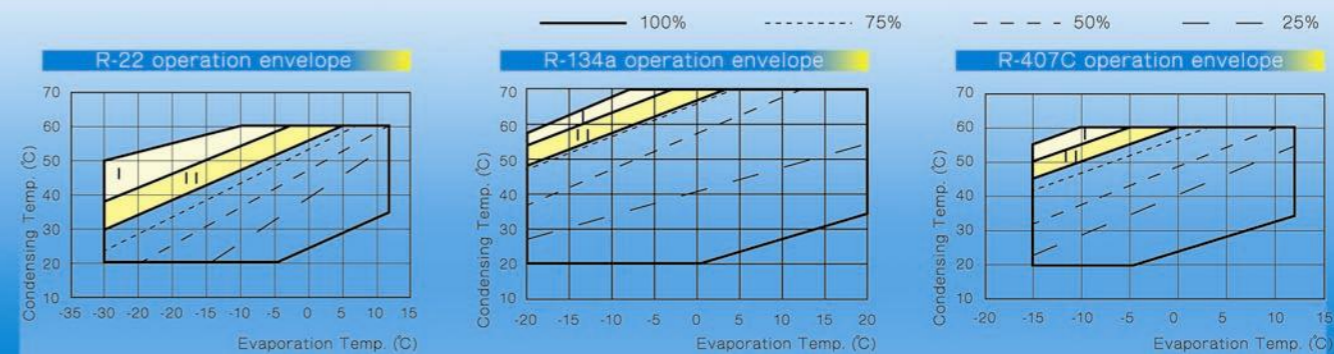


Heat pump

## TECHNICAL DATA

The FUSHENG BSR series screw refrigerant compressors are designed and built for low energy consumption, easy and low cost service and legendary reliability. Standard and long life components, superior design and high quality ISO 9001:2000 manufacturing give you more capacity at a lower cost with higher reliability than any other supplies in the industry. Professional FUSHENG engineers and distributors are located near you to perform quality service - fast!

Series		BSR																				
Model		213S	213	216	311S	311	314	316	321	323	324	326	413	415	421	423	424	426	513	514	516	
Specification	Displacement (50Hz)	m <sup>3</sup> /h	119	140	172	194	211	268	316	335	395	438	472	555	619	689	760	841	942	986	1099	1227
	Displacement (60Hz)	m <sup>3</sup> /h	143	168	206	233	254	322	379	402	474	526	566	665	742	827	912	1010	1130	1183	1319	1472
Motor	Speed	rpm	2950 / 3550 for 50/60 Hz																			
	Capacity control	%	Step control (25 / 50 / 75 / 100) or linear control (25-100)																			
	Refrigerant		R-134a / R-22 / R-407C / R404A																			
	Type		3 phases, 2 poles, Induction motor																			
	Voltage		380-415V, 50Hz / 220, 380, 440, 460V, 60Hz																			
	Start-up		Y-Δ start-up or direct-on-line start-up																			
	Protection Device		phase loss, phase sequence, and motor PTC thermistor																			
	Dimension of suction port	Inch (mm)	2-5/8 (66.67)	3-1/8 (79.37)			4 (101.60)			5 (127.00)			8 (200.00)									
	Dimension of discharge port	Inch (mm)	1-5/8 (41.27)	2-5/8 (66.67)			3-1/8 (79.37)			4 (101.60)			5 (127.00)									
	Hydraulic test	bar (G)	42																			
	Oil heater	W	150						300													
	Oil charge	Liter	11	13			17			21			25			-						
	Weight	kg	476	481	486	595	600	609	615	726	736	762	777	849	899	1115	1125	1135	1181	1032	1055	1072



Range of application :

- Region I : Need to operate with liquid injection and oil cooling.
- Region II : Need to operate with liquid injection or oil cooling.

— 100% operation envelope  
 - - - - - Part load operation envelope



Refrigeration



Food storage



Air-conditioning



Industrial process

## FUSHENG—BSR SERIES - HIGH PERFORMANCE LINE OF ENERGY SAVING AND DEPENDABLE REFRIGERANT COMPRESSORS

FUSHENG BSR Series Screw refrigerant compressors are manufactured to ISO 9001:2000 standards. They are dependable and energy efficient, providing years of reliable service.

FUSHENG is committed to extensive research and development. We promise to continue our uncompromising pursuit of excellence and to provide the highest level of customer service through our international network of factory-trained engineers and distributors.

### High EER, Low Energy Consumption

The newly designed, asymmetrical rotor profile, which has five lobes and six flutes in male and female rotors respectively results in a low pressure differential between flutes. This design provides high volumetric efficiency as well as low power consumption.

### Low Noise Level, Low Vibration

Rotors are precisely milled and dynamically balanced. Supported by high precision bearings, the rotors run smoothly and with little vibration.

### Precise Capacity Control System

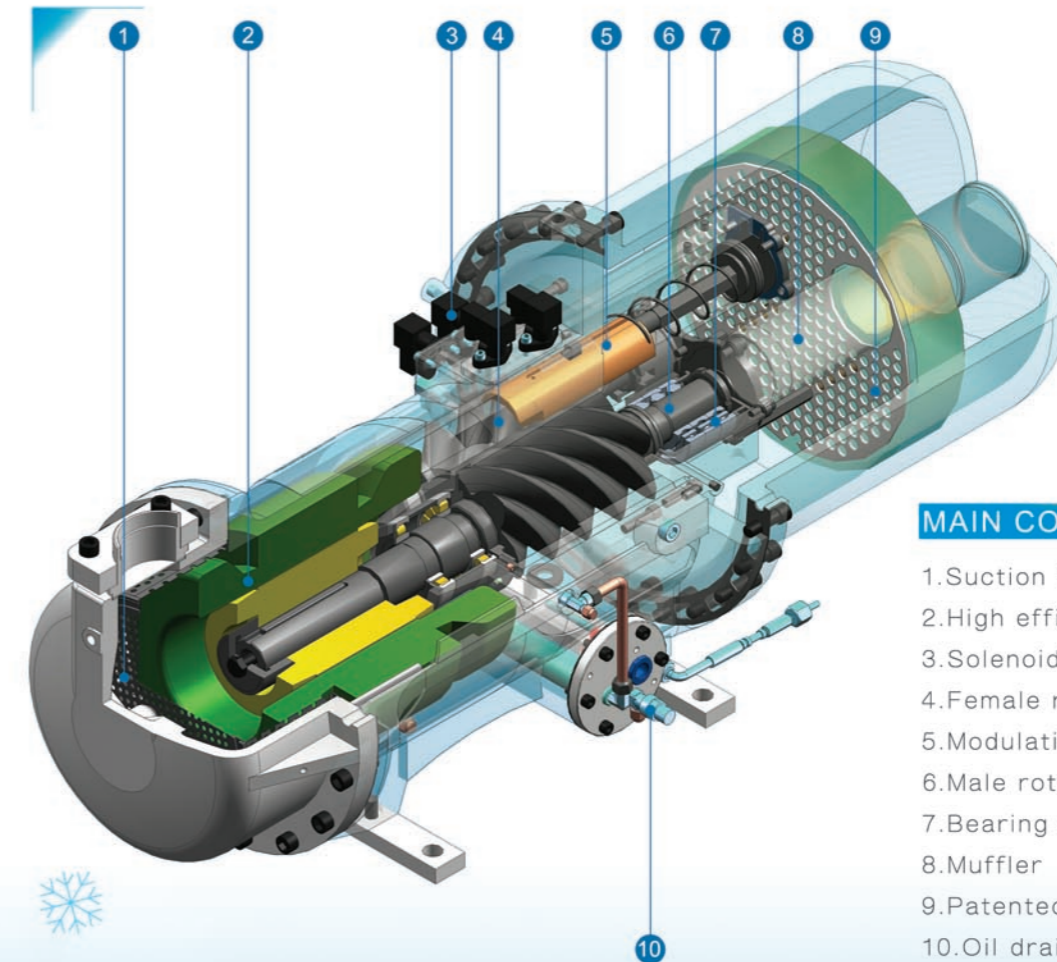
The standard four-step capacity control system as well as the optional linear capacity control system provides operations under variable loading condition with minimum power consumption.

### Ease of Maintenance

The semi-hermetic design and the low number of components used significantly reduce the maintenance requirements. In addition, the semi-hermetic design needs no shaft seals, thus eliminating the chance of refrigerant leakage. The detachable motor construction makes quick servicing possible.

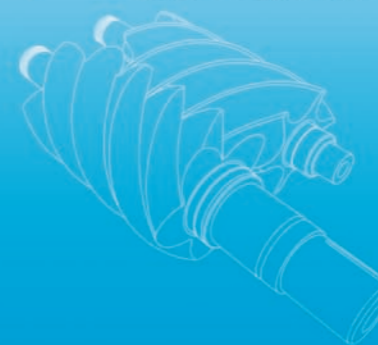
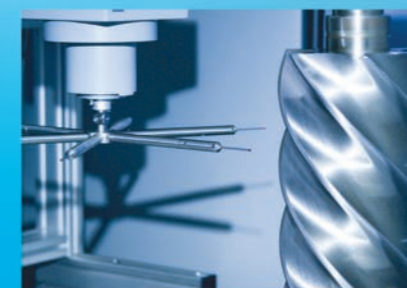
### Wide Application Range

The compressors can be widely used in water and air cooled air-conditioning systems, thermal storage system, heat pumps or industrial processes if external oil coolers, economizers or liquid refrigerant injection devices are equipped.



### MAIN COMPONENTS

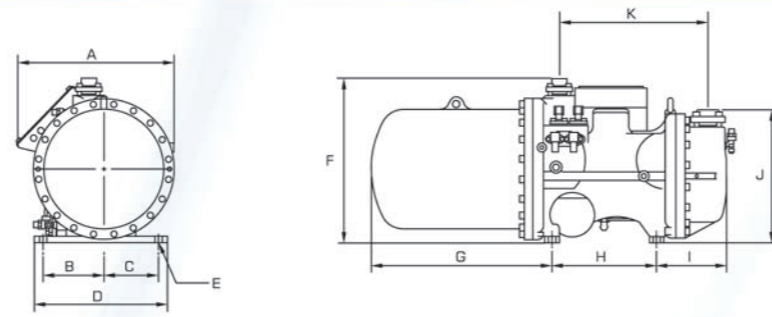
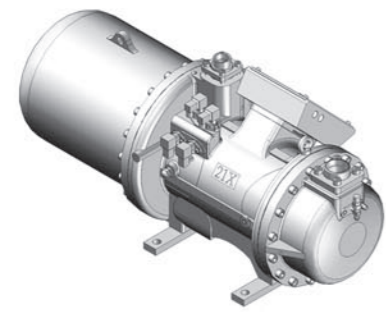
- 1.Suction filter
- 2.High efficiency motor
- 3.Solenoid valve
- 4.Female rotor
- 5.Modulation slider
- 6.Male rotor
- 7.Bearing set
- 8.Muffler
- 9.Patented oil separator
- 10.Oil draining valve



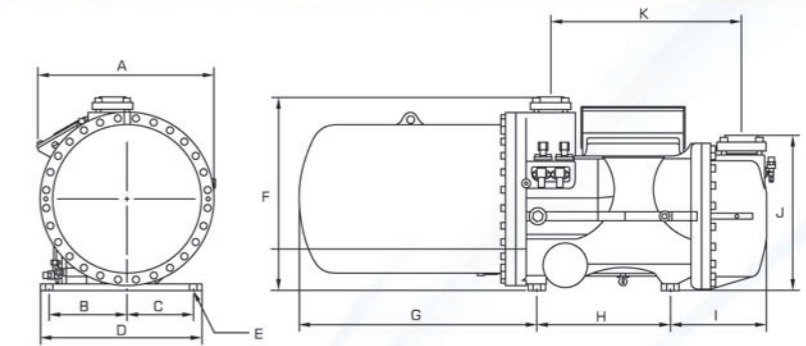
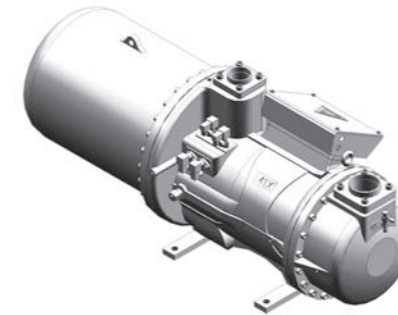
### MANUFACTURING PROCESS

- Simple and robust design for reliability. No complex valves or gear arrangements.
- Precision machining and accuracy bearing assembly mean low noise, vibration and long maintenance intervals.
- Standard operation process under ISO 9001: 2000 certification means congruous quality.
- Suitable production layout with well-trained operators means fast delivery.

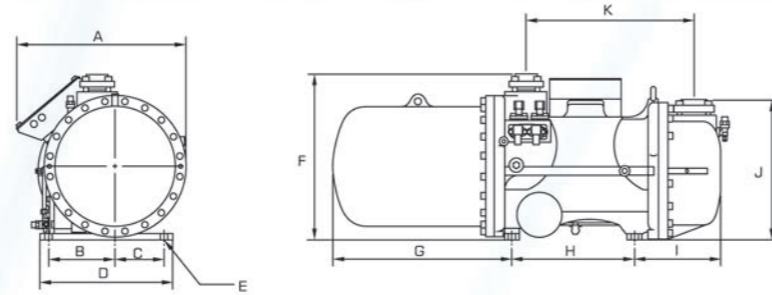
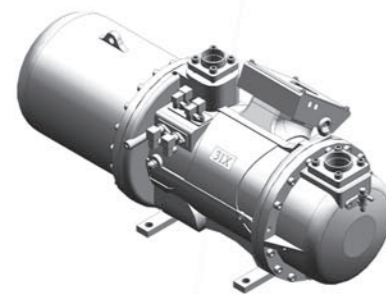
BSR21X



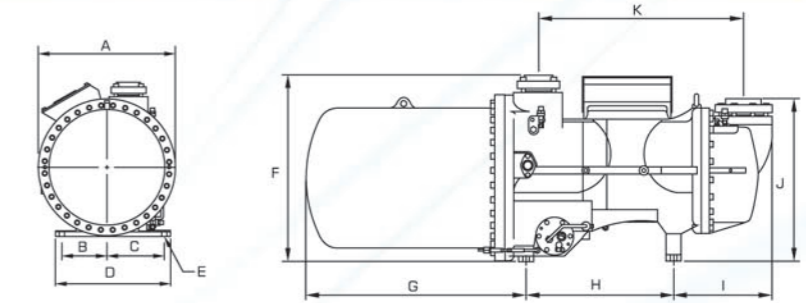
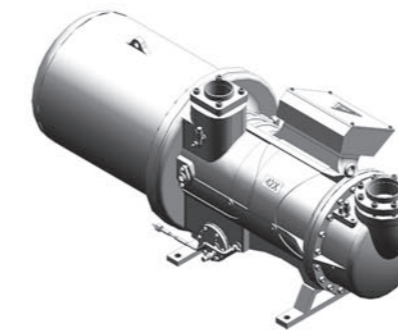
BSR41X



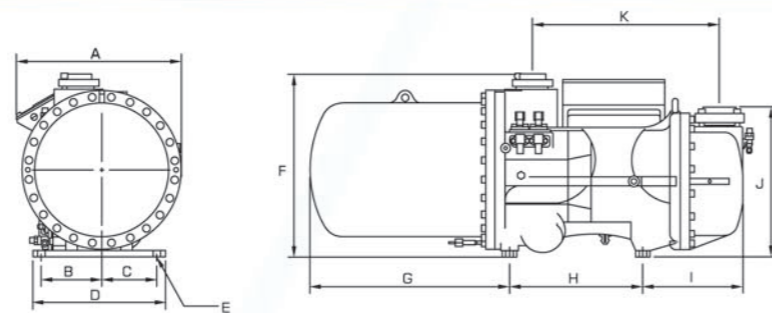
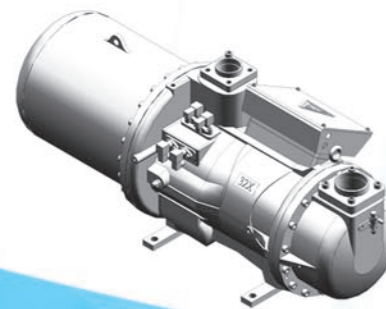
BSR31X



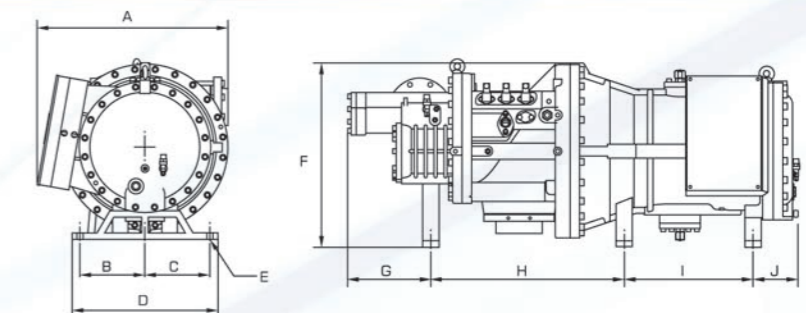
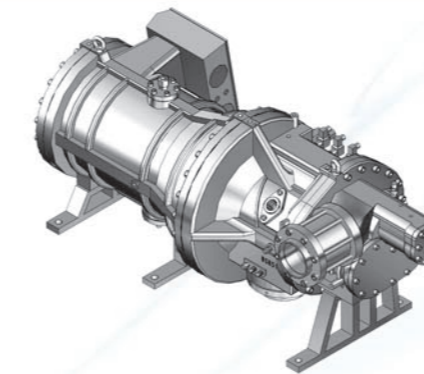
BSR42X



BSR32X



BSR51X



**Standard accessories:**

- Oil filter
- Oil heater
- Suction filter
- Oil draining valve
- Lubricant
- Oil level switch
- Solenoid valves
- Discharge check valve
- Suction flange, gasket
- Discharge flange, gasket
- Motor winding PTC thermistor
- Liquid injection adapters-motor side and compression chamber
- Discharge temperature PTC thermistor
- Electrical protection module

**Optional accessories:**

- Safety valve
- Suction service valve
- Rubber mounting pads
- Discharge service valve
- Liquid injection capillary tube, solenoid valve, sensor and controller

**Outline dimensions**

Model	A	B	C	D	E	F	G	H	I	J	K
BSR21X	545	210	190	460	26	569	627	362	241	461	515
BSR31X	584	230	170	460	26	574	620	425	299	486	581
BSR32X	571	210	190	460	26	634	691	462	346	521	648
BSR41X	610	270	230	560	26	670	824	462	334	538	661
BSR42X	670	220	280	560	26	752	887	595	397	655	827
BSR51X	735	250	250	560	24	680	307	712	475	172	-