

## SRMSweden

The inventor and leader of screw compressor  
100-year legacy of technical quality & energy  
efficiency



Focus on screw technology  
for one hundred years

More than 3 million screw compressors all over the world  
are technologically licensed by SRM



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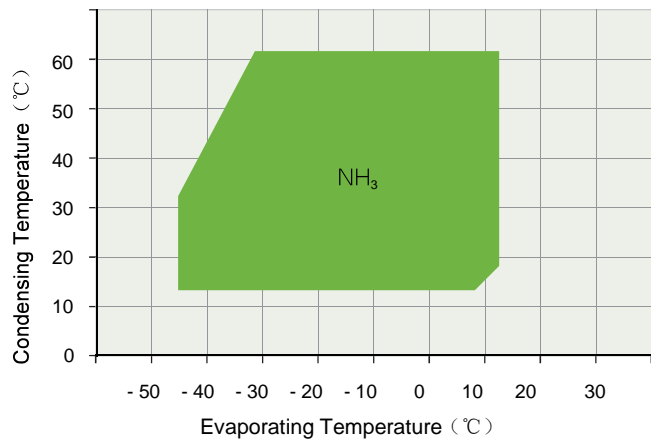
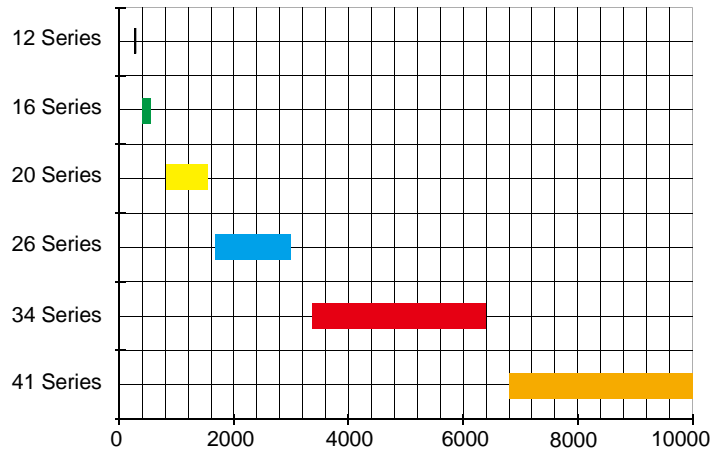
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# SRM Open-type Single-stage Screw Compressor

SRM Open-type Single-stage Screw Compressors include 6 series totaling 19 models. Displacement 265- 10850m<sup>3</sup>/h (2960RPM) , discharge temperature - 45°C- +20°C, applicable for the natural and environment- friendly refrigerants such as R717, R404A, R507A, etc. Stepless (10%-100%) capacity control: intelligent controller with accurate selection and rapid response to ensure to operate in high EER under different working conditions. The designed obliquity >30°, which is also applicable to the refrigeration systems on the marine units.



- "I" type patented profile, best lobe ratio of 5+7, high efficiency.
- Rotor is made of high- quality forged steel with micron- machining accuracy, rendering excellent overall mechanical properties, high strength, high wear resistance, and long durability.
- The housing is made of high- strength ductile iron, working pressure 2.8Mpa.
- Innovative shaft seal. The wear- resistant sealing surface is made of silicon carbide, rendering high reliability.
- High- precision and wear- resistant rolling bearings with the designed life of 100 thousand hours.
- Vi control function ensures high efficiency operation under various working conditions.
- Stepless capacity control (10-100%) with the proprietary technology of explosion- proof cylinder of the capacity control.
- Integrated oil circuit: easy installation and low failure rate.

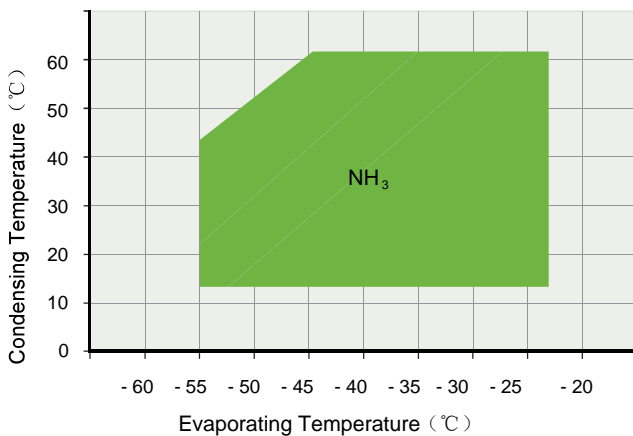
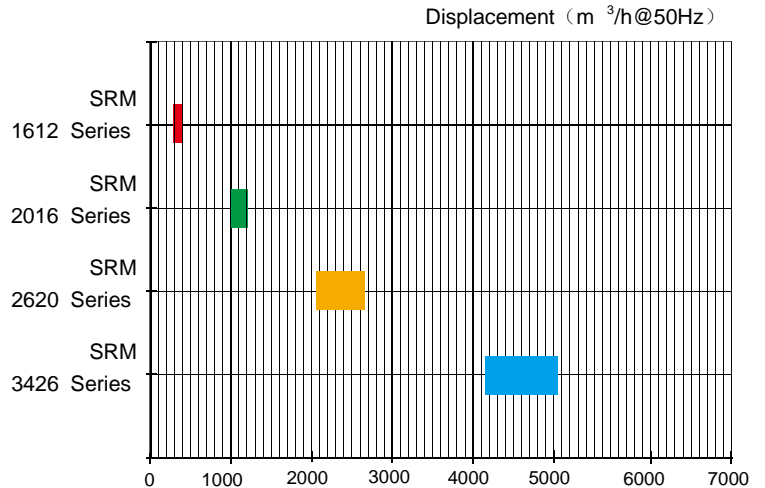


## Technical Parameter

Model	Suction Line Diameter (mm)	Discharge Line Diameter (mm)	Dimension (mm)			Cooling Capacity (kW)	
			L	W	H	NH <sub>3</sub> - 35/+35°C	NH <sub>3</sub> - 15/+35°C
SRM- 12L	80	50	956	381	454	57.7	140.3
SRM- 16S	125	80	1071	480	485	95.7	232.8
SRM- 16M	125	80	1170	480	485	120.4	294.3
SRM- 16L	125	80	1232	480	485	145.1	356.6
SRM- 20S	150	125	1219	532	561	183.1	472.8
SRM- 20M	150	125	1292	532	561	239.5	611.9
SRM- 20L	150	125	1417	532	561	279.5	706.4
SRM- 20LL	150	125	1515	532	561	332.8	835.6
SRM- 26S	250	200	1565	645	800	365.1	916.9
SRM- 26M	250	200	1637	645	800	461.5	1140.8
SRM- 26L	250	200	1706	645	800	551.2	1355.2
SRM- 26LL	250	200	1785	645	800	647.0	1590.7
SRM- 34S	350	250	1583	828	1026	739.4	1798.4
SRM- 34M	350	250	1765	828	1026	931.8	2265.9
SRM- 34L	350	250	1925	828	1026	1096.1	2724.4
SRM- 34LL	350	250	2094	828	1026	1368.0	3380.4
SRM- 41S	500	350	2169	1327	1645	1448.2	3560.5
SRM- 41M	500	350	2414	1327	1645	1769.1	4349.4
SRM- 41L	500	350	2785	1327	1645	2177.1	5119.7

# SRM Open-type Two-stage Screw Compressor

SRM Open-type Two-stage Screw Compact Compressors include 4 series totaling 12 models. Displacement 544- 5084m<sup>3</sup>/h (2960RPM), designed pressure 2.8 Mpa, the designed obliquity of the compressor >30°, applicable for marine refrigeration. Applicable for the natural and environment-friendly refrigerants such as R717, R404A, R507A, etc.



- “I”type patented profile, best lobe ratio of 5+7, high efficiency and smooth operation.
- Rotor is made of high- quality forged steel with micron machining- accuracy, rendering excellent overall mechanical properties; high strength, high wear resistance, and long durability.
- The housing is made of high strength ductile iron.
- Nnovative shaft seal. The wear- resistant sealing surface is made of silicon carbide, rendering high reliability. High- precision and wear- resistant rolling bearings with the designed life of 100 thousand hours.
- Vi control function ensures high efficiency operation under various working conditions.
- Stepless capacity control with the proprietary technology of explosion- proof cylinder of the capacity control.
- Integrated oil circuit: easy installation and low failure rate.

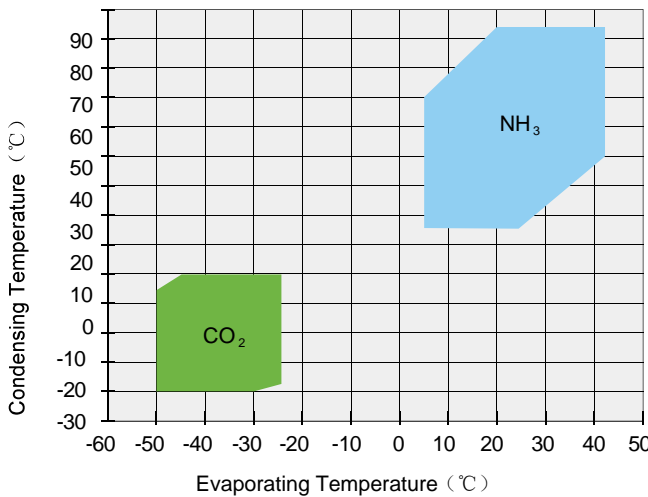
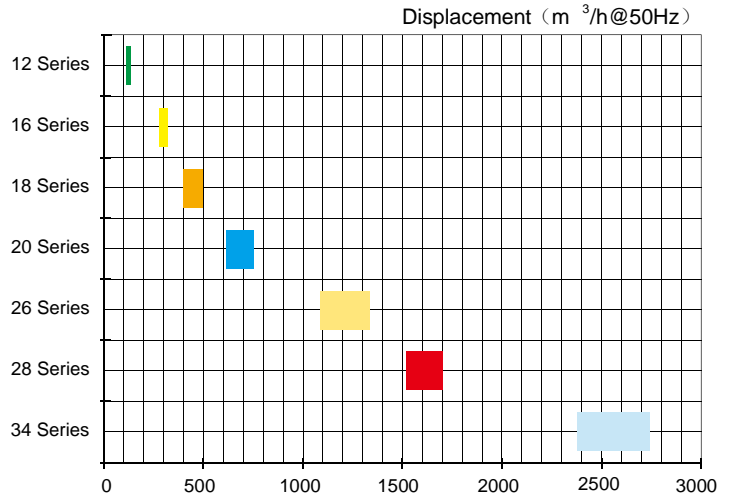
## Technical Parameter

Model	Suction Line Diameter (mm)	Discharge Line Diameter (mm)	Dimension (mm)			Cooling Capacity (kW)	
			L	W	H	NH <sub>3</sub> - 50/+35°C	NH <sub>3</sub> - 40/+35°C
SRM- 1612MS	125	65	1445	527	580	134	62
SRM- 1612LS	125	65	1495	527	580	161	75
SRM- 2016MS	150	80	2104	519	586	283	132
SRM- 2016LS	150	80	2153	519	586	328	152
SRM- 2620MS	250	125	2656	645	800	544	255
SRM- 2620LS	250	125	2725	645	800	650	303
SRM- 3426MS	350	200	3030	828	1026	1115	520

Note: The cooling capacity is at the working condition of 2960RPM, open flash

# SRH Open-type High-pressure Screw Compressor

SRH Series Open- type High- pressure Screw Compressors include 7 series totaling 14 models, displacement 25- 2770m<sup>3</sup>/h (2960RPM), designed pressure 6.3Mpa. The high pressure design of the compressor can be applied to high- temp heat pump with NH<sub>3</sub>, also applicable for CO<sub>2</sub>/NH<sub>3</sub> cascade refrigeration system for the low- temp refrigeration.



- "I" type patented profile, best lobe ratio of 5+7, high efficiency.
- Rotor is made of high-quality forged steel with micron-machining accuracy, rendering excellent overall mechanical properties, high strength, high wear resistance, and long durability.
- The housing is made of high strength ductile iron in cylindrical structure, ensuring reliable pressure bearing capacity. Innovative shaft seal. The wear- resistant sealing surface is made of silicon carbide, rendering high reliability.
- High wear- resistant coating for large load, high- precision and wear- resistant rolling bearings; the designed service life of 100 thousand hours.
- Vi stepless control ensures high efficiency operation.
- Stepless capacity control (10- 100%) with the proprietary technology of explosion- proof cylinder of the capacity control.
- Integrated oil circuit: easy installation and low failure rate.

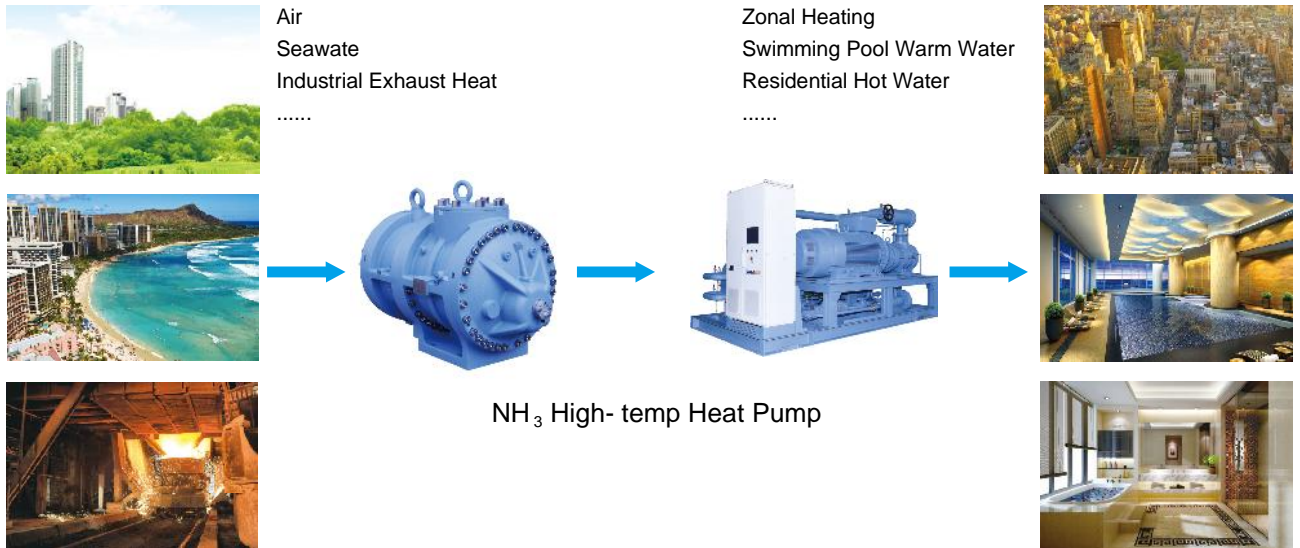
## Technical Parameter

Model	Suction Line Diameter (mm)	Discharge Line Diameter (mm)	Dimension (mm)			Cooling/Heating Capacity (kW) *	
			L	W	H	CO <sub>2</sub> - 40/0°C	NH <sub>3</sub> +20/+90°C
SRH- 12M	100	50	877	370	374	232	178
SRH- 16M	125	65	1171	480	485	459	362
SRH- 18M	150	80	1250	644	675	680	545
SRH- 20M	150	100	1392	732	761	1222	980
SRH- 26M	250	150	1607	845	900	2026	1624
SRH- 28M	250	200	1785	950	1012	1923	4924
SRH- 34M	350	250	2265	1028	1126	3181	8171

Note: 1. 2960RPM. 2. Suction superheat 5°C

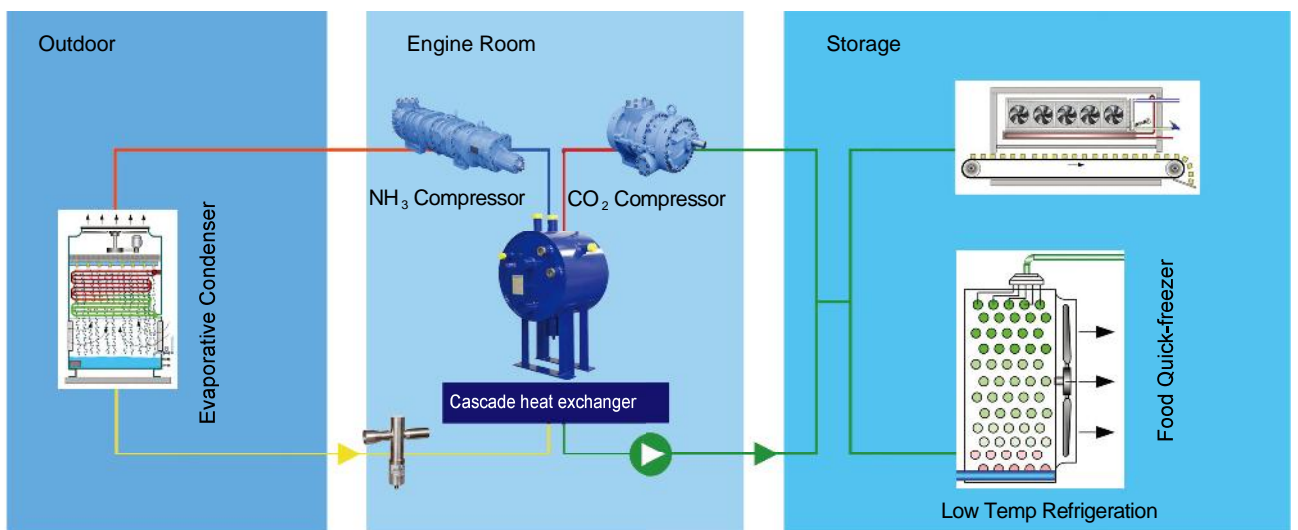
## NH<sub>3</sub> High-temp Heat Pump

NH<sub>3</sub> high- temp heat pump can effectively use the low grade heat sources such as air, seawater and geothermal energy and reclaim the industrial exhaust heat with high efficiency so that the directly unusable heat sources and the industrial exhaust heat can be converted into heating and hot water for people’s daily use. The outlet water can reach as high as 90°C. As the refrigerant, NH<sub>3</sub> is environment-friendly, highly efficient and energy saving; it helps reduce the carbon emission.



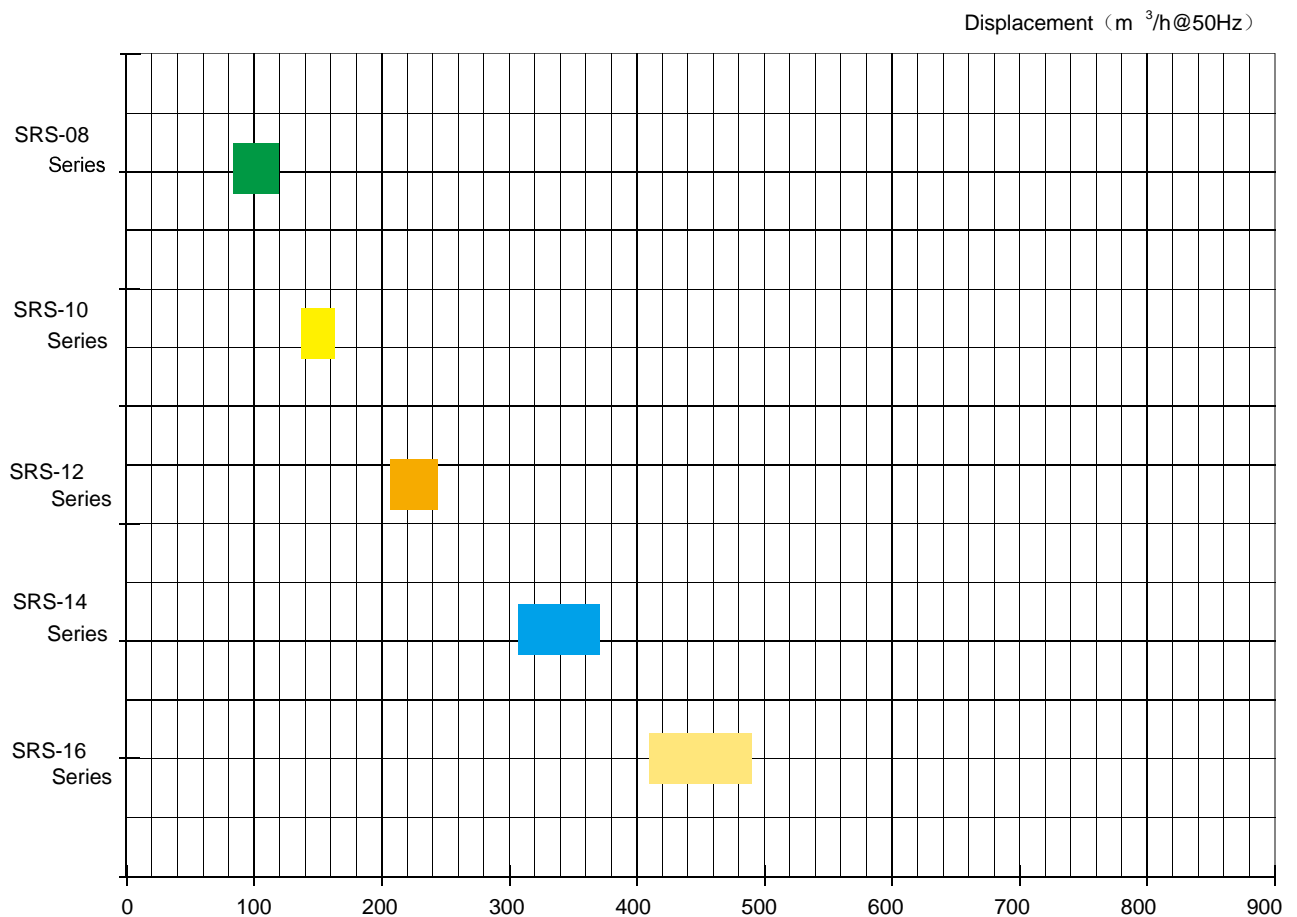
## NH<sub>3</sub>/CO<sub>2</sub> Cascade Refrigeration System

For NH<sub>3</sub>/CO<sub>2</sub> cascade refrigeration system, NH<sub>3</sub> is used as the high- temp refrigerant and CO<sub>2</sub> as the low- temp refrigerant. The system is highly efficient, energy- saving and environment-friendly. When the evaporating temperature is above - 35°C, NH<sub>3</sub> has the best thermal properties, and when under the low temperature, CO<sub>2</sub> has the best thermal properties and fluid properties. As a result, the system is especially applicable for the low- temp refrigeration due to its high COP under the low evaporating temperature.

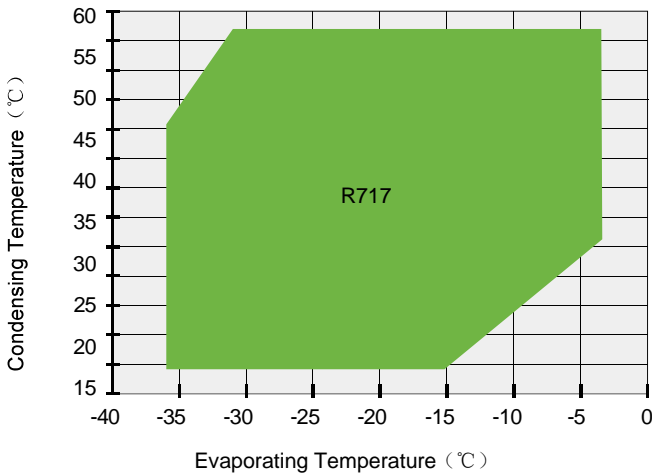


## SRS Semi-hermetic Single-stage Screw Compressor

SRS Semi- hermetic Single- stage Screw Compressors include 20 models, displacement 85- 850m<sup>3</sup>/h (50Hz), designed pressure 2.8Mpa, applicable for R717. Compact structure, easy maintenance, low vibration and noise, zero leak of refrigerant. The compressor is packaged with the permanent magnet synchronous variable frequency motor, which regulates the rotor speed to improve the operation efficiency of the compressor.



## SRS Semi-hermetic Single-stage Screw Compressor (Continued)



- “I” type patented profile, best lobe ratio of 5+7, high efficiency.
- Compact structure: filter, shut-off valve, temperature sensor, and oil flow switch are integrated;
- Tailor-made materials are specifically used for NH<sub>3</sub>.
- Packaged with the permanent magnet synchronous variable frequency motor, which regulates the rotor speed to improve the operation efficiency of the compressor.
- Vi stepless control: manual or automatic.
- Capacity control: step or stepless.
- Embedded 100μm suction filter: remove the impurities of the refrigerant and protect the motor.
- High-efficiency cooling is achieved through refrigerant circulation to ensure the stable and efficient operation of the motor.

### Technical Parameter

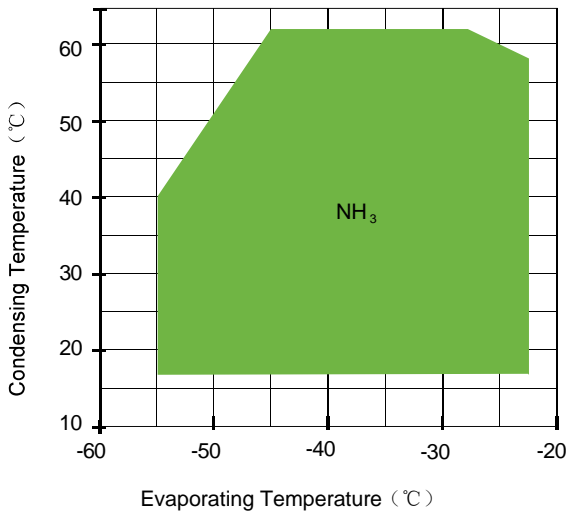
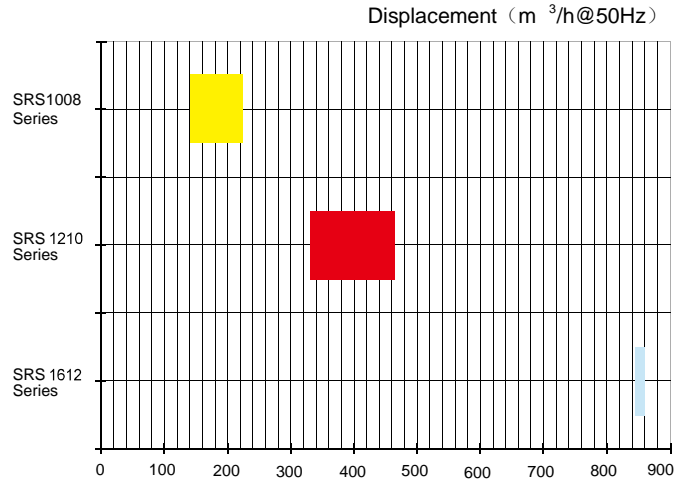
Model	Suction Line Diameter (mm)	Discharge Line Diameter (mm)	Dimension (mm)			Cooling Capacity (m <sup>3</sup> /h)	
			L	W	H	50Hz	60Hz
SRS- 08S	57	40	803	465	411	84	102
SRS- 08M	57	40	803	465	411	100	120
SRS- 08L	57	40	803	465	411	120	144
SRS- 10S	57	40	890	490	390	140	168
SRS- 10L	57	40	890	490	390	168	202
SRS- 12S	76	57	1044	586	486	210	252
SRS- 12M	76	57	1044	586	486	230	276
SRS- 12L	76	57	1280	586	486	250	300
SRS- 14S	89	76	1280	600	501	310	372
SRS- 14M	89	76	1280	600	501	340	408
SRS- 14L	89	76	1280	600	501	370	444
SRS- 16S	108	76	1348	798	627	420	504
SRS- 16M	108	76	1348	798	627	450	540
SRS- 16L	108	76	1348	798	627	500	600

Note: If need the technical parameters of the compressors with displacement 544- 850m<sup>3</sup>/h(@50Hz), please contact us.



# SRS Semi-hermetic Two-stage Screw Compressor

SRS Semi-hermetic Two-stage Screw Compact Compressors include 5 models, displacement 141- 652m<sup>3</sup>/h (50Hz), designed pressure 2.8Mpa. Compact structure, easy maintenance, low vibration and noise, zero leak of refrigerant. The compressor is applicable for R717. Vi can be controlled to ensure high- efficiency operation under different working conditions.



- "I" type patented profile, best lobe ratio of 5+7, high efficiency. Tailor- made materials are specifically used for NH<sub>3</sub>.
- Packaged with the permanent magnet synchronous variable frequency motor, which regulates the rotor speed to improve the operation efficiency of the compressor. Vi is selectable to ensure high efficiency operation under various working conditions.
- Capacity control: step or stepless. Double cooling is achieved through both lubricant oil circulation and refrigerant injection to ensure the long- time, stable and high- efficiency operation of the motor.

## Technical Parameter

Model	Suction Line Diameter (mm)	Discharge Line Diameter (mm)	Dimension (mm)			Cooling Capacity (kW) *
			L	W	H	NH <sub>3</sub> - 35/+35°C
SRS- 1008SS	65	50	1342	636	465	32
SRS- 1008LL	65	50	1458	636	465	53
SRS- 1210SS	80	50	1500	753	455	79
SRS- 1210LL	80	50	1648	753	455	111
SRS- 1612LS	125	65	1986	820	686	155

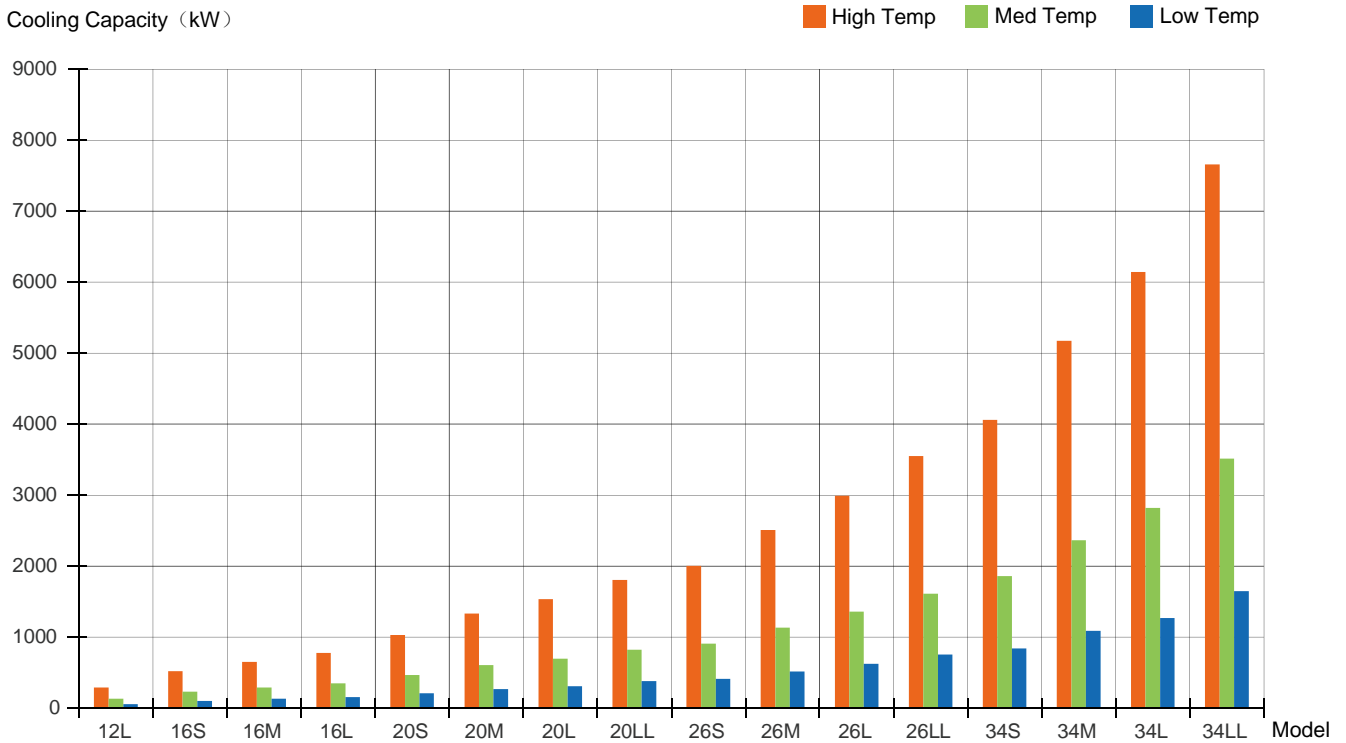
# Open-type Single-stage Screw Compressor Unit

SRM Open-type Single-stage Screw Compressor Units include 5 series totaling 16 models. These series are developed on the standards of high reliability and high energy efficiency. They could be packaged with variable frequency motor, applicable for R717, R404A and R507A. The unit is controlled intelligently through computer. Easy operation and high-degree automation. The standard scope of supply: compressor, open-type motor, control center, oil separator, oil cooler, (Economizer), high capacity filter, pre-lubricating oil pump, automation components, valves, etc.



SRM high-efficiency screw compressor: higher COP than the same type of compressor units.  
 Open asynchronous motor with high efficiency and low noise; the permanent magnet synchronous variable frequency motor is also available for selection.  
 Differential-pressure oil supply system with a small oil pump as pre-lubrication: energy-saving and reliable.  
 Economizer installed: make the high pressure liquid from the condenser subcooled, thus improve COP of the system.  
 Fully automatic one-key start-up; real-time analysis and monitoring of the operation status; saving and keeping of the historical data, remotely control.  
 Automatic capacity control make the unit run with high efficiency under various working conditions.  
 The preventive safety and protection system: unmanned but safe and reliable.  
 All the components are from well-known manufacturers: high reliability and guaranteed quality.  
 Each unit is tested and checked for its full performance to ensure the quality.

## Cooling Capacity of the Unit



Note: 1. 2960RPM, suction overheat 5°C, Refrigerant NH<sub>3</sub>.  
 2. High Temp: +5°C /+35°C, Med Temp: -15°C /+35°C, Low Temp: -35°C /+35°C.

# Open-type Single-stage Screw Compressor Unit (Continued)

## Technical Parameter

Item		Unit	12 Series						16 Series						20 Series					
Compressor	Model		SRM- 12L			SRM- 16S			SRM- 16M			SRM16L			SRM- 20S			SRM- 20M		
	Theoretical displacement	m <sup>3</sup> /h	265			435			544			652			850			1100		
	Capacity Control Range		Stepless Control: 10~100%						Stepless Control: 10~100%						Stepless Control: 10~100%					
Refrigerant	Type		R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507
Cooling Capacity	High Temp	kW	290	182	-	519	513	-	649	641	-	778	769	-	1027	1015	-	1329	1313	-
	Med Temp	kW	133	131	138	232	229	226	291	287	286	348	344	341	465	458	443	605	598	577
	Low Temp	kW	58	49	83	102	88	137	129	110	172	155	131	205	208	175	247	268	229	324
Motor	High Temp	kW	55	30	-	90	84	-	110	101	-	132	120	-	185	162	-	220	204	-
	Med Temp	kW	55	42,3	75	90	72	110	110	87	132	132	103	160	185	140	220	220	176	280
	Low Temp	kW	55	34	75	90	57	110	110	69	132	110	81	160	160	110	200	200	139	250
	Power supply		3P/380V/50Hz			3P/380V/50Hz						3P/380V/50Hz								
	Rated RPM		2960			2960						2960								
Oil Pump	Power of Motor	kW	-			0.75			0.75			0.75			0.75			0.75		

Item		Unit	20 Series						26 Series											
Compressor	Model		SRM- 20L			SRM- 20LL			SRM- 26S			SRM- 26M			SRM- 26L			SRM- 26LL		
	Theoretical displacement	m <sup>3</sup> /h	1270			1496			1659			2075			2478			2940		
	Capacity Control Range		Stepless Control: 10~100%						Stepless Control: 10~100%											
Refrigerant	Type		R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507
Cooling Capacity	High Temp	kW	1535	1516	-	1806	1786	-	2005	1981	-	2507	2477	-	2994	2958	-	3550	3510	-
	Med Temp	kW	699	691	658	822	825	773	908	897	866	1134	1121	1078	1359	1342	1299	1611	1642	1535
	Low Temp	kW	309	265	378	380	317	444	409	346	498	515	434	624	625	522	748	753	640	885
Motor	High Temp	kW	250	235	-	280	274	-	315	308	-	400	376	-	500	450	-	560	527	-
	Med Temp	kW	250	202	315	280	237	355	315	266	400	355	325	500	450	388	560	500	453	710
	Low Temp	kW	200	159	280	220	186	355	280	210	400	355	256	450	400	305	560	450	357	630
	Power supply		3P/380V/50Hz			3P/380V/50Hz (Optional requirement: 3P/6kV、10kV/50Hz)														
	Rated RPM		2960			2960														
Oil Pump	Power of Motor	kW	0.75			0.75			1.5			1.5			1.5			1.5		

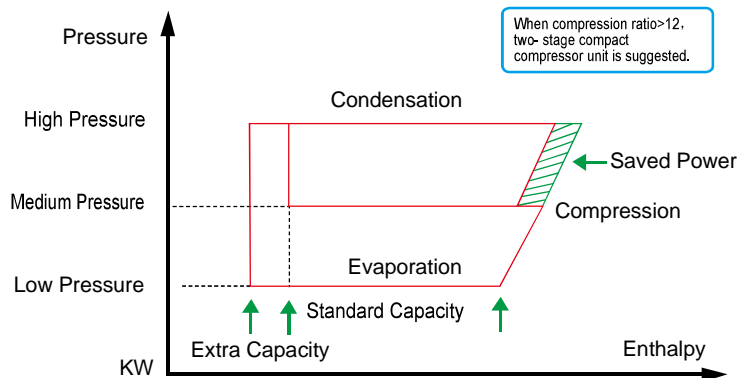
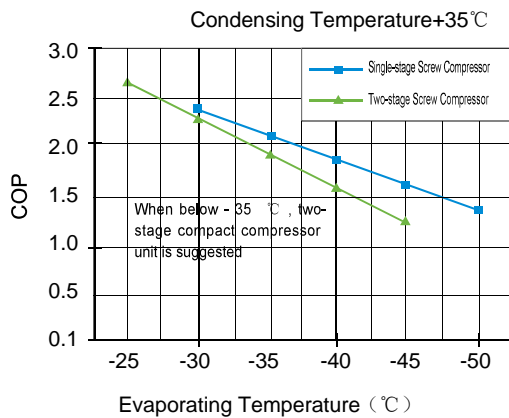
Item		Unit	34 Series											
Compressor	Model		SRM- 34S			SRM- 34M			SRM- 34L			SRM- 34LL		
	Theoretical displacement	m <sup>3</sup> /h	3360			4280			5090			6350		
	Capacity Control Range		Stepless Control: 10~100%											
Refrigerant	Type		R717	R134a	R507	R717	R134a	R507	R717	R134a	R507	R717	R134a	R507
Cooling Capacity	High Temp	kW	4060	4011	-	5172	5109	-	6143	6076	-	7661	7580	-
	Med Temp	kW	1858	1835	1768	2364	2336	2255	2817	2786	2598	3512	3434	3227
	Low Temp	kW	839	715	1023	1089	910	1304	1270	1087	1475	1647	1339	1829
Motor	High Temp	kW	630	623	-	800	786	-	1000	916	-	1250	1135	-
	Med Temp	kW	560	536	800	710	677	1000	900	789	1120	1120	978	1400
	Low Temp	kW	560	422	800	630	533	900	800	621	1120	1000	770	1400
	Power supply		High Voltage: 3P/6kV、10kV/50Hz											
	Rated RPM		2960											
Oil Pump	Power of Motor	kW	1.5			1.5			1.5			1.5		

# Open-type Two-stage Screw Compressor Unit

SRM Open-type Two-stage Screw Compact Compressor Unit include 4 series totaling 12 models. Two consecutive compressions are achieved through the two-stage compressor, which is especially applicable for the large compression ratio working condition. The unit can be packaged with the variable frequency motor to improve the operation efficiency when the load changes. Applicable for R717, R404A, and R507A. The standard scope of supply: Compressor, open-type motor, control center, oil separator, intercooler, oil cooler, high-capacity filter, pre-lubricating oil pump, automation components, etc.



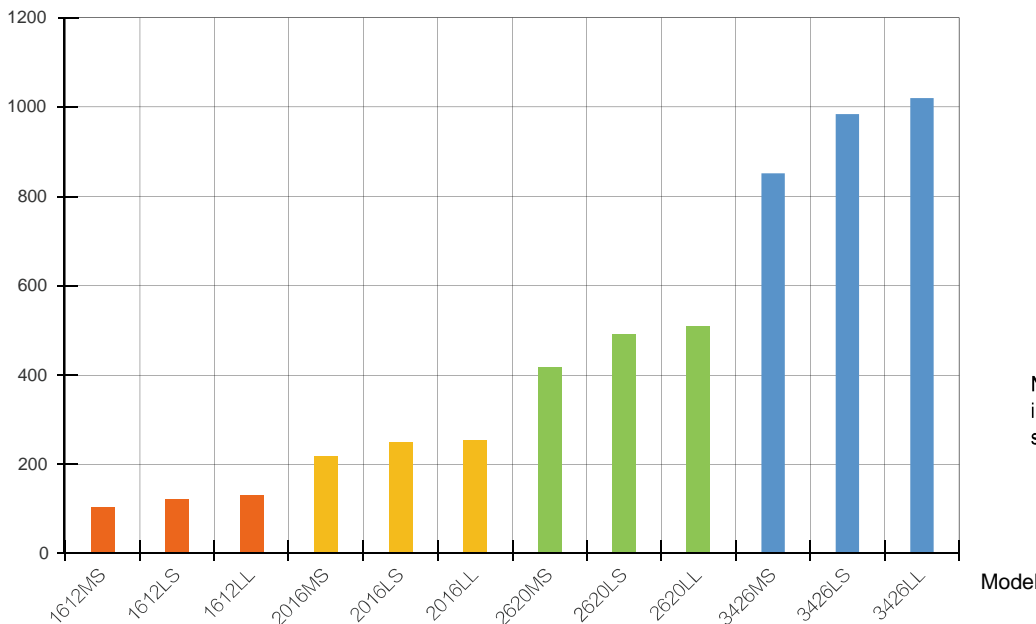
- SRM high-efficiency screw compressor: higher COP than the same type of compressor units.
- Open asynchronous motor with high efficiency and low noise; the permanent magnet synchronous variable frequency motor is also available for selection.
- Differential-pressure oil supply system with a small oil pump as pre-lubricate: energy-saving and reliable.
- Intercooler installed: make the high pressure liquid from the condenser subcooled, thus improve COP of the system.
- Fully automatic one-key start-up; real-time analysis and monitoring of the operation status; saving and keeping of the historical data remotely control.
- Automatic capacity control make the unit run with high efficiency under various working conditions.
- The preventive safety and protection system: unmanned but safe and reliable.
- All the components are from well-known manufacturers: high reliability and guaranteed quality.
- Each unit is tested and checked for its full performance to ensure the quality.



## Cooling Capacity

Cooling Capacity (kW)

NH<sub>3</sub> (-40°C/+35°C)



Note: When at 2960RPM, intercooler installed, and superheat 5°C.

# Open-type Two-stage Screw Compressor Unit (Continued)

## Technical Parameter

Item		Unit	1612 Series						2016 Series					
Compressor	Model		SRM-1612MS		SRM-1612LS		SRM-1612LL		SRM-2016MS					
	High stage displacement	m <sup>3</sup> /h	544		652		652		1100					
	Low stage displacement	m <sup>3</sup> /h	215		215		310		435					
	Theoretical displacement		Stepless Control: 10%~100%						Stepless Control:10%~100%					
Refrigerant	Type		R717		R507	R717		R507	R717		R507	R717		R507
Cooling Capacity	Low Temp	kW	103		135	122		153	130		173	217		282
Motor	Low Temp	kW	90		110	110		132	110		132	160		220
	Power supply		3P/380V/50Hz						3P/380V/50Hz					
	Rated RPM		2960						2960					
Oil Pump	Power of Motor	kW	0.75		0.75		0.75		0.75					

Item		Unit	2016 Series						2620 Series					
Compressor	Model		SRM-2016LS			SRM-2016LL			SRM-2620MS			SRM-2620LS		
	High stage displacement	m <sup>3</sup> /h	1270			1270			2075			2478		
	Low stage displacement	m <sup>3</sup> /h	435			652			850			850		
	Theoretical displacement		Stepless Control: 10%~100%						Stepless Control: 10%~100%					
Refrigerant	Type		R717		R507	R717		R507	R717		R507	R717		R507
Cooling Capacity	Low Temp	kW	248.		310	252		336	418		546	491		604
Motor	Low Temp	kW	200		250	200		250	280		400	315		450
	Power supply		3P/380V/50Hz						3P/380V/50Hz (Optional requirement: 3P/6kV、10kV/50Hz)					
	Rated RPM		2960						2960					
Oil Pump	Power of Motor	kW	0.75			0.75			1.5			1.5		

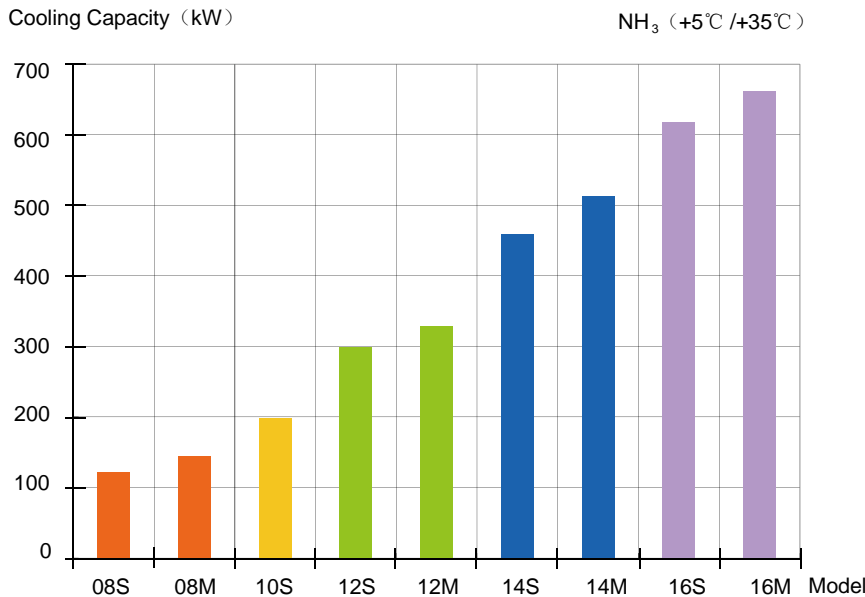
Item		Unit	2620 Series			3426 Series								
Compressor	Model		SRM- 2620LL			SRM- 3426MS			SRM- 3426LS			SRM- 3426LL		
	High stage displacement	m <sup>3</sup> /h	2478			4280			5084			5084		
	Low stage displacement	m <sup>3</sup> /h	1270			1659			1659			2478		
	Theoretical displacement		Stepless Control:10%~100%			Stepless Control: 10%~100%								
Refrigerant	Type		R717		R507	R717		R507	R717		R507	R717		R507
Cooling Capacity	Low Temp	kW	508		699	852		1109	984		1149	1020		1394
Motor	Low Temp	kW	355		500	560		800	630		900	710		1000
	Power supply		3P/380V/50Hz (Optional requirement: 3P/6kV、10kV/50Hz)											
	Rated RPM		2960			2960								
Oil Pump	Power of Motor	kW	1.5			1.5			1.5			1.5		

# Semi-hermetic Single-stage Compact Screw Compressor Unit

SRS Semi-hermetic Single-stage Screw Compressor Units include 46 models. Theoretical displacement of single compressor is 85-500m<sup>3</sup>/h(3000RPM) Semi-hermetic Single-stage Screw Compressor is used, applicable for R717, R404A, R507A, R407F, wide application scenarios. The standard scope of supply: compressor, variable frequency converter for R717 (converters for other refrigerants are available), control center, oil separator, economizer (based on the working conditions), oil cooler, oil filter, suction filter, automation components, etc.



## Single-compressor Unit Cooling Capacity



Note: 3600RPM

- Semi-hermetic screw compressor, integration of motor and compressor, compact structure.
- Low-temp units could be packaged with EConomizer to improve COP.
- Fully automatic one-key start-up; real-time analysis and monitoring of the operation status; saving and keeping of the historical data remotely control. Highly intelligent control system with
- multiple preventive protection modules and intelligent failure-warning functions.
- High capacity precision oil filter and suction filter are both removable for cleaning, easy maintenance.
- Four-stage oil separation system, contributes to separation ratio as high as 99.9%. High efficiency oil cooler is installed, whose cooling method can be chosen between water-cooling and refrigerant-cooling.
- All the components are from well-known manufacturers: high reliability and guaranteed quality.
- Each unit is tested and checked for its full performance to ensure the quality.

## Technical Parameter(Single Compressor)

Compressor Series		Unit	08 Series		10 Series	12 Series		14 Series		16 Series	
Compressor	Compressor Model		SRS-08S	SRS-08M	SRS-10S	SRS-12S	SRS-12M	SRS-14S	SRS-14M	SRS-16S	SRS-16M
	Theoretical Displacement	m <sup>3</sup> /h	85	100	140	210	230	310	340	420	450
Refrigerant	Nominal Working Condition (+5/35°C)	kW	121.3	143.5	197.7	298.2	328.3	458.2	512.1	617.3	661.4
Cooling Capacity	Type		R717								
Motor (conventional)	Power supply		400V/3P/50Hz								
	Rated RPM	r/min	3600								

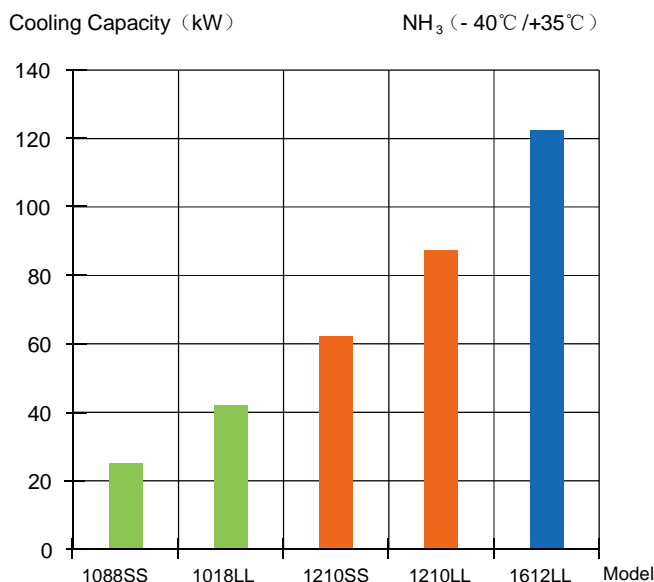
Note: The above data are only for high temp condition (+5°C - +35°C) of single-compressor unit, if the data for low-temp condition (-15°C - +35°C) or parallel compressor rack is needed, please contact us.

# Semi-hermetic Two-stage Compact Screw Compressor Unit

SRS Semi-hermetic Two- stage Screw Compact Compressor Units include 5 models. Semi- hermetic two- stage screw compressor is used, free of leak and wide application. The unit can be packaged with the variable frequency motor to improve the operation efficiency when the load changes. Applicable for multiple natural refrigerants such as R717, R134a, and R404A, R410a The standard scope of supply: semi- hermetic screw compressor, control center, oil separator, intercooler, oil cooler, high- capacity filter, automation components, etc.



## Cooling Capacity



Note: 1. 2960RPM. 2. Suction superheat 5°C .

- Abopt semi- hermetic screw compressor, integration of motor and compressor, compact structure which requires less space and is easy to transport.
- Permanent magnet synchronous motor, special tailor-made materials are used so that it is compatible with multiple refrigerants such as R134, R404A, R410a, etc. Intercooler is installed to subcool the high pressure liquid
- from the condenser, thus improving COP of the system. Fully automatic one- key start- up; real- time analysis and
- monitoring of the operation status; saving and keeping of the historical data remotely control . Highly intelligent control system with multiple preventive
- protection modules and intelligent failure warning-functions. High capacity precision oil filter, and suction filter are both
- removable for cleaning, easy maintenance. Four-stage oil separation system, contributes to separation ratio as high as 99.9%. High efficiency oil cooler installed, whose cooling method can be chose between water- cooling and nefrigerant- cooling.
- All the components are from well- known manufacturers:
  - high reliability and guaranteed quality.
  - Each unit is tested and checked for its full performance to
  - ensure the quality.

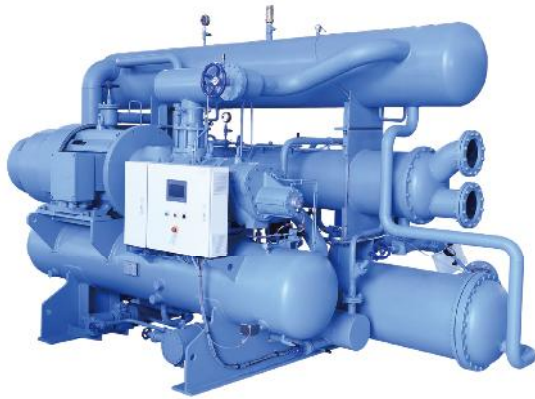
## Technical Parameter

Item		Unit	1008 Series		1210 Series		1612 Series
Compressor	Model		SRS- 1008SS	SRS- 1018LL	SRS- 1210SS	SRS- 1210LL	SRS- 1612LS
	Low Pressure stage Displacement	m <sup>3</sup> /h	141	221	332	463	652
	High Pressure stage Displacement	m <sup>3</sup> /h	52	82	123	166	215
	Capacity Control		Step Control		Step Control		Step/stepless Control
Cooling Capacity	Type		R717	R717	R717	R717	R717
Refrigerant	Low Temp	kW	25.2	41.9	62.3	87.5	122.3
	Low Temp	kW	29.0	45.0	68.0	90.0	138.0
Motor	Power supply		3P/380V/50Hz		3P/380/50Hz		3P/380/50Hz
	Rated RPM	rpm	2960		2960		2960

Note: Low- temp working condition: - 40°C /+35°C

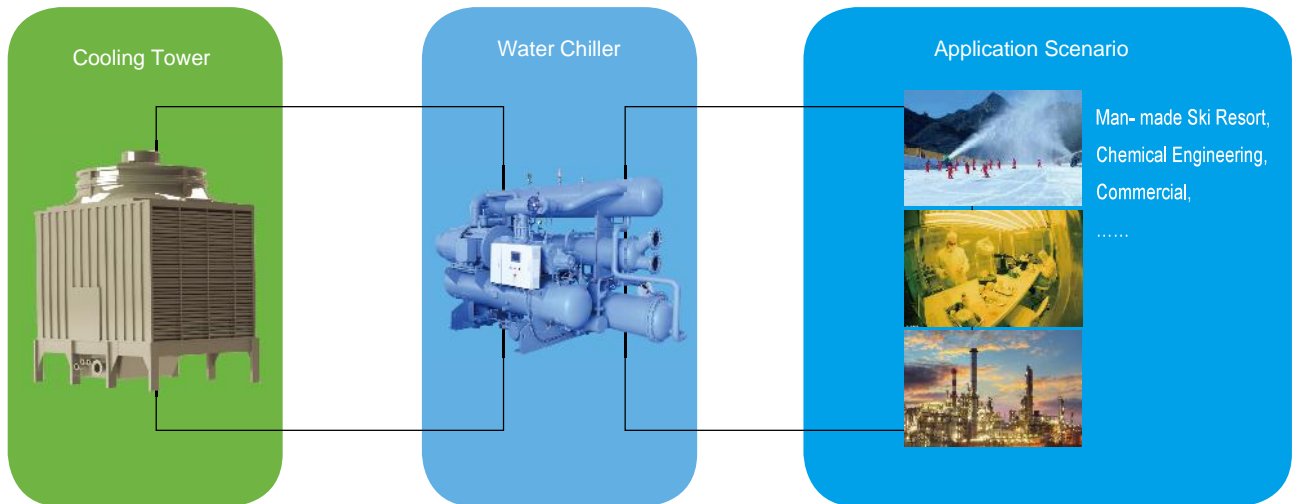
# Open-type Screw Water Chiller

On the basis of SRMTEC open- type screw compressor, Snowman optimized its design, introducing open- type screw water chiller series. The refrigeration solutions under high- temp, med temp and low- temp working conditions are thus provided. With its easy operation and safe and reliable running, the series can be applied in various scenarios such as industries in petroleum, chemical engineering, coal, medicine, fishery, commerce, food, scientific research, etc., where artificial refrigeration is needed. We are committed to providing the customers with the most economic, energy- saving, safe and high efficiency water chiller. The standard scope of supply: SRM open- type screw compressor, oil separator, oil cooler, evaporator, condenser, metering device, oil pump, oil filter, dry filter, valves, etc.



High Temp:  $-10^{\circ}\text{C} < \text{Brine outlet temp} < 3^{\circ}\text{C}$   
 Med Temp:  $-25^{\circ}\text{C} < \text{Brine outlet temp} < -10^{\circ}\text{C}$   
 Low Temp:  $-35^{\circ}\text{C} < \text{Brine outlet temp} < -25^{\circ}\text{C}$

- Snowman's rich experience in refrigeration system design and development.
- Abopt SRMTEC compressor, sub- brand Snowman.
- Optimized structure design, module design, high integration, compact structure, easy installation and maintenance.
- Components and accessories are used from famous brands, rendering reliable quality.
- Multiple refrigerants.
- Stepless (10%- 100%) capacity control: high- efficiency operation in various working conditions.
- Wide applications for high, medium, low temp working conditions with wide cooling capacity.
- The evaporative, water- cooling, and air- cooling condensers are available to meet the different requirement of regions.
- Under low temp working condition, economizer is installed to improve cooling capacity and COP.
- Intelligent control center with easy operation, which can automatically record the operation parameters of the system. Preventive safety and protection system is installed.
- Robust quality assurance system.



## Cooling Capacity

Units	Cooling Capacity (kW)	Unit	Cooling Capacity (kW)
High- temp Water- cooled Dry- type Water Chiller	117~505	High- temp Water- cooled Flooded Water Chiller	437~2155
Med- temp Water- cooled Dry- type Water Chiller	114~363	Med- temp Water- cooled Thermosyphon Water Chiller	390~1464
Low- temp Water- cooled Dry- type Water Chiller	81~213	Low- temp Water- cooled Thermosyphon Water Chiller	283~863

Note: In case of variances due to the technical improvement, the actual design is followed.



# NATURE NH<sub>3</sub>/CO<sub>2</sub> Secondary Unit

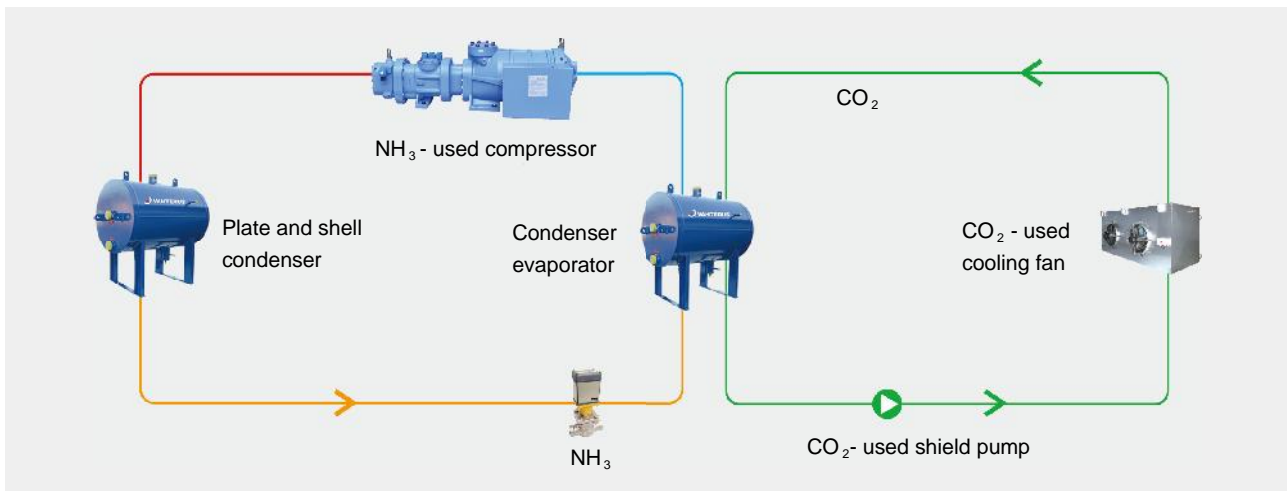
Snowman has developed high performance and environment-friendly NH<sub>3</sub>/CO<sub>2</sub> Secondary Units to meet the application requirements of high temp refrigeration, low- temp refrigeration and quick freezing. NH<sub>3</sub>/CO<sub>2</sub> units take CO<sub>2</sub> as the secondary refrigerant and NH<sub>3</sub> as the primary, forming the composite refrigeration system. This combination not only ensures environmental safeguarding but also solves the issue of high- charging amount of NH<sub>3</sub> in the traditional systems, which is a safety hazard. The series includes the design of the automatic control, excellent energy efficiency, high integration, and reliable safety.



Demonstration Project of  
UNEP Montreal Protocol  
Multilateral Fund



- World- leading SRM NH<sub>3</sub> semi-hermetic screw compressor.
  - High- speed variable frequency permanent magnet synchronous motor saves more energy than the routine motors.  
Highly integrated plate and shell type heat exchanger: heat exchange and separation are one, high heat transfer efficiency, compact structure, fully closed structure. High- pressure resistant, guaranteed safety.
  - Preventive safety warning system makes automatic operation possible and reduces the number of on- site management personnel.
  - Module design reduces the design cost of the machine room refrigeration; integral and distributive installation are available. Minimal NH<sub>3</sub> charge.
  - CO<sub>2</sub> makes the system fully clean, free of refrigerant oil residue,
  - heat transfer is much more efficient than the traditional systems of NH<sub>3</sub> or freon, cooling is rapid, and there is no issue of cleaning the refrigeration oil residue at the refrigeration end.
- The valves and sensors are all from the global- known brand, high efficiency and reliable safety.



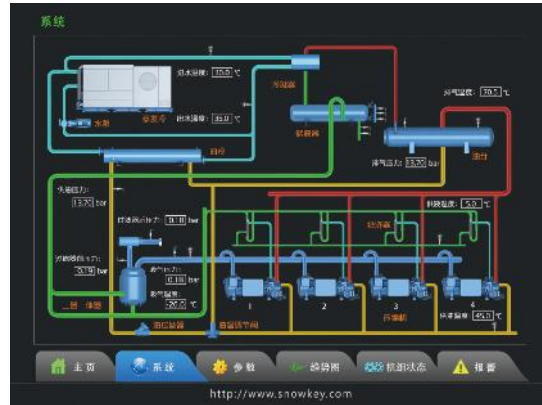
## Technical Parameter

Unit Model	Compressor					NH <sub>3</sub> Charg (kg)	Dimension L x W xH (mm)
	Working Condition (°C)	Model	Form	Cooling Capacity (kW)	COP		
NATURE230C	- 8/35	SRS- 12M	Single-stage Compact	214.6	3.50	70	3400x2150x2750
NATURE340C		SRS- 14M		327.6	3.54	100	3600x2250x2750
NATURE450C		SRS- 16M		413.3	3.61	120	3700x2500x2900
NATURE332R	- 38/35	SRS- 1210SS	Two-stage Compact	89.0	1.85	30	3400x2150x2750
NATURE463R		SRS- 1210LL		125.6	1.91	50	3400x2150x2750
NATURE652R		SRS- 1210LS		176.8	1.80	65	4500x2500x3100

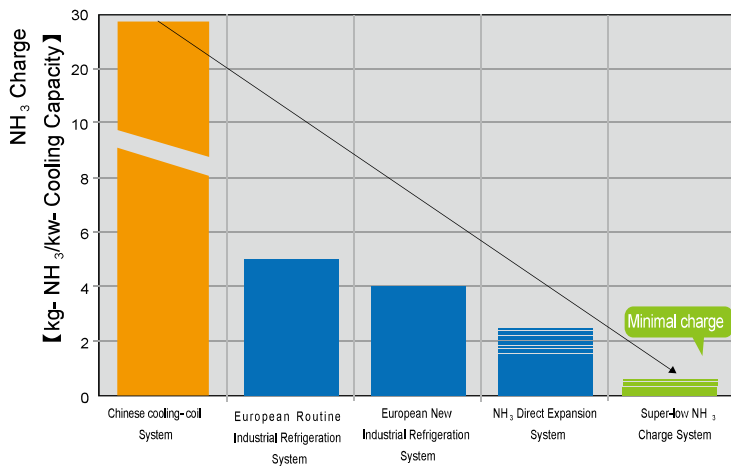
Note: The above are only the data for some integral models. Please contact us for more information.

# Mobile Refrigeration Station

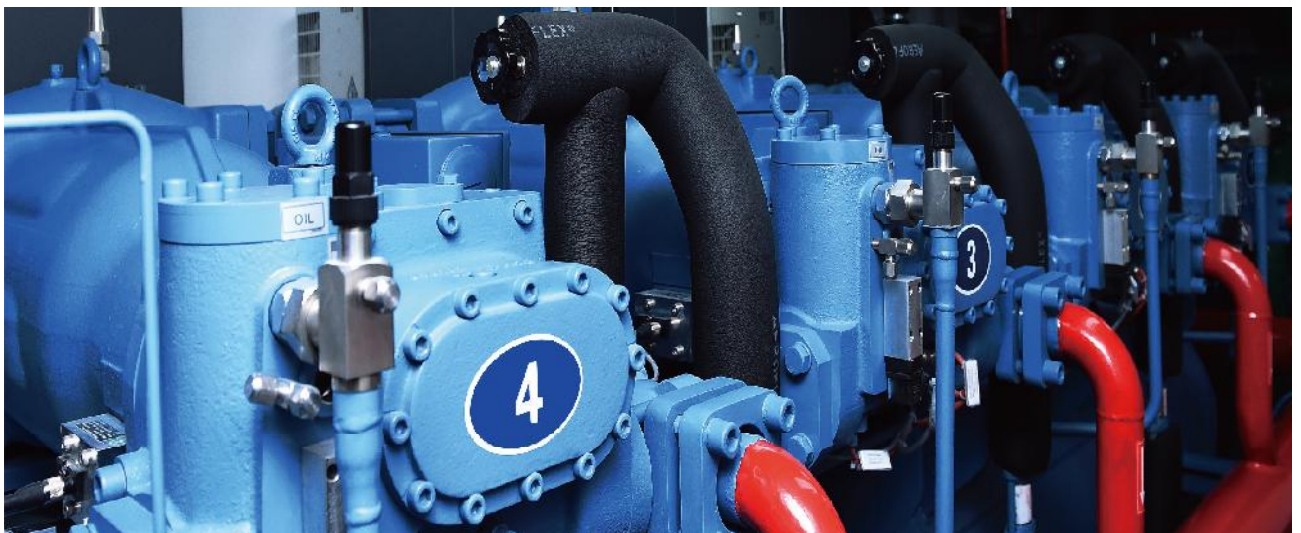
Snowman Mobile Refrigeration Station gathers the major refrigeration equipments, e.g. compressor, condenser, liquid receiver, gas- liquid separator and electronic control components, into a standard container. Cooling tower or evaporative condenser is put on the top of the container. The container serves as the engine room of the refrigeration system. Professional design, reasonable layout, less space and flexible installation. High cooling efficiency, solid performance, controlled capacity for low temp and super- low temp working conditions. As many as eight compressors can be parallel operated. Intelligent control, simple operation, smooth and safe running, applicable for medium and small logistic cold storage or large cold room that needs the expanded cold storage.



NH<sub>3</sub> Charge in Various Industrial Refrigeration Systems



- World- leading SRM NH<sub>3</sub> semi-hermetic screw compressor.
- Container as the bearer saves the work of the machine room design; easy moving, shortened on-site installation period, and reduced cost.
- Plate and shell heat exchanger and direct expansion system forms the refrigeration system that requires minimal NH<sub>3</sub> charge. NH<sub>3</sub> can be reduced as much as 50- 80%, thus reducing the potential risk.
- Three- in- one vessel (ags- liquid separator), which also functions as heat exchanger and improves the cooling efficiency.
- PLC automatic control and robust failure- warning warranty.
- High efficiency oil separator, its efficiency as high as 99.9%.
- The valves and accessories are from the world famous manufacturers, providing guaranteed precision and reliability.
- Factory assembled, central control, and guaranteed quality.



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