



SEA-BIRD®

An ISO 9001:2000 Organization

Refrigeration Technologies

Suction Line Accumulators

With or without
heat exchanger



**R134a R404A R507A R407C R22
R410A R508b R717 CO₂**



ENVIRONMENT
FRIENDLY



LESS ELECTRICITY
CONSUMPTION



WORLD CLASS
TECHNOLOGY



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THE SEA BIRD GROUP

The SEABIRD Group is today diversified into different industries, also at the forefront of Asian Compressors production. Since 1983 SEABIRD has enjoyed continuous growth, and has invested heavily in highly advanced computerised production machinery, to ensure that quality and reliability of our products remain the foundation of our success. SEABIRD has production facilities in different parts of India and four service centres abroad, from where we service customers around the globe.

SEABIRD is now market leader in the segment of high quality Compressors, Condensing Units, Pressure Vessels, Chillers and Cold Rooms which has always been the core business of the company's activities.

SEABIRD is also ventured into Plastic industry, Automobile industry, Automation industry and software industry.

Continuing investments for research and development into new products, together with the design of ultramodern plant, options and design.

This is a success that has been consolidated over the years by the work of a flexible, dynamic and enthusiastic organization, in which the company culture is very much oriented towards quality, customer care and efficiency.



An ISO 14001:2004 Organization

An ISO 9001:2000 Organization



Prestigious National
Award Winner

SUCTION ACCUMULATORS

APPLICATIONS

Suction line accumulators are installed on refrigeration systems to **prevent refrigerant liquid return** to suction line to idled compressors. These systems include the following:

- systems with high temperature differences (discontinuous operation),
- remote systems with long lines,
- systems with low evaporator load,
- reversing cycle systems: heat pump and defrost applications.

Recommended for low superheat applications such as liquid chillers, low temperatures display cases, truck units, and so on...

CHARACTERISTICS

- Complete separation** of the vapour phase and the refrigerant fluid's liquid phase.
- Complete vaporization** of the refrigerant liquid when the liquid leaves the Accumulators.
- Cooling of the vapour returning to compressor, thus reducing motor warm up.
- Pressure equalization at the Accumulators inlet and outlet, even in off cycle periods.
- Minimum pressure drop.
- Reduced noise on the low pressure side of the system.
- Positive** oil return.
- Maximum efficiency of the relief device (expansion valve) because it is supplied with subcooled liquid.**
- Enhanced evaporator performance.**

RECOMMENDATIONS

For optimum operation, **the velocity at which the refrigerant liquid passes through the tube baffles of the accumulator should be between 8 and 12 m/s.** If the velocity of the gas in the piping is insufficient, oil return to the compressor is not assured.

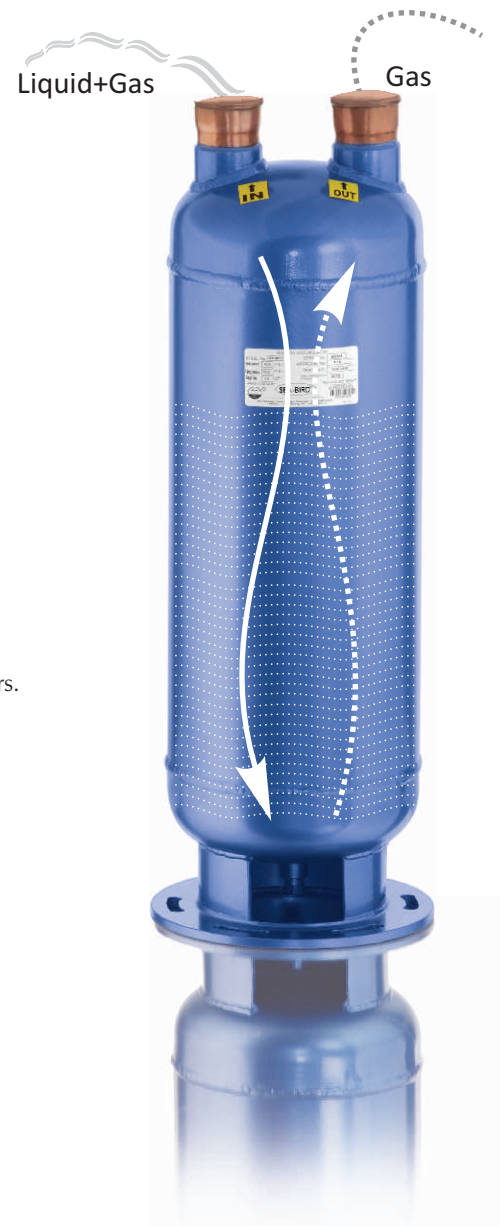
The selected liquid holding capacity should not be less than 50% of the total charge of refrigerant liquid in the installation.

The pressure drop in the accumulators should not go beyond 0.3°C.

The suction line accumulators must be installed in a **vertical** position, **as close to the compressor as possible and at the same level as compressor.**

Mounting always has to be done vertically, as close as possible to the compressor and at the same height.

In order to avoid any frost on suction accumulators, Seabird strongly recommends to systematically insulate Suction Accumulators.



Technical Data

MODEL	FITTING SIZE (D NOM.)	LIQUID HOLDING CAPACITY Lbs	TONS OF REFRIGERATION (EVAPORATOR TEMPERATURE)**											
			R-134a			R-404A/R-507			R-22			R-502		
			-18°C (0°F)	-7°C (+20°F)	5°C (+40°F)	-18°C (0°F)	-7°C (+20°F)	5°C (+40°F)	-18°C (0°F)	7°C (+20°F)	5°C (+40°F)	-18°C (0°F)	-7°C (+20°F)	5°C (-40°F)
SB128	1/2"	2.0	0.6	0.8	1.2	0.8	1.0	1.3	0.9	1.4	2.0	0.8	1.3	1.8
SB5810	5/8"	2.5	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	3.0	1.2	1.9	2.7
SB5812	5/8"	3.0	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	3.0	1.2	1.9	2.7
SB3412	3/4"	3.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	4.0	1.6	2.5	3.5
SB5814	5/8"	3.5	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	3.0	1.2	1.9	2.7
SB3414	3/4"	3.5	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	4.0	1.6	2.5	3.5
SB126	1/2"	2.5	0.6	0.8	1.2	0.8	1.6	1.3	0.9	1.4	2.0	0.8	1.3	1.8
SB585	5/8"	2.5	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	3.0	1.2	1.9	2.7
SB5810 a	5/8"	5.0	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	3.0	1.2	1.9	2.7
SB3410 a	3/4"	5.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	4.0	1.6	2.5	3.5
SB349	3/4"	6.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	4.0	1.6	2.5	3.5
SB789	7/8"	6.0	1.0	2.8	4.0	2.7	3.6	4.6	3.3	5.1	7.3	2.8	4.3	6.2
SB3412 a	3/4"	9.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	4.0	1.6	2.3	3.5
SB7812	7/8"	9.0	1.8	2.8	4.0	2.7	3.6	4.6	3.3	5.1	7.3	2.8	4.3	6.2
SB7813	7/8"	10.0	1.8	2.8	4.0	2.7	3.6	4.6	3.3	5.1	7.3	2.8	4.3	6.2
SB11813	1-1/8"	10.0	3.1	5.0	7.2	4.4	5.9	7.6	5.3	8.3	11.8	4.6	7.1	10.2
SB11817	1-1/8"	12.0	3.1	5.0	7.2	4.4	5.9	7.6	5.3	8.3	11.8	4.6	7.1	10.2
SB13817	1-3/8"	12.0	4.6	7.3	10.7	7.2	9.6	12.2	8.5	13.2	18.8	7.4	11.6	16.5
SB7811	7/8"	12.0	1.8	2.8	4.0	2.7	3.6	4.6	3.3	5.1	7.3	2.8	4.3	6.2
SB7813 a	7/8"	13.0	1.8	2.8	4.0	2.7	3.6	4.6	3.3	5.1	7.3	2.8	4.3	6.2
SB11813 a	1-1/8"	13.0	3.1	5.0	7.2	4.4	5.9	7.6	5.3	8.3	11.8	4.6	7.1	10.2
SB13814	1-3/8"	14.0	4.6	7.3	10.7	7.2	9.6	12.2	8.5	13.2	18.8	7.4	11.6	16.5
SB15817	1-5/8"	17.0	7.3	11.7	17.0	10.7	14.2	18.2	12.8	20.0	28.5	11.0	17.2	24.5
SB15820	1-5/8"	20.0	7.3	11.7	17.0	10.7	14.2	18.2	12.8	20.0	28.5	11.0	17.2	24.5
SB15825	1-5/8"	25.0	7.3	11.7	17.0	10.7	14.2	18.2	12.8	20.0	28.5	11.0	17.2	24.5

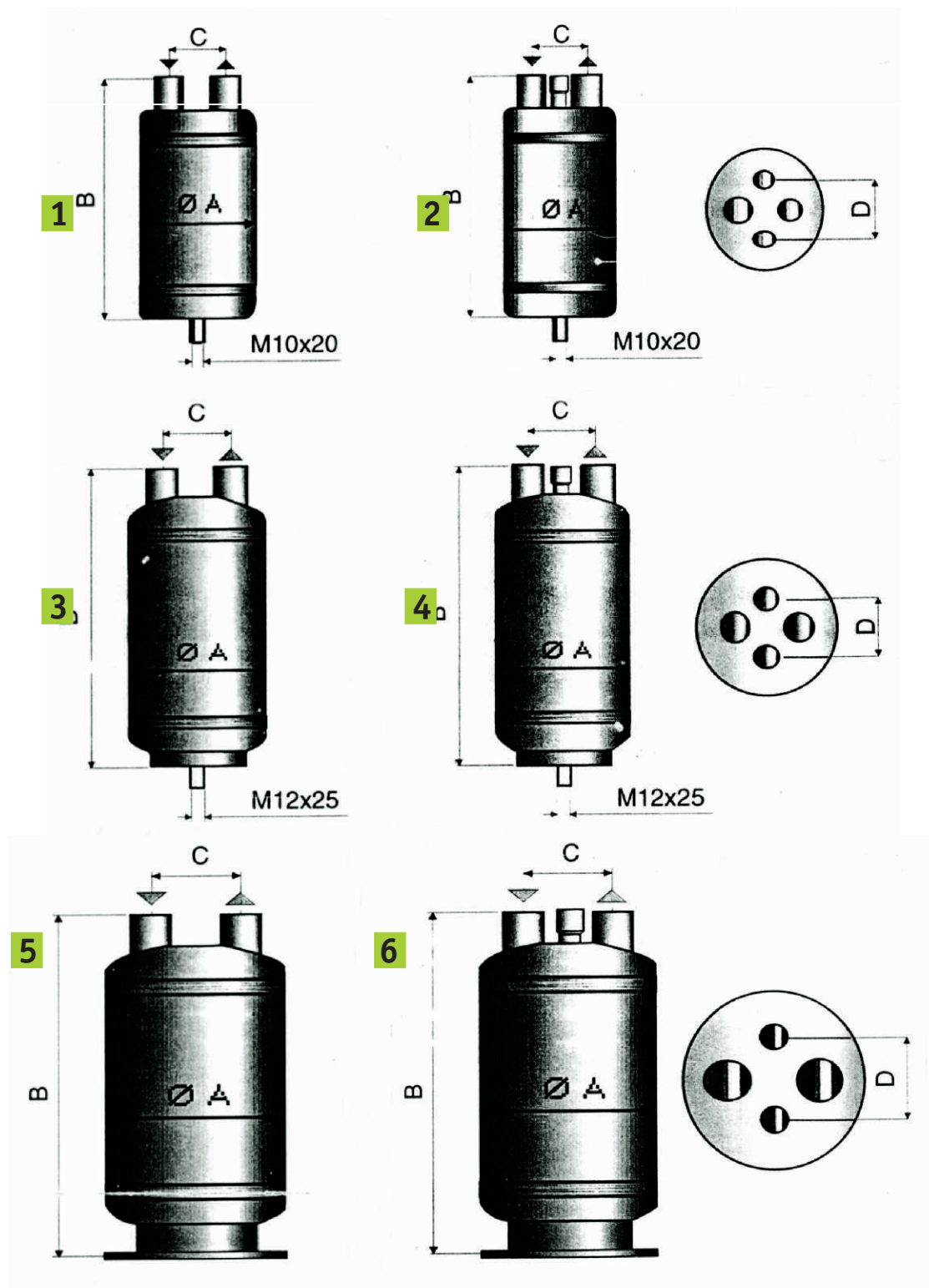
Dimensional Drawing on request.

Technical Data

Type	SBR		Capacity in KG of refrigerant at 30 C						Dimensions in mm				Total volume in litres	Possible retention Volume in litres	Drawing
	Inlet/ Outlet Connections in ODF		R12	R22	R502	R134a	R404A	NH ₃	A	B	C	E			
	MM	Inches		R407C											
SB 04	12	½	0.8	0.7	0.7	0.7	0.7	-	89	194	50	-	0.9	0.14	1
SB 14	12	½	1.3	1.1	1.2	1.2	1.2	-	89	294	50	-	1.5	0.14	1
SB 24	12	½	2.0	1.7	1.8	1.8	1.8	-	102	358	56	-	2.2	0.15	1
SB 05	16	5/8	0.8	0.7	0.7	0.7	0.7	-	89	199	48	-	0.9	0.15	1
SB 15	16	5/8	1.3	1.1	1.2	1.2	1.2	-	89	299	48	-	1.5	0.15	1
SB 25	16	5/8	2.0	1.7	1.8	1.8	1.8	-	102	363	56	-	2.2	0.17	1
SB 16	18	3/4	1.3	1.1	1.2	1.2	1.2	-	89	299	37	-	1.5	0.17	1
SB 26	18	3/4	2.0	1.7	1.8	1.8	1.8	-	102	363	56	-	2.2	0.19	1
SB 27	22	7/8	2.0	1.7	1.8	1.8	1.8	-	102	373	56	-	2.2	0.20	1
SB 47	22	7/8	2.8	2.5	2.6	2.6	2.6	-	102	487	56	-	3.2	0.20	1
SB 67	22	7/8	5.3	4.8	4.9	4.9	4.9	2.5	152	430	76	-	5.8	0.32	3
SB 49	28	1 1/8	3.5	3.2	3.3	3.2	3.2	1.6	121	432	49	-	4.0	0.28	3
SB 69	28	1 1/8	5.3	4.8	4.9	4.9	4.9	2.5	152	435	76	-	5.8	0.35	3
SB 89	28	1 1/8	7.2	6.5	6.6	6.6	6.6	3.3	152	535	76	-	7.4	0.35	3
SB 611	35	1 3/8	5.3	4.8	4.9	4.9	4.9	2.5	152	452	76	-	5.8	0.40	3
SB 811	35	1 3/8	7.2	6.5	6.6	6.6	6.6	3.3	152	554	76	-	7.4	0.40	3
SB 1011	35	1 3/8	9.5	8.6	8.8	8.7	8.7	4.4	152	662	76	-	9.2	0.40	3
SB 813	42	1 5/8	7.2	6.5	6.6	6.6	6.6	3.3	152	554	76	-	7.4	0.40	3
SB 1013	42	1 5/8	9.5	8.6	8.8	8.7	8.7	4.4	152	662	76	-	9.2	0.40	3
SB 2013	42	1 5/8	20.5	18.5	19.0	19.0	19.0	9.5	219	722	114	190	20	0.50	5
SB 1517	54	2 1/8	15.5	14.0	14.5	14.5	14.5	7.0	219	582	114	190	15	0.60	5
SB 1817	54	2 1/8	20.5	18.5	19.0	19.0	19.0	9.5	219	732	114	190	20	0.60	5
SB 3617	54	2 1/8	36.0	33.0	33.5	33.5	33.5	16.5	324	700	155	290	35	2.30	5
SB 5017	54	2 1/8	51.5	47.0	47.5	47.5	47.5	24.0	324	900	155	290	50	2.30	5
SB 3621	67	2 5/8	36.0	33.0	33.5	33.5	33.5	16.5	324	700	155	290	35	2.60	5
SB 5021	67	2 5/8	51.5	47.0	47.5	47.5	47.5	24.0	324	900	155	290	50	2.60	5
SB 3625	80	3 1/8	36.0	33.0	33.5	33.5	33.5	16.5	324	700	155	290	35	2.90	5
SB 5025	80	3 1/8	51.5	47.0	47.5	47.5	47.5	24.0	324	900	155	290	50	2.90	5
SB 7025	80	3 1/8	72.5	65.5	67.0	67.0	67.0	33.5	324	1150	155	290	70	2.90	5
SB 7029	88.9	3 5/8	72.5	65.5	67.0	67.0	67.0	33.5	324	1150	155	290	70	3.20	5

Max. Working Pressure 20 Bar (290 P.S.I.)

Dimensional Drawing



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