

# Suction Line Accumulators

Compressors are extremely susceptible to damage from liquid refrigerant. Excessive liquid refrigerant return may cause not only oil dilution but complete loss of the compressor oil charge which results in equipment damage due to lack of proper lubrication. In addition, refrigerant flashing may occur causing the oil pump to lose pressure.

The right selection and installation of a Suction Accumulator in the line, as close as possible to the compressor, is a life-saver for the equipment, assuring adequate oil return and that refrigerant return only, is returning to the compressor.

Suction Accumulators can also function as suction traps that prevent liquid refrigerant floodback, one of the most common causes of compressor failure. In most cases liquid floodback can be controlled. However, an accumulator assures control and protection of the compressor.

In summary, Suction Line Accumulators:

1. Provide compressor protection, preventing compressor failure due to liquid slugging.
2. Assure adequate oil return and assures that refrigerant vapor only is returning to the compressor.
3. Provide a minimum system pressure drop while maintaining the maximum refrigerant flow required.

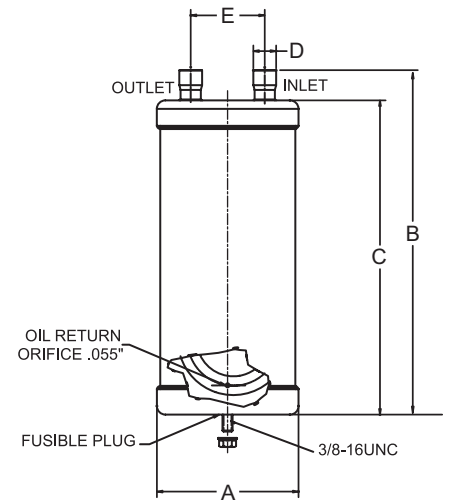
With Emerson Climate Technologies Suction Line Accumulators you receive:

- Operation design to 40°F evaporator temperature.
- Suction gas temperatures to as low as 12°F at the accumulator
- Fuse plug available on specific models.
- CUL Listed for a max. working pressure at 300 psig.
- Electrostatic powder paint coating assuring corrosion resistance beyond 500 hours of salt spray (ASTM).
- Solid copper fittings.

## INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS

- ⇒ **WARNING: Normal precautions should be taken by directing the flame away from the shell. Use chill blocks wet rags, or other suitable heat protection for the accumulator.**
- ⇒ Install unit in a bypass line or suction line as close to the compressor as possible.
- ⇒ Apply product according to manufacturer's capacity rating only.
- ⇒ For reverse cycle applications, install accumulator between the reversing valve and the compressor
- ⇒ Be sure to attach incoming refrigerant line to the fitting marked "inlet".
- ⇒ Always install the accumulator upright in the vertical position.

MODEL	FITTING SIZE (D NOM.)	UNIT WEIGHT (LB)	A IN	B IN	C IN	D NOM	E IN
* AS-384	1/2"	2.0	3	8.27	7.52	1/2	1.63
* A-AS-3105	5/8"	2.4	3	10.47	9.37	5/8	1.63
* A-AS-3125	5/8"	2.9	3	12.60	11.50	5/8	1.63
* A-AS-3126	3/4"	2.6	3	12.80	11.50	3/4	1.63
* A-AS-3145	5/8"	3.3	3	14.88	13.78	5/8	1.63
* A-AS-3146	3/4"	3.3	3	15.08	13.78	3/4	1.63
A-AS-464	1/2"	3.3	4	6.28	5.63	1/2	2.50
A-AS-465	5/8"	3.3	4	6.63	5.63	5/8	2.50
A-AS-4105	5/8"	4.6	4	11.00	10.00	5/8	2.50
A-AS-4106	3/4"	4.6	4	11.20	10.00	3/4	2.50
A-AS-596	3/4"	5.1	5	9.69	8.50	3/4	2.75
A-AS-597	7/8"	5.1	5	9.87	8.50	7/8	2.75
A-AS-5126	3/4"	6.6	5	12.87	11.69	3/4	2.75
A-AS-5127	7/8"	6.6	5	13.06	11.69	7/8	2.75
A-AS-5137	7/8"	7.0	5	14.76	13.39	7/8	2.75
A-AS-5139	1 1/8"	7.0	5	14.94	13.39	1 1/8	2.75
A-AS-5179	1 1/8"	8.4	5	18.48	16.93	1 3/8	2.75
A-AS-51711	1 3/8"	8.4	5	18.55	16.93	7/8	2.94
A-AS-6117	7/8"	10.6	6	12.48	10.98	7/8	2.94
A-AS-6137	7/8"	11.7	6	14.10	12.60	1 1/8	2.94
A-AS-6139	1 1/8"	11.7	6	14.28	12.60	1 3/8	2.94
A-AS-61411	1 3/8"	12.1	6	15.53	13.78	1 5/8	2.94
A-AS-61713	1 5/8"	15.6	6	18.88	17.01	1 5/8	2.94
A-AS-62013	1 5/8"	18.0	6	22.11	20.24	1 5/8	2.94
A-AS-62513	1 5/8"	21.6	6	26.87	25.00	1 5/8	2.94



\* Not supplied with fuse plug.

### APPLICATIONS & RATING 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)
A-AS-384	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
A-AS-3105	5/8"	2.5	0.8	1.2	1.7	1.2	1.6	2.2	1.4	2.1	3.0	1.2	1.9	2.7
A-AS-3125	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
A-AS-3126	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
A-AS-3145	5/8"	3.5	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	..0	1.2	1.9	2.7
A-AS-3146	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
A-AS-464	1/2"	2.5	0.6	0.8	1.2	0.8	1.0	1.3	0.9	1.4	2.0	0.8	1.3	1.8
A-AS-465	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
A-AS-4105	5/8"	5.0	0.8	1.2	1.7	1.2	1.6	2.0	1.4	2.1	4.0	1.2	1.9	2.7
A-AS-4106	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
A-AS-596	3/4"	6.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	7.3	1.6	2.5	3.5
A-AS-597	7/8"	6.0	1.8	2.8	4.0	2.7	3.6	4.6	3.3	5.1	4.0	2.8	4.3	6.2
A-AS-5126	3/4"	9.0	1.0	1.6	2.3	1.5	2.0	2.6	1.8	2.8	7.0	1.3	2.5	3.5
A-AS-5127	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
A-AS-5137	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
A-AS-5139	1 1/8"	10.0	3.1	5.1	7.2	4.4	5.9	7.6	5.3	8.3	11.8	4.6	7.1	10.2
A-AS-5179	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
A-AS-51711	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
A-AS-6117	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
A-AS-6137	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
A-AS-6139	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
A-AS-61411	1 3/8"	14.0	4.6	7.1	10.7	7.2	9.6	12.2	8.5	13.2	18.8	7.4	11.6	16.5
A-AS-61713	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
A-AS-62013	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
A-AS-62513	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

\*\* HOLDING CAPACITY OF R-22 AT 40°F EVAPORATOR

WHEN SELECTING OR SIZING AN ACCUMULATOR, CONNECTIONS MAY NOT NECESSARILY MATCH THE SUCTION LINE SIZE