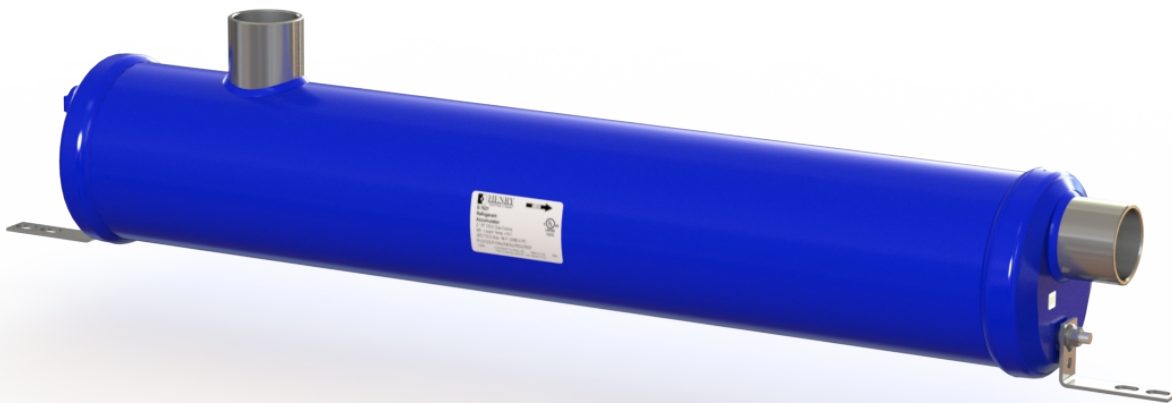


# SUCTION LINE ACCUMULATORS

## Horizontal, UL



**The function of a Suction Line Accumulator is to provide temporary storage and controlled return of liquid refrigerant and oil to protect the compressor from damage by sudden surges of liquid.**

### Applications

Suction Line Accumulators are installed in air conditioning and refrigeration systems where sudden return of liquid down the suction line is possible. Suction Line Accumulators are designed to meter both liquid refrigerant and oil back to the compressor at a controlled rate. In addition to protecting the compressor from damage, the Accumulator helps maintain system efficiency and proper crankcase oil levels.

Henry Technologies' Suction Line Accumulators are suitable for use with HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel and copper.

### Main Features

- ODS connections
- 3/4 NPT fitting for hot gas bypass or relief device
- 1/2 NPT fitting for liquid injection or relief device
- Mounting brackets included
- Prevents liquid slugging
- Controlled liquid refrigerant and oil return

### How it Works

Refrigerant vapor from the evaporator enters the Suction Line Accumulator, along with any liquid refrigerant and oil. The outlet of the Accumulator is placed to ensure vapor is returned to the compressor. On horizontal Accumulators, liquid is metered back to the compressor via a dip tube. This metering only occurs when the compressor is running.

### Technical Specifications

Maximum working pressure = 302 PSI (20.8 Bar)

Allowable operating temperature = +15°F to +250°F (-9.5°C to +121°C)

Henry Technologies' Suction Line Accumulators are UL and C-UL Listed by Underwriters Laboratories, Inc. Additionally, Suction Line Accumulators are designed and registered for use in Canada. Please contact Technical Support at 1-800-627-5148 for CRN details and list of approved provinces and territories. Suction Line Accumulators can be CE marked in accordance with PED by adding a "-CE" suffix to the part number. (i.e. S-7621-CE)

### Materials of Construction

The shell and caps and mounting brackets are made of steel. The ODS connections are made of plated steel.

### Selection Guidelines

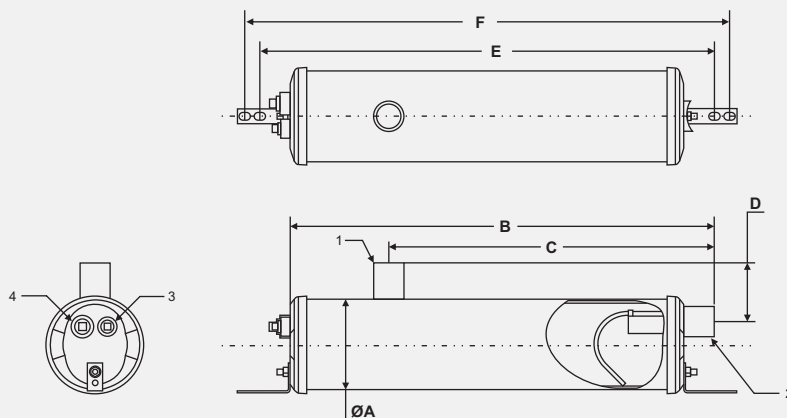
Selection of a Suction Line Accumulator should be made based on three capabilities.

1. The Accumulator should have adequate liquid holding capacity. Normally this should not be less than 50% of the total system charge.
2. The Accumulator should be selected in order to avoid excessive pressure drop in the system.
3. The Accumulator should have the capability of returning liquid at the proper rate under a range of load conditions. The listed tonnage ratings ensure sufficient flow for proper liquid refrigerant and oil return.

### Installation - Notes

1. Install the Accumulator after the Suction Line Filter-Drier.
2. A pressure relief device connection is provided at the top of the vessel. The user must ensure the vessel is protected from over-pressure.
3. For low temperature applications heat bands should be installed at the outlet end of the horizontal Accumulator.
4. Accumulators may be insulated to prevent condensation or frost on the outside of the shell.
5. Full instructions are given in the Product Instruction Sheet, included with each unit.

- ❶ Inlet
- ❷ Outlet
- ❸ 1/2" NPT Fitting
- ❹ 3/4" NPT Fitting



Part No	ODS (inch)	Dimensions (inch)						CE Cat*	Weight (lbs)
		ØA	B	C	D	E	F		
S-7615	1-5/8	6.0	28.00	21.50	3.88	32.00	34.00	CAT II	28.6
S-7621	2-1/8	6.0	34.75	30.25	3.94	38.75	40.75	CAT II	35.3
S-7625	2-5/8	6.0	48.00	43.50	4.13	52.00	54.00	CAT II	46.3

\*Optional Cat II CE models available by adding "-CE" suffix to part number. (i.e. S-7621-CE)

Part No	Refrigerant Holding Capacity (lbs at 0°F sat.)			Recommended Tonnage Rating at Suction Evaporating Temperature (°F)								
				R134a			R22			R404A/R507		
	R134a	R22	R404A/R507	+40°	+20°	0°	+40°	+20°	0°	+40°	+20°	0°
S-7615	23.30	21.30	19.30	15.00	10.00	6.25	29.0	20.0	20.0	12.5	19.00	11.50
S-7621	31.60	29.00	26.20	28.60	19.50	12.50	50.0	30.0	30.0	25.0	33.20	22.90
S-7625	46.70	42.60	38.60	50.00	35.00	23.00	95.0	95.0	65.0	45.0	61.70	41.20

# SUCTION LINE ACCUMULATORS

## Vertical, UL

The function of a Suction Line Accumulator is to provide temporary storage and controlled return of liquid refrigerant and oil to protect the compressor from damage by sudden surges of liquid.

### Applications

Suction Line Accumulators are installed in air conditioning and refrigeration systems where sudden return of liquid down the suction line is possible. Suction Line Accumulators are designed to meter both liquid refrigerant and oil back to the compressor at a controlled rate. In addition to protecting the compressor from damage, the Accumulator helps maintain system efficiency and proper crankcase oil levels.

The Heat Exchanger models are designed to be used on low temperature systems to sub-cool the liquid line. Passing the liquid line through the heat exchanger coil on the Accumulator also helps to boil off liquid refrigerant in the Accumulator. Heat Exchanger models can help to improve system efficiency while helping oil flow in the suction line. To avoid overheating the compressor, do not use discharge gas through the heat exchanger coil.

The Heat Pump models are designed to be used on heat pump systems where winter heating can cause an increased amount of liquid refrigerant return. The Heat Pump models incorporate a smaller orifice to prevent excessive liquid flow back to the compressor.

Henry Technologies' Suction Line Accumulators are suitable for use with HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel and copper.

### Main Features

- ODS connections
- Heat Exchanger and Heat Pump models available
- 3/8"-16 Mounting stud on all models
- Prevents liquid slugging
- Controlled liquid refrigerant and oil return

### How it Works

Refrigerant vapor from the evaporator enters the Suction Line Accumulator, along with any liquid refrigerant and oil. The liquid is held at the bottom of the Accumulator until it is metered back to the compressor. A U-Tube is connected to the outlet of the Accumulator to ensure vapor is returned to the compressor. On Vertical Accumulators, liquid is metered back to the compressor via a screened orifice at the bottom of the U-Tube. This metering only occurs when the compressor is running.

### Technical Specifications

Maximum working pressure = 450 PSI (31 Bar)

Allowable operating temperature = +15°F to +250°F (-9.5°C to +121°C)

Henry Technologies' Suction Line Accumulators are UL and C-UL Listed by Underwriters Laboratories, Inc. Additionally, Suction Line Accumulators are designed and registered for use in Canada. Please contact Technical Support at 1-800-627-5148 for CRN details and list of approved provinces and territories. Suction Line Accumulators can be CE marked in accordance with PED by adding a "-CE" suffix to the part number. (i.e. S-7063HE-CE)

### Materials of Construction

The shell and caps and U-Tubes are made of steel. The ODS connections and heat exchanger coils are made of solid copper.

### Selection Guidelines

Selection of a Suction Line Accumulator should be made based on three capabilities.

1. The Accumulator should have adequate liquid holding capacity. Normally this should not be less than 50% of the total system charge.
2. The Accumulator should be selected in order to avoid excessive pressure drop in the system.
3. The Accumulator should have the capability of returning liquid at the proper rate under a range of load conditions. The listed minimum tonnage ratings ensure sufficient flow for proper liquid refrigerant and oil return.



### Installation - Notes

1. Install the Accumulator after the Suction Line Filter-Drier.
2. An integral Fusible Rivet is included to protect the Accumulator from over-pressure due to excessive heat. Replace the Receiver immediately if the stamped temperature rating is exceeded.
3. For low temperature applications heat bands should be installed at the bottom of the Vertical Accumulator.
4. Accumulators may be insulated to prevent condensation or frost on the outside of the shell.
5. Full instructions are given in the Product Instruction Sheet, included with each unit.

- ❶ Inlet
- ❷ Outlet
- ❸ 3/8" -16 Mounting Stud
- ❹ Heat Exchanger Connections

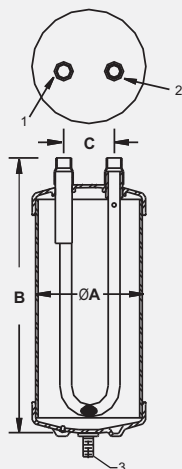


FIG 1

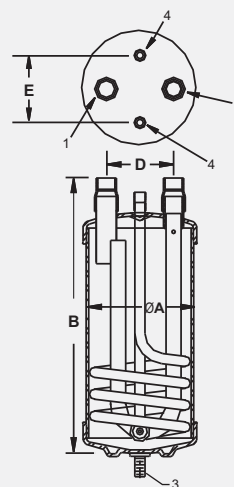


FIG 2

Standard Fig 1	Heat Exchanger Fig 2	Heat Pump Fig 1	Refrigerant ODS (inch)	Heat Exchanger ODS (inch)	Dimensions (inch)					CE Cat*	Weight (lbs)
					ØA	B	C	D	E		
S-7043	N/A	N/A	5/8	N/A	4.0	6.63	1.88	N/A	N/A	SEP	4.4
S-7044	N/A	S-7044HP	1/2	N/A	4.0	10.38	1.88	N/A	N/A	SEP	5.5
S-7045	S-7045HE	S-7045HP	5/8	3/8	4.0	10.38	1.88	3.00	2.50	SEP	5.5
S-7046	S-7046HE	S-7046HP	3/4	3/8	4.0	10.63	1.88	2.50	2.50	SEP	5.5
S-7057	S-7057HE	S-7057HP	7/8	1/2	5.0	13.00	2.25	2.25	2.76	CAT I	15.4
S-7061	S-7061HE	S-7061HP	1-1/8	5/8	6.0	15.00	3.00	3.00	2.88	CAT I	19.8
S-7063S	N/A	N/A	1-3/8	N/A	6.0	20.25	3.00	N/A	N/A	CAT II	24.8
S-7063	S-7063HE	S-7063HP	1-3/8	5/8	6.0	24.75	3.00	3.00	2.88	CAT II	29.8
S-7065	S-7065HE	S-7065HP	1-5/8	3/4	6.0	24.75	3.00	3.00	2.88	CAT II	29.8

\*Optional CAT I and II CE model available by adding "-CE" suffix to part number. (i.e. S-7063HE-CE)

Part No	Refrigerant Holding Capacity (lbs at 0°F sat.)				Recommended Tonnage Rating at Suction Evaporating Temperature (°F)														
					R134a					R22					R404A/R507				
	R134a	R22	R404A/R507		+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°
S-7043	2.3	2.1	1.9	Max	1.4	0.8	0.5	0.3	0.2	1.9	1.3	0.9	0.6	0.4	2.1	1.4	0.9	0.6	0.3
				Min	0.3	0.2	0.1	0.1	0.4	0.4	0.3	0.2	0.1	0.1	0.5	0.3	0.2	0.1	0.1
S-7044	4.4	4.1	3.7	Max	0.7	0.4	0.3	0.2	0.1	1.0	0.7	0.5	0.3	0.2	1.1	0.7	0.5	0.3	0.2
				Min	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.3
S-7045	4.4	4.1	3.7	Max	1.4	0.8	0.5	0.3	0.2	1.9	1.3	0.9	0.6	0.4	2.1	1.4	0.9	0.6	0.3
				Min	0.3	0.2	0.1	0.1	0.4	0.4	0.3	0.2	0.1	0.1	0.5	0.3	0.2	0.1	0.1
S-7046	4.4	4.1	3.7	Max	1.9	1.1	0.7	0.4	0.2	2.7	1.8	1.2	0.8	0.5	2.9	1.9	1.2	0.8	0.5
				Min	0.4	0.2	0.2	0.1	0.5	0.6	0.4	0.3	0.2	0.1	0.6	0.4	0.3	0.2	0.1
S-7057	9.2	8.5	7.7	Max	3.2	1.9	1.2	0.7	0.4	4.5	3.1	2.1	1.3	0.8	4.8	3.2	2.1	1.3	0.8
				Min	0.6	0.4	0.2	0.1	0.1	0.9	0.6	0.4	0.3	0.2	0.9	0.6	0.4	0.3	0.2
S-7061	12.7	11.8	10.7	Max	6.6	3.9	2.4	1.4	0.8	9.3	6.5	4.3	2.7	1.7	10.0	6.6	4.3	2.6	1.6
				Min	1.0	0.6	0.4	0.2	0.1	1.5	1.0	0.7	0.4	0.3	1.6	1.0	0.7	0.4	0.2
S-7063S	17.1	15.4	14.0	Max	11.0	6.4	4.0	2.4	1.3	15.4	10.7	7.0	4.5	2.8	16.5	10.9	7.0	4.4	2.6
				Min	2.1	1.2	0.8	0.5	0.3	3.0	2.0	1.4	0.9	0.5	3.2	2.1	1.4	0.9	0.5
S-7063	21.8	20.1	18.2	Max	11.0	6.4	4.0	2.4	1.3	15.4	10.7	7.0	4.5	2.8	16.5	10.9	7.0	4.4	2.6
				Min	2.1	1.2	0.8	0.5	0.3	3.0	2.0	1.4	0.9	0.5	3.2	2.1	1.4	0.9	0.5
S-7065	21.8	20.1	18.2	Max	19.3	11.3	7.0	4.2	2.4	27.2	18.8	12.4	7.9	4.8	29.1	19.1	12.4	7.7	4.6
				Min	3.7	2.1	1.3	0.8	0.5	5.1	3.6	2.4	1.5	0.9	5.5	3.6	2.4	1.5	0.9

# SUCTION LINE ACCUMULATORS

## Vertical, ASME

**The function of a Suction Line Accumulator is to provide temporary storage and controlled return of liquid refrigerant and oil to protect the compressor from damage by sudden surges of liquid.**

### Applications

Suction Line Accumulators are installed in air conditioning and refrigeration systems where sudden return of liquid down the suction line is possible. Suction Line Accumulators are designed to meter both liquid refrigerant and oil back to the compressor at a controlled rate. In addition to protecting the compressor from damage, the Accumulator helps maintain system efficiency and proper crankcase oil levels.

The Heat Exchanger models are designed to be used on low temperature systems to sub-cool the liquid line. Passing the liquid line through the heat exchanger coil on the Accumulator also helps to boil off liquid refrigerant in the Accumulator. Heat Exchanger models can help to improve system efficiency while helping oil flow in the suction line. To avoid overheating the compressor, do not use discharge gas through the heat exchanger coil.

Henry Technologies' ASME Standard and 1" NPT Suction Line Accumulators are suitable for use with ammonia, HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel. ASME Heat Exchanger Suction Line Accumulators are suitable for use with HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel and copper.

### Main Features

- ODS connections
- Heat Exchanger models available
- Mounting Legs on all models
- Models available with 1" NPT fitting for S-9400-1 type level switch
- Prevents liquid slugging
- Controlled liquid refrigerant and oil return

### How it Works

Refrigerant vapor from the evaporator enters the Suction Line Accumulator, along with any liquid refrigerant and oil. The liquid is held at the bottom of the Accumulator until it is metered back to the compressor. A tube-in-tube assembly is connected to the outlet of the Accumulator to ensure vapor is returned to the compressor. On Vertical Accumulators, liquid is metered back to the compressor via an orifice at the bottom of the tube-in-tube assembly. This metering only occurs when the compressor is running.

### Technical Specifications

Maximum working pressure 8-5/8" to 10-3/4" = 450 PSI (31 Bar)

Maximum working pressure 12-3/4" to 20" = 400 PSI (27.6 Bar)

Allowable operating temperature = -40°F to +250°F (-40°C to +121°C)

Henry Technologies' Suction Line Accumulators are constructed to ASME Section VIII. Additionally, Suction Line Accumulators are designed and registered for use in Canada. Please contact Technical Support at 1-800-627-5148 for CRN details and list of approved provinces and territories. Suction Line Accumulators can be CE marked in accordance with PED by adding a "-CE" suffix to the part number. (i.e. S-7722HE-CE)

### Materials of Construction

The shell, caps and all connections are made of steel. The heat exchanger coils are made of solid copper or steel depending on size.

### Installation - Notes

1. Install the Accumulator after the Suction Line Filter-Drier.
2. An NPT fitting is provided at the top of the vessel for installation of a Pressure Relief Device. The user must ensure the vessel is protected from over-pressure.
3. For low temperature applications heat bands should be installed at the bottom of the Vertical Accumulator.
4. Accumulators may be insulated to prevent condensation or frost on the outside of the shell.
5. Full instructions are given in the Product Instruction Sheet, included with each unit.



### Selection Guidelines

Selection of a Suction Line Accumulator should be made based on three capabilities.

1. The Accumulator should have adequate liquid holding capacity. Normally this should not be less than 50% of the total system charge.
2. The Accumulator should be selected in order to avoid excessive pressure drop in the system.
3. The Accumulator should have the capability of returning liquid at the proper rate under a range of load conditions. The listed minimum tonnage ratings ensure sufficient flow for proper liquid refrigerant and oil return.

- ❶ Inlet
- ❷ Outlet
- ❸ NPT Relief Device Fitting
- ❹ 0.56" X 0.88" Mounting Slot
- ❺ Optional Heat Exchanger Connections
- ❻ 1" NPT Fitting

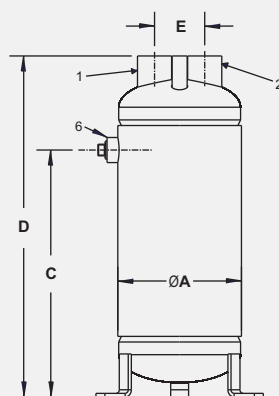
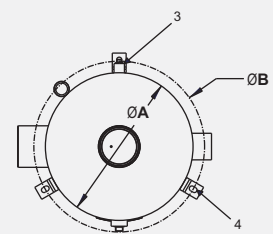
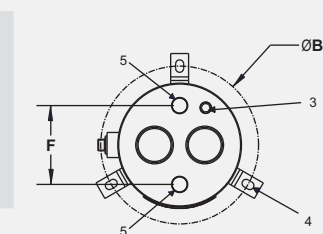


FIG 1

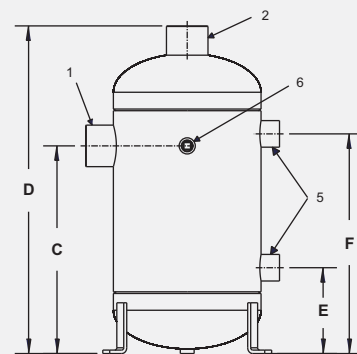


FIG 2

Part No	Heat Exchanger	Fig No	Refrigerant ODS (inch)	Heat Exchanger ODS (inch)	Dimensions (inch)						CE Cat**	Weight (lbs)
					ØA	ØB*	C	D	E	F		
S-7721	S-7721HE	1	2-1/8	7/8	8.63	11.13	N/A	23.79	3.50	5.50	CAT II	59.5
S-7722	S-7722HE	1	2-1/8	7/8	8.63	11.13	17.23	23.79	3.50	5.50	CAT II	64.5
S-7725	S-7725HE	1	2-5/8	1-3/8	10.75	13.25	N/A	23.50	4.63	5.50	CAT II	87.0
S-7726	S-7726HE	1	2-5/8	1-3/8	10.75	13.25	16.00	23.50	4.63	5.50	CAT II	99.0
S-7731	S-7731HE	1	3-1/8	1-3/8	12.75	15.25	N/A	26.00	5.50	5.88	CAT III	114.6
S-7732	S-7732HE	1	3-1/8	1-3/8	12.75	15.25	17.25	26.00	5.50	5.88	CAT III	144.6
S-7741	S-7741HE	2	4-1/8	2-5/8	16.00	18.50	22.50	35.50	9.30	23.80	CAT III	224.9
S-7742	N/A	2	4-1/8	N/A	20.00	18.00	30.50	44.50	N/A	N/A	CAT IV	286.6

\*(3) Ø 0.56" X 0.88" Mounting slots equally spaced on bolt circle. S-7742 uses (4) 0.64" holes equally spaced on bolt circle

\*\*Optional CAT II, III and IV CE models available by adding "-CE" suffix to part number i.e. (S-7722HE-CE)

Part No	Refrigerant Holding Capacity (lbs at 0°F sat.)				Recommended Tonnage Rating at Suction Evaporating Temperature (°F)														
					R134a					R22					R404A/R507				
	R134a	R22	R404A/R507		+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°
S-7721	32.5	27	27	Max	43.0	25.1	15.6	9.3	5.2	60.4	41.8	27.6	17.7	10.8	64.7	42.5	27.6	17.1	10.1
				Min	7.7	4.5	2.8	1.7	0.9	10.9	7.5	5.0	3.2	1.9	11.7	7.7	5.0	3.1	1.8
S-7725	48.5	40	40	Max	64.0	37.4	23.2	13.8	7.8	90.0	62.2	41.1	26.3	16.1	96.5	63.4	41.1	25.5	15.1
				Min	12.8	7.5	4.6	2.8	1.6	17.9	12.4	8.2	5.3	3.2	19.2	12.6	8.2	5.1	3.0
S-7731	80	66	66	Max	95.0	55.5	34.5	20.5	11.6	133.5	92.4	60.9	39.1	23.8	143.1	94.0	61.0	37.8	22.4
				Min	19.1	11.1	6.9	4.1	2.3	26.8	18.6	12.2	7.9	4.8	28.8	18.9	12.3	7.6	4.5
S-7741	136	135	122	Max	149.4	87.2	54.2	32.2	18.2	209.9	145.2	95.8	61.4	37.5	225.1	147.9	95.9	59.4	35.3
				Min	48.2	28.1	17.5	10.4	5.9	67.7	46.9	30.9	19.8	12.1	72.6	47.7	31.0	19.2	11.4
S-7742	297	277	251	Max	149.4	87.2	54.2	32.2	18.2	209.9	145.2	95.8	61.4	37.5	225.1	147.9	95.9	59.4	35.3
				Min	48.2	28.1	17.5	10.4	5.9	67.7	46.9	30.9	19.8	12.1	72.6	47.7	31.0	19.2	11.4



# SUCTION LINE ACCUMULATORS

## Vertical, Industrial

**The function of a Suction Line Accumulator is to provide temporary storage and controlled return of liquid refrigerant and oil to protect the compressor from damage by sudden surges of liquid.**

### Applications

Suction Line Accumulators are installed in air conditioning and refrigeration systems where sudden return of liquid down the suction line is possible. Suction Line Accumulators are designed to meter both liquid refrigerant and oil back to the compressor at a controlled rate. In addition to protecting the compressor from damage, the Accumulator helps maintain system efficiency and proper crankcase oil levels.

Henry Technologies' AF-Series Suction Line Accumulators are suitable for use with ammonia, HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel.

### Main Features

- ODS connections
- Heat Exchanger models available
- Mounting legs on all models
- Models available with 1" NPT fitting for S-9400-1 type level switch
- Prevents liquid slugging
- Controlled liquid refrigerant and oil return

### How it Works

Refrigerant vapor from the evaporator enters the Suction Line Accumulator, along with any liquid refrigerant and oil. The liquid is held at the bottom of the Accumulator until it is metered back to the compressor. A tube-in-tube assembly is connected to the outlet of the Accumulator to ensure vapor is returned to the compressor.

Oil return is assured from the Accumulator through the tube-in-tube assembly at full gas flow conditions. The use of compressor suction un-loaders will reduce the gas CFM flow rate and the oil return rate will be affected if maintained for a long period. Hot gas bypass for capacity reduction will maintain constant CFM. The tube-in-tube assembly may not be required under conditions where oil rich refrigerant can be drained from the bottom of the accumulator through a needle valve, sight glass and solenoid valve (cycle with the compressor). The needle valve should be set to flash off the refrigerant and the oil bled by gravity into the suction line.

A Boil-Out is recommended under low temperature conditions and is essential for all hot gas defrost systems. The liquid line should be routed through the boil-out coil to provide a steady heat source to evaporate off liquid trapped in the accumulator. The liquid should be evaporated before commencement of the next defrost cycle.

### Technical Specifications

Maximum working pressure 6-5/8" to 20" = 400 PSI (27.6 Bar)

Maximum working pressure 24" = 300 PSI (20.7 Bar)

Allowable operating temperature = -40°F to +250°F (-40°C to +121°C)

Henry Technologies' Suction Line Accumulators are constructed to ASME Section VIII. Additionally, Suction Line Accumulators are designed and registered for use in Canada. Please contact Technical Support at 1-800-627-5148 for CRN details and list of approved provinces and territories.

### Materials of Construction

The shell and caps are made of steel. All connections including the boil-out are made of steel.

### Installation - Notes

1. Install the Accumulator after the Suction Line Filter-Drier.
2. An NPT fitting is provided at the top of the vessel for installation of a Pressure Relief Device. The user must ensure the vessel is protected from over-pressure.
3. Accumulators may be insulated to prevent condensation or frost on the outside of the shell.



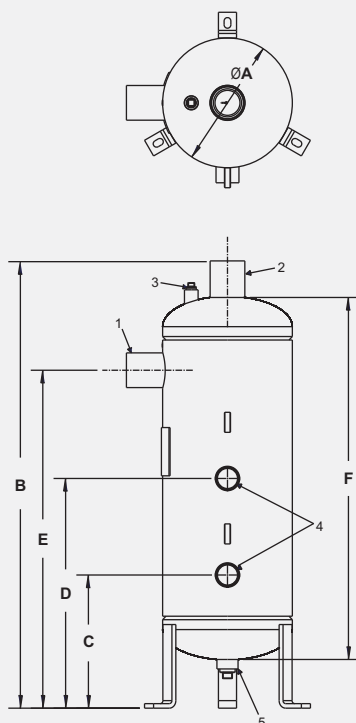
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### Selection Guidelines

Selection of a Suction Line Accumulator should be made based on three capabilities.

1. The Accumulator should have adequate liquid holding capacity. Normally this should not be less than 50% of the total system charge.
2. The Accumulator should be selected within the maximum CFM rating provided in order to avoid excessive pressure drop in the system.

- ❶ Inlet
- ❷ Outlet
- ❸ NPT Relief Device Fitting
- ❹ Boil-Out Connections
- ❺ 1" NPT Drain



Part No	ODS (inch)		Max CFM	Refrigerant Holding Capacity* (lbs)			Dimensions (inch)						Weight (lbs)
	Inlet/Outlet	Boil-Out		R12	R22	R502	ØA	B	C	D	E	F	
AF-06018	2-1/8	1-1/8	40	15	15	16	6.63	25.50	9.25	17.25	17.25	18.0	32
AF-06024	2-1/8	1-1/8	40	24	24	25	6.63	31.50	9.25	17.25	23.25	24.0	41
AF-06030	2-1/8	1-1/8	40	33	33	34	6.63	37.50	9.25	17.25	29.25	30.0	50
AF-08024	2-5/8	1-1/8	70	37	37	38	8.63	28.50	9.10	17.10	22.96	24.0	57
AF-08030	2-5/8	1-1/8	70	51	51	53	8.63	37.00	9.09	17.09	28.96	30.0	69
AF-08036	2-5/8	1-1/8	70	66	66	69	8.63	43.00	9.09	17.09	34.96	36.0	81
AF-08042	2-5/8	1-1/8	70	81	81	85	8.63	49.00	9.09	17.09	40.96	42.0	91
AF-10030	2-5/8	1-5/8	110	77	77	80	10.75	34.03	11.04	19.04	28.00	30.0	100
AF-10036	2-5/8	1-5/8	110	101	101	105	10.75	42.97	10.97	18.97	33.94	36.0	117
AF-10042	2-5/8	1-5/8	110	124	124	129	10.75	49.21	11.10	19.10	40.08	42.0	135
AF-10048	2-5/8	1-5/8	110	145	145	150	10.75	52.01	11.00	19.00	45.90	48.0	152
AF-12030	3-1/8	1-5/8	155	100	99	104	12.75	36.88	11.38	19.38	25.89	30.0	132
AF-12036	3-1/8	1-5/8	155	133	132	138	12.75	42.88	11.38	19.38	31.89	36.0	155
AF-12042	3-1/8	1-5/8	155	166	165	172	12.75	48.88	11.38	19.38	37.89	42.0	178
AF-12048	3-1/8	1-5/8	155	198	197	206	12.75	52.13	11.38	19.38	48.89	48.0	200
AF-14042 +	4-1/8	2-1/8	195	177	176	184	14.0	48.76	12.75	22.75	42.00	42.0	273
AF-14048 +	4-1/8	2-1/8	195	216	215	225	14.0	54.75	12.75	22.75	41.69	48.0	311
AF-14054 +	4-1/8	2-1/8	195	256	254	266	14.0	60.75	12.75	22.75	47.69	54.0	346
AF-14060 +	4-1/8	2-1/8	195	299	296	310	14.0	66.62	12.75	22.75	53.55	60.0	384
AF-16042 +	5	2-1/8	255	195	194	207	16.0	53.71	14.77	24.77	37.77	42.0	325
AF-16048 +	5	2-1/8	255	256	253	265	16.0	59.71	14.77	24.77	43.77	48.0	365
AF-16060 +	5	2-1/8	255	352	350	371	16.0	71.71	14.77	24.77	55.77	60.0	448
AF-16072 +	5	2-1/8	255	460	457	485	16.0	83.71	14.77	24.77	67.77	72.0	535
AF-20048 +	5	2-5/8	405	335	332	350	20.0	58.44	14.00	24.00	41.00	48.0	472
AF-20060 +	5	2-5/8	405	528	525	549	20.0	70.44	14.00	24.00	53.00	60.0	572
AF-20072 +	5	2-5/8	405	680	676	707	20.0	81.39	13.44	23.44	64.45	72.0	672
AF-20084 +	5	2-5/8	405	775	770	806	20.0	94.44	14.00	24.00	77.00	84.0	772
AF-24048 +	6	2-5/8	590	530	526	550	24.0	56.88	15.88	25.88	39.38	48.0	600
AF-24060 +	6	2-5/8	590	720	715	750	24.0	68.88	15.88	25.88	51.38	60.0	712
AF-24072 +	6	2-5/8	590	919	913	955	24.0	80.89	15.88	25.88	63.38	72.0	836
AF-24084 +	6	2-5/8	590	1159	1152	1205	24.0	92.89	15.88	25.88	75.38	84.0	960

\*Refrigerant holding capacity is the weight of refrigerant the suction accumulator can safely hold without the risk of carry-over into the compressor suction line

+Custom Built (Non-Stock Item)



# SUCTION LINE ACCUMULATORS

## SA Series, Vertical, UL

**The main purpose of a Suction Line Accumulator is to prevent a sudden surge of liquid refrigerant or oil from returning down the suction line and into a compressor. The suction line accumulator is a temporary reservoir for liquid refrigerant and oil.**

The accumulator is designed to meter both the liquid refrigerant and oil back to the compressor at a controlled rate. This prevents compressor damage. By metering the liquid refrigerant and oil back to the compressor, the accumulator also helps maintain system efficiency and proper crankcase oil levels.

### Applications

Suction Line Accumulators are installed in air conditioning and refrigeration systems where a sudden return of liquid down the suction line is possible. Henry Technologies' SA Series Suction Line Accumulators are suitable for use with HFC and HCFC refrigerants and their associated oils, as well as other industrial fluids non-corrosive to steel and copper.

### Main Features

- ODS connections
- Prevents liquid slugging
- Controlled liquid return and oil return
- Large flow capacity
- Low pressure drop
- Screen protected orifice
- Solid copper connections
- Powder-coated finish
- Cost effective

### How it Works

Refrigerant vapor from the evaporator enters the Suction Line Accumulator, along with any liquid refrigerant and oil. The liquid is held at the bottom of the Accumulator until it is metered back to the compressor. A U-Tube is connected to the outlet of the Accumulator to ensure vapor is returned to the compressor. On Vertical Accumulators, liquid is metered back to the compressor via a screened orifice at the bottom of the U-Tube. This metering only occurs when the compressor is running.

### Technical Specifications

Maximum working pressure = 450 PSI (31 Bar)

Allowable operating temperature = -22°F to +122°F (-30°C to +50°C)

Henry Technologies' Suction Line Accumulators are UL and C-UL Listed by Underwriters Laboratories, Inc.

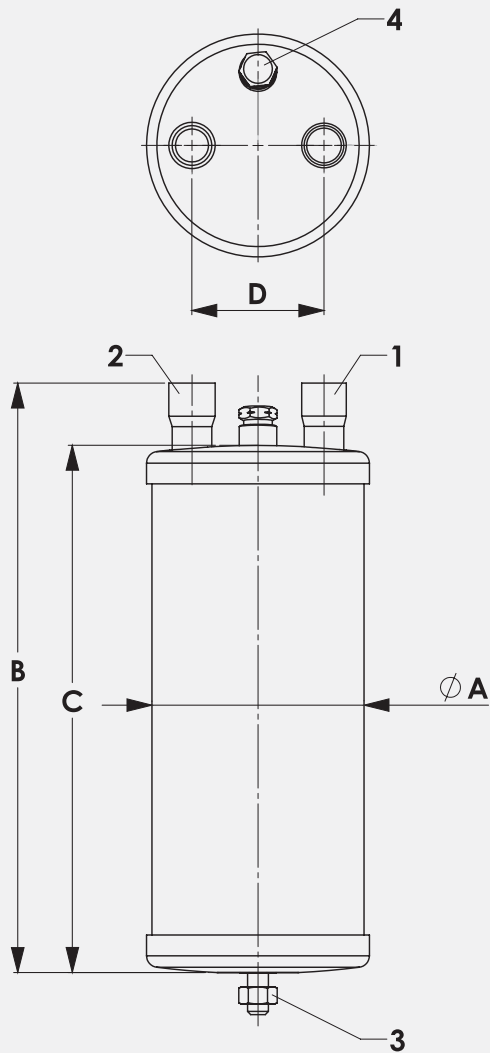
### Materials of Construction

The shell and end caps are made from carbon steel. Branch connections are made from copper.



Part No	ODS (inch)	Dimensions (inch)				CE Cat*	Weight (lbs)
		ØA	B	C	D		
SA-7044	1/2	4.00	6.42	5.43	2.50	SEP	4.41
SA-7045S	5/8	4.00	6.58	5.43	2.50	SEP	4.41
SA-7045	5/8	4.00	10.95	9.80	2.50	Cat I	6.39
SA-7046	3/4	4.00	11.06	9.80	2.50	Cat I	6.39
SA-7056	3/4	5.00	9.92	8.74	2.76	Cat I	7.94
SA-7057S	7/8	5.00	10.08	8.74	2.76	Cat I	7.94
SA-7057	7/8	5.00	14.88	13.54	2.76	Cat I	11.24
SA-7051	1 1/8	5.00	18.74	17.24	2.76	Cat I	13.89
SA-7053	1 3/8	5.00	18.86	17.24	2.95	Cat I	13.89
SA-7065	1 5/8	6.00	26.69	24.92	2.95	Cat II	28.66

- CE Inlet  
 ② Outlet  
 Ž M10 stud & nut  
 ④ Relief connections, 1/4 FPT



**Selection Guidelines**

Selection of a Suction Line Accumulator should be made based on three capabilities.

1. The Accumulator should have adequate liquid holding capacity. Normally this should not be less than 50% of the total system charge.
2. The Accumulator should be selected in order to avoid excessive pressure drop in the system.
3. The Accumulator should have the capability of returning liquid at the proper rate under a range of load conditions. The listed minimum tonnage ratings ensure sufficient flow for proper liquid refrigerant and oil return.

**Additional Selection Information**

Two accumulators can be piped in series to increase holding capacity. Oil will be metered from one accumulator to the next to ensure proper oil flow to the compressors. Adding a second identical accumulator will effectively double the holding capacity of a single accumulator.

Piping two identical accumulators in parallel will double the tonnage capacity. Two identical accumulators must be used.

On low temperature systems (0°F and below) a heater band should be installed to help boil off the liquid refrigerant and aid oil flow. Do not add too much heat or there is a risk of overheating the compressors.

**Installation - Notes**

1. Install the Accumulator after the Suction Line Filter-Drier.
2. An integral Fusible Rivet is included to protect the Accumulator from over-pressure due to excessive heat. Replace the Receiver immediately if the stamped temperature rating is exceeded.
3. For low temperature applications heat bands should be installed at the bottom of the Vertical Accumulator.
4. Accumulators may be insulated to prevent condensation or frost on the outside of the shell.
5. Full instructions are given in the Product Instruction Sheet, included with each unit.

Part No	Refrigerant Holding Capacity (lbs at 0°F sat).				Recommended Tonnage Rating at Suction Evaporating Temperature (°F)														
					R134a					R22					R404A/R507				
	R134a	R22	R404A/R507		+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°	+40°	+20°	0°	-20°	-40°
SA-7044	2.2	2.2	2.0	Max	0.7	0.4	0.3	0.2	0.2	1.0	0.7	0.5	0.3	0.2	1.1	0.7	0.5	0.3	0.2
				Min	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.03
SA-7045S	2.2	2.2	2.0	Max	1.4	0.8	0.5	0.3	0.2	1.9	1.3	0.9	0.6	0.4	2.1	1.4	0.9	0.6	0.3
				Min	0.3	0.2	0.1	0.1	0.1	0.4	0.3	0.2	0.1	0.1	0.5	0.3	0.2	0.1	0.1
SA-7045	4.6	4.6	4.2	Max	1.4	0.8	0.5	0.3	0.2	1.9	1.3	0.9	0.6	0.4	2.1	1.4	0.9	0.6	0.3
				Min	0.3	0.2	0.1	0.1	0.1	0.4	0.3	0.2	0.1	0.1	0.5	0.3	0.2	0.1	0.1
SA-7046	4.6	4.6	4.2	Max	1.9	1.1	0.7	0.4	0.2	2.7	1.8	1.2	0.8	0.5	2.9	1.9	1.2	0.8	0.5
				Min	0.4	0.2	0.2	0.1	0.1	0.6	0.4	0.3	0.2	0.1	0.6	0.4	0.3	0.2	0.1
SA-7056	6.2	6.1	5.5	Max	1.3	0.9	0.6	0.4	0.2	4.1	2.8	1.8	1.1	0.7	2.5	1.7	1.1	0.7	0.4
				Min	0.3	0.2	0.2	0.1	0.1	0.9	0.6	0.4	0.3	0.1	0.4	0.3	0.2	0.2	0.1
SA-7057S	6.0	5.9	5.3	Max	3.2	1.9	1.2	0.7	0.4	4.5	3.1	2.1	1.3	0.8	4.8	3.2	2.1	1.3	0.8
				Min	0.6	0.4	0.2	0.1	0.1	0.9	0.6	0.4	0.3	0.2	0.9	0.6	0.4	0.3	0.2
SA-7057	10.1	10.0	9.0	Max	3.2	1.9	1.2	0.7	0.4	4.5	3.1	2.1	1.3	0.8	4.8	3.2	2.1	1.3	0.8
				Min	0.6	0.4	0.2	0.1	0.1	0.9	0.6	0.4	0.3	0.2	0.9	0.6	0.4	0.3	0.2
SA-7051	13.5	13.3	11.9	Max	4.6	3.2	2.1	1.4	0.8	14.2	9.5	6.3	3.9	2.3	8.9	6.2	3.8	2.4	1.5
				Min	0.6	0.5	0.4	0.3	0.3	2.1	1.4	0.9	0.6	0.3	0.8	0.7	0.6	0.5	0.3
SA-7053	13.5	13.3	11.9	Max	7.9	5.4	3.4	2.2	1.3	23.4	15.7	10.4	6.5	3.8	15.3	10.2	6.2	3.9	2.4
				Min	1.3	1.1	0.9	0.7	0.6	4.5	3.0	2.0	1.3	0.7	1.7	1.4	1.1	0.9	0.7
SA-7065	28.9	28.4	25.4	Max	19.3	11.3	7.0	4.2	2.4	27.2	18.8	12.4	7.9	4.8	29.1	19.1	12.4	7.7	4.6
				Min	3.7	2.1	1.3	0.8	0.5	5.1	3.6	2.4	1.5	0.9	5.5	3.6	2.4	1.5	0.9

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# NOTES

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