SUCTION ACCUMULATORS

SV1508 .. SV4120



DP-365-01

In addition to a wide array of shell and tube heat exchangers, receivers and oil separators, BITZER US also delivers high quality pressure vessels that meet the demand for industrial Ammonia and CO2 applications. These vessels are commonly used in cold storage facilities, ice makers, supermarkets and other industrial processing systems.

BITZER US utilizes multiple welding stations that provide consistent and reliable welds resulting in shorter lead times. All vessels are manufactured in Georgia and in accordance to the most recent edition of Section VIII, Division 1 of the ASME code or other certifications as required.

DESIGN CAPABILITIES

- MAX DIAMETER: 72”
- MAX LENGTH: 290”
- MAX PRESSURE: 3000 PSI
- MIN TEMPERATURE: -55F

Vessel Factory (Georgia)



TESTING

- Ultrasonic
- Penetrant
- Decay Test

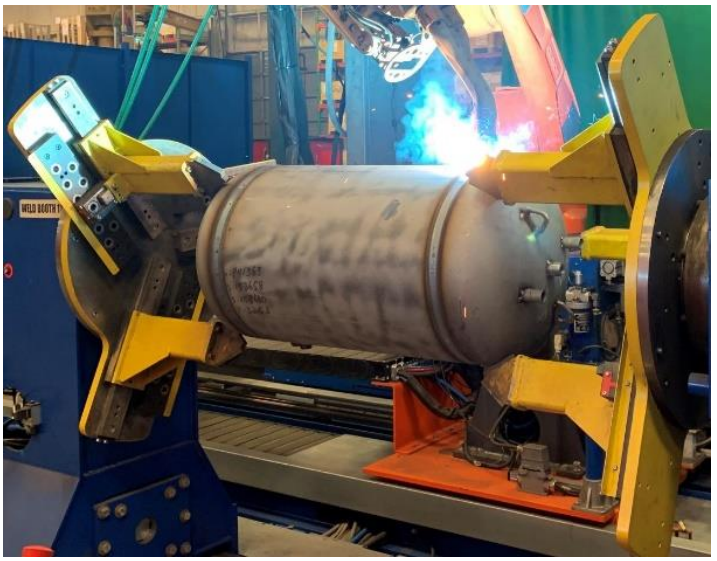
CERTIFICATIONS

- ASME
- PED
- CRN
- DOSH

MANUFACTURING

- Robotic Welding
- Water Jet
- Pipe Cutter
- Plasma Table
- CNC Machine Shop





ASME Suction Accumulators

The world's leading compressor and pressure vessel manufacturer has expanded to meet the demands of the North American market with our newest ASME certified low and high pressure suction line accumulators. Multiple value-add options and accessories are offered. During operation of the refrigeration system, liquid flood-back may occur (due to sudden thermal load variations, defrosting, faulty expansion valve setting, start-up of the system, cycle reversing) which can cause costly damage to compressor. Suction accumulators are a reservoir that protects the compressor from flooding, and meters the liquid and oil return to the compressor. The suction accumulator should be selected according to the minimum and maximum tonnage of the system. The holding capacity of the accumulator should not be less than 50% of the total refrigerant charge in the system. For more information on selecting suction line accumulators, contact BITZER US.

U UM R

Advantages

- Minimum pressure drop and uniform velocity distribution through internal U bend design
- Exclusive filter on the metering hole to prevent possible clogging
- Longer inlet projection to prevent likely installation errors
- ½" NPT drain can be used to clean the screen

Design Safety

- Approval according to the ASME Section VIII, Division 1, latest edition.

Standard Design Features

- Suitable for use for (H)CFC / HFC / HFO refrigerants, including but not limited to: R22, R134a, R407C, R450A R404A, R507, R513A, R407A, R448A, and others. Consult factory regarding application of refrigerants not listed here within.
- Designs for higher pressure R410A

Standard Design Maximum Operating Pressure / Operating Temperature

- Low pressure models: 450 psi@ -40 to 250F
- High pressure models:675 psi @ -40 to 250F

CRN Registrations

- Please consult factory for available models and provinces.

Accessories/Options

- Sightglass
- Optoelectronic level monitoring (OLC-D1)
- High level switch port
- Insulation
- Special paint

Other connections

- Safety/pressure relief connections on all models. See specifications table for additional information
- Safety valve can be supplied upon customer request

Explanation of Model Number

S	V	1	5	0	8	F	L	-	X	X	X

Model designation
S = Suction Accumulator

S	V	1	5	0	8	F	L	-	X	X	X

Model orientation
V= Vertical

S	V	1	5	0	8	F	L	-	X	X	X

Connection size
X-X/8 = Size of inlet outlet IDS connections
(1- 5/8 in.)

S	V	1	5	0	8	F	L	-	X	X	X

Diameter
XX = Diameter of vessel

S	V	1	5	0	8	F	L	-	X	X	X

Feet
F = L shaped feet

S	V	1	5	0	8	F	L	-	X	X	X

Version
L = HFC Refrigerant (450 psi rating)
K = R410a Refrigerant (675 psi rating)

S	V	1	5	0	8	F	L	-	X	X	X

Height
S = short
M = Medium
L = Large

S	V	1	5	0	8	F	L	-	X	X	X

Design variables
X = No options
S = Standard sight glass
R = Optoelectronic level monitoring port w. cap (OLC-D1*)
O = Standard sight glass and optical level monitoring port w. cap (OLC-D1*)
C = High level switch (1"FPT coupling)

S	V	1	5	0	8	F	L	-	X	X	X

Design variables
X = No options
T = ¾ in. insulation

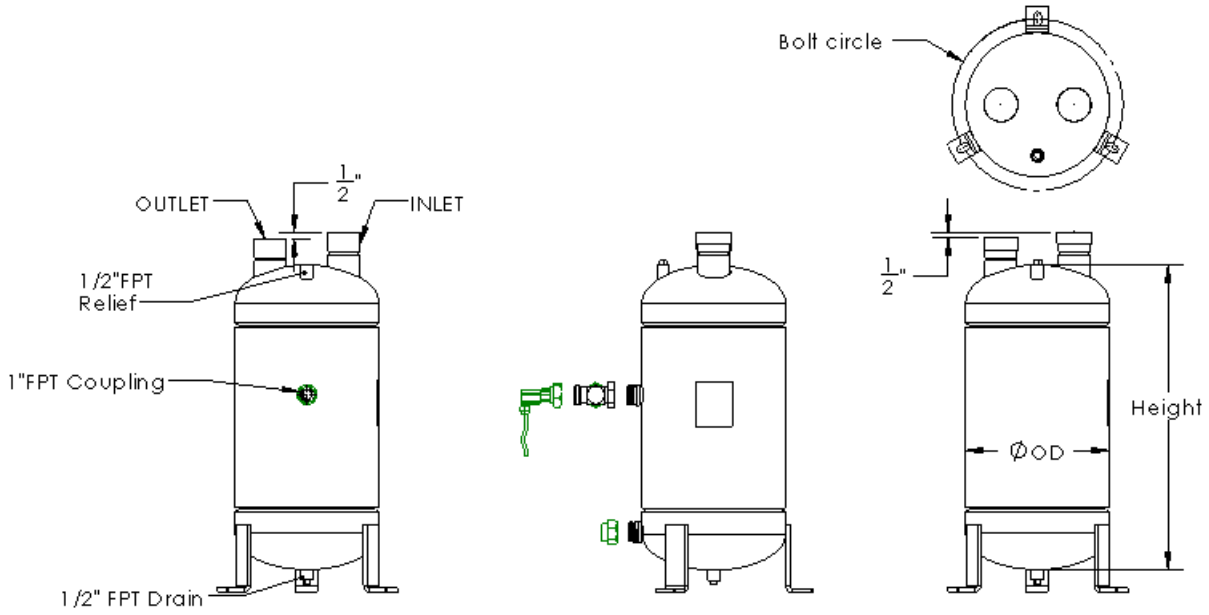
* Order separately

Specification table

MODEL	Dimensions			Inlet/Outlet Size [in]	Holding capacity @ 0°F [lb]		
	OD [in]	Height [in]	Bolt Circle [in]		R22	R134a	R404
SV1508FL-SXX	8.625	20	10.625	1-5/8"	22.6	22.8	20.5
SV1508FL-MXX	8.625	23	10.625	1-5/8"	29.3	29.5	26.5
SV1508FL-LXX	8.625	26	10.625	1-5/8"	36.0	36.3	32.6
SV2108FL-SXX	8.625	20	10.625	2-1/8"	20.1	20.2	18.2
SV2108FL-MXX	8.625	23	10.625	2-1/8"	25.9	26.2	23.5
SV2108FL-LXX	8.625	26	10.625	2-1/8"	32.6	32.9	29.6
SV2110FL-SXX	10.75	20	12.75	2-1/8"	31.8	32.1	28.8
SV2110FL-MXX	10.75	23	12.75	2-1/8"	42.6	43.0	38.7
SV2110FL-LXX	10.75	26	12.75	2-1/8"	53.5	54.0	48.5
SV2510FL-SXX	10.75	20	12.75	2-5/8"	29.3	29.5	26.5
SV2510FL-MXX	10.75	23	12.75	2-5/8"	39.3	39.7	35.6
SV2510FL-LXX	10.75	26	12.75	2-5/8"	49.3	49.8	44.7
SV2512FL-SXX	12.75	25	14.75	2-5/8"	52.7	53.2	47.8
SV2512FL-MXX	12.75	27	14.75	2-5/8"	67.7	68.3	61.4
SV2512FL-LXX	12.75	30	14.75	2-5/8"	82.0	82.7	74.3
SV3112FL-SXX	12.75	25	14.75	3-1/8"	47.7	48.1	43.2
SV3112FL-MXX	12.75	27	14.75	3-1/8"	61.9	62.4	56.1
SV3112FL-LXX	12.75	30	14.75	3-1/8"	75.3	75.9	68.2
SV3114FL-SXX	14	30	16.5	3-1/8"	87.8	88.6	79.6
SV3114FL-MXX	14	34	16.5	3-1/8"	110.4	111.4	100.1
SV3114FL-LXX	14	36	16.5	3-1/8"	122.1	123.2	110.7
SV4114FL-SXX	14	30	16.5	4-1/8"	74.4	75.1	67.5
SV4114FL-MXX	14	34	16.5	4-1/8"	94.5	95.3	85.7
SV4114FL-LXX	14	36	16.5	4-1/8"	104.5	105.5	94.8
SV4116FL-SXX	16	30	18.5	4-1/8"	88.6	89.4	80.3
SV4116FL-MXX	16	36	18.5	4-1/8"	133.0	134.1	120.5
SV4116FL-LXX	16	40	18.5	4-1/8"	162.2	163.7	147.1
SV4118FL-SXX	18	36	20.5	4-1/8"	163.1	164.5	147.8
SV4118FL-MXX	18	40	20.5	4-1/8"	212.4	214.3	192.5
SV4118FL-LXX	18	45	20.5	4-1/8"	260.9	263.2	236.5
SV4120FL-SXX	20	40	23	4-1/8"	250.0	252.3	226.6
SV4120FL-MXX	20	45	23	4-1/8"	312.8	315.5	283.5
SV4120FL-LXX	20	50	23	4-1/8"	375.5	378.8	340.3

Recommended tons of refrigeration

Refrigerant	Evap Temp [°F]	Inlet/Outlet Connection size									
		1-5/8" IDS		2-1/8" IDS		2-5/8" IDS		3-1/8" IDS		4-1/8" IDS	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
R22/R448/R449A	-40	1.9	5	3.3	12	5	17	8	25	18	40
	0	2.9	13	5.5	26	9	40	14	60	34	102
	40	6.1	29	11	58	15	90	23	128	70	220
R404A/R507	-40	1.8	5.2	3.5	11	4.5	15	7.5	22	17	38
	0	2.5	13	6	25.5	10	38	15	57	34	100
	40	4.2	29	12	56	19	88	30	125	74	230
R134a/R450A/R513A	-40	0.9	2	2	5	3	8	5	12	7	17
	0	1.8	6	3.3	14	5	25	7	35	19	53
	40	3.5	15	8	40	13.5	64	20	95	52	148
For overlapped regions between two connection sizes, select the suction accumulator with smaller connection											



ACCESSORIES

OLC-Optoelectronic Liquid Level Monitoring



Features/Options

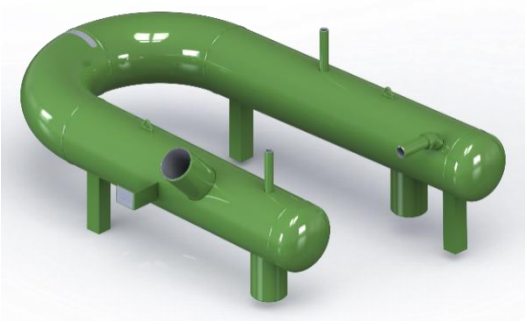
- 250V Switch inductive rating provides option to directly power other devices
- 3 voltages available: USV, 230V,24V AC/DC
- UL Listed

How to order

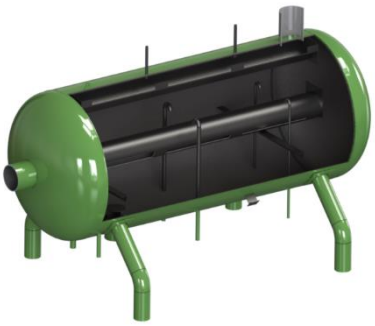
- Request your suction accumulator with option "R" – SV1508FL-XRX.
- This option includes one 1 3/4-12 Rotalock stubs on the shell.
- Order the following required parts separately
    - OLC-D1 Optical Eye Kit (Includes OLC-D1 sensor, mounting cap, O-ring and prism)
      347950-01➔230V, 347950-0➔115V, 347950-04➔24 VDC/VAC
    - Optional Tee fitting➔ 365433-56
    - Optional sight glass➔ 182102000
- The above options are shipped individually and are not installed at the factory. Please refer to OT-300.

Capabilities

Bitzer's ASME factory is located in the southeast transportation hub, Georgia, and has the capability to manufacture vessels for different applications and industries. Custom vessels, including, but not limited to high pressure vessels (max 3000 PSI), flash tanks, surge drums, recirculators, filter housings, water tanks, oil separators and intercoolers are designed to satisfy the customer's need. Please contact Customer Service in your region for all your custom inquires.



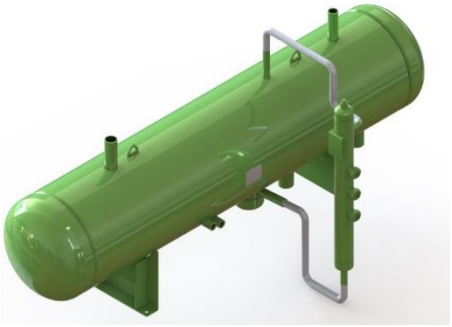
12″ U-Tube Surge Drum



60″ Ammonia Recirculator



28″ CO2 Flash Gas Receiver w/ HX



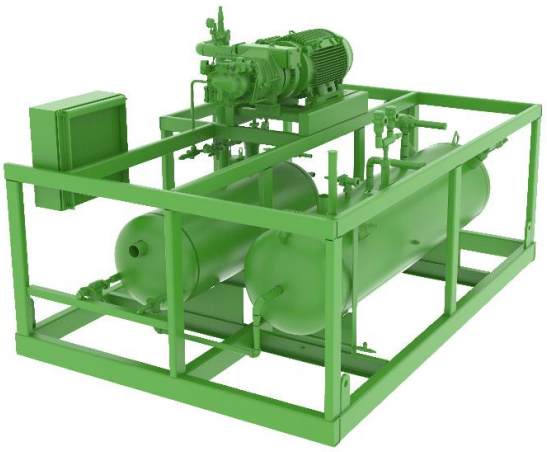
36″ Ammonia Receiver



8″ Desiccant Air Dryer



30″ Ammonia Thermosyphon Receiver



Custom designed vessels for refrigeration packages

Note page

BITZER U.S., Inc.
4080 Enterprise Way // Flowery Branch, GA //30542 USA
Phone: (770) 503 9226 // Fax: (770) 503 9440
sales@bitzerus.com // www.bitzerus.com

BITZER Canada, Inc.
21125 Daoust Street // Sainte-Anne-De-Bellevue, Quebec // H9X 0A3 Canada
Phone: (514) 697 3363 // Fax: (514) 697 9768
www.bitzer.ca

BITZER México, S. de R.L. de C.V. Av. Adolfo López Mateos 221 Bodega 9 Col. Victoria // Guadalupe, N.L. // 67110
México Phone: +52 (81) 1522 4500 // Fax: +52 (81) 1522 4505
ventas@bitzermexico.com // www.bitzermexico.com

BITZER Latin America colombia@bitzerus.com // ecuador@bitzerus.com // puertorico@bitzerus.com // caribe@bitzerus.com centroamerica@bitzerus.com // venezuela@bitzerus. // www.bitzerus.com

Subject to change // Susceptibles d'être modifiées // Sujeto a cambios // 07.2019