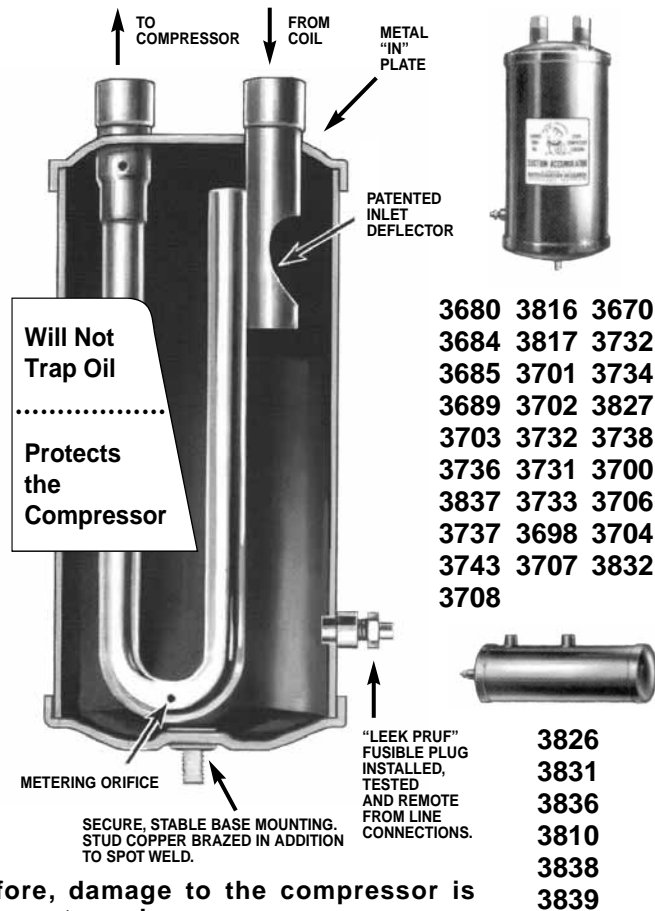


The ORIGINAL, TIME TESTED SUCTION ACCUMULATOR

- - THE COMPLETE LINE - -
For Exact Selection

Air conditioning, heat pump, truck refrigeration and many other applications require intermittent operation of the refrigeration compressor. Especially in remote applications, the suction line may trap or hold quantities of liquid which are suddenly dumped into the compressor as it starts up. This is frequently the cause of broken valves, pistons, broken or bent connecting rods, blown gaskets and bearing washout.

Proper installation of the Refrigeration Research suction accumulator in the suction line, just before the compressor, eliminates damage. If correctly sized, relatively large quantities of liquid refrigerant may return through the suction line and the suction accumulator prevents damage to the compressor. Liquid is temporarily held in the suction accumulator and metered back to the compressor along with any oil, at a controlled rate, through the metering orifice. Therefore, damage to the compressor is prevented and the compressor immediately and quietly goes to work.



ASME code models below

THE ORIGINAL, YET IMPROVED, SUCTION ACCUMULATOR BY REFRIGERATION RESEARCH PROVIDES ALL OF THE IMPORTANT FEATURES.

1. Exclusive (patented) inlet deflector for improved performance. Deflector permits tangential entry of fluid.
2. Marking of inlet with a metal plate is an exclusive feature and helps prevent errors in hook up.
3. All Refrigeration Research suction accumulators of 4" through 6" diameter have fusible plugs included and installed to comply with latest UL and cUL requirements.
4. Copper nipples are standard on vertical UL and cUL models.
5. Controlled hydrogen copper brazing process provides the ultimate in cleanliness and uniform strength.
6. All Refrigeration Research suction accumulators are UL and cUL listed or built to ASME code, CE documentation also available. Suction accumulators by Refrigeration Research have been field proven in hundreds of thousands of installations.

SELECTION OF SUCTION ACCUMULATOR – The suction accumulator should not necessarily be selected to have the same size inlet and outlet as the compressor suction line. It is more important to select the suction accumulator well within the limits of (1) pressure drop, (2) oil return as shown on the following page and (3) total amount of charge to be held.

The actual refrigerant holding capacity needed for a suction accumulator is governed by the requirements of the particular application. There is a great variation in refrigeration systems and this must be considered. Where possible the capacity selected should be checked by actual test. Normally the accumulator should not be sized for less than 50% of the total system capacity. If in doubt, consult the compressor manufacturer. Steel nipples are available on special order.

PATENTED NO. 5,076,313 AND PATENTS APPLIED FOR.

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REFRIGERATION RESEARCH, INC.

SUCTION ACCUMULATOR APPLICATION DATA

PART NO.	HORIZONTAL OR VERTICAL	DIAMETER (INCHES)	# LENGTH	WEIGHT	MAXIMUM REFRIGERANT HOLDING CAPACITY (LBS.)				UL CODE IDENT	SUCTION INLET/OUTLET I.D. SIZE	EVAP TEMP	† RECOMMENDED TONS OF REFRIGERATION							
					REFRIGERANT							R-410A		R-134A		R-22		R-404A	
					MAX	MIN	MAX	MIN				MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
3680	V	3.0	8.1	2.3	1.3	1.5	1.5	1.3	HN	1/2	+40°F	0.94	0.17	0.45	0.11	0.90	0.16	0.80	0.13
3816	V	4.0	6.5	3.0	1.9	2.2	2.1	1.9	KN		+20°F	0.65	0.15	0.31	0.09	0.62	0.14	0.58	0.10
3817	V	4.0	10.5	4.6	3.7	4.2	4.2	3.7	KN		0°F	0.47	0.11	0.22	0.08	0.45	0.11	0.40	0.08
3815	H	3.0	7.9	2.1	1.3	1.5	1.5	1.4	HN		-20°F	0.31	0.09	0.13	0.06	0.30	0.09	0.25	0.06
3673	H	3.0	10.9	2.7	2.0	2.2	2.2	1.9	HN		-40°F	0.19	0.07	0.08	0.04	0.18	0.07	0.14	0.05
3684	V	3.0	7.7	2.2	1.4	1.6	1.6	1.4	HN	5/8	+40°F	2.10	0.19	0.90	0.13	2.00	0.18	1.55	0.15
3701	V	4.0	6.6	3.0	1.9	2.2	2.1	1.9	KN		+20°F	1.31	0.17	0.54	0.11	1.25	0.16	1.00	0.12
3689	V	3.0	10.8	2.8	1.9	2.2	2.2	1.9	HN		0°F	0.89	0.13	0.36	0.10	0.85	0.13	0.70	0.10
3685	V	3.0	12.0	3.1	2.4	2.7	2.7	2.4	HN		-20°F	0.58	0.11	0.22	0.08	0.55	0.11	0.45	0.08
3702	H	3.0	7.9	2.4	0.8	1.5	1.5	1.4	HN		-40°F	0.36	0.09	0.13	0.06	0.35	0.09	0.25	0.07
3821	H	3.0	11.6	3.0	2.1	2.4	2.4	2.1	HN										
3703	V	4.0	10.6	5.2	3.5	4.1	4.0	3.7	KN	3/4	+40°F	3.15	0.23	1.62	0.14	3.0	0.22	2.8	0.22
3731	V	5.0	10.0	6.0	5.5	6.2	6.1	5.3	DN		+20°F	2.21	0.19	1.03	0.11	2.1	0.18	2.0	0.18
3733	V	5.0	13.0	7.7	6.9	8.0	7.9	6.9	DN		0°F	1.57	0.17	0.63	0.10	1.5	0.16	1.4	0.16
											-20°F	1.15	0.13	0.43	0.09	1.1	0.13	0.8	0.13
3670	V	4.0	11.0	5.2	3.5	4.0	4.0	3.5	KN	7/8	+40°F	4.20	0.55	2.25	0.35	4.0	0.53	4.0	0.53
3732	V	5.0	10.0	6.0	5.5	6.2	6.1	5.3	DN		+20°F	3.15	0.47	1.62	0.30	3.0	0.45	3.0	0.45
3738	V	5.0	13.0	7.7	7.0	8.0	7.9	6.9	DN		0°F	2.41	0.41	0.87	0.25	2.3	0.39	2.0	0.39
3710	V	5.0	18.0	11.0	9.0	10.2	10.1	8.8	DN		-20°F	1.57	0.34	0.63	0.20	1.5	0.33	1.3	0.33
3827	V	6.0	13.0	11.3	10.0	11.3	11.1	9.8	MN		-40°F	0.94	0.28	0.36	0.16	0.9	0.27	0.7	0.27
3825	H	6.0	10.0	8.9	8.5	9.7	9.6	8.4	MN										
3826	H	6.0	13.5	12.0	11.7	13.3	13.1	11.6	MN										
3832	V	6.0	11.0	10.0	7.6	8.6	8.5	7.5	MN										
3735	V	5.0	14.8	8.7	8.0	9.0	8.9	7.8	DN	1 1/8	+40°F	9.45	0.80	4.35	0.48	9.0	0.76	9.0	0.53
3736	V	5.0	18.5	10.5	10.1	11.3	11.1	9.8	DN		+20°F	6.51	0.68	2.88	0.43	6.2	0.65	6.0	0.45
3700	V	6.0	15.0	13.0	11.5	13.1	12.9	11.4	MN		0°F	4.51	0.59	1.83	0.36	4.3	0.56	4.0	0.39
3707	V	6.0	18.0	14.5	14.4	16.3	16.1	14.2	MN		-20°F	2.94	0.49	1.21	0.29	2.8	0.47	2.5	0.33
3830	H	6.0	13.5	11.3	13.2	15.0	14.8	13.0	MN		-40°F	1.89	0.39	0.78	0.15	1.8	0.38	1.4	0.27
3831	H	6.0	16.5	13.2	16.0	18.1	17.9	15.7	MN										
3837	V	5.0	13.5	11.8	9.4	10.7	10.6	9.3	MN										
3737	V	6.0	18.5	10.5	10.1	11.3	11.1	9.8	DN	1 3/8	+40°F	17.80	2.10	7.20	1.35	17.0	2.0	15.0	0.76
3708	V	6.0	15.0	13.0	11.5	13.1	12.9	11.4	MN		+20°F	11.50	2.00	5.40	1.16	11.0	1.9	10.0	0.65
3706	V	6.0	20.3	17.0	15.6	17.8	17.5	15.4	MN		0°F	8.08	1.68	3.42	0.97	7.7	1.6	7.0	0.56
3743	V	6.0	24.8	18.0	20.1	22.9	22.6	19.9	MN		-20°F	5.25	1.36	2.16	0.87	5.0	1.3	4.5	0.47
3835	H	6.0	13.5	11.5	13.2	15.0	14.8	13.0	MN		-40°F	3.15	1.15	1.26	0.68	3.0	1.1	2.5	0.38
3836	H	6.0	22.5	17.1	15.2	17.3	17.1	15.1	MN										
3698	V	6.0	17.1	14.4	12.6	14.4	14.2	12.5	MN	1 5/8	+40°F	29.40	2.10	11.70	1.35	17.0	28.0	15.0	2.0
3704	V	6.0	24.8	20.5	20.1	22.9	22.6	19.9	MN		+20°F	19.90	2.00	8.10	1.16	11.0	19.0	10.0	1.9
3809	H	6.0	18.0	15.6	11.3	12.9	12.7	11.2	MN		0°F	13.60	1.68	5.40	0.97	7.7	1.6	7.0	1.6
3810	H	6.0	30.0	13.1	19.0	21.6	21.3	18.8	MN		-20°F	8.40	1.36	3.60	0.87	5.0	1.3	4.5	1.3
											-40°F	5.25	1.15	1.80	0.68	3.0	1.1	2.5	1.1
3639	V	8-5/8	20.0	44.0	Δ	31.3	30.9	27.2	*	2 1/8	+40°F	61.90	5.09	28.8	3.57	59.0	5.8	55.0	5.8
3838	H	6.0	36.0	28.0	27.5	31.3	30.9	27.2	MN		+20°F	43.00	5.46	18.9	3.09	41.0	5.2	39.0	5.2
3839	H	6.0	48.0	35.5	36.8	41.3	41.0	36.4	MN		0°F	28.30	4.51	12.6	2.51	27.0	4.3	26.0	4.3
											-20°F	18.50	3.88	7.2	2.03	18.0	3.7	16.0	3.7
											-40°F	12.60	2.83	4.5	1.64	12.0	2.7	10.0	2.7
3641	V	10-3/4	20.0	57.0	Δ	51.4	50.7	44.7	*	2 5/8	+40°F	Δ	Δ	45.0	5.70	90.0	9.5	85.0	9.5
3841	H	8-5/8	24.0	48.0	Δ	45.2	44.6	39.3	*		+20°F	Δ	Δ	29.7	5.02	62.0	8.4	60.0	8.4
											0°F	Δ	Δ	19.8	4.06	42.0	7.0	40.0	7.0
											-20°F	Δ	Δ	11.7	3.28	28.0	6.0	25.0	6.0
											-40°F	Δ	Δ	7.2	2.70	18.0	4.2	15.0	4.2
3640	V	10-3/4	26.0	75.0	Δ	72.7	72.5	63.9	*	3 1/8	+40°F	Δ	Δ	63.0	9.66	130.0	15.0	125.0	15.0
3840	H	10-3/4	24.0	63.0	Δ	71.3	70.4	62.0	*		+20°F	Δ	Δ	48.6	8.40	90.0	13.0	90.0	13.0
3873	H	10-3/4	48.0	114	Δ	151.5	149.5	131.7	*		0°F	Δ	Δ	33.3	6.57	60.0	11.0	60.0	11.0
3874	H	10-3/4	60.0	120	Δ	191.6	189.1	166.5	*		-20°F	Δ	Δ	20.7	5.89	40.0	9.3	40.0	9.3
											-40°F	Δ	Δ	11.7	4.64	28.0	7.5	25.0	4.5

Suction Accumulators of 6" diameter or smaller are (UL) and (UL) LISTED File No. SA2400 (Hydrogen copper brazed construction)

* Suction Accumulators larger than 6" diameter are made to ASME Code. (Shielded arc welded construction) #ASME Length in inches includes nipples

† Maximum recommended tons based on pressure drop through Suction Accumulators. †Minimum recommended tons based on oil return through Suction Accumulators.

Δ These ASME models are not intended for use with R-410A refrigerant, see alternate chart for R-410A ASME models

(Some standard models available with electric float)

