



Pointing the Way...

WITH NEW IDEAS

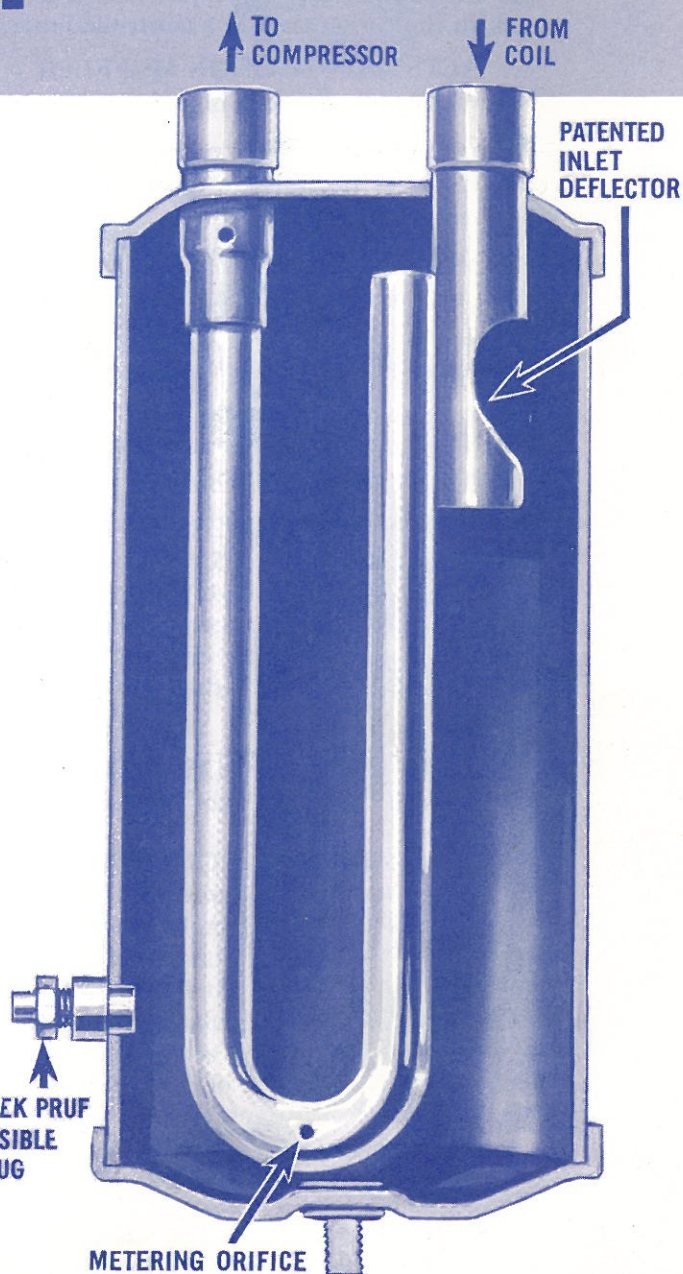
The ORIGINAL, TIME TESTED SUCTION ACCUMULATOR

-- THE COMPLETE LINE --
For Exact Selection

*The Suction Accumulator by
REFRIGERATION RESEARCH, INC.
Prevents Compressor Damage
Due to Sudden Return of
Liquid Refrigerant Through
the Suction Line*

REFRIGERATION RESEARCH, INC.
PROVIDES ALL OF THE IMPORTANT FEATURES.

1. Exclusive (patented) inlet deflector for improved performance. Deflector permits tangential entry of fluid.
2. Positive exclusive marking of inlet with metal plate helps insure against errors in hookup.
3. All Refrigeration Research suction accumulators of over 3" diameter are complete with RR 362° "Leek Pruf" fusible plug included and installed to comply with latest Underwriters' requirements.
4. Stronger steel nipples are used for strength and are plated to facilitate silver soldering.
5. Controlled hydrogen copper brazing process provides the ultimate in cleanliness and uniform strength.
6. All Refrigeration Research suction accumulators are UL Listed or built to ASME code. Suction accumulators by Refrigeration Research have been field proven in hundreds of thousands of installations.



MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS: NOS.: 3,084,523; 3,212,289; 3,344,506; 3,420,071; 3,432,910; 3,443,367; 3,589,395; 3,643,465; 3,837,177; AND PATENTS APPLIED FOR.

REFRIGERATION RESEARCH, INC.

525 North Fifth Street - P.O. Box 869 - Brighton, Michigan 48116 - (313) 227-1151

SUCTION ACCUMULATOR APPLICATION DATA

IMPORTANT
 FOR LOWEST COST AND QUICKEST DELIVERY MAKE SELECTIONS FROM MODELS ON UNSHADED LINES WHICH ARE IN STOCK. MODELS ON SHADED LINES ARE AVAILABLE ONLY IN PRODUCTION QUANTITIES WITH ADEQUATE LEAD TIME.

PART NO.	HORIZONTAL OR VERTICAL	DIA.	LENGTH	WEIGHT	MAXIMUM REFRIGERANT HOLDING CAPACITY LBS.			UL CODE IDENT	INLET OUTLET I.D. LINE SIZE	† RECOMMENDED TONS OF REFRIGERATION						
					R-22	R-12	R-502			REFRIGERANT						
										R-22		R-12		R-502		
EVAP. TEMP.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.								
3680	V	3	7-11/16	2.1	1.5	1.7	1.6	HN	1/2	+40°F	.90	.16	.50	.11	.80	.13
3816	V	4	6-1/2	2.5	2.1	2.3	2.2	KN		+20°F	.62	.14	.35	.09	.58	.10
3817	V	4	10-1/2	3.8	4	4.4	4.2	KN		0°F	.45	.11	.22	.08	.40	.08
3815	H	3	7-7/8	2.1	1.3	1.2	1.3	HN		-20°F	.30	.09	.15	.06	.25	.06
3673	H	3	10-7/8	2.7	2.2	2.4	2.3	HN		-40°F	.18	.07	---	.04	.14	.05
3684	V	3	7-11/16	2.2	1.5	1.7	1.6	HN	5/8	+40°F	2.00	.18	1.00	.13	1.55	.15
3701	V	4	6-5/8	2.5	2.1	2.3	2.2	KN		+20°F	1.25	.16	0.60	.11	1.00	.12
3685	V	3	12	3.1	2.5	2.7	2.6	HN		0°F	0.85	.13	0.40	.10	0.70	.10
3702	V	4	10-5/8	3.7	4	4.4	4.2	KN		-20°F	0.55	.11	0.25	.08	0.45	.08
3820	H	3	7-7/8	2.2	1.3	1.2	1.3	HN		-40°F	0.35	.09	0.15	.06	0.25	.07
3821	H	3	11-5/8	3.0	2.2	2.4	2.3	HN	3/4	+40°F	3.0	.22	1.80	.15	2.8	.22
3703	V	4	10-5/8	3.8	4	4.4	4.2	KN		+20°F	2.1	.18	1.15	.12	2.0	.18
										0°F	1.5	.16	0.70	.11	1.4	.16
										-20°F	1.1	.13	0.48	.09	0.8	.13
										-40°F	0.6	.10	0.28	.06	0.5	.10
3670	V	4	11	4.0	4	4.4	4.2	KN	7/8	+40°F	4.0	.53	2.5	.36	4.0	.53
3738	V	5	13	6.8	7	7.7	7.3	DN		+20°F	3.0	.45	1.8	.31	3.0	.45
3827	V	6	13	11.3	10.2	11.2	10.6	MN		0°F	2.3	.39	1.0	.26	2.0	.39
3825	H	6	10	8.9	7	7.7	7.3	MN		-20°F	1.5	.33	0.7	.21	1.3	.33
3826	H	6	13-1/2	11.1	10.4	11.4	10.9	MN		-40°F	0.9	.27	0.4	.17	0.7	.27
3832	V	6	11	10.1	7.8	8.6	8.1	MN	1 1/8	+40°F	9.0	.76	5.0	.50	9.0	.76
3700	V	6	15	12.1	11.4	12.8	12.1	MN		+20°F	6.2	.65	3.2	.44	6.0	.65
3830	H	6	13-1/2	11.3	10.4	11.4	10.9	MN		0°F	4.3	.56	2.1	.37	4.0	.56
3831	H	6	16-1/2	13.2	13.8	15.2	14.0	MN		-20°F	2.8	.47	1.4	.30	2.5	.47
										-40°F	1.8	.38	0.9	.16	1.4	.38
3837	V	6	13-1/2	11.8	9.5	10.4	9.9	MN	1 3/8	+40°F	17.0	2.0	8.0	1.4	15.0	2.0
3706	V	6	20-1/4	16	16	17.6	16.6	MN		+20°F	11.0	1.9	6.0	1.2	10.0	1.9
3743	V	6	24-3/4	18.8	20.5	22.5	21.3	MN		0°F	7.7	1.6	3.8	1.0	7.0	1.6
3835	H	6	13-1/2	11.5	10.4	11.4	10.9	MN		-20°F	5.0	1.3	2.4	0.9	4.5	1.3
3836	H	6	22-1/2	17.1	18.5	20	19	MN		-40°F	3.0	1.1	1.4	0.7	2.5	1.1
3698	V	6	17-1/8	14.4	13	14.3	13.5	MN	1 5/8	+40°F	28	2.0	13	1.4	25	2.0
3704	V	6	24-3/4	19.2	20.5	22.5	21.3	MN		+20°F	19	1.9	9	1.2	18	1.9
3809	H	6	18	15.6	14.4	15.9	15	MN		0°F	13	1.6	6	1.0	12	1.6
3810	H	6	30	23.1	25.2	27.8	26.2	MN		-20°F	8	1.3	4	0.9	7	1.3
										-40°F	5	1.1	2	0.7	4	1.1
3639	V	8-5/8	20	30	30	32	31	*	2 1/8	+40°F	59	5.8	32	3.7	55	5.8
3838	H	6	36	28	31.1	33.4	31.8	MN		+20°F	41	5.2	21	3.2	39	5.2
3839	H	6	48	35.5	41.8	45.3	43	MN		0°F	27	4.3	14	2.6	26	4.3
										-20°F	18	3.7	8	2.1	16	3.7
										-40°F	12	2.7	5	1.7	10	2.7
3641	V	10-3/4	20	44	44	48	46	*	2 5/8	+40°F	90	9.5	50	5.9	85	9.5
3841	H	8-5/8	24	40	41	45	43	*		+20°F	62	8.4	33	5.2	60	8.4
										0°F	42	7.0	22	4.2	40	7.0
										-20°F	28	6.0	13	3.4	25	6.0
										-40°F	---	---	---	---	---	---
3640	V	10-3/4	26	55	72	79	75	*	3 1/8	+40°F	130	15.0	70	10.0	125	15.0
3840	H	10-3/4	24	50	73	80	76	*		+20°F	90	13.0	54	8.7	90	13.0
3873	H	10-3/4	48	100	143	160	152	*		0°F	60	11.0	37	6.8	60	11.0
3874	H	10-3/4	60	125	181	200	190	*		-20°F	40	9.3	23	6.1	40	9.3
										-40°F	---	---	---	---	---	---



3816
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3704



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3641
3640



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3840

Suction Accumulators of 6" diameter or smaller are U/L Listed. (Hydrogen copper brazed construction)
 Suction Accumulators larger than 6" diameter are made to ASME code. (Shielded arc welded construction)
 † Maximum recommended tons based on pressure drop thru Suction Accumulator equivalent to 1/2°F.
 ‡ Minimum recommended tons based on oil return thru Suction Accumulator.
 UNSHADED MODELS USUALLY IN STOCK—SHADED MODELS AVAILABLE ON SPECIAL ORDER ONLY.
 * ASME (Range Down to -20°F)

APPLICATION DATA FOR HEAT PUMP SUCTION ACCUMULATORS

PART NO.	HORIZONTAL OR VERTICAL	DIA.	LENGTH	WEIGHT	MAXIMUM REFRIGERANT HOLDING CAPACITY LBS.			UL CODE IDENT	SUCTION LINE I.D.	EVAP. TEMP.	†RECOMMENDED TONS OF REFRIGERATION					
					REFRIGERANT											
					R-22		R-12				R-502					
					MAX.	MIN.	MAX.				MIN.	MAX.	MIN.			
HP3701	V	4	6-5/8	2.5	2.1	2.3	2.2	KN	5/8	+60°F	2.56	.20	1.39	.15	1.89	.17
										+50°F	2.30	.19	1.25	.14	1.70	.16
HP3702	V	4	10-5/8	4.2	4	4.4	4.2	KN		+40°F	2.00	.18	1.00	.13	1.55	.15
										+20°F	1.25	.16	0.60	.11	1.00	.12
										0°F	0.85	.13	0.40	.10	0.70	.10
									3/4	+60°F	3.78	.25	2.39	.17	3.56	.24
										+50°F	3.4	.24	2.15	.16	3.2	.23
HP3703	V	4	10-5/8	4.3	4	4.4	4.2	KN		+40°F	3.0	.22	1.80	.15	2.8	.22
										+20°F	2.1	.18	1.15	.12	2.0	.18
										0°F	1.5	.16	0.70	.11	1.4	.16
									7/8	+60°F	5.0	.60	3.11	.40	5.0	.60
										+50°F	4.5	.57	2.8	.38	4.5	.57
HP3738	V	5	13	7.8	7	7.7	7.3	DN		+40°F	4.0	.53	2.5	.36	4.0	.53
										+20°F	3.0	.45	1.8	.31	3.0	.45
										0°F	2.3	.39	1.0	.26	2.0	.39
									1 1/8	+60°F	11.9	.84	6.39	.58	11.5	.84
										+50°F	10.75	.80	5.75	.55	10.4	.80
HP3700	V	6	15	14.5	11.4	12.8	12.1	MN		+40°F	9.0	.76	5.0	.50	9.0	.76
										+20°F	6.2	.65	3.2	.44	6.0	.65
										0°F	4.3	.56	2.1	.37	4.0	.56
									1 3/8	+60°F	21.1	2.2	10.0	1.7	17.8	2.1
										+50°F	19.0	2.1	9.0	1.6	16.0	2.0
HP3706	V	6	20-1/4	18.9	16	17.6	16.6	MN		+40°F	17.0	2.0	8.0	1.4	15.0	2.0
										+20°F	11.0	1.9	6.0	1.2	10.0	1.9
										0°F	7.7	1.6	3.8	1.0	7.0	1.6
									1 5/8	+60°F	35.6	2.1	16.7	1.6	30	2.1
										+50°F	32.	2.0	15	1.5	27	2.0
HP3704	V	6	24-3/4	22.9	20.5	22.5	21.3	MN		+40°F	28	2.0	13	1.4	25	2.0
										+20°F	19	1.9	9	1.2	18	1.9
										0°F	13	1.6	6	1.0	12	1.6

†Maximum recommended tons based on pressure drop thru Suction Accumulator equivalent to 1/2°F.

†Minimum recommended tons based on oil return thru Suction Accumulator.



HEAT PUMP SUCTION ACCUMULATORS

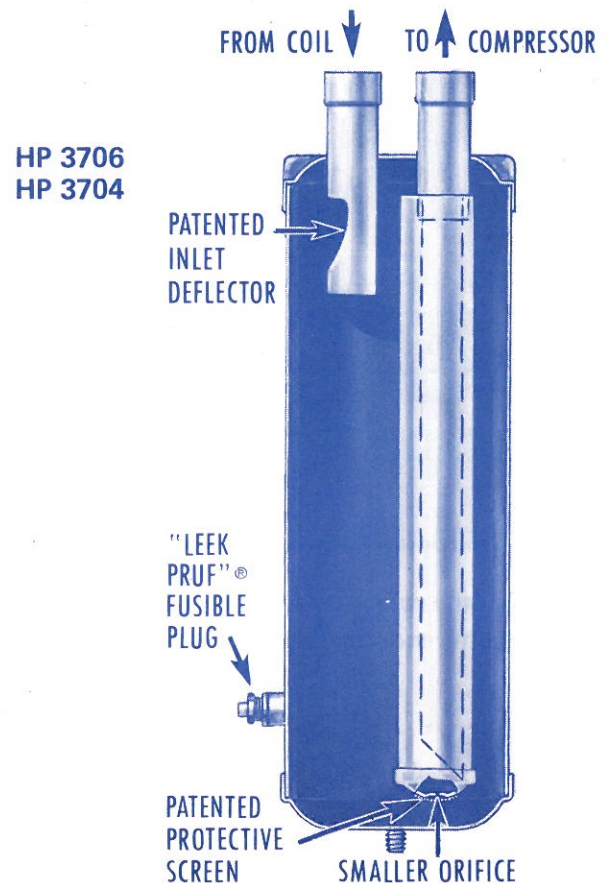
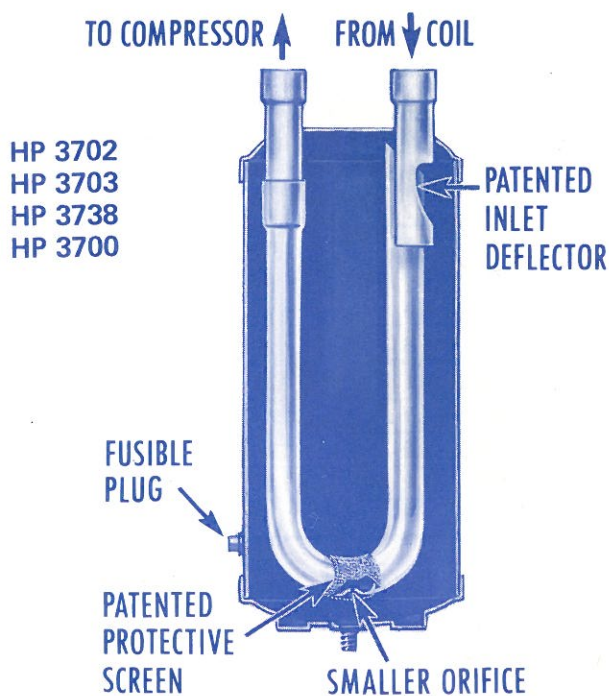
Having pioneered the suction accumulator as a protective component, and having made them continuously over a period of 17 years, Refrigeration Research has acquired considerable experience. However, it has always been our recommendation that tests be made by the system manufacturer to check pressure drop, size of orifice and holding capacity of the accumulator for a particular application.

As a result of tests made by our customers as well as by Refrigeration Research, modifications have been made in many cases for heat pump applications. Our inlet deflector tube baffle, smaller metering orifices and protective monel screens have proven to be of value. In addition, accumulators for heat pumps may usually be designed for less pressure drop.

Many thousands of suction accumulators having inlet deflectors, smaller orifices, and protective strainers have been built by Refrigeration Research and are on systems operating successfully in the field.

Six models of these field proven heat pump type accumulators are now offered as catalogued items instead of specials.

All accumulators are complete with a RR 362° "LEEK PRUF" fusible plug to comply with latest U.L. requirements.



MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS: NOS.: 3,084,523; 3,212,289; 3,344,506; 3,420,071; 3,432,910; 3,443,367; 3,589,395; 3,643,465; 3,837,177; 3,872,689; AND PATENTS APPLIED FOR.

Form RR 64-3 (INS.)



REFRIGERATION RESEARCH, INC.

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