

For More Than One Half Century



Innovation ***** Quality ***** Service

Designed to do the Complete Job! HEAT EXCHANGER– SUCTION ACCUMULATOR Makes practical new design possibilities in refrigeration systems.

Development of the Heat Exchanger–Suction Accumulator as a refrigeration component by Refrigeration Research has resulted in new and practical designs and design possibilities in refrigeration systems.

As the result of the rapidly growing need, Refrigeration Research provides a Cataloged Heat Exchanger–Suction Accumulator to correspond to each of our most popular suction accumulators. The Heat Exchanger–Suction Accumulator combinations bear the same part number as the corresponding suction accumulators except that the letters HX have been added to indicate the presence of the heat exchanger coil. Other models are available on special order.

All Heat Exchanger–Suction Accumulators are complete with fusible plugs installed complying with latest (Ψ) and (Ψ) requirements, except those built to ASME code. CE documentation available upon request.

Copper nipples are standard on vertical (Ψ) and (Ψ) models. Steel nipples are standard on accumulators built to ASME code.

Steel nipples are available on vertical (Ψ) and Ψ , models on special order.

Application data is shown on the next page.



ASME CODE MODELS HX3841 HX3840

MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS; NOS. 5,076,313; 5,075,967; 4,488,413; AND PATENTS APPLIED FOR. Mounting Brackets RR 7187 (8 5/8" Dia.) RR 7188 (10 3/4" Dia.)

These brackets can be used to hold horizontal accumulators securely in position.

(SUCTION ACCUMULATORS ESPECIALLY DESIGNED FOR HEAT PUMPS ARE SHOWN ON PAGES 6 AND 7). PHOTOS FOR ILLUSTRATIVE PURPOSE ONLY - DO NOT USE AS A GUIDE FOR INSTALLATION.



4





HX3701 HX3702 HX3703 HX3738



HX3836 HX3810 HX3839

ASME CODE MODELS

HX3639 HX3641 HX3640



APPLICATION DATA FOR HEAT EXCHANGER-SUCTION ACCUMULATOR COMBINATIONS

Suction Accumulators on this page are exactly the same as the corresponding numbers on page 3 except that "HX" designates a Heat Exchanger Coil added.

PART NUMBER	VERTICAL OR HORIZONTAL	DIAMETER (INCHES)	# LENGTH	WEIGHT	MAXIMUM REFRIGERANT HOLDING CAPACITY (LBS.)						LIQUID LINE I.D.			† RECOMMENDED TONS OF REFRIGERATION							
										SUCTION			EVAP	REFRIGERANT							
										LINE I.D.			TEMP	R-410A		R-134A		R-22		R-404A	
PAR	HO KEI	<u> </u>			R-410A	R-134A	R-22	R-404A						MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
										} 5/8			+40°F	2.10	0.19	0.90	0.13	2.00	0.18	1.55	0.15
HX3701 HX3702	V V	4	7-1/8 11-1/8	3.0 5.5	1.9	2.2	2.1	1.9 3.6	KN KN KN		3/8		+20°F	1.31	0.17	0.54	0.11	1.25	0.16	1.00	0.12
					3.6	4.2	4.0					{	0°F	0.89	0.13	0.36	0.10	0.85	0.13	0.70	0.10
													-20°F	0.58	0.11	0.22	0.08	0.55	0.11	0.45	0.08
													-40°F	0.36	0.09	0.13	0.06	0.35	0.90	0.25	0.07
												r	+40°F	3.15	0.23	1.62	0.14	3.0	0.22	2.8	0.22
											^{3/8} {		+20°F	2.21	0.19	1.03	0.11	2.1	0.18	2.0	0.18
HX3703	V	4	11-3/8	5.6	3.5	4.1	4.0	3.7	KN) 3/4			0°F	1.57	0.17	0.63	0.10	1.5	0.16	1.4	0.15
													-20°F	1.15	0.13	0.43	0.09	1.1	0.13	0.8	0.13
												-	-40°F	0.60	0.10	0.25	0.06	0.6	0.10	0.5	0.10
HX3738		5	13	9.0	7.0	8.0	7.9	6.9	DN	} 7/8	1/2 {	r	+40°F	4.20	0.55	2.25	0.35	4.0	0.53	4.0	0.54
	V												+20°F	3.15	0.47	1.62	0.30	3.0	0.45	3.0	0.45
													0°F	2.41	0.41	0.87	0.25	2.0	0.39	2.0	0.39
												L	-20°F	1.57	0.34	0.63	0.20	1.5	0.33	1.3	0.33
										_		_	-40°F	0.94	0.28	0.36	0.16	0.9	0.27	0.7	0.27
HX3700	v	6	15	15.0	11.5	13.1	12.9	11.4	MN	1	5/8 {		+40°F	9.45	0.80	4.35 2.88	0.48	8.0 6.2	0.76	9.0 6.0	0.76
HX3700	V	0	12							1 1/8		J	+20°F 0°F	6.51 4.51	0.68	1.83	0.43	4.3	0.65	4.0	0.65
												1	-20°F	2.94	0.59	1.83	0.36	4.3 2.8	0.56	2.5	0.56
												L	-20 F	1.89	0.49	0.78	0.29	1.8	0.47	1.4	0.47
													-40 F	1.89	2.10	7.20	1.35	17.0	2.00	1.4	2.00
HX3706	v	6	20-1/4	20.5	15.6	17.8	17.5	15.4	MN	- I I	ſ	ſ	+40 F	11.5	2.10	5.40	1.16	11.0	1.90	10.0	1.90
11/2/00	v	0	20-1/4	20.5	15.0	17.0	17.5	13.4	IVIIN	13/8	5/8	Į	0°F	8.08	1.68	3.42	0.97	7.7	1.60	7.0	1.60
HX3836	н	6	22-1/2	20.0	15.2	17.3	17.1	15.1	MN	J 1 5/0	³⁷⁰ 1		-20°F	5.25	1.36	2.16	0.87	5.0	1.30	4.5	1.30
11/13/03/0		Ŭ	22 1/2									L	-40°F	3.15	1.15	1.26	0.68	3.0	1.10	2.5	1.10
												-	+40°F	29.4	2.10	11.7	1.35	28.0	2.00	25.0	2.00
HX3704	v	6	24-3/4	27.0	20.1	22.9	22.6	19.9	MN	ר			+20°F	19.9	2.00	8.1	1.16	19.0	1.9	18.0	1.90
			30	26.3	19.0	21.6	21.3	18.8	MN	15/8	^{3/4} {		0°F	13.6	1.68	5.4	0.97	13.0	1.6	12.0	1.60
HX3810	Н	6											-20°F	8.40	1.36	3.6	0.87	8.0	1.3	7.0	1.30
										<u> </u>		L	-40°F	5.25	1.15	2.8	0.68	5.0	1.1	4.0	1.10
		ſ											+40°F	61.9	5.09	28.8	3.57	59.0	5.8	55.0	5.8
HX3639	V	8-5/8	20	50.0	Δ	31.3	30.9	27.2	*				+20°F	43.0	5.46	18.9	3.09	41.0	5.2	49.0	5.2
										> 21/8	7/8 י	K	0°F	28.3	4.51	12.6	2.51	27.0	4.3	26.0	4.3
HX3839	Н	6	48	40.0	36.8	41.3	41.3	36.4	MN		-	l	-20°F	18.5	3.88	7.2	2.03	18.0	3.7	16.0	3.7
										3			-40°F	12.6	2.83	4.5	1.64	12.0	2.7	10.0	2.7
													+40°F	Δ	Δ	45.0	5.70	90.0	9.5	85.0	9.5
													+20°F	Δ	Δ	29.7	5.02	62.0	8.4	60.0	8.4
HX3641	V	10-3/4	20	65.0	Δ	51.4	50.7	44.7	*	> 25/8	1 3/8	١	0°F	Δ	Δ	19.8	4.06	42.0	7.0	40.0	7.0
HX3841	Н	8-5/8	24	63.0	Δ	45.2	44.6	39.3	*	J			-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
										1		ſ	+40°F	Δ	Δ	63.0	9.66	130	15.0	125	15.0
HX3640	V	10-3/4	26	75.0	Δ	72.7	72.5	63.9	*				+20°F	Δ	Δ	48.6	8.40	90.0	13.0	90.0	13.0
HX3840	Н	10-3/4	24	68.0	Δ	71.3	70.4	62.0	*	3 1/8	1 3/8	٢	0°F	Δ	Δ	33.3	6.57	60.0	11.0	60.0	11.0
HX3873	Н	10-3/4	48	114	Δ	151.5	149.5	131.7		J		L	-20°F	Δ	Δ	20.7	5.89	40.0	9.3	40.0	9.3
HX3874	Η	10-3/4	60	120	Δ	191.6	189.1	166.5		-			-40°F	Δ	Δ	11.7	4.64	28.0	7.5	25.0	4.5

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

Suction Accumulators larger than 6" diameter are made to ASME code with other R410-A models listed on separate chart (Shielded arc welded construction)

ointing the Way with New ideas

 $\ensuremath{^{\text{t}}}$ Maximum recommended tons based on pressure drop through Suction Accumulator

t Minimum recommended tons based on oil return through Suction Accumulator

 Δ These ASME models are not intended for use with R-410A refrigerant

ASME Length in inches includes nipples. (Some standard models available with electric float)



5

We maintain a museum of unique and antique refrigeration equipment at our Brighton, Michigan (US) plant. Call us for a tour or visit it at www.refresearch.com





offers the most complete line of refrigeration system components in the industry.

Research • Design • Quality • Value • Service • Experience

Engineering departments look to Refrigeration Research for assistance in design of component parts and procurement of test samples. We always strive to improve quality and reduce cost through engineering and manufacturing advancements. Contact us for your special needs or assistance.

If you have any questions or need more information, please contact us at: Refrigeration Research, Inc. 525 N. Fifth St. • P.O. Box 869 • Brighton, MI 48116 (810) 227-1151 • Fax (810) 227-3700 info@refresearch.com