

HEAT RECLAIM

Catalog 402.3

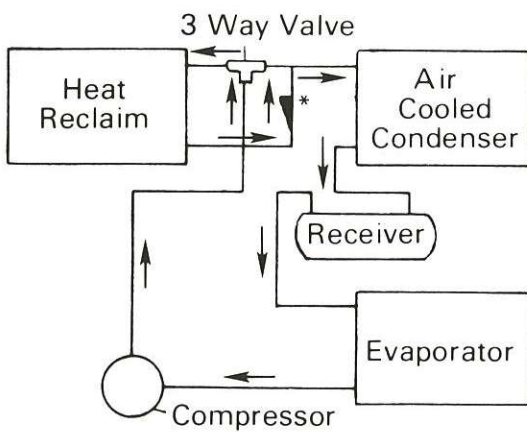
May 1993

Space Heaters for: Storage Rooms, Receiving Areas, Loading Docks, Miscellaneous Supplemental Heating.

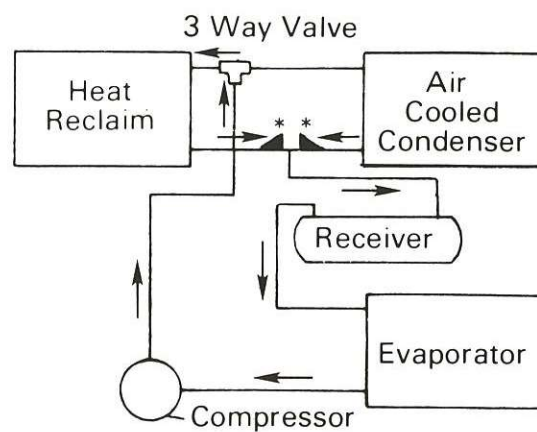


In an air conditioning or refrigeration system the heat taken from the conditioned space or product is usually wasted to the atmosphere by a water or air cooled condenser. The Russell Reclaim Heater may be used to recapture this wasted heat, (100% recovery on parallel piping arrangement to about 70% for series connection.)

PIPING DIAGRAM



SERIES ARRANGEMENT



PARALLEL ARRANGEMENT

* Check Valve

NOTE: Arrows show refrigerant path in reclaim mode.

SPECIFICATIONS — RUSSELL HEAT RECLAIM UNIT HEATERS

Model Number	BTU/HR*	Total CFM	Fans		Motors		Total Motor Amps		
			No.	Dia.	H.P.	RPM	115 Volts	230 Volts	460 Volts
HRAC-3/4	22,000	1,440	1	16	1/6	1050	5.9	2.9	---
HRAC-1	28,500	1,200	1	16	1/6	1050	5.9	2.9	---
HRAC-1-1/2	41,000	2,600	1	20	1/6	1050	5.9	2.9	---
HRAC-2	52,500	2,500	1	20	1/6	1050	5.9	2.9	---
HRAC-3	76,500	2,400	1	20	1/6	1050	5.9	2.9	---
HRC-5	135,500	5,200	1	24	3/4	1075	---	4.2	2.1
HRC-7	185,500	5,000	1	24	3/4	1075	---	4.2	2.1
HRC-9	238,000	4,800	1	24	3/4	1075	---	4.2	2.1

*Capacities shown are for 50°F. TD (condensing temperature minus entering air temperature).

Correction factors below are for capacities at other TD's.

TD	30	35	40	45	50	55	60
Factor	.6	.7	.8	.9	1.0	1.1	1.2

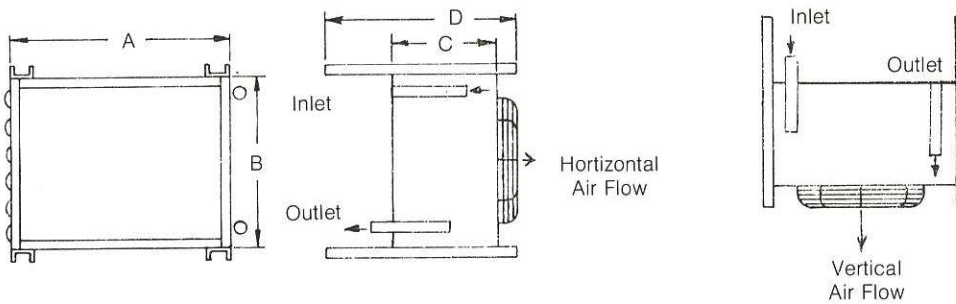
EXAMPLE: 65° Entering Air, Compressor Total Heat Rejection at 110° Condensing Temperature 34,000 BTU/HR

$$110 - 65 = 45 \text{ use correction factor } .9, \frac{34,000}{.9} = 37,777 \text{ use } \mathbf{HRAC-1-1/2}$$

QUICK SELECTION 65° ENTERING AIR

H.P.	Compressor	Available Heat BTU/HR	Use Model	Resulting Condensing Temp., °F.	
2	EAV0200	15,000	HRAC-3/4 HRAC-1 HRAC-2 HRC-5	101	
3	LAH0310	21,500		Low Temp.	105
5	MRA0500	35,600		-20° Suction	101
7-1/2	9RS0760	68,600		R-502	103
2	KAK0200	21,600	HRAC-1 HRAC-1-1/2 HRAC-3 HRC-5	103	
3	ERF0300	31,000		Med. Temp.	103
5	2DD0500	62,800		+25° Suction	106
7-1/2	2DA0750	93,500		R-22	100

NOTE: Standard Circuiting for one system. Specify if for two systems



DIMENSION DATA

Model Number	A	B	C	D	Connections - O.D. (IN.)		Approximate Shipping Weight (LBS.)
					Inlet	Outlet	
HRAC-3/4	20-1/2	18-1/4	12-9/16	20	5/8	5/8	60
HRAC-1	20-1/2	18-1/4	12-9/16	20	5/8	5/8	65
HRAC-1-1/2	24-1/2	24-1/4	12-9/16	20	5/8	5/8	90
HRAC-2	24-1/2	24-1/4	12-9/16	20	5/8	5/8	110
HRAC-3	24-1/2	24-1/4	12-9/16	20	7/8	7/8	145
HRC-5	32-1/4	45	19	28	1-1/8	1-1/8	220
HRC-7	32-1/4	45	19	28	1-3/8	1-3/8	270
HRC-9	32-1/4	45	19	28	1-5/8	1-1/8	305