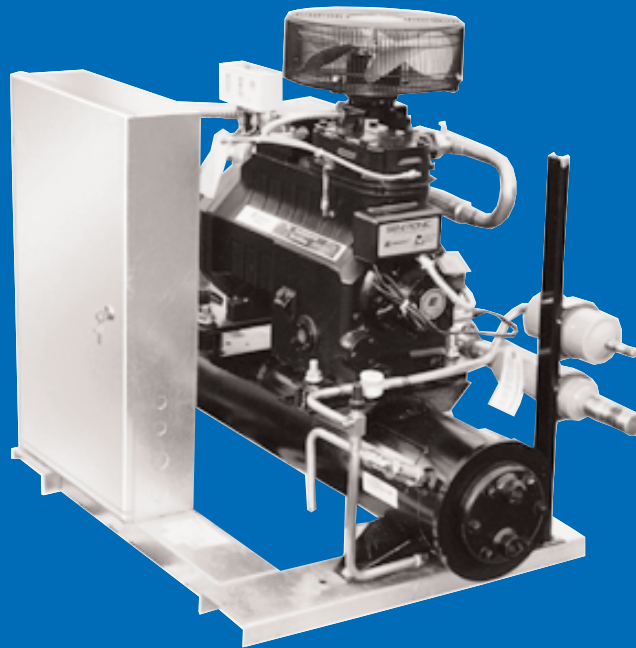


RW Series

INDOOR WATER COOLED CONDENSING UNITS 3 THROUGH 40 H.P.

Technical Bulletin 534.3

November, 2000



The RW series of outdoor water cooled condensing units feature R-404A (HP-62) and R-22 environmentally friendly refrigerants. Designed to be compact, yet serviceable, it offers a full selection of standard and optional features. Its narrow profile allows it to easily fit through doorways and it's small footprint maximizes use of premium floor space. An optional stacking rack can further enhance floor space utilization on multiple unit installations. A cleanable shell and tube condenser with extra pumpdown capacity is standard.

Standard Features:

- Discus or Reed Semi-hermetic Compressor
- Suction and discharge service valves (as required)
- Compressor spring mounts
- Dual pressure control
- Oil failure control (as required)
- Compressor head cooling fan (as required)
- Cleanable shell and tube water cooled condenser
- Pressure relief valve or fusible plug
- Contactor box
- Compressor contactor and control circuit fusing
- UL and Canada UL listed

Optional Features:

- Large electrical control panel (as shown above)
- Crankcase heater
- Liquid line assembly (sight glass and filter)
- Suction line assembly (filter and vibration absorber)
- Suction Accumulator
- Oil Separator
- Air or Electric Defrost provisions (requires optional control panel)
- Pumpdown toggle switch
- Water regulating valve (shipped loose)
- Two tier stacking rack





BTUH CAPACITY @ 105°F CONDENSING TEMPERATURE

NOM. H.P.	REF. TYPE	MODEL NUMBER	BTUH CAPACITY AT SUCTION TEMPERATURE (°F)									
			40°F	30°F	25°F	20°F	10°F	0°F	-10°F	-20°F	-30°F	-40°F
3.0	22	RWS3H22	36700	29400	26200	23200	17900	13600	-	-	-	-
4.0	22	RWS4H22	56500	44400	39200	34300	25500	17800	-	-	-	-
5.0	22	RWS5H22	64400	51400	45600	40200	30800	22900	-	-	-	-
5.0	22	RWD5H22	73400	58900	52500	46600	36000	-	-	-	-	-
7.5	22	RWD7H22	101300	81300	72400	64400	50800	-	-	-	-	-
7.5	22	RWD8H22	123800	100700	90500	81100	64400	-	-	-	-	-
10.0	22	RWD10H22	143900	117800	106300	95600	76900	-	-	-	-	-
15.0	22	RWD15H22	191200	155500	139500	124700	98000	-	-	-	-	-
20.0	22	RWD20H22	210500	171100	153400	137000	107900	-	-	-	-	-
25.0	22	RWD25H22	275000	224000	200500	164500	127500	-	-	-	-	-
30.0	22	RWD30H22	325500	261000	234000	209000	163500	-	-	-	-	-
35.0	22	RWD35H22	390500	317000	285500	255500	204500	-	-	-	-	-
40.0	22	RWD40H22	468500	384500	346500	311000	248000	-	-	-	-	-
5.0	404A	RWD5M44	77200	62600	56000	49800	39100	30200	23200	-	-	-
7.5	404A	RWD7M44	107600	87600	78800	70700	56600	44800	34900	-	-	-
7.5	404A	RWD8M44	126100	102700	92400	82800	66100	52200	40700	-	-	-
10.0	404A	RWD10M44	148700	121600	109300	98700	79400	63000	49100	-	-	-
12.0	404A	RWD12M44	203800	166100	149450	134200	107400	85200	66900	-	-	-
15.0	404A	RWD15M44	204700	167200	150600	135400	108700	86300	67700	-	-	-
20.0	404A	RWD20M44	218200	179000	161000	144200	114100	88700	67100	-	-	-
25.0	404A	RWD25M44	272400	226300	204600	183800	146250	114900	91200	-	-	-
30.0	404A	RWD30M44	333550	273000	245800	220500	175400	137500	106150	-	-	-
35.0	404A	RWD35M44	422100	343600	309000	277300	221650	175200	136400	-	-	-
40.0	404A	RWD40M44	482800	398900	360900	325500	261950	208100	163350	-	-	-
3.0	22	RWS3L22	-	-	-	-	-	23000	17200	12000	7960	5300
3.0	22	RWD3L22	-	-	-	-	-	30200	22100	16000	11200	7200
4.0	22	RWD4L22	-	-	-	-	-	35400	26700	19300	13300	8700
5.0	22	RWD5L22	-	-	-	-	-	41200	31000	22500	15600	10200
6.0	22	RWD6L22	-	-	-	-	-	49300	37200	27300	19400	13000
7.5	22	RWD8L22	-	-	-	-	-	59100	45200	33800	24500	16700
9.0	22	RWD9L22	-	-	-	-	-	71800	55000	40700	28800	19500
10.0	22	RWD10L22	-	-	-	-	-	77700	59400	44100	31500	21200
15.0	22	RWD15L22	-	-	-	-	-	106900	82200	61400	43800	29200
22.0	22	RWD22L22	-	-	-	-	-	125900	95500	72300	53400	35900
27.0	22	RWD27L22	-	-	-	-	-	157000	12100	91400	66200	43400
30.0	22	RWD30L22	-	-	-	-	-	18800	143400	108300	79600	53900
3.0	404A	RWD3L44	-	-	-	-	-	32800	25300	19000	13900	9600
4.0	404A	RWD4L44	-	-	-	-	-	39200	30400	23100	17000	11900
5.0	404A	RWD5L44	-	-	-	-	-	44300	34700	26600	19900	14100
6.0	404A	RWD6L44	-	-	-	-	-	53100	41600	32000	24000	17400
7.5	404A	RWD8L44	-	-	-	-	-	62700	49100	37900	28600	20600
9.0	404A	RWD9L44	-	-	-	-	-	76900	60200	46300	34700	25200
10.0	404A	RWD10L44	-	-	-	-	-	85200	67500	52400	39500	28700
12.0	404A	RWD12L44	-	-	-	-	-	88700	69500	54000	40800	28200
15.0	404A	RWD15L44	-	-	-	-	-	114900	91100	71800	55200	39800
22.0	404A	RWD22L44	-	-	-	-	-	138000	110200	86400	65400	46300
27.0	404A	RWD27L44	-	-	-	-	-	175800	139400	107400	80000	57180
30.0	404A	RWD30L44	-	-	-	-	-	198200	155900	120300	90300	64860

NOTES:

1. Increase (decrease) capacity 3% for each 5°F lower (higher) condensing temperature.
2. R-507 (AZ-50) capacity ratings are similar to R-404A ratings (pending final approval by Copeland).
When ordering a R-507 model, change the model number suffix from 44 to 57.
3. R-502 capacity ratings are similar to R-404A ratings.
When ordering a R-502 model, change the model number suffix from 44 to 52.
4. Models using R-404A are shipped with Polyol Ester Oil (POE) charge in the compressor.

ELECTRICAL AND WATER (GPM) DATA

UNIT MODEL NUMBER	COMPRESSOR MODEL NUMBER	AMPS @ 230/3/60			AMPS @ 460/3/60			GPM REQ'D FOR 75° EWT**				GPM REQ'D FOR 85° EWT**			
		COMPRESSOR		MIN. CIRC.	COMPRESSOR		MIN. CIRC.	MAX.	P.D.	MIN.	P.D.	MAX.	P.D.	MIN.	P.D.
		RLA	LRA	AMPACITY*	RLA	LRA	AMPACITY*	GPM	(PSI)	GPM	(PSI)	GPM	(PSI)	GPM	(PSI)
RWS3H22	ERF-0310	12.4	82.0	17	5.8	41.0	15	4.2	1.20	1.6	0.20	7.1	3.20	2.5	0.40
RWS4H22	NRB-0400	21.8	141.0	29	11.3	62.5	15	7.2	3.30	2.4	0.40	13.7	11.6	3.9	1.10
RWS5H22	NRA-0500	19.2	141.0	26	9.6	62.5	15	8.4	0.25	2.6	0.05	14.0	0.60	4.8	0.07
RWD5H22	2DD-050E	22.3	120.0	29	10.5	60.0	15	9.3	0.28	4.4	0.60	15.7	0.73	7.0	0.17
RWD7H22	2DA-075E	32.0	169.0	42	14.1	85.0	19	12.4	0.40	6.0	1.00	21.2	1.10	9.5	0.30
RWD8H22	3DA-075E	41.0	215.0	53	20.0	106.0	27	16.3	0.65	7.9	0.15	29.2	2.00	13.0	0.40
RWD10H22	3DB-100E	43.6	215.0	56	20.0	106.0	27	18.5	0.55	9.4	0.15	32.5	1.55	15.0	0.35
RWD15H22	3DS-150E	59.6	275.0	76	29.0	138.0	38	24.2	0.50	12.0	0.15	41.9	1.35	19.7	0.30
RWD20H22	4DA-200E	70.0	308.0	89	35.0	154.0	45	27.8	0.60	13.5	0.15	49.4	1.85	21.7	0.40
RWD25H22	4DH-250E	82.2	428.0	105	41.1	214.0	52	36.7	1.80	16.7	0.40	65.6	5.50	27.2	1.00
RWD30H22	4DJ-300E	94.0	470.0	120	47.0	235.0	60	30.8	0.65	16.8	0.20	48.6	1.45	25.9	0.45
RWD35H22	6DH-350E	107.0	565.0	136	53.5	283.5	68	41.0	1.05	17.7	0.20	66.7	2.65	27.3	0.50
RWD40H22	6DJ-400E	142.0	594.0	180	71.0	297.0	90	47.1	0.55	21.0	0.10	75.6	1.30	32.1	0.25
RWD5M44	2DD-050E	22.3	120.0	29	10.5	60.0	15	10.1	0.32	3.1	0.05	17.4	0.88	4.6	0.07
RWD7M44	2DA-075E	32.0	169.0	42	14.1	85.0	19	13.7	0.45	4.3	0.05	23.7	1.30	6.6	0.10
RWD8M44	3DA-075E	41.0	215.0	53	20.0	106.0	27	17.0	0.70	5.2	0.10	29.2	2.15	8.1	0.20
RWD10M44	3DB-100E	43.6	215.0	56	20.0	106.0	27	19.6	0.60	6.3	0.10	35.4	1.85	9.7	0.15
RWD12M44	3DF-120E	48.2	275.0	63	23.6	138.0	31	23.8	0.45	7.9	0.10	41.2	1.30	12.0	0.15
RWD15M44	3DS-150E	59.6	275.0	76	29.0	138.0	38	27.5	0.60	8.7	0.10	48.6	1.80	13.6	0.15
RWD20M44	4DA-200E	66.0	308.0	84	33.0	154.0	43	29.5	0.70	8.7	0.10	52.8	2.10	13.7	0.15
RWD25M44	4DH-250E	82.2	428.0	105	41.1	214.5	52	36.7	1.80	11.6	0.20	65.7	5.50	18.2	0.50
RWD30M44	4DJ-300E	94.0	470.0	120	45.0	235.0	58	33.3	0.70	11.8	0.15	52.8	1.70	17.6	0.20
RWD35M44	6DH3-350E	107.0	565.0	136	55.0	260.0	70	43.0	1.15	15.0	0.20	71.0	3.00	23.0	0.35
RWD40M44	6DJ-400E	142.0	594.0	180	70.0	315.0	90	48.9	0.55	17.9	0.10	78.7	1.35	27.0	0.20
RWS3L22	LAH-031E	10.7	82.0	16	5.2	41.0	15	3.4	0.70	0.9	0.05	6.0	2.00	1.3	0.15
RWD3L22	2DF-030E	16.8	102.0	23	8.1	52.0	15	4.9	1.40	1.2	0.13	9.1	4.56	1.8	0.20
RWD4L22	2DL-040E	26.3	161.0	35	10.2	60.0	15	4.5	1.40	1.3	0.20	7.6	3.70	1.9	0.30
RWD5L22	2DA-060E	28.8	161.0	38	10.2	60.0	15	5.4	1.90	1.5	0.20	9.6	5.80	2.2	0.35
RWD6L22	3DA-060E	26.5	150.0	36	12.0	77.0	17	7.0	3.20	1.9	0.30	13.2	10.7	2.9	0.60
RWD8L22	3DB-075E	31.5	161.0	42	16.1	83.0	22	8.6	0.25	2.7	0.05	14.3	0.65	4.0	0.05
RWD9L22	3DF-090E	39.0	215.0	51	16.9	106.0	23	11.0	0.40	3.3	0.05	16.0	0.75	4.8	0.10
RWD10L22	3DS-100E	42.0	215.0	55	18.6	106.0	25	12.4	0.45	3.6	0.05	22.0	1.40	5.4	0.10
RWD15L22	4DL-150E	52.6	278.0	68	26.3	139.0	35	16.6	0.65	4.6	0.05	29.7	2.00	7.3	0.15
RWD22L22	4DT-220E	66.0	374.0	85	33.0	187.0	43	19.9	0.60	5.5	0.10	35.1	1.80	8.5	0.15
RWD27L22	6DL-270E	80.8	450.0	103	40.4	225.0	51	23.0	0.40	7.0	0.10	40.0	1.20	10.3	0.10
RWD30L22	6DT-300E	95.6	470.0	122	47.8	235.0	55	29.7	0.70	8.4	0.10	53.6	2.15	13.5	0.15
RWD3L44	2DF-030E	16.8	102.0	23	8.1	52.0	15	4.2	1.20	1.3	0.20	7.0	1.20	2.0	0.30
RWD4L44	2DL-040E	26.3	161.0	35	10.2	60.0	15	5.2	1.80	1.6	0.20	9.1	5.30	2.5	0.40
RWD5L44	2DA-060E	28.8	161.0	38	10.2	60.0	15	6.1	2.50	1.9	0.30	11.2	7.80	3.0	0.60
RWD6L44	3DA-060E	26.5	150.0	36	12.0	77.0	17	8.0	4.10	2.4	0.40	11.9	8.10	3.9	1.00
RWD8L44	3DB-075E	31.5	161.0	42	16.1	83.0	22	9.4	0.30	3.2	0.05	16.0	0.75	4.8	0.10
RWD9L44	3DF-090E	39.0	215.0	51	16.9	106.0	23	12.4	0.50	4.0	0.05	22.0	1.40	6.1	0.15
RWD10L44	3DS-100E	42.0	215.0	55	18.6	106.0	25	14.4	0.65	4.4	0.05	26.3	1.95	7.2	0.15
RWD12L44	4DA-101E	45.6	220.0	59	22.8	110.0	30	12.8	0.40	4.2	0.05	21.9	1.10	6.5	0.10
RWD15L44	4DL-150E	52.6	278.0	68	26.3	139.0	35	18.6	0.85	5.9	0.10	33.9	0.26	9.6	0.25
RWD22L44	4DT-220E	66.0	374.0	85	33.0	187.0	43	21.7	0.75	6.8	0.10	39.4	2.25	10.7	0.20
RWD27L44	6DL-270E	80.8	450.0	103	41.6	218.0	51	26.8	0.60	8.4	0.10	47.2	1.70	13.2	0.15
RWD30L44	6DT-300E	95.6	470.0	122	42.8	135.0	55	32.7	0.85	9.8	0.10	60.2	2.70	15.9	0.25

NOTES:

* Minimum Circuit Ampacity shown is for the condensing unit and control circuit only. No provisions for electric defrost or evaporator fan loads are included. Consult the factory or the unit nameplate for more specific information.

** Max. GPM shown is for the highest suction rating and Min. GPM is for the lowest suction rating. Interpolate GPM requirements for intermediate suction temperatures.

PHYSICAL DATA

MODEL UNIT NUMBER	PUMPDOWN CAP @90% (LBS.)	APPROX. OVERALL DIMENSIONS(inches)			MOUNTING DIMENSIONS(inches)			CONNECTIONS(ODS)				APPROX. SHIP WT. (LBS.)
		L	W	H	A	B	C	DISCHARGE**		SUCTION**	WATER (FPT)	
								w/o KIT	w/ KIT			
RWS3H22	29.6	34	29	26*	18.5	8.25	19.5	5/8	1/2	1-1/8	3/8	400
RWS4H22	29.6	34	29	28*	18.5	8.25	19.5	5/8	1/2	1-1/8	3/8	420
RWS5H22	68.0	42	29	29*	33.5	4.25	19.5	5/8	1/2	1-1/8	1	445
RWD5H22	29.3	42	29	31*	33.5	4.25	19.5	7/8	1/2	1-3/8	1	465
RWD7H22	80.0	48	29	31*	39.5	4.25	19.5	7/8	5/8	1-3/8	1-1/4	540
RWD8H22	80.0	48	29	31*	39.5	4.25	19.5	1-1/8	5/8	1-3/8	1-1/4	590
RWD10H22	68.0	48	29	34	36.5	5.75	19.5	1-1/8	7/8	1-3/8	1-1/4	780
RWD15H22	120.0	48	29	34	36.5	5.75	19.5	1-1/8	7/8	1-5/8	2	800
RWD20H22	120.0	48	32	35	36.5	5.75	22.5	1-3/8	7/8	1-5/8	2	835
RWD25H22	253.0	60	32	38	44.5	5.75	22.5	1-3/8	1-1/8	2-1/8	2	1050
RWD30H22	253.0	72	32	38	50.5	11.5	22.5	1-3/8	1-3/8	2-1/8	2	1105
RWD35H22	253.0	72	32	36	50.5	11.5	22.5	1-3/8	1-3/8	2-1/8	2	1150
RWD40H22	291.0	72	32	38	50.5	11.5	22.5	1-5/8	1-3/8	2-1/8	2-1/2	1200
RWD5M44	25.4	42	29	31*	33.5	4.25	19.5	7/8	1/2	1-3/8	1	465
RWD7M44	69.0	48	29	31*	39.5	4.25	19.5	7/8	5/8	1-3/8	1-1/4	540
RWD8M44	69.0	48	29	31*	39.5	4.25	19.5	1-1/8	5/8	1-3/8	1-1/4	590
RWD10M44	59.0	48	29	34	36.5	5.75	19.5	1-1/8	7/8	1-3/8	1-1/4	780
RWD12M44	104.0	48	29	34	36.5	5.75	19.5	1-1/8	7/8	1-3/8	2	790
RWD15M44	104.0	48	29	34	36.5	5.75	19.5	1-1/8	7/8	1-5/8	2	800
RWD20M44	104.0	48	32	35	36.4	5.75	22.5	1-3/8	7/8	1-5/8	2	835
RWD25M44	217.0	60	32	38	44.5	5.75	22.5	1-3/8	1-1/8	2-1/8	2	1050
RWD30M44	217.0	72	32	38	50.5	11.5	22.5	1-3/8	1-3/8	2-1/8	2	1105
RWD35M44	217.0	72	32	36	50.5	11.5	22.5	1-3/8	1-3/8	2-1/8	2	1150
RWD40M44	251.0	72	32	38	50.5	11.5	22.5	1-5/8	1-3/8	2-1/8	2-1/2	1200
RWS3L22	19.7	34	29	35	18.5	8.25	19.5	5/8	1/2	1-1/8	3/8	375
RWD3L22	19.7	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	390
RWD4L22	29.9	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	465
RWD5L22	68.0	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	485
RWD6L22	29.3	34	29	39	18.5	8.25	19.5	1-1/8	1/2	1-3/8	3/8	530
RWD8L22	68.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-3/8	1	590
RWD9L22	129.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-3/8	1	620
RWD10L22	120.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-5/8	1	795
RWD15L22	80.0	48	32	36	39.5	4.25	22.5	1-3/8	7/8	1-5/8	1-1/4	845
RWD22L22	120.0	48	32	38	36.5	5.75	22.5	1-3/8	7/8	1-5/8	1-1/4	1030
RWD27L22	120.0	60	32	44	44.5	5.5	22.5	1-3/8	1-1/8	2-1/8	2	1225
RWD30L22	120.0	60	32	46	44.5	5.5	22.5	1-3/8	1-1/8	2-1/8	2	1310
RWD3L44	16.9	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	390
RWD4L44	29.9	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	465
RWD5L44	59.0	34	29	39	18.5	8.25	19.5	7/8	1/2	1-3/8	3/8	485
RWD6L44	25.4	34	29	39	18.5	8.25	19.5	1-1/8	1/2	1-3/8	3/8	530
RWD8L44	59.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-3/8	1	590
RWD9L44	111.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-3/8	1	620
RWD10L44	69.0	42	29	38	33.5	4.25	19.5	1-1/8	5/8	1-3/8	1	795
RWD12L44	69.0	48	32	36	39.5	4.25	22.5	1-1/8	7/8	1-5/8	1-1/4	820
RWD15L44	69.0	48	32	36	39.5	4.25	22.5	1-3/8	7/8	1-5/8	1-1/4	845
RWD22L44	104.0	48	32	38	36.5	5.75	22.5	1-3/8	7/8	1-5/8	1-1/4	1030
RWD27L44	104.0	60	32	44	44.5	5.5	22.5	1-3/8	1-1/8	2-1/8	2	1255
RWD30L44	104.0	60	32	46	44.5	5.5	22.5	1-3/8	1-1/8	2-1/8	2	1310

Note: * Height is 32 inches with optional control panel.
 ** Connection size with or without factory installed liquid and/or suction line assembly installed.
 *** Overall dimensions may change if optional oil separator and/or suction accumulator is installed.

