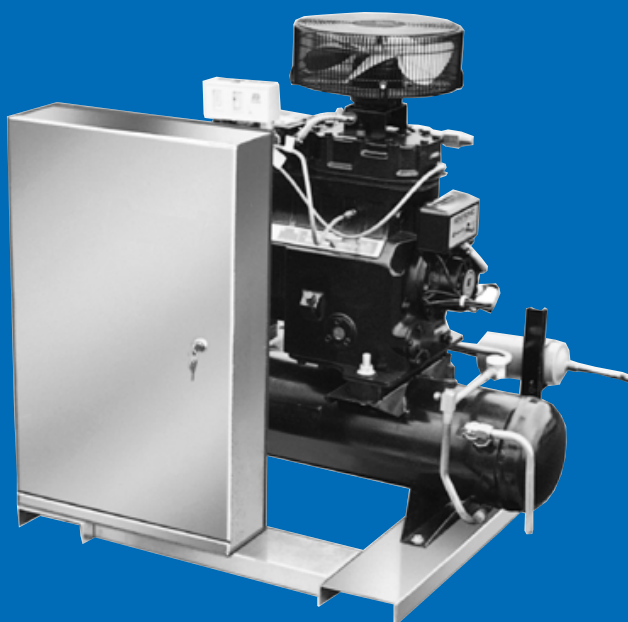


**INDOOR  
REMOTE  
COMPRESSOR UNIT  
3 THROUGH 40 H.P.**

Technical Bulletin 535.2  
December, 1998

Unit shown  
with optional  
control panel,  
liquid, and  
suction line  
assemblies.



The RN series of indoor remote compressor units feature R-404A (HP-62) and 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 its small footprint maximizes use of premium floor space. An optional stacking rack can further enhance floor space utilization on multiple unit installations.

**Standard Features:**

- Discus or Reed Semi-hermetic Compressor (Contact factory for Hermetic Compressors)
- Suction and discharge service valves (as requires)
- Compressor springs and discharge vibrasorber
- Dual pressure control
- Oil failure control (as required)
- Liquid recicer with isolation valves
- Compressor head cooling fan (as required)
- Pressure relief valve or fusible plug
- Contactor box
- Compressor contactor and control circuit fusing
- UL and C-UL listed

**Optional Features:**

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

### BTUH CAPACITY @ 105°F CONDENSING TEMPERATURE

NOM. H.P.	REF. TYPE	MODEL NUMBER	BTUH CAPACITY AT SUCTION TEMPERATURE (°F)									
			40°	30°	25°	20°	10°	0°	-10°	-20°	-30°	-40°
3.0	22	RNS4M22	----	----	32800	29400	23100	17400	----	----	----	----
5.0	22	RNS5M22	----	----	55100	49000	38300	29800	----	----	----	----
3.0	22	RNS3H22	36700	29400	26200	23200	17900	13600	----	----	----	----
4.0	22	RNS4H22	56500	44400	39200	34300	25500	17800	----	----	----	----
5.0	22	RNS5H22	64400	51400	45600	40200	30800	22900	----	----	----	----
5.0	22	RND5H22	73400	58900	52500	46600	36000	----	----	----	----	----
7.5	22	RND7H22	101300	81300	72400	64400	50800	----	----	----	----	----
7.5	22	RND8H22	123800	100700	90500	81100	64400	----	----	----	----	----
10.0	22	RND10H22	143900	117800	106300	95600	76900	----	----	----	----	----
15.0	22	RND15H22	191200	155500	139500	124700	98000	----	----	----	----	----
20.0	22	RND20H22	210500	171100	153400	137000	107900	----	----	----	----	----
25.0	22	RND25H22	275000	224000	200500	164500	127500	----	----	----	----	----
30.0	22	RND30H22	325500	261000	234000	209000	163500	----	----	----	----	----
35.0	22	RND35H22	390500	317000	285500	255500	204500	----	----	----	----	----
40.0	22	RND40H22	468500	384500	346500	311000	248000	----	----	----	----	----
5.0	404A	RND5M44	77200	62600	56000	49800	39100	30200	23200	----	----	----
7.5	404A	RND7M44	107600	87600	78800	70700	56600	44800	34900	----	----	----
7.5	404A	RND8M44	126100	102700	92400	82800	66100	52200	40700	----	----	----
10.0	404A	RND10M44	148700	121600	109600	98700	79400	63000	49100	----	----	----
12.0	404A	RND12M44	203800	166100	149450	134200	107400	85200	66900	----	----	----
15.0	404A	RND15M44	204700	167200	150600	135400	108700	86300	67700	----	----	----
20.0	404A	RND20M44	218200	179000	161000	144200	114100	88700	67100	----	----	----
25.0	404A	RND25M44	272400	226300	204600	183800	146250	114900	91200	----	----	----
30.0	404A	RND30M44	333550	273000	245800	220500	175400	137500	106150	----	----	----
35.0	404A	RND35M44	422100	343600	309000	277300	221650	175200	136400	----	----	----
40.0	404A	RND40M44	482800	398900	360900	325500	261950	208100	163350	----	----	----
3.0	22	RNS3L22	----	----	----	----	----	23000	17200	12000	7960	5300
3.0	22	RND3L22	----	----	----	----	----	30200	22100	16000	11200	7200
4.0	22	RND4L22	----	----	----	----	----	35400	26700	19300	13300	8700
5.0	22	RND5L22	----	----	----	----	----	41200	31000	22500	15600	10200
6.0	22	RND6L22	----	----	----	----	----	49300	37200	27300	19400	13000
7.5	22	RND8L22	----	----	----	----	----	59100	45200	33800	24500	16700
9.0	22	RND9L22	----	----	----	----	----	71800	55000	40700	28800	19500
10.0	22	RND10L22	----	----	----	----	----	77700	59400	44100	31500	21200
15.0	22	RND15L22	----	----	----	----	----	106900	82200	61400	43800	29200
22.0	22	RND22L22	----	----	----	----	----	125900	95500	72300	53400	35900
27.0	22	RND27L22	----	----	----	----	----	157000	121000	91400	66200	43400
30.0	22	RND30L22	----	----	----	----	----	188000	143400	108300	79600	53900
3.0	404A	RND3L44	----	----	----	----	----	32800	25300	19000	13900	9600
4.0	404A	RND4L44	----	----	----	----	----	39200	30400	23100	17000	11900
5.0	404A	RND5L44	----	----	----	----	----	44300	34700	26600	19900	14100
6.0	404A	RND6L44	----	----	----	----	----	53100	41600	32000	24000	17400
7.5	404A	RND8L44	----	----	----	----	----	62700	49100	37900	28600	20600
9.0	404A	RND9L44	----	----	----	----	----	76900	60200	46300	34700	25200
10.0	404A	RND10L44	----	----	----	----	----	85200	67500	52400	39500	28700
12.0	404A	RND12L44	----	----	----	----	----	88700	69500	54000	40800	28200
15.0	404A	RND15L44	----	----	----	----	----	114900	91100	71800	55200	39800
22.0	404A	RND22L44	----	----	----	----	----	138000	110200	86400	65400	46300
27.0	404A	RND27L44	----	----	----	----	----	175800	139400	107400	80000	57180
30.0	404A	RND30L44	----	----	----	----	----	198200	155900	120300	90300	64860

**NOTES:**

- Increase (decrease) capacity 3% for each 5°F lower (higher) condensing temperature.
- 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.
- 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.
- Models using R-404A are shipped with Polyol Ester Oil (POE) charge in the compressor.

# RN SERIES

RUSSELL MODEL NUMBER	COMPRESSOR MODEL NUMBER	AMPS @ 230/1/60			AMPS @ 208-230/3/60			AMPS @ 460/3/60		
		COMPRESSOR		MIN. CIRC	COMPRESSOR		MIN. CIRC	COMPRESSOR		MIN. CIRC
		RLA	LRA	AMPACITY*	RLA	LRA	AMPACITY*	RLA	LRA	AMPACITY*
RNS4M22	3RA-0310/1	17.8	86.0	24	14.2	82.0	19	6.3	41.0	15
RNS5M22	NRM-0500	-----	-----	-----	24.3	141.0	32	12.1	62.5	16
RNS3H22	ERF-0310	17.0	86.0	23	12.4	82.0	17	5.8	41.0	15
RNS4H22	NRB-0400	-----	-----	-----	21.8	141.0	29	11.3	62.5	15
RNS5H22	NRA-0500	-----	-----	-----	19.2	141.0	26	9.6	62.5	15
RND5H22	2DD-0500	-----	-----	-----	22.3	120.0	29	10.5	60.0	15
RND7H22	2DA-0750	-----	-----	-----	32.0	169.0	42	14.1	85.0	19
RND8H22	3DA-0750	-----	-----	-----	41.0	215.0	53	20.0	106.0	27
RND10H22	3DB-1000	-----	-----	-----	43.6	215.0	56	20.0	106.0	27
RND15H22	3DS-1500	-----	-----	-----	59.6	275.0	76	29.0	138.0	38
RND20H22	4DA-2000	-----	-----	-----	70.0	308.0	89	35.0	154.0	45
RND25H22	4DH-2500	-----	-----	-----	82.2	428.0	105	41.1	214.0	52
RND30H22	4DJ-3000	-----	-----	-----	94.0	470.0	120	47.0	235.0	60
RND35H22	6DH-3500	-----	-----	-----	107.0	565.0	136	53.5	283.0	68
RND40H22	6DJ-4000	-----	-----	-----	142.0	594.0	180	71.0	297.0	90
RND5M44	2DD-050E	-----	-----	-----	22.3	120.0	29	10.5	60.0	15
RND7M44	2DA-075E	-----	-----	-----	32.0	169.0	42	14.1	85.0	19
RND8M44	3DA-075E	-----	-----	-----	41.0	215.0	53	20.0	106.0	27
RND10M44	3DB-100E	-----	-----	-----	43.6	215.0	56	20.0	106.0	27
RND12M44	3DF-120E	-----	-----	-----	48.2	275.0	63	23.6	138.0	31
RND15M44	3DS-150E	-----	-----	-----	59.6	275.0	76	29.0	138.0	38
RND20M44	4DA-200E	-----	-----	-----	66.0	308.0	84	33.0	154.0	43
RND25M44	4DH-250E	-----	-----	-----	82.2	428.0	105	41.1	214.0	52
RND30M44	4DJ-300E	-----	-----	-----	94.0	470.0	120	45.0	235.0	58
RND35M44	6DH-350E	-----	-----	-----	107.0	565.0	136	55.0	260.0	70
RND40M44	6DJ-400E	-----	-----	-----	142.0	594.0	180	70.0	315.0	90
RNS3L22	LAH-0310	16.6	93.0	23	10.7	82.0	16	5.2	41.0	15
RND3L22	2DF-0300	-----	-----	-----	16.8	102.0	23	8.1	52.0	15
RND4L22	2DL-0400	-----	-----	-----	26.3	161.0	35	10.2	60.0	15
RND5L22	2DA-0600	-----	-----	-----	28.8	161.0	38	10.2	60.0	15
RND6L22	3DA-0600	-----	-----	-----	26.5	150.0	36	12.0	77.0	17
RND8L22	3DB-0750	-----	-----	-----	31.5	161.0	42	16.1	83.0	22
RND9L22	3DF-0900	-----	-----	-----	39.0	215.0	51	16.9	106.0	23
RND10L22	3DS-1000	-----	-----	-----	42.0	215.0	55	18.6	106.0	25
RND15L22	4DL-1500	-----	-----	-----	52.6	278.0	68	26.3	139.0	35
RND22L22	4DT-2200	-----	-----	-----	66.0	374.0	85	33.0	187.0	43
RND27L22	6DL-2700	-----	-----	-----	80.8	450.0	103	40.4	225.0	51
RND30L22	6DT-3000	-----	-----	-----	95.6	470.0	122	47.8	235.0	55
RND3L44	2DF-030E	-----	-----	-----	16.8	102.0	23	8.1	52.0	15
RND4L44	2DL-040E	-----	-----	-----	26.3	161.0	35	10.2	60.0	15
RND5L44	2DA-060E	-----	-----	-----	28.8	161.0	38	10.2	60.0	15
RND6L44	3DA-060E	-----	-----	-----	26.5	150.0	36	12.0	77.0	17
RND8L44	3DB-075E	-----	-----	-----	31.5	161.0	42	16.1	83.0	22
RND9L44	3DF-090E	-----	-----	-----	39.0	215.0	51	16.9	106.0	23
RND10L44	3DS-100E	-----	-----	-----	42.0	215.0	55	18.6	106.0	25
RND12L44	4DA-101E	-----	-----	-----	45.6	220.0	59	22.8	110.0	30
RND15L44	4DL-150E	-----	-----	-----	52.6	278.0	68	26.3	139.0	35
RND22L44	4DT-220E	-----	-----	-----	66.0	374.0	85	33.0	187.0	43
RND27L44	6DL-270E	-----	-----	-----	80.8	450.0	103	41.6	218.0	51
RND30L44	6DT-300E	-----	-----	-----	95.6	470.0	122	42.8	235.0	55

\* Minimum Circuit Ampacity shown is for the remote compressor and control circuit only, and does not include provisions for condenser fan, evaporator fan, or electric defrost loads should they be required. Consult the factory or the unit nameplate for more specific information.

## PHYSICAL DATA

Model Number	Pumpdown Cap. @ 90% (lbs)	Dimensions (Inches)						Connections (ODS)				Approx. Ship Wt. (lbs)	
		† Approx. Overall			Mounting			Rec'r Inlet & Outlet	Compressor		Liquid Line Kit		Suction Line Kit
		L	W	H	A	B	C		Suction	Disch.			
RNS4M22	33	34	29	26*	18.5	8.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	380
RNS5M22	82	42	29	29*	33.5	4.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	450
RNS3H22	33	34	29	26*	18.5	8.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	390
RNS4H22	33	34	29	28*	18.5	8.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	380
RNS5H22	82	42	29	29*	33.5	4.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	450
RND5H22	82	42	29	31*	33.5	4.25	19.5	5/8	1-3/8	7/8	7/8	1-3/8	470
RND7H22	95	48	29	31*	39.5	4.25	19.5	7/8	1-3/8	7/8	7/8	1-3/8	530
RND8H22	95	48	29	31*	39.5	4.25	19.5	7/8	1-3/8	1-1/8	7/8	1-3/8	580
RND10H22	144	48	29	34	36.5	5.75	19.5	1-1/8	1-3/8	1-1/8	1-1/8	1-3/8	760
RND15H22	144	48	29	34	36.5	5.75	19.5	1-1/8	1-5/8	1-1/8	1-1/8	1-5/8	770
RND20H22	144	48	32	35	36.5	5.75	22.5	1-1/8	1-5/8	1-3/8	1-1/8	1-5/8	780
RND25H22	182	60	32	38	44.5	5.75	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	820
RND30H22	309	72	32	38	50.5	11.5	22.5	1-3/8	2-1/8	1-3/8	1-3/8	2-1/8	1090
RND35H22	309	72	32	36	50.5	11.5	22.5	1-3/8	2-1/8	1-3/8	1-3/8	2-1/8	1125
RND40H22	309	72	32	38	50.5	11.5	22.5	1-3/8	2-1/8	1-5/8	1-3/8	2-1/8	1180
RND5M44	71	42	29	31*	33.5	4.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	470
RND7M44	81	48	29	31*	39.5	4.25	19.5	7/8	1-3/8	7/8	7/8	1-3/8	530
RND8M44	81	48	29	31*	39.5	4.25	19.5	7/8	1-3/8	1-1/8	7/8	1-3/8	580
RND10M44	124	48	29	34	36.5	5.75	19.5	1-1/8	1-3/8	1-1/8	1-1/8	1-3/8	760
RND12M44	124	48	29	34	36.5	5.75	19.5	1-1/8	1-3/8	1-1/8	1-1/8	1-3/8	770
RND15M44	124	48	29	34	36.5	5.75	19.5	1-1/8	1-5/8	1-1/8	1-1/8	1-5/8	780
RND20M44	124	48	32	35	36.5	5.75	22.5	1-1/8	1-5/8	1-3/8	1-1/8	1-5/8	820
RND25M44	156	60	32	38	44.5	5.75	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	1035
RND30M44	266	72	32	38	50.5	11.5	22.5	1-3/8	2-1/8	1-3/8	1-3/8	2-1/8	1090
RND35M44	266	72	32	36	50.5	11.5	22.5	1-3/8	2-1/8	1-3/8	1-3/8	2-1/8	1235
RND40M44	266	72	32	38	50.5	11.5	22.5	1-3/8	2-1/8	1-5/8	1-3/8	2-1/8	1285
RNS3L22	33	34	29	35	18.5	8.25	19.5	5/8	1-1/8	5/8	5/8	1-1/8	370
RND3L22	33	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	390
RND4L22	33	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	450
RND5L22	33	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	470
RND6L22	33	34	29	39	18.5	8.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	470
RND8L22	82	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	590
RND9L22	82	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	620
RND10L22	82	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	800
RND15L22	95	48	32	36	39.5	4.25	22.5	7/8	1-5/8	1-3/8	1-1/8	1-5/8	890
RND22L22	144	48	32	38	36.5	5.75	22.5	1-1/8	1-5/8	1-3/8	1-1/8	1-5/8	1070
RND27L22	255	60	32	44	44.5	5.5	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	1235
RND30L22	255	60	32	46	44.5	5.5	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	1180
RND3L44	28	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	390
RND4L44	28	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	450
RND5L44	28	34	29	39	18.5	8.25	19.5	5/8	1-3/8	7/8	5/8	1-3/8	470
RND6L44	28	34	29	39	18.5	8.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	500
RND8L44	71	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	590
RND9L44	71	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	620
RND10L44	71	42	29	38	33.5	4.25	19.5	5/8	1-3/8	1-1/8	5/8	1-3/8	790
RND12L44	81	48	32	36	39.5	4.25	19.5	7/8	1-5/8	1-1/8	7/8	1-5/8	800
RND15L44	81	48	32	36	39.5	4.25	22.5	7/8	1-5/8	1-3/8	7/8	1-5/8	820
RND22L44	124	48	32	38	36.5	5.75	22.5	1-1/8	1-5/8	1-3/8	1-1/8	1-5/8	1010
RND27L44	219	60	32	44	44.5	5.5	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	1235
RND30L44	219	60	32	46	44.5	5.5	22.5	1-1/8	2-1/8	1-3/8	1-1/8	2-1/8	1285

\* Height is 32 inches with optional control panel.

† Overall dimensions are subject to change when "RN" units are supplied with optional oil separator and/or suction accumulator.

