



TRANE

Model #: RTAA1254XN01A3D0BE
Serial #: U02M07869

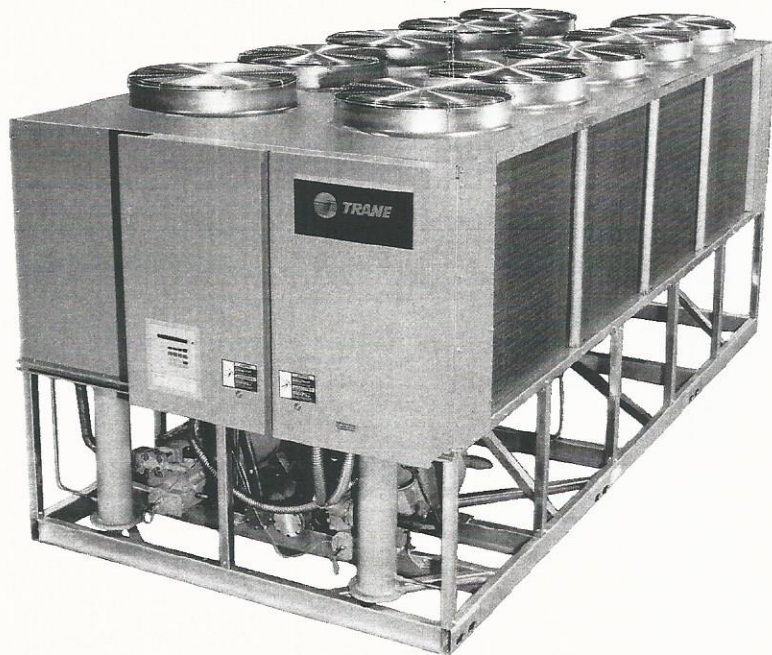
L: 19' 2"
W: 7' 5"
H: 6' 10"

Shipping Weight: 8,360
Operating Weight: 8,742

Air-Cooled Series R™ Rotary Liquid Chiller

Model RTAA
70 to 125 Tons

Built for the Industrial and Commercial Markets



August 2002

RLC-PRC016-EN



Model Number Description

Model Nomenclature Digit Number

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
RTAA1254XN01A3D0BE

70-125 Tons

Digits 1,2 — Unit Model

RT = Rotary Chiller

Digit 3 — Unit Type

A = Air Cooled

Digit 4 — Development Sequence

A = First Sequence

Digit 5, 6 & 7 — Nominal Capacity

070 = 70 tons

080 = 80 tons

090 = 90 tons

100 = 100 tons

110 = 110 tons

125 = 125 tons

Digit 8 — Unit Voltage

A = 200/60/3

C = 230/60/3

D = 380/60/3

4 = 460/60/3

5 = 575/60/3

S = Special

Digit 9 — Compressor Starter Type

Y = Y-Delta Closed Transition

X = X-Line (Across the Line)

S = Special

Digit 10, 11 — Design Sequence

** = Factory Input

Digit 12 — Evaporator Leaving Temperature

1 = Standard 40 to 65°F

2 = Low 0 to 39°F

3 = Ice-Making 20 to 65°F

S = Special

Digit 13 — Condenser Coil Fin Material

A = Aluminum

S = Special

2 = Copper Fins

4 = CompleteCoat

Digit 14 — Agency Listing

0 = No Agency Listing

3 = C/UL Listing

Digit 15 — Control Interface

C = Deluxe without Communication

D = Deluxe with Communication

Digit 16 — Chilled Water Reset

0 = No Chilled Water Reset

1 = Based on Return Water Temperature

2 = Based on Outside Air Temperature

Digit 17 — Miscellaneous Factory Installed Options

A = Architectural Louvered Panels

B = Control Power Transformer

C = Convenience Outlet

D = Low Ambient Lockout Sensor

F = Mech. Disconnect Switch

G = Low Ambient Operation

K = Coil Protection

M = Access Guard

P = Circuit Breaker (Single Point Power)

Z = Circuit Breaker (Dual Point Power)

Field Installed Options

Q = Spring Isolators

N = Neoprene Isolators

R = Remote Display Panel

3 = 5 Year Compressor Warranty

8 = Architectural Louvered Panels

9 = Coil Protection

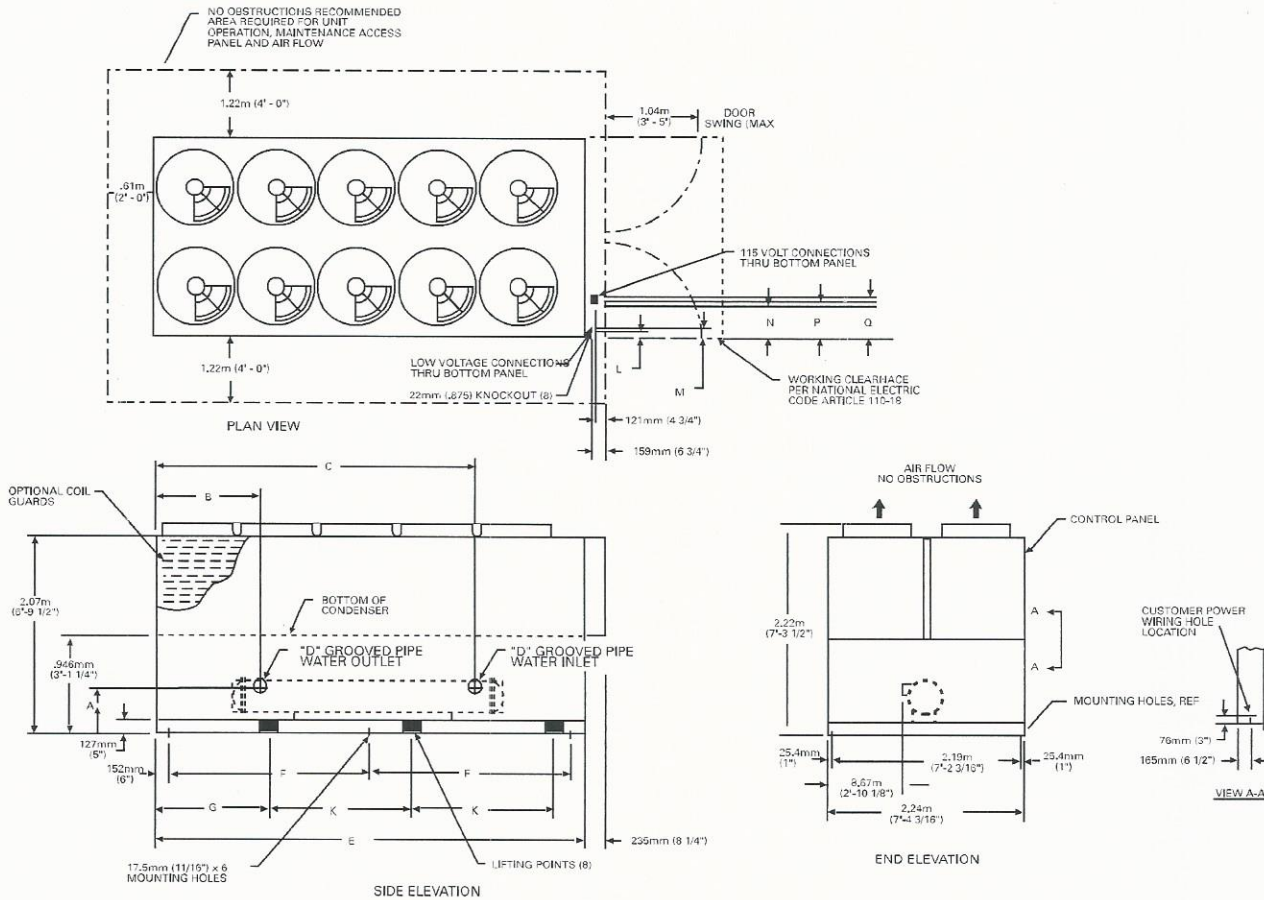
0 = Access Guard

J = Remote Evaporator

H = Sound Attenuator

Dimensional Data

Figure D-1 — RTAA 70-125 Unit Dimensions



UNIT SIZE	A	B	C	D	E	F	G	K
70-100	.492m (1'-7 3/8")	1.213m (3'-11 3/4")	2.851m (9'-4 1/4")	102mm (4")	4.940m (16'-2 1/2")	2.317m (7'-7 1/4")	1.549m (5'-1")	1.626m (5'-4")
110-125	.479m (1'-6 7/8")	1.032m (3'-4 5/8")	3.499m (11'-5 3/4")	152mm (6")	5.626m (18'-5 1/2")	2.661m (8'-8 3/4")	1.511m (4'-11 1/2")	1.930m (6'-4")

UNIT SIZE	NO. OF FANS PER UNIT					
	70	80	90	100	110	125
NO. FANS						
STD UNIT	8	8	9	10	10	10

PANEL TYPE	115 VOLT & LOW VOLTAGE CONNECTIONS				
	L	M	N	P	Q
X-LINE CONTROL PANEL	.889m (2'-11")	.927m (3'-0 1/2")	1.206m (3'-11 1/2")	1.245m (4'-1")	1.283m (4'-2 1/2")
WYE DELTA CONTROL PANEL	76mm (3")	114mm (4 1/2")	.39m (1'-3 1/2")	.43m (1'-5")	.47m (1'-8 1/2")

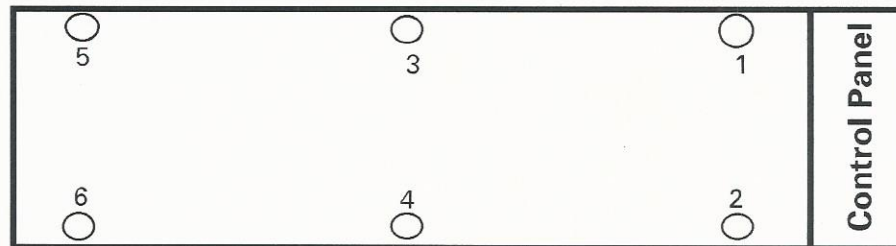
Weights

Table W-1 — Packaged Unit Weights (Aluminum)

Unit Size	Units	Isolator Location						Operating Weight	Shipping Weight
		1	2	3	4	5	6		
RTAA 70	lbs.	1582	1608	1212	1232	842	856	7332	7000
	kg	718	729	550	559	382	388	3326	3175
RTAA 80	lbs.	1587	1613	1218	1237	848	862	7365	7049
	kg	720	732	552	561	385	391	3341	3197
RTAA 90	lbs.	1639	1596	1271	1237	903	879	7525	7234
	kg	743	724	577	561	410	399	3413	3281
RTAA 100	lbs.	1640	1668	1281	1303	922	937	7751	7483
	kg	744	757	581	591	418	425	3516	3394
RTAA 110	lbs.	1933	1885	1480	1443	1027	1001	8769	8326
	kg	877	855	671	655	466	454	3978	3777
RTAA 125	lbs.	1871	1902	1445	1469	1019	1036	8742	8360
	kg	849	863	655	666	462	470	3965	3792

Table W-2 — Packaged Unit Weights (Copper)

Unit Size	Units	Isolator Location						Operating Weight	Shipping Weight
		1	2	3	4	5	6		
RTAA 70	lbs.	1693	1719	1323	1343	953	966	7997	7665
	kg	768	780	600	609	432	438	3627	3477
RTAA 80	lbs.	1698	1724	1329	1348	959	972	8030	7714
	kg	770	782	603	611	435	441	3642	3499
RTAA 90	lbs.	1754	1711	1386	1352	1018	993	8214	7923
	kg	796	776	629	613	462	450	3726	3594
RTAA 100	lbs.	1759	1787	1400	1422	1041	1056	8465	8197
	kg	798	811	635	645	472	479	3840	3718
RTAA 110	lbs.	2065	2017	1612	1575	1159	1133	9561	9118
	kg	937	915	731	714	526	514	4337	4136
RTAA 125	lbs.	2016	2047	1590	1614	1164	1181	9612	9230
	kg	914	928	721	732	528	536	4360	4187





General Data

Table G-1 — General Data RTAA — 70-125 Ton

Size	70	80	90	100	110	125
Compressor						
Quantity	2	2	2	2	2	2
Nominal Size (1) (Tons)	35/35	40/40	50/40	50/50	60/50	60/60
Evaporator						
Water Storage (Gallons)	39.8	37.3	34.4	32.1	53.4	45.8
(Liters)	150.6	143.1	130.2	121.5	202.11	173.4
Min. Flow (GPM)	84	96	108	120	132	150
(L/Sec)	5.3	6.1	6.8	7.6	8.3	9.5
Max. Flow (GPM)	252	288	324	360	396	450
(L/Sec)	15.9	18.2	20.4	22.7	25.0	28.4
Condenser						
Qty of Coils	4	4	4	4	4	4
Coil Length (In)	156/156	156/156	168/156	168/168	204/168	204/204
Coil Height (In)	42	42	42	42	42	42
Fins/Ft.	192	192	192	192	192	192
Number of Rows	2	2	2	2	2	2
Condenser Fans						
Quantity (1)	4/4	4/4	5/4	5/5	5/5	5/5
Diameter (In)	30	30	30	30	30	30
Total Airflow (CFM)	71750	71750	77640	83530	87505	91480
Nominal RPM	850	850	850	850	850	850
Tip Speed (Ft/Min)	6675	6675	6675	6675	6675	6675
Motor HP (Ea)	1.0	1.0	1.0	1.0	1.0	1.0
Min Starting/Oper Ambient (2)						
Std Unit (Deg F)	25	25	25	25	25	25
Low Ambient (Deg F)	-10	-10	-10	-10	-10	-10
General Unit						
Refrigerant	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22	HCFC-22
No. of Independent Refrigerant Circuits	2	2	2	2	2	2
% Min. Load (3)	15	15	15	15	15	15
Refrigerant Charge (1) (Lb)	58/58	61/61	73/61	73/73	98/73	98/98
(Kg)	26/26	28/28	34/28	34/34	44/34	44/44
Oil Charge (1) (Gallons)	2.5/2.5	2.5/2.5	3/2.5	3/3	3/3	3/3
(Liters)	10.6/10.6	10.6/10.6	12.7/10.6	12.7/12.7	12.7/12.7	12.7/12.7

1. Data containing information on two circuits shown as follows: ckt 1/ckt2.

2. Minimum start-up/operating ambient based on a 5 mph wind across the condenser.

3. Percent minimum load is for total machine at 50°F ambient and 44°F LWT, not each individual circuit.