



Installation Instructions

Part No: 30RA-900---001; 30RA-900---009; 30RA-900---010

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INTRODUCTION

The chilled water storage tank accessory permits a storage tank to be mounted under the 30RA chiller. Chilled water storage is recommended on some applications to maintain a desired loop volume of 6 gallons/ton allowing the chiller to achieve the desired performance and control compressor cycling.

Located in the control box included with the accessory are fasteners to attach the chiller to the accessory tank. In addition to the parts supplied with the accessory package, the following material must be field-supplied:

- Water piping between the tank system and the chiller
- Tubing insulation (length determined by installation)
- Conduit (length determined by installation and unit size)
- 16 gage control wiring

SAFETY CONSIDERATIONS

Installing, starting up, and servicing air-conditioning equipment can be hazardous due to system pressures, electrical components and equipment location.

Only trained, qualified installers and service technicians should install, start up, and service this equipment.

Observe precautions in the literature and on tags, stickers, and labels attached to the equipment.

▲ WARNING

Avoid possible electric shock and personal injury, all power to the unit must be disconnected before working on the unit. Tag all disconnects to alert others that the unit is being worked on.

- Follow all safety codes.
- Wear safety glasses and work gloves.

- Keep quenching cloth and fire extinguisher nearby when brazing.
- Use care in handling, rigging, and setting bulky equipment. Refer to Table 1 for unit weights and Fig. 1-3 for rigging information.

INSTALLATION

Step 1 — Rig and Place the Tank

RIGGING — Use spreader bars to rig the unit at a single point with 4 cables and hooks. Refer to the rigging label on the accessory for details concerning rigging options, shipping weights, distance between lifting holes, and center of gravity. See Fig. 1.

If overhead rigging is not possible, the accessory may be lifted from either end, but care must be taken to align forks to slots provided in each rail for support. Care must be taken not to hit or damage insulated tanks with forks.

Tank Capacities/Weights

30RA-900---	Volume		Weight (FILLED*)		Weight (UNFILLED)	
	Gal.	L	Lb	Kg	Lb	Kg
001	110	416	2150	975	1260	572
009	152	575	2750	1247	1490	676
010	305	1155	5430	2463	2910	1320

*Weights when filled with water or brine.

PLACING ACCESSORY TANK — Determine the location of the accessory and 30RA unit together. Ensure that the location supports the filled weight of the tank system and the chiller. See Table 1 and Fig. 2-6 for weights and dimensions. Since the 30RA chiller mounts on top of the accessory, there must be at least 3 ft (0.9 m) for servicing and for unrestricted airflow on all non-coil sides of the unit, and a minimum of 3.5 ft (1.1 m) clear air space on coil sides. For multiple units, allow 8 ft (2.48 m) separation between units for airflow and service.

MOUNTING ACCESSORY TANK — When the accessory is in proper location, the use of mounting holes in base rails is recommended for securing the accessory to supporting structure, or for mounting the accessory on vibration isolators if required. See Fig 4-6. Fasteners for mounting the accessory are field supplied. Be sure the accessory is level to within 1/8 in. per foot for proper oil return in the 30RA chiller mounted on top.

NOTE: Remove shipping brackets on 30RA900--010 between the top rails of the center tanks before mounting the accessory tank to the unit.

MOUNTING UNIT TO ACCESSORY TANK — The 30RA chiller mounts on top of the rails of the tank accessory. The 30RA chiller piping connections should be located near the end of the accessory tank that has the piping connections. This will minimize field piping between the chiller and the accessory tank. The use of mounting holes in chiller base rails to the tank

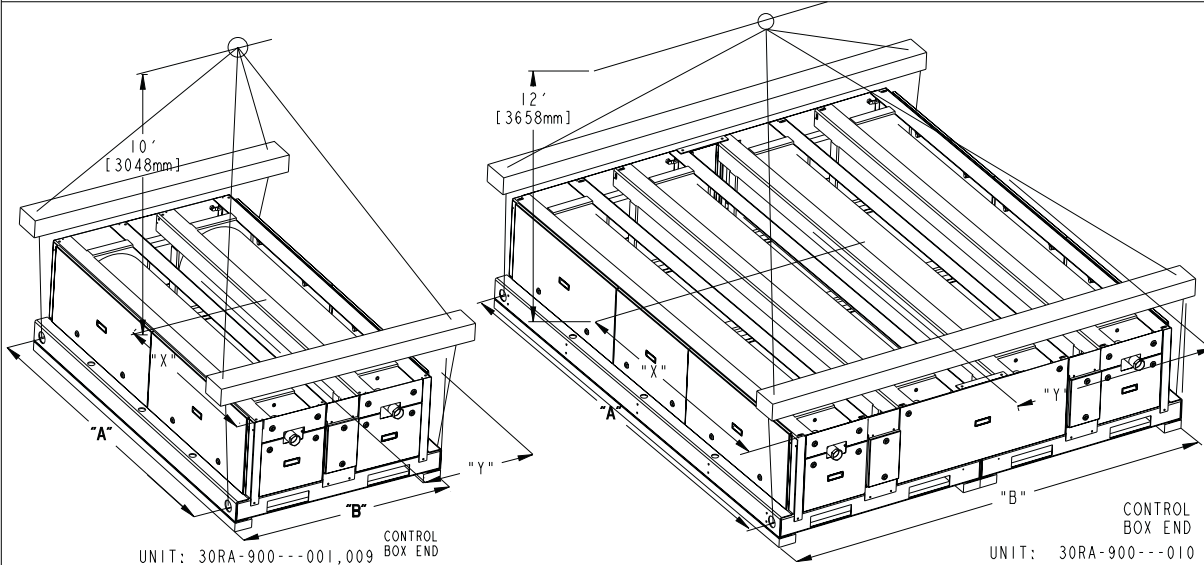
accessory is required. Fasteners for mounting the chiller to the tank accessory are provided and can be located in the control box. Mounting the 30RA chiller on vibration isolation pads between the 30RA chiller and the tank accessory is allowed but is not required.



CAUTION-NOTICE TO RIGGERS:

ALL PANELS MUST BE IN PLACE WHEN RIGGING.

1. 2.5 in. dia. [63.5mm] holes provided for lifting unit with pipe.
2. FOR OPTION #1
 - * Rig with four cables using a minimum of 20 ft.[6096mm] length for 30RA-900---001,009 sizes, and 24 ft.[7315mm] length for 30RA-900---010 sizes.
 - * Central lifting point must be a minimum of 10 ft.[3048mm] for 30RA-900---001,009 sizes and 12 ft.[3658mm] for 30RA-900---010 sizes above the top of unit.
 - * (2) Spreader bars made from steel or double nailed, 2x6's approximately 5 ft.[1524mm] for 30RA-900---001,009 or 2x6's approximately 8.5 ft.[2591mm] for 30RA-900---010 in length and must be placed just above the top of unit on each end, to reduce damage to any sheet metal parts.
 - * 2" diameter, schedule 40 pipes should be used in the unit rigging holes.
3. FOR OPTION #2
 - * Rig with four cables using a minimum of 20 ft.[6069mm] length for 30RA-900---001,009 sizes, and 24 ft.[7315mm] length for 30RA-900---010 sizes.
 - * Central lifting point must be a minimum of 10 ft.[3048mm] for 30RA-900---001,009 sizes and 12 ft.[3658mm] for 30RA-900---010 sizes above the top of unit.
 - * (2) Spreader bars made from steel or double nailed, 2x6's approximately 5 ft.[1524mm] for 30RA-900---001,009 or 2x6's approximately 8.5 ft.[2591mm] for 30RA-900---010 in length and must be placed just above the top of unit on each end, to reduce damage to any sheet metal parts.
 - * (4) cables or chains approximately 2.5 ft.[762mm] in length attached to each end of the spreader bars can be attached directly to the unit at each corner with grab hooks at the 2.5"[63.5mm] holes provided in the base rails.
4. FOR OPTION #3
 - * Units can be forked from either end, but care must be taken to align forks to slots provided in each rail for support, extreme care should be taken not to hit or damage insulated tanks with forks!!! 30RA-900---010 Should only be forked through middle two holes.



MODEL NUMBER	MAX. SHIP. WT. W/PACKAGING LBS	KGS	LIFTING HOLES				CENTER OF GRAVITY			
			A		B		X		Y	
			IN	MM	IN	MM	IN	MM	IN	MM
30RA-900---001	1260	572	74.63	1896	48.66	1236	40.31	1024	24.33	618
30RA-900---009	1490	676	101.80	2586	48.66	1236	53.90	1369	24.33	618
30RA-900---010	2910	1320	101.80	2586	97.32	2472	53.90	1369	48.66	1236

Fig. 1 — Accessory Rigging Label Detail



60 Hz Unit Without Hydronic Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	717	750	795	834	3096
015	001	732	785	831	870	3218
018	001	741	808	917	893	3359
022	009	1021	1141	1071	1040	4273
025	009	1035	1154	1085	1065	4339
030	009	1063	1208	1099	1085	4455

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	729	771	814	861	3175
015	001	751	820	861	917	3349
018	001	755	843	951	939	3488
022	009	1049	1211	1108	1095	4463
025	009	1065	1222	1122	1121	4530
030	009	1094	1296	1131	1159	4680

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	325	340	361	378	1404
015	001	332	356	377	395	1460
018	001	336	367	416	405	1524
022	009	463	518	486	472	1938
025	009	469	523	492	483	1968
030	009	482	548	498	492	2021

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	331	350	369	391	1440
015	001	341	372	391	416	1519
018	001	342	382	431	426	1582
022	009	476	549	503	497	2024
025	009	483	554	509	508	2055
030	009	496	588	513	526	2123

60 Hz Unit With Single Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	744	781	833	878	3236
015	001	758	817	869	914	3358
018	001	765	839	961	934	3499
022	009	1052	1182	1106	1073	4413
025	009	1066	1195	1120	1098	4479
030	009	1094	1251	1133	1118	4595

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	756	802	852	905	3315
015	001	777	852	899	961	3489
018	001	779	874	995	980	3628
022	009	1080	1252	1143	1128	4603
025	009	1096	1263	1157	1154	4670
030	009	1125	1339	1165	1192	4820

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	337	354	378	398	1468
015	001	344	371	394	415	1523
018	001	347	381	436	424	1587
022	009	477	536	502	487	2002
025	009	483	542	508	498	2032
030	009	496	567	514	507	2084

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	343	364	386	411	1504
015	001	352	387	408	436	1583
018	001	353	396	451	445	1646
022	009	490	568	518	511	2088
025	009	497	573	525	524	2118
030	009	510	607	528	541	2186

60 Hz Unit With Dual Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	761	802	856	907	3326
015	001	773	839	893	943	3448
018	001	779	860	988	962	3589
022	009	1070	1211	1127	1095	4503
025	009	1084	1223	1141	1121	4569
030	009	1112	1280	1152	1141	4685

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	773	823	875	934	3405
015	001	792	874	923	990	3579
018	001	793	895	1022	1008	3718
022	009	1098	1281	1164	1150	4693
025	009	1114	1291	1178	1177	4760
030	009	1143	1368	1184	1215	4910

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	345	364	388	411	1509
015	001	351	380	405	428	1564
018	001	353	390	448	437	1628
022	009	485	549	511	497	2043
025	009	492	555	517	509	2072
030	009	504	581	522	518	2125

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	350	373	397	424	1544
015	001	359	396	418	449	1623
018	001	360	406	463	457	1686
022	009	498	581	528	522	2129
025	009	505	585	534	534	2159
030	009	518	621	537	551	2227

Fig. 2 — Weight Distribution 30RA-900---001, 009

50 Hz Unit Without Hydronic Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	721	751	802	852	3126
015	001	725	782	996	839	3342
018	001	740	808	918	893	3359
022	009	1025	1143	1078	1059	4305
025	009	1039	1158	1100	1083	4380

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	733	772	821	881	3207
015	001	735	820	1034	884	3473
018	001	754	844	952	938	3488
022	009	1053	1210	1115	1116	4494
025	009	1067	1224	1138	1141	4570

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	327	341	364	386	1418
015	001	329	355	452	381	1516
018	001	336	367	416	405	1524
022	009	465	518	489	480	1953
025	009	471	525	499	491	1987

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	332	350	372	400	1455
015	001	333	372	469	401	1575
018	001	342	383	432	425	1582
022	009	478	549	506	506	2038
025	009	484	555	516	518	2073

50 Hz Unit With Single Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	748	781	840	897	3266
015	001	747	810	1050	875	3482
018	001	764	839	962	934	3499
022	009	1056	1184	1113	1093	4445
025	009	1069	1198	1135	1117	4520

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	760	802	859	926	3347
015	001	757	848	1088	920	3613
018	001	778	875	996	979	3628
022	009	1084	1251	1150	1150	4634
025	009	1097	1264	1173	1175	4710

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	339	354	381	407	1481
015	001	339	368	476	397	1579
018	001	346	381	436	424	1587
022	009	479	537	505	496	2016
025	009	485	543	515	507	2050

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	345	364	389	420	1518
015	001	344	385	493	417	1639
018	001	353	397	452	444	1646
022	009	492	567	522	521	2102
025	009	498	573	532	533	2136

50 Hz Unit With Dual Pump Package, With Accessory Tank

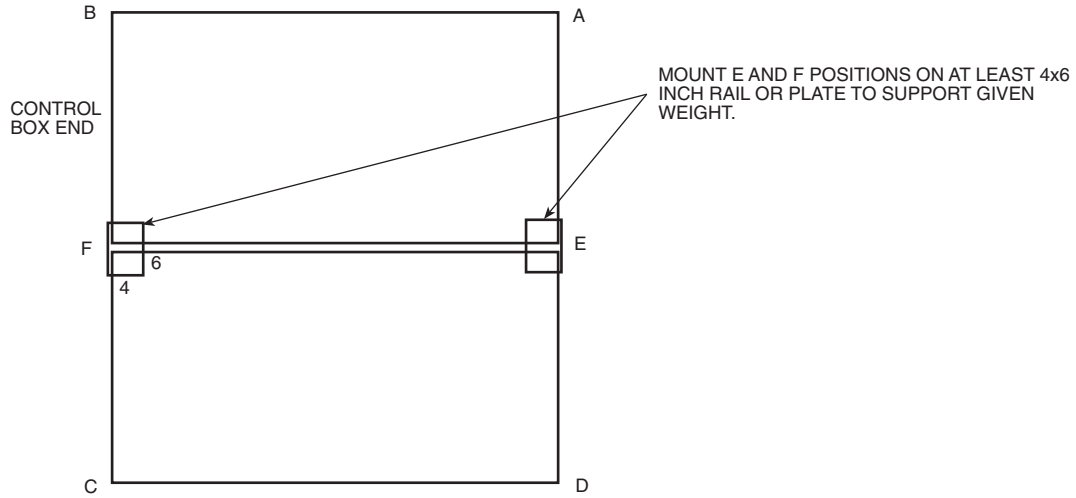
30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	764	801	863	927	3356
015	001	760	831	1082	900	3572
018	001	778	860	989	962	3589
022	009	1074	1212	1134	1116	4535
025	009	1087	1225	1157	1141	4610

30RA SIZE	30RA-900---	POUNDS — COPPER COILS				
		A	B	C	D	Total
010	001	776	822	882	956	3437
015	001	770	869	1120	945	3703
018	001	792	896	1023	1007	3718
022	009	1102	1279	1171	1173	4724
025	009	1115	1291	1195	1199	4800

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS				
		A	B	C	D	Total
010	001	347	364	392	421	1522
015	001	345	377	491	408	1620
018	001	353	390	449	436	1628
022	009	487	550	514	506	2057
025	009	493	556	525	517	2091

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS				
		A	B	C	D	Total
010	001	352	373	400	434	1559
015	001	349	394	508	428	1680
018	001	359	407	464	457	1686
022	009	500	580	531	532	2143
025	009	506	586	542	544	2177

Fig. 2 — Weight Distribution 30RA-900---001, 009 (cont)



60 Hz Unit Without Hydronic Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	1279	1226	1207	1330	1704	1528	8274
040	010	1287	1232	1213	1346	1728	1540	8346
045	010	1335	1260	1278	1357	1787	1633	8650
050	010	1343	1266	1290	1378	1816	1651	8744
055	010	1394	1282	1321	1382	1871	1697	8947

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	1332	1266	1251	1384	1811	1611	8655
040	010	1340	1271	1256	1401	1836	1622	8726
045	010	1388	1300	1322	1411	1893	1717	9031
050	010	1394	1308	1335	1431	1920	1737	9125
055	010	1453	1334	1371	1446	1994	1799	9397

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	580	556	547	603	773	693	3753
040	010	584	559	550	611	784	699	3786
045	010	606	572	580	616	811	741	3924
050	010	609	574	585	625	824	749	3966
055	010	632	582	599	627	849	770	4058

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	604	574	567	628	821	731	3926
040	010	608	577	570	635	833	736	3958
045	010	630	590	600	640	859	779	4096
050	010	632	593	606	649	871	788	4139
055	010	659	605	622	656	904	816	4262

60 Hz Unit With Single Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	1305	1249	1228	1360	1760	1572	8474
040	010	1313	1254	1234	1376	1784	1583	8544
045	010	1362	1282	1301	1385	1841	1678	8849
050	010	1369	1287	1313	1407	1871	1696	8943
055	010	1421	1303	1344	1409	1925	1742	9144

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	1358	1288	1272	1414	1867	1655	8854
040	010	1366	1293	1277	1431	1892	1665	8924
045	010	1414	1322	1345	1439	1948	1762	9230
050	010	1420	1329	1358	1459	1974	1782	9322
055	010	1481	1355	1394	1473	2049	1844	9596

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	592	567	557	617	798	713	3844
040	010	596	569	560	624	809	718	3875
045	010	618	582	590	628	835	761	4014
050	010	621	584	596	638	849	769	4056
055	010	645	591	610	639	873	790	4148

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	616	584	577	641	847	751	4016
040	010	620	586	579	649	858	755	4048
045	010	641	600	610	653	884	799	4187
050	010	644	603	616	662	895	808	4228
055	010	672	615	632	668	929	836	4353

60 Hz Unit With Dual Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	1317	1258	1238	1373	1785	1592	8563
040	010	1325	1264	1244	1390	1809	1603	8635
045	010	1374	1291	1312	1397	1866	1698	8938
050	010	1381	1297	1324	1419	1896	1716	9033
055	010	1434	1313	1355	1422	1950	1762	9236

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	1370	1298	1282	1427	1892	1675	8944
040	010	1378	1303	1287	1445	1917	1685	9015
045	010	1426	1332	1355	1451	1973	1782	9319
050	010	1432	1339	1368	1472	1999	1802	9412
055	010	1493	1365	1405	1486	2074	1864	9687

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
035	010	597	571	562	623	810	722	3884
040	010	601	573	564	630	821	727	3917
045	010	623	586	595	634	846	770	4054
050	010	626	588	601	644	860	778	4097
055	010	650	596	615	645	885	799	4189

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
035	010	621	589	582	647	858	760	4057
040	010	625	591	584	655	870	764	4089
045	010	647	604	615	658	895	808	4227
050	010	650	607	621	668	907	817	4269
055	010	677	619	637	674	941	845	4394

→ Fig. 3 — Weight Distribution 30RA-900--010

50 Hz Unit Without Hydronic Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	1278	1226	1207	1329	1702	1528	8270
035	010	1289	1231	1215	1361	1745	1541	8382
042	010	1339	1262	1286	1374	1807	1643	8711
045	010	1348	1270	1305	1398	1841	1670	8832

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	580	556	547	603	772	693	3751
035	010	585	558	551	617	792	699	3802
042	010	607	572	583	623	820	745	3951
045	010	611	576	592	634	835	757	4006

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	1331	1264	1251	1385	1811	1609	8651
035	010	1341	1270	1259	1416	1852	1624	8762
042	010	1389	1303	1331	1428	1912	1728	9091
045	010	1410	1317	1357	1463	1967	1769	9283

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	604	573	567	628	821	730	3924
035	010	608	576	571	642	840	737	3974
042	010	630	591	604	648	867	784	4124
045	010	640	597	616	664	892	802	4211

50 Hz Unit With Single Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	1304	1248	1228	1359	1758	1571	8468
035	010	1315	1253	1236	1391	1801	1584	8580
042	010	1365	1284	1309	1402	1862	1687	8909
045	010	1374	1291	1329	1426	1896	1714	9030

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	591	566	557	616	797	713	3841
035	010	596	568	561	631	817	718	3892
042	010	619	582	594	636	845	765	4041
045	010	623	586	603	647	860	777	4096

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	1357	1286	1272	1415	1867	1653	8850
035	010	1367	1292	1280	1447	1909	1667	8962
042	010	1415	1324	1354	1456	1967	1773	9289
045	010	1436	1338	1381	1491	2022	1813	9481

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	616	583	577	642	847	750	4014
035	010	620	586	581	656	866	756	4065
042	010	642	601	614	660	892	804	4213
045	010	651	607	626	676	917	822	4300

50 Hz Unit With Dual Pump Package, With Accessory Tank

30RA SIZE	30RA-900---	POUNDS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	1316	1258	1238	1372	1784	1591	8559
035	010	1327	1263	1246	1405	1827	1604	8672
042	010	1377	1294	1319	1415	1887	1708	9000
045	010	1386	1300	1339	1439	1920	1735	9119

30RA SIZE	30RA-900---	KILOGRAMS — ALUMINUM COILS						
		A	B	C	D	E	F	Total
032	010	597	571	562	622	809	722	3882
035	010	602	573	565	637	829	728	3934
042	010	625	587	598	642	856	775	4082
045	010	629	590	607	653	871	787	4136

30RA SIZE	30RA-900---	POUNDS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	1369	1296	1282	1428	1892	1672	8939
035	010	1379	1301	1290	1460	1934	1686	9050
042	010	1427	1334	1364	1469	1991	1793	9378
045	010	1447	1347	1391	1504	2047	1834	9570

30RA SIZE	30RA-900---	KILOGRAMS — COPPER COILS						
		A	B	C	D	E	F	Total
032	010	621	588	582	648	858	758	4055
035	010	626	590	585	662	877	765	4105
042	010	647	605	619	666	903	813	4254
045	010	656	611	631	682	929	832	4341

→ Fig. 3 — Weight Distribution 30RA-900---010 (cont)

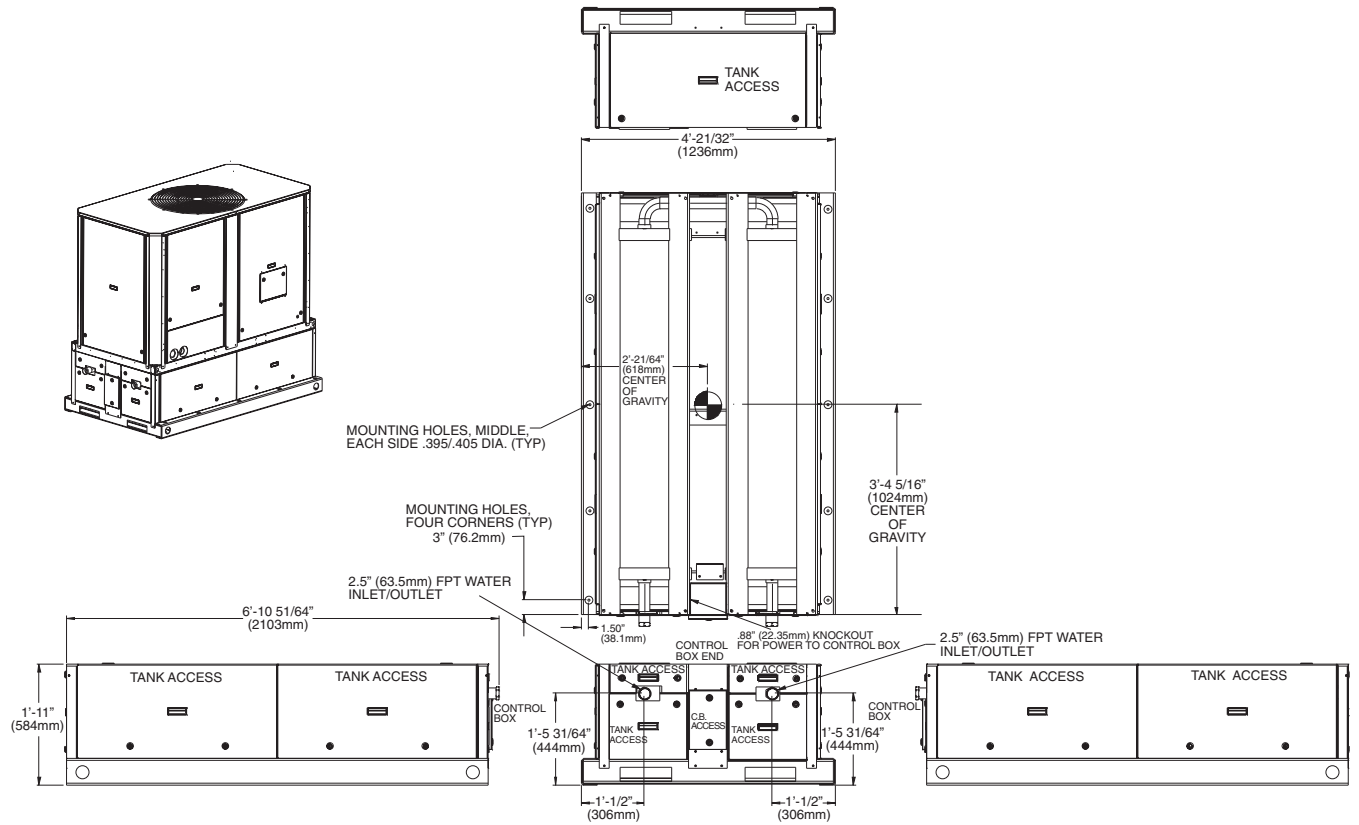


Fig. 4 — Dimensions 30RA-900-001 (Unit Sizes 010-018)

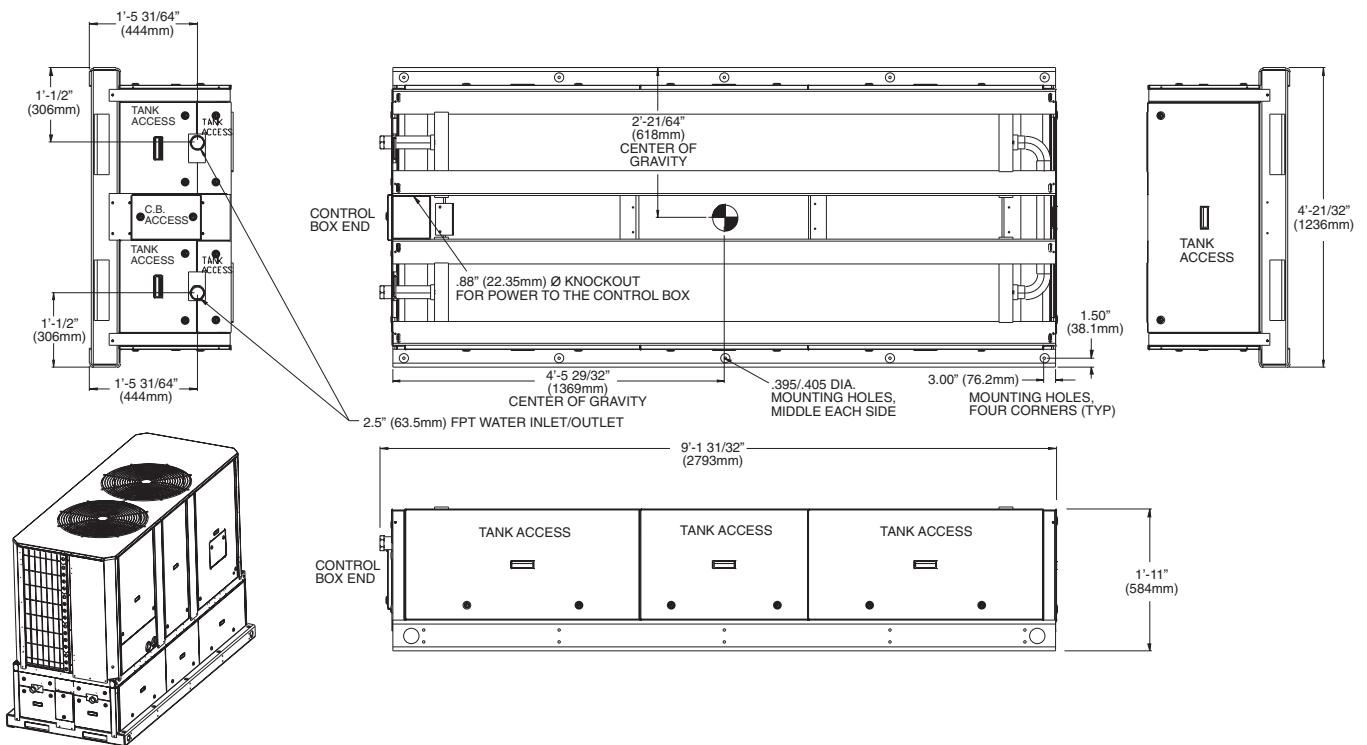


Fig. 5 — Dimensions 30RA-900---009 (Unit Sizes 022-030)

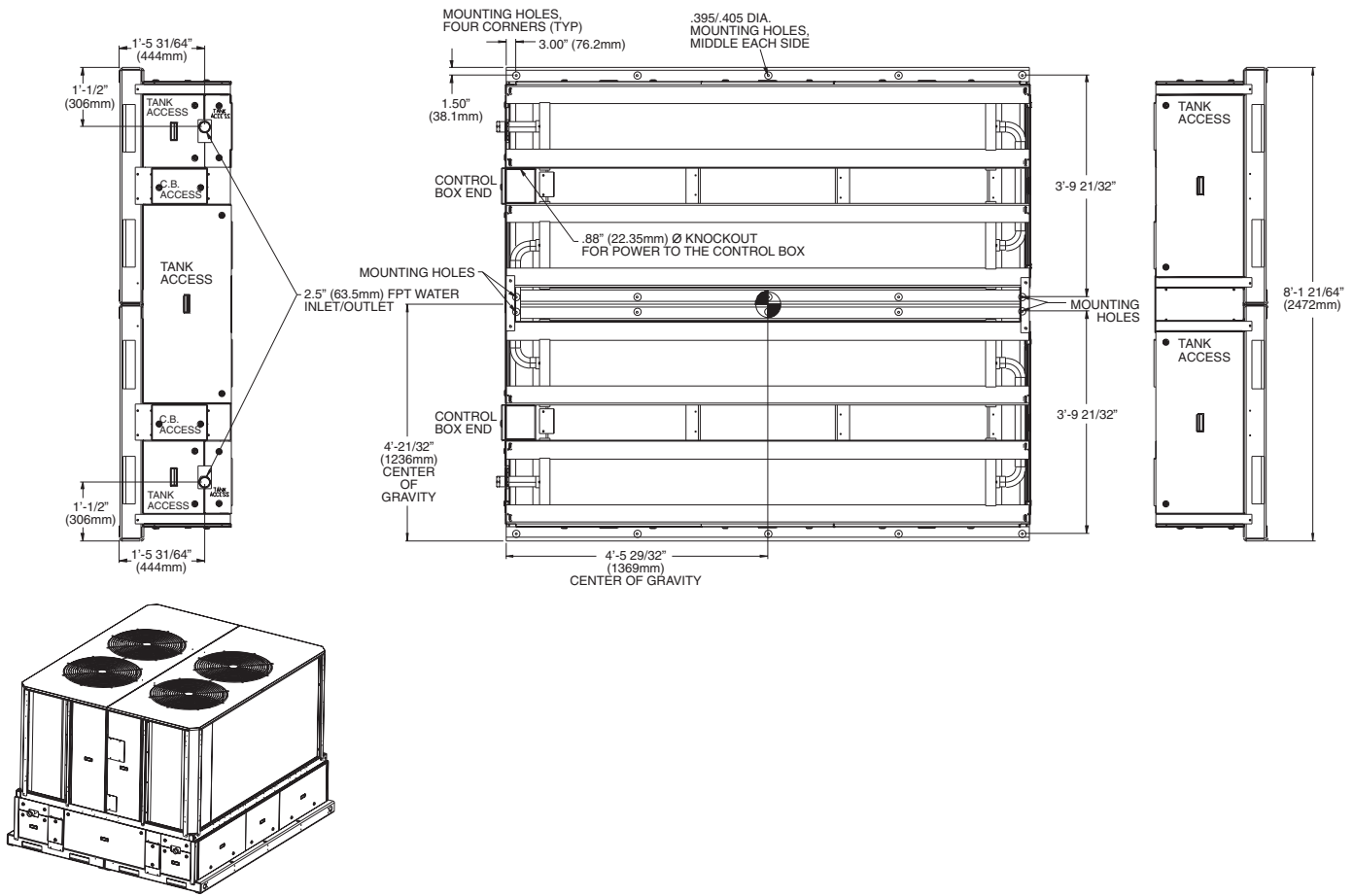


Fig. 6 — Dimensions 30RA-900--010 (Unit Sizes 032-055)

Step 2 — Cooler Fluid and Drain Piping Connections — The piping between the chiller and the accessory tank can be done to allow the tank to be on the return side of the chiller (tank piped to chiller inlet) or the supply side of the chiller (tank piped to the chiller outlet). See Fig. 7. However, it is recommended that the tank be piped to the return side of the chiller to buffer any changes in load to allow more stable chiller operation. See Fig. 8 and 9 for an examples of piping layouts.

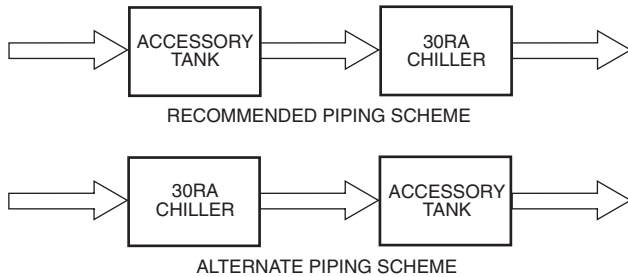
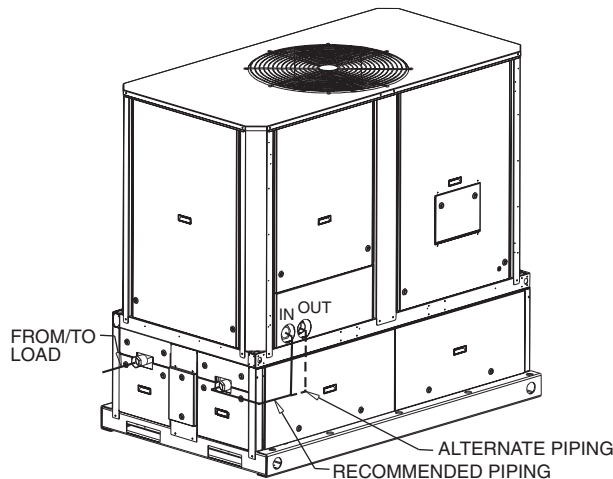
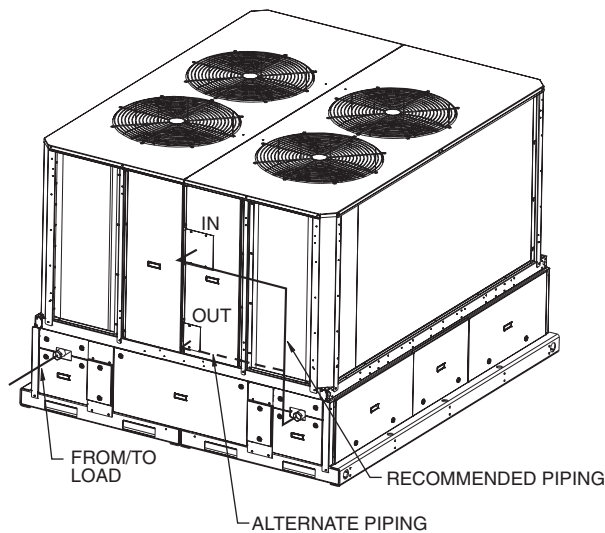


Fig. 7 — Typical Chiller/Tank Setup



**Fig. 8 — Typical Piping Layout
30RA-900---001,009**



**Fig. 9 — Typical Piping Layout
30RA-900---010**

All sizes have 2½-in. FPT connections. Provide a means of venting air from the high point of the field-installed piping as required. All sizes also have 2 in. drains at the bottom of each end of the storage tanks. This size has been provided to allow cleaning of foreign material that may collect at the bottom of the tanks.

After field piping is complete, freeze protection is recommended using inhibited ethylene glycol or other suitable inhibited antifreeze solution and electric heat tapes in area where piping is exposed to low ambient temperatures (34 F [1°C] or below). Heat tapes should be rated for area ambient temperatures and be covered with a suitable thickness of closed-cell insulation. Route power for heating tapes from a separately fused disconnect. Identify disconnect as heat tape power source with a warning that power must not be turned off except when unit is being serviced.

PREPARATION FOR YEAR-ROUND OPERATION — If unit is in operation year-round, add sufficient inhibited ethylene glycol or other suitable inhibited antifreeze solution to chilled water to prevent freezing under low-ambient operating conditions. Consult local water treatment specialist on characteristics of water and recommended inhibitor.

PREPARATION FOR WINTER SHUTDOWN — Do not shut off electrical disconnect during off-season shutdown. At end of cooling season:

1. Make sure LOCAL/OFF/REMOTE switch is in the OFF position on the chiller.
2. Drain water from the accessory tank system.
3. Replace drain plugs and fill tanks with a rust inhibiting antifreeze solution to prevent freezing of residual water and rust build-up.
4. At beginning of the each cooling season, refill cooler and add recommended inhibitor.

Step 3 — Make Electrical Connections

POWER SUPPLY — Electrical characteristics of available power supply must agree with unit nameplate rating. Supply voltage must be within limits shown in Table 2.

The water storage tanks are provided with electric heat to prevent freeze-up during low ambient temperature conditions. The heaters will provide freeze protection to -20 F. Care must be taken to prevent freeze-up in the event of a power loss.

The tank does not require a power connection to the tank heater if the chilled fluid has been properly treated with a suitable anti-freeze solution or the chilled fluid is drained during the winter season.

Table 2 — Electrical Data

30RA-900---	UNIT VOLTAGE		POWER SUPPLY QTY. REQD.	FLA	MCA	MOCP	
	V-Hz (1-Ph)	Supplied					
		Min	Max				
001	230-50/60	207	253	1	14.1	17.6	30
009	230-50/60	207	253	1	14.1	17.6	30
010	230-50/60	207	253	1	28.2	35.3	60

LEGEND

- FLA** — Full Load Amp
- MCA** — Minimum Current Amp
- MOCP** — Maximum Overcurrent Protection

CONTROL WIRING — A conduit with two 16 AWG wires must be run between the chiller and the accessory tank control box (control box no.1 on the 30RA-900--010). The wiring connects to capped wires labeled TNKR-A1 and TNKR-A2 located inside the chiller control box and the accessory tank control box.

POWER WIRING — All power wiring must comply with applicable local and national codes. Install field-supplied branch circuit fused disconnect per NEC (National Electric Code, U.S.A.) of a type that can be locked OFF or ON. Disconnect must be within sight from and readily accessible from unit in compliance with NEC Article 440-14.

GENERAL WIRING NOTES

1. The control circuit does NOT require a separate power source. Control circuit power is obtained from the 30RA chiller.
2. Tank heaters are wired in the control circuit so that they are operable as long as the main power supplies to the tank and to the chiller are ON. A factory-installed and set overload device protects them.

NOTE: The field-supplied disconnect should never be off except when the tank accessory and/or chiller are being serviced or are to be down for a prolonged period, in which case the accessory tank and chiller should be drained.

3. Power entry is at one end only.

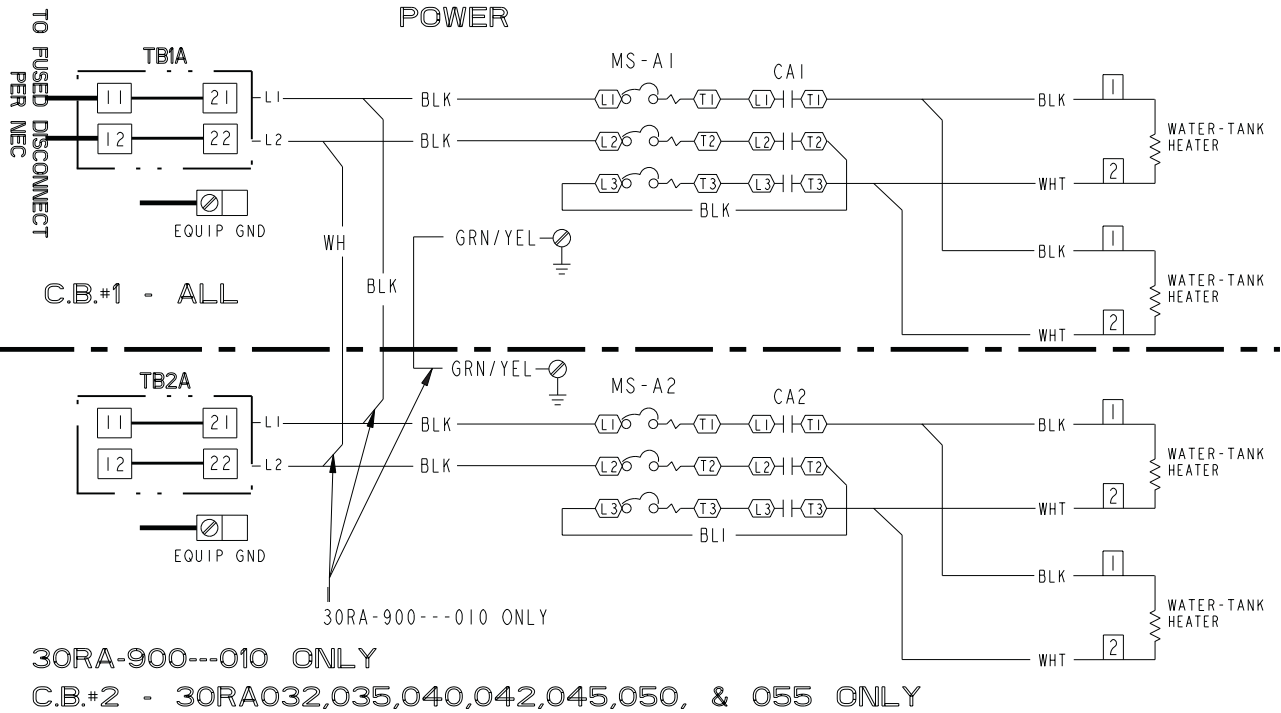
4. Maximum field wire size allowed by lugs on the terminal block is 2/0 AWG.
5. Terminals for field power supply are suitable for copper conductors. Insulation must be rated 167 F (75 C) minimum.

FIELD CONNECTIONS

Main Power — Bring conduit and wire from the fused disconnect switch through the hole in the base of the accessory tank. Connect the conduit to the control box through a knockout, and the wires to terminals on the terminal block. To comply with NEC Article 440-14, the disconnect must be located within sight from and readily accessible from the accessory tank. Refer to Fig. 10.

Control Power — Control power is obtained from the chiller's main power supply and does NOT require a separate source. The tank heaters are in an operative state when the Emergency On-Off switch on the chiller is in the OFF position.

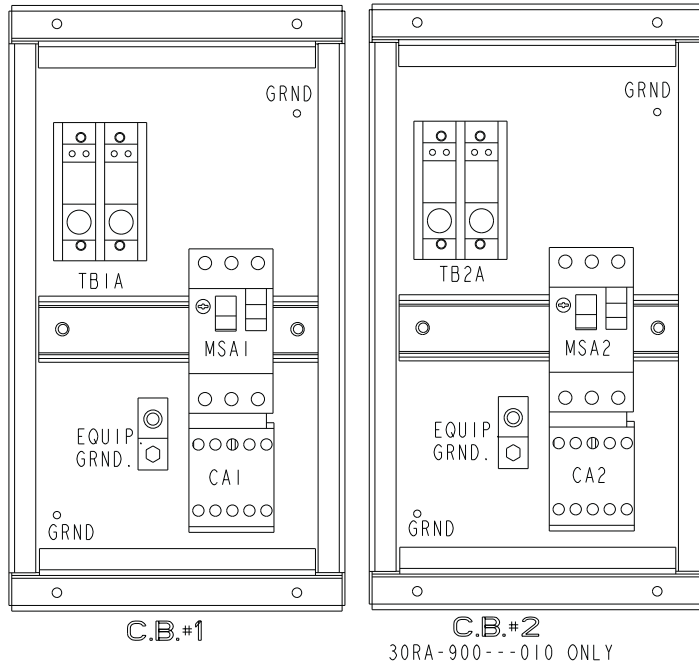
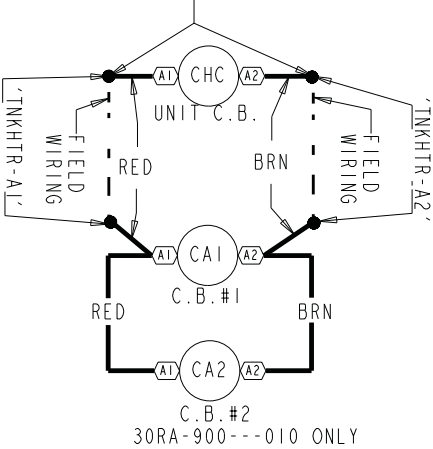
30RA010-055, AQUA-SNAP, STORAGE TANKS



30RA-900---010 ONLY

CONTROL

CONNECT WIRES TO
'TANKHTR-A1'
'TANKHTR-A2'
IN UNIT CONTROL BOX



LEGEND

- CA** — Contactor
- CB** — Control Box
- CHC** — Cooler Heater Contactor
- EQUIP GRND** — Equipment/Ground
- GRND** — Ground
- MS** — Manual Starter
- NEC** — National Electrical Control
- TB** — Terminal Block

Fig. 10 — 30RA010-055 Water Storage Tank Wiring

APPENDIX A PRESSURE DROP CURVES

