30GX080-265
AIR-COOLED LIQUID CHILLER

— PERFORMANCE DATA
— CERTIFIED DIMENSION PRINT
— FIELD WIRING DIAGRAM

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Form 30GX-4SB Supersedes 30GX-3SB Printed in U.S.A. 12-97 Catalog No. 513-450

Date:	Supersedes:	**30GX080-265 AIR-COOLED LIQUID CHILLER**	30GX	Rev.: -4SB
JOB NAME:		LOCATION:		
BUYER:		BUYER P.O. #	CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:			DATE:	

DESCRIPTION

Packaged air-cooled liquid chiller factory wired, piped, and charged with HFC-134a. Upward discharge airflow minimizes directional sound and dissipates heat away from surrounding areas.

FEATURES

Cooler is mechanically cleanable "flooded" shell-and-tube type with removable heads. It is tested and stamped in accordance with ASME Code for a refrigerant working side pressure of 220 psig (1517 kPa) and a maximum fluid side pressure of 300 psig (2068 kPa) (250 psig [1724 kPa] in Canada) and is insulated with ¾-in. (19 mm) closed-cell polyvinyl chloride foam.

Cooler can be equipped with electric heater to help protect against cooler freeze-up (use of inhibited glycol anti-freeze recommended for freeze protection).

Compressor is semi-hermetic twin screw design with refrigerant gas cooled motor and integral oil filter and discharge gas muffler.

Complete thermal and electrical protection is provided.

Air-cooled condenser is constructed of fins mechanically bonded to seamless copper tubes. Coils are leak and pressure tested at 450 psig (3103 kPa).

Condenser fans are direct driven 11-blade, shrouded axial type, statically and dynamically balanced, discharging air vertically upward, protected by coated steel wire safety guards.

Condenser fan motors are totally enclosed 3-phase with permanently lubricated bearings and Class F insulation (except speed control motors).

Each refrigerant circuit includes oil separator, high side pressure relief device, liquid and discharge line shutoff valve, filter drier, moisture indicating sight glass, expansion/level control device.

Microprocessor control includes keypad with diagnostic display displaying set points, time, system status (including temperatures, pressures and % loading) and the alarm conditions.

Automatic compressor lead/lag.

Capacity control based on leaving chilled water temperature with return water temperature sensing.

7-Day time scheduling of pump(s) and chiller.

60-Hz Models: 080, 090, 106, 115, 125, 136, 151, 161, 176, 206, 226, 251, and 265.

50-Hz Models: 080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175, 205, 225, 226, 250, and 265.

PERFORMANCE DATA

UNIT

Capacity _____

Compressor Input Power _____ kW

Unit Input Power _____ kW

Minimum Outdoor Operating Temperature _____

Capacity Control Steps _____

Minimum Capacity % _____ %

EER _____

Entering Air Temperature _____

Weight _____

COOLER

Cooler Fluid _____

Entering Fluid Temperature _____

Leaving Fluid Temperature _____

Flow Rate _____

Pressure Drop _____

Fouling Factor _____

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Ph _____ Hz

Power Supply to Control Circuit _____ Volts _____ Ph _____ Hz

Minimum Amps Circuit 1 _____ Amps

Maximum Fuse Amps Circuit 1 _____ Amps

Control Circuit Fuse Amps _____ Amps

Maximum Instantaneous Current Flow _____ Amps

Minimum Amps Circuit 2 _____ Amps

Maximum Fuse Amps Circuit 2 _____ Amps

OPTIONS

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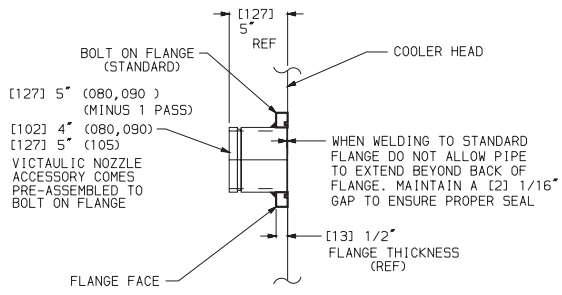
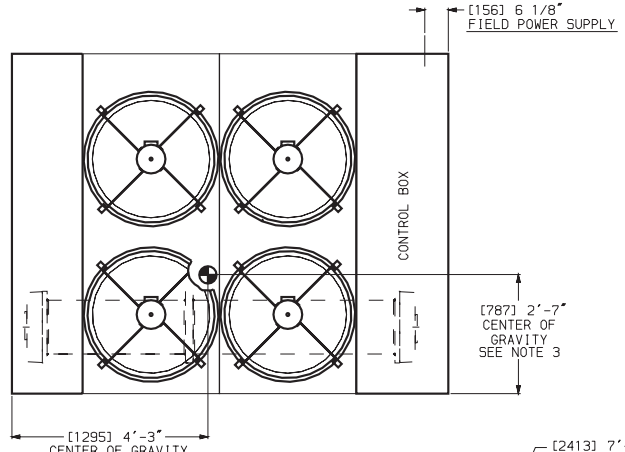


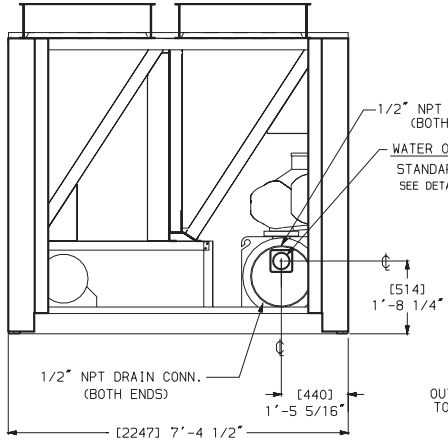
DETAIL "A"
NOZZLE CONNECTIONS

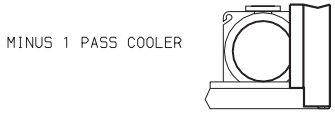


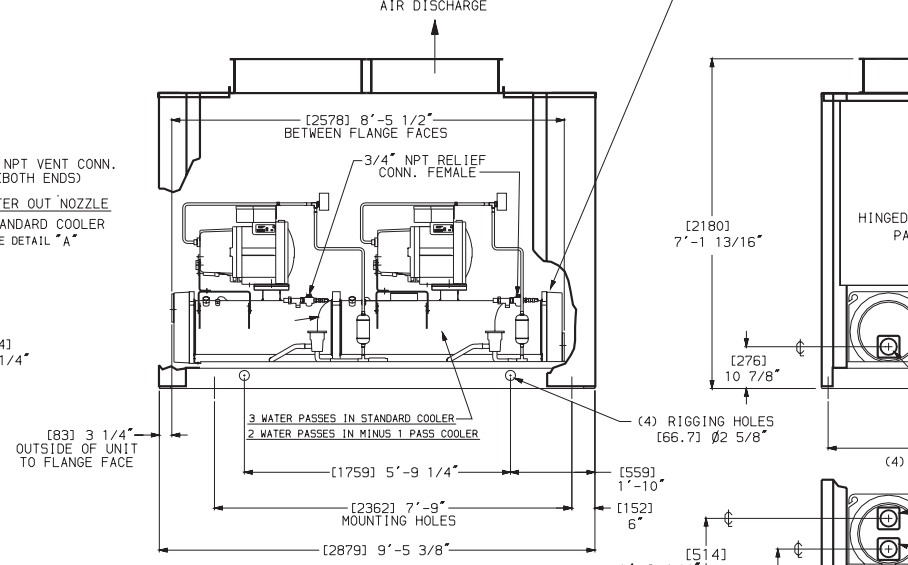
UNIT	TOTAL OPERATING WEIGHT - AL	TOTAL OPERATING WEIGHT - CU
30GX080	6313 LB	6988 LB
30GX090	6333 LB	7008 LB
30GX105	6809 LB	7484 LB

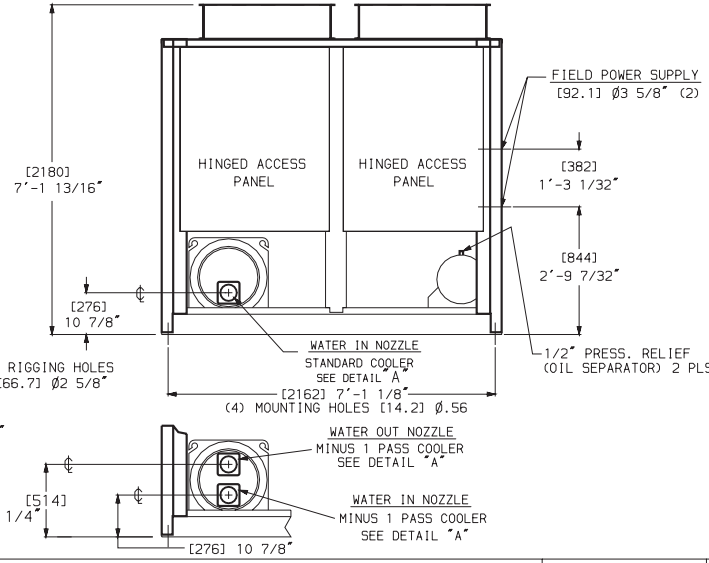
NOTES:

1. UNIT MUST HAVE CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1524 MM] 5 FT (FROM SOLID SURFACE)
   SIDES - [1829 MM] 6 FT
2. UNIT WITH SOUND HOODS REQUIRES CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1829 MM] 6 FT
   SIDES - [2134 MM] 7 FT
3. CENTER OF GRAVITY SHOWN IS FOR ALUMINUM FIN COIL. SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.









DATE	SUPERSEDES		REV
11/11/97	11/04/96	30GX080-105 AIR COOLED CHILLERS	30GX501580 A

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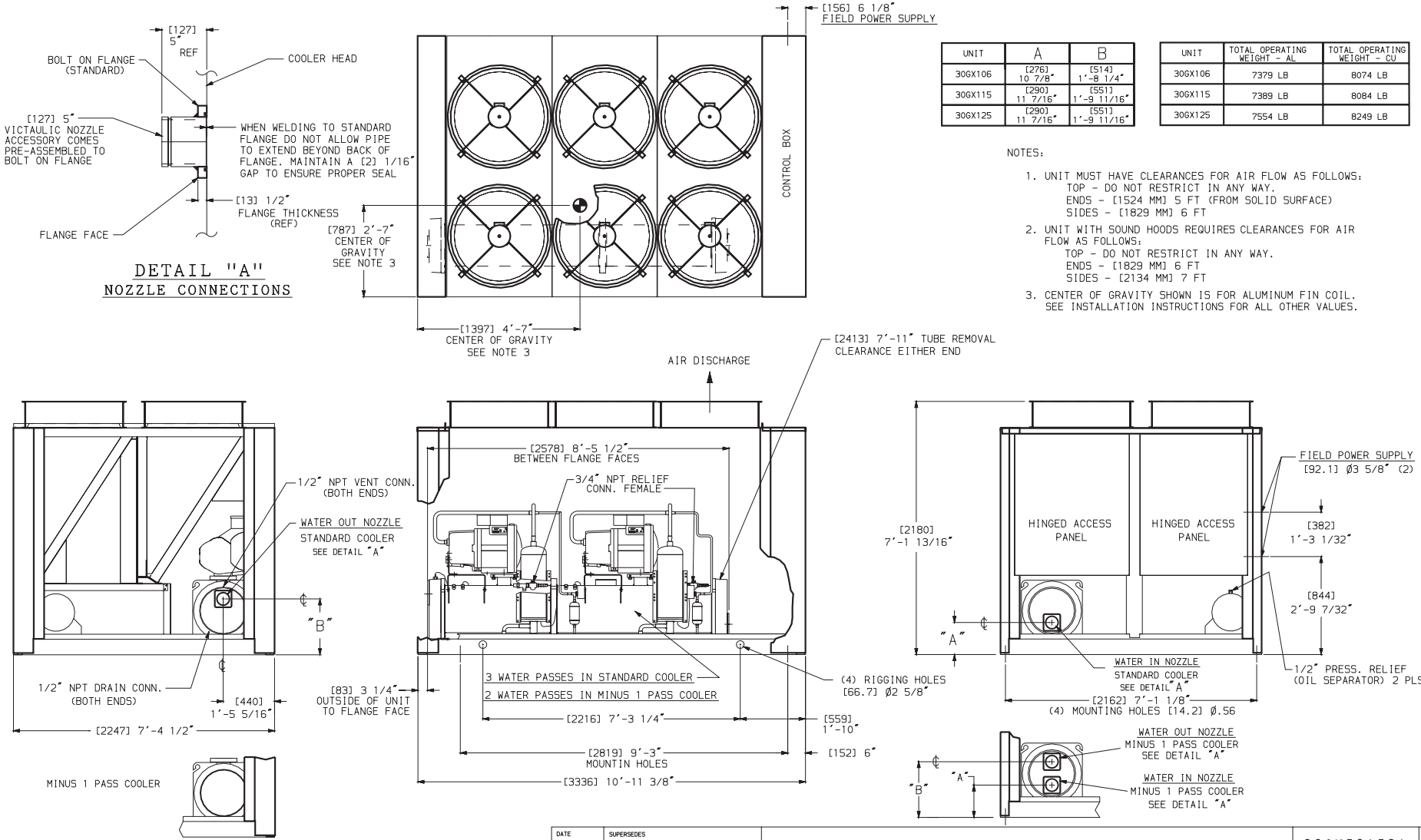

UNIT	A	B
30GX106	[276] 10 7/8"	[514] 1'-8 1/4"
30GX115	[290] 11 7/16"	[551] 1'-9 11/16"
30GX125	[290] 11 7/16"	[551] 1'-9 11/16"

UNIT	TOTAL OPERATING WEIGHT - AL	TOTAL OPERATING WEIGHT - CU
30GX106	7379 LB	8074 LB
30GX115	7389 LB	8084 LB
30GX125	7554 LB	8249 LB

NOTES:

1. UNIT MUST HAVE CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1524 MM] 5 FT (FROM SOLID SURFACE)
   SIDES - [1829 MM] 6 FT
2. UNIT WITH SOUND HOODS REQUIRES CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1829 MM] 6 FT
   SIDES - [2134 MM] 7 FT
3. CENTER OF GRAVITY SHOWN IS FOR ALUMINUM FIN COIL. SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.

DATE	SUPERSEDES		
11/11/97	11/04/96	30GX106-125 AIR COOLED CHILLERS	30GX501581 REV A

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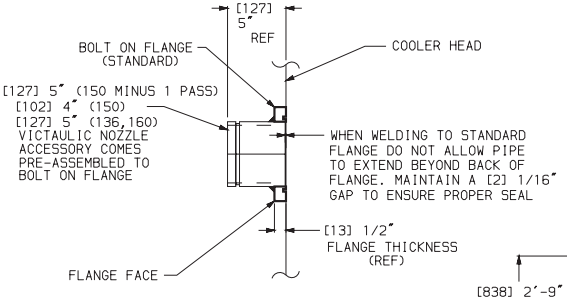
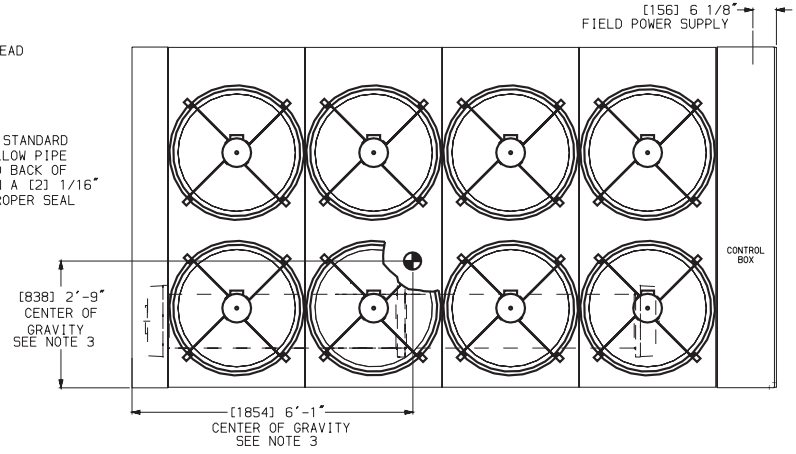


DETAIL "A"
NOZZLE CONNECTIONS

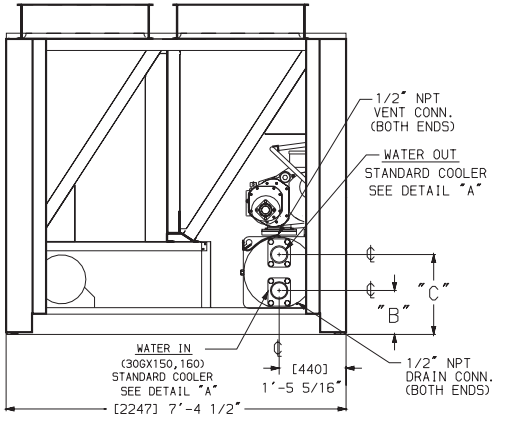


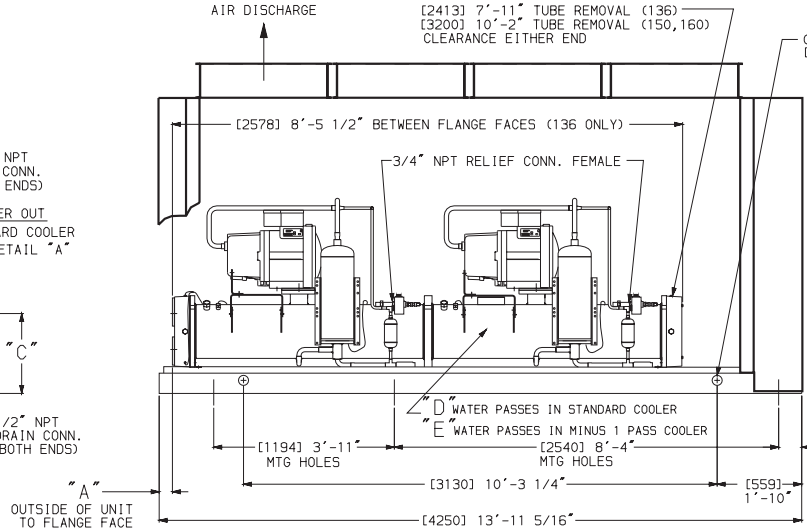
UNIT	A	B STANDARD COOLER	C STANDARD COOLER	B MINUS 1 PASS COOLER	C MINUS 1 PASS COOLER	D	E
30GX136	[83] 3 1/4"	[290] 11 7/16"	[551] 1'-9 11/16"	[290] 11 7/16"	[551] 1'-9 11/16"	3	2
30GX150	[92] 3 5/8"	[276] 10 7/8"	[514] 1'-8 1/4"	-	[395] 1' 3 1/2"	2	1
30GX160	[92] 3 5/8"	[290] 11 7/16"	[551] 1'-9 11/16"	-	[420] 1' 4 1/2"	2	1

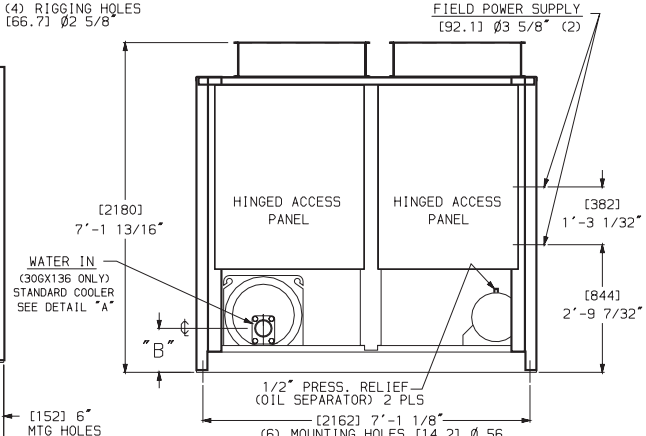
UNIT	TOTAL OPERATING WEIGHT - AL	TOTAL OPERATING WEIGHT - CU
30GX136	8717 LB	9797 LB
30GX150	8550 LB	9630 LB
30GX160	8873 LB	9958 LB

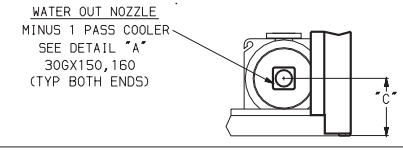
NOTES:

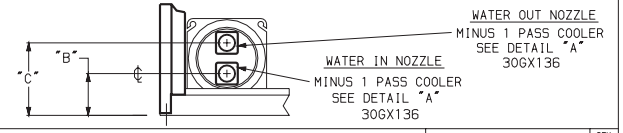
1. UNIT MUST HAVE CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1524 MM] 5 FT (FROM SOLID SURFACE)
   SIDES - [1829 MM] 6 FT
2. UNIT WITH SOUND HOODS REQUIRES CLEARANCES FOR AIR FLOW AS FOLLOWS:
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1829 MM] 6 FT
   SIDES - [2134 MM] 7 FT
3. CENTER OF GRAVITY SHOWN IS FOR ALUMINUM FIN COIL. SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.











DATE	SUPERSEDES		REV
11/11/97	03/10/97	30GX136,150,160 AIR COOLED CHILLERS	30GX501582 B

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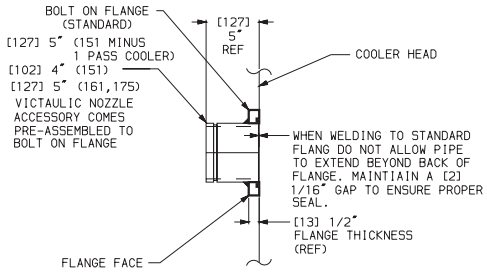
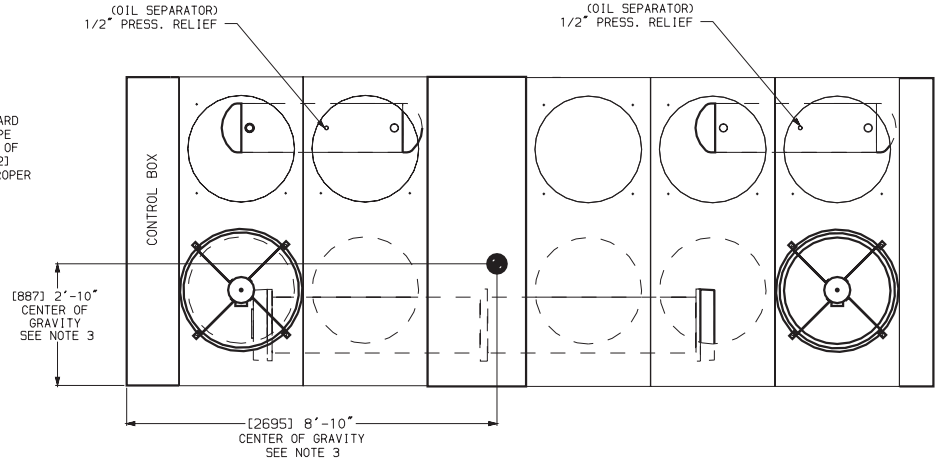


DETAIL "A"
NOZZLE CONNECTIONS



UNIT	TOTAL OPERATING WEIGHT - AL	TOTAL OPERATING WEIGHT - CU
30GX151	9118 LB	10503 LB
30GX161	9446 LB	10831 LB
30GX175	9466 LB	10851 LB

NOTES:

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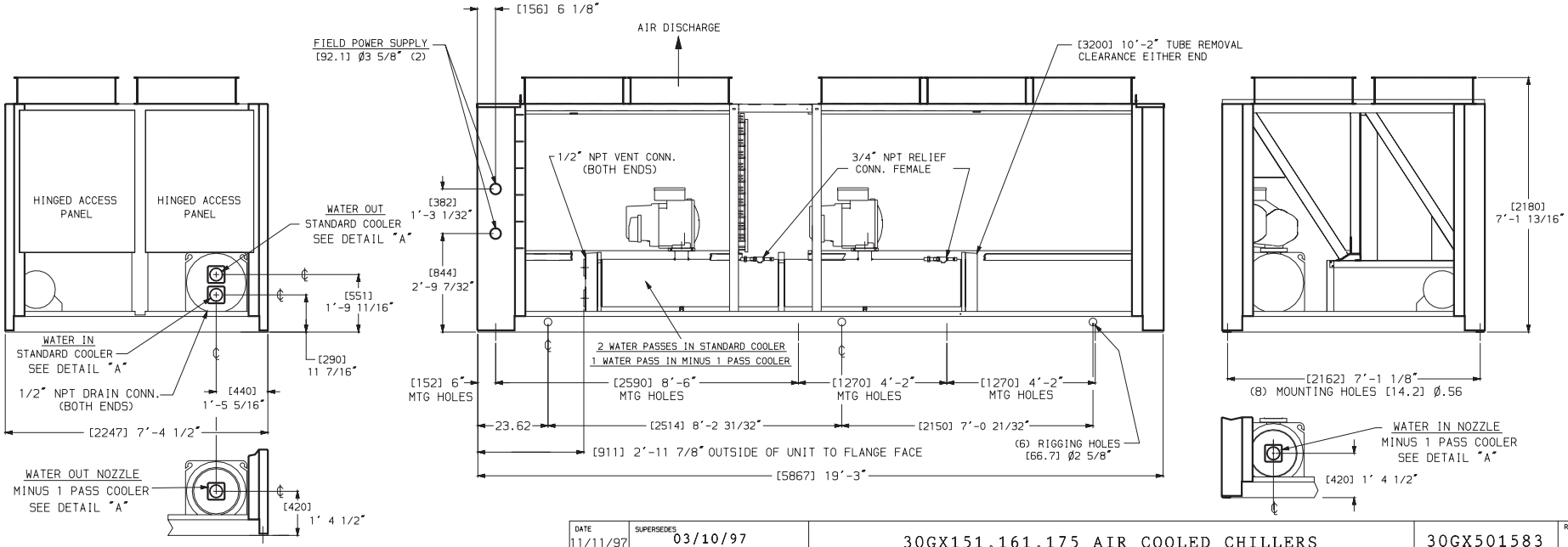
3. CENTER OF GRAVITY SHOWN IS FOR ALUMINUM FIN COIL. SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.



DATE	SUPERSEDES			REV
11/11/97	03/10/97	30GX151,161,175 AIR COOLED CHILLERS	30GX501583	B

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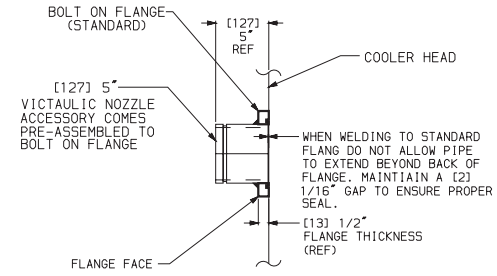
UNIT	TOTAL OPERATING WEIGHT - AL	TOTAL OPERATING WEIGHT - CU
30GX176	10056 LB	11421 LB



DETAIL "A"
NOZZLE CONNECTIONS

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   SIDES - [1829 MM] 6 FT
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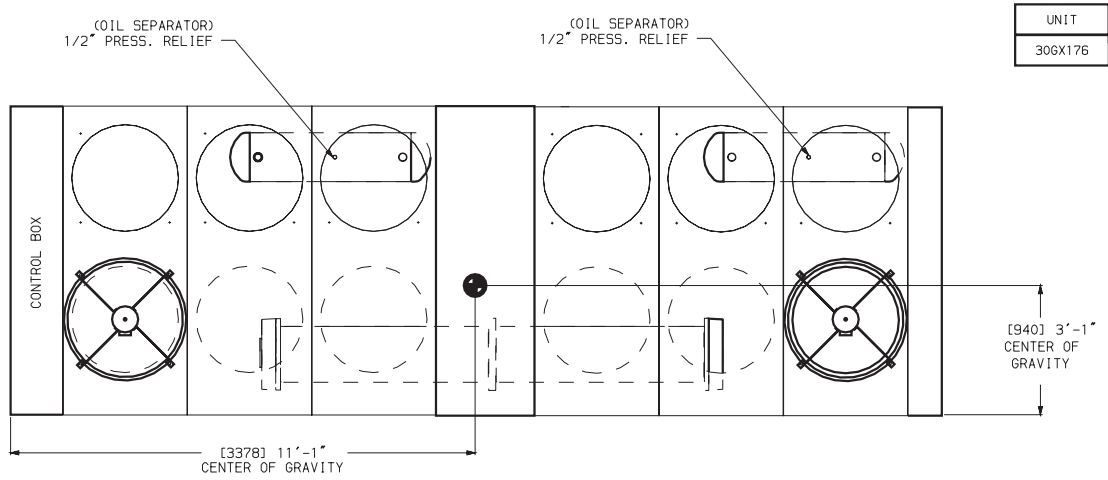
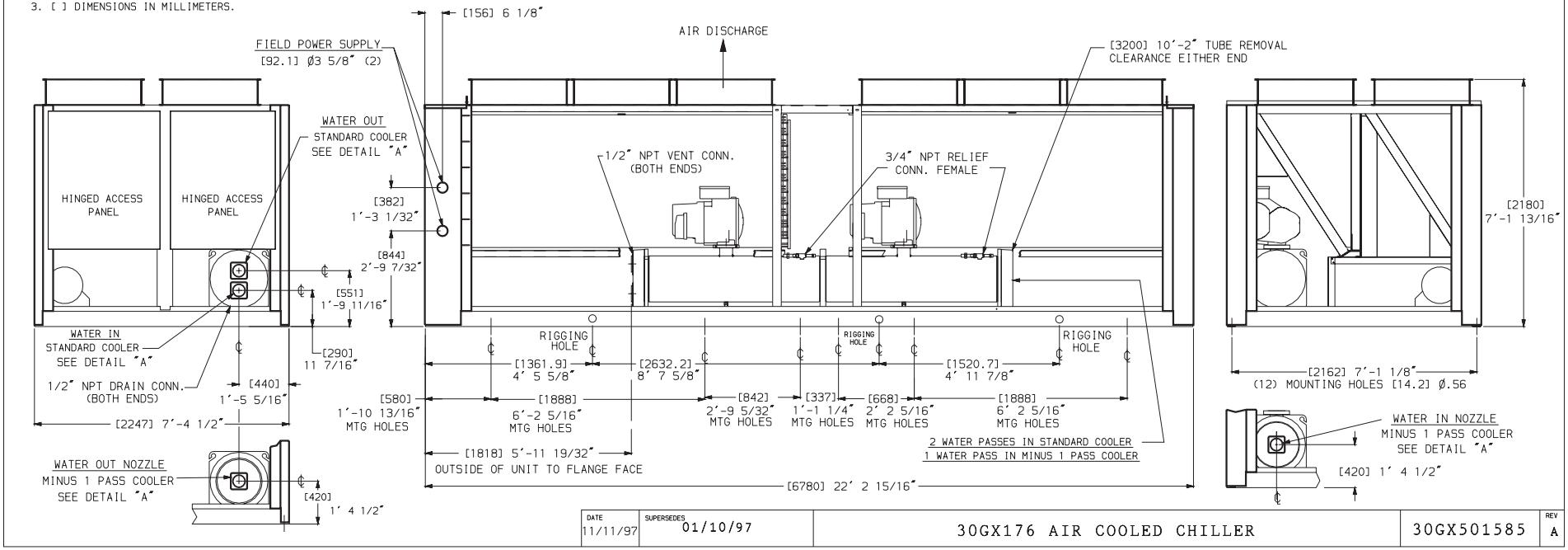
   TOP - DO NOT RESTRICT IN ANY WAY.
   ENDS - [1829 MM] 6 FT
   SIDES - [2134 MM] 7 FT
3. [ ] DIMENSIONS IN MILLIMETERS.





DATE	SUPERSEDES		REV
11/11/97	01/10/97	30GX176 AIR COOLED CHILLER	30GX501585 A

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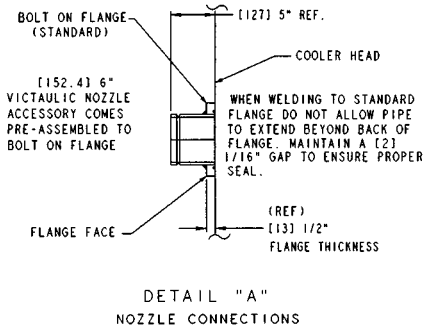

DETAIL "A"
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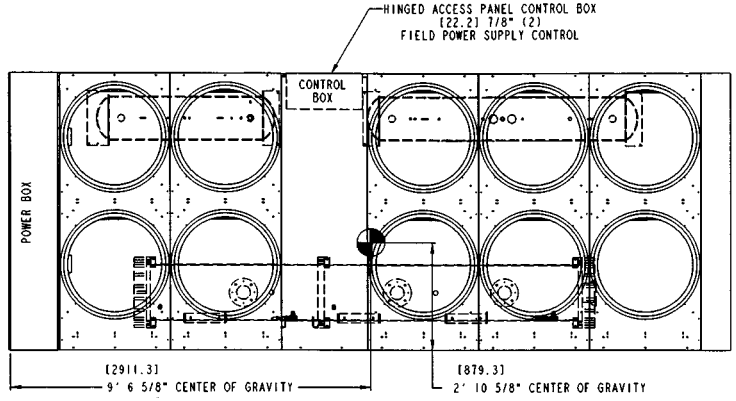
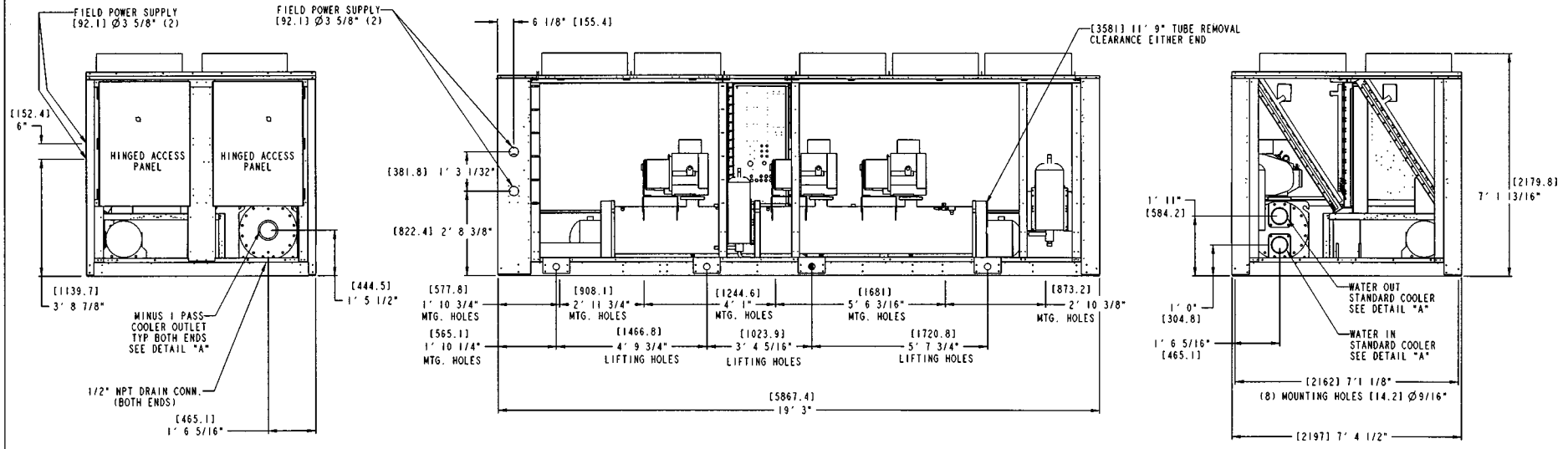


UNIT 30GX	TOTAL OPERATING WEIGHT		TOTAL OPERATING WEIGHT	
	Aluminum Fin		Copper Fin	
	lb	kg	lb	kg
205	12,184	5,538	13,569	6,168
225	12,364	5,620	13,749	6,250

NOTES:
1. Unit must have clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1524 mm) 5 ft (from solid surface)
   Sides — (1829 mm) 6 ft
2. Unit with sound hoods requires clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1829 mm) 6 ft
   Sides — (2134 mm) 7 ft
3. Center of gravity shown is for aluminum fin coil. See installation instructions for all other values.



DATE	SUPERSEDES		
10/02/97	-	30GX205,225 AIR COOLED CHILLERS	30GX502154

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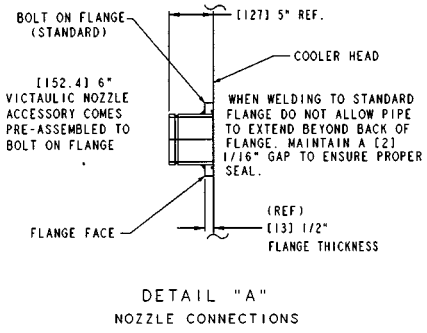
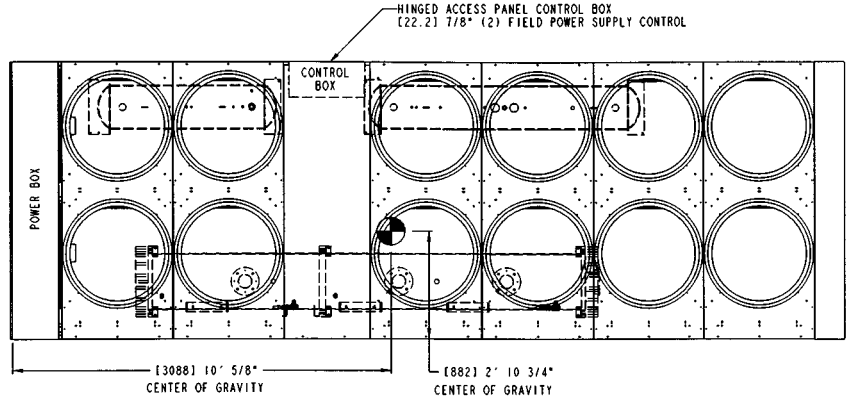
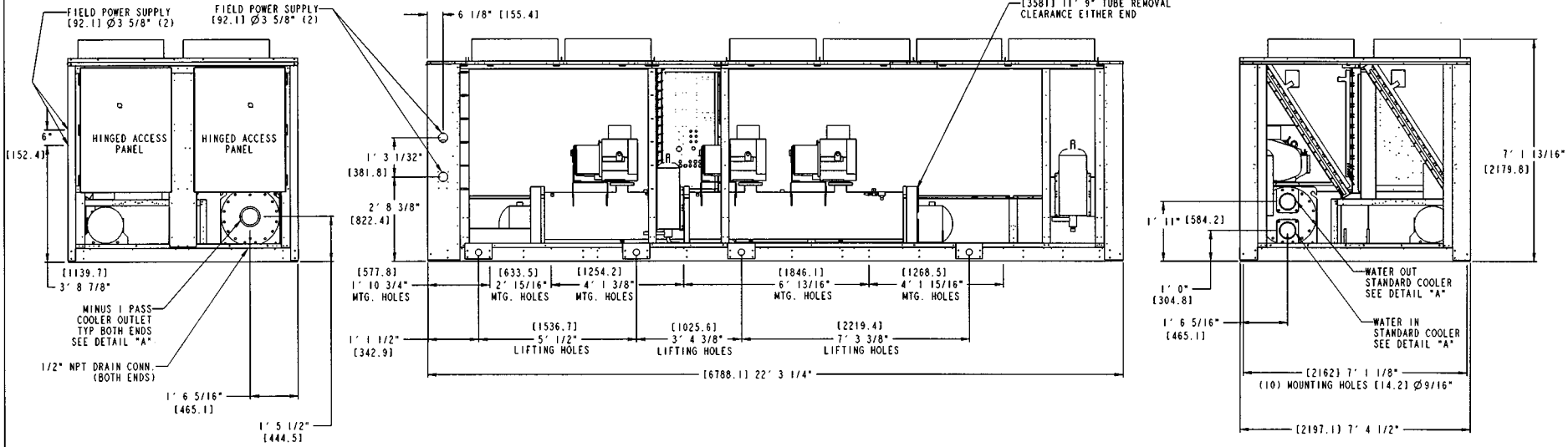


DETAIL "A"
NOZZLE CONNECTIONS



UNIT 30GX	TOTAL OPERATING WEIGHT		TOTAL OPERATING WEIGHT	
	Aluminum Fin		Copper Fin	
	lb	kg	lb	kg
206	12,794	5,815	14,462	6,574
226	12,974	5,897	14,642	6,655
250	13,194	5,997	14,862	6,755

NOTES:
1. Unit must have clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1524 mm) 5 ft (from solid surface)
   Sides — (1829 mm) 6 ft
2. Unit with sound hoods requires clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1829 mm) 6 ft
   Sides — (2134 mm) 7 ft
3. Center of gravity shown is for aluminum fin coil. See installation instructions for all other values.



DATE	SUPERSEDES		REV
10/02/97	-	30GX206,226,250 AIR COOLED CHILLERS	30GX502153	-

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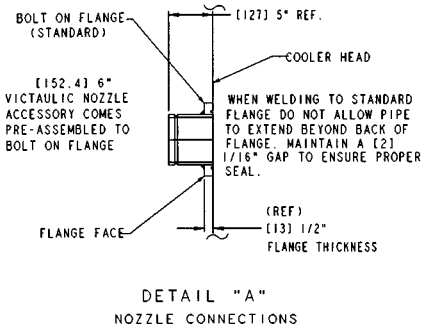
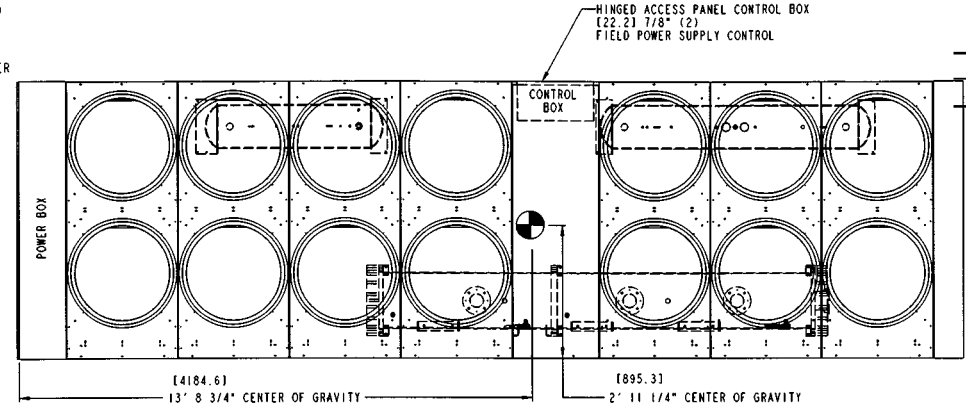
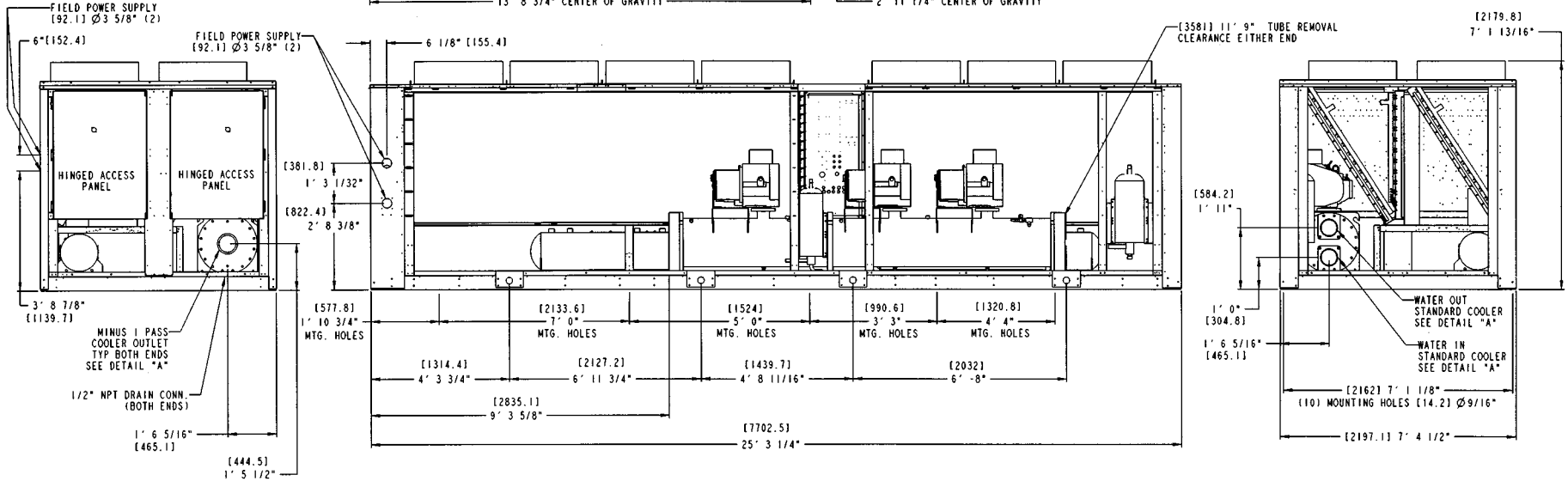


DETAIL "A"
NOZZLE CONNECTIONS

UNIT 30GX	TOTAL OPERATING WEIGHT Aluminum Fin		TOTAL OPERATING WEIGHT Copper Fin	
	lb	kg	lb	kg
251	13,774	6,621	15,549	7,068
265	13,829	6.286	15,604	7,093

NOTES:
1. Unit must have clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1524 mm) 5 ft (from solid surface)
   Sides — (1829 mm) 6 ft
2. Unit with sound hoods requires clearances for air flow as follows:
   Top — Do not restrict in any way
   Ends — (1829 mm) 6 ft
   Sides — (2134 mm) 7 ft
3. Center of gravity shown is for aluminum fin coil. See installation instructions for all other values.





DATE	SUPERSEDES		
10/02/97	-	30GX251,265 AIR COOLED CHILLERS	30GX502152

REV -

FIELD WIRING DIAGRAM

UNITED TECHNOLOGIES CARRIER P O BOX 4808 SYRACUSE N. Y. 13221

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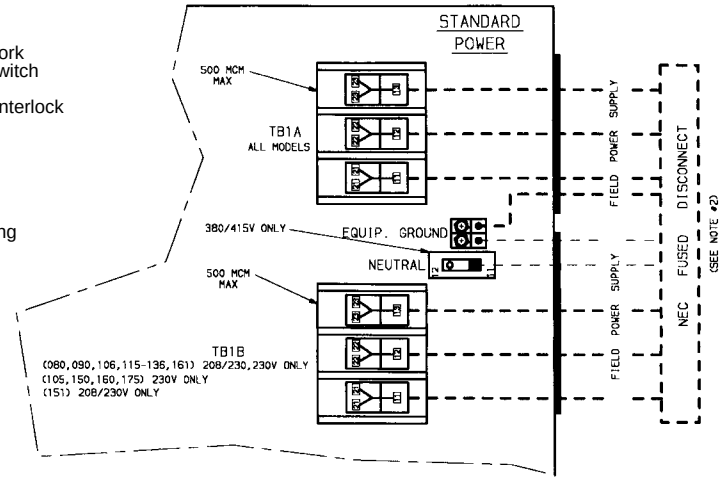
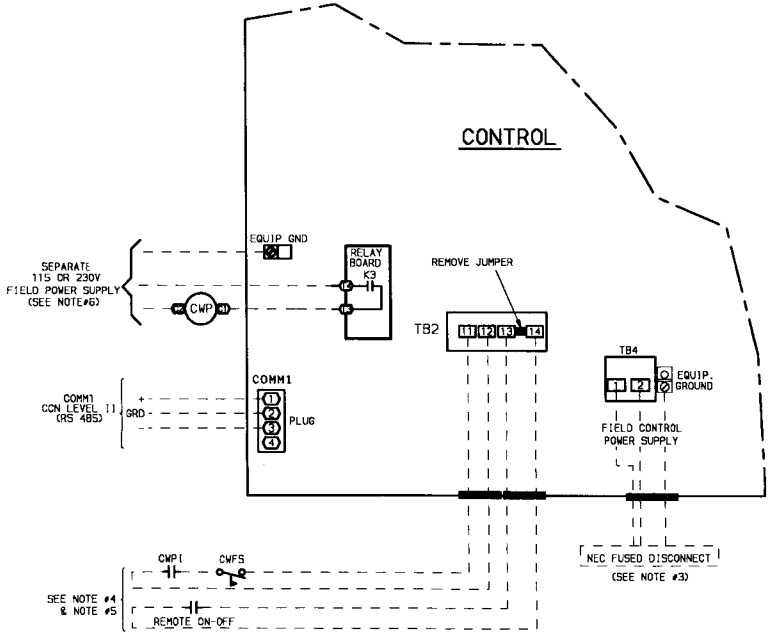
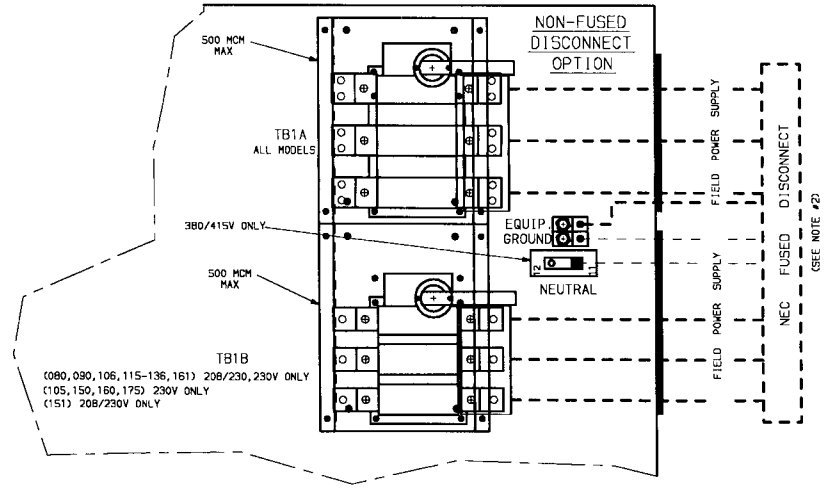
NOTES:
1. Factory wiring is in accordance with National Electrical Code (NEC). Field modifications or additions must be in compliance with all applicable codes.
2. Wiring for main field power supply must be rated 75° C minimum. Use copper for all units. Maximum incoming wire size for each terminal block is 500 kcmil.
3. Power for control circuit should be supplied from a separate source through a field supplied fused disconnect with 30 amp maximum protection for 115 volt control circuits and 15 amp maximum protection for 230 volt control circuit. Connect control circuit power to terminals 1 and 2 of TB4. Connect neutral side of supply to terminal 2 of TB4. Control circuit conductors for all units must be coppr only. 380/415 control power wired at factory. Requires field supplied neutral connection.
4. Terminals 13 and 14 of TB2 are for field external connection for remote ON-OFF. The contacts must be rated for dry circuit application capable of handling a 24 vac to 50 mA load.
5. Terminals 11 and 12 of TB2 are for chilled water flow switch (CWFS) and chilled water pump interlock (CWPI) functions. The contacts must be rated for dry circuit application capable of handling a 24 vac to 50 mA load.
6. Terminals T3 and T4 on relay board are for chilled water pump. The maximum load allowed for the chilled water pump relay is 125 va sealed, 1250 va inrush at 115 or 230 volt.

LEGEND

CCN	—	Carrier Comfort Network
CWFS	—	Chilled Water Flow Switch
CWP	—	Chilled Water Pump
CWPI	—	Chilled Water Pump Interlock
EQUIP	—	Equipment
GND,GRD	—	Ground
TB	—	Terminal Block
		Field Power Wiring
		Field Control Wiring
		Factory Installed Wiring







DATE	SUPERSEDES		
11/04/96		30GX080-176 LIQUID CHILLERS FIELD WIRING DIAGRAM	30GX501584 REV –

FIELD WIRING DIAGRAM

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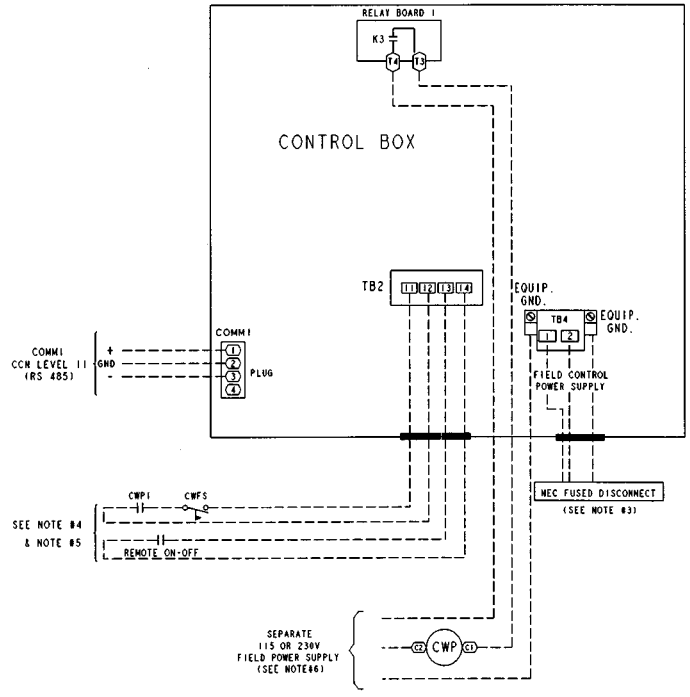
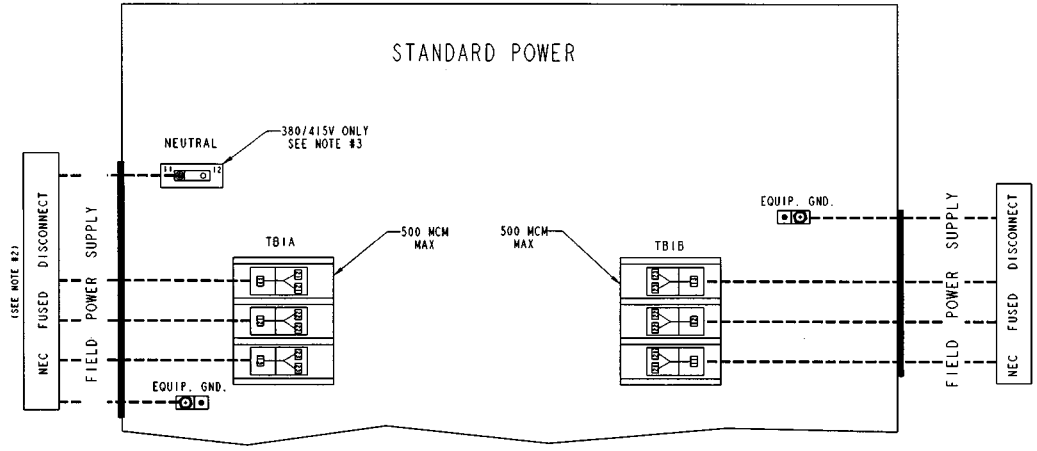
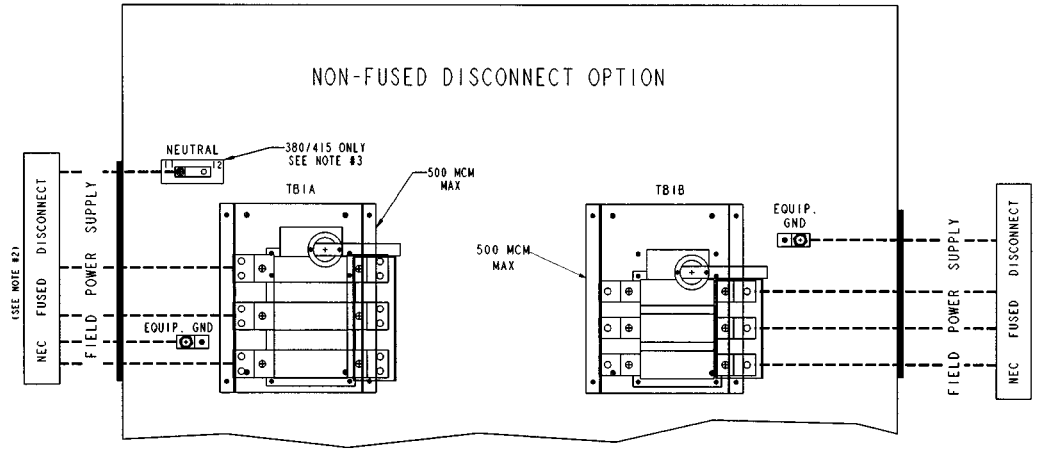
6. Terminals T3 and T4 on relay board are for chilled water pump. The maximum load allowed for the chilled water pump relay is 125 va sealed, 1250 va inrush at 115 or 230 volt. Minimum load required is 25 va sealed.

LEGEND

CCN	— Carrier Comfort Network	**TB**	— Terminal Block
CWFS	— Chilled Water Flow Switch		Field Power Wiring
CWP	— Chilled Water Pump		Field Control Wiring
CWPI	— Chilled Water Pump Interlock		Factory Installed Wiring
EQUIP	— Equipment		
GND	— Ground		







DATE	SUPERSEDES		
10/02/97	-	30GX205-265 AIR COOLED CHILLER FIELD WIRING DIAGRAM	30GX502155

REV -