

JOB NUMBER: C-14344

DATE: 1/16/01

QUANTITY	DESCRIPTION	QUOTE PRICE
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STATIONARY PRESSURE VESSELS
FOR REFRIGERATION SERVICE

E. L. Nickell Model #ELN48V Designed for 270 TR
Ammonia @ -40°F 4:1 overfeed Ratio, 62.6 GPM, @ 25
PSID. Surge capacity 71 cu ft.

Dual Stage based on 12°F Liquid Make up

1	A 48" dia. x 12'-4" OAH Vert Recirculator Pkg Vessel per E. L. Nickell Standard (Package height appx. 17'-10")	
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Package to include:

- 1) ASME Recirculator vessel as specified above.
- 2) 8" x 3" ASME Oil Pot
- 3) Column with (1) Float Switch, (5) Level Eyes, &
LP.10 Vari-Level (Shipped Loose) control
with 3 Relays.
- 4) Support Frame, Piping, Valves & Fittings as
required, Relief Valve, Shipped Loose.
- 5) Vessel Inlet size 8" Vessel Outlet size 8" Pump
Suction line size 4" Pump Discharge line size 2"
- 6) (2) Cornell 2CB, 5 H.P., 1760 RPM Pumps.
230/460v/3ph/60Hz
- 7) (2) copies of Package Manuals.
- 8) (1) - 1 1/2" Single Liquid Make up Asembly
Shipped Loose
- 9) Wired ELNCO Std Control Panel w/Power
Disconnects

All c.s. construction, no c.a., sandblast internal surfaces,
red oxide prime & 5# nitrogen charge for shipment.

ASME DESIGN, CONSTRUCT, AND DUAL "U" STAMP

NONE

FOB CONST., MI

PRODUCTION ORDER

E. L. NICKELL COMPANY, INC.

FAX 616-435-8216

P.O. Box 97 - CONSTANTINE, MICHIGAN 49042

TELEPHONE 616-435-2475

JOB NUMBER: C-14344

DATE: 1/16/01

QUANTITY	DESCRIPTION	QUOTE PRICE
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STATIONARY PRESSURE VESSELS
FOR REFRIGERATION SERVICE

FOR 250 PSIG MAWP @ -20°F TO +200°F DWT AND
87 PSIG @ -50°F DWT.
Rep - 5 Hrs - 62.3

Not included in the price are the following:

- 1) Insulation
- 2) Valves on Suction In & Out

1	<p>B 72" dia. x 13'-4" OAH Vert HPR 1 - 5" Connection 1 - 2 1/2" Connection 1 - 2" Connection 2 - 1 1/4" Connections 1 - 1" Connection 1 - 3/4" Connection 1 - Pipe stand, 18" elevation</p>	
	<p>All c.s. construction, no c.a., shop prime. Vessel constructed using back up bands. Structural design per E. L. Nickell standards. DESIGN, CONSTRUCT, AND 'U' STAMP FOR 250 PSIG MAWP @ -20°F TO +500°F DWT PER ASME SECTION VIII, DIV. 1 Rep - 10 Hrs - 53.7</p>	

E. L. Nickell Engineering Notes

Phone: (408) 462-6603 Fax: (408) 462-9781
 2 sets approval 2 sets certified prints required.

NONE

FOB CONST., MI

PRODUCTION ORDER

E. L. NICKELL COMPANY, INC.

FAX 616-435-8216

P.O. Box 97 - CONSTANTINE, MICHIGAN 49042

TELEPHONE 616-435-2475

TO: E. L. Nickell Co., Inc.
 PO Box 97
 Constantine MI 49042
 Attn:

JOB NUMBER: C-14308

SHIP TO:

CUSTOMER'S
 NUMBER:

REQUIRED Week of
 SHIPPING DATE:

TRUCK -

QUANTITY	DESCRIPTION	
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STATIONARY PRESSURE VESSELS
FOR REFRIGERATION SERVICE

8" dia. x 3'-0" OAL Horiz Stock Oil Pot

- 1 - 1 1/2" Socket Weld Coupling
- 2 - 3/4" 1 cplg, 1 NPT w/ell & dip
- 1 - 1/2" Socket Weld Coupling
- 1 - Set (two) Angle Saddles ---- 2" elevation

DESIGN, CONSTRUCT, AND DUAL "U" STAMP FOR
 300 PSIG DWP @ -20°F TO +650°F DWT &
 120 PSIG DWP @ -50°F
 PER ASME SECTION VIII, DIV. 1

NOTES:

1. Sandblast & oil fog internal surfaces
2. Sandblast & prime (2) coats external surfaces
3. All c.s. construction, no c.a.
4. Nitrogen charge
5. Skid for shipment
6. Air test if possible

1. C-14347-B
2. C-14336-H
3. C-14368-J
4. C-14342
5. C-14344-A

7. C-14336-H
8. C-14279
9. C-14347-B
10. C-14368-J
11. C-14368-J
12. C-14290

*USED FOR
 C-14359*

ASME		
NB	ST	
47800	50659	C-14347-B
47801	50660	C-14336-H
47802	50661	C-14368-J
47803	50662	C-14342
47804	50663	C-14344-A
47805	50664	N/A
47806	50665	C-14336-H
47807	50666	C-14279
47808	50667	C-14347-B
47809	50668	C-14368-J
47810	50669	C-14368-J
47811	50670	C-14290

NONE

FOB CONST., MI

PRICES DELIVERY SHOWN HEREON ARE BASED ON
 INFORMATION AVAILABLE AT TIME OF QUOTATION.

E. L. NICKELL COMPANY, INC.

ADDITIONAL REQUIREMENTS OR CHANGED MADE AFTER THIS
 DATE MAY BE SUBJECT TO PRICE INCREASES ON A TIME
 AND MATERIAL BASIS AND/OR RESCHEDULING OF DELIVERY.

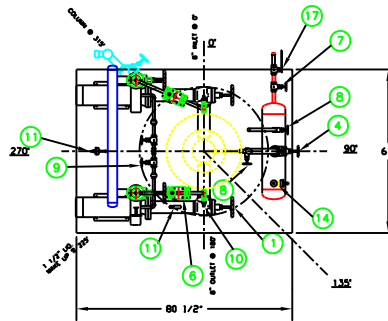
SALES

CONTROL SCHEDULE			
MARK	SIZE	DESCRIPTION	QTY.
1	4"	HANSEN ANGLE VALVE AW 401 H	2
2	2"	HANSEN ANGLE VALVE AS 201 H	2
3	2"	HANSEN S.W. CHECK VALVE HCK4-B W/ SOFT SPRING	2
4	2"	HANSEN GLOBE VALVE GS 200 H	1
5	1 1/2"	HANSEN GLOBE VALVE GS 150 H	5
6	3/4"	HANSEN S.W. PRESSURE REGULATOR HMAAL	1
7	3/4"	HANSEN GLOBE VALVE GT 076 H	1
8	3/4"	HANSEN GLOBE VALVE GS 076 H	2
9	1/2"	GLOBE VALVE W/ PUMPS	4
10	3/4"	HANSEN GLOBE VALVE GS 076 C	2
11	1/4"	PRESS. GAUGE GA1/GAUGE VALVE HDV1	6
12		HANSEN HLLS FLOAT SWITCH	1
13		HANSEN DUAL RELIEF VALVE H 5600A D	1
14		HANSEN RELIEF VALVE H 5600A	1
15		CORNELL 2 CB , 5 HP PUMPS	2
16		HANSEN VARI-LEVEL LBS (3 RELAYS) W/ LP.10 PROBE	1
17	3/4"	OL. SPRING RETURN VALVE	1
18	1 1/2"	HANSEN EXPANSION VALVE RS 150 H	2
19	1 1/2"	HANSEN SW SOLENOID VALVE HSA4/ST W/ STRAINER	1

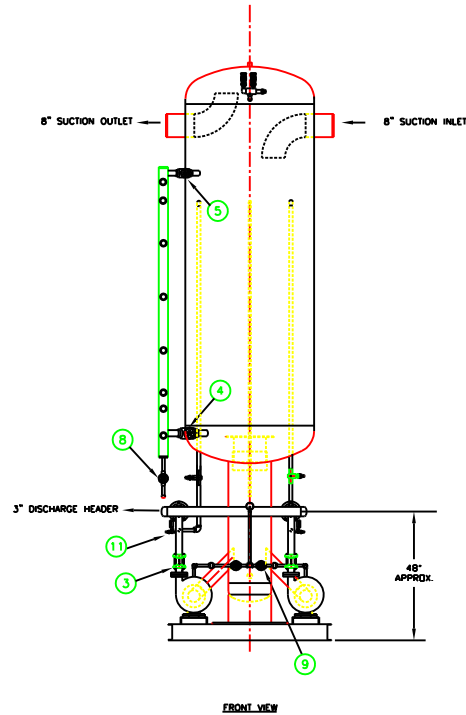
ALLOW FOR PROPER AMOUNT OF 6" INSULATION AROUND VESSEL
 ALLOW FOR PROPER AMOUNT OF INSULATION AROUND PIPING & VALVES

- SHIPS LOOSE
- NORMALLY OPENED

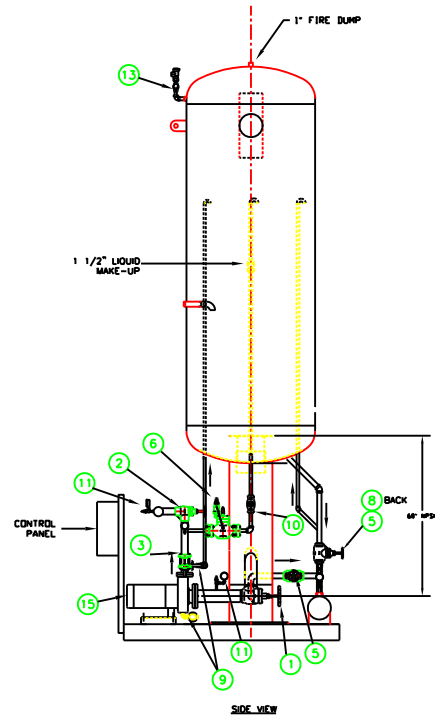
NITROGEN CHARGE @ 5 PSI
 SHOP PRIME



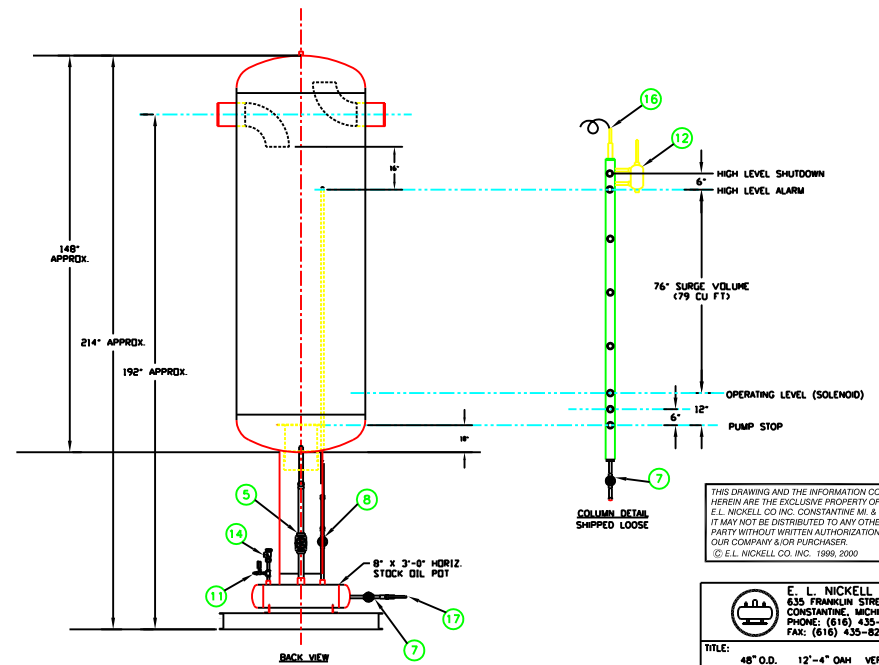
180°
IOP VIEW



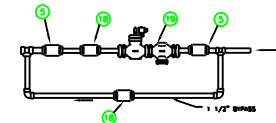
FRONT VIEW



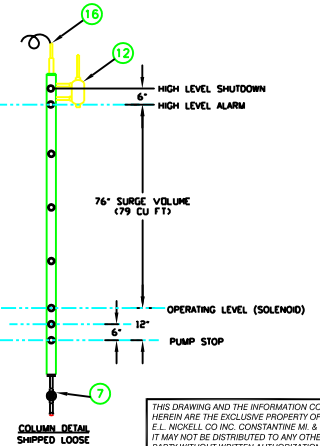
SIDE VIEW



BACK VIEW



SINGLE LIQUID MAKE-UP LINE DETAIL
(SHIPPED LOOSE)



COLUMN DETAIL
SHIPPED LOOSE

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 CONSTANTINE, MICHIGAN 49042
 PHONE: (616) 435-2475
 FAX: (616) 435-6216

DUTY: 270 TR AMMONIA @ -40°F
 4:1 OVERPEED RATIO, 62.6 GPM
 @ 25 PSIG

DESIGN: ASME DESIGNED AND CONSTRUCTED FOR:
 250 P.S.I.G. @ -20 TO +200° F
 AND 87 P.S.I.G. @ -50° F

TITLE: 48" O.D. 12'-4" DIA VERT. REFRIG. RECIRCULATOR PACKAGE			
CUSTOMER: FREEZING EQUIP SALES WEST			
P.O.#: HPAUL			
DRAWN BY:	CHECKED BY:	APPROVED BY:	
LS 1-17-01			
JOB NUMBER:	SCALE:	DWG. NUMBER:	REV.
C-14344	1/2"=1'-0"	C-14344-A	1
QUANTITY: 1	SHEET		1 OF 4