



## REFRIGERATION PACKAGE

### DETAILS & DOCUMENTATION PACKAGE

**Edmonton Office**

4725 - 68 Ave.

Edmonton, Alberta

T6B 2N2

Contact: Dick Selinger

Phone: (780) 466-0404

Fax: (780) 465-3779

Email: [dick@jaycor.ca](mailto:dick@jaycor.ca)



**JAYCOR**  
**RESOURCES INC.**

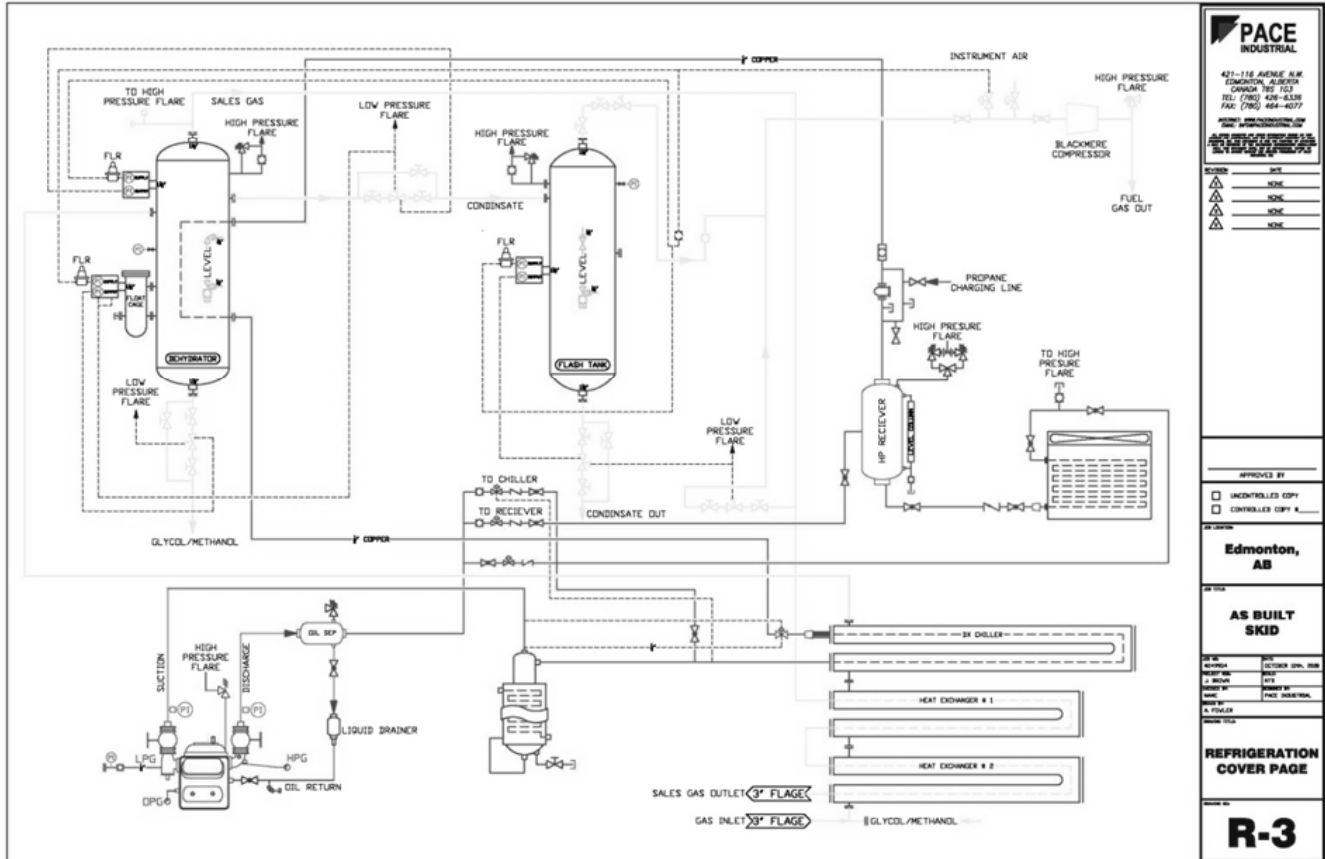
# Refrigeration plant pictures: external



# Refrigeration plant internals



# Refrigeration plant: PFD



## PROCESS EQUIPMENT:

- Flash Tank
- Oil Separator
- Heat Exchangers (# 1 & # 2)
- Chiller
- HP Receiver
- Compressor
- Float Cage
- Please note the Dehydrator is not a part of the package

# Refrigeration plant: Flash Tank

<b>EQUIPMENT</b>	FLASH TANK	<b>MANUFACTURER</b>	ROCKET INDUSTRIES
<b>CRN #</b>	B 9592.2	<b>YEAR BUILT</b>	1974
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET	<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>	
<b>SERVICE</b>	CONDENSATE NON CORROSIVE	<b>CODE</b>	ASME UW12(A)71

<b>DESIGN CONDITIONS</b>		<b>DESIGN TEMP</b>	300	F	
<b>DESIGN PRESSURE</b>	1080	PSIG	<b>OPERATING PRESSURE</b>	920	PSIG
<b>MAX ALLOW. PRESSURE</b>	1080	PSIG	<b>HYDROTEST PRESSURE</b>	1620	PSIG

## MATERIAL SPECIFICATIONS

<b>SHELL MATERIAL</b>	A53-B	<b>TENSILE STRENGTH</b>	60000
<b>HEAD MATERIAL</b>	A516-70	<b>TENSILE STRENGTH</b>	70000

## SIZE

<b>THICKNESS</b>	0.9338	IN	<b>CORR ALLOW.</b>	0.125	IN
<b>SHELL DIAMETER</b>	14 OD	IN	<b>OA LENGTH</b>	7FT-1IN	FT-IN
<b>CAPACITY</b>	6.05	FT3	<b>X-RAY</b>	SPOT	

## JOINTS

<b>SEAM</b>	SEAMLESS	<b>JOINT</b>	BUTT JOINT @ 85% EFFY
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# Refrigeration plant: Oil Separator

<b>EQUIPMENT</b>	LOW TEMP SEPARATOR		<b>MANUFACTURER</b>	ROCKET INDUSTRIES	
<b>CRN #</b>	B 9591.2		<b>YEAR BUILT</b>	1974	
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET		<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>		
<b>SERVICE</b>	OIL & GAS NON CORROSIVE		<b>CODE</b>	ASME UW12(A) 71	
<b>DESIGN CONDITIONS</b>			<b>DESIGN TEMP</b>	300	F
<b>DESIGN PRESSURE</b>	1080	PSIG	<b>OPERATING PRESSURE</b>	920	PSIG
<b>MAX ALLOW. PRESSURE</b>	1080	PSIG	<b>HYDROTEST PRESSURE</b>	1620	PSIG
<b>MATERIAL SPECIFICATIONS</b>					
<b>SHELL MATERIAL</b>	A53-B		<b>TENSILE STRENGTH</b>	60000	
<b>HEAD MATERIAL</b>	A516-70		<b>TENSILE STRENGTH</b>	70000	
<b>SIZE</b>					
<b>THICKNESS</b>	0.938	IN	<b>CORR ALLOW.</b>	0.125	IN
<b>SHELL DIAMETER</b>	18 OD	IN	<b>OA LENGTH</b>	N/A	FT-IN
<b>CAPACITY</b>	N/A	FT3	<b>X-RAY</b>	SPOT	
<b>JOINTS</b>					
<b>SEAM</b>	SEAMLESS		<b>JOINT</b>	BUTT JOINT @ 85% EFFY	
<b>NOZZLES</b>					
<b>DIAMETER</b>	2	IN	<b>WALL THICKNESS</b>	0.343	IN
<b>MATERIAL</b>	A53-B		<b>FLANGE RATING</b>	600	

# Refrigeration plant: Heat Exchanger I

<b>EQUIPMENT</b>	<b>S&amp;T HEAT EXCHANGER 1</b>		<b>MANUFACTURER</b>	<b>BROWN FINTUBE ENGINEERING LTD.</b>	
<b>CRN #</b>	<b>B 9334.2</b>		<b>YEAR BUILT</b>	<b>1974</b>	
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET		<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>		
<b>SERVICE</b>	SWEET NAT GAS/ SWEET NAT GAS		<b>CODE</b>	ASME SECT VIII UW12C	
<b>DESIGN CONDITIONS</b>					
<b>DESIGN PRESSURE</b>				<b>DESIGN TEMP</b>	
<b>SHELL</b>	1000	PSIG	<b>SHELL</b>	650	F
<b>TUBE</b>	1000	PSIG	<b>TUBE</b>	650	F
<b>TEST PRESSURE</b>	1500	PSIG	<b>OPERATING PRESSURE</b>	N/A	PSIG
<b>MATERIAL SPECIFICATIONS</b>					
<b>MATERIAL</b>	MANN SA53 GR B		<b>TENSILE STRENGTH</b>	60000	
<b>SIZE</b>					
<b>SHELL THICKNESS</b>	0.337	IN	<b>HEATING SURFACE AREA</b>	58	FT2
<b>HEAD THICKNESS</b>	1.75	IN	<b>TUBE THICKNESS</b>	0.095	IN
<b>DIAMETER</b>	4 (IPS)	IN	<b>OA LENGTH</b>	21 FT - 10.125IN	FT-IN

# Refrigeration plant: Heat Exchanger II

EQUIPMENT	S&T HEAT EXCHANGER 1		MANUFACTURER	BROWN FIN TUBE ENGINEERING LTD.	
CRN #	B 9334.2		YEAR BUILT	1974	
BASIS OF INFORMATION	ATTACHED DATA SHEET		*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET		
SERVICE	SWEET NAT GAS/ SWEET NAT GAS		CODE	ASME SECT VIII UW12C	
<b>DESIGN CONDITIONS</b>					
DESIGN PRESSURE			DESIGN TEMP		
SHELL	1000	PSIG	SHELL	650	F
TUBE	1000	PSIG	TUBE	650	F
TEST PRESSURE	1500	PSIG	OPERATING PRESSURE	N/A	PSIG
<b>MATERIAL SPECIFICATIONS</b>					
MATERIAL	USS SA53 GR B		TENSILE STRENGTH	60000	
<b>SIZE</b>					
SHELL THICKNESS	0.337	IN	HEATING SURFACE AREA	58	FT2
HEAD THICKNESS	1.75	IN	TUBE THICKNESS	0.095	IN
DIAMETER	4 (IPS)	IN	OA LENGTH	21 FT - 10.125IN	FT-IN



# Refrigeration plant: Chiller

<b>EQUIPMENT</b>	<b>S&amp;T HEAT EXCHANGER 1</b>	<b>MANUFACTURER</b>	<b>BROWN FINTUBE ENGINEERING LTD.</b>	
<b>CRN #</b>	<b>B 9334.2</b>	<b>YEAR BUILT</b>	<b>1974</b>	
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET	<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>		
<b>SERVICE</b>	SWEET NAT GAS/ FREON 12	<b>CODE</b>	ASME SECT VIII UW12C	

<b>DESIGN CONDITIONS</b>					
<b>DESIGN PRESSURE</b>			<b>DESIGN TEMP</b>		
<b>SHELL</b>	1000	PSIG	<b>SHELL</b>	650	F
<b>TUBE</b>	1000	PSIG	<b>TUBE</b>	650	F
<b>TEST PRESSURE</b>	1500	PSIG	<b>OPERATING PRESSURE</b>	N/A	PSIG

<b>MATERIAL SPECIFICATIONS</b>					
<b>MATERIAL</b>	USS SA53 GR B	<b>TENSILE STRENGTH</b>	60000		

<b>SIZE</b>					
<b>SHELL THICKNESS</b>	0.337	IN	<b>HEATING SURFACE AREA</b>	72	FT2
<b>HEAD THICKNESS</b>	1.75	IN	<b>TUBE THICKNESS</b>	0.095	IN
<b>DIAMETER</b>	4 (IPS)	IN	<b>OA LENGTH</b>	26 FT - 10.125IN	FT-IN

# Refrigeration plant: Float Cage

<b>EQUIPMENT</b>	FLOAT CAGE	<b>MANUFACTURER</b>	ROCKET INDUSTRIES
<b>CRN #</b>	B 9619.2	<b>YEAR BUILT</b>	1974
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET	<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>	
<b>SERVICE</b>	GLYCOL/WATER CONDENSATE	<b>CODE</b>	ASME UW12(B)71

<b>DESIGN CONDITIONS</b>		<b>DESIGN TEMP</b>	300	F
<b>DESIGN PRESSURE</b>	1080	PSIG	<b>OPERATING PRESSURE</b>	920 PSIG
<b>MAX ALLOW. PRESSURE</b>	N/A	PSIG	<b>HYDROTEST PRESSURE</b>	1620 PSIG

## MATERIAL SPECIFICATIONS

<b>SHELL MATERIAL</b>	A53-B	<b>TENSILE STRENGTH</b>	60000
<b>HEAD MATERIAL</b>	A234 WPB	<b>TENSILE STRENGTH</b>	N/A

## SIZE

<b>THICKNESS</b>	0.237	IN	<b>CORR ALLOW.</b>	NONE	IN
<b>SHELL DIAMETER</b>	4	IN	<b>OA LENGTH</b>	26FT-39/64IN	FT-IN
<b>CAPACITY</b>	0.21	FT3	<b>X-RAY</b>	SPOT	

## JOINTS

<b>SEAM</b>	SEAMLESS	<b>JOINT</b>	BUTT JOINT @ 80% EFFY
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# Refrigeration plant: HP Receiver

<b>EQUIPMENT</b>	LOW TEMP SEPARATOR		<b>MANUFACTURER</b>	ROCKET INDUSTRIES	
<b>CRN #</b>	B 9591.2		<b>YEAR BUILT</b>	1974	
<b>BASIS OF INFORMATION</b>	ATTACHED DATA SHEET		<b>*THIS DOCUMENT IS NOT MEANT TO REPLACE THE ACTUAL DATA SHEET</b>		
<b>SERVICE</b>	OIL & GAS NON CORROSIVE		<b>CODE</b>	ASME UW12(A) 71	
<b>DESIGN CONDITIONS</b>			<b>DESIGN TEMP</b>	300	F
<b>DESIGN PRESSURE</b>	1080	PSIG	<b>OPERATING PRESSURE</b>	920	PSIG
<b>MAX ALLOW. PRESSURE</b>	1080	PSIG	<b>HYDROTEST PRESSURE</b>	1620	PSIG
<b>MATERIAL SPECIFICATIONS</b>					
<b>SHELL MATERIAL</b>	A53-B		<b>TENSILE STRENGTH</b>	60000	
<b>HEAD MATERIAL</b>	A516-70		<b>TENSILE STRENGTH</b>	70000	
<b>SIZE</b>					
<b>THICKNESS</b>	0.938	IN	<b>CORR ALLOW.</b>	0.125	IN
<b>SHELL DIAMETER</b>	18 OD	IN	<b>OA LENGTH</b>	N/A	FT-IN
<b>CAPACITY</b>	N/A	FT3	<b>X-RAY</b>	SPOT	
<b>JOINTS</b>					
<b>SEAM</b>	SEAMLESS		<b>JOINT</b>	BUTT JOINT @ 85% EFFY	
<b>NOZZLES</b>					
<b>DIAMETER</b>	2	IN	<b>WALL THICKNESS</b>	0.343	IN
<b>MATERIAL</b>	A53-B		<b>FLANGE RATING</b>	600	

# Refrigeration plant: Compressor

Horsepower	50-75
No. of Cylinders	8
CFM	184.7
Weight (lbs)	1115



## R-22 COMPRESSOR RATINGS

### For 5F & 5H Compressors

15° Subcooling  
15° Superheat  
1750 RPM

#### LEGEND

- Bhp. — Brake Horsepower
- Cap. — Capacity (Tons)
- SDT — Saturated Discharge Temperature (°F)
- SST — Saturated Suction Temperature (°F)

COMPRESSOR	SST	SDT	5F20		5F30		5F40		5F60		5H40		5H46		5H60		5H66		5H80		5H86		5H120		5H126		
			Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.
-40	80	1.0	2.6	1.5	4.0	2.1	5.3	3.0	7.9	5.0	12.8	6.2	16.7	7.6	18.7	9.4	24.4	10.2	24.9	12.7	32.5	15.2	36.9	18.9	46.0	28.3	59.9
	90	1.5	3.4	2.3	5.1	3.1	6.7	4.6	10.0	7.5	15.9	9.3	20.6	11.4	23.3	14.1	30.4	15.2	31.0	18.9	40.3	22.8	46.1	28.3	59.9	25.0	59.5
	90	1.3	3.3	2.0	5.0	2.7	6.7	4.1	10.0	6.6	15.7	8.3	20.5	10.0	23.2	12.5	30.2	13.5	30.8	16.8	40.1	20.1	45.7	25.0	59.5		
-20	80	2.2	4.1	3.3	6.1	4.4	8.0	6.6	12.1	10.7	18.9	13.3	24.6	16.1	28.0	20.0	36.4	21.5	37.1	26.8	46.3	32.3	55.3	40.1	71.9		
	90	1.9	4.2	3.0	6.2	4.0	8.3	6.0	12.4	9.7	19.2	12.0	24.9	14.5	28.4	18.1	36.9	19.4	37.6	24.1	49.0	29.1	56.1	36.1	72.9		
	100	1.7	4.2	2.6	6.3	3.5	8.4	5.3	12.4	8.6	19.2	20.7	24.9	13.0	28.4	18.1	37.0	17.3	37.7	21.6	49.1	28.0	56.1	32.2	73.1		
	105	1.6	4.2	2.5	6.2	3.3	8.4	4.9	12.4	8.1	19.1	10.0	24.8	12.2	28.3	15.2	36.9	16.3	37.6	20.3	48.9	24.4	55.9	30.3	72.8		
	110	1.5	4.1	2.3	6.2	3.1	8.4	4.6	12.3	7.5	18.9	9.4	24.6	11.4	28.1	14.2	36.6	15.3	37.3	19.1	48.6	22.9	55.5	28.4	72.3		
-10	80	3.0	4.7	4.6	7.1	6.1	9.3	9.2	14.1	14.7	21.9	18.1	28.5	22.0	32.4	27.3	42.2	29.3	43.0	36.5	56.0	44.0	64.2	54.7	83.4		
	90	2.7	4.9	4.2	7.4	5.5	9.8	8.3	14.7	13.4	22.6	18.5	29.4	20.1	33.5	25.0	43.6	26.8	44.4	33.3	57.8	40.2	66.3	49.9	86.2		
	100	2.5	5.1	3.8	7.6	5.0	10.1	7.5	15.1	12.1	23.0	15.0	29.9	18.2	34.2	22.6	44.5	24.3	45.4	30.2	59.0	36.5	67.7	45.3	88.1		
	105	2.3	5.1	3.5	7.6	4.7	10.3	7.1	15.2	11.5	23.2	14.2	30.1	17.3	34.4	21.5	44.8	23.1	45.6	28.7	59.4	34.6	68.1	42.9	88.6		
	110	2.2	5.1	3.3	7.7	4.5	10.4	6.7	15.3	10.9	23.2	13.5	30.2	16.4	34.5	20.3	45.0	21.9	45.8	27.2	59.6	32.8	68.3	40.7	88.9		
120	1.9	5.1	2.9	7.7	4.0	10.6	5.9	15.2	9.6	23.1	12.0	30.1	14.6	34.4	18.1	44.9	19.5	45.7	24.2	59.5	29.1	68.1	36.2	88.7			
0	80	4.0	5.3	6.1	7.9	8.1	10.4	12.2	15.8	19.5	24.6	21.4	32.0	29.2	36.5	36.2	47.5	38.9	48.5	63.0	58.4	72.4	72.4	93.9			
	90	3.7	5.6	5.6	8.4	7.5	11.1	11.2	16.8	18.0	25.8	22.2	33.6	26.9	38.4	33.4	49.9	35.9	50.9	44.6	66.2	53.8	75.1	66.8	98.8		
	100	3.4	5.9	5.1	8.8	6.8	11.7	10.2	17.6	16.4	26.8	20.3	34.8	24.7	39.9	30.6	51.9	32.9	59.9	40.9	68.8	49.3	79.0	61.2	102.7		
	105	3.2	6.0	4.9	9.0	6.5	12.0	9.7	17.9	15.7	27.2	19.4	35.3	23.5	40.4	29.2	52.8	31.4	53.6	39.0	69.8	47.1	80.1	58.5	104.2		
	110	3.0	6.1	4.6	9.1	6.2	12.2	9.3	18.1	14.9	27.5	18.5	35.7	22.4	40.9	27.9	53.3	29.9	54.3	37.2	70.6	44.9	81.0	55.7	105.4		
120	2.7	6.3	4.2	9.3	5.5	12.6	8.3	18.5	13.5	27.9	16.7	36.2	20.2	41.6	25.2	54.1	27.0	55.1	33.6	71.7	40.5	82.3	50.3	107.2			
10	80	5.3	5.8	8.0	8.6	10.6	11.3	15.9	17.1	25.3	26.9	31.2	35.0	37.8	39.9	46.9	52.0	50.4	53.1	62.5	69.0	75.7	79.3	93.9	102.9		
	90	4.9	6.2	7.4	9.3	9.8	12.3	14.7	18.6	23.5	28.0	29.0	37.4	35.1	42.7	43.6	55.6	46.8	56.8	58.1	73.8	70.3	84.8	87.2	110.1		
	100	4.5	6.7	6.8	10.0	9.0	13.2	13.6	19.0	21.7	30.3	26.7	39.4	32.5	45.1	40.3	50.7	43.3	59.9	53.7	77.9	64.9	89.5	80.6	116.3		
	105	4.3	6.9	6.5	10.2	8.6	13.6	13.0	20.3	20.8	31.0	25.6	40.3	31.1	46.1	38.6	60.0	41.5	61.2	51.5	79.6	62.3	91.5	77.3	119.0		
	110	4.1	7.0	6.2	10.5	8.3	13.9	12.4	20.8	19.9	31.6	24.6	41.0	29.8	47.1	37.0	61.2	39.8	62.4	49.4	81.2	59.7	93.3	74.0	121.3		
120	3.7	7.3	5.7	10.9	7.5	14.6	11.3	21.6	18.1	32.5	22.4	42.3	27.2	48.6	33.8	63.2	36.3	64.4	45.1	83.8	54.4	96.2	67.6	125.2			
130	3.3	7.5	5.1	11.2	6.8	15.1	10.1	22.2	16.4	33.2	20.3	43.1	27.2	48.6	33.8	63.2											
20	80	6.8	6.0	10.2	9.1	13.6	11.9	20.4	17.9	32.2	28.6	39.7	37.2	48.1	42.5	59.7	55.3	64.1	56.5	79.6	73.5	96.3	84.4	119.4	109.6		
	90	6.3	6.7	9.5	10.0	12.6	13.2	19.0	19.9	30.1	31.2	37.1	40.5	44.9	46.4	55.8	60.3	59.9	61.6	74.3	80.1	89.9	92.0	111.6	119.5		
	100	5.8	7.3	8.8	10.9	11.7	14.4	17.6	21.6	28.0	33.4	34.5	43.4	41.8	49.8	51.9	64.7	55.7	66.1	69.1	86.0	83.6	98.8	103.8	128.3		
	105	5.6	7.6	8.5	11.3	11.2	14.9	16.9	22.4	26.9	34.4	33.2	44.7	40.2	51.3	49.9	66.7	53.6	68.1	66.6	88.6	80.5	101.8	99.9	132.3		
	110	5.4	7.8	8.1	11.6	10.8	15.5	16.2	23.2	25.8	35.3	31.9	45.9	38.7	52.7	48.0	68.6	51.5	70.0	64.0	91.0	77.2	104.6	96.0	136.0		
120	4.9	8.3	7.4	12.3	9.9	16.4	14.8	24.5	23.8	36.9	29.3	48.0	35.6	55.2	44.1	71.8	47.4	73.2	58.9	95.2	71.2	109.5	88.3	142.4			
130	4.5	8.7	6.8	12.8	9.0	17.3	13.5	25.6	21.7	38.2	26.8	49.7	32.5	57.2	40.4	74.4	43.3	75.8	53.9	98.7	65.1	113.4	80.7	147.6			
135	4.2	8.8	6.4	13.1	8.5	17.6	12.8	26.0	20.7	38.7	25.5	50.3	31.0	58.0	38.5	75.5	41.3	76.9	51.4	100.0	62.0	115.0	77.0	149.7			
30	80	8.5	6.1	12.8	9.2	17.1	12.1	25.6	18.1	40.4	29.5	49.8	38.4	60.2	43.9	74.8	57.1	80.3	58.4	99.7	76.0	120.6	87.1	149.6	113.0		
	90	8.0	7.0	12.0	10.5	16.0	13.8	24.0	20.6	37.9	32.9	46.7	42.7	56.5	48.8	70.2	63.7	75.4	65.1	93.5	84.7	113.2	97.2	140.4	126.3		
	100	7.4	7.8	11.2	11.6	14.9	15.3	22.3	23.0	35.4	35.9	43.6	46.7	52.9	53.5	65.6	69.6	70.5	71.1	87.4	92.5	105.8	106.3	131.3	138.1		
	105	7.1	8.1	10.8	12.1	14.3	16.0	21.5	24.1	34.2	37.3	42.1	48.5	51.0	55.6	63.3	72.4	68.0	73.9	84.4	96.1	102.1	110.5	126.7	143.5		
	110	6.9	8.5	10.4	12.6	13.8	16.7	20.7	25.1	32.9	38.6	40.6	50.2	49.2	57.6	61.0	74.9	65.6	76.5	81.4	99.5	98.4	114.4	122.1	148.7		
120	6.3	9.1	9.6	13.5	12.7	18.0	19.1	26.9	30.5	40.9	37.5	53.2	45.5	61.2	56.5	79.6	60.7	81.2	75.3	105.7	91.1	121.5	113.1	158.0			
130	5.8	9.7	8.3	14.3	11.6	19.2	17.5	28.6	28.0	43.0	34.5	55.8	41.9	64.3	52.0	83.7	55.9	85.3	69.4	110.9	83.9	127.6	104.1	166.0			
135	5.5	9.9	8.4	14.7	11.1	19.7	16.7	29.3	26.8	43.8	33.0	57.0	40.1	65.6	49.8	85.4	53.5	87.0	66.4	113.2	80.3	130.3	99.6	169.5			
40	80	10.6	6.0	15.9	9.1	21.2																					

# Refrigeration plant: Attachments

- Hydrostatic Pressure Test Report
- Ultrasonic Examination Form
- ABSA Certificate of Inspection Permit
- Original Data Sheets (basis of report)
- Fabrication Drawings (basis of report)
- PFD (basis of report)

**DISCLAIMER:** This report has been generated by VZFOX Canada Engineering as an combined information package of technical data provided by Jaycor Resources & H2S Technologies Ltd. for the purpose of information accessibility by the reader. VZFOX Canada Engineering does not take any liability nor makes any guarantee for the correctness, accuracy, and completeness of this report. It is based on best effort and does not reflect ownership on VZFOX Canada Engineering in any way or form. No technical work was undertaken to produce this report and the information contained here in is free of responsibility to VZFOX Canada Engineering. Jaycor Resources, H2S Technologies and any other party or individual shall hold VZFOX Canada Engineering harmless and free of responsibility in the event of dispute and in the court of law.



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## HYDROSTATIC PRESSURE TEST PROCEDURE

### ASME SEC. VIII DIV 1 PRESSURE VESSELS ASME B31.1, ASME B31.3 & ASME B31.5 PRESSURE PIPING SYSTEMS

CUSTOMER NAME: J Cor JOB # 261340 DATE April 23/09

#### 1.0 GENERAL

- 1.1 All hydrostatic testing of process piping and vessels shall be in accordance with ASME Sec. VIII Div. 1, ASME B31.1, ASME B31.3, ASME B31.5 and CSA B52 as applicable.
- 1.3 The materials used in the piping system construction are limited to P-1 and P-8 materials, with a flange class of 150 or greater, otherwise a job specific procedure must be accepted by ABSA prior to the test.

#### 2.0 TESTING DESIGN BASIS

- 2.1 **The test pressure shall be at 150 % of the design pressure.**
- 2.2 **A pressure relief device is recommended**, having a set pressure of approximately 130 % of the test pressure in order to relieve excessive testing pressure. Existing pressure relief devices to be temporarily removed or blocked off if test pressure exceeds their rating to be returned to service immediately at the successful completion of the test. Pressure relief devices may not be required assuming the vessel is in constant supervision, located in a stable/controlled environment (to minimize temperature fluctuations) and manually pressurized (i.e. hand pump).
- 2.3 Test manifold(s) and temporary test piping shall have been designed for a pressure not less than the pressure relief device set pressure and shall have been tested in accordance with ASME B31.1, B31.3 and B31.5 as applicable.
- 2.4 The metal temperature shall be maintained at a minimum of 17 °C (30 °F) above the minimum design metal temperature for the piping to minimize the chance of brittle failure.

#### 3.0 TESTING PROCEDURE

- 3.1 All joints must remain exposed for the duration of the test. Where possible vessels shall be blinded at their piping system connections to prevent pressure from entering the vessels.
- 3.2 Vents shall be installed at all high points in the system in order to purge any possible air pockets.
- 3.3 **Testing:**
- a) If possible, no unauthorized personnel shall be allowed within the room containing the vessel(s) at the time of pressurization, having a solid wall between them and the vessel at during these times. Barriers shall be used to keep this area secure.
  - b) Carefully pressurize the system to 50% test pressure and hold for the duration of the visual leak inspection.
  - c) Visually inspect all welds, flanges, threads and other possible leak sources per ASME Sect. V article 10. Mark all leaks for repair.
  - d) Depressurize carefully and repair all leaks found. Repeat the leak test (steps b to d) until the system is liquid tight at 50% test pressure
  - f) Thereafter increase the pressure in increments of 689 kPa (100 psig) until the test pressure is reached.
  - g) During each hold period, visually check for leakage at all possible sources and by monitoring the ability of



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the system pressure to remain constant during this time. The hydrostatic test report shall be completed, denoting all hold pressures and the time shall be logged at each step.

h) A minimum of two calibrated gauges shall be used to monitor the pressure. The gauge ranges shall be not less than 1.5 times nor more than 4 times the final test pressure.

i) If a leak is detected at any time; the leak is to be marked, the system safely depressurized, and the leak repaired and the test begun again (step b).

j) Once the final pressure is reached, it shall be held for a minimum of 60 minutes and then checked for leaks. If no leaks are detected the test is successfully completed.

3.4 **Depressurizing** - the system shall be slowly and safely depressurized.

3.5 **After testing** - the QCI (and the owner's inspector when applicable) will sign the test report stating that they have witnessed and accepted the test.

PIPING AND/OR EQUIPMENT TO BE INCLUDED IN TEST (INCLUDE CRN NUMBERS WHEN APPLICABLE):

ID	Description	C.R.N.	Vol M <sup>3</sup>
	Product Flash tank	B-9592.2	
	Low temp Separator	B-9591.2	
	Ex. Level Con. Foot Cage	B-9619.2	
	<b>Total volume</b>		

PERSONNEL WITHIN TESTING AREA (INCLUDE REASON FOR ATTENDANCE):

Pace quality control inspector *Daniel*

Pace quality control manager \_\_\_\_\_

Pace testing technician *Bry Johnson*

Owner's inspector (NAME) \_\_\_\_\_



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PRESSURE TEST AFFIDAVIT DATE: April 23 TIME: 9:00

PERSONNEL WITHIN TEST AREA: Reyn

SYSTEM TESTED: Jay Core Skid

ADDRESS OF TEST: 421 - 116 Ave

APPLICABLE CRN NOS.: B-9592.2, B-9591.2, B-9619.2

TEST MEDIA: Water DESIGN PRESS: 1080 PSIG TEST PRESS: <sup>1500</sup>~~1620~~ PSIG

TEST GAUGE ID #: 1. PG1500-1 2. PG1500-2 CALIBRATION DATE: 1. July/08 2. July/08

PRESSURE TEST	@ <u>750</u> PSI	TIME <u>9:10</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>850</u> PSI	TIME <u>9:30</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>950</u> PSI	TIME <u>9:55</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>1050</u> PSI	TIME <u>10:10</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>1150</u> PSI	TIME <u>10:40</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>1250</u> PSI	TIME <u>10:55</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
	@ <u>1350</u> PSI	TIME <u>11:20</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>
FINAL	@ <u>1500</u> PSI	TIME <u>11:40</u>	PASS <input checked="" type="checkbox"/>	REDO <input type="checkbox"/>	PASS <input type="checkbox"/>

ACCEPTANCE:

PACE INDUSTRIAL INC QCI NAME: \_\_\_\_\_

DATE: April 23/09 SIGNATURE: Reyn Joh

OWNER REP. NAME: \_\_\_\_\_

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

ABSA SAFETY CODES OFFICER NAME: \_\_\_\_\_

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_





ISO 9001:2000

# ULTRASONIC EXAMINATION FORM

U - 32344

## ACUREN

CLIENT Pack Industrial DATE 2009/FEB/26 PAGE 1 OF 4  
 ATTENTION JOHN BROWN ACUREN JOB NO. \_\_\_\_\_ TIME 08300  
 ADDRESS 421-116 Ave (Commerce) ARS PO/VO No. PO# 225626  
 PROJECT \_\_\_\_\_ WORK LOCATION PACK SHOP  
 ITEM(S) EXAMINED 2 X VESSELS ACCEPTANCE \_\_\_\_\_  
1 X CHILLER STANDARD CLIENT REV./DATE \_\_\_\_\_  
 PROCEDURE NO. UT-0030 REV./DATE 03/04/20  
 TECHNIQUE NO. UT-0030 REV./DATE 07/01/20

### JOB DESCRIPTION

PART NO. AS SHOWN MATERIAL C/S THICKNESS AS SHOWN  
 SCOPE 0° UT THICKNESS CHECK OF 2 VESSELS & CHILLER

### TEST DETAILS

METHOD  THICKNESS  FLAW DETECTION  CONTACT  IMMERSION  
 INSTRUMENT PANAMETRICS MODEL 3702 S/N 061345302 CAL. DUE DATE 2009/NOV/12  
 CAL. BLOCK CASTLE C/S S/N UT1462 CABLE - TYPE \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CAL. BLOCK \_\_\_\_\_ S/N \_\_\_\_\_ COUPLANT SONOGEL UTX  
 CAL. BLOCK \_\_\_\_\_ S/N \_\_\_\_\_ SPECIAL EQUIP. \_\_\_\_\_

### INFORMATION - TRANSDUCERS & CALIBRATIONS - ALL MEASUREMENTS IN - METRIC IMPERIAL

	TEST ANGLE	PROBE TYPE		FREQ. (MHZ)	SER. No.	PROBE DIA.	TRANSFER VALUE	TEST FROM		REFERENCE REFLECTOR	REFERENCE		SCAN SENSITIVITY	RANGE
		SINGLE	DUAL					FRONT	BACK		dB	% FSH		
1	0°	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.5	558921	625mm	N/A	<input checked="" type="checkbox"/>		2nd BW	N/A	N/A	N/A	50mm
2	45°	<input type="checkbox"/>	<input type="checkbox"/>											
3	60°	<input type="checkbox"/>	<input type="checkbox"/>											
4	70°	<input type="checkbox"/>	<input type="checkbox"/>											
5		<input type="checkbox"/>	<input type="checkbox"/>											

### TEST SURFACE

SURFACE CONDITION  AS GROUND  AS WELDED  MACHINED  SHOT BLASTED  CLEAN BARE METAL  
 SURFACE TEMPERATURE  <0°C(32°F)  0°C(32°F) to 120°C(250°F)  120°C(250°F) to 260°C(500°F)  >260°C(500°F)

### RESULTS

### DRAWING

SEE PG 2 & 3 & 4

### SIGNATURES

CLIENT REPRESENTATIVE Brian Stashko BStashko DTR No. 278458  
 TECHNICIAN (SIGN) \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 PRINT NAME Tim Powerica REPORT REVIEW \_\_\_\_\_ INITIAL \_\_\_\_\_  
 1<sup>ST</sup> TECHNICIAN 2<sup>ND</sup> TECHNICIAN  
 CGSB LEVEL II SNT LEVEL II CGSB LEVEL \_\_\_\_\_ SNT LEVEL \_\_\_\_\_  
 CGSB REG. No. 7654 CGSB REG. No. \_\_\_\_\_

### Scope of Services

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

### Standard of Care

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.



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# NDE CONTINUATION REPORT

REPORT U-32344

## ACUREN

CLIENT

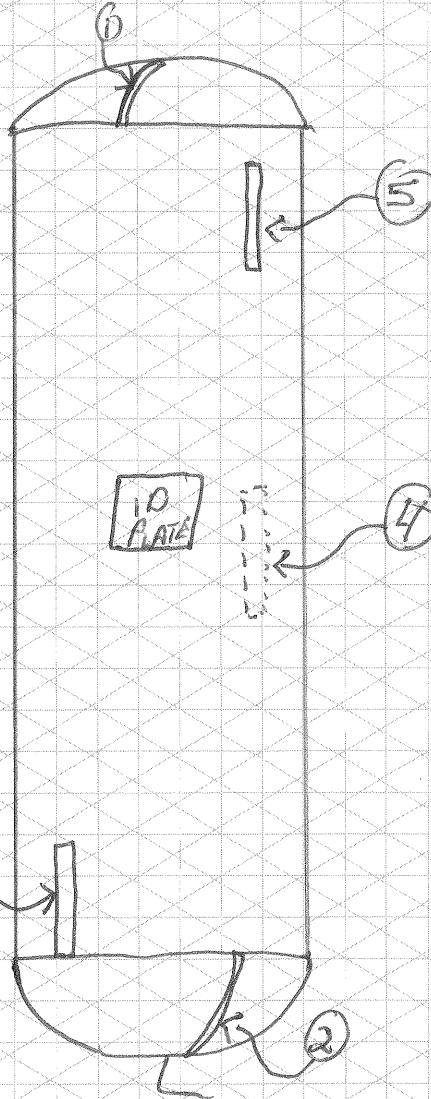
PACE INDUSTRIAL

DATE 2009/FEB/26 PAGE 2 OF 4

### RESULTS

THICKNESS IN MM.

	Low	Nom
① Top Head	18.5	19.1
② Bot Head	17.2	19.0
③ Low Shell	18.7	18.9
④ Mid Shell	18.8	19.0
⑤ Upper Shell	18.9	19.0



A109726  
 ROCKET WELDING  
 CALGARY AB  
 SER# 74/R1-66  
 SASR Gov# 00969

THICKNESS MEASUREMENTS  
 WERE TAKEN THROUGH  
 PAINT.

### SIGNATURES

TECHNICIAN (SIGN)

PRINT NAME:

*[Signature]*  
 Tim Louderback  
 1<sup>st</sup> TECHNICIAN

2<sup>nd</sup> TECHNICIAN/ASSISTANT



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# NDE CONTINUATION REPORT

REPORT U32344

## ACUREN

CLIENT

*PACE INDUSTRIAL*

DATE

*2009/FEB/26*

PAGE

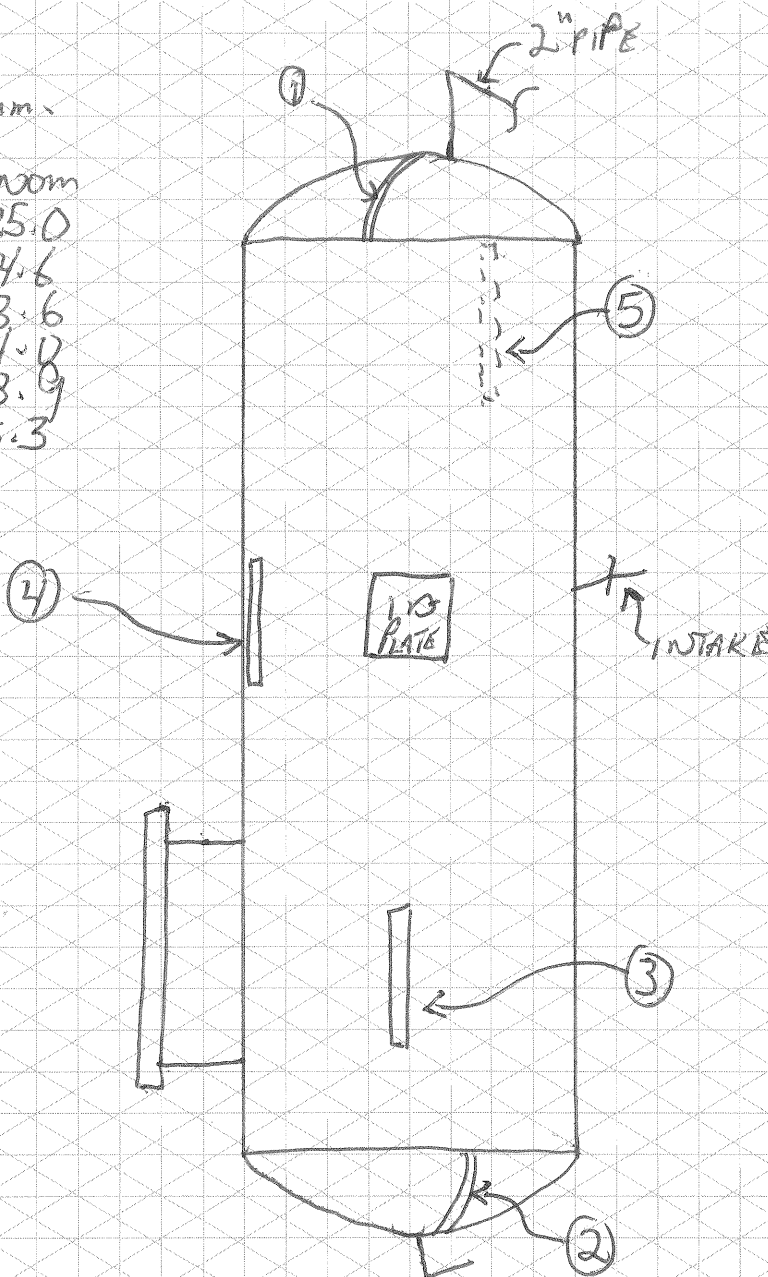
*3* OF *4*

### RESULTS

THICKNESS IN mm.

AREA	LOW	NOM
① TOP HEAD	24.3	25.0
② BOT HEAD	24.3	24.6
③ LOW SHELL	23.4	23.6
④ MID SHELL	23.8	24.0
⑤ UPPER SHELL	23.1	23.9
⑥ 2" RIBW	5.0	5.3

*A 109727*  
*ROCKET WELDING*  
*CALGARY, AB*  
*SER # 74/R1-65*



### SIGNATURES

TECHNICIAN (SIGN)

PRINT NAME:

*[Signature]*  
 \_\_\_\_\_  
 1<sup>st</sup> TECHNICIAN

\_\_\_\_\_  
 2<sup>nd</sup> TECHNICIAN/ASSISTANT



ISO 9001:2000

# NDE CONTINUATION REPORT

REPORT

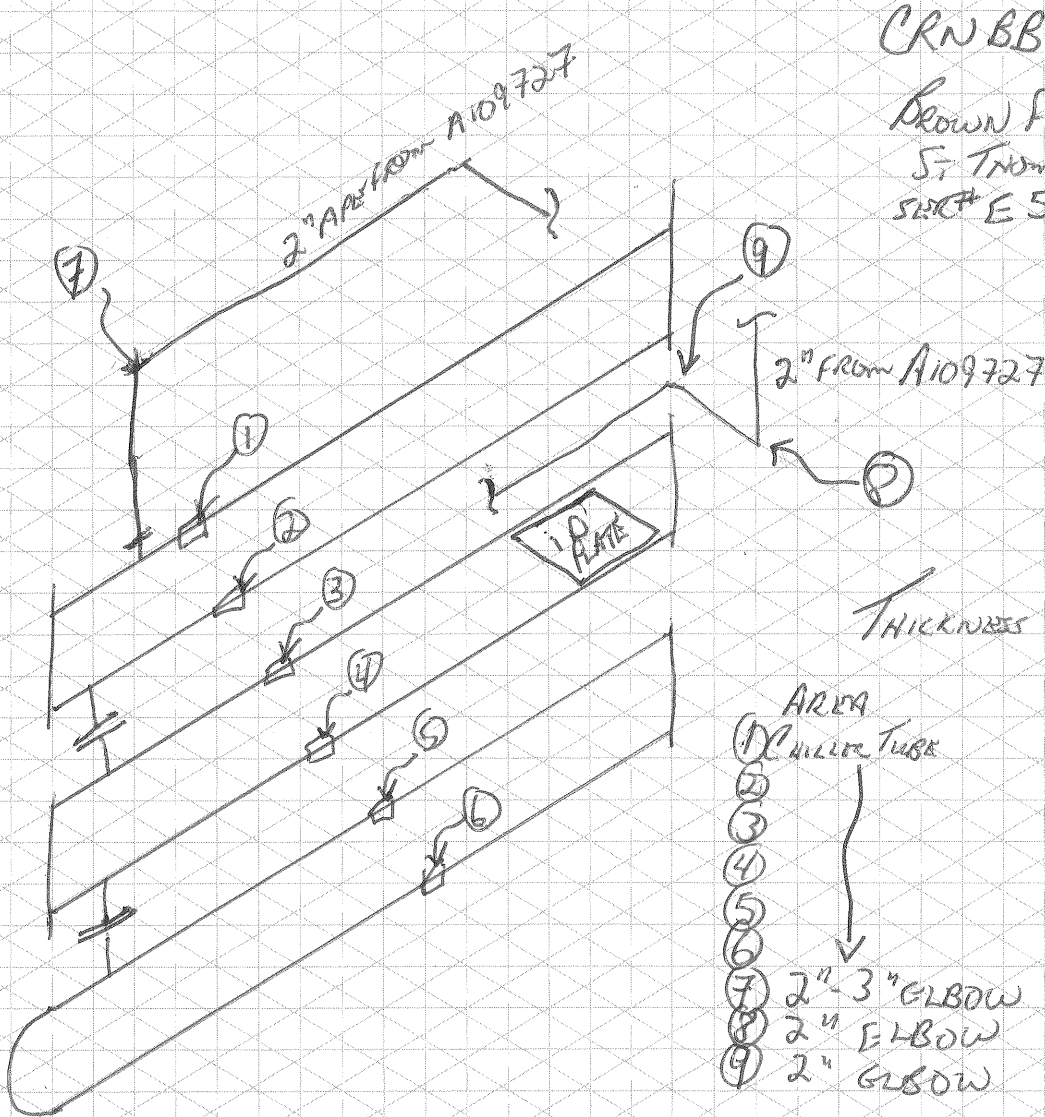
CLIENT

*Pace Industrial*

DATE *2009/Feb/26* PAGE

*4* OF *4*

## RESULTS



*CRN BB 9334.2*  
*BROWN FIN TUBE*  
*ST THOMAS, ON*  
*SER# E 563-73-1*

*THICKNESS IN MM*

AREA	Low	Nom
① <i>1" MILLER TUBE</i>	8.6	8.7
②	8.8	9.0
③	8.3	8.4
④	8.3	8.4
⑤	8.5	8.6
⑥	8.5	8.6
⑦ <i>2" 3" ELBOW</i>	6.8	7.0
⑧ <i>2" ELBOW</i>	3.3	3.5
⑨ <i>2" ELBOW</i>	3.5	3.6

## SIGNATURES

TECHNICIAN (SIGN)

PRINT NAME:

*[Signature]*  
 \_\_\_\_\_  
 \_\_\_\_\_  
 1<sup>ST</sup> TECHNICIAN

\_\_\_\_\_  
 \_\_\_\_\_  
 2<sup>ND</sup> TECHNICIAN/ASSISTANT

# Certificate of Inspection Permit

**JAYCOR RESOURCES INC**

4725 68 AVENUE

EDMONTON, AB  
T6B 2N2

Max. Inspection Interval: 1.00 Yr.

Year Built: 1974

CRN: B9619.2

Serial #: 74RI-67

Volume: 0.500 M3

Heating Surface:

Surface Area:

COMPANY CODE:

DESCRIPTION: FLOAT CAGE

LOCATION: 4725 68 AVE, EDMONTON

MANUFACTURER: ROCKET INDUSTRIES LTD.

**COPY**

Pressure Relief Valves

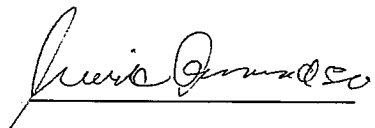
PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	7446 KPA	149 C		SV1			TO BE INSTALLED

**Terms and Conditions:**

Owner to establish and maintain an integrity assessment program for this pressure equipment.

'PSV ON A#0109727'

**Permit Issued by: AMUNDSON, WIL**

Signature: 

**NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:**

An owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of.

The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.

# Certificate of Inspection Permit

JAYCOR RESOURCES INC

4725 68 AVENUE  
EDMONTON, AB  
T6B 2N2

Max. Inspection Interval: Yr.

Year Built: 2009

CRN: 1368.92

Serial #: 28629

Volume: 0.210 M3

Heating Surface:

Surface Area:

COMPANY CODE:

DESCRIPTION: REFRIGERANT RECEIVER

LOCATION: 4725-68 AVE, EDMONTON

MANUFACTURER: HENRY TECHNOLOGIES INC

**COPY**

Pressure Relief Valves

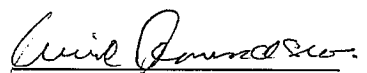
PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	2758 KPA	343 C	-29 C	SV1	2758 KPA	11 M3/MIN	VESSEL
				SV2	2758 KPA	11 M3/MIN	VESSEL

**Terms and Conditions:**

NOT SUBJECT TO ANNUAL FEES AS PER INFORMATION BULLETIN IB06-001 (e) (iv)  
PRESSURE VESSELS HAVING A VOLUME NOT EXCEEDING 0.5 M3 (500 LITRES) THAT ARE DESIGNATED FOR THE FOLLOWING USES: VESSELS CONTAINING A GROUP A1 REFRIGERANT AND IN MECHANICAL REFRIGERATION SERVICE;

Owner to establish and maintain an integrity assessment program for this pressure equipment.

Permit Issued by: AMUNDSON, WIL

Signature: 

**NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:**

An owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of.

The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.

# Certificate of Inspection Permit

**JAYCOR RESOURCES INC**

4725 68 AVENUE  
EDMONTON, AB  
T6B 2N2

Max. Inspection Interval: 1.00 Yr.

Year Built: 1971

CRN: B9591.2

Serial #: 74RI-65

Volume: 0.272 M3

Heating Surface:

Surface Area:

COMPANY CODE:

DESCRIPTION: LOW TEMPERATURE SEPARATOR

LOCATION: 4725 68 AVE, EDMONTON

MANUFACTURER: ROCKET INDUSTRIES LTD.

**COPY**

Pressure Relief Valves

PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	7446 KPA	149 C		SV1	6895 KPA	98 M3/MIN	VESSEL PIPING

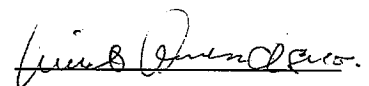
**Terms and Conditions:**

Owner to establish and maintain an integrity assessment program for this pressure equipment.

'PSV SERVICED 2009-04. UT DONE BY ACUREN 2009-2-26. RECOMMEND HYDRO BE DONE BEFORE PLACING VESSEL INTO SERVICE'

Permit Issued by: AMUNDSON, WIL

Signature:



**NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:**

An owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of.

The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.

# Certificate of Inspection Permit

JAYCOR RESOURCES INC

4725 68 AVENUE  
EDMONTON, AB  
T6B 2N2

Max. Inspection Interval: 1.00 Yr.

Year Built: 1974

CRN: B9592.2

Serial #: 74RI-66

Volume: 0.190 M3

Heating Surface:

Surface Area:

**COPY**

**COMPANY CODE:**

DESCRIPTION: PRODUCT FLASH TANK

LOCATION: 4725 68 AVE, EDMONTON

MANUFACTURER: ROCKET INDUSTRIES LTD.

**Pressure Relief Valves**

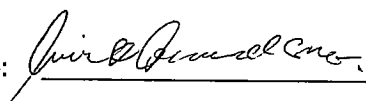
PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	7446 KPA	149 C		SV1	6895 KPA	98 M3/MIN	VESSEL PIPING

**Terms and Conditions:**

Owner to establish and maintain an integrity assessment program for this pressure equipment.

'PSV SERVICED 2009-04. UT DONE BY ACUREN 2009-2-26. RECOMMEND HYDRO BE DONE BEFORE PLACING VESSEL INTO SERVICE'

Permit Issued by: AMUNDSON, WIL

Signature: 

**NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:**

An owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of.

The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.



**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
 (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Henry Technologies/AC&R Components, 701 South Main St., Chatham, IL 62629  
 (Name and address of manufacturer)

2. Manufactured for Stock  
 (Name and address of purchaser)

3. Location of installation Unknown  
 (Name and address)

4. Type: Separator 28628 - 28629 1368.9C RF-14084 Rev. C 28628 - 28629 2009  
 (Horiz. or vert., tank) (Mfr's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year Built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2007 Edition  
 Year

to 2008 Addenda 1518-5  
 Addenda (Date) Code Case Nos. Special Service per UG-120(d)

6. Shell: SA-53 Gr. B .312" 0" 14.00" 6' 1.95"  
 Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: E None 85% - - Type 2 None 65 1  
 Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. % No. of Courses

8. Heads: (a) Mat'l. SA-516 Gr. 70 (b) Mat'l. SA-516 Gr. 70  
 (Spec. No., Grade) (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	.235"	0"	-	-	2:1	-	-	-	Concave
(b)	End	.235"	0"	-	-	2:1	-	-	-	Concave

If removable, bolts used (describe other fastenings) \_\_\_\_\_  
 (Mat'l Spec. No., Grade, Size, No.)

9. MAWP 400 \_\_\_\_\_ psi at max. temp. 650 \_\_\_\_\_ °F.  
 (internal) (external) (internal) (external)

Min. design metal temp. -20 °F at 400 psi. Hydro, pneu., or comb. test press. 440 psi.

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Material	How Attached	Location
Inlet	1	2.375"	Flange	SA-53 Gr. B	.135"	Integral	Welded	-
Outlet	1	1.75"	Thread	SA-106 Gr. B	.179"	Integral	Welded	-
NPT Conn.	2	.50"	Thread	SA-105	.205"	Integral	Welded	-

11. Supports: Skirt No Lugs - Legs - Others Mounting Brkt Attached Welded to Shell  
 (Yes or no) (No.) (No.) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: Vessel for non-corrosive service  
 (Name of part, item number, Mfr's. name and identifying stamp)

Exempt from Charpy Impact Testing per UCS-66(b)

**CERTIFICATE OF SHOP/FIELD COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 20,159  
 expires April 1, 2010  
 Date March 2, 2009 Co. Name Henry Technologies/AC&R Components Signed [Signature]  
 (Manufacturer) (Representative)

**CERTIFICATE OF SHOP/FIELD INSPECTION**

Vessel constructed by Henry technologies/AC&R Components at Chatham, IL  
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Illinois and employed by Hartford Steam Boiler of CT  
 have inspected the component described in this Manufacturer's Data Report on March 2, 2009, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.  
 Date March 2, 2009 Signed [Signature] Commissions NB11874AB IL1898  
 (Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)



GOVERNMENT OF THE PROVINCE OF ALBERTA  
DEPARTMENT OF MANPOWER AND LABOUR  
BOILERS BRANCH

# MANUFACTURERS' SPECIFICATIONS

FOR UNFIRED PRESSURE VESSEL  
(Use Reverse Side for Heat Exchangers)

NOTE: Specifications and Blueprints of designs must be submitted in triplicate, in accordance with Part 1, Section 4 of the Regulations.

TO ACCOMPANY DRAWING NO. ....

Registration No. ....  
(If already approved in some other Province give Reg. No.)

1. Manufactured by: Rocket Industries Ltd.  
(Name and Address)
2. Type of Vessel: Product Flash Tank Service Condensate Non-Corrosive  
(Water, oil or gas, etc., if non-corrosive specify)
3. Design Press. 1080 p.s.i. @ 300 °F Fabrication to A.S.M.E. Code, Para. No. UW-12 (A) 71  
(Year)
4. Max. allow. Press. New & Cold. 1080 Hydrostatic Test Press. 1620 p.s.i.
5. Welding Procedure Regist. No. WP 415 RW 1&2 Preheat NA °F, Post Heat NA  
(Yes or No)
6. Shell: Material A-53 B T.S. 60,000 Thickness .938 Corr. Allow. .125  
(Give A.S.M.E. or A.S.T.M. Spec. No.)
7. Shell Dia. 14" O.D. Length between Tans. 6'7 1/2" Length O.A. 7' 1" Cap. Cu. Ft. 6.05
8. Seams: Long Seamless Effy. % 100 Girth Butt Effy. % 85 X.R. Partial  
(Type of Joint) (Spot or Complete)
9. Heads: Material (a) A-516-70 (b) ..... (c) .....  
T.S. (a) 70,000 (b) ..... (c) .....

Head Location	Hot or Cold Formed	Min. Thick. After Forming	Corrosion Allowance	Crown Radius	Knuckle Radius	Ellip. Ratio	L'gh Str. Flange	Conical Angle	Hemisph. Radius	Flat Dia. "d"	Side to Prest
Top (a)											
Bottom (b)											
Intermed. (c)											

- (a) If Removable:  
Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "in" factor O/D I/D
- (b) If Removable:  
Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "in" factor O/D I/D
- (c) If Removable:  
Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "in" factor O/D I/D

10. Staybolts ..... Max. Pitch X  
Material, No., Dia. at root of thread (Floris.) (Vertical)

11. Inspection Openings: Manholes: No. .... Size ..... Location .....  
Handholes: No. .... Size ..... Location .....  
Threaded: No. 2 Size 2" Location Top Seam Butt Seam

12. Safety Valve Outlets: Number ..... Size ..... Location .....

13. Supports: Skirt Yes Lugs ..... Legs ..... Other ..... Attached .....

14. Nozzles & Manholes

Di. or Size	Material	Wall Thickness	Reinforcing Ring Width, Thickness	Flange Rating	No. of Nozzles	Cover Rating or Thickness

SIGNATURE FOR MANUFACTURER Boyle N. Chenoweth Date Jan. 3, 1974  
NOTE: Specifications will not be accepted unless certified.

FOR DEPARTMENTAL USE ONLY: Approved for 1080 p.s.i. @ 300 Deg. F.  
Date 21 2 1974 Certified by [Signature] Registration No. B-992.2



# MANUFACTURERS' SPECIFICATIONS

## FOR UNFIRED PRESSURE VESSEL

(Use Reverse Side for Heat Exchangers)

NOTE: Specifications and Blueprints of designs must be submitted in triplicate, in accordance with Part 1, Section 4 of the Regulations.

TO ACCOMPANY DRAWING NO. \_\_\_\_\_

Registration No. \_\_\_\_\_  
(If already approved in some other Province give Reg. No.)

- Manufactured by: Rocket Industries Ltd.  
(Name and Address)
- Type of Vessel: Low Temperature Separator Service Oil & Gas Non-Corrosive  
(Water, oil or gas, etc., if non-corrosive specify)
- Design Press. 1080 p.s.i. @ 300 °F Fabrication to A.S.M.E. Code, Para. No. UW-12 (A) 71  
(Year)
- Max. allow. Press. New & Cold. 1080 Hydrostatic Test Press. 1620 p.s.i.
- Welding Procedure Regist. No. WP 415 RW 1&2 Preheat NA °F. Post Heat NA  
(Yes or No)
- Shell: Material A-53B T.S. 60,000 Thickness .938 Corr. Allow. .125  
(Give A.S.M.E. or A.S.T.M. Spec. No.)
- Shell Dia. 18" O.D. Length between Tans. \_\_\_\_\_ Length O.A. \_\_\_\_\_ Cap. Cu. Ft. \_\_\_\_\_
- Seams: Long Seamless Effy. % 100 Girth Butt Effy. % 85 X.R. Partial  
(Type of Joint) (Type of Joint) (Spot or Complete)
- Heads: Material (a) A. 516-70 (b) \_\_\_\_\_ (c) \_\_\_\_\_  
T.S. (a) 70,000 (b) \_\_\_\_\_ (c) \_\_\_\_\_

Head Location	Hot or Cold Formed	Min. Thick. After Forming	Corrosion Allowance	Crown Radius	Knuckle Radius	Ellip. Ratio	Lght. Str. Flange	Conical Angle	Hemisph. Radius	Flat Dia. 'd'	Side-to Press
Top (a)											
Bottom (b)											
Intermed. (c)											

- Staybolts \_\_\_\_\_  
Material, No., Dia. at root of thread \_\_\_\_\_ Max. Pitch \_\_\_\_\_  
(Horiz.) (Vertical)
- Inspection Openings: Manholes: No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Handholes: No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded: No. 1 Size 2" Location Top Seam
- Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
- Supports: Skirt Yes Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) No. No.

Nozzles & Manholes	Dia. or Size	Material	Wall Thickness	Reinforcing Ring Width, Thickness	Flange Rating	No. of Nozzles	Cover Rating or Thickness
	<u>2"</u>	<u>A 53B</u>	<u>.343</u> <del>.228</del>	<u>None</u>	<u>600</u>	<u>2</u>	<u>600</u>

SIGNATURE FOR MANUFACTURER Doyle N. Chenoweth Date Jan. 3/74  
NOTE: Specifications will not be accepted unless certified.

FOR DEPARTMENTAL USE ONLY: Approved for 1080 p.s.i. @ 300 Deg. F.  
Date 21 2 1974 Certified by [Signature] Registration No. B-9591.2  
Day Month Year



# MANUFACTURERS' SPECIFICATIONS

## FOR UNFIBED PRESSURE VESSEL

(Use Reverse Side for Heat Exchangers)

B - 9619.2

NOTE: Specifications and Blueprints of designs must be submitted in triplicate, in accordance with Part 1, Section 4 of the Regulations.

TO ACCOMPANY DRAWING NO. 673-3-5

Registration No. B-9619.2  
(If already approved in some other Province give Reg. No.)

- Manufactured by: ROCKET INDUSTRIES, 4303 5th Street S.E., Calgary, Alberta  
(Name and Address)
- Type of Vessel: Ext. Level Cont. Float Cage Service Glycerol/Water, Condensate  
(Water, oil or gas, etc., if non-corrosive specify)
- Design Press. 1080 p.s.i. @ 300 °F Fabrication to A.S.M.E. Code, Para. No. UW12(B)71  
(Year)
- Max. allow. Press. New & Cold. 1080 Hydrostatic Test Press. 1620 p.s.i.
- Welding Procedure Regist. No. WP415 RW Preheat NA °F. Post Heat NA (Yes or No)
- Shell: Material A-53-B T.S. 60,000 Thickness .237 Corr. Allow. None  
(Give A.S.M.E. or A.S.T.M. Spec. No.)
- Shell Dia. 4" Length between Tans. 26.39/64" Length O.A. Cap. Cu. Ft. .21
- Seams: Long Seamless Effy. % 100 Girth Butt. Effy % 80 X.R. Spot  
(Type of Joint) (Type of Joint) (Spot of Complete)
- Heads: Material (a) A-234 WPB (b) (c)

Head Location	Hot or Cold Formed	Min. Thick. After Forming	Corrosion Allowance	Crown Radius	Knuckle Radius	Ellip. Ratio	L'gth Str. Flange	Critical Angle	Hemisp. Radius	Flat Dia. 'd'	Side to Press
Top (a)											
Bottom (b)											
Intermed. (c)											

- If Removable: Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "m" factor O/D I/D
- If Removable: Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "m" factor O/D I/D
- If Removable: Bolts Used: No. Dia. Area at Root of Thread Spec. No. Gasket Mat'l "m" factor O/D I/D
- Staybolts: Material, No., Dia. at root of thread Max. Pitch (Horizontal) X (Vertical)
- Inspection Openings: Manholes: No. Size Location  
Handholes: No. Size Location  
Threaded: No. Size Location
- Safety Valve Outlets: Number Size Location
- Supports: Skirt (Yes or No) L No. Legs No. Other Attached

Nozzles & Manholes	Dia. or Size	Material	Wall Thickness	Reinforcing Ring Width, Thickness	Flange Rating	No. of Nozzles	Cover Rating or Thickness

SIGNATURE FOR MANUFACTURER Royce S. Chewer Date Jan. 21, 1974  
NOTE: Specifications will not be accepted unless certified.

FOR DEPARTMENTAL USE ONLY: Approved for 1080 p.s.i. @ 300 Deg. F.  
Date 15 FEBRUARY 1974 Certified by M.S. Smith Registration No. B-9619.2

FILES RECEIVED

DATE \_\_\_\_\_, 19\_\_\_\_  
(Department use only)



ONTARIO IDENTIFICATION NO. 5,298626  
Item No. 2  
OWNER'S NO. P.O. 673-3-3

MINISTRY OF LABOUR  
BOILERS AND PRESSURE VESSELS  
400 UNIVERSITY AVENUE  
TORONTO 2, ONTARIO

# AFFIDAVIT of MANUFACTURER

## Covering a Boiler or Pressure Vessel

Upon completion of Boiler or Pressure Vessel this form fully and correctly filled in and attested to must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under The Act governing the construction and installation of boilers and pressure vessels, otherwise the use of same may be prohibited or the working pressure severely penalized. **SEND ONE COPY ONLY.**

Manufactured by Brown Fintube Engineering Limited, St. Thomas, Ontario.

Manufactured For Trencham Canada Limited, Calgary, Alberta.

Ultimate owner Rocket Industries,

Location and installation Calgary, Alberta.

2. Type of boiler or pressure vessel Heat Exchanger Mfr's Serial No. E-563-73-3

Canadian Registration No. B9334.2 (Ontario) Drwg. No. CAS-1412

To be used for: (Air, CO2, Propane, Ammonia, Steam, Hot Water, etc.) Sweet Natural Gas/Freon 12

3. Dia. 4" IPS Overall Length 26' - 10 1/8" Cu. ft. capacity \_\_\_\_\_ Heating surface 72 sq. ft.

4. Were test reports checked on all plates used in the fabrication of this vessel? YES

Does all material meet A.S.M.E. Code requirements? YES

A.S.M.E., A.S.T.M. or other material specification No. SA53 GR B Tensile strength 60000

5. If welded or brazed, what paragraph of Code: ASME SECT. VIII UW12c

Was vessel stress relieved? NO Was vessel X-Rayed? NO

Are the following records on mfr's files? X-ray films NO Stress relieving procedure NO

Were the X-ray films examined and found to meet Code requirements? NO

6. Welders employed upon vessel.

Name of welder and Province or State in which qualified	Identifying Symbol	Date of last weld test	Qualified for welding under Code Para.	Name of Inspector Supervising tests	National Board No.
G. Clinansmith	BFT 4	5/1/73	Sect. IX	SG	
A. Mellor	" 6	22/1/74	"	JFT	
P. Forbes	" 8	26/3/73	"	SG	
F. Horst	" 10	10/8/73	"	"	

Does all welding on this vessel and the testing of coupons where required meet A.S.M.E. Code requirements? YES

7. Hydrostatic tests and working Pressures

NAME OR PART	Hammer tested at psi.	Final test psi.	Maximum working pressure psi.	Maximum operating temperature degrees F.
Shell		1500	1000	650
Tub.		1500	100	650

Did the hydrostatic tests fully conform to Code requirements? YES

8. SAFETY VALVES:—

No. of Valves	Maker's Name, Trade Mark or Type No.	Provincial Registration No.	Inlet Diameter	Seat Diameter	Set to relieve at psi.	Free discharge area	Capacity lbs. per hour
On Line							

FOR POWER AND HEATING BOILERS (on attached plate for cast iron)

STAMPING TO BE REPRODUCED HERE

Canadian Registration number (Ontario)

National Board number (if manufactured in U.S.A.)

Manufacturer and manufacturers' serial number

Ontario identification number

Plate mfr's initials, spec. no. and tensile strength

Maximum working pressure (for S. and W. if both)

Heating surface and year built

Initials of authorized provincial shop inspector

C.R.N.

Nat. Bd.

Sr. No.

T.S.

Max. W.P.

H.S.

UNFIRED PRESSURE VESSEL — STAMPING TO BE REPRODUCED HERE

Canadian Registration number (Ontario)

National Board number (if manufactured in U.S.A.)

Manufacturer and manufacturers' serial number

Ontario identification number

Plate mfr's initials, spec. no. and tensile strength

Maximum working pressure and temperature

Thickness of shell and heads

Code paragraph number and year built

Initials of authorized provincial shop inspector

C.R.N. B9334.2

H.S.T.

MAK

E-563-73-3

Brown Fintube Engineering Limited

Sr. No.

5.298626

U.S.S. SA53 GR B T.S. 60000

Shell 1000 Shell 650

Max. W.P. Tube 1000 Temp. Tube 650

T. Shell .337 T. Heads 1.75

U. W12c 31-1-74

JFT

10. I HEREBY DECLARE that the foregoing statements, having reference to Vessel bearing manufacturers' Serial No. E-563-73-3 built by Brown Fintube Engineering Limited, St. Thomas, Ontario and completed on the 31 day of January, 1974 are in all respects correct and true, and that the said Vessel has been built in accordance with the Provincial registered design C.R.N. B9334.2 and that it complies fully with the A.S.M.E. Code regulations of the Province of Installation under The Act governing the construction of boilers and pressure vessels.

Sworn before me at St. Thomas Ontario in the Province (or State) of Ontario this 31 day of January, 1974. A Commissioner of Oaths. My commission expires February 24, 1975.

Signed Douglas Stentishan Shop Foreman For BROWN FINTUBE ENGINEERING LIMITED, ST. THOMAS, Ontario.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, a duly authorized Inspector of Boilers and Pressure Vessels, employed by Province of Ontario do hereby certify that the foregoing statements are correct and that the material, construction and workmanship are in accordance with the A.S.M.E. Code.

Date 31.01.74

Signed

Provincial or National Board Inspector

FEE RECEIVED

DATE (Department use only) 19



ONTARIO IDENTIFICATION NO. 5.298625

OWNER'S NO. Item No. 1 P.O. 673-3-3

MINISTRY OF LABOUR BOILERS AND PRESSURE VESSELS 400 UNIVERSITY AVENUE TORONTO 2, ONTARIO

AFFIDAVIT of MANUFACTURER Covering a Boiler or Pressure Vessel

Upon completion of Boiler or Pressure Vessel this form fully and correctly filled in and attested to must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under The Act governing the construction and installation of boilers and pressure vessels, otherwise the use of same may be prohibited or the working pressure severely penalized. SEND ONE COPY ONLY.

Manufactured by Brown Finetube Engineering Limited, St. Thomas, Ontario.

Manufactured For Trenton Canada Limited, Calgary, Alberta.

Ultimate owner Rock-e Industries,

Location and installation Calgary, Alberta.

2. Type of boiler or pressure vessel Heat Exchanger Mfr's Serial No. E-563-73-1-2

Canadian Registration No. B9334.2 (Ontario) Drwg. No. CAS-1411

To be used for: (Air, CO2, Propane, Ammonia, Steam, Hot Water, etc.) Sweet Natural Gas/Sweet Nat. Gas

3. Dia. 4" IPS Overall Length 21'-10 1/8" Cu. ft. capacity Heating surface 58 sq. ft.

4. Were test reports checked on all plates used in the fabrication of this vessel? YES

Does all material meet A.S.M.E. Code requirements? YES

A.S.M.E., A.S.T.M. or other material specification No. SA53 GR. B Tensile strength 60000

5. If welded or brazed, what paragraph of Code: ASME SECT. VIII UW12c

Was vessel stress relieved? NO Was vessel X-Rayed? NO

Are the following records on mfr's files? X-ray films NO Stress relieving procedure NO

Were the X-ray films examined and found to meet Code requirements? NO

6. Welders employed upon vessel.

Table with 6 columns: Name of welders and Province or State in which qualified, Identifying Symbol, Dates of last weld test, Qualified for welding under Code Para., Name of Inspector Supervising tests, National Board No.

Does all welding on this vessel and the testing of coupons where required meet A.S.M.E. Code requirements? YES

Table with 5 columns: NAME OR PART, Hammer tested at psi, Final test psi, Maximum working pressure psi, Maximum operating temperature degrees F.

Did the hydrostatic tests fully conform to Code requirements? YES

8. SAFETY VALVES:-

Table with 8 columns: No. of Valves, Maker's Name, Trade Mark or Type No., Provincial Registration No., Inlet Diameter, Seat Diameter, Set to relieve at psi, Free discharge area, Capacity lbs. per hour.

**FOR POWER AND HEATING BOILERS (on attached plate for cast iron)**

**STAMPING TO BE REPRODUCED HERE**

Canadian Registration number (Ontario)

C.R.N. ....

National Board number (if manufactured in U.S.A.)

Nat. Bd. ....

Manufacturer and manufacturers' serial number

Sr. No. ....

Ontario identification number

Plate mfr's initials, spec. no. and tensile strength

T.S. ....

Maximum working pressure (for S. and W. if both)

Max. W.P. .... lbs

Heating surface and year built

H.S. .... Ft.

Initials of authorized provincial shop inspector

**UNFIRED PRESSURE VESSEL — STAMPING TO BE REPRODUCED HERE**

Canadian Registration number (Ontario)

C.R.N. .... 89334.2

National Board number (if manufactured in U.S.A.)

H.S.T. ....  
MAX. .... 158

Manufacturer and manufacturers' serial number

Brown Fintube Engineering Limited Sr. No. E-563-73-1  
-2

Ontario identification number

5.298625

Plate mfr's initials, spec. no. and tensile strength

U.S.S. & MANN. SA53 GR B T.S. 60000

Maximum working pressure and temperature

Shell 1000 Shell 650  
Max. W.P. Tube 1000 Temp Tube 650

Thickness of shell and heads

r. Shell .337 T. Heads 1.75

Code paragraph number and year built

U. W12c 31-1-74

Initials of authorized provincial shop inspector

JFT

10. I HEREBY DECLARE that the foregoing statements, having reference to Vessel bearing manufacturers' Serial No. E-563-73-1-2 built by Brown Fintube Engineering Limited, St. Thomas, Ontario and completed on the 31 day of January, 1974 are in all respects correct and true, and that the said Vessel has been built in accordance with the Provincial registered design C.R.N. B9334.2 and that it complies fully with the A.S.M.E. Code regulations of the Province of Installation under The Act governing the construction of boilers and pressure vessels.

Sworn before me at St. Thomas, Ontario  
in the Province (or State) of Ontario  
this 31 day of January, 1974  
A Commissioner of Oaths  
My commission expires February 24, 1975

Signed: *Doyle's*  
Shop Foreman  
For BROWN FINTUBE ENGINEERING LIMITED,  
ST. THOMAS, Ontario.

**CERTIFICATE OF SHOP INSPECTION**

I, the undersigned, a duly authorized Inspector of Boilers and Pressure Vessels, employed by .....  
Province of Ontario  
do hereby certify that the foregoing statements are correct and that the material, construction and workmanship are in accordance with the A.S.M.E. Code.

Date 31.01.74 Signed: *[Signature]* No. 20  
Provincial or National Board Inspector.



**BROWN FIN TUBE ENGINEERING LTD.**

ST. THOMAS ONTARIO CANADA  
PATENTED CANADA

ITEM	1	SERIAL	E563-73-1
ORDER	673-3-3		
C.B.N. No.	R9334.2	TYPE	15-81000-220
NAT'L. BD. No.		HEAD TH	1.75
ONT. IDEN. No.	5.298625	SHELL TH	.837
SURFACE SQ. FT.	58	TUBE H.	.095
MAT'L. SPEC.	MANN. SA536P8	T.S.	60,000
S.R.		SHELL	TUBE
MAX. DESIGN PRESS. PSIG.		1000	1000
MAX. DESIGN TEMP. °F.		650	650
A.S.M.E. UW1 C	YEAR BUILT	1974	INSP. J.F.

**BROWN FIN TUBE ENGINEERING LTD.**

ST. THOMAS ONTARIO CANADA  
PATENTED CANADA

ITEM 1 SERIAL F523-73-2

ORDER 15-81100-222

C.R.N. No. TYPE 15-81100-222

NAT'L. BD. No. HEAD TH

ONT. IDEN. No. 5 29895 SHELL TH

SURFACE SPT. 5P TUBE TH 005

MAT'L SPEC USS S4536RB T.S. 60,000

SH X.R. HELL TUBE

MAX. DESIGN PRESS. PSIG. 1000

MAX. DESIGN TEMP. °F. 650

ASME UWI 2C YEAR BUILT 1974

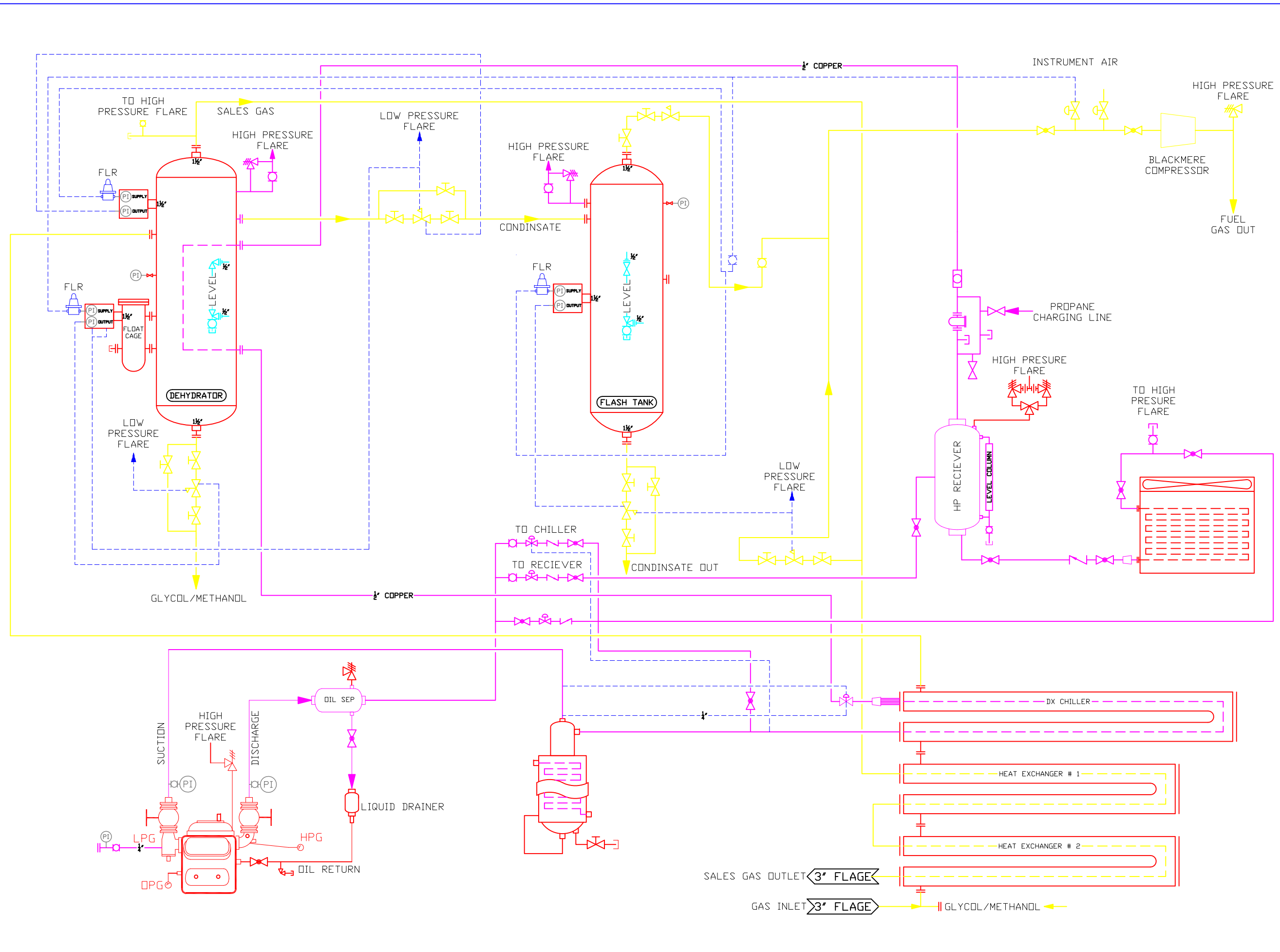
INSP DATE

**BROWN FIN TUBE ENGINEERING LTD.**

ST. THOMAS ONTARIO CANADA  
PATENTED CANADA

ITEM	2	SERIAL	E503-73-3
ORDER	673-3-3		
C.R.N. No.	39334.2	TYPE	15-81000-225
NAT'L. BD. No.		HEAD TH.	1.75
ONT. IDEN. No.	5.208626	SHELL TH.	.337
SURFACE SQ. FT.	72	TUBE TH.	.095
MAT'L. SPEC.	USS-SA53GRB	T.S.	60,000
S.R.	X.R.	SHELL	TUBE
MAX. DESIGN PRESS. PSIG.	1000		1000
MAX. DESIGN TEMP. °F.	650		650
A.S.M.E.	UV12C	YEAR BUILT	1974
		INSP.	JET

REVISION	DATE
△	NONE
△	NONE
△	NONE
△	NONE



APPROVED BY \_\_\_\_\_

- UNCONTROLLED COPY
- CONTROLLED COPY # \_\_\_\_\_

JOB LOCATION:  
**Edmonton, AB**

JOB TITLE:  
**AS BUILT SKID**

JOB NO: #249934	DATE: OCTOBER 10th, 2008
PROJECT MGR: J. BRDWN	SCALE: NTS
CHECKED BY: NAME	DESIGNED BY: PACE INDUSTRIAL
DRAWN BY: A. FWLER	

DRAWING TITLE:

**REFRIGERATION COVER PAGE**

DRAWING NO:  
**R-3**