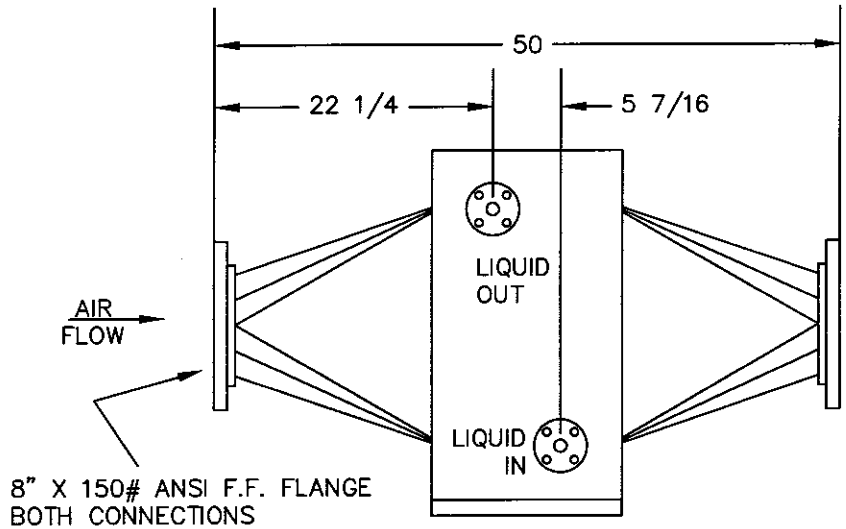
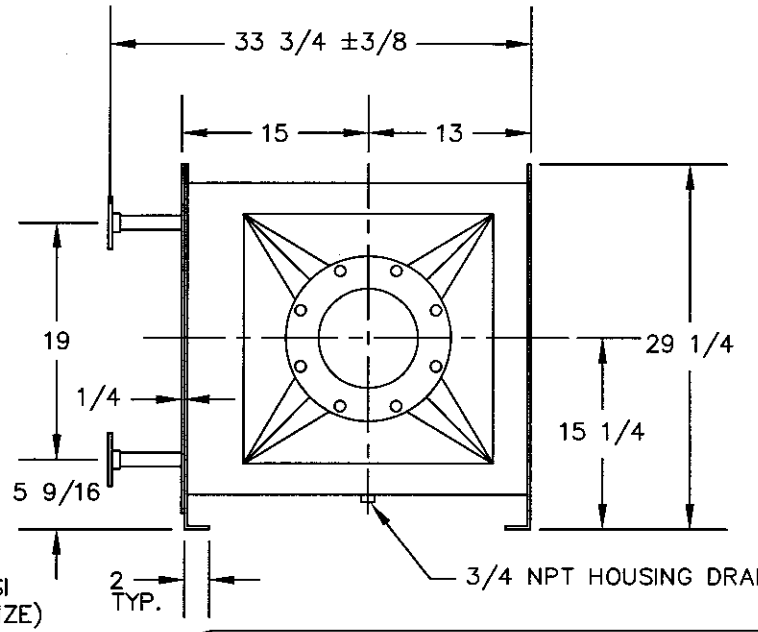
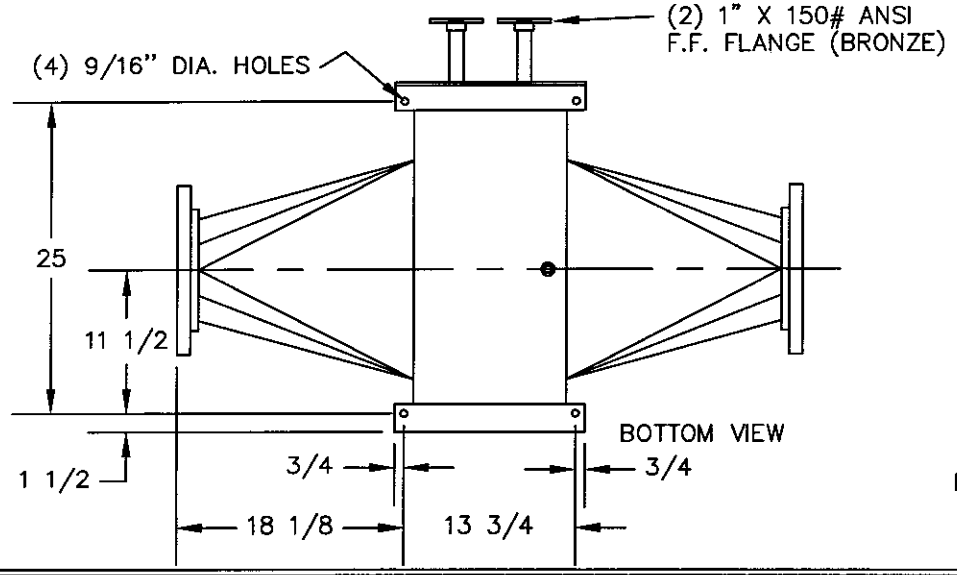
CERTIFIED
DRAWING
Date: 04/16/98

27750







Xchanger Inc.
Hopkins, Minnesota

CUSTOMER P.O.:	018634
STOKES VACUUM, INC.	
MODEL NUMBER:	C-200 P/N: 27750
SERIAL NUMBER:	0997-B5469-3

PERFORMANCE AND CONSTRUCTION PER DATA SHEET #34987
CAUTION: COIL IS NOT DRAINABLE-PROTECT FROM FREEZING

TOLERANCES (UNLESS OTHERWISE NOTED)	Xchanger Inc. 1401 SOUTH 7TH ST HOPKINS, MN 55343	MODEL C-200 HEAT EXCHANGER ASSEMBLY					
DECIMAL ± .13	FRACTIONAL ± 1/8	DRAWN BY: MJR APPROVED BY: .	SCALE: NONE DATE: 04/16/98	JOB NUMBER B5469-3	SHEET 1 OF 1	DRAWING NUMBER 27750	REV. C

Xchanger, Inc. **Rating for Model C-200 ref #34987**

Engineer: Aaron Groh — September 19, 1997

Prepared for:

Stokes Vacuum, Inc.
Rob Battalini
PH: 215-831-5400, FAX: 215-831-5570

PERFORMANCE	**PROCESS MEDIA SIDE**	**SERVICE MEDIA SIDE**
Fluid Circulated	Air	Water
Volumetric Flow Rate	1,104.0 Std. ft^3/min	11.6 gal/min
Total Fluid Entering	4,968.0 lb/hr	5,739.3 lb/hr
Liquid		5,739.3 lb/hr
Vapor		
Non-Condensibles	4,968.0 lb/hr	
Vaporized or (Cond.)		
Temperature In	230.0 °F	85.0 °F
Temperature Out	110.0 °F	110.0 °F
Inlet Pressure (Absolute)	500.000 mm Hg	
Velocity (Standard)	397.4 ft/min	2.8 ft/sec
Pressure Loss	1.9 in. water	1.7 lb/in²
Fouling Factor	0.00010 ft²-°F-hr/BTU	0.00100 ft²-°F-hr/BTU

Total Heat Exchanged: 143,134 BTU/hr

AVERAGE MEDIA PROPERTIES		
Thermal Conductivity	0.01715 BTU/hr-ft-°F	0.35902 BTU/hr-ft-°F
Specific Heat	0.24009 BTU/lb-°F	0.99750 BTU/lb-°F
Absolute Viscosity	0.05037 lb/ft-hr	1.75949 lb/ft-hr
Density	0.04153 lb/ft^3	61.93893 lb/ft^3
Latent Heat of Vapor		

CONSTRUCTION		
Design Temperature	0 to 250 °F	-300 to 400 °F
Design Pressure (Gauge)	-15.0 to 15.0 lb/in²	-15.0 to 150.0 lb/in²
Test Pressure (Gauge)	22.5 lb/in²	300.0 lb/in²
Cyclic Pressure	No	Not Applicable
Test Procedure	Bubble Test	Bubble Test
Design Calculations	Not Supplied	Not Supplied
ASME Code Stamp	Not Applicable	Not Applicable

Tube Material : Copper	Housing Material : Carbon Steel (Primed)
Fin Material : Aluminum	Casing Material : Galvanized Steel
Sealant Material : None	Phenolic Coating : None
Removable core : No	Mist Eliminator : None
Tube Circuit Type: Nontrapped	Gas Flow Dir. : Horizontal
Drawing Number : 10746	Weight (Dry/Wet) : 382 / 396 lb

CONNECTIONS

Process Inlet : 8" ANSI 150 lb
Process Outlet : 8" ANSI 150 lb
Service Inlet : 1 1/8" Tube with 1" Bronze ANSI 150 lb FFF
Service Outlet : 1 1/8" Tube with 1" Bronze ANSI 150 lb FFF

NOTES

Construction material suitability must be determined by customer.
Rotary lobe blower type pulsation must be dampened by a chambered silencer.
This unit must be protected from freezing.
This unit is not designed for cycling process gas pressure.