



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		(N1)		(N2)	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-82-4E1	40 1/8	1019	24 1/2	622	15	381	26	660	2	51	1	25
WS-83-4E1	52 1/8	1324	36 1/2	927	27	686	38	965	2 1/2	64	1	25
WS-84-4E1	64 1/8	1629	48 1/2	1232	39	991	50	1270	3	76	1	25

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE	(N5)	2 (51) NPT
OUTLET	(N2)	AS PER TABLE	(N6)	2 (51) NPT
DRAIN			(N7)	1/2 (13) NPT
VENT	(N4)	3/4 (19)NPT		

DESIGN CONDITIONS				
	SHELL		TUBES	
DESIGN PRESSURE	150 PSIG	1034 KPa	150 PSIG	1034 KPa
DESIGN TEMPERATURE	375 °F	191 °C	375 °F	191 °C
MIN. DESIGN METAL TEMP.	35 °F	1.7 °C	35 °F	1.7 °C
HYDRO. TEST PRESSURE	225 PSIG	1551 KPa	300 PSIG	2068 KPa
CONTENTS	STEAM		WATER	

NOTES:

- SUPPORTS SUPPLIED ONLY IF SPECIFIED ON ORDER.
- NOZZLE SIZES SHOWN ARE RECOMMENDED FOR MAXIMUM EXCHANGER LIFE.
- FABRICATED TO ASME CODE SECTION VIII DIVISION 1 AND LATEST ADDENDA.
- DRAWING IS NOT TO SCALE.
- ALL DIMN'S $\pm 1/8$ (3) UNLESS OTHERWISE SHOWN.

CUSTOMER:
 LOCATION:
 ENGINEER:
 ORDER No.:
 PROJECT/JOB:
 LOCATION:
 TAG: (QUOTE #)

TITLE	G.A. 150 LB. WS SERIES HEAT EXCHANGERS	A R M S T R O N G				NUMBER	WS-8-4P-E1-(3)	REV.	
DATE:	12 / 01 / 94	BY:	D.C.R.	TEL: (416) 755-2291	TEL: (514) 421-2424	TEL: (716) 693-8813	TEL: (44) 120-657-9491		