



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-69-4-1	112 1/2	2858	99	2515	92	2337	109	2769	4	102	1 1/4	32
WS-610-4-1	124 1/2	3162	111	2819	104	2642	121	3073	4	102	1 1/4	32
WS-611-4-1	136 1/2	3467	123	3124	116	2946	133	3378	4	102	1 1/4	32
WS-612-4-1	148 1/2	3772	135	3429	128	3251	145	3683	4	102	1 1/4	32

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	N1	AS PER TABLE	N5	1 1/2 (38) NPT
OUTLET	N2	AS PER TABLE	N6	1 1/2 (38) NPT
DRAIN			N7	1/2 (13) NPT
VENT	N4	3/4 (19) NPT		

NOTES: 1. SUPPORTS SUPPLIED ONLY IF SPECIFIED ON ORDER.
 2. NOZZLE SIZES SHOWN ARE RECOMMENDED FOR MAXIMUM EXCHANGER LIFE.
 3. FABRICATED TO ASME CODE SECTION VIII DIVISION 1 AND LATEST ADDENDA.
 4. DRAWING IS NOT TO SCALE.
 5. ALL DIM'S ±1/8 (3) UNLESS OTHERWISE SHOWN.

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	

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-6-4P-1-(4)	REV.
DATE: 12 / 01 / 94	BY: D.C.R.	TORONTO - CANADA TEL : (416) 755-2291	MONTREAL - CANADA TEL : (514) 421-2424	BUFFALO - N. Y. TEL: (716) 693-8813	COLCHESTER - U.K. TEL: (44) 120-657-9491	