



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-183-4E1	60 7/8	1546	36 5/8	930	21 3/4	552	38	965	10	254	4	102
WS-184-4E1	72 7/8	1851	48 5/8	1235	33 3/4	857	50	1270	10	254	4	102
WS-185-4E1	84 7/8	2156	60 5/8	1540	45 3/4	1162	62	1575	10	254	4	102
WS-186-4E1	96 7/8	2461	72 5/8	1845	57 3/4	1467	74	1880	10	254	4	102
WS-187-4E1	108 7/8	2765	84 5/8	2149	69 3/4	1772	86	2184	10	254	4	102
WS-188-4E1	120 7/8	3070	96 5/8	2454	81 3/4	2076	98	2489	10	254	4	102
WS-189-4E1	132 7/8	3375	108 5/8	2759	93 3/4	2381	110	2794	10	254	4	102
WS-1810-4E1	144 7/8	3680	120 5/8	3064	105 3/4	2686	122	3099	10	254	4	102
WS-1811-4E1	156 7/8	3985	132 5/8	3369	117 3/4	2991	134	3404	10	254	4	102
WS-1812-4E1	168 7/8	4289	144 5/8	3673	129 3/4	3296	146	3708	10	254	4	102
WS-1813-4E1	180 7/8	4594	156 5/8	3978	141 3/4	3600	158	4013	10	254	4	102
WS-1814-4E1	192 7/8	4899	168 5/8	4283	153 3/4	3905	170	4318	10	254	4	102
WS-1815-4E1	204 7/8	5204	180 5/8	4588	165 3/4	4210	182	4623	10	254	4	102

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	N1	AS PER TABLE	N5	4 (102) NPT
OUTLET	N2	AS PER TABLE	N6	4 (102) NPT
DRAIN	N3	3/4 (19) NPT	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	125 PSIG	862 KPa
DESIGN TEMPERATURE	375 °F	191 °C	375 °F	191 °C
MIN. DESIGN METAL TEMP.	40 °F	4.4 °C	40 °F	4.4 °C
HYDRO. TEST PRESSURE	225 PSIG	1551 KPa	250 PSIG	1723 KPa
CONTENTS	STEAM		WATER	

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

TITLE	A R M S T R O N G				NUMBER	REV.
G.A. 150 LB. WS SERIES HEAT EXCHANGERS	TORONTO - CANADA	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-18-4P-E1	
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		