



EXCHANGER SIZE	DIMENSIONS															
	A		B		C		D		E		F		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-223-4E4	70 1/4	1784	32 3/8	822	19 3/4	502	40	1016	15 3/4	400	21 1/2	546	10	254	3 NPT	76
WS-224-4E4	82 1/4	2089	44 3/8	1127	31 3/4	807	52	1321	15 3/4	400	21 1/2	546	10	254	3 NPT	76
WS-225-4E4	94 1/4	2394	56 3/8	1432	43 3/4	1111	64	1626	15 3/4	400	21 1/2	546	10	254	3 NPT	76
WS-226-4E4	108 1/4	2750	69 3/8	1762	53 1/4	1353	76	1930	15 3/4	400	24	610	12	305	4 FLG	102
WS-227-4E4	120 1/4	3054	81 3/8	2067	65 1/4	1657	88	2235	15 3/4	400	24	610	12	305	4 FLG	102
WS-228-4E4	133 1/2	3391	94	2388	77 1/4	1962	100	2540	15 3/4	400	24	610	14	356	4 FLG	102
WS-229-4E4	145 1/2	3696	106	2692	89 1/4	2267	112	2845	15 3/4	400	24	610	14	356	4 FLG	102
WS-2210-4E4	159 1/2	4051	118	2997	99 1/2	2527	124	3150	16 3/4	425	25 3/4	654	16	406	6 FLG	152
WS-2211-4E4	171 1/2	4356	130	3302	111 1/2	2832	136	3454	16 3/4	425	25 3/4	654	16	406	6 FLG	152
WS-2212-4E4	185 1/2	4712	143	3632	124 1/2	3162	148	3759	16 3/4	425	25 3/4	654	18	457	6 FLG	152
WS-2213-4E4	197 1/2	5017	155	3937	136 1/2	3467	160	4064	16 3/4	425	25 3/4	654	18	457	6 FLG	152
WS-2214-4E4	209 1/2	5321	167	4242	148 1/2	3772	172	4369	16 3/4	425	25 3/4	654	18	457	6 FLG	152
WS-2215-4E4	221 1/2	5626	179	4547	160 1/2	4077	184	4674	16 3/4	425	25 3/4	654	18	457	6 FLG	152

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE ANSI (RF) FLG	(N5)	6 (152) ANSI (RF) FLG
OUTLET	(N2)	AS PER TABLE ANSI (RF) FLG	(N6)	6 (152) ANSI (RF) FLG
DRAIN	(N3)	3/4 (19) NPT	(N7)	3/4 (19) 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 DIMN'S ±1/8 (3) UNLESS OTHERWISE SHOWN.

DESIGN CONDITIONS		
	SHELL	TUBES
DESIGN PRESSURE	150 PSIG (1034 kpo)	150 PSIG (1034 kpo)
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 kpo)	225 PSIG (1551 kpo)
CONTENTS	STEAM	WATER

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

TITLE 150 LB. W SERIES HEAT EXCHANGERS	A R M S T R O N G				NUMBER	REV.
DATE :-SEP./15/99 BY :- AP/AG	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	WS-22-4P-E4	