



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-223-4-4	57 1/4	1454	19 1/8	486	6 3/4	171	40	1016	19 1/4	489	26	660	10	254	3 NPT	76
WS-224-4-4	69 1/4	1759	31 1/8	791	18 3/4	476	52	1321	19 1/4	489	26	660	10	254	3 NPT	76
WS-225-4-4	81 1/4	2064	43 1/8	1096	30 3/4	781	64	1626	19 1/4	489	26	660	10	254	3 NPT	76
WS-226-4-4	93 1/4	2369	53 1/2	1359	37 3/4	959	76	1930	20 3/4	527	28 1/2	724	12	305	4 FLG	102
WS-227-4-4	105 1/4	2673	65 1/2	1664	49 3/4	1264	88	2235	20 3/4	527	28 1/2	724	12	305	4 FLG	102
WS-228-4-4	117 1/4	2978	76 1/2	1943	60 1/4	1530	100	2540	21 3/4	552	30	762	14	356	4 FLG	102
WS-229-4-4	129 1/4	3283	88 1/2	2248	72 1/4	1835	112	2845	21 3/4	552	30	762	14	356	4 FLG	102
WS-2210-4-4	141 1/4	3588	98 1/8	2492	79 3/4	2026	124	3150	23	584	32 1/4	819	16	406	6 FLG	152
WS-2211-4-4	153 1/4	3893	110 1/8	2797	91 3/4	2330	136	3454	23	584	32 1/4	819	16	406	6 FLG	152
WS-2212-4-4	165 1/4	4197	121 3/8	3083	102	2591	148	3759	23 3/4	603	34	864	18	457	6 FLG	152
WS-2213-4-4	177 1/4	4502	133 3/8	3388	114	2896	160	4064	23 3/4	603	34	864	18	457	6 FLG	152
WS-2214-4-4	189 1/4	4807	145 3/8	3693	126	3200	172	4369	23 3/4	603	34	864	18	457	6 FLG	152
WS-2215-4-4	201 1/4	5112	157 3/8	3997	138	3505	184	4674	23 3/4	603	34	864	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 DIM'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	A R M S T R O N G				NUMBER	REV.
150 LB. W SERIES HEAT EXCHANGERS	TORONTO - CANADA	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-22-4P-4	
DATE :-SEP./15/99 BY :-AP/AG	TEL : (416) 755-2291	TEL : (514) 421-2424	TEL: (716) 693-8813	TEL: (44) 120-657-9491		