



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-283-4-4	67 1/2	1715	18 7/8	479	3	76	43	1092	24 1/4	616	32	813	12	305	4	102
WS-284-4-4	79 1/2	2019	30 7/8	784	15	381	55	1397	24 1/4	616	32	813	12	305	4	102
WS-285-4-4	91 1/2	2324	41 7/8	1064	25 1/4	641	67	1702	25 1/4	641	33 3/4	857	14	356	4	102
WS-286-4-4	103 1/2	2629	51 5/8	1311	33	838	79	2007	26 1/2	673	36	914	16	406	6	152
WS-287-4-4	115 1/2	2934	63 5/8	1616	45	1143	91	2311	26 1/2	673	36	914	16	406	6	152
WS-288-4-4	127 1/2	3239	74 7/8	1902	55 1/4	1403	103	2616	27 1/4	692	37 3/4	959	18	457	6	152
WS-289-4-4	139 1/2	3543	86 7/8	2207	67 1/4	1708	115	2921	27 1/4	692	37 3/4	959	18	457	6	152
WS-2810-4-4	151 1/2	3848	97 5/8	2480	77	1956	127	3226	28 1/2	724	40	1016	20	508	6	152
WS-2811-4-4	163 1/2	4153	107 5/8	2734	84 3/4	2153	139	3531	29 1/2	749	42	1067	22	559	8	203
WS-2812-4-4	175 1/2	4458	119 5/8	3038	96 3/4	2457	151	3835	29 1/2	749	42	1067	22	559	8	203
WS-2813-4-4	187 1/2	4763	131 5/8	3343	108 3/4	2762	163	4140	29 1/2	749	42	1067	22	559	8	203
WS-2814-4-4	199 1/2	5067	141 1/4	3588	116 1/4	2953	175	4445	30 3/4	781	44 1/8	1121	24	610	10	254
WS-2815-4-4	211 1/2	5372	153 1/4	3893	128 1/4	3258	187	4750	30 3/4	781	44 1/8	1121	24	610	10	254

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE ANSI (RF) FLG	(N5)	10 (254) ANSI (RF) FLG
OUTLET	(N2)	AS PER TABLE ANSI (RF) FLG	(N6)	10 (254) 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 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	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-28-4P-4	
	TEL : (416) 755-2291	TEL : (514) 421-2424	TEL: (716) 693-8813	TEL: (44) 120-657-9491		