



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-303-4-4	68	1740	19 7/8	505	4	102	45	1143	24 1/4	616	32	813	12	305	4	102
WS-304-4-4	80	2045	31 7/8	810	16	406	57	1448	24 1/4	616	32	813	12	305	4	102
WS-305-4-4	92	2350	40 5/8	1032	22	559	69	1753	26 1/2	673	36	914	16	406	6	152
WS-306-4-4	104	2654	52 5/8	1337	34	864	81	2057	26 1/2	673	36	914	16	406	6	152
WS-307-4-4	116	2959	63 7/8	1622	44 1/4	1124	93	2362	27 1/4	692	37 3/4	959	18	457	6	152
WS-308-4-4	128	3264	75 7/8	1927	56 1/4	1429	105	2667	27 1/4	692	37 3/4	959	18	457	6	152
WS-309-4-4	140	3569	86 5/8	2200	66	1676	117	2972	28 1/2	724	40	1016	20	508	6	152
WS-3010-4-4	152	3874	98 5/8	2505	78	1981	129	3277	28 1/2	724	40	1016	20	508	6	152
WS-3011-4-4	164	4178	108 5/8	2759	85 3/4	2178	141	3581	29 1/2	749	42	1067	22	559	8	203
WS-3012-4-4	176	4483	120 5/8	3064	97 3/4	2483	153	3886	29 1/2	749	42	1067	22	559	8	203
WS-3013-4-4	188	4788	131 3/8	3337	107 1/2	2731	165	4191	30 3/4	781	44 1/4	1124	24	610	8	203
WS-3014-4-4	200	5093	143 3/8	3642	119 1/2	3035	177	4496	30 3/4	781	44 1/4	1124	24	610	8	203

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 DIMN'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.	40 °F (4.4°C)	40 °F (4.4°C)
HYDRO. TEST PRESSURE	225 PSIG (1551 kpa)	225 PSIG (1551 kpa)
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-30-4P-4	