



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-243-4-4	61 1/4	1556	20	508	7 1/2	191	41	1041	20 3/4	527	27 5/8	702	10	254	3 NPT	76
WS-244-4-4	73 1/4	1861	32	813	19 1/2	495	53	1346	20 3/4	527	27 5/8	702	10	254	3 NPT	76
WS-245-4-4	85 1/4	2165	42 1/4	1073	26 1/4	667	65	1651	22 1/4	565	30 1/8	765	12	305	4 FLG	102
WS-246-4-4	97 1/4	2470	54 1/4	1378	38 1/4	972	77	1956	22 1/4	565	30 1/8	765	12	305	4 FLG	102
WS-247-4-4	109 5/16	2775	65 1/4	1657	48 3/4	1238	89	2261	23 1/4	591	31 3/4	806	14	356	4 FLG	102
WS-248-4-4	121 5/16	3080	75	1905	56 1/2	1435	101	2565	24 1/2	622	34	864	16	406	6 FLG	152
WS-249-4-4	133 5/16	3385	87	2210	68 1/2	1740	113	2870	24 1/2	622	34	864	16	406	6 FLG	152
WS-2410-4-4	145 5/16	3689	99	2515	80 1/2	2045	125	3175	24 1/2	622	34	864	16	406	6 FLG	152
WS-2411-4-4	157 5/16	3994	109 1/4	2775	88 1/2	2248	137	3480	25 1/4	641	35 5/8	905	18	457	8 FLG	203
WS-2412-4-4	169 5/16	4299	121 1/4	3080	100 1/2	2248	149	3785	25 1/4	641	35 5/8	905	18	457	8 FLG	203
WS-2413-4-4	181 5/16	4604	132	3353	110 1/4	2800	161	4089	26 1/2	673	37 7/8	962	20	508	8 FLG	203
WS-2414-4-4	193 5/16	4909	144	3658	122 1/4	3105	173	4394	26 1/2	673	37 7/8	962	20	508	8 FLG	203
WS-2415-4-4	205 5/16	5213	156	3962	134 1/4	3410	185	4699	26 1/2	673	37 7/8	962	20	508	8 FLG	203

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE ANSI (RF) FLG	(N5)	8 (203) ANSI (RF) FLG
OUTLET	(N2)	AS PER TABLE ANSI (RF) FLG	(N6)	8 (203) 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	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-24-4P-4	
	TEL : (416) 755-2291	TEL : (514) 421-2424	TEL : (716) 693-8813	TEL : (44) 120-657-9491		