



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-42-2E4	41	1041	23 1/4	591	16	406	26	660	2	51	1	25
WS-43-2E4	53	1346	35 1/4	895	28	711	38	965	2	51	1	25
WS-44-2E4	65	1651	47 1/4	1200	40	1016	50	1270	2	51	1	25
WS-45-2E4	77	1956	59 1/4	1505	52	1321	62	1575	2 1/2	64	1 1/4	32
WS-46-2E4	89	2261	71 1/4	1810	64	1626	74	1880	2 1/2	64	1 1/4	32
WS-47-2E4	101	2565	83 1/4	2115	76	1930	86	2184	2 1/2	64	1 1/4	32
WS-48-2E4	113	2870	95 1/4	2419	88	2235	98	2489	2 1/2	64	1 1/4	32
WS-49-2E4	125	3175	107 1/4	2724	100	2540	110	2794	2 1/2	64	1 1/4	32
WS-410-2E4	137	3480	119 1/4	3029	112	2845	122	3099	2 1/2	64	1 1/4	32
WS-411-2E4	149	3785	131 1/4	3334	124	3150	134	3404	2 1/2	64	1 1/4	32
WS-412-2E4	161	4089	143 1/4	3639	136	3454	146	3708	2 1/2	64	1 1/4	32

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	N1	AS PER TABLE	N5	1 1/4 (32) FLG
OUTLET	N2	AS PER TABLE	N6	1 1/4 (32) FLG
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 KPa	150 PSIG	1034 KPa
DESIGN TEMPERATURE	375 °F	191 °C	375 °F	191 °C
MIN. DESIGN METAL TEMP.	35 °F	1.7 °C	35 °F	1.7 °C
HYDRO. TEST PRESSURE	225 PSIG	1551 KPa	225 PSIG	1551 KPa
CONTENTS	STEAM		WATER	

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

TITLE	G.A. 150 LB. WS SERIES HEAT EXCHANGERS				A R M S T R O N G				NUMBER	REV.
DATE:	12 / 01 / 94	BY:	D.C.R.	TORONTO - CANADA	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-4-2P-E4		
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