



DIMENSIONS SHOWN AS: inches (mm)

EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-143-2-1	43 3/4	1111	22	559	12 1/2	318	38	965	6	152	2	51
WS-144-2-1	55 3/4	1416	34	864	24 1/2	622	50	1270	6	152	2	51
WS-145-2-1	67 3/4	1721	46	1168	36 1/2	927	62	1575	8	203	2 1/2	64
WS-146-2-1	79 3/4	2026	58	1473	48 1/2	1232	74	1880	8	203	2 1/2	64
WS-147-2-1	91 3/4	2330	70	1778	60 1/2	1537	86	2184	8	203	2 1/2	64
WS-148-2-1	103 3/4	2635	82	2083	72 1/2	1842	98	2489	8	203	2 1/2	64
WS-149-2-1	115 3/4	2940	94	2388	84 1/2	2146	110	2794	8	203	2 1/2	64
WS-1410-2-1	127 3/4	3245	106	2692	96 1/2	2451	122	3099	8	203	2 1/2	64
WS-1411-2-1	139 3/4	3550	118	2997	108 1/2	2756	134	3404	8	203	2 1/2	64
WS-1412-2-1	151 3/4	3854	130	3302	120 1/2	3061	146	3708	8	203	2 1/2	64
WS-1413-2-1	163 3/4	4159	142	3607	132 1/2	3366	158	4013	8	203	2 1/2	64
WS-1414-2-1	175 3/4	4464	154	3912	144 1/2	3670	170	4318	8	203	2 1/2	64
WS-1415-2-1	187 3/4	4769	166	4216	156 1/2	3975	182	4623	8	203	2 1/2	64

NOZZLE SCHEDULE

SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	N1	AS PER TABLE	N5	6 (152) NPT
OUTLET	N2	AS PER TABLE	N6	6 (152) NPT
DRAIN	N3	1/2 (13) NPT		
VENT	N4	3/4 (19) NPT		

- NOTES: 1. SUPPORTS SUPPLIED ONLY IF SPECIFIED ON ORDER.
 2. NOZZLE SIZES SHOWN ARE RECOMMENDED FOR MAX. EXCHANGER LIFE, NO EXTERNAL FORCES APPLY.
 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	125 PSIG	862 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	250 PSIG	1723 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 WS-14-2P-1	REV.
DATE: 12/01/94 BY: D.C.R.	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		