



DIMENSIONS SHOWN AS: inches (mm)

EXCHANGER SIZE *BAFFLE SPACING	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
W-163-4*-1	44-3/8	1127	22-1/2	572	8	203	38	965	6	152	6	152
W-164-4*-1	56 3/8	1432	34 1/2	876	20	508	50	1270	6	152	6	152
W-165-4*-1	68 3/8	1737	46 1/2	1181	32	813	62	1575	6	152	6	152
W-166-4*-1	80 3/8	2042	58 1/2	1486	44	1118	74	1880	6	152	6	152
W-167-4*-1	92 3/8	2346	70 1/2	1791	56	1422	86	2184	6	152	6	152
W-168-4*-1	104 3/8	2651	82 1/2	2096	68	1727	98	2489	6	152	6	152
W-169-4*-1	116 3/8	2956	94 1/2	2400	80	2032	110	2794	6	152	6	152
W-1610-4*-1	128 3/8	3261	106 1/2	2705	92	2337	122	3099	6	152	6	152
W-1611-4*-1	140 3/8	3566	118 1/2	3010	104	2642	134	3404	6	152	6	152
W-1612-4*-1	152 3/8	3870	130 1/2	3315	116	2946	146	3708	6	152	6	152
W-1613-4*-1	164 3/8	4175	142 1/2	3620	128	3251	158	4013	6	152	6	152
W-1614-4*-1	176 3/8	4480	154 1/2	3924	140	3556	170	4318	6	152	6	152
W-1615-4*-1	188 3/8	4785	166 1/2	4229	152	3861	182	4623	6	152	6	152

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE	(N5)	4 (102) NPT
OUTLET	(N2)	AS PER TABLE	(N6)	4 (102) NPT
DRAIN	(N3)	1/2 (13) NPT	(N7)	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 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	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	WATER		WATER	

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

TITLE G.A. 150 LB. W SERIES HEAT EXCHANGERS	A R M S T R O N G				NUMBER W-16-4P-1(6)	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		