



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		N1		N2	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-203-4-1	44 1/2	1130	13 1/2	343	N/A	N/A	39	991	12	305	4	102
WS-204-4-1	56 1/2	1435	25 1/2	648	10 1/2	267	51	1295	12	305	4	102
WS-205-4-1	68 1/2	1740	37 1/2	953	22 1/2	572	63	1600	12	305	4	102
WS-206-4-1	80 1/2	2045	49 1/2	1257	34 1/2	876	75	1905	12	305	4	102
WS-207-4-1	92 1/2	2350	61 1/2	1562	46 1/2	1181	87	2210	12	305	4	102
WS-208-4-1	104 1/2	2654	73 1/2	1867	58 1/2	1486	99	2515	12	305	4	102
WS-209-4-1	116 1/2	2959	85 1/2	2172	70 1/2	1791	111	2819	12	305	4	102
WS-2010-4-1	128 1/2	3264	97 1/2	2477	82 1/2	2096	123	3124	12	305	4	102
WS-2011-4-1	140 1/2	3569	109 1/2	2781	94 1/2	2400	135	3429	12	305	4	102
WS-2012-4-1	152 1/2	3874	121 1/2	3086	106 1/2	2705	147	3734	12	305	4	102
WS-2013-4-1	164 1/2	4178	133 1/2	3391	118 1/2	3010	159	4039	12	305	4	102
WS-2014-4-1	176 1/2	4483	145 1/2	3696	130 1/2	3315	171	4343	12	305	4	102
WS-2015-4-1	188 1/2	4788	157 1/2	4001	142 1/2	3620	183	4648	12	305	4	102

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	3/4 (19) 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	STEAM		WATER	

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

TITLE	A R M S T R O N G				NUMBER	REV.
G.A. 150 LB. WS SERIES HEAT EXCHANGERS	TORONTO - CANADA	MONTREAL - CANADA	BUFFALO - N. Y.	COLCHESTER - U.K.	WS-20-4P-1	
DATE: 12/01/94 BY: D.C.R.	TEL: (416) 755-2291	TEL: (514) 421-2424	TEL: (716) 693-8813	TEL: (44) 120-657-9491		