



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		(N1)		(N2)	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-203-4E4	75	1905	36 7/8	937	21	533	39	991	12	305	4	102
WS-204-4E4	87	2210	48 7/8	1241	33	838	51	1295	12	305	4	102
WS-205-4E4	99	2515	60 7/8	1546	45	1143	63	1600	12	305	4	102
WS-206-4E4	111	2819	72 7/8	1851	57	1448	75	1905	12	305	4	102
WS-207-4E4	123	3124	84 7/8	2156	69	1753	87	2210	12	305	4	102
WS-208-4E4	135	3429	96 7/8	2461	81	2057	99	2515	12	305	4	102
WS-209-4E4	147	3734	108 7/8	2765	93	2362	111	2819	12	305	4	102
WS-2010-4E4	159	4039	120 7/8	3070	105	2667	123	3124	12	305	4	102
WS-2011-4E4	171	4343	132 7/8	3375	117	2972	135	3429	12	305	4	102
WS-2012-4E4	183	4648	144 7/8	3680	129	3277	147	3734	12	305	4	102
WS-2013-4E4	195	4953	156 7/8	3985	141	3581	159	4039	12	305	4	102
WS-2014-4E4	207	5258	168 7/8	4289	153	3886	171	4343	12	305	4	102
WS-2015-4E4	219	5563	180 7/8	4594	165	4191	183	4648	12	305	4	102

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE	(N5)	6 (152) FLG
OUTLET	(N2)	AS PER TABLE	(N6)	6 (152) FLG
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	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: \_\_\_\_\_  
 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-20-4P-E4	REV.			
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