



EXCHANGER SIZE	DIMENSIONS											
	A		B		C		D		(N1)		(N2)	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
WS-102-4-3	29	737	12 1/2	318	4 1/2	114	26	660	4	102	1 1/2	38
WS-103-4-3	41	1041	24 1/2	622	16 1/2	419	38	965	4	102	1 1/2	38
WS-104-4-3	53	1346	36 1/2	927	28 1/2	724	50	1270	6	152	2	51
WS-105-4-3	65	1651	48 1/2	1232	40 1/2	1029	62	1575	6	152	2	51
WS-106-4-3	77	1956	60 1/2	1537	52 1/2	1334	74	1880	6	152	2	51
WS-107-4-3	89	2261	72 1/2	1842	64 1/2	1638	86	2184	6	152	2	51
WS-108-4-3	101	2565	84 1/2	2146	76 1/2	1943	98	2489	6	152	2	51
WS-109-4-3	113	2870	96 1/2	2451	88 1/2	2248	110	2794	6	152	2	51
WS-1010-4-3	125	3175	108 1/2	2756	100 1/2	2553	122	3099	6	152	2	51
WS-1011-4-3	137	3480	120 1/2	3061	112 1/2	2858	134	3404	6	152	2	51
WS-1012-4-3	149	3785	132 1/2	3366	124 1/2	3162	146	3708	6	152	2	51
WS-1013-4-3	161	4089	144 1/2	3670	136 1/2	3467	158	4013	6	152	2	51
WS-1014-4-3	173	4394	156 1/2	3975	148 1/2	3772	170	4318	6	152	2	51
WS-1015-4-3	185	4699	168 1/2	4280	160 1/2	4077	182	4623	6	152	2	51

NOZZLE SCHEDULE				
SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	(N1)	AS PER TABLE	(N5)	3 (76) NPT
OUTLET	(N2)	AS PER TABLE	(N6)	3 (76) 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 DIMN'S ±1/8 (3) UNLESS OTHERWISE SHOWN.

DESIGN CONDITIONS				
	SHELL		TUBES	
DESIGN PRESSURE	150 PSIG	1034 KP _a	150 PSIG	1034 KP _a
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 KP _a	225 PSIG	1551 KP _a
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-10-4P-3	
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		