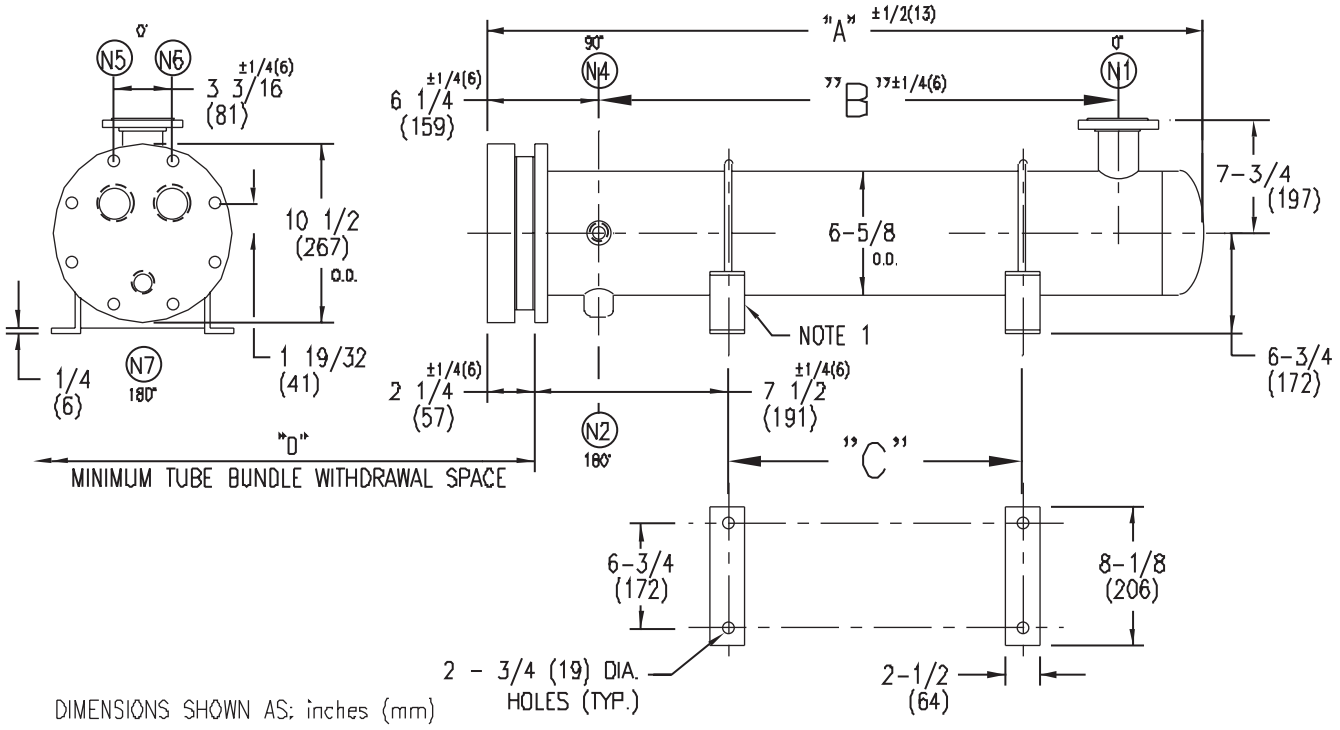
ARMSTRONG®



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-69-4E3	119 3/4	3042	107	2718	99	2515	109	2769	4	102	1 1/4	32
WS-610-4E3	131 3/4	3346	119	3023	111	2819	121	3073	4	102	1 1/4	32
WS-611-4E3	143 3/4	3651	131	3327	123	3124	133	3378	4	102	1 1/4	32
WS-612-4E3	155 3/4	3956	143	3632	135	3429	145	3683	4	102	1 1/4	32

NOZZLE SCHEDULE

SERVICE	MARK	SHELL SIDE	MARK	TUBE SIDE
INLET	N1	AS PER TABLE	N5	1 1/2 (38) NPT
OUTLET	N2	AS PER TABLE	N6	1 1/2 (38) NPT
DRAIN			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 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 DIMN'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.	35 °F	1.7 °C	35 °F	1.7 °C
HYDRO. TEST PRESSURE	225 PSIG	1551 KPa	300 PSIG	2068 KPa
CONTENTS	STEAM		WATER	

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

TITLE C.A. 150 LB. WS SERIES HEAT EXCHANGERS
DATE: 12 / 01 / 94 BY: D.C.R.

A R M S T R O N G
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

NUMBER WS-6-4P-E3(4)

REV. A
ECO #9153
JAN.7/03
J.R.

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