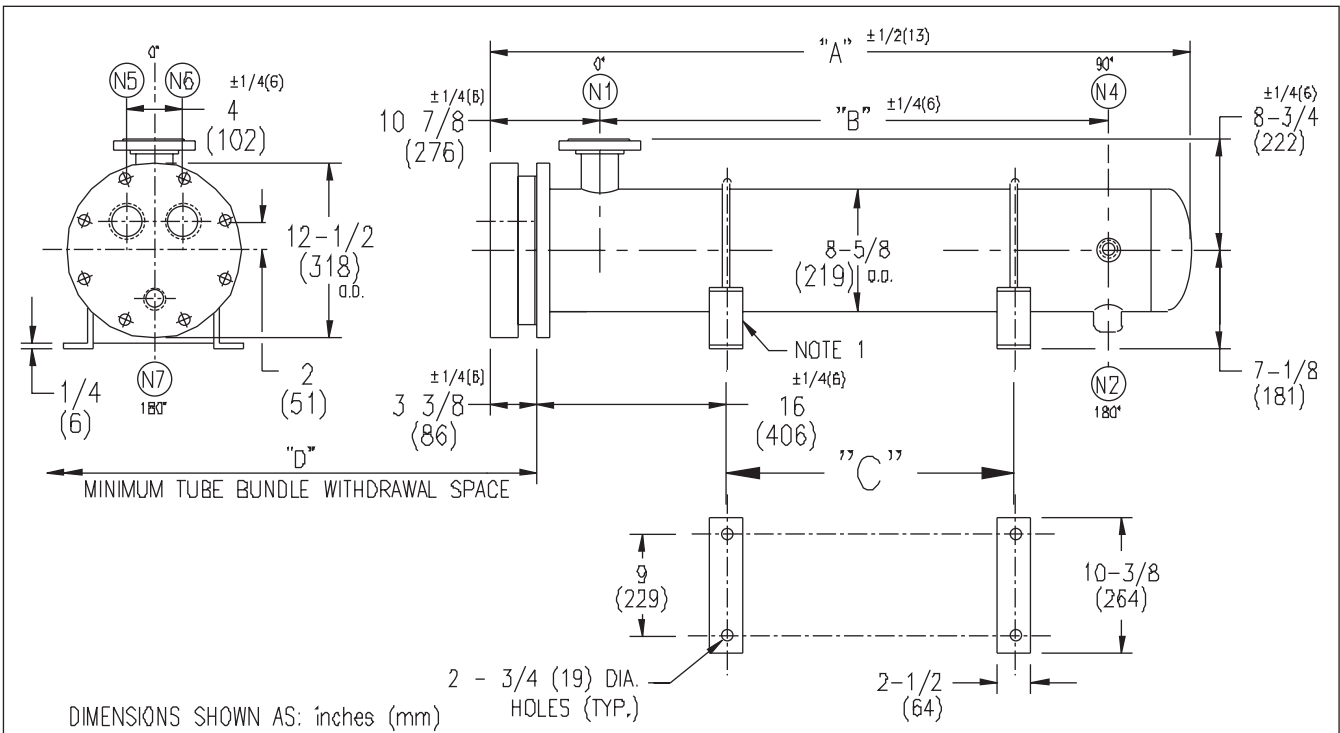


ARMSTRONG®



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 |
| WS3H-85-4*-3 | 64 5/8 | 1641 | 48 1/4 | 1226 | 35 7/8 | 911 | 62 | 1575 | 4 | 102 | 1 | 25 |
| WS3H-86-4*-3 | 76 5/8 | 1946 | 60 1/4 | 1530 | 47 7/8 | 1216 | 74 | 1880 | 4 | 102 | 1-1/4 | 32 |
| WS3H-87-4*-3 | 88 5/8 | 2251 | 72 1/4 | 1835 | 59 7/8 | 1521 | 86 | 2184 | 4 | 102 | 1-1/4 | 32 |
| WS3H-88-4*-3 | 100 5/8 | 2556 | 84 1/4 | 2140 | 71 7/8 | 1826 | 98 | 2489 | 6 | 152 | 1-1/4 | 32 |
| WS3H-89-4*-3 | 112 5/8 | 2861 | 96 1/4 | 2445 | 83 7/8 | 2130 | 110 | 2794 | 6 | 152 | 1-1/4 | 32 |
| WS3H-810-4*-3 | 124 5/8 | 3165 | 108 1/4 | 2750 | 95 7/8 | 2435 | 122 | 3099 | 6 | 152 | 1-1/4 | 32 |
| WS3H-811-4*-3 | 136 5/8 | 3470 | 120 1/4 | 3054 | 107 7/8 | 2740 | 134 | 3404 | 6 | 152 | 1-1/4 | 32 |
| WS3H-812-4*-3 | 148 5/8 | 3775 | 132 1/4 | 3359 | 119 7/8 | 3045 | 146 | 3708 | 6 | 152 | 1-1/4 | 32 |
| WS3H-813-4*-3 | 160 5/8 | 4080 | 144 1/4 | 3664 | 131 7/8 | 3350 | 158 | 4013 | 6 | 152 | 1-1/4 | 32 |
| WS3H-814-4*-3 | 172 5/8 | 4385 | 156 1/4 | 3969 | 143 7/8 | 3654 | 170 | 4318 | 6 | 152 | 1-1/4 | 32 |

| NOZZLE SCHEDULE | | | | |
|-----------------|------|--------------|------|--------------|
| SERVICE | MARK | SHELL SIDE | MARK | TUBE SIDE |
| INLET | N1 | AS PER TABLE | N5 | 2 (51) NPT |
| OUTLET | N2 | AS PER TABLE | N6 | 2 (51) 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 TO APPLY.
 3. FABRICATED TO ASME CODE SECTION VIII DIVISION 1 AND LATEST ADDENDA.
 4. DRAWING IS NOT TO SCALE.
 5. ALL DIM'S $\pm 1/8(3)$ UNLESS OTHERWISE SHOWN.

| DESIGN CONDITIONS | | | | |
|-------------------------|----------|----------|----------|----------|
| | SHELL | | TUBES | |
| DESIGN PRESSURE | 300 PSIG | 2068 KPa | 300 PSIG | 2068 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 | 450 PSIG | 3102 KPa | 450 PSIG | 3102 KPa |
| CONTENTS | STEAM | | WATER | |

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

| | | | | | | | | | |
|-------|--|-------------------|------|--|--|--------|----------------|------|--|
| TITLE | G.A. 300 LB. WS SERIES HEAT EXCHANGERS | A R M S T R O N G | | | | NUMBER | WS3H-8-4P-3(6) | REV. | |
| DATE: | 02 / 02 / 01 | BY: | J.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 | | | | | |