**MATERIALS OF CONSTRUCTION**

**SHELL**: 304 S.S., SA-240, SCH. 10S

**HEADS**: UPPER, 1.0" THICK PT., SA-240, 304L S.S.
LOWER, CAST DUCTILE IRON SA-395

**TUBES**: COPPER, SB-111 DOUBLE WALL,
OUTER, 0.750"OD x 0.049" WALL
INNER, 0.625"OD x 0.025" WALL

**TUBESHEET**: UPPER TUBESHEET: 0.25" NAVAL BRASS,
SB-171, CDA 464
LOWER TUBESHEET LINER: 0.25" NAVAL BRASS,
SB-171, CDA 464
LOWER TUBESHEET: 0.88" SA-515, GR. 70 C.S

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**CONTROL VALVE SIZE IN(CM)**

<table>
<thead>
<tr>
<th>VALVE SIZE</th>
<th>DIM &quot;A&quot; in./cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; (2.54)</td>
<td>36.43 / 89.99</td>
</tr>
<tr>
<td>1-1/4 (3.18)</td>
<td>35.58 / 90.37</td>
</tr>
<tr>
<td>1-1/2 (3.81)</td>
<td>34.35 / 87.25</td>
</tr>
<tr>
<td>2&quot; (5.08)</td>
<td>35.00 / 88.90</td>
</tr>
<tr>
<td>2-1/2 (6.35)</td>
<td>40.47 / 102.90</td>
</tr>
<tr>
<td>3&quot; (7.62)</td>
<td>40.87 / 103.81</td>
</tr>
<tr>
<td>4&quot; (10.18)</td>
<td>35.93 / 91.26</td>
</tr>
</tbody>
</table>

**HEAT EXCHANGER DESIGN STANDARDS**

| SHELL SIDE | 180 (1241) |
| TUBE SIDE  | 52 (359)   |

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**OPERATING CONDITIONS**

**SHELL**

- CAPACITY: GPM(L/S)
- IN/OUT TEMP.: °F(°C)
- PRESSURE: PSIG (kPa)

**TUBES**

- FLOW: LB/HR (Kg/S)
- PRESSURE TO VALVE: PSIG(kPa)

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**CONTROL VALVE SIZE INCLUDED**

1" (2.54) SCREWED END
1-1/4" (3.18) SCREWED END
1-1/2" (3.81) SCREWED END
2" (5.08) SCREWED END
2-1/2" (6.35) 150# ANSI FLANGED END
3" (7.62) 150# ANSI FLANGED END
4" (10.18) 150# ANSI FLANGED END

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**MODEL**: SWDW-45/ / EC

**STAMP**: U

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**RELIEF VALVES SET AT**: °F, PSI

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**ASME B&P CODE SEC., VIII, DIV. 1**

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**INTERNATIONAL INC.**

Blauvelt, NY 10913

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**DWG. NO.**: AP-A-930

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**REV**: C