# TECHNICAL BULLETIN

## BULLETIN 51

### PUDDLE ON FLOOR

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>Puddle on the floor or in the drain pan.</th>
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<tr>
<th>CAUSE</th>
<th>Water accumulating on the floor or in the drain pan is generally caused by one of the following conditions:</th>
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<tbody>
<tr>
<td></td>
<td>• Condensation</td>
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<td></td>
<td>• Drain valve leaking</td>
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<td></td>
<td>• Temperature and pressure relief valve leaking</td>
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<td></td>
<td>• Leak from piping on and near the inlet and outlet</td>
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<td></td>
<td>• Leak at gas valve threaded connection (gas models only)</td>
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<tr>
<td></td>
<td>• Leak from gaskets for electric elements (electric models only)</td>
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<tr>
<td></td>
<td>• Leak in heater tank</td>
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<tr>
<th>THE FIX</th>
<th>• <strong>Condensation</strong> - Condensation should only be noticeable after a long draw of hot water. Once the temperature of the tank is above 110°F, condensation should stop. For additional information, see Bulletin 15.</th>
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<tr>
<td></td>
<td>• <strong>Drain valve leaking</strong> - Check to see if the heater drain valve is closed tightly. If the leakage cannot be stopped by the handwheel, replace the drain valve.</td>
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<td>• <strong>Temperature and pressure relief valve leaking</strong> - If the leakage is from temperature and pressure relief valve or its discharge pipe, it may represent relief valve activation. The relief valve relieves water slowly when actuating on pressure. A closed system can cause pressure to increase in the system. This condition is called thermal expansion. For additional information regarding thermal expansion please see Bulletin 45. The incoming water pressure should also be checked and compared with the valve’s rating. If the supply water pressure is higher than the valve’s rating, a pressure reducing valve will be needed.</td>
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<td></td>
<td>• <strong>Leak from piping on and near the inlet and outlet</strong> - In warm or humid locations, condensation can accumulate and run down flue tubes, cold water supply pipe, and heater connections. Check connections and fitting for possible leaks.</td>
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<td>• <strong>Leak at gas valve threaded connection (gas models only)</strong> - Remove valve and reapply pipe joint compound.</td>
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<td>• <strong>Leak from gaskets for electric elements (electric models only)</strong> - These gaskets can be replaced. The element threads may need to be resealed.</td>
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</tbody>
</table>

| NOTE | If the tank is confirmed to have a leak, the tank should be replaced. |