HANGER KITS (OPTIONS CK11 AND CK31) FOR HEATER MODELS VP and VC

NOTE: When installed, tubular radiant heaters must be able to expand, must be level, and must be restricted from too much lateral sway.

Each optional hanger kit (PN 270725 for Option CK11 and PN 270717 for Option CK31) includes 50 feet of chain and S-hooks. The chain must be cut to length and a minimum of 12 inches (305 mm)—total length of chain, S-hook, and/or turnbuckle—is required between the tubes and the structure suspension points. Refer to Table 1 for kit components.

**Table 1. Hanger Kit Components**

<table>
<thead>
<tr>
<th>PN</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>120703</td>
<td>CHAIN, 50-FT L</td>
<td>1</td>
</tr>
<tr>
<td>116034</td>
<td>S-HOOK</td>
<td>11</td>
</tr>
<tr>
<td>270716</td>
<td></td>
<td></td>
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<tr>
<td>270718</td>
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Suspension Requirements

NOTE: Heaters should be suspended at a height that has been determined to be most efficient for the application. Clearances to combustibles must be observed. Refer to the heater installation manual for clearances and recommended mounting heights.

Each straight tube must have at least one suspension point. Model VP/VC heaters are designed so that the tube suspension points can be adjusted slightly to adapt to the building’s structure. Straight tubes downstream and adjacent to an L- or U-tube require two suspension points.

NOTE: Although turnbuckles are not included in this hanger kit, the use of turnbuckles for heater suspension is recommended for convenience in leveling the system. Use either an Option CK__ Turnbuckle Kit or field-supplied turnbuckles of stainless steel, steel, or malleable iron.

Installation Procedure

**WARNING:** The hanger kit is to be selected and installed by a qualified service person in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction. The qualified agency performing this work assumes responsibility for this installation.

NOTE: The installer is responsible for attaching the suspension points to the building and for adequately supporting the weight of the heater. Suspension point hardware is field-supplied.

1. Prepare chains as follows:
   a. Determine length of chain required for heater to be suspended at established mounting height. To allow for expansion, chain length between suspension point and heater, including S-hook(s) and turnbuckle(s) (if used), must be minimum of 12 inches.
   b. Cut chain to determined lengths.

   **IMPORTANT:** One chain link consists of two loops. When cutting chain, ensure that the entire two-loop link is removed.

2. Install S-hooks as follows:
   a. At each building suspension point, attach S-hook and chain length.
   b. If turnbuckles are used, attach turnbuckle to S-hook at suspension point or at heater. Use of turnbuckles is recommended for leveling.
   c. Close S-hooks at building suspension points.
3. Suspend burner/control box with attached combustion chamber tube as follows:
   a. Refer to heater installation manual for instructions on preparing burner/control box and combustion chamber for suspension.
   b. Attach S-hook at suspension bracket and connect turnbuckle or chain to S-hook. Use of turnbuckles is recommended for leveling, either here or at suspension point.
   c. Connect chains from single suspension points to S-hooks, ensuring that chains are plumb.

4. Suspend heat exchanger tubes as follows: Straight tubes downstream and adjacent to an L- or U-tube require two suspension points.
   a. Refer to heater installation manual for instructions on attaching suspension brackets to each heat exchanger tube and for connecting tube to adjacent tube using compression coupling.
   b. Suspend each tube with chain as tube is installed. See Figure 1 for arrangement of chains.

5. Level suspended components as follows:
   a. Use spirit level to verify that burner/control box and all tubes are level.
   b. Adjust chains or turnbuckles as needed to level system.
   c. Ensure that all chains connected to tubes are plumb when heater is installed.

6. Close S-hooks as follows:
   a. Using pliers or channel locks, close any S-hooks that have not been closed. Use caution so as not to affect chain length.
   b. If reflectors are being angled, close S-hooks after reflectors have been installed and angled.

7. Complete the installation by following the instructions and complying with all requirements in the heater installation manual.

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Figure 1. Suspension of Heat Exchanger Tubes