PHYSICAL FACILITIES
2015 Consultant’s Handbook
Division 23 HVAC
0529 HANGERS AND SUPPORTS

1 Information applicable for all hangers

1.1 Prime coat all steel hangers and supports.

Note: When used with cold systems, such as chilled water, the hangers and supports will condense. If not prime coated the steel will prematurely corrode.

1.2 In addition to the intervals outlined in the Indiana Plumbing Code install hangers at every fitting and change of direction for all pipes and at every joint in cast iron pipe.

Note: Improperly supported pipe will experience excess stress and produce unexpected traps and air pockets affecting operation.

2 When hanging from concrete

2.1 When hanging from concrete care must be taken not to weaken the concrete by holes in the wrong location or hangers that can pull out.

2.2 In existing concrete construction new pipe hanger rod clips shall:

• be fastened to the sides of joists or beams
• use expansive, adhesive or screw in anchors installed in strict accordance with the manufacturer’s published documentation
• be at least four inches (4”) from the bottom of joists and six inches (6”) from the bottom of beams

2.3 Powder actuated and impact anchors shall not be allowed.

3 When hanging insulated pipe

3.1 When hanging insulated pipe care must be taken to prevent crushed and otherwise damaged insulation.

3.2 Provide rigid insulation inserts at all hangers and points of support for insulated piping 1½” and larger.

3.2.1 Inserts shall be fire retardant treated wood blocks, calcium silicate or other high density insulating material.

3.2.2 Insert shall be same thickness as adjoining pipe insulation and shall be provided with vapor barrier jacket.

3.3 A 180 degree galvanized sheet metal shield should be provided between the hangers or supports and the pipe insulation.

3.4 Pipe supports that are pre-insulated and have integral sheet metal shield are allowed.

Note: Such supports can save the insulator a lot of time. More importantly it allows the blocks to go in before the pipe is tested, otherwise the pipe must be installed laying on the hangers, tested, and then lifted so as to install the insulation between the hanger and the pipe.

4 Table of minimum insert and shield lengths

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Rigid Insert</th>
<th>Metal Shield</th>
<th>Shield Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1½” to 2½”</td>
<td>10”</td>
<td>6”</td>
<td>16</td>
</tr>
<tr>
<td>3” to 5”</td>
<td>12”</td>
<td>8”</td>
<td>16</td>
</tr>
<tr>
<td>6”</td>
<td>12”</td>
<td>8”</td>
<td>12</td>
</tr>
<tr>
<td>8” to 10”</td>
<td>16”</td>
<td>12”</td>
<td>12</td>
</tr>
<tr>
<td>12” and larger</td>
<td>22”</td>
<td>18”</td>
<td>12</td>
</tr>
</tbody>
</table>

5 Housekeeping pads

5.1 Housekeeping pads should be a minimum of 3½” inches thick with chamfered edges all around.

5.2 Housekeeping pads should extend a minimum of 4 inches beyond supported equipment.

5.3 Existing Construction: Elevated slabs shall be evaluated to determine if there is capacity in the structure for support of a new housekeeping slab.