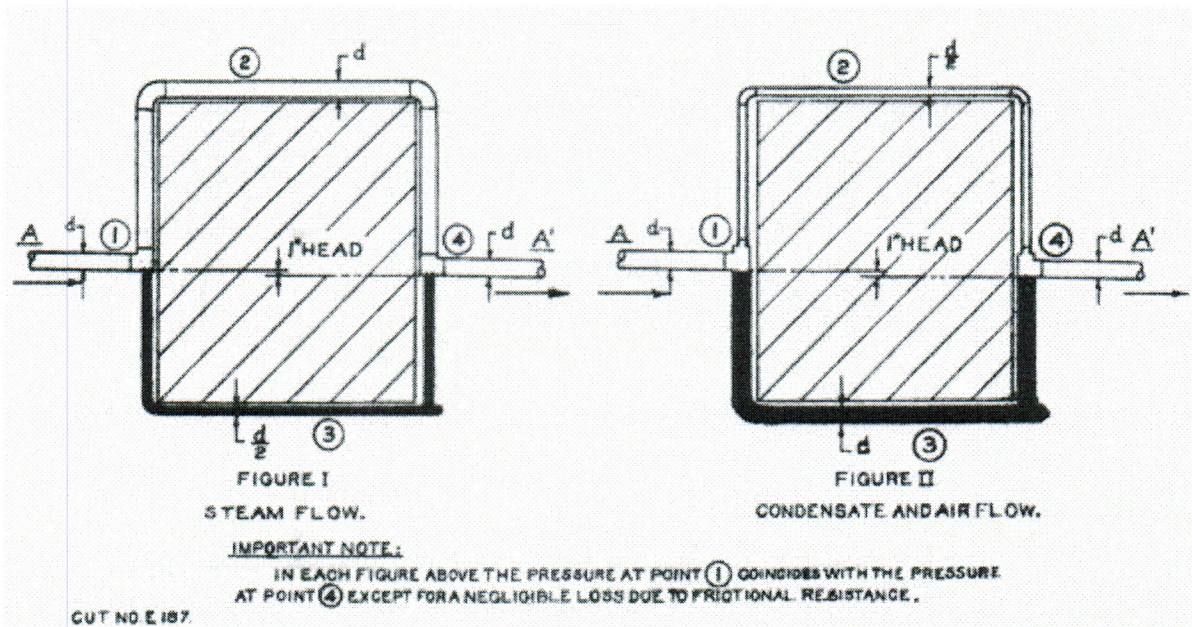


Oak Services Co. - Nash Jennings Pumps



Shown above are conventional solutions to a problem that is frequently encountered on all types of steam heating systems. It is customarily referred to as a "door loop" and has to do with installing a steam supply line or a return line around an obstacle such as a beam, a doorway, or a corridor. The principles involved are important, not only because of the simple applications above, but because the same principles may be applied advantageously to sections of a heating system, or, in fact, to an entire heating system.

Figure I shows a line AA' carrying steam around an obstacle. The steam will flow through the upper line (1-2-4). Any condensate flowing with the steam cannot flow through the upper pipe (1-2-4), but will flow by gravity through the lower pipe (1-3-4). Pipe (1-3-4) will always be filled with condensate up to the level shown. Additional condensate flowing to point (1) will **IMMEDIATELY** cause an equal volume of condensate to spill over at point (4). Note that point (4) must be about 1 inch below point (1) to provide for gravity flow.

Figure II shows a return line A-A' carrying condensate and air around an obstacle. The air will flow through the upper line (1-2-4). The condensate cannot flow through the upper pipe (1-2-4), but will flow by gravity through the lower pipe (1-3-4). Pipe (1-3-4) will always be filled with condensate up to the level shown. Additional condensate flowing to point (1) will **IMMEDIATELY** cause an equal volume of condensate to spill over at point (4). Note that point (4) must be about 1 inch below point (1) to provide for gravity flow.