

Aquatherm Technical Bulletin

201207E - AQTTB

Lining on Hot Water Pipe Clamps

Date Issued: 25 July 2012

Aquatherm recommends the use of a felt, plastic or rubber-like material lined pipe clamps on hot water pipes. The principal purpose of this lined clamp is to allow for any increase to the outside diameter of the pipe due to thermal expansion caused by a hot fluid, but this will also help reduce heat loss at the clamp location.

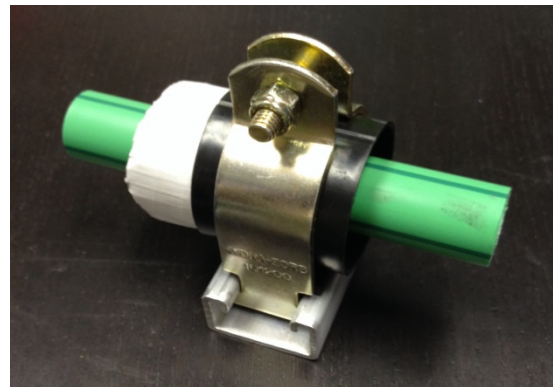
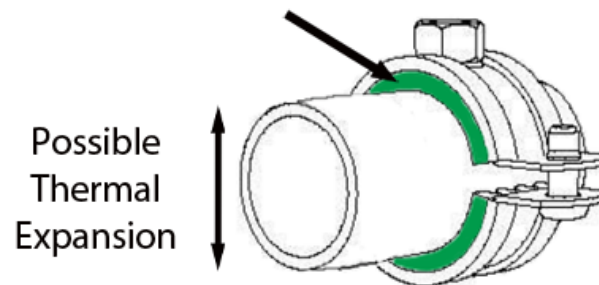


Figure 1: Rubber-lined clamp for use with strut (courtesy of Hydra-Zorb); Plastic lined clamp with insulation guard for use with strut. (Hydra-Zorb Klo-Sure)

Felt or Rubber-like Clamp Liner



In most cases, pipe diameter increases due to thermal expansion are virtually undetectable and non-problematic, but with a fully-tightened, non-lined, metal clamp there exists the potential to create a very slight indentation on the pipe upon the introduction of hot water. This will create additional stresses in the pipe wall and it is suspected that, over a long period of time, this could slightly reduce the strength of the pipe. The extent to which this actually presents a long-term issue with respect to the integrity of the pipe system is undetermined, but still to be cautious we recommend lined clamps such as Aquatherm, Walraven BISMAT 2000, BISMAT 5000, and BIS HD, or Hydra-zorb Cushion Clamps or Klo-shure supports; or plastic clamps such as Walraven's StarQuick clamp as a prudent step to ensure Aquatherm pipe systems will not be affected by the clamping used. If a plastic clamp is used, it should be verified that the plastic clamps are rated for the load of the water-filled pipe at the Aquatherm recommended spacing. Metal pipe reinforcement sleeves (used to extend hanger spacing) do not require a liner provided the sleeve does not compress the pipe or otherwise alter or damage the pipe when heated, and the sleeve provides continuous support along the length of the sleeve.

Rev 1 – 8-27-2013

Rev 2 – 2-26-2014