

Aquatherm Technical Bulletin

201207D - AQTTB

Joining Copper Piping and Aquatherm Piping at a Boiler

Date Issued: 16 August 2012

Some local codes require² a minimum of 18" of metal tubing or piping when installing a boiler system from the boiler to the transition to Aquatherm PP-R, RP(RCT). If metal tubing is required,² Aquatherm recommends using stainless steel piping or tubing¹. It is always preferable to complete all heat producing metal connections such as soldering or welding of fittings at the boiler before making the Aquatherm piping connections to the metal piping. When this is not a possibility, one solution would be to install a metal union in the 18" metal pipe from the boiler to the PP-R, RP(RCT) transition.

In any case, do not expose any PP-R, RP(RCT) piping and transition fittings to temperatures in excess of 170 deg. F during the welding/soldering process². Excessive heat may distort and deform any O-ring seals and fitting connections, resulting in a leak during testing or after system start-up.

If copper is used for connection to the boiler¹, perform all solder joints on copper tubing at the following minimum distances from the PP-R piping along the copper tube:

- 10" from a ½" or ¾" PP-R, PP-RP(RCT) fitting or pipe.
- 18" from a 1" or 1-1/4" PP-R, PP-RP(RCT) fitting or pipe.
- 20" from a 1-1/2" PP-R, PP-RP(RCT) Pipe fitting or pipe.
- 22" from a 2" PP-R, PP-RP(RCT) fitting or pipe.

For additional safety, use a water-soaked cloth or commercial heat blocking agent between the solder joint and the PP-R, RP(RCT) piping and immediately cool the copper tube and PP-R, RP(RCT)-to-copper transition fitting after the soldering is completed.

Please refer to the technical bulletin 201207C – AQTTB - Integration of Other Systems or Components with Aquatherm Piping for Pressure Pipe Applications for important information about mixing Aquatherm pipe with other types of pipe. When there is copper piping used in conjunction with PP-R, RP(RCT) in a DHWR system, care should be taken to ensure the operating conditions will not cause degradation or erosion/corrosion of the copper.¹

Revisions:

1. 6 November 2017
2. 22 May 2018
3. 29 Oct 2021 – Added RP(RCT)