LETTERS

Steam Pipes and Heat Differentials

In the April 2025 edition of *ASHRAE Journal*, columnist Dennis Wessel reflects on his 50-year career, to which I can also relate. His comments about steam heat are right on the mark, but I question his remark about a 2 in. diameter steam pipe not being adequate to deliver 200,000 Btu/h when converted to hot water. Using his example of a 30°F differential, it would take 13.3 gpm to provide that amount of heat, which a 2 in. pipe can deliver very easily. Perhaps Mr. Wessel might have been referring to the

return condensate piping, which is usually smaller in diameter.



In any case, I am looking forward to future columns and insights from a long career that will benefit our young, upcoming engineers.

> Jacob Laete, P.E. Life Member, ASHRAE Spokane, Wash.

WESSEL RESPONDS

Thank you for your comment and question. You are correct that a 2 in. steel pipe can easily handle 13.3 gpm (at 30°F delta *T*) or even 20 gpm (at 20°F delta *T*) but a 2 in. steel pipe handling 5.0 psig steam

at 1/8 psi pressure loss per 100 ft of pipe length my typical design criteria—can just barely handle 200,000 Btu/h (200 lb/h of steam). For that steam flow, I would use 2.5 in. pipe, a size that may or may not be available in your area.

> Dennis J. Wessel, P.E. Fellow ASHRAE Hudson, Ohio

Have something to say? Send letters to: letters@ashrae.org Other ways to contact us: Submissions:

https://tinyurl.com/JournalSubmit Archive: technologyportal.ashrae.org Missing Issue: cservice@ashrae.org

Hwakong Cheng and Paul Raftery discuss reducing gas consumption, optimizing heating water systems and strategies for efficient morning start-up in large commercial buildings.

> Scan the QR code or visit: https://tinyurl.com/mv3xfdkk

