

**ERRATA SHEET FOR  
ANSI/ASHRAE STANDARD 30-2019  
Method of Testing Liquid Chillers**

**January 15, 2020**

The corrections listed in this errata sheet apply to ANSI/ASHRAE Standard 30-2019. The first printing of 30-2019 is identified as “Product Code: 86087 5/19” on the outside back cover

**Page      Erratum**

- 8**      **5.4.4.2.** In both the equation and the table header, correct the variable symbol for pipe roughness to be the lower-case Greek letter epsilon. Change ~~ε~~ to ε as shown below.  
(Note: Additions are shown in underline and deletions are shown in ~~strikethrough~~.)

$$f = \frac{0.25}{\left[ \log_{10} \left( \frac{\underline{\epsilon} / d}{3.7} + \frac{5.74}{\text{Re}^{0.9}} \right) \right]^2}$$

| <b>Commercial Pipe,<br/>New Condition</b> | <b><del>ε</del> <u>ε</u> (rms)</b> |                      |
|---|------------------------------------|----------------------|
|   | <b>ft</b>                          | <b>m</b>             |
| Steel                                     | $1.8 \times 10^{-4}$               | $5.5 \times 10^{-5}$ |
| Plastic                                   | $6.0 \times 10^{-6}$               | $1.8 \times 10^{-6}$ |