

## Errata Sheet for the Book by Klote and Milke *Principles of Smoke Management*, ASHRAE, Atlanta GA, 2002.

Page 20, top of left column: change “(5) the only heat transfer is from the sprinkler to the gas.” to “(5) the only heat transfer is from the gas to the sprinkler.”

Page 23, Table 2.3: change “01127” to “01172”.

Page 31, Example 3.2: change “Extinction coefficient = 0.207 m<sup>-1</sup>” to “Extinction coefficient = 0.207 ft<sup>-1</sup>”.

Page 31, Example 3.2: change “From Equation (3.12)” to “From Equation (3.11)”.

Page 64, left column: delete “ $\dot{m}$  = mass flow rate through the path, lb/s (kg/s),”.

Page 93, 2<sup>nd</sup> from last paragraph of right column: change “16.7 psi” to “14.7 psi”.

Page 95, change equation (6.15) from  $NP = \frac{K_{NP}\Delta p D_h^2}{\rho v} \left(\frac{D_h}{x}\right)^2$  to  $NP = \frac{K_{NP}\Delta p D_h^2}{\rho v^2} \left(\frac{D_h}{x}\right)^2$ .

Page 95, right column: change “ $K_{NP} = 0.108$  (1.00)” to “ $K_{NP} = 1.16$  (1.00)”.

Page 96, 2<sup>nd</sup> from last paragraph of left column: change “the dimensionless flow,  $NP$ , can ...” to “the dimensionless flow,  $NQ$ , can ...”

Page 99, Table 6.1: change from “Table 6.1” to “Table 6.3”.

Page 99, Table 6.2: change from “Table 6.2” to “Table 6.4”.

Page 100, Table 6.3: change from “Table 6.3” to Table 6.5”.

Page 100, Table 6.4: change from “Table 6.4” to Table 6.6”.

Page 102, Table 6.7, in heading: change “**Roughness, e**” to **Roughness,  $\epsilon$** ”

Page 103, Example 6.9: change “From this figure,  $A_o / A_s = 12.5$ , and  $A_o = 12.5A_s = 12.5(8.6 \times 12) = 1290$  ft<sup>2</sup> (120 m<sup>2</sup>).” to “From this figure,  $A_o / A_s = 11$ , and  $A_o = 11A_s = 11(8.6 \times 12) = 1140$  ft<sup>2</sup> (106 m<sup>2</sup>).”

Page 103, Figure 6.15: change from “L = 9 ft (27.4 m)” to “L = 9 ft (2.74 m)”

Page 103, Figure 6.16: change from “L = 9 ft (27.4 m)” to “L = 9 ft (2.74 m)”

Page 103, Figure 6.17: change from “L = 9 ft (27.4 m)” to “L = 9 ft (2.74 m)”

Page 104, Figure 6.18: change from “L = 9 ft (27.4 m)” to “L = 9 ft (2.74 m)”

Page 104, Figure 6.19: change from “L = 9 ft (27.4 m)” to “L = 9 ft (2.74 m)”

Page 143, Equation (10.3), change  $\Delta p_{SO} = \Delta p_{Sob} - K_p y (\rho_o - \rho_s)$  to  $\Delta p_{SO} = \Delta p_{Sob} + K_p y (\rho_o - \rho_s)$ .

Page 144, Equation (10.13): change from  $\dot{V}_{SBO} = \frac{2}{3} NCA_{SBOe} \left( \frac{\Delta p_{SOt}^{3/2} - \Delta p_{SOb}^{3/2}}{\Delta p_{SOt} - \Delta p_{SOb}} \right)$  to

$$\dot{V}_{SBO} = \frac{2}{3} NCA_{SBOe} \sqrt{\frac{2}{\rho}} \left( \frac{\Delta p_{SOt}^{3/2} - \Delta p_{SOb}^{3/2}}{\Delta p_{SOt} - \Delta p_{SOb}} \right).$$

Page 147, last line of Example 10.2: change from

$$\dot{V}_{SB} = 475 \frac{20(0.32)}{(0.075)^{1/2}} \left( \frac{(0.40)^{3/2} - (0.05)^{3/2}}{0.40 - 0.05} \right) = 7,700 \text{ cfm (3.6 m}^3/\text{s)} \text{ to}$$

$$\dot{V}_{SB} = 475 \frac{20(0.32)}{(0.075)^{1/2}} \left( \frac{(0.37)^{3/2} - (0.05)^{3/2}}{0.40 - 0.05} \right) = 7,670 \text{ cfm (3.62 m}^3/\text{s)}$$

Page 173, line after Equation (12.2): change from “ $p_B - p_O = (p_B - p_F) - (p_F - p_O)$ ” to “ $p_B - p_O = (p_B - p_F) + (p_F - p_O)$ ”.

Page 208, item b: replace **bold** font with regular font.

Page 208: Revise as: “Approaches described above are illustrated in Figure 14.15A, ...”

Page 209: Figure Number: Change from “Figure 14.1” to “Figure 14.15A”.

Page 182, In equation (13.7), change  $T_a$  to  $T_o$ .

Page 183, below Equation (13.8): change “ $T_c =$ ” to “ $T_{cp} =$ ”.

Page 184, In equation (13.13), change  $T_a$  to  $T_o$ .

Page 205, calculation of mass flow in Example 14.2: change from

$$“\dot{m} = 0.22\dot{Q}_c^{1/3} z^{5/3} + 0.0042\dot{Q}_c = 0.22(1400^{1/3})(36^{5/3}) + 0.0042(1400) = 102 \text{ lb/s (46.4 kg/s)}” \text{ to}$$

$$“\dot{m} = 0.22\dot{Q}_c^{1/3} z^{5/3} + 0.0042\dot{Q}_c = 0.22(1400^{1/3})(36^{5/3}) + 0.0042(1400) = 102 \text{ lb/s (46.4 kg/s)}”.$$

Pages 289 to 320, Appendix D: The appendix has discrepancies listed below that defy simple corrections of an errata sheet form. This appendix should be revised extensively in the next edition of the book.

1. On page 289 the ambient temperature is noted as 22 °C, yet the printout on p. 312 shows an ambient temperature of 20 deg C.
2. In appendix D example, Please note the St2 area shows: fan5, openstdoor, and extstwall (3 problems) and also intwallstr, fileakstr2 (these 2 are OK). Referring to sixth floor on page 307 and descriptions for St2 on pages 315 and 316, it appears that the following floor plan changes may be needed for page 303: (1) remove fan5 (no input data shown) (2) openstdoor should be stairdoor2 (3) extstwall should be extstrwall1 (this is also misspelled for St1) (4) extstrwall2 should be added to lower outside wall within St2 like on other floors.
3. Figure D15 shows wind coefficients for the 4 exterior walls of 0.8, -0.8, -0.8, and -0.8. These values do not agree with the values of Table 5.3.