

**Errata to
Fundamentals of Design and Control of Central Chilled-Water Plants (SI)
(2017)**

June 18, 2019

Shaded items have been added since the previously published errata sheet dated October 30, 2018.

Page 38

Under the section Oil Return, “Using an oil pump can reduce the minimum lift to about 10°F” should read “Using an oil pump can reduce the minimum lift to about **5.5°C**”

In third paragraph in the section Absorption Chillers, “Because of absorption chillers’ low, the heat rejection system must be about 50% larger than with a compression chiller plant, increasing the cost of condenser water pumps, piping, and cooling towers.” should read “Because of absorption chillers’ low **COPs**, the heat rejection system must be about 50% larger than with a compression chiller plant, increasing the cost of condenser water pumps, piping, and cooling towers.”

In the first bullet point in the section Absorption Chillers, the phrase “water at that temperature has the lowest density, enhancing tank stratification and increasing storage capacity” should read “water at that temperature has the **higher** density, enhancing tank stratification and increasing storage capacity.”

Page 164:

The values in Table 5-7 should read as follow:

**Table 5-7 Typical Coil Performance Versus
Chilled-Water Temperature Difference**

Chilled-Water ΔT, °C	5.5	7.2	8.9	10.6	12.2	14
Coil water pressure drop, m H₂O	7.2	4.2	2.8	2.5	2.0	1.4
Coil air-side pressure drop, mm H₂O	12.2	12.7	13.2	15.2	16.0	19.8
Rows	6	6	6	8	8	8
Fins per cm	2.9	3.3	3.7	3.0	3.4	4.6

Cooling coil pressure air- and water-side drops were determined from a manufacturer’s AHRI-certified selection program assuming 2.5 m/s coil face velocity, smooth tubes, maximum 4.7 fins per cm spacing, 7.2°C CHW supply temperature, 25.5°C/17.2°C entering air temperature, and 11.7°C leaving air temperature.

The values in Table 5-8 should read as follow:

Table 5-8 Cooling Coil and Associated Piping Costs
 (For 9400 L/s coil sized at 2.5 m/s, 5.6°C CHW supply temperature, 26°C entering dry-bulb temperature, 17°C entering wet-bulb temperature, and 12°C leaving dry-bulb temperature)

Fins per cm	Rows	Coil					Piping		
		Air Pressure Drop, mmH ₂ O	Fluid ΔT, °C	Fluid Flow, m ³ /h	Fluid Pressure Drop, m H ₂ O	Coil Cost	Pipe Size, mm	Coil Connection	Total Cost
4	4	17.8	5.6	27.0	2.8	\$3598	75	\$4551	\$8149
4.3	6	16.51	10.1	15.0	2.3	\$4845	64	\$3581	\$8426
4	8	20.32	13.8	10.7	1.7	\$5956	50	\$2101	\$8057

Page 169	The x-axis of Figure 5-11 should read “Condenser Water Temperature/ΔT,” rather than “Chilled Water Supply Temperature/ΔT”
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Page 177 Equation 5-1 $T_A + \Delta T_{CW} = 15 - 0.0006CDD_{50}$ should read
 $T_A + \Delta T_{CW} = 15 - \mathbf{0.001CDD}_{10}$.

Equation 5-2 $T_A = 15 - \Delta T_{CW} - 0.0006CDD_{50}$ should read
 $T_A = 15 - \Delta T_{CW} - \mathbf{0.001CDD}_{10}$.