Using the IMC Table 1 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total CFM requirement for a 10 ft. long single island canopy kitchen hood with a heavy duty rating?

600 × 10 = 6,000 CFM

Using the IMC Table 1 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total CFM requirement for a 12 ft. long wall mounted canopy kitchen hood with a light duty rating?

200 × 12 = 2,400 CFM

Using the IMC Table 1 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total CFM requirement for a 20 ft. long double island canopy kitchen hood with a medium duty rating?

300 × 20 = 6,000 CFM

Using Table 2 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total overhang requirement for a 10 ft. long single island canopy kitchen hood?

Ends 12 in; front 12 in; rear 12 in.

Using Table 2 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total overhang requirement for a 12 ft. long wall mounted canopy kitchen hood?

Ends 6 in; front 12 in; rear N/A (wall mounted)

Using Table 2 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total overhang requirement for a 20 ft. long double island canopy kitchen hood?

Ends 12 in; front 12in; rear N/A (both sides are considered to be front for working)

Using Table 1 and 2 in Appendix D of Maria’s Restaurant Technician’s Guide & Workbook, what would the total hood length and CFM requirement be for a wall mounted canopy kitchen hood over four 48 in. medium duty ovens?

Step 1 length of equipment in ft. 4 × 48 ÷ 12 = 16 ft. long

Step 2 add in two end overhangs of 6 in each or add a foot to the length = 17 ft.

Step 3 multiply by the medium duty cfm per foot of 300 CFM per ft. = 17 × 300 = 5,100 CFM

Field Notes:

A kitchen was always hot and humid. The technician was called to check the HVAC system. While there, the technician noticed the exhaust venting over the dishwasher didn’t seem to be removing moisture and heat intermittently. After making sure the HVAC system was operating as designed, the technician checked the exhaust fan for the dishwasher vent and found the single-phase exhaust motor was running at high amps (at the correct voltage) and was going off on an internal overload intermittently. Thus, it was determined the motor was undersized. The ¾ HP motor was replace with a 1 HP motor and the hood stayed on. This resolved the cooling issue in the kitchen. Note: the calculated heat load increase from the vented to the unvented dishwasher example shown in this lesson could be calculated as 18,600 – 10,600 = 8,000 Btuh, and all of that increase is in latent heat.