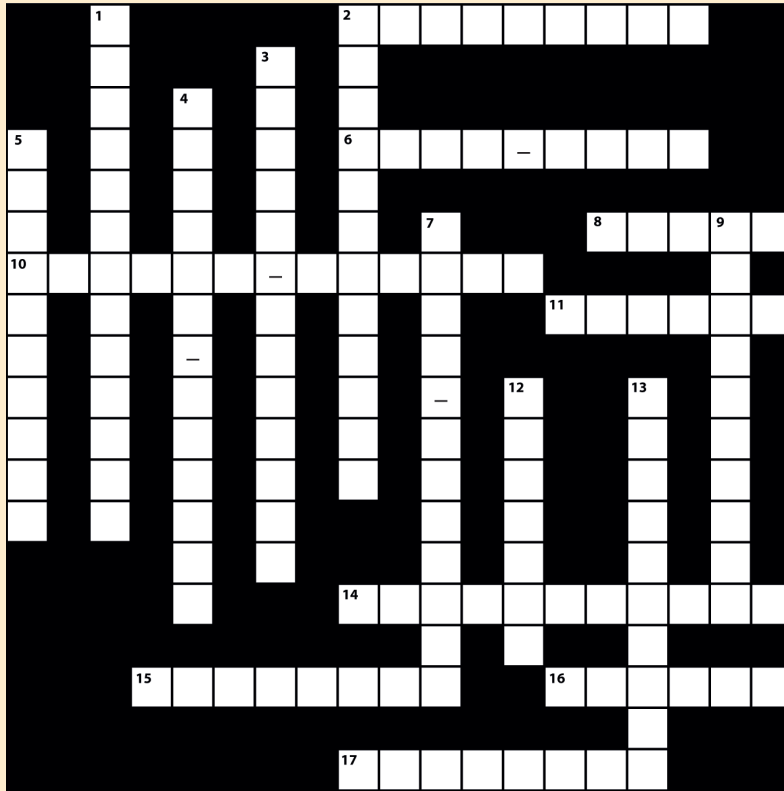


Take the HVAC CHALLENGE™

BY STEVEN G. LIESCHEIDT, P.E., CSI-CCS, CCPR

▶ Kitchen Ventilation



ACROSS

2. Another filter term for removable extractors.
6. A style of commercial kitchen hood used over counter-height equipment.
8. A rising mass of heated air from cooking surfaces.
10. This type of canopy is used for all types of cooking equipment mounted back-to-back in an island configuration.
11. This is outside air introduced through the HVAC or ventilation apparatus, dedicated to the comfort conditioning of the space in which the hood is located.
14. UV light to chemically convert grease into an inert substance and ozone.
15. These hoods meet the design, construction, and performance criteria of applicable national and local codes and are allowed to have fire-actuated exhaust dampers.
16. Typically, none of these should be noticeable in a restaurant and temperatures should vary no more than 1°F in dining areas and 3° in the kitchen areas.
17. Forms a soapy layer that prevents oxygen from reaching hot surfaces.

DOWN

1. With these hoods, it is critical to keep components in good working order to maintain optimal performance; otherwise grease, heat, and odors will accumulate in the premises.
2. A hood type that includes six types: air curtain supply, back-wall supply, front-face supply, internal makeup air, multiple discharge, and perforated perimeter supply.
3. Another term for internal makeup air method of introducing replacement air directly into the exhaust hood cavity.
4. This type of canopy is used for all types of cooking equipment in a single-line island configuration.
5. This type of hood is for application with high-moisture exhaust.
7. This type of canopy is used for all types of cooking equipment located against a wall.
9. These extractors use two or more stages of filtration to remove a large percentage of grease.
12. This type of centrifugal fan is also known as an inline fan and has the impeller

- mounted in a cylindrical housing discharging the gas in an axial direction.
13. These extractors are integral to the listed exhaust hoods that use them and are typically constructed of stainless steel, containing a series of horizontal baffles that run the full length of the hood.

To brush up on the facts behind this month's clues, refer to Chapter 31 ("Kitchen Ventilation") in the 2007 ASHRAE Handbook - Applications.



Liescheidt is a sales engineer with Langendorf Supply Co., Inc. in St. Louis, MO. E-mail him at stevel@lsc-inc.com

Can't wait until next issue?

Now, check out the answers for this month's "HVAC Challenge" on page 64 or check out answers from past puzzles on www.esmagazine.com.

Solution to October's HVAC Challenge™

