

**INTERPRETATION IC 62.1-2019-3 OF  
ANSI/ASHRAE STANDARD 62.1-2019  
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

Approved: February 4, 2023

**Request from:** Thelma Serrano-Monterola / Omar Muñiz-Rosado, ShareTech Group, Road #1 Km 34.4, Plaza Bairoa Suite 215, Caguas, PR 00725.

**Reference:** This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2019, Section 5.13.2, regarding pressure drop restriction in cooling coil selection.

**Background:** ASHRAE Standard 62.1 Section 5.13.2 states: *Individual finned-tube coils of multiple finned-tube coils in series without intervening access spaces of at least 18 in. (457 mm) shall be selected to result in no more than 0.75 in. of water (187 Pa) combined dry-coil pressure drop at 500 fpm (2.54 m/s) face velocity.*

Our firm is working on a design-build project for a new drinking water laboratory. The design of the facility considers several non-recirculating air handling units. Air handling units' cooling coils design specifies 8 rows / 14 fpi each, with air velocities from 385.7 fpm (minimum) to 475.7 fpm (maximum). The design coils velocity is for worst case scenarios only, the system is fully automated and will constantly modulates throughout the day/seasons to maintain adequate facility environmental conditions. Air handling units design considered at least 24 inches space downstream and upstream the cooling coils for inspection and maintenance purposes.

Our interpretation is based on the following facts:

1. The pressure drop requirement is a surrogate means for the difficulty of the cleanability; as the cleanability and accessibility is assured and exceeds the intervening space, this pressure drop requirement is not necessary.
2. The specific standard regarding mechanical equipment maintenance is ASHRAE 180 and not 62.1.
3. The 2020 ASHRAE Handbook Systems and Equipment, Chapter 23, Section 2 establishes that cooling coils typical fins space extend up to 18 fins per inch.

It is our understanding that the intention of ASHRAE Standard 62.1 Section 5.13.2 is not to limit the broad spectrum of HVAC design, limiting the selection of cooling coils to a pressure drop constraint, but to assure the proper maintenance of the coils in order to preserve adequate indoor air quality.

**Interpretation:** Our interpretation of ASHRAE Standard 62.1 Section 5.13.2, as well as the interpretation of several professional engineers consulted, is that any coil or multiple coils arrangement with intervening space of more than 18" for cleaning purposes downstream and upstream of the cooling coil complies with Standard 62.1.

**Question:** Is this interpretation correct?

**Answer:** No

**Comments:** The standard specifically states that any coil is limited to 0.75” H<sub>2</sub>O of pressure drop. Multiple coils closer than 18” shall be treated as a single coil that must comply with the 0.75” H<sub>2</sub>O requirement. The user’s manual provides additional context.