WAC 51-11C-40602 Section C406.2—HVAC option.

**C406.2 More efficient HVAC equipment and fan performance.** Buildings shall comply with Sections C406.2.1 through C406.2.3.

**C406.2.1 HVAC system selection.** No less than 90 percent of the total HVAC capacity serving the building shall be provided by equipment that is listed in Tables C403.2.3(1) through C403.2.3(9) or a combination thereof.

EXCEPTION: Air-to-water heat pumps or heat recovery chillers are also permitted to be utilized for Option C406.2.

**C406.2.2 Minimum equipment efficiency.** Equipment shall exceed the minimum efficiency requirements listed in Tables C403.2.3(1) through C403.2.3(9) by 15 percent, in addition to the requirements of Section C403. Where multiple performance requirements are provided, the equipment shall exceed all requirements by 15 percent.

EXCEPTION: Equipment that is larger than the maximum capacity range indicated in Tables C403.2.3(1) through C403.2.3(9) shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table.

**C406.2.3 Minimum fan efficiency.** Stand-alone supply, return and exhaust fans designed for operating with motors over 750 watts (1 hp) shall have an energy efficiency classification of not less than FEG 71 as defined in AMCA 205. The total efficiency of the fan at the design point of operation shall be within 10 percentage points of either the maximum total efficiency of the fan or the static efficiency of the fan.


(Effective July 1, 2020)
C406.2.2 Minimum equipment efficiency. Equipment shall exceed the minimum efficiency requirements listed in Tables C403.2.3(1) through C403.2.3(12) by 15 percent, in addition to the requirements of Section C403. Where multiple performance requirements are provided, the equipment shall exceed all requirements by 15 percent.

EXCEPTIONS:
1. Equipment that is larger than the maximum capacity range indicated in Tables C403.2.3(1) through C403.2.3(12) shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table.
2. Equipment that complies with the exception to Section C406.2.1 is not required to comply with the minimum equipment efficiency requirement.
3. Compliance may be demonstrated by calculating a total weighted average percentage for all heating and cooling equipment combined. All equipment shall have efficiency that is no less than 5 percent better than the minimum required efficiency in Table C403.2.3(1) through C403.2.3(12), and the resulting weighted average percentage for all equipment performance requirements shall exceed 15 percent. Calculation shall include heating and cooling capacities for all equipment, percentage better or worse than minimum required efficiency per Tables C403.2.3(1) through C403.2.3(12) for each performance requirement (SEER, EER/IEER, COP, HSPF, \(E_t\), \(E_c\), and AFUE), and the total weighted average efficiency percentage.
4. Hot water boilers with input capacity greater than 2,500,000 Btu/h shall be considered to comply with this section with a minimum thermal efficiency of 95 percent \(E_t\) in accordance with the test procedure in 10 C.F.R. Part 431.

C406.2.3 Minimum fan efficiency. Stand-alone supply, return and exhaust fans designed for operating with motors over 750 watts (1 hp) shall have a fan efficiency grade of not less than FEG 71 as defined in AMCA 205. The total efficiency of the fan at the design point of operation shall be within 10 percentage points of either the maximum total efficiency of the fan or the static efficiency of the fan.