

INTERPRETATION TO AHRI STANDARDS 550/590-2020 (I-P) AND 551/591-2020 (SI) - 2
PERFORMANCE RATING OF WATER-CHILLING AND HEAT PUMP WATER-HEATING
PACKAGES USING THE VAPOR COMPRESSION CYCLE

Approved: February 16, 2022

Question: Are 4-pipe chillers covered by AHRI Standards 550/590 and 551/591?

References: Section 2.1 Scope

Answer: Yes, under the following conditions. Air-cooled water-chilling packages with an additional water-cooled heat exchanger (sometimes referred to as “4-pipe chillers”) are covered within the scope of AHRI Standards 550/590 (I-P)-2020 and 551/591 (SI)-2020 for publishing performance ratings within the Application Rating Conditions per Table 5 as follows:

- as air-cooled water-chilling packages when operating in cooling mode with the heat fully rejected to the air-cooled condenser, or;
- as water-cooled water-chilling packages when operating in cooling mode with the heat fully rejected to the water-cooled condenser

No, under the following conditions. Air-cooled water-chilling packages when operating in any mode (cooling, heating, heat recovery, simultaneous heating & cooling) with the heat rejection split between an air-cooled condenser and a water-cooled condenser in varying proportions are outside the scope of the Standards. Ratings may be published but must include the out-of-scope statement per Section 6.1.

Note: For questions on certification, refer to the ACCL Operations Manual or WCCL Operations Manual.