

Introducing Active Head Pressure Control 2.0

Valent's commitment to high-value, performance-enhancing features to better control high-outdoor air loads continue with the launch of Active Head Pressure Control 2.0.

BENEFITS

Improved Dehumidification Performance

- Elevates head pressure to increase hot-gas reheat capacity at part load dehumidification

Reduced Sound Transmission

- High-performance condensing fans provide a sound power reduction up to 8.4 dB(A) at full speed
- Condensers with multiple fans all modulate at the same speed, further reducing sound transmission at part load

Increased Efficiency

- Brushless DC motors offer greater efficiency over standard induction motors

Greater Control

- Multiple head pressure set points for dehumidification and comfort cooling modes

SCOPE

- Enhanced head pressure control strategy with fully-modulating condensing fan banks and multiple head-pressure set points
- Premium condensing fan construction designed for sound reduction and energy efficiency
- Available on all air-cooled products in the 110, 210, 310, and 350 casings



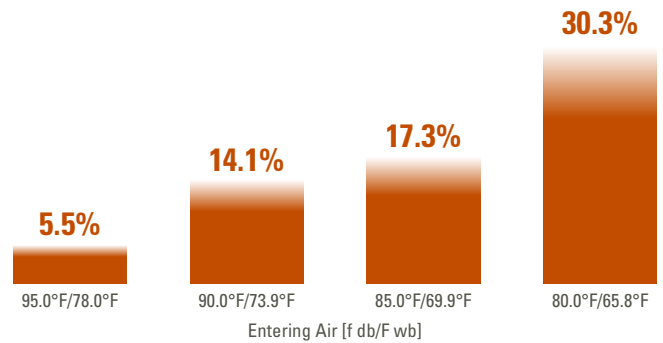
IMPORTANCE OF HEAD PRESSURE CONTROL

The ability to maintain a constant head pressure in the condensing section dramatically improves the performance of integral hot-gas reheat systems used for dehumidification. Valent's Head Pressure Control 2.0 manages refrigerant pressures by varying the airflow across the condensing coil — providing more reheat capacity to heat cold, dehumidified air to the desired supply air temperature.

ENERGY SAVINGS

Valent's Active Head Pressure Control 2.0 system features highly efficient, modulating condensing fans driven by brushless DC motors. At full design loads, the increase in efficiency results in improved EERs compared to staged condensing fans driven by traditional induction motors. Efficiency is further increased at part loads as Valent's controller slows the speed of condensing fans to maintain refrigerant pressure. To illustrate these performance improvements, Figure 1 shows the EER increase Active Head Pressure Control 2.0 generates over standard staged condensing fan control in a 5-ton, 100% outdoor air unit at part load.

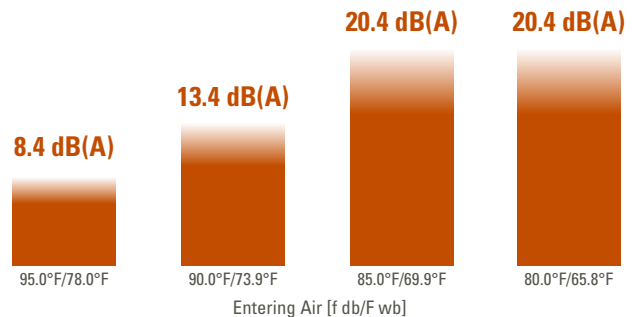
Unit EER Increase [Fig. 1]



SOUND LEVEL REDUCTION

In addition to being energy efficient, the condensing fans used in Active Head Pressure Control 2.0 utilize special blade technology to reduce overall sound power levels. Similar to the increase in EER seen at part loads, the overall sound transmission is greatly reduced as the fans are slowed from full speed. The reduction in sound at part load can be seen in Figure 2 using the same 5-ton, 100% outdoor air example in Figure 1.

Condensing Fan Sound Level Reduction [Fig. 2]



THE VALENT ADVANTAGE

Valent Air Management Systems is a manufacturer of feature-rich configurable ventilation equipment designed to address the needs of building owners, specifying engineers, and installing contractors. Valent units are built on a foundation of four key attributes: premium quality construction, comprehensive packaging, a thorough run-testing program, and powerful and flexible controls packages.

Contact your Valent representative today for more information.

www.valentair.com

60 28TH AVENUE NORTH, SUITE 100
MINNEAPOLIS, MINNESOTA 55411
T – 612.877.4850

