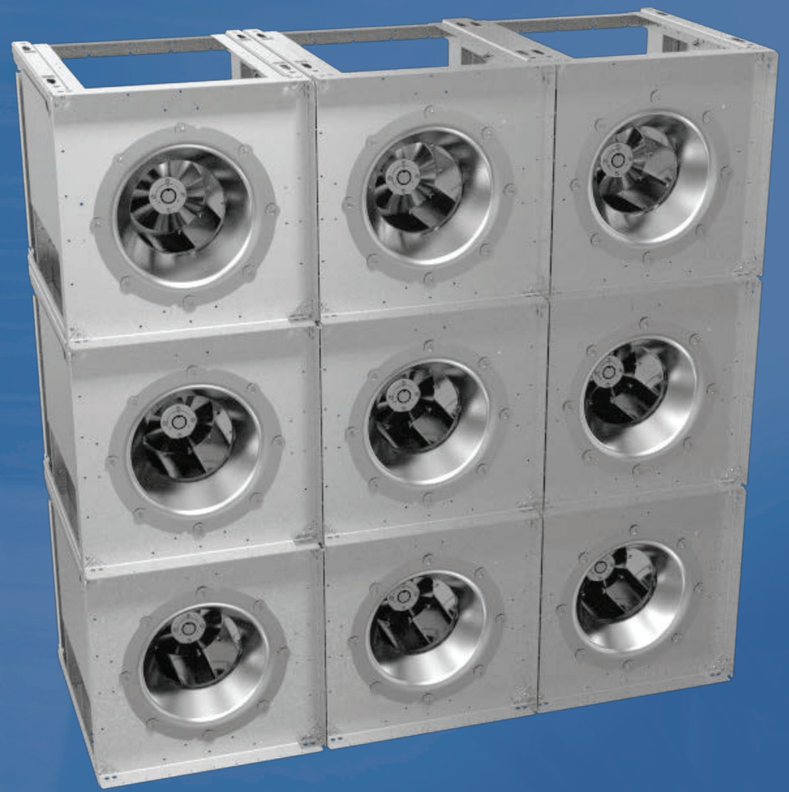
AIR HANDLERS WITH FAN ARRAYS



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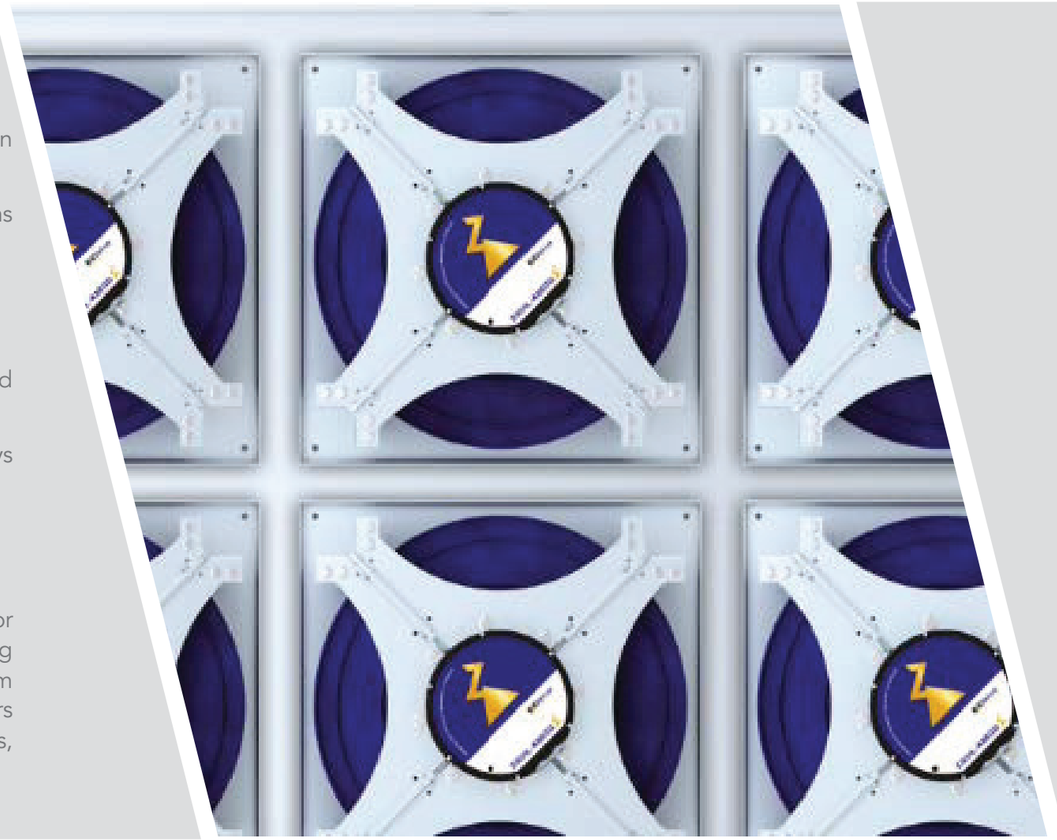
THE FAN ARRAY OPTION

Southampton Industrial custom air handlers offer many choices for fan selections including fan arrays.

Fan arrays provide many benefits compared to conventional fan selections including:

- Reduced sound levels
- Uniform distribution provides optimum airflow through components
- Optional EC motors provide exceptional efficiency and motor speed control without the use of VFD's
- Constant airflows can be ensured for critical applications when arrays are designed with redundancy
- Reduced fan and motor weights allow for easier serviceability
- Smaller air handler dimensions

Southampton Industrial custom air handlers offer numerous options for components including fans from many major manufacturers. Ziehl-Abegg offers a range of quiet, efficient direct drive plenum fans which make them an excellent choice for many fan array applications. Manufacturing motors has been one of the core businesses of the company for over 100 years, resulting in their current industry leading EC motors and controls.



AIR HANDLER OPTIONS

Southampton Industrial custom air handlers with fan arrays can be designed with many additional features including:

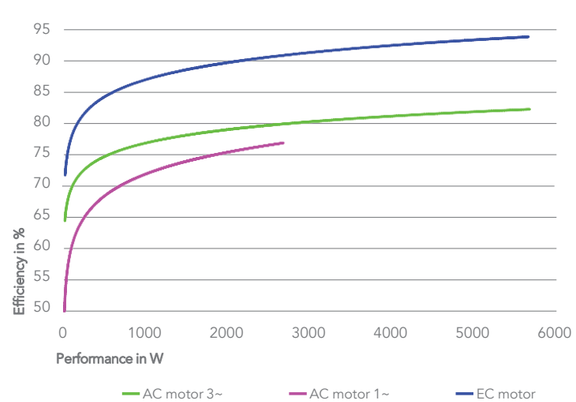
- 1-4 inch casing thicknesses
- Chilled water or DX cooling
- Natural gas, hydronic or steam heating
- Advanced filtration options including HEPA, chemical and UV
- Air handlers with fan arrays can include energy recovery options including Southampton EnergyCore™ with 95% effectiveness
- Programmable controllers from all major manufacturers including Allen Bradley, Distech, Schneider, GE and Siemens
- Air handlers can be combined with Southampton control panels to provide complete HVAC equipment/automation systems
- Factory integration testing of complete HVAC and automation systems provides seamless operation at job sites

EC MOTORS

EC (Electronically Commutated) motors provide many advantages over AC motors in terms of control, reliability and efficiency.

Typical efficiencies for single phase, three phase and EC motors are compared in Figure 1. EC motors can achieve efficiencies up to 93% while single phase and three phase motors achieve efficiencies of 77% and 82% respectively.

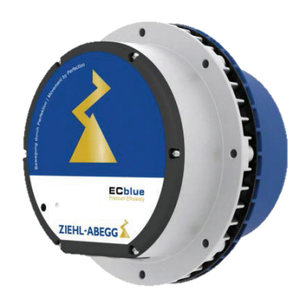
Figure 1: Comparison of Motor Efficiencies



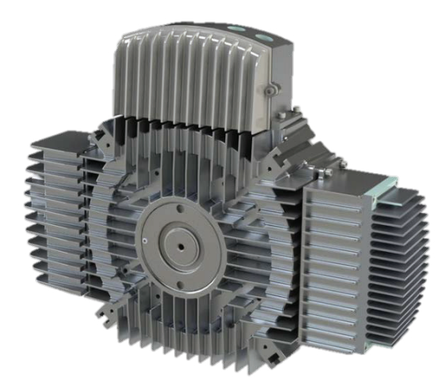
FEATURES

EC motor features include:

- Precise speed control
- Power factor correction
- Compact and light weight
- Wireless mobile monitoring
- Continuous speed control via Modbus or 0-10 Vdc signal



ZIEHL-ABEGG



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