### Sensible Assisted Membrane Energy Recovery Technology





## Up to 20 percent higher efficiency than alternative designs.

Trane<sup>®</sup> Sensible Assisted Membrane (SAM<sup>™</sup>) energy recovery technology helps deliver better indoor air quality for building occupants. Leveraging membrane exchangers (enthalpy cores) and fixed-plate heat exchangers deliver up to six percent improvement in total energy effectiveness with one inch less air pressure drop versus alternative membrane exchanger designs. Better still, SAM technology offers previously unattainable efficiencies compared to more traditional membrane exchanger options, with significantly reduced maintenance requirements and greater footprint flexibility.



A combination of the fixed membrane and heat plate exchanger working together to maximize the effectiveness of the unit.



**Schools** - reduce energy use with low maintenance.



**Hospitals -** reduce energy use and achieve better indoor air quality.



**Airports** - reduce energy use and attain nearly zero cross-contamination air leakage rates of recycled air.

#### More efficient energy recovery.

Available across the entire Performance Climate Changer<sup>®</sup> portfolio, SAM<sup>™</sup> energy recovery technology offers numerous benefits for building owners and occupants:

#### SAM vs. alternative membrane designs

- Enables the AHU unit to deliver up to 20 percent higher efficiency
- · Offers a significantly reduced equipment footprint
- Delivers easier serviceability due to modular design and fewer components
- Is available in a broader range of airflow configurations (4,000 and 28,000 cfm)

#### SAM vs. traditional energy wheel

- Reduces maintenance through a design that does not have a motor, bearings or belts
- Delivers the footprint flexibility to meet space requirements
- Handles higher airflow pressure through enhanced configuration flexibility
- · Equals the efficiency levels of an energy wheel
- Meets a range of airflow needs (4,000 and 28,000 cfm) previously achieved only by energy wheels

# The industry's most comprehensive energy-recovery options.

In addition to SAM energy recovery technology, Trane offers numerous other factory-packaged options to optimize Performance Climate Changer AHU energy efficiency when similar performance is desired for applications having tighter length requirements.

#### For total energy recovery

- · AHRI 1060-certified energy wheels
- Trane Dual Exhaust Energy Recovery (DEER) system (transfers Class 2 exhaust air stream throughout a building)

#### For sensible energy (heat only)

• Air-to-air plate heat exchangers (similar to SAM energy recovery technology, it offers little or no crosscontamination, and may also be used for free reheat in dehumidification applications)

Contact your local Trane Account Manager to learn more about Sensible Assisted Membrane technology or visit Trane.com/PerformanceAHU for more information.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com* or *tranetechnologies.com*.