

HIGH RECOVERY EFFICIENCY

INDOOR AIR QUALITY

FläktGroup
SEMCO

FV

ENERGY RECOVERY VENTILATOR

The SEMCO FV (Fresh Air Ventilator) Series of outdoor air pre-conditioners have been specifically designed to reduce the energy required to heat or cool outdoor air by up to 80%.

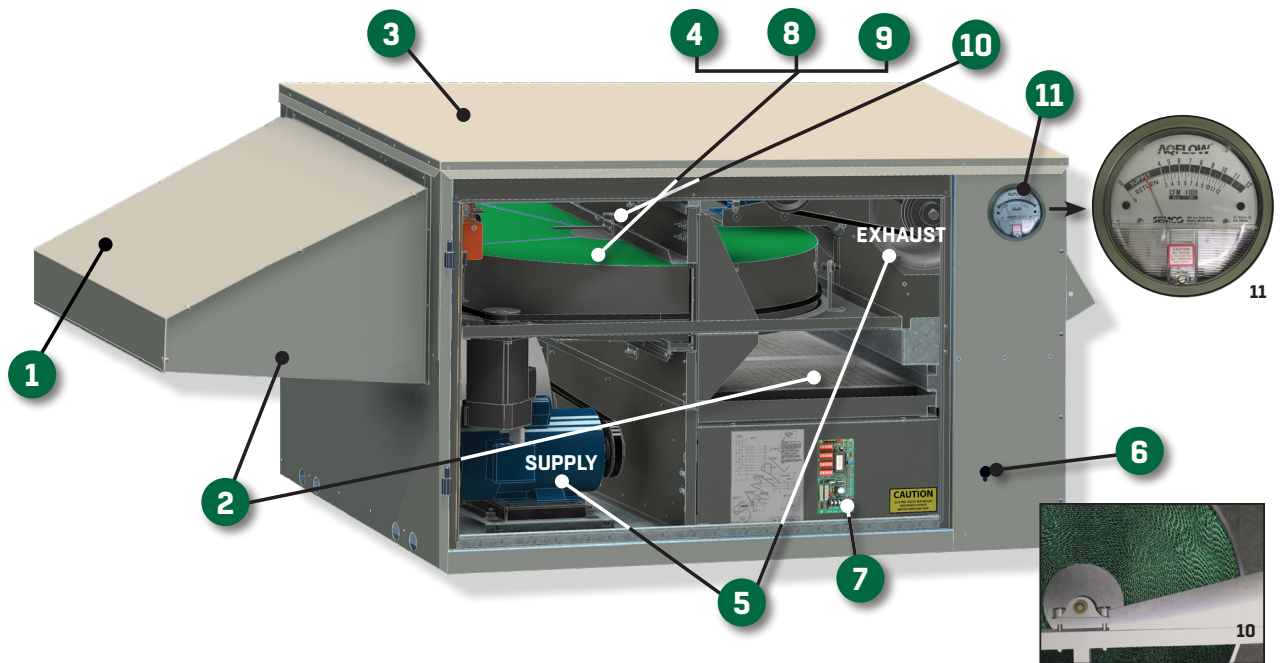
The FV pre-conditioner allows the HVAC system to effectively and economically accommodate the three-to-four-fold increase in outdoor air quantities, which is recommended by the ASHRAE Standard 62, Ventilation for Acceptable Indoor Air Quality. This unique capability allows both new and existing buildings to benefit from a healthy indoor environment. The FV Series is available with an airflow range of 600 to 10,000 CFM.

SEMCO's FV pre-conditioner significantly reduces the operating cost of a facility designed in accordance with the ASHRAE IAQ standard. It also improves humidity control when combined with unitary heating and cooling equipment. Because the SEMCO unit preconditions the incoming air to the packaged equipment, the required refrigeration capacity may be reduced by as much as 50 percent. Thus, the cost of the FV pre-conditioner and its installation is typically offset by the reduced size of the conventional HVAC system.



KEY BENEFITS

- Cost effective, tested and approved total energy recovery module
- Certified performance, high latent capacity
- Patented molecular-sieve desiccant limits the transfer of exhaust air pollutants
- Purge section, self-cleaning media assures low carry-over
- Optimizes recovery effectiveness and parasitic pressure loss for maximum energy savings
- Self-cleaning, non-plugging fluted media eliminates high parasitic filter pressure losses
- Total enthalpy recovery wheel recaptures temperature and humidity from the exhaust airstream without transferring a high percentage of indoor contaminants back to occupied space
- Designed with an aluminum substrate built to meet NFPA 90A smoke and flame ratings
- Outdoor air intake on one side and a high velocity discharge hood on the opposite side to ensure maximum possible separation of the two airstreams
- Quick, easy, comprehensive design selection and sizing software tool available online



FV DESIGN AND FEATURES

1. Hoods and dampers include: outdoor airflow damper, intake hood with a cleanable filter, and exhaust air back draft damper
2. Effectively operates with low-efficiency, washable filters without impacting long term performance
3. Galvanized steel, insulated cabinet
4. Aluminum total energy wheel with long life bearings and low leak brush seals
5. Fans sized for quiet and efficient operation
6. Electrical Package with Single Point Connection
7. Control package options include stop/jog economizer, frost protection and rotation detector sensor
8. 3Å Molecular Sieve Desiccant adsorbs moisture and not exhausted contaminants. Superior performance at high face velocities and high latent efficiencies
9. Laminar Flow causes airborne particles to pass freely through the rotor media.; As the wheel rotates between two opposing air streams, the continuous reversal of airflow results in a very efficient “self-cleaning” process. Factor in the high velocity airflow and this cleaning process is enhanced. As a result, only minimal filtration is required for sustained efficient operation.
10. Purge Section utilizes pressure difference between the outdoor and return air streams to “purge” the transfer media with clean outdoor air prior to its rotation into the supply air stream
11. AQ Flow calibrated to convert differential pressure across the total energy wheel into an airflow rate expressed in CFM

Visit www.semcohvac.com for more information.

EXCELLENCE IN SOLUTIONS

FläktGroup SEMCO delivers smart and energy efficient Air Distribution and Air Quality solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than fifty years of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

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