

WHEEL MEDIA CLEANING PROCEDURE

FläktGroup® SEMCO®'s energy recovery wheels (UWC, Fusion® & True 3Å®) have been designed so that a laminar flow is maintained within the transfer media during all operating conditions. This means that the air and all other particles in the air stream pass straight through the wheel. Due to the laminar flow profile through the FläktGroup SEMCO energy wheel, any collection of dust or particulate matter will occur at the entering and sometimes the leaving edges of the transfer media. Such buildup is usually handled by the self-cleaning action of the energy recovery wheel. Self-cleaning takes place when particles that may deposit on the wheel's surface are blown off the surface as it rotates into the counter-flow airstream.

FläktGroup SEMCO also offers proprietary surface treatments that reduce particles from sticking to the media surface. With FläktGroup SEMCO's wheel surface treatment, any accumulation of dust or particles can usually be vacuumed, purged with

compressed air or wiped from the rotor surface.

In rare cases where a more thorough cleaning is required the following procedure can be used to remove unwanted dirt and grime from the wheel's surface.

If cleaning a large wheel, be certain to plan an appropriate amount of time. Depending upon the application and contaminant in the exhaust airstream, cleaning can be a slow process. While rare, a badly loaded wheel which has not rotated for extended periods while processing a highly contaminated exhaust airstream can require a full 8 hour shift to clean a 10 foot diameter wheel. To minimize downtime, a wheel could be cleaned a few segments at a time, so the air handler could be brought back on when required, then shut down later and the cleaning continued on the remaining segments at the next opportunity.

TOOLS/MATERIALS REQUIRED:

- Air compressor capable of sustaining 90 psi
- Air spray nozzle without OSHA relief
- Wet dry vacuum
- Simple Green® spray cleaner, approx (8) 1-quart bottles per average size wheel.
- 2-3 soft 2" sash paint brushes
- Several large canvas drop cloths, and materials to hang cloth vertically
- Step ladder 6-8 ft
- Stand lighting
- Safety goggles

CLEANING PROCESS:



TURN OFF THE AIR HANDLER & WHEEL (WHEEL MUST BE STOPPED AND AIRFLOW OFF). WEAR SAFETY GOGGLES WHILE CLEANING.

- 1) NOTE:** In the case of a uwc/uwch wheel the whole cassette can likely be easily removed from the air handling unit which greatly simplifies any cleaning process.
- 2)** Liberally spray Simple Green cleaner on a small section of media (onto the dirty return air side) and let it foam, softening debris and dirty residue.
- 3)** After the cleaning liquid is absorbed into the residue, use approx. 90 psi of compressed air and blow from the opposite side (exhaust air side), catching the blown off material on pre-placed drop cloths.
- 4)** Lightly sweep the soft sash brush across the face of the media to remove any leftover residue or film, which should leave a clean media edge.
- 5)** Use stand lighting to shine light on one side of the wheel, so you can look through the other side and check on your progress.
- 6)** The wet-dry vacuum can be used to clean up any residue blown off that missed the drop cloths. A slight cleaner smell will be present for a short time when the airflow is turned back on, but should evaporate and clear out quickly.