EISENMANN

WESP-2F

Combining the benefits of

down-flow and up-flow

wet electrostatic precipitation.

ENVIRONMENTAL PERFORMANCE TECHNOLOGY

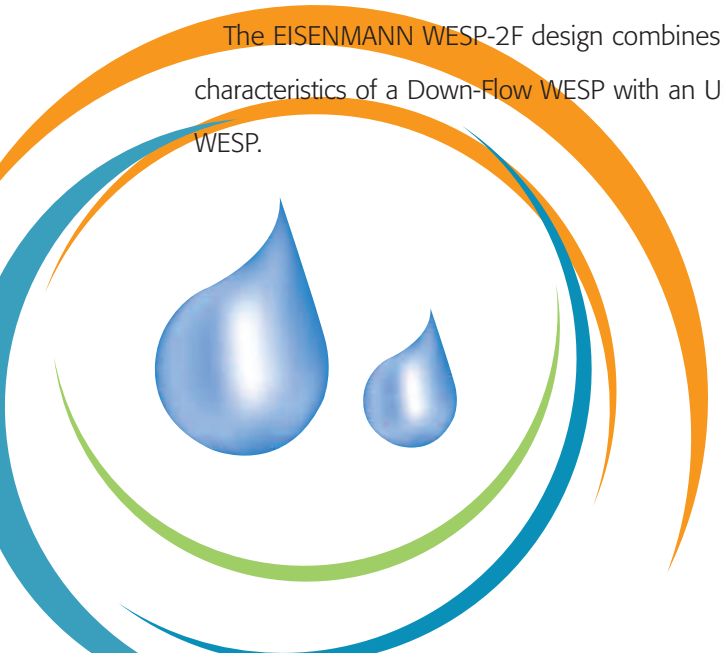
WESP-2F

EISENMANN continues to expand its offering of unique air pollution control equipment with the introduction of the WESP-2F. The Wet Electrostatic Precipitator (WESP) is recognized as the most reliable device for removal of sub-micron sized solid particles and liquid droplets from the following process gas streams:

- **Wood Products**
- **Power Boiler Exhaust with FGD Scrubber**
- **Pulp and Paper**
- **Sulfuric Acid Mist**
- **Precious and Non-Ferrous Metal Recovery**
- **Mist Elimination for Existing Scrubbers**
- **Processes involving the treatment of saturated gas containing solid particles and liquid droplets**

The EISENMANN WESP-2F is a vertical tubular design that can provide the same high collection efficiency as a plate type, but with a velocity that is two (2) times greater. This results in a smaller cross-sectional area for the same gas volume and a much smaller footprint than a horizontal unit.

The EISENMANN WESP-2F design combines the best characteristics of a Down-Flow WESP with an Up-Flow WESP.



Down-Flow Benefit

Operates in a continuous self-cleaning mode under heavy loading of solid and sticky particles.

Up-Flow Benefit

Elimination of small droplets and high efficiency collection of condensable hydrocarbons.

In addition to the superior efficiency for fine particulate and droplet removal, the EISENMANN WESP-2F has the following distinct features:

- Use of two independent electrical fields to maximize removal efficiency regardless of fluctuations in process conditions
- Rigid ionizing electrode design with individual alignment mechanism that is self-cleaning and self-sharpening
- Proprietary high voltage power supply control system, for highest possible power input
- Two (2) compact high voltage power supplies for maximum uptime reliability
- Hexagonal shaped collection tubes that provide highest surface to volume ratio for a given tube size
- Vertical arrangement to minimize footprint
- Two (2) pass arrangement promotes capture of volatile metals such as mercury

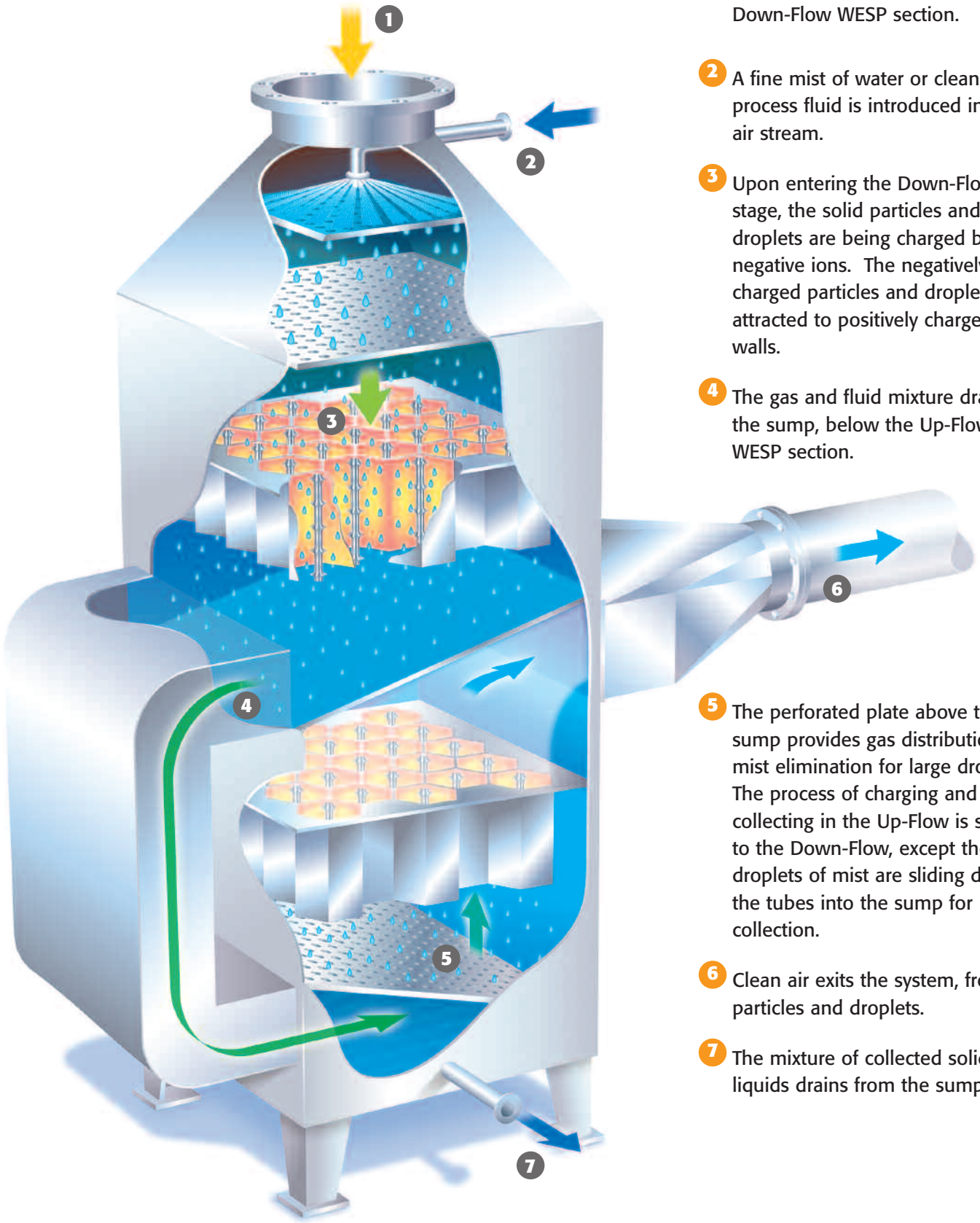
Flow Description

1. The saturated process exhaust stream containing solid and/or liquid droplets is directed into the Down-Flow WESP section.

2. A fine mist of water or clean process fluid is introduced into the air stream.

3. Upon entering the Down-Flow stage, the solid particles and liquid droplets are being charged by negative ions. The negatively charged particles and droplets are attracted to positively charged tube walls.

4. The gas and fluid mixture drains to the sump, below the Up-Flow WESP section.



5. The perforated plate above the sump provides gas distribution and mist elimination for large droplets. The process of charging and collecting in the Up-Flow is similar to the Down-Flow, except the droplets of mist are sliding down the tubes into the sump for collection.

6. Clean air exits the system, free of particles and droplets.

7. The mixture of collected solids and liquids drains from the sump.

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EISENMANN

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