



Part.X PW

Wet Electrostatic Precipitator

The Part.X PW wet electrostatic precipitator (ESP) from Dürr offers highly efficient control of submicron particulate, heavy metals, acid mists, and condensed metal fumes and organics. It can remove up to 98% of particulate in a single stage, depending on the characteristics of the gas stream. Increased removal efficiency is possible with alternative configurations.

Dürr's experience and range of wet ESP solutions include installations in the wood products and pelletizing industries, regenerative and metallurgical sulfuric acid plants, petroleum refineries and waste-to-energy applications.

Part.X PW offers less maintenance, better performance, standardization and significantly reduced installation times. Its design uses decades of real-world operating experience to ensure customers remain in environmental compliance while dramatically reducing maintenance and downtime.

HIGHLIGHTS



Up to 98%+ particulate removal in single stage

High-intensity, offline automatic cleaning feature

Reimagined gas flow distribution system

Optimized operating voltage requiring less surface collecting area

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AUTOMATIC CLEANING

Part.X PW's high-intensity, offline automatic cleaning feature eliminates carryover of entrained matter during washing and provides better operational performance during cleaning.

GAS FLOW DISTRIBUTION

The improved design ensures process gas is distributed uniformly to fully utilize all discharge electrodes and collecting surface.

STANDARDIZATION

Systems are assembled from a range of standard modules and adapted to customer-specific requirements. Main assemblies are easily installed, complete with all internal components, in a few days. Customized solutions are also available

OTHER KEY FEATURES

- Reliable, rigid discharge electrodes
- High-strength insulators mounted in easily accessible compartments located out of the gas stream are purged with cleaned, dry-heated air for minimum maintenance
- Microprocessor-based voltage controller and transformer/rectifier (T/R) set on each field

WET ESP PILOT PLANT

A mobile wet ESP pilot system is available for onsite performance demonstrations and data collection.

EMISSIONS CONTROL FOR THE WOOD PRODUCTS INDUSTRY

Dürr's wet ESP design for wood products is based on extensive references on wood dryers for OSB, MDF, particleboard and wood pellet production. In addition, Dürr offers a regenerative thermal oxidizer (RTO), Oxi.X RC (CleanSwitch), for thermal destruction of volatile organic compounds (VOCs).



Dürr Wet Electrostatic Precipitators

DESIGN AND PERFORMANCE FEATURES SPECIFIC TO THE WOOD INDUSTRY

- Cost-effective, robust system for high-efficiency separation of particulate, aerosols and condensed contaminants from process gas streams for end-of-pipe emissions compliance and opacity control, or for inlet-to-RTO VOC destruction
- Each complete Part.X PW solution for wood products is a self-contained system including wet ESP, water treatment and circulation equipment, support and access structures, inlet gas conditioning stage for gas saturation and to prevent tar and particulate accumulation in the ducting
- Integral water treatment system to remove captured contaminants from the circulating water stream and flush water
- Optimal chemical usage for pH and foam control
- Superior washing of wet ESP tubes using hot circulating washing water that is pre-heated by the process gas stream



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