Paint Mist Particle Filter (Wet Type)

I. Working Process

The wet paint mist particle filter adopts **gas-water mixed impingement + boiling adsorption + multi-stage purification** process, which is the mainstream paint mist pretreatment equipment in the coating industry. The exhaust gas containing paint mist enters the gas-water mixing channel, where high-speed impingement which is the mainstream paint mist pretreatment equipment in the coating industry。 The exhaust gas containing paint mist enters the gas-water mixing channel , where high-speed impingement forms a boiling water curtain. Water droplets fully mix with, wrap, agitate, and settle the paint mist particles, washing the paint mist into the water; Then through cyclone separation and multi-stage adsorption, efficient separation of paint mist and exhaust gas is achieved.

Products include: pump-less water curtain spray booth, pumped water curtain spray booth, cyclone-hybrid spray tower, water-cyclone spray cabinet, cyclone water curtain cabinet and other types, adaptable to different spray booths and coating production lines.



II. Core Parameters

Purification target: spray paint mist particles, oil-based/water-based paint mist dust

Purification efficiency: ⩾95%

Applicable scenarios: spray booth, spray cabinet, front-end pretreatment of coating line

Working method: wet cyclone / gas-water mixed boiling purification

Operating medium: tap water (recyclable)

Installation: integrated with spray booth / spray cabinet

III. Operating Instructions

The equipment needs to be connected to a stable water source, ensure smooth circulation waterway, regular water replenishment, water change, prevent paint sludge accumulation and blockage.

1. Operate in linkage with fan and spray booth. Startup sequence: first open water circulation then start the fan; shutdown sequence is reversed.

2. Regularly clean paint sludge from water tank, check spray nozzles and cyclone structure, ensure gas-water mixing effect, stabilize purification efficiency.

3. This equipment is a **paint mist pretreatment device**. Organic exhaust gas requires activated carbon adsorption, catalytic combustion and other equipment to achieve compliant emission.

IV. Product Advantages

High purification efficiency, paint mist removal rate ⩾95%, effectively protects downstream exhaust gas treatment equipment.

Stable operation, simple maintenance, suitable for continuous production conditions.

Wide application range, compatible with oil-based paint, water-based paint and other coatings.

Compact structure, can be integrated with various spray booths, small footprint, aesthetically pleasing and practical.

V. Applicable Industries

Widely applicable to **machinery manufacturing, automotive parts, furniture, hardware, home appliances, steel structures, aerospace, military industry** and other industries for spray painting and coating process paint mist treatment.