

## How does it work?

Air containing over spray paint particles enters the extraction chamber between the entrainment plate and the water surface at very high velocity. Immediately, it undergoes two directionally changes, rapidly; mixed with the centrifugal force. As such, solid particles from paint get thrown away into the water stream. These solid particles get settled on the base plate. The air with the water droplets raise above; towards the exhaust fan. The water droplets get eliminated from the air, when it hits bottom of eliminator plates and it falls down on the base plate. This water, on its return path carries solid particles of the paint, to the bottom of the water tank via return trough. Thus, paint and water free air passes through the exhaust fan and only air is exhausted into the atmosphere.

The water wash spray booth does not have a water screen or pump and it's piping. In lieu of that it employs a high-pressure centrifugal air exhaust fan, which forces the air to pass at very high velocity across the water surface of the water tank. This results in shearing of the water surface and the water droplets get entrapped into the air. The over sprayed paint gets embedded into this water-air mixture. This mixture is then allowed to enter into the extraction chamber via distribution plate; which applies centrifugal force on it. After that it is then made to follow a torturous path inside the chamber where there are very swift directional changes. Firstly, the centrifugal action creates an area of high turbulence; thereby the paint laden air-water mixture gets scrubbed vigorously.

Because of this repeated scrubbing action, the resin from the paint, gets recirculated and eventually is broken down. The pigment particles from the paint gets settled down on to the base plate as a non-sticky substance and can be disposed off easily during the maintenance of the booth.

