

Water treatment

The synthetic enamel paints are resistant to alkaline attack. So it is important to attack the whole surface area of the paint particle for a prolonged time. That means, the paint particles should not allowed to get clogged inside the painting booth. This is simply achieved by adding mineral oil into the water. The oil, being lighter than water; floats on the water surface.

The paint particles, faces the first attack of the alkali when it gets mixed with the water and air at the water surface of the tank. The oil film; preventing it from clogging, immediately engulfs it. The recirculation of these particles forces them to pass through the oil film again and again, thereby increasing the no. of alkali attack on them.

Less maintenance

As this spray painting booth does not employ pump, piping or nozzles and the water screen or the filter, nothing gets clogged. Further as the over sprayed paint gets oil film protection, they are prevented from getting stuck on the extraction chamber inside or the bottom of the water tank. This reduces the chances of breakdown or the down time to the absolute minimum.

Further, as the non-sticky pigment particles are carried to the bottom of the tank, via return trough; it gets settled down there itself. Since the over spray enters the chamber at the water surface level, there is no chance that these non-sticky slit gets disturbed and mixed again into the water. *Thus the only maintenance in this type of spray painting booth is periodic removal of this non-sticky slit from bottom of the tank.*

Clean air

Once, the paint particles are broken down and pigments allowed to drop on the base plate; the remaining air-water mixture passes through the narrow gap of opposite direction formed by the eliminator plates. The heavies water particles, due to impact and obstruction gets removed from the mixture and only clean air is allowed to enter the exhaust fan; which is then exhausted to atmosphere.

Summary of advantages

1. Less capital cost due to doing away of pump, water screen and piping.
2. Advanced water treatment ensures total break down of paint.
3. No breakdowns due to clogging
4. Less or negligible maintenance.
5. Economical to run the booth as less electrical power is consumed.
6. Due to it's compactness; requires less floor space.
7. No air pollution because of complete breakdown of paints.
8. No fire hazards, as pigments are non-volatile.
9. Easier to operate and maintain.
10. Enhances operator confidence thereby increasing his efficiency