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## SPRAYBOOTH GUIDE SHEET

At ISF Group Ltd, customers often ask our sales representatives how frequently they should change their spray booth filters. There are many factors and variables to consider, making your filter life unique to your operations and spray booth setup. We have detailed below a reminder of why it's so important to look after your booth's filtration system.



### 4 Reasons To Look After Your Spray Booth Filtration System

Clogged booth filters are bad news for your employees' health and safety, your paint job and your bottom line. Here's why:

#### 1. They expose your workforce to harmful vapours and gasses

As paint overspray builds up on your filters, they become inefficient at removing not just overspray but also the harmful vapours and gasses from your spray coatings. This puts your technicians in the booth at risk, as clearance times will be inaccurate. It also exposes everyone else in your paint shop to hazardous air pollution as chemicals pass from the booth into the wider workspace.

#### 2. Breach Health and Safety Regulations i.e Control of Substances Hazardous to Health Regulations (COSHH) 2002

If an employee is exposed to hazardous air pollution from a poorly maintained spray booth and becomes unwell, or if you have a visit from the HSE, you will likely face hefty fines and potential legal action.

#### 3. They ruin your paint job

If your filters have excessive build up of overspray they can't remove overspray and contaminants adequately. If your filters are clogged and need changing, your paint finishes will be substandard.

#### 4. Your booth will have a shorter lifespan

Spray booths are a significant capital investment, so you want to look after them. Clogged filters put the system under unnecessary pressure, leading to failing parts, costly downtime and potentially a shorter fan lifespan.

### Why Is There No Simple Calculation For Spray Booth Filter Changes?

So many customers ask us how frequently they should change their filters, and we always give the same answer – only you can work that out as there are many factors that affect the change frequency such as the type of system you have, where you spray, what you spray and how you spray all affect the life of your paint booth filters.



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### **Type of system**

Are you using a single-tier, two-tier or three-tier filter system? A single-tier system has the smallest surface area of all the systems, so it will, in theory, clog faster. But it all depends on what you're spraying and how often. If your booth is correctly specified to the size of the products you're coating, you shouldn't be in a situation where you have to change your filters every few days.

### **Where you spray**

Let's say you have a large 10m x 10m booth with a three-tier system, and your technicians routinely spray products in the middle of the booth. Your centre section of filters will clog faster than the ends that are less exposed to overspray. So what does that mean when it comes to filter changes? You would have to cut out and replace just the middle section of spray filter more frequently than the filter at each end of the booth.

### **What you spray**

Are you spraying 'solid' products or 'open' products? 'Solid' products, such as doors, will only produce overspray at the edges of the product, so filter changes will be infrequent. In contrast, 'open' products, such as a rack or frame, will result in considerably more overspray landing on the extract filter, making more frequent filter changes necessary.

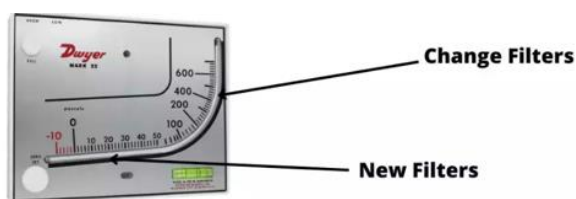
### **How you spray**

If you want fewer filter changes, more production capacity and higher-spec finishes our recommendation would be to focus on enhancing sprayer skill levels. A good spray technician will produce less overspray than a less skilled technician which will save you money in the long run. They will also recognise immediately when clogged filters are affecting their finish.

### **The Secret To Getting Your Spray Booth Filter Changes Right**

You can keep your spray booth filter system in tip-top condition with a really simple and inexpensive piece of kit – a manometer. A manometer is a precision instrument that measures pressure differentials. Here's how you use can set one up to keep a check on your filter status:

1. Install a manometer into a brand-new booth or immediately after a filter change. When you switch the fan on, your manometer reading that is 'shown', should be your baseline reading for fresh filters. Grab a Sharpie pen and mark this reading "NF (New Filter)". As the filter collects overspray and resistance increases to the point where issues start to occur, the reading on the manometer will have changed. Note where this reading is and mark slightly before it CF \*Change Filter (mark before the reading to prevent reaching this point again).



2. Get your best technician/Sprayer to identify when the filters are clogged. As soon as your sprayer struggles to get the perfect finish, that's the cue to check your manometer. (Refer to point 1)
3. Change the filter and begin spraying again. If the filter was clogged, your technician should now be happy with the paint application. If the finish is still sub-standard, the filters aren't the issue, and something else is causing the problem.
4. Check your manometer before every use of the spray booth. Put a sign at the entrance to your booth that reminds your technicians to check the manometer on entry.

For more spray booth advice and guidance, please contact your ISF sales representative.