

## Duct Lining Re-surfacing & Replacement

### Why resurface or replace internal linings in a duct system?

- Often these linings (generally fibreglass) can be 25 to 30 years old, are perforated and have accumulated dust and dirt on the surface and throughout the thickness of the lining. They are often impossible to effectively clean at this stage of their life.
- The facing of the fibreglass lining may have broken down, allowing the fibreglass to be exposed to the airflow causing delamination of the fibres and causing them to become airborne and transported to the occupied conditioned spaces of a building.
- In some cases the linings may have become damp. In combination with the dirt and dust this situation provides an ideal environment for the proliferation of fungal spores. Even when dried out the linings will still be contaminated with dormant fungal spores awaiting appropriate conditions for growth.
- If there has been a fire in the building the linings will be impregnated with soot and smoke. The smell is often difficult to eliminate.
- On occasions some large sheets of the internal linings come loose from the duct surface and effect airflows down the ducted system.

### What qualities would be required in a replacement lining?

- Because the original internal linings were installed to either prevent noise transmission or as a thermal insulator, then the replacement lining needs to have at least the same acoustic and thermal properties. We can advise on the most suitable product for this application.
- Most currently installed linings are formed to the duct during duct manufacture. The new lining needs to be flexible as it must now be installed through access openings in formed ducts.
- The linings should be fire and chemical resistant.
- The linings should have a surface suitable for future cleaning without damaging the lining.

### Are there any other issues to be aware of?

- Some internal linings may require remedial work to prevent further delamination or contamination. Re-surfacing the lining may provide a cost effective solution over complete replacement however this needs to be assessed on a case by case basis. The re-surfacing products we utilise are approved for safe use in air handling systems.
- During the removal of old and contaminated linings it is important that the removal process does not contaminate the remainder of the ducting with loose fibres and particles. The ducting must be maintained under negative pressure to ensure full containment of old fibreglass fibres and airborne fungal spores that will be generated by the removal process. The exhausted air from the fans creating the negative air pressure must be HEPA filtered to avoid contaminating occupied spaces.