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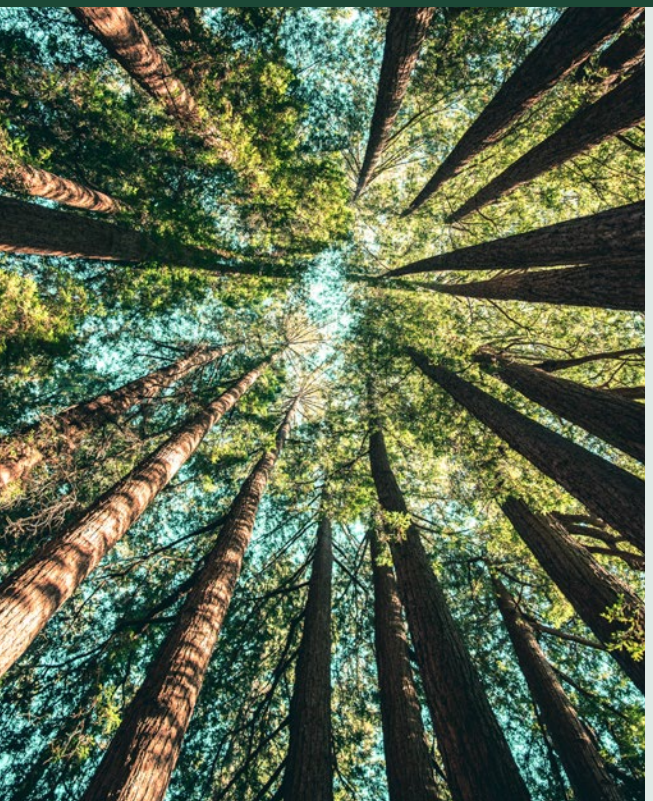
Clean Air Handbook:

Simple ways to improve the air you breathe

Human health in the workplace is at risk,

and we know that workplace occupants trust their employers to look after and support their health and well-being.

This guide gives you simple, actionable steps to create a healthier indoor environment.



Indoor air quality, a human right?

Workplace health and well-being have never been more urgent, as high-standard indoor health quality (IAQ) takes on a pivotal role in reducing the spread of respiratory health diseases. The unpleasant truth is that indoor air is generally two to five times more polluted than outdoor air.

A recent study reported that **better indoor air quality could reduce sick days and improve performance by a whopping 35%***. This is a crucial point when we take into account that we typically spend up to 90% of our time indoors.

The consequences of substandard air quality concerning workplace occupants are often considered an afterthought, but **the cost of ensuring cleaner and healthier indoor air most often only amounts to tens of Euros per employee per year**. The bump in productivity, however, can be up to several thousand Euros per employee per year.

*https://www.healthaction.org/updates/04-19-22-digest

Why indoor air quality matters for health

Substandard indoor air is an irritant in the short term, potentially causing respiratory discomfort and transitory mental disruption. However, in the long term, smaller particles can reach the heart, brain and even cross the blood-brain barrier, resulting in long-term degenerative problems or even death.

Improved workplace health not only leads to a significant reduction in sick days and an increase in productivity but demonstrates your organisation's commitment to protecting employee health, boosting your attractiveness as an employer and helping to retain your best talent.

More efficient work

Workplaces with a healthy indoor climate often experience higher functional capacity and increased productivity.

Satisfied employees

Studies show that good air quality is something we value and expect in the workplace.

Reduced sick leave

Clean air is important for health, well-being and upholding your organisation's CSR and business goals.

The 11 most important pollutants to monitor

The World Health Organisation (WHO) continually revises and re-evaluates air pollutant guide-lines, continuously strengthening and tightening the recommended levels. Relying on evidence-based data and a growing awareness that no amount of air pollution is safe for humans, the guidelines are aimed at saving lives by reducing preventable airborne pollutant deaths.

POLLUTANT	HEALTH IMPACT
Coarse dust	Limited health impact. The human body can "filter" these particles via nose hairs and mucous membranes.
PM10 – coarse particulate matter	Can reach the respiratory ducts and potentially cause decreased lung function.
PM2.5 – fine particulate Matter	Can penetrate the lungs and cause decreased lung function, skin and eye problems.
PM1 – dust combustion particles	At worst, PM1 can contribute to deadly diseases like heart attacks, lung cancer, dementia, emphysema, oedema and other serious disease, leading to premature death.
Volatile Organic Compounds (VOCs)	Can have adverse long-term and short-term health effects.
Ground-level Ozone (O3)	Can cause irritated airways and degrade vegetation and ecosystems.
Nitrogen Dioxide (NO2)	Can cause serious harm to human health, including respiratory system damage.
Sulphur Dioxide (SO2)	Even short-term exposure can damage the respiratory system.
Carbon Monoxide (CO)	Dangerous even at small exposure levels and fatal in high concentrations.
Carbon Dioxide (CO2)	High concentrations can cause health implications, such as headaches, dizziness, breathing difficulties, increased heart rate, elevated blood pressure, coma and asphyxia.
Bacteria & Viruses	

Taking control of your indoor air quality – many paths, one goal

Improving indoor air quality doesn't have to be complicated or expensive. There are many approaches—big and small—that can make a real difference for health and wellbeing.

Every workplace is unique, and the right solution depends on your building, your people, and your goals.

- Some organizations start by **monitoring air quality** and identifying key areas for improvement.
- Others focus on **upgrading ventilation, controlling humidity**, or reducing sources of indoor pollution.
- Simple steps like regular cleaning, **smart use of air purifiers**, and involving employees in feedback can all contribute to a healthier environment.

Camfil's IAQ Journey:
At Camfil, we've helped thousands of organizations take control of their indoor air quality—step by step. Our own journey has taught us that every improvement counts, and that expert advice can help you find the best path forward.

Measure the indoor air

Pinpoint the potential sources of indoor air pollution at all your work premises by installing an IAQ monitor, such as Camfil's AirImage Sensor. Camfil's monitor has a built-in air quality sensor that measures concentrations of particulate matter floating in the air, for instance, the finest dust, mould, bacteria and viruses.

Analyse the results

The results from an IAQ monitor will provide you with a plethora of data to inform the organisation on how to identify harmful air pollutants and what steps to take to move forward to correct the issues.

If your indoor air does not live up to standards, here is an example of an action plan:

- Upgrade air filters in supply and recirculation air
- Install air cleaners or air purifiers
- Increase ventilation
- Continue to educate employees on IAQ best practices in the workplace.

Purify and upgrade the ventilation systems

After properly setting up your IAQ monitors, purify your air by updating, upgrading and maintaining proper ventilation:

- Optimise the HVAC system, and check filters and system surroundings every quarter.
- Upgrade your ventilation system air filters to remove low concentrations of most external and internal source pollutants.
- Upgrade to programmable smart thermostats for greater energy efficiency.
- Overhaul your entire ventilation system if needed.
- Install systems that share data across company personnel to educate and alert them to possible exposure to substandard indoor air conditions.

Control moisture and humidity

- Control moisture and humidity by installing humidifiers or dehumidifiers.
- Strategically install air purifiers to remove airborne dust, pollen, viruses and bacteria.
- Install in areas where air pollutants may accumulate more easily (crowded workstations and printing rooms).

Avoid overcrowding and eliminate outdoor pollution

Control and optimise building occupant space to avoid overcrowding in confined spaces to prevent infection risk and CO_2 concentration.

Remove outdoor sources of pollution: Close windows when pollen or particle levels are forecasted to be high. Install pollen removal filters in the ventilation system and window-screen pollen filters to prevent the accumulation of allergens.

Be responsive

Develop a strategy with your team to implement clear-cut procedures for documenting and responding to complaints, including detailed logging, straightforward action plans and explicit follow-up schedules. It's crucial to always respond promptly to employees when health concerns are reported.

Healthier together – making it stick

Be your organisation's voice of clean air and ensure that indoor air quality remains a priority on your organisation's management team's agenda and is regularly discussed. Furthermore, keep your organisation's management team up-to-date, for instance, on the HVAC system's regular IAQ monitoring schedule and maintenance checks.

Within your organisation, getting the word out about IAQ will help your HR teams feel better supported to ensure improved health and well-being conditions to set your organisation apart as a frontrunner in an employee-centric work environment.

1. **Assign a Clean Air Lead:**
   – someone responsible for IAQ (FM, HR, HSE).
2. **Monitor & communicate:**
   – regular checks, share results, educate staff.
3. **Checklist:**
   – 10–point quarterly review (filters, humidity, cleaning).
4. **Encourage feedback:**
   – "If you notice symptoms or concerns, speak up!"

Take the next step – we're here to help

Together, let's tackle IAQ in the most sustainable, clear-cut way to protect people and our planet. Take the first step and book a free consultation with Camfil's clean air experts.

Visit **camfil.com/healthiertogether** or email us at **info@camfil.com**

Camfil – a global leader in air filters and clean air solutions.

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment.

To discover how Camfil can help you to protect people, processes and the environment, visit us at camfil.com.