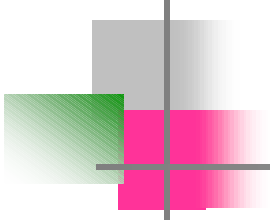


MAINTAINING INDOOR AIR QUALITY



Controlling the Sick Building Syndrome

**DUSTBANE PRODUCTS
LIMITED**



From a cleaning point of view, "Indoor Air Quality" (IAQ) and pollution can be measured as follows:

"When you take cultures of the soil and various particles remaining in carpets and on furniture, you find all kinds of bacteria, germs and pollutants. When moisture and a residual of non-living organic matter (such as food particles, wood or paper particles, human or pet hairs) combine in carpeting and on furniture, a breeding ground for bacteria is formed."



FACTS

- We spend about 90% of our time indoors.
- Indoor air is 9 times more polluted than outside air and generally 5 to 20% more toxic.
- Today, to improve energy efficiency and reduce costs, buildings are sealed two or three times tighter than they were 30 years ago. This makes adequately "flushing out pollutants" that accumulate inside them extremely difficult.
- Recent studies have shown that -
 - 90% of "Indoor Air Quality" (IAQ) issues are related to building maintenance and housekeeping departments; of this 90%, 40% of the reported problems relate directly to maintenance procedures.

IMPACT

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Inadequate indoor air quality can cause a wide variety of allergic reactions, with symptoms ranging from **headaches** to **nausea**, from **"head cold"** symptoms to **difficulty in breathing** and popular comments such as **"I feel so tired"**, **"The air seems stuffy"**.

POTENTIAL RESULTS

All this may lead to greatly increased absenteeism, decreased productivity and lawsuits costing employers millions of dollars per year.





Objective

To control the main pollutants affecting our indoor air including:

- *Particulates* (debris, dust and dirt in air)
 - Airborne dust and dirt are circulated in the air by vacuuming. Most vacuums remove particles which are 30 to 300 microns in size; however, the problem lies in the dust particles 10 microns and smaller which can go directly into the lungs.

- *Biologicals* (molds and spores as well as residues from dust mites and other insects)
 - Cleaning carpet and other furnishings can be very helpful but when the vacuum bag/filter is faulty, more dust can be spread than is removed.

- *Volatile Organic Compounds* (VOC's - chemical vapours)
 - Some cleaning materials contain VOC's which may reduce air quality in buildings. As an example, when some cleaning solutions have been improperly mixed, residues are left on carpets and other surfaces and these residues collect and breed bacteria.



Objective

- To provide a safe and healthy work environment for tenants, employees and visitors alike through -
 - ensuring that premises are clean, including carpets, furniture, curtains, etc.
 - ensuring that the heat, ventilation and air conditioning systems (HVAC) perform effectively.
 - ensuring that special cleaning programs exist in areas where there is a high risk of bacteria



Carpet Maintenance Program

The carpet maintenance program should address the following:

- Clean spills promptly and thoroughly
- Vacuum thoroughly at least once weekly
- Use a vacuum cleaner with a high efficiency particulate air filter to reduce any bacteria being discharged and re-circulated throughout the building in the air system
- Keep your vacuum cleaner in good condition (i.e. change the disposable bag frequently)
- Place doormats at entrances to prevent "tracked-in" dirt from accumulating in the carpet, especially in winter and spring
- Heavy traffic areas such as elevator, entrance ways require interim cleaning between overall carpet cleanings (rotary bonnet buffing)
- Thoroughly clean and extract your carpet at least once every 6 months



General Maintenance

An effective cleaning program is critical to good indoor air quality. It should address areas such as:

- the use of germicidal detergents in bathrooms and kitchens/food processing areas
- the treatment of liners in waste receptacles in tenant premises
- prompt disposal of all waste collected throughout the complex
- the treatment of trash compactor facilities
- central air filters and ductwork
- and furnishings such as:
 - furniture
 - window coverings such as curtains and blinds

How DUSTBANE contributres

We provide you with specialized products

■ Our TARGA vacuums

- A vacuum which removes 99.7% of the dust particles down to 0.3 micron in size
 - reducing the particulates in the air and high dusting costs





How DUSTBANE contributres

- **CSQ 2000**

- An effective cleaning product; one that kills up to 90% of the bacteria while doing your regular extraction procedure at no extra cost

- **A complete LINE of GERMICIDES**

- An effective and complete way to kill bacteria including the HIV virus on hard surfaces

- **A complete LINE of ANTISEPTIC HAND SOAPS**

In conjunction with product knowledge, we can also assist in the development of cleaning specifications and programs, working with both yourselves and your cleaning contractor.

Additional benefits for tenants

- reduced investment in premises because of extended carpet life
- improved appearance of tenant premises
- reduced circulation of construction dust within the complex





Concluding Statement

- Although many other factors (such as HVAC's, paint vapours) affect the quality of indoor air, proper and regular cleaning of buildings can definitely improve IAQ and consequently contribute to the:
 - reduction of absenteeism,
 - improvement of productivity,

both of which improve tenant profitability.