DATA CENTER
CLEANING GUIDE
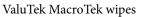
PEGASUS
The Cutting Edge of Clean

I. General Guidelines:

All of the cleaning products and equipment should be in compliance with Leadership in Energy and Environmental Design's (LEED) standards.

ValuTek MacroTek wipes   Nilfisk HEPA vaccuum   Staticide brand cleaners

For example, Pegasus uses:

- Valutek Macrotek wipes, designed for ISO class 7+ facilities, which are lint-free and anti-static.
- Nilfisk brand/specification interference suppressed HEPA vacuums that are rated to remove 99.97% Of particles 0.3 Microns or larger. Additionally, we service and calibrate our vacuums at the manufacturer recommended interval.
- Staticide brand cleaners, all of which are pH neutral, static dissipative, non-conductive, and biodegradable.

Great care should be taken to limit the amount of water that is brought into the Data Centers to reduce the chance of costly spills.

Equipment should be chosen based on its ability to provide the deepest levels of cleaning while providing the least possibility of damage to data center equipment.

In order to ensure staff safety, place orange warning cones around any area where raised floor tiles are removed and place an additional warning sign outside of the data center stating that floor tiles are removed to all personnel who will enter the space.

II. Recommended Training:

It's important to implement a training program that teaches technicians best practices for the safe and reliable cleaning of data centers, telecommunications rooms, and other information technology related spaces.

For example, The Pegasus Data Center Cleaning Technician Course Outline includes the following:

1. Data Center Theory
- A. What Is A Data Center
- B. Data Center Standards
- C. Data Center Design Theory
    - I. Room Layout
    - Ii. Ventilation
    - Iii. Racks
    - Iv. Cooling
    - V. Raised Floors
    - Vi. Hot Versus Cold Aisles

2. Introduction To Data Center Cleaning
- A. Common Reasons For Data Center Failures
- B. Sources Of Contamination In The Data Center
- C. The Hazard Of Dust And Debris
- D. Cost Of Data Center Failures

3. How To Clean A Data Center
- A. Preparing Materials And Equipment
- B. Order Of Cleaning (Cleaning Sequences)
- C. Full Cleaning Vs. Maintenance Cleaning
- D. Raised Floor Cleaning
- E. Quality Assurance
- F. Customer Satisfaction

4. Security And Safety
- A. Risk Assessments
- B. HAZCOM
- C. PPE In The Data Center
- D. Access Permissions
- E. Security Protocols
- F. Non-Disclosure And Confidentiality

III. Deep Cleaning:

We recommend a once per year deep cleaning to maintain optimal Data Center performance. The deep cleaning should entail:

- SubFloor/Plenum

Cleaning should begin with Subfloor/Plenum area. The specific steps to take to ensure the subfloor/plenum are cleaned are:

- Remove accessible floor panels one at a time by hand to reach the subfloor areas. Once you have access to all reachable stringers, pedestals, and panel edges, use lint-free and static dissipative wipes to remove all particulate from the floor panels.

> Note: Take great care to remove floor panels in a systematic order to give access to as many stringers, pedestals, and panel edges as possible.

- Vacuum all sub-floor areas, (plenum, floor pedestals, and subfloor framing)giving special attention to each perforated air panel area, without disrupting cabling or hardware. Move systematically through the data center, beginning at the farthest end of the room, moving in a side to side manner to ensure that all floor tiles are removed and cleaned.
- Wipe floor pedestals and subfloor framing with the staticide chemical solution.
- Clean/vacuum the surface of any electrical junction box and metal electrical coax or grey power cables, taking care not to disturb the cables.
- Clean/vacuum all computer row air conditioner (CRAC) water lines, support pipes, and metal plates in front of CRAC units.
- During cleaning, collect any loose parts, screws, or mechanical items and give them to a member of the on-duty ISD operations staff.

- Floor

At the completion of the Subfloor/plenum, ensure all floor tiles are replaced and the conduct the floor cleaning as described below.

- Use Nilfisk brand HEPA vacuum to remove all dirt and particulate from raised floors
- Use Valutek Macrotek anti-static wipes and Staticide non-conductive cleaner to deep clean floor tile surface to remove all dirt, film, spots, scuffs, adhesives, etc. Re-apply cleaner multiple times if necessary to restore tile as much as possible to the original color.
- Mop all floor surfaces with a PVA mop and a neutral/anti-static/non-conductive cleaner to remove spots, scuffs, adhesives, and residue. Great care should be taken to minimize the amount of liquid used on the floor surfaces to prevent seepage to the plenum below.

- Surfaces

Surface Cleaning – to be performed after Floor Cleaning is complete

- Clean all hard surfaces, including storage cabinets, ledges, racks, shelves, monitors and support equipment.
- Wipe hardware with a non-residue anti-static chemical solution (server cabinets, disk storage cabinets, PDU's, UPS's, and air conditioners.) Do not wet clean any servers, computers, printers, power distribution units or display panels.
- Vacuum high ledges, light fixtures, and generally accessible areas.
- Clean/vacuum all CRAC water lines, support pipes, and metal plates in front of CRAC units.
- Clean surfaces of all work surfaces, desks, and tape racks by vacuuming and/or wiping with anti-static cleaning solution, taking care not to disturb small parts that may be on work surfaces.
- Clean all exterior hardware surfaces including inlet and outlet grilles of server cabinets with HEPA-filter vacuums. Wipe with an anti-static cleaning solution and anti-static cloth.

- Tape Library

- Clean/vacuum all surfaces, including tape slots.
- Work with an on-duty member of ISD operations to coordinate the organization of tapes during cleaning to ensure that the tapes will be removed and replaced in the same order.

IV. Maintenance Cleaning

Six months after deep cleaning is complete, conduct a maintenance cleaning using the same process and equipment for all floors, surfaces, and tape library.

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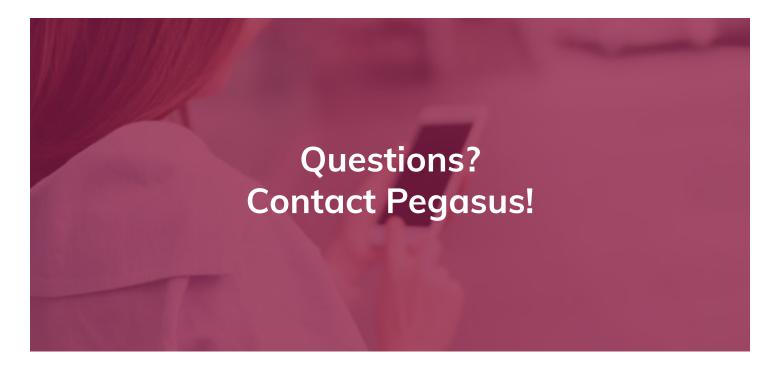
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Questions?
Contact Pegasus!

It is critically important to clean and maintain your data center properly. Don't wait for disaster to strike, call a professional Data Center cleaning company to assist you in making sure your Data Center is a clean and safe environment.

Contact us >>