

FILTERED POSITIVE AIRFLOW

The Advantages of Filtered Positive Airflow

Rimage disc publishing systems are designed to work in a wide range of applications and environments. Sometimes, systems must be used in locations with a lot of airborne particulates like dirt and dust. In a robotic system, moving parts have to work harder when they are not clean, resulting in more wear and tear on a system. Dust can act like an insulator, causing electronic components to heat up. The precise calibration and alignment for picking and placing discs correctly can be impeded by any debris build up.

Even in areas that are considered quite clean, you might be surprised what a system might be exposed to. For example, hospitals wouldn't have the typical dust and debris, but the increased attention to cleaning can result in airborne particles of floor wax and cleaning products. This can have the same effect on robotics, electronics and moving parts that dust and dirt would have.

While no disc publishing system can operate at peak efficiency with no maintenance, newer Rimage products like the Catalyst 6000N/6000 series and Producer V have built-in filtered positive airflow which significantly improves system operation and efficiency. Filtered positive airflow offers reliability in environments where dust or debris in the air would normally cripple sensitive robotic systems. Air for cooling is pulled into the system through a commonly available filter, driven by the system's fan. This increases air pressure inside the system, preventing nearly all dust and dirt that would find its way inside. Air leaving the system is actively pushed out due to this air pressure, effectively restricting debris from coming in through system vents.

Protect your investment with filtered positive airflow systems from Rimage

- Reduce frequency of periodic cleaning and maintenance
- Increase life and reliability due to less wear and tear on components
- Improve print quality by reducing defects caused by debris in printer
- Reduce chance of downtime, improve system availability for use when needed

COOLING AND AIRFLOW SOLUTIONS

| SYSTEMS WITH STANDARD COOLING | NEW GENERATION SYSTEMS WITH FILTERED POSITIVE AIRFLOW |
|---------------------------------------|-------------------------------------------------------|
| Professional™ Series: 5410N/3410/2410 | Rimage Catalyst® Series: 6000N/6000 |
| Producer™ IV Series: 8200/7200/6200 | Producer V: 8300N/8300 |
| Producer™ III Series: 8100/7100/6100 | |
| Competitive disc publishing systems | |

Filtered positive airflow helps minimize the need for maintenance, and reduces the impact if maintenance is not done in a timely manner. In IEC 60529 Section 13.4 testing, Rimage compared current generation Rimage systems with filtered positive airflow to older systems with standard cooling fans. Competitive systems on the market also use standard cooling fans.

To conduct this test, very high amounts of varying sizes of particulate matter are used, representing all manner of environments. The amount of particulate matter allows simulation of long periods of time in these environments. For example, this test simulates what might occur over a year or more of operation without interventional cleaning, and provides results in only a matter of hours.



Rimage Catalyst® system with filtered positive air flow



Rimage Professional™ 5410N system with standard cooling

The results showed significant difference. In a 2-hour test, the results showed a system with traditional cooling mechanism would fail before testing was complete and require maintenance before it could continue. By contrast, the system with positive air flow successfully completed the full test, with minimal dust inside of the closed door and no impact to production.

These pictures show the two systems after the test window. It is easy to see the benefits that a system with filtered positive airflow can offer.

If you are currently using a Rimage disc publishing system, pay attention to the cleaning recommendations listed in that system's User Guide. This is even more important if your system uses a standard cooling mechanism.

If you are selecting a new disc publishing system, a model with filtered positive airflow helps improve reliability and performance in all environments.