



Maintenance Best Practices: Cartridge Collectors

For systems with Pulse Jet Cleaning

How to use this reference guide: Refer to the information below for maintenance to perform on a daily, weekly, monthly, and quarterly basis. Consult the Installation and Operation Manual for troubleshooting recommendations as needed. Please see manufacturers' manuals for detailed information on system components.

"Lock out tag out" safety protocol applies for maintenance of this system. This means that any time maintenance on this system is performed, the equipment must be shut down, unplugged, and tagged or labeled, explaining that maintenance is taking place. Maintenance should be performed only by individuals who are qualified and trained to do so. See the safety notice at the end of this document for more information.

If something in your system is not working properly or if you have questions, DenTech Industrial is here to help! Contact our customer support team by calling **(717) 335-4899** or emailing service@dentechindustrial.com.

Daily maintenance

Item	What to check	Impact
Collection drum	- Check level by visually inspecting or tapping on side to determine volume. - Ensure all latches are secure, flex is intact and secure, and lid is sealed tightly.	- Changing drum prior to being overfull prevents debris from filling in hopper and eventually filters. - Monitoring level enables scheduled changeout.
Filter differential pressure	- Mag gauge for pressure differential of primary filters and HEPA's (if applicable). - Record daily.	- See next section with recommendations on when to change filters. - Potential for shutdown of equipment and impacted process areas. - Record daily to identify large decrease in DP, which likely indicates filter breach. When this happens, the DP on the HEPA filters typically increases rapidly.

Weekly maintenance

Item	What to check	Impact
Explosion vent weather cover	Visually inspect weather cover (on top or side of unit) to ensure it is not damaged.	Water intrusion could occur on the equipment, damaging filters or saturating with dust/debris, which leads to clogging. If damaged, performance of explosion vent could be negatively impacted.
Compressed air filtration	- Check system filter (air/oil separator). - Drain as needed.	Moisture can get into the cleaning system, causing premature wear and reduced life.
Hopper discharge system	- Slide gate is operational by opening and closing gate. Slide gate should be in the open position (with handle fully in). - Visually check that rotary valve is turning. Shaft located at bottom of the hopper should be spinning.	- Debris can fill in hopper and eventually filters. - Verifying discharge system is functioning ensures debris is moved from the hopper to the collection drum.

Monthly maintenance

Item	What to check	Impact
Filter breach	Visually inspect blower outlet for dust or debris.	Particulate could bypass filters and be released into atmosphere, work area, or building.
Compressed air supply	Feel for air leaks in lines or audible indication that air is leaking.	Unnecessary energy consumption.
Pressure drop tubing	Check to ensure pressure drop tubing is intact and not damaged.	Ensures accurate filter DP readings.
Cleaning system	- Audible inspection of the pulse diaphragms and electrical solenoids. Note: Number of diaphragms equals the number of filter doors. - Diaphragms should pulse every 10 seconds, and the sound should be consistent among diaphragms. - If pulse sound is inconsistent, this may indicate an issue with diaphragms. - If pulse sound is missing, this may indicate an issue with electrical solenoids.	Excessive dust build-up on filters, which causes a higher pressure drop. This can lead to premature filter change.

Quarterly maintenance

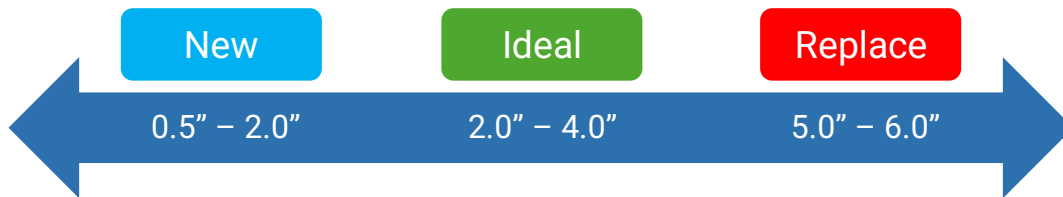
Item	What to check	Impact
Filter condition	- Visually inspect filters - Remove 1-2 filters and check for any holes, missing gaskets, any signs of moisture (indicated by rust).	Ensures expected filter performance.
Motor vibration	- Check for smooth operation of fan wheel and motor. - Inspect and tighten belts, nuts, bolts, and setscrews as needed.	Vibration leads to worn bearings. This requires more extensive motor repair or replacement, which causes downtime.

Filter recommendations

For Primary Filter DP

Recommendation: Identify primary filter DP at 4" to enable enough time to schedule change out before hitting 5"+.

Reasoning: Higher filter DP causes consistent cleaning, consuming significant compressed air usage. As filter DP rises, risk of filter bypass increases.



For HEPA Filter DP

Recommendation: Identify HEPA filter DP above 1.5" to enable enough time for a change out before hitting 3"+.

Reasoning: High DP indicates either a breach in the primary filters or end of useful life of the HEPA filter. Continued use may result in reduced dust collection performance or bypass of HEPA to the plant air or environment.



Need support?

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Safety notice: The installation, maintenance, operation, and care of dust collection systems should be performed only by individuals who are qualified and trained to do so. A "qualified" person in this context is a person who has skills and knowledge related to mechanical and electrical equipment through both work experience and training. Additionally, a qualified person is one who has received and undergone safety training specific to the dust collection system. Anyone who has not undergone safety training specific to this system should not operate or perform maintenance on the system.

"Lock out tag out" safety protocol applies for maintenance of this system. This means that any time maintenance on this system is performed, the equipment must be shut down, unplugged, and tagged or labeled, explaining that maintenance is taking place.

DenTech Industrial is not liable for any consequences arising from misuse of this system. No responsibility is assumed by DenTech Industrial for any consequences arising out of the use of this material.