



**U.S.
Air Filtration, Inc.**



Dust Collection **START-UP GUIDE**

CALL TODAY
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As factories and industrial plants resume production after a shut-down period, employers are faced with the responsibility of minimizing work hazards by instituting best practices and safety measures.

Starting up your dust collection system the right way will make sure your equipment is operating properly while also protecting the safety of your workplace and workforce. The steps in this guide will also ensure your system is in good working order so you don't have to worry about an unexpected shutdown.

To streamline your start up process and make it as hassle-free as possible, we've prepared a comprehensive checklist and action item notebook. These resources can help you address any issues promptly.

Our guide is broken out into four sections:

1. Best Practices for Dust Collection Start-Up
2. Dust Collector Start-up Checklist
3. Action Item Checklist
4. Maintenance Questions to Consider



Part 1:

Best Practices for Dust Collection Start-Up

Power Down & Lock Out

Before you begin start-up, maintenance or troubleshooting on your dust collection system, your first and most important step is to power down and lockout any machinery. Securing your baghouse for personnel entry can include locking down your rotary valve, locking your blower, or sealing off any adjacent baghouse compartments. Taking these initial steps provides a safe working environment and will ensure that accidents are minimized.

Additional Watchman & Communication Plan

Designate an additional crew member as a watchman. They should be present to ensure safety procedures are being followed and can immediately assist should any complications occur. It's important to let your team know what work is being done, where, and at what time. This allows others to re-schedule any work that could impede on a safe start-up of your dust collection system.

Combustible Dust

If you are working with combustible dust, make sure the dust levels inside of your system are well below being explosive. All hot work, like welding, should be performed well outside of the perimeter of your dust collector.

Emergency Plan

A total shut down and lock out of your dust collector will minimize safety hazards, but you shouldn't hesitate to formulate a retrieval plan should an emergency occur.

PPE (Personal Protective Equipment)

OSHA requirements for protective gear will vary based on your application. Basic protection can include a hard hat, safety glasses, gloves, and a face mask. Before start-up or entry into your baghouse system, make sure that your crew is supplied with and compliant in wearing safety gear required for your application.

Learn more about Baghouse Entry Procedures

Part 2: Dust Collector Start-up Checklist

Our start-up checklist can be printed, completed electronically in the PDF, or you can access the checklist on your phone or mobile device by clicking below.

[Click here to complete the checklist online](#)



Dust Collector Start-up Checklist

VISUAL INSPECTION

Power down and lock out your dust collection system with lock in place before proceeding further.

Inspect hopper to ensure the discharge, including screw and rotary valve (if applicable) are free of debris.

Check the interior of your collector for signs of moisture. Is condensation inside the unit?

Perform visual inspection of filters. Filter should be as clean as possible with minimal dust cake. Dust cake should be dry, not sticky or caked on.



Click [here](#) to watch this video to learn the signs your filters are compromised.

Check your cleaning system.

If you have a pulse jet unit – check your pulse cleaning system.

If you have a pulse jet unit - turn on header and listen for air leaks coming from your valves.

If you have a shaker unit – check your motor assembly.

If you have a reverse air unit – check to ensure bags are taut.

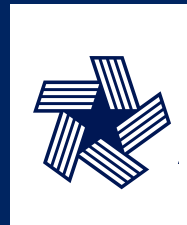
FAN INSPECTION

Make sure your fan is securely bolted to your unit.

Check to make sure the fan is sealed.

Check tension on all belts and drives

Check belts and chains for signs of wear, including cracking and stretch.



For more detailed instructions download our Fan Maintenance Guide [here](#) >

SYSTEM START-UP INSPECTION

Start up your system by powering on your control panel and your fan.

Check fan for excess vibration.

Check your controller to ensure all valves are running.

Check your differential pressure to make sure pressure is within limits.



Watch this to find out why your pulse valve isn't working properly.



Watch this to learn about proper DP limits.

	Cartridge Collector	Baghouse
Red (Dangerously High)	"WC" > 6	"WC" > 7
Yellow (Moderately High)	"WC" 4.5 – 6	"WC" 5 - 7
Green (Normal)	"WC" .5 – 4.5	"WC" 1-5
Blue (Too Low)	"WC" < .5	"WC" < 1

1. "WC" or inches of water column is defined as the pressure exerted by a column of water of 1 inch in height at defined conditions.

If your differential pressure is in the blue range noted above, perform a leak detection test.



Watch this to learn how to detect a leak in your system.

Maintenance Action Item Checklist

Record maintenance issues you've encountered during your start-up inspection that require attention below. Note the issue, part type, part number and quantity impacted.

Issue	Part Type	Part Number	Qty Affected

Part 3:

Time Saving Maintenance Questions to Consider

1. To eliminate unexpected plant shutdowns due to baghouse issues should you consider a spare set of filters and diaphragm repair kits?
2. Do you have an ongoing maintenance schedule in place? Download our standard [maintenance checklist](#) if you need one.
3. Do you need to adjust your preventative maintenance schedule? If COVID-19 has altered your production and maintenance schedule, consider what you need to adjust going forward.
4. Do you have the specs for each of your dust collector parts listed in one central location? If not, here is a sample spec template for [Filter Bags](#) and [Cartridge Filters](#). Having this ready can help your dust collection supplier get you the right parts quickly, affordably and accurately.

For more complimentary dust collection maintenance resources, [visit our blog](#) with over 50 articles on dust collection design and maintenance.

You'll find additional help on the following topics and more:



How to Prevent a Dust Collector Explosion



Guide to Cartridge Media



The Health Impact of Dust Collectors



5 Most Commonly Replaced Dust Collector Parts

If you need further assistance troubleshooting your dust collection system, give us a call at 888-221-0312 or email your questions to info@usairfiltration.com. We look forward to serving you and getting your operation back to full production.

ABOUT U.S. AIR FILTRATION, INC.

OUR COMPANY

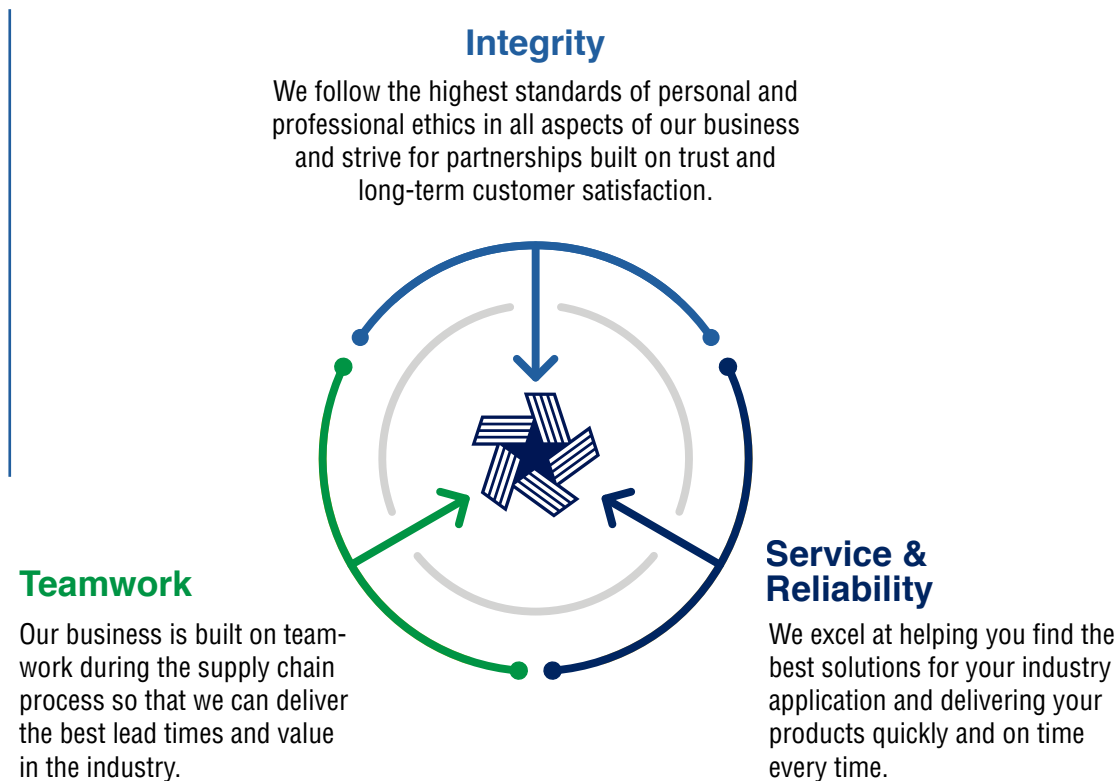
U.S. Air Filtration was established in 1987 to serve the needs of industries requiring air pollution control systems. We aim to meet and exceed United States EPA standards for air quality. Over the years, we have worked on projects ranging from \$20,000 to over \$3 million. Our Founder, Engineering and Sales Personnel has been active in the industry for over 30+ years.

OUR MISSION

To help our customers achieve peak production by providing exceptional service, products and expertise in air pollution control.

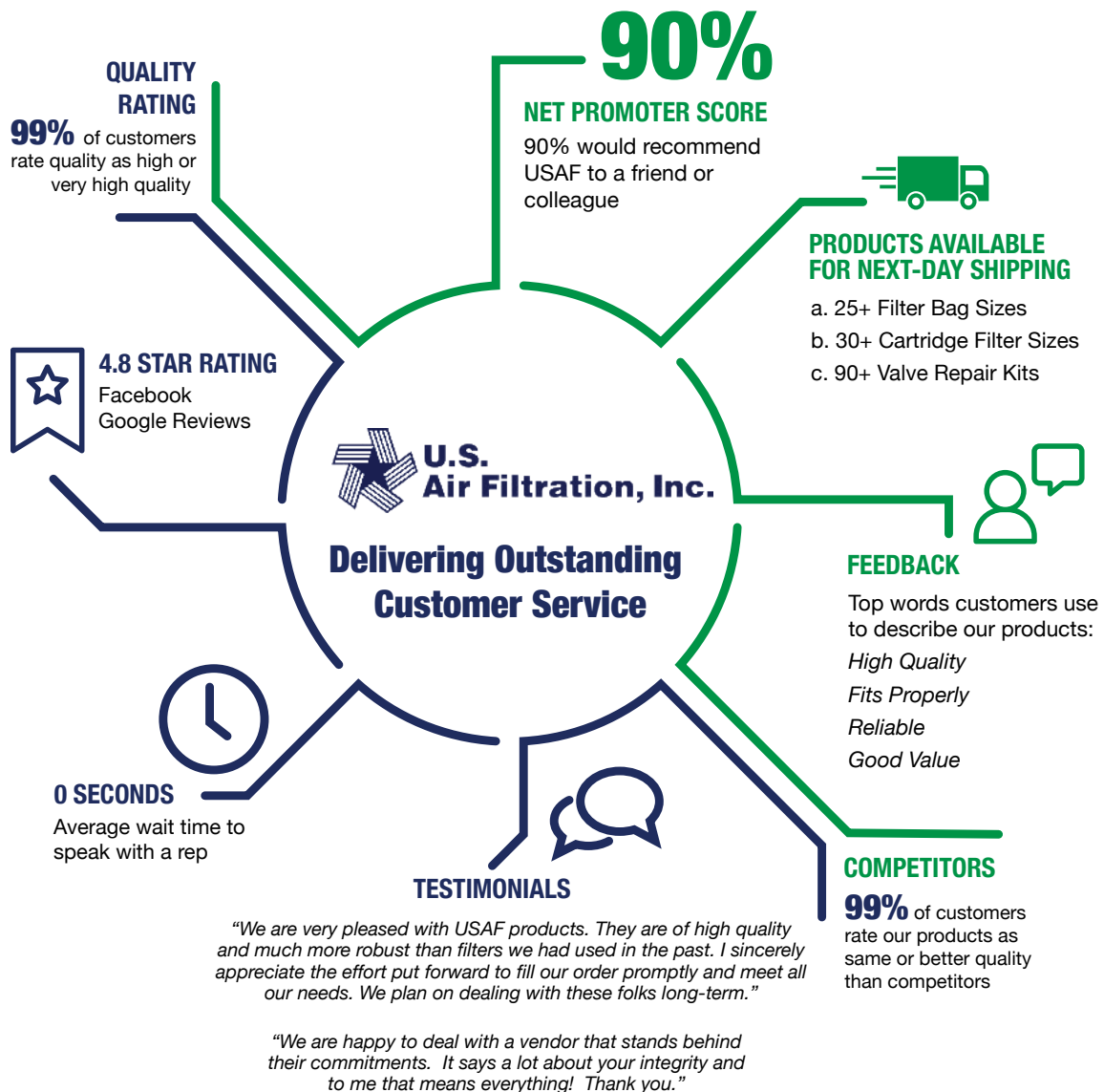
OUR VALUES

Our values are the foundation for our actions as leaders, colleagues, employees and citizens. At U.S. Air Filtration, our values incorporate our conduct towards our customers, our suppliers, our fellow employees, and the general public.



ABOUT U.S. AIR FILTRATION, INC.

Watch our About Video here >





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