



Retrofitting Baghouse Pulse-Jet Dust Collectors

Environmentally Friendly

90% of all existing dust collectors are retrofit candidates

- ❖ **Increase efficiency and lower particulate emissions** coming from the dust collector by 90% or more. Meet legal and process requirements.
- ❖ Reduce dust penetration (puffing) by 70-90%, reducing exposure to everyone in vicinity and endangering the environment.
- ❖ **Lower power consumption by 25-40%**; lower pressure drop across bags by as much as 75%.
- ❖ Increase bag life and reduce replacement costs by 50-80%.
- ❖ **Lower operating cost by 30-60%**.
- ❖ Future servicing costs will be 1/4 of the current servicing cost. That's a very **attractive payback**.
- ❖ Upgrade to the **best available technology**.
- ❖ **Most economical approach**; usually purchased in operating rather than capital budgets to make project approval very fast. Cost is less than present bag change out.
- ❖ **No risk**. Modifications installed and running before invoice is due. No special requirements or training required. It takes less time and labor than a change out of existing filter elements. No permanent changes to the collectors.



Dust collector retrofitted due to moisture and filter clogging problems

Symptoms to look for:

1. Pressure drop over 3 inches water column across filter elements.
2. Particulate emissions at collector outlet are over 30×10^{-4} grains per cu. ft. (it should be 4×10^{-4}).
3. Filter element life is under 4 years.

The Problem: Serious flaws in equipment design by all major baghouse dust collector suppliers. Basic laws of physics and air dynamics were not considered in product development. The main design flaw is that it is believed that volume (CFM) per filter element is solely a function of filter area. The truth; it is related strictly to cleaned filter area.

The Solution: QAM's exclusive Retrofit / Rebuild Service. Apply ten year old proven advanced technology, with over 500 units in service, to the conventionally designed dust collector. Alternatively, purchase one of the very few well designed advanced technology dust collector systems available today.

Problems to Correct:

- Poor Performance; dust penetration through filter media, high pressure drop, frequent filter replacements.
- Poor filter design; leaking, plugging (or blinding), tears and ruptures.
- Poor Inlet Position and Air Distribution; abrasion problems, excessive dust loading, inefficient pulse cleaning.
- Fine dust hanging up in the bags due to excessive upward "can" velocity.
- Poor pulse-jet dynamics; air-jet does not properly clean the filter, as low as only 10% of the filter bag gets cleaned.
- Condensation in filter cake; caused by cooling of cleaning air jet, adversely affects media permeability
- Excessive use of compressed air to properly clean the filters

LAB TESTING: will examine the bags for, presence of moisture or condensation, evidence of dust leaks or penetration to the clean side, oil in the media, permeability of the media, strength test, type of dust and its characteristics.