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Air Superiority News

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Upgrade Your Air Blow-Off Technology

Are you considering upgrading your existing air blow-off system? Need more power or shorter cycle times? High-efficiency centrifugal blowers can provide a performance upgrade to your existing air blow-off system for substantially less than your current system's operating costs.

What is your air blow-off system wish list:

- **More power?**
- **Faster conveyor line speed?**
- **Better drying rate?**
- **Lower electrical cost?**

In today's competitive business environment, both large and small manufacturers are striving towards reducing their cost base. Making a fresh appraisal of compressed air as well as inefficient blower-driven air blow-off systems can make real economic sense.

Re-engineering is not just a trendy buzzword, but a practice that has proven beneficial in modernization or upgrading of existing processes which are using compressed air. Enhanced capital allowances (ECA) are the carrot that the Government has extended to encourage investment in new energy-efficient products.

Data gathered from case studies* of programs by the United States Department of Energy's Office of Industrial Technology suggests excellent paybacks based on energy savings alone:

Type of Plant	Annual Cost Savings (US)	Payback (years)	Savings**
Strand Board	$85,100	1.0	50%
Municipal Sewage	$2,960	5.4	17%
Beer Brewing	$19,000	0.1	52%
Metal Fabrication	$68,000	1.5	38%

**as percent of initial electricity usage*

*Data Gathered from the U.S. D.O.E. "Motor Challenge Program." Savings is relative to energy consumption prior to the downsizing of air compressor motors.

Blower driven blow-off technology is simply more efficient than compressed air—it can provide staggering savings. Depending on your conditions **the savings may be up to 90%**, meaning that an investment in a blower driven solution pays for itself in a very short period—four or five months is not uncommon.

A second payback is productivity increase—more widgets-per-hour processed. This increase in productivity can be considerable and by itself could justify the investment in upgrading.

Whether your blow-off system requirements have changed in terms of quantity or quality, upgrading is a cost-effective and reliable solution.

Air Blow-Off System Selection & Plant Productivity

Selection of a high efficiency blower will mean higher flow or pressure allowing for more widgets-per-hour to be processed. How much is a five or ten percent productivity increase worth?

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Compressed Air Systems vs. High Efficiency Blowers

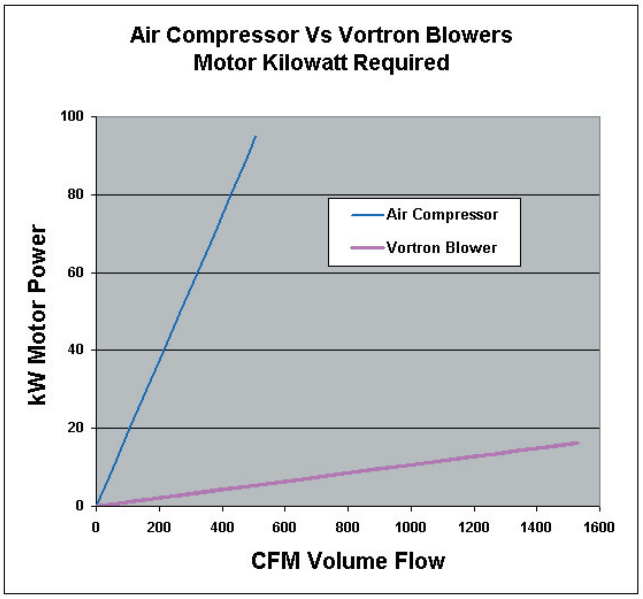
The bottom line to an owner/operator is the cost of blow-off air per SCF. The cost per SCF of air is dependent upon the efficiency of the compressed air system or blower system used to produce the air.

When comparing compressed air blow-off systems to high efficiency blower systems, one needs to compare annual electrical cost and return on investment (ROI) for various air blow-off systems available. Too often only the initial cost is considered, not the day-to-day operating costs.

For comparison we will consider three typical compressed air delivery systems: the homemade drilled pipe; single bore or flat fan nozzles mounted on a pipe; and the bar type air knife. When operating at 60 psig, the 18-inch pipe systems will each flow approximately 290 SCFM and the bar air knife with a 0.003" gap will flow 130 SCFM. Approximately 72 compressor horsepower are required to produce a flow of 290 SCFM. Similar blow-off results can be achieved with a 75% efficiency blower, requiring only 5 horsepower to flow 324 SCFM.

At the US average electrical cost of $0.083 per kW-hr, the power cost for the 5-HP blower equals $1,358. For the 72-HP compressor, the power cost is $21,399. The power cost represents approximately 65% of the total cost of the compressor over a 7-year period. In addition to power cost, annual maintenance expenses add an additional 20% to overall cost.

Upgrading from a 72-HP compressor to an AirPower™ blower yields an annual savings of $20,000 in electrical costs. This is not a one-time savings; it is year-after-year. ***For a 7-year period the savings would be $140,000.***



Visit our "NEW" Home Page, www.vortron.com, for more extensive information on AirPower high-efficiency blowers and air blow-off systems.

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