IWI
INCORPORATED

Consta-Flow® Airflow System Controller

Reduce Energy Use • Provide Cost Savings • Improve System Performance

Concept

- Variable Frequency Drive with PLC and Logic Automatically Controls Airflow
- Keeps the System Airflow Always at a Constant Velocity
- Adjusts Real-time for Pressure Drop Increases and Decreases
- When the Filters are Clean, Less Electricity is Consumed, Money is Saved
- When Less Workstations are Operating, Airflow is Decreased, Money is Saved

Background

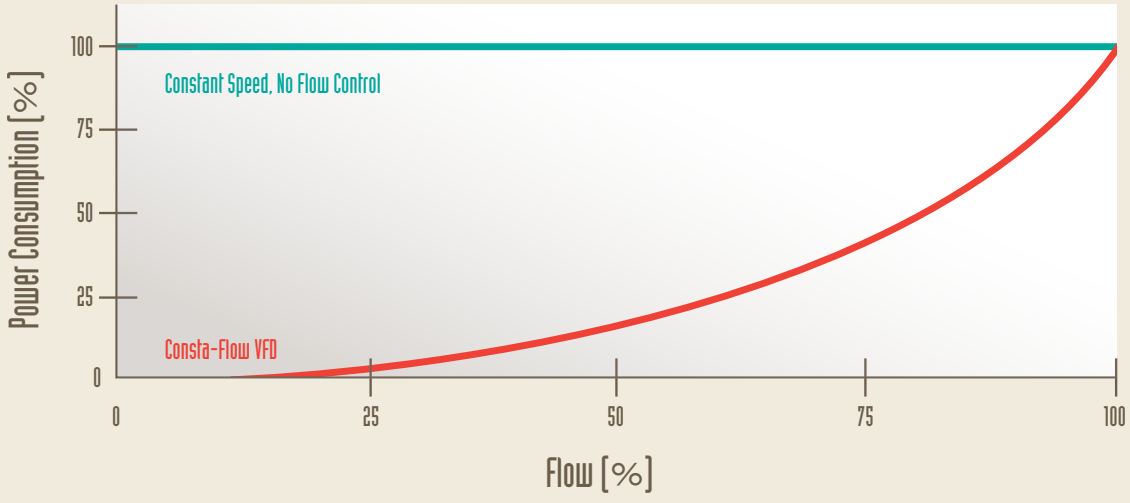
Most motors that run dust collector blowers operate at full speed and the system airflow is controlled by using mechanical dampers on the blower outlet. The damper method to control the airflow is an inefficient use of electricity and the airflow of the system often becomes unbalanced due to the damper not being adjusted properly. The motors are always running at full speed and at full cost.

By using the IWI Consta-Flow Controller, the dust collection system remains in a balanced state and the electricity consumption is optimized.

Reasoning

The horsepower required to drive the blower changes with the pressure requirement. When the pressure is low (clean filters), the blower only requires approximately 60% to 70% of its full potential. By controlling the blowers potential, we are able to only consume the electricity needed to effectively operate the dust collection system. At 80% speed, only 51% of full load power is required. At 60% speed, 75% less energy is required.

Compare the energy savings possible with a Consta-Flow Variable Frequency Drive to the savings with No Flow Control.



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Specifics

- Can Be Added to Existing Motor Controls or as a Complete Retrofit
- Easy to Use and Safe to Operate
- Diagnostic Features Can be Included
- Data Logging Capabilities are Available

Overall Benefits of Consta-Flow

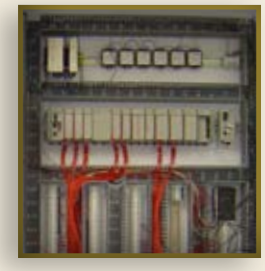
- System Airflow Remains Constant – Capture and Conveying Velocities Remain Constant
- Reduces Electricity Costs
- Increased Filter Life Due to a More Consistent Airflow/Loading
- Decreases Operating Costs of Replacement Filters and Downtime for Filter Change-Outs
- Reduces Blower Speed and Wear
- Match Blower Output to Filter Pressure Drop
- Eliminates Dependence on Mechanical Dampers to Balance System
- Reduces Maintenance Cost
- Reduces Motor and Bearing Stresses

Install Variable Frequency Drives on Additional Equipment

- HVAC Systems – Fans for Supply and Return Air
- Pumps for Chilled Water Distribution
- Cooling Towers
- Waste Water Treatment
- Boilers
- Chillers

Often motors that run these devices operate at full speed and the system uses dampers and valves to control air and water flow. This is not an efficient use of energy. A variable frequency drive with logic will improve system performance and energy consumption will be reduced.

Let us analyze your system for free and we will show you how much money you can save. The Consta-Flow is a ROI (Return on Investment) Solution with payback often less than One (1) Year.



IWI Incorporated
1399 Rockefeller Rd., Wickiffe, OH 444092
Phone: 440.585.5900 ▪ 800.338.5332 ▪ Fax: 440.585.2570 ▪ www.iwiinc.com