

SmartFlow

Dust Collection On Demand

Overview

Energy Management System

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Reduce system requirements through electronic monitoring and adjustment and save an average of 68% on electricity

A NEW IDEA IN DUST EXTRACTION

Typical situation:

Less than 50% of your equipment is operating at any given time.

Dust extraction at all gates and at all times is a tremendous waste of energy.

Solution:

By automatically closing the gates for any non-operating machinery and regulating power of the dust collector,

We can provide energy savings of up to 80%.

The average savings on all installations is 68%.

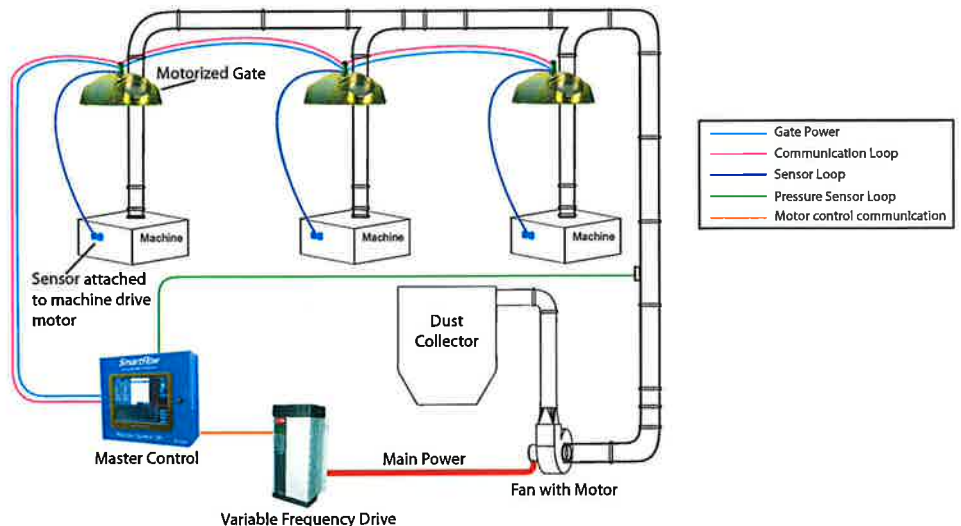
Our energy management system (EMS) is changing the way factories are handling dust/mist/fume collecting. Our product is market driven due to the high cost of electricity and concerns for the environment.

In a typical factory, only 50% of the machinery is operating at any given time, dust extraction is running all the time to all machines. The amount of energy wasted by continuous operation of dust extraction systems is high. Our EMS solves this problem by closing the patented gates for any machinery that is not operating and by regulating the power of the dust collectors that are working, adjusting their speeds and electrical usage accordingly.

Our EMS has four components:

- Sensors are installed on each workstation to determine if the machine is operating or not.
- Motor-driven gates are mounted in the duct system at each machine.
- A variable speed drive regulates the electrical power to the dust collector.
- A control unit (industrial PLC) ties everything together.
- The dust collector

Typical Energy Management System



	ONE SYSTEM	INDUSTRIAL SHOP	PRO SYSTEM	MASTER SERIAL SYSTEM
Control Unit	EMS ONE	EMS INDUSTRIAL SHOP	EMS PRO	EMS MASTER SRL
Typical User	All types of shops and factories	All types of shops and factories	Small / medium factories	Industrial producers
Alternative user / note	CNC machines, workstations	CNC machines, workstations	Industrial producer, if cost of electricity is low	Preferably for 2 - 3 shifts, larger dust collectors, higher cost of electricity
Typical cost	\$ 600 - \$ 1,200 per station	\$ 1,500 - \$ 12,000 per system	\$ 5,000 - \$ 22,000 per system	\$ 50,000 - \$ 100,000 per system
Number of work stations	1 single machine (controls up to 2 blast gates)	12 work stations	22 work stations (44 with two gates, etc.)	Up to 100
Size of dust collector	Any	Any	10 to 150 hp	60 to 350 hp
Installation	Self installation or electrician	Self installation or electrician	Self installation or electrician	Trained installation company
Energy savings	15 - 30%	15 - 30%	15 - 30%	50 - 80%
Standard sensor	None (connection to ON/OFF work station switch)	CLIP! Sensor	CLIP! Sensor	CLIP! Sensor
Optional sensor	Toroidal sensor	None	Any industrial sensor (limit switch, beam sensor, contact)	Any industrial sensor (limit switch, beam sensor, contact)
Standard dust collector control	Free contactor included, can control optional Power Relay	Free contactor included, can control optional Power Relay	Free contactor included, can control optional Power Relay	Power Master with variable speed drive EG 106A - EG 1350A
Optional dust collector control	Power Relay EG400, or custom installed contactor	Power Relay EG400, or custom installed contactor	Power Relay EG400, or custom installed contactor	Interface with dust control system
Automated gates	5" to 18" diameter	5" to 18" diameter only	5" to 18" diameter	5" to 18" diameter

Main Reasons to Install Our EMS

For an Overcrowded Existing Dust Collecting System:

- If your factory has expanded and you are left with an undersized dust collector, our EMS will greatly improve the performance of your present system.
- Our EMS will work sufficiently with even more workstations attached. You could add 30 - 40% more machinery.

For the Design of a New Dust Collecting System:

- Your new dust collector can be designed 40% smaller than the standard design.
- OR you can use conventional design which allows 40% expansion at a later date.