

Explosion Protection Worksheet Cartridge Filter Dust Collector

16134 W 80th Street • Lenexa, KS 66219 • (913) 481-2587 • Fax (800) 760-3987

Company	Contact
Address	Phone
	Fax
Project #	e-mail

Description: Dust-laden air will enter the collector above the filter cartridges and be distributed around the filters by the air flow or dust distribution baffle. Heavy dust particles will fall into the collection hopper at the base of the collector and small light particles will be collected on the filter's surface. The filters are typically cleaned by reverse air flow (pulse jets) dislodging the collected material. The large particles fall into the hopper and fines remain in suspension until returning to the filter surface. Clean air will pass through the filters, enter the clean air chamber and exit the collector through the exhaust. Designs outside this description should be noted in comments and/or illustrated in the provided sketch.

Process		
Maximum positive pressure		
Maximum vacuum		
Maximum process temperature		
Ambient temperature		
P _{es} – enclosure strength		
Enclosure location		□indoors □outdoors
If indoors - distance to exterior wall		
Combustible material		
Na	me	
K _{St}		bar*m/sec
Pm	ax	barg
En	closure	
Та	g/I.D. Number	
Manufacturer		
Model Number		
а	Width	
b	Length - dirty air plenum	
С	Length - clean air plenum	
d	Height - clean air plenum	
е	Height - dirty air plenum	
f	Cartridge filter - diameter	
g	Cartridge filter - length	
h	Cartridge filter - quantity	
i	Hopper-height	
j	Hopper discharge-diameter	
k	Inlet diameter	



Explosion Venting - Control the Explosion Pressure

Relieves explosion overpressure within process enclosure before destructive levels of pressure are reached **Explosion Isolation** - Control the Explosion Propagation

Mechanical or chemical barriers to prevent the spread of explosions through interconnected pipe or ducts **Explosion Suppression** - Control the Explosion Pressure and Flame

Detects and extinguishes the deflagration in its very early stages before destructive levels of pressure are reached **Comments:**