

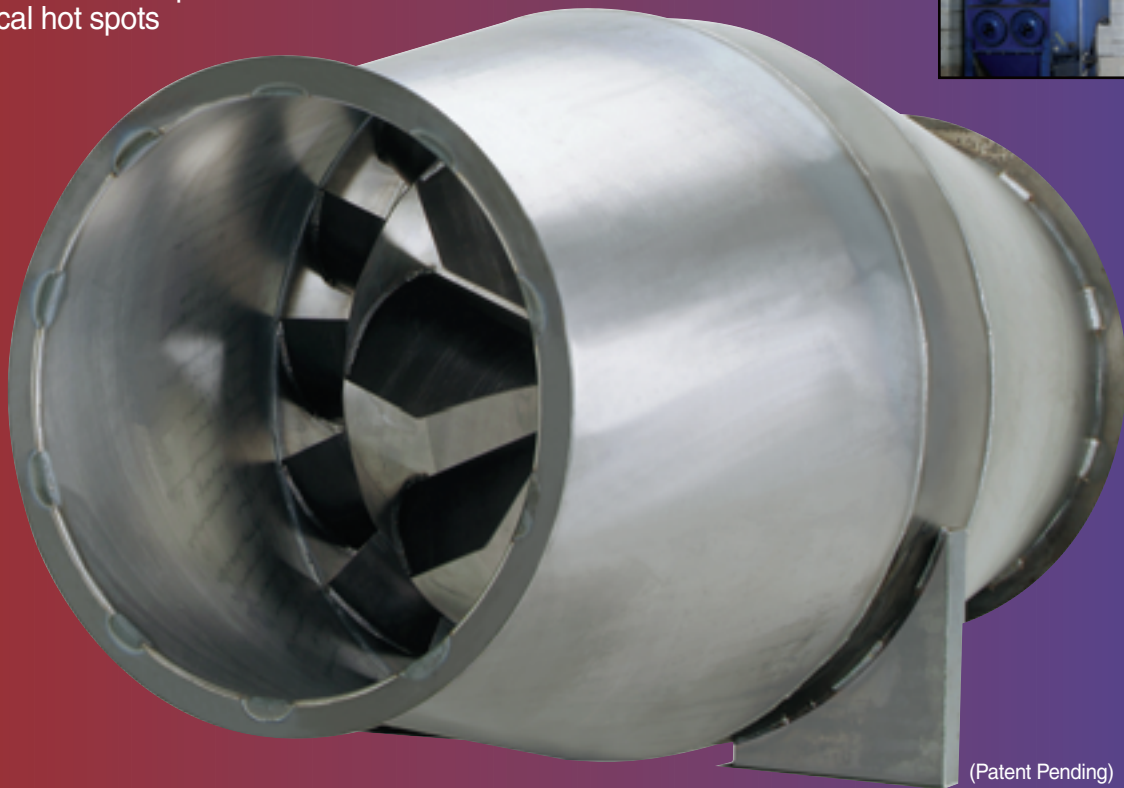


*Revolutionizing
Spark Suppression
& Fire Prevention*

Spark Arresting Equipment for Process Applications

WHAT IT DOES:

- Cools and arrests sparks
- Extinguishes sparks with air, not water
- Prevents duct and baghouse fires
- Prevents burn-damage to filter media
- Destratifies temperature and cools local hot spots

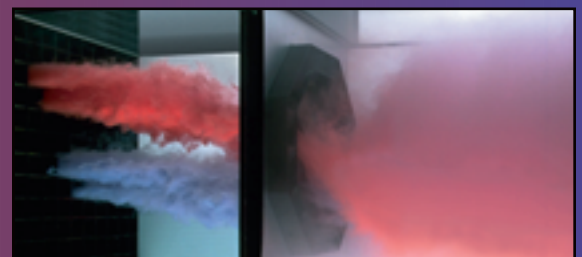


(Patent Pending)



Blender INC.
Products

Engineered Air Mixing Systems and Equipment



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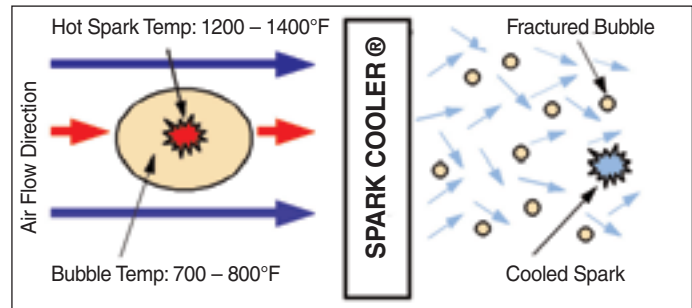
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How It Works

The presence of sparks is a significant problem in the filtration of combustible particles. A spark gets buoyancy from a surrounding bubble of hot air and often moves along uninterrupted in a flow stream. Like a hot air balloon with its cargo, it moves along at the same velocity as the gas stream until the spark hits the filter media. At the filter, the hot air gets stripped from the “balloon” and the spark is deposited on the filter media surface. Normally, the spark will self-extinguish before it can ignite a fire. However, if the spark is hot enough to ignite the media, the filtration system will likely be compromised.

Therefore, designing an exhaust/filtration system that minimizes the risk of spark ignition is critical. The **SPARK COOLER**® is a simple and effective product for inclusion on process systems that reduces the frequency of sparks reaching the filter media.

This product increases turbulence in the flow stream – by creating enough turbulence in the gas stream, the protective thermal bubble surrounding the spark can be broken up. Without this bubble, the lower temperatures in the gas stream will extinguish the spark, thereby promoting improved operation of the exhaust/filtration system.



Performance

The **SPARK COOLER**® reduces the life and frequency of hazardous sparks within industrial exhaust systems. The product performs most efficiently at duct velocities around 4,000 fpm. At this duct velocity, the pressure loss is approximately 0.5" w.g. or less. The unit is further enhanced by maximizing its distance upstream from the entrance of the collector (see Product IOM Manual for details).

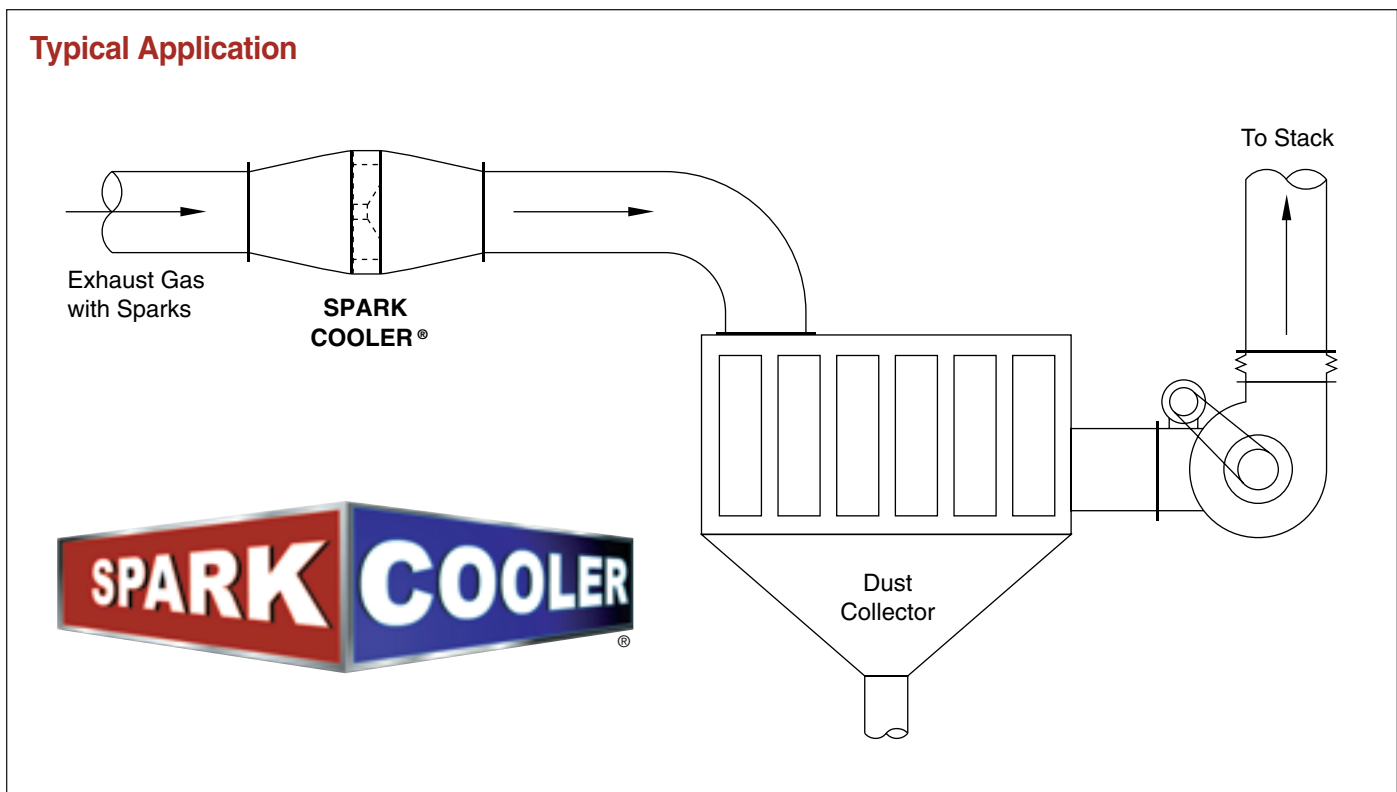
In spite of these guidelines, the product does not guarantee complete elimination of sparks, and does not preclude the possibility of fire and explosion.

Attributes

- Good for light or heavy shower of sparks
- Revolutionary patent pending design
- Simplicity in design and operation
- Favorably influences 100% of all sparks
- Low pressure drop
- Consistent and repeatable performance
- Reliable and predictable

CONSULT BLENDER PRODUCTS, INC.'S TERMS AND CONDITIONS OF SALE FOR WARRANTY INFORMATION, LIMITATIONS OF LIABILITY AND OTHER IMPORTANT OPERATING INFORMATION AND RESTRICTIONS APPLICABLE TO THIS PRODUCT.

Typical Application



Selection Procedure

Selecting a **SPARK COOLER**® is a three step procedure. The first step is to identify the base model number. The second step is to verify the airflow. The final step is to complete the model number.

Step 1: Identify Base Model Number

The model number of the **SPARK COOLER** corresponds directly to the connecting duct size. Therefore, if the duct size is 20", the corresponding base model number is an **SC20**.

Step 2: Verify the Airflow

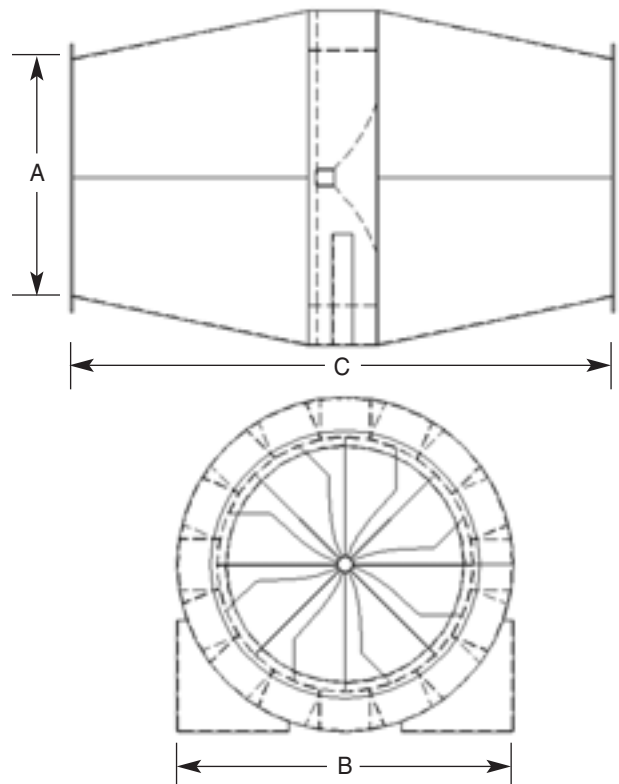
Using the sizing chart below, verify that the CFM of your system closely correlates to the CFM listed for the **SPARK COOLER** selected. If there is significant variation between the CFM listed in the chart below and the actual system CFM, consult your product representative or the factory.

Step 3: Complete Model Number

Use the model number detail graphic below to complete the product model number needed for the specific application (i.e., shape of duct, material of fabrication and mounting method).

Sizing Chart

Model No.	A (in)	B (in)	C (in)	CFM	Wt (lbs)
SC6	6	8	13	750	30
SC8	8	12	23	1,350	40
SC10	10	14	23	2,100	50
SC12	12	18	34	3,000	60
SC14	14	20	34	4,100	70
SC16	16	24	45	5,300	96
SC18	18	26	45	6,750	108
SC20	20	28	46	8,300	120
SC22	22	32	54	10,050	175
SC24	24	34	55	12,000	216
SC30	30	42	68	18,650	360
SC36	36	52	86	26,850	504
SC42	42	60	99	36,550	650
SC48	46	68	109	47,750	960
SC54	54	76	119	60,450	1118
SC60	60	86	140	74,650	1500



Spark Cooler Model Number

Shape of Duct

- R – Rectangular
- C – Circular

SC – Spark Cooler

Duct Diameter

in inches

SC 14 C 1 K

Material of Fabrication

- 1 – 304L
 - 2 – 316L
 - 3 – Carbon Steel
- Consult Factory for Additional Options*

Flange Pattern

- K – Standard Pattern
- A – SMACNA F-1
- B – SMACNA F-2
- S – Slip Fit

Custom sizes, alternative materials and varying arrangements are available. Contact your product representative or contact us for custom units.

Why Use This Product

- Simple and effective
- No water or chemical retardants
- No messy water clean-up and no replacement of wetted filter media
- Works great in water-reactive and water-incompatible applications
- Good for light or heavy shower of sparks
- Reduces water spray and deluge in existing water-based extinguishing systems
- No sensors or nozzles, so no fouling/contamination
- Insensitive to false electrical stimuli, surges, transients
- Insensitive to humidity, temperature, illumination
- Insensitive to emission spectra of sparks
- No more spurious alarms
- Good for virtually all applications
- Helps lower concentration below explosive limits
- Reduces persistence of sparks



Industries

- Automotive
- Agricultural food products
- Dry-mix products
- Grain handling and storage
- Fertilizers
- Woodworking and wood processing
- Coal operations, power and energy
- Cement dusts
- Powdered metals
- Textiles
- Paper, paper products and cardboard
- Publishing operations
- Resins, toners, dyes, pigments
- Pharmaceuticals
- Rubbers and tires
- Plastics
- Hot work, metal work, foundries, mills

Applications

- Battery production and recycling
- Ammunition manufacturing
- Ball bearing manufacturing
- Steel strapping
- Precious metal recovery
- Coal pulverizing

Business Operations

- Improves operations and virtually eliminates maintenance downtime
- Greatly reduces frequency of filter media replacement
- High return on investment
- Dramatically reduces risk and incidence of fire and explosion
- Lowers insurance premiums by reducing risk
- Integral part of Plant Safety Program
- More cost effective than conventional water-based extinguishing systems

Installation

- Static device – no moving parts
- No electrical controls
- Easily installed in retrofit or OEM
- No factory rep or technician required to install
- No calibration or adjustment procedures
- No strict operation or maintenance procedures
- No specialty tools required
- Works in any direction – horizontal or vertical

“Committed to improved means of safety in protecting life and preventing property damage from threat and incidence of fire and explosion.”



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