



240 Camille Crescent
Waterloo, ON, N2K 3B7
www.qamanage.com
(800) 267-5585 toll-free

QUENCHER Spark Arrestor Proposal

Q- 12381

Reference: This one is sized tight (11,800CFM),
pressure drop 1.9"WG approx

att: Ed Sithes President Avani Environmental	Date: Feb 24, 2012 Phone: (919) 570-2862, #202 Fax: (919) 570-2863, E-Mail: esithes@avanienvironmental.com
---	---

The operating conditions you described and we are quoting for are:

Air Volume (ACFM): 12000	Temperature (°F): 70
Source of emissions: Welding	Elevation: at or near sea level

Comments:

Design Features:

SPARK ARRESTOR & COOLING DEVICE; Fixed curved blade assembly that thoroughly agitates the gas flow in the duct. It produces turbulent flow, which strips oxygen that fuels the sparks, thereby allowing the sparks to cool to within 50° F. of the temperature in the process gas stream.

- (1) This is a static device, with no moving parts.
- (2) The secret to effective of cooling sparks is to obtain maximum agitation of the air and hot embers. The unique and exclusive blade design, unlike any other similar units on the market, vigorously spins the gas stream a full 90° to the gas flow direction which takes the laminar flow pattern found in the duct system and converts it to maximum turbulence.
- (3) An in-line device which is simply inserted into the duct work either at the source of spark emissions and/or upstream of the dust collector. Unlike other spark arrestors, the QUENCHER does not need a collection device to capture the sparks. The sparks are extinguished and cooled so they can be safely transported down the ductwork and collected at the dust collector.

AIR MIXING; when different gas streams move through a length of duct which exhibits laminar flow, the gas streams will stratify. By vigorously spinning the air through the QUENCHER cell, the gas streams are forced to mix with each other and will, within a short distance, flow downstream of the cell with uniform temperature and velocity.

Standard Construction:

(A) **10-14 gage** hot rolled steel, welded construction. Maximum temperature 650°F. Larger sized units and high temperature applications require special construction.

(B) **Reducer-transition sections** are supplied at both the inlet and outlet of the QUENCHER cell with a slope not to exceed 15°, ensuring smooth distribution of air over the entire cell face area. These transition sections are designed to adapt the QUENCHER to the most common duct sizes. Other sizes are available upon request.

Pressure drop of 0.6 to 1.9 inch WC, over the stated range of air flow through the Quencher.

Options:

(1) **CELL CLEANER - BOOSTER option;** (strongly recommended for dust loadings of 0.002 grains/cu.ft. or more) to assist in cleaning out the Quencher and reduce accumulations of dust drop out in the cell and ductwork. Schedule 40 pulse-pipes with a diaphragm valve operated automatically or manually. The valve and orifice distribution is up to double that of a standard Booster to increase effectiveness with a Quencher.

(2) **PAINT option;** Q-8 to Q-72 are powder coated, Q-84 to Q-108 are primed and top coat, medium blue on the outside. Standard paint good to 400°F. Other finishes are available when provided with a specification.

(3) **ACCESS PORT option;** held by quick-release latch will be provided on the entry/upstream reducer-transition section.

Do not operate below the minimum flow indicated in the description!

Vertical duct applications; Consult factory for special considerations.

All our manufacturing and suppliers are exclusively USA & Canadian.

QUOTE: Q- 12381	Unit Price	QTY	Extended Price
MODEL: Q030 ; 7070-11,800 SCFM, for 22" OD duct connection	\$1,847.47	X 1	= \$1847.00

Inlet/outlet connections; Standard is flanged, sleeve joint (slip / raw edge) or rolled edge (for clamp together ducting) are available upon request. All in accordance with SMACNA standards. **Bolt holes are not provided** on flanged connections unless ordered with a companion flange option (see below).

Recommended Option:

Cell Cleaner - Integral Booster; extended upstream reducer-transition. <i>Required for vertical duct install, see our technical bulletin. It is important for the Quencher blades be kept free of combustible dust. Accumulations from heavy dust loading could void the warranty.</i>	\$509.09	X 1	=	\$509.00
---	----------	-----	---	----------

Other Options:

Painted, either powder coated or top coat (see specs above), medium blue	\$368.69	X 1	=	\$369.00
Access port (not available on all QC models and Q-8 to Q-12 models)	\$178.79	X 1	=	\$179.00
Companion flanges, with matching bolt pattern	\$277.78	X 1	=	\$278.00

Resale Net, US Funds, all taxes extra, FCA (FOB) Waterloo, ON

Price is protected for 30 days. Price code: 2

DELIVERY: 1-2 weeks (basic unit), 2-3 weeks (c/w booster and/or paint) after receipt of signed Purchase Order and credit approval. There may be delays during July 1- August 15 and December 1 - January 1 holiday rush periods.

WARRANTY: A one-year limited warranty is provided. Warranty protection is subject to terms of our published warranty.

SHIPPING; QAM makes all shipping and customs clearance arrangements for the purchaser, on a prepaid & charge basis.

TERMS & CONDITINS:

OAC, [1] on orders under \$10,000, net 30 days. [2] On orders of \$10,000 or more, 25% deposit, 25% prior to delivery and 50% net 30 days. Other terms of sale must be negotiated and approved by QAM prior to the purchase of goods and services.

Past due accounts shall bear interest at 1.5% per month, retroactive to invoice date. As well, the purchaser will bear all costs legal or extra-legal to collect the amounts owing.

Invoices are subject to a 25% default of payment clause.

All our Terms and Conditions are attached and are available at www.qamanage.com. These terms and conditions apply without exception. No clause, explicit or implied, in the buyer's purchase order or contract may override the terms and conditions stated on this document without prior written approval from QAM.

Goods and services remain the property of Quality Air Management until paid for in full.



Gary Berwick, P.Eng.
Quality Air Management
240 Camille Crescent
Waterloo, ON N2K 3B7
www.qamanage.com
1-800-267-5585