Nordfab

In-line Spark Trap 2.0





Complementary Fire Prevention for your Dust Collection System

Simple, Economical Fire Protection

Installed in ducting as part of a dust collection system, the Nordfab In-line Spark Trap 2.0 greatly reduces the possibility of fire in cyclones / collectors by decreasing the number of sparks which could reach the cyclone or collector through the ductwork.

The spark trap's effectiveness is based on a simple principle — disrupting the laminar airflow to cause sparks to cool and extinguish before they can enter a cyclone / collector. There are no moving parts and no power is required for operation. Pressure loss is minimal.*



Quick-Fit® clamp-together ducting eliminates rivets, screws, and welding, significantly reducing the time required to install or replace ducting. The Nordfab In-line Spark Trap can quickly and easily be mounted into Quick-Fit ducting systems, or other duct systems via flanged ends or with use of a Nordfab adapter. And the Trap can easily be removed for cleanout. Calibration or other assistance from a factory technician is not required.

*The unit does not create a secondary dust collection point.

NOTE: The Nordfab In-line Spark Trap is not a replacement for spark detection or explosion isolation systems. Complementary device only.

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New and improved:

- Improved pressure loss
- Improved design based upon flow design analysis
- Can be installed into duct line in vertical or horizontal position
- Reduced risk of internal buildup (snag-free construction)
- Quick clamp disassembly for sizes up to 18 inches.
- Powder-coated mild steel construction

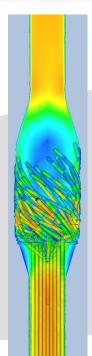


We simulated a metal grinding installation in which sparks might be generated and enter the airstream flowing in from below our re-designed Spark Trap.

In the airstream exiting the Trap, sparks have been extinguished.

Nordfab In-line Spark Trap 2.0 (shown with Viewing Spools on either end)

Prior to entering the Spark Trap, sparks are visible in the airstream.



To help design our updated Spark Trap, we used flow design software to simulate the travel of steel sparks through the Trap.

The graphic at left illustrates the velocity of the air slowing from the diameter change, and rotating into a turbulent path, stripping the spark from its boundary layer, and creating a longer path of travel to allow the spark to fully extinguish before leaving the device.

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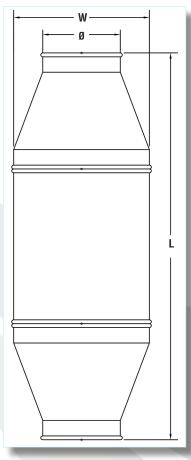
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The Nordfab In-line Spark Trap 2.0 is available with Quick-Fit ends. For flanged application, order our Spark Trap AFL Assembly which includes a Spark Trap and two Angle Flange Adapters.

The Nordfab In-line Spark Trap is a simple, low-cost tool that can reduce incidents of fire events, reducing costs and disruption and improving safety. System redundancy and complementary measures should be applied.



Duct distance recommended:
At least ten diameters from cyclone /
collector

Recommended velocity: 1500 - 3500 fpm. For max performance, we suggest 3000 fpm. (7.62m/sec - 17.78m/sec)

	Dimensions and item numbers					Pressure Loss		
Ø in.	QF Model W in.	QF Model L in.	QF Model Weight lb.	QF Model Item No.	AFL Assembly Item No.	3000 fpm	4500 fpm	5500 fpm
4	10	40	17.8	8010007300	8010007320	0.8	2.1	3.1
5	11	40	20.3	8010007302	8010007322	1.0	2.6	3.0
6	12	40	22.5	8010007303	8010007323	1.1	2.0	2.9
7	13	44	26.3	8010007304	8010007324	1.0	2.0	2.8
8	14	44	28.6	8010007305	8010007325	1.0	2.0	2.8
9	15	44	31.8	8010007306	8010007326	1.2	3.0	4.5
10	16	44	34.3	8010007307	8010007327	1.2	2.9	4.6
11	17	44	38.4	8010007308	8010007328	1.6	2.8	5.0
12	18	44	41.0	8010007309	8010007329	1.6	2.8	5.0
13	19	48	46.5	8010007310	8010007330	1.7	2.8	5.1
14	20	48	49.3	8010007311	8010007331	1.7	2.8	5.1
15	21	48	56.5	8010007312	8010007332	1.8	2.9	5.5
16	22	48	58.7	8010007313	8010007333	1.8	2.9	5.5
17	23	48	62.4	8010007314	8010007334	1.8	3.0	5.7
18	24	48	64.5	8010007315	8010007335	1.8	3.0	5.7
19	25	48	69.5	8010007316	8010007336	1.9	3.1	6.0
20	26	48	71.5	8010007317	8010007337	1.9	3.1	6.0
22	28	48	77.4	8010007318	8010007338	2.0	3.2	6.2
24	30	48	84.9	8010007319	8010007339	2.2	3.2	7.0

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