Technical Datasheet

SparkCatch

The ADIX SparkCatch is a passive explosion prevention device designed for use in industrial dust collection systems. It acts as a barrier against ignition sources in accordance with NFPA 69—Standard on Explosion Prevention Systems—reducing the risk of ignition downstream and improving the overall safety of the system.

Its internal cyclonic design diverts the airflow and forces the sparks to travel a longer path, causing them to lose speed and temperature until they are extinguished before reaching the dust collector or critical areas of the process. It is an in-line spark arrestor that is easy to install, use, and maintain.

Key Advantages

- Enhanced safety: Drastically reduces the risk of fire and explosion in dust collection systems.
- Operational peace of mind: Protects people, facilities, and equipment without the need for constant monitoring.
- Easy integration: Easily adapts to existing systems without the need to redesign the collector or the extraction line.
- Minimal maintenance: With no moving parts and no power consumption, it requires only basic inspections.
- Durability: Manufactured from heavy-duty industrial materials, it offers a long service life in demanding environments.
- Available in stainless steel, resistant to corrosion and abrasion.

Standards & Certification

- Designed in accordance with NFPA 69
- ATEX marking: not required

Applications

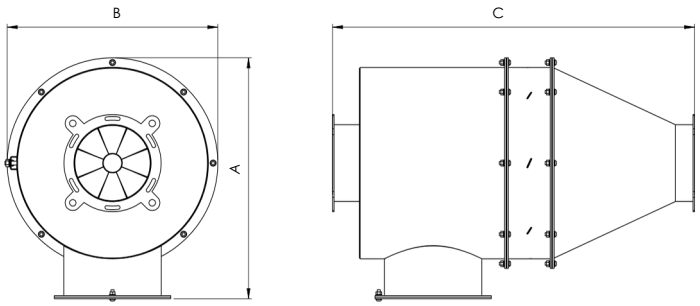
The ADIX SparkCatch is designed to eliminate sparks in metalworking and grinding processes:

- Metallurgy and welding (machining, grinding, casting, metal recycling).
- Welding facilities: robotic welding of oily stamped parts, manual, robotic, and automatic welding of oily products, cutting tables, welding schools.
- Fume extraction.
- Pneumatic conveying.

Main Characteristics

Dust type	All types of particles and fumes.
Material	Carbon steel painted RAL 3020 Optional in: AISI 304 | AISI 316 stainless steel
Flange	according to DIN 24154/R2, T2
Installation	horizontal
Air velocity	Between 12 m/s and 40 m/s (positive and negative pressure)
Working pressure	- 400 mbar to < +500 mbar (For higher pressures, consult Adix)
Estimated pressure drop	900 - 1000 Pa (at 20 m/s)
Operating temperature	- 20ºC (ensure the product does not freeze) + 90ºC
Spark mitigation efficiency	> 98% under standard conditions

Dimensions



Diameter DN	80	100	125	150	160	200	250	300	315	355	400	450	500	560	630	710	800
A (mm)	395	434	482	529	548	617	716	814	763	833	910	987	1084	1188	1308	1453	1602
B (mm)	316	355	403	452	471	548	645	752	692	761	838	925	1011	1125	1246	1384	1540
C (mm)	663	710	768	827	850	943	1060	1176	1291	1384	1489	1606	1722	1858	2025	2212	2421
Weight (kg)	14.7	17.7	22.4	26.8	28.6	38.4	50.2	65.2	62.8	73.8	87.2	103.6	125.9	151.7	181.5	218.9	264.9