



# **Arresto**

**SPARK ARRESTOR**



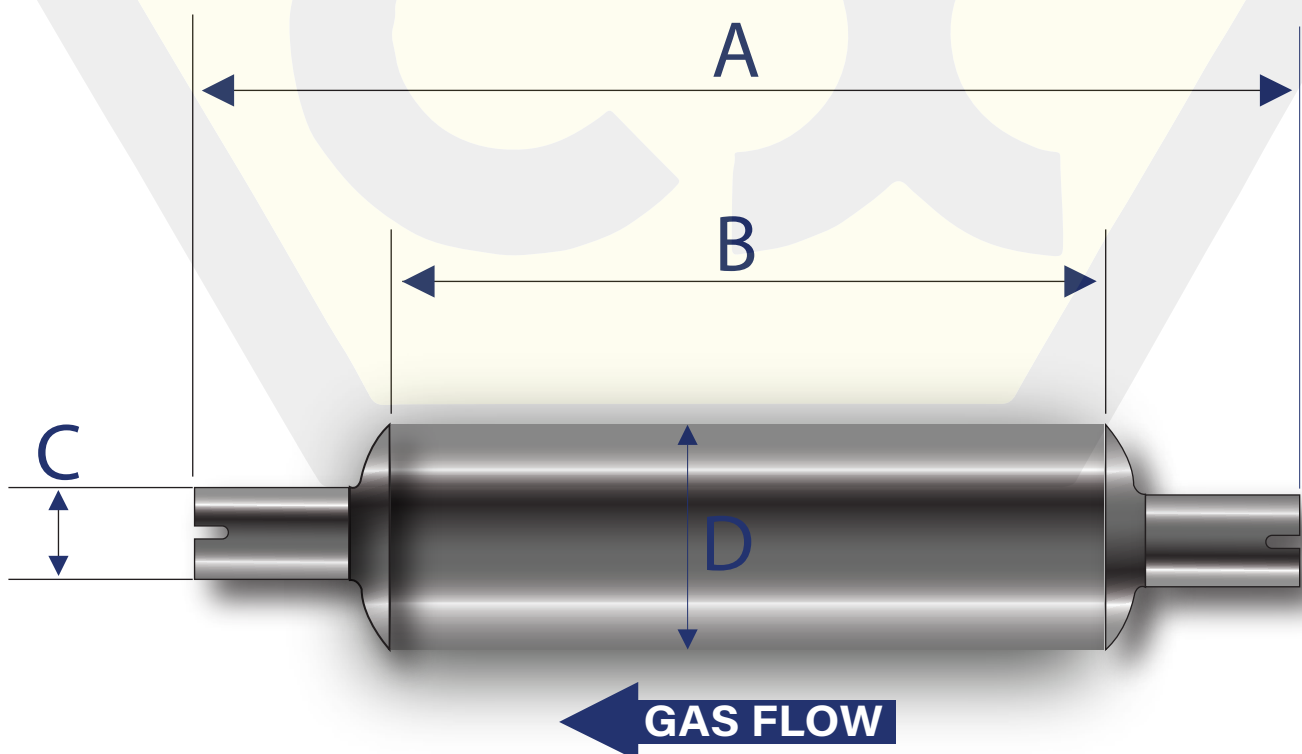
**CENTRIFUGAL DIESEL ENGINE SPARK ARRESTOR**

## 1. Description

The Arresto Spark Arrestor is an advanced and essential safety device engineered for seamless integration into exhaust systems, designed either to complement or replace traditional mufflers. Targeted primarily for use with modern diesel engines that demand low back pressure, this spark arrestor employs a dual centrifuge design to optimize internal gas flow dynamics. The twin centrifuge system improves the spark arresting capabilities by efficiently trapping sparks and preventing them from escaping the exhaust system. Furthermore, it maintains minimal back pressure, ensuring that engine performance is not compromised. The enhanced gas flow dynamics also contribute to superior noise attenuation, effectively reducing the noise levels produced by the engine and thereby promoting a quieter operating environment.

## 2. Product Selection

Choosing the right Arresto Spark Arrestor involves a careful assessment of the engine's power and exhaust pipe dimensions. The selection process is facilitated by a comprehensive table provided below that matches engine power, expressed in horsepower (HP) or kilowatts (KW), with the corresponding pipe sizes. This ensures a precise fit and optimal performance. The standard models are designed with inlet and outlet pipes having an internal diameter (I.D.) that fits snugly over the exhaust pipe. Additionally, each unit is supplied with robust fixing clamps that secure the arrestor in place, ensuring stability and reliability during operation. The selection table typically includes parameters such as:



Model	Length A mm	Length B mm	Diameter C (inches)	Diameter D mm	Hp
ENX AR 75 38	310	200	1.5	94	10-50 hp
ENX AR 100 51	470	335	2	154	30-70 hp
ENX AR 125 63	470	330	2.5	150	25-80 hp
ENX AR 150 76	955	755	3	180	50-200 hp
ENX AR 175 89	820	710	3.5	170	50-200 hp
ENX AR 200 102	865	705	4	180	150-340 hp
ENX AR 250 127	1335	1182	5	235	300-550 hp
ENX AR 300 252	1335	1176	6	235	300-550 hp

This approach ensures that the selected spark arrestor matches the engine's specifications, providing effective spark arresting while maintaining optimal engine performance.

### 3. Construction

Arresto Spark Arrestors are constructed to meet the stringent requirements of the ATEX standard, which governs equipment used in explosive atmospheres. The choice of high grade stainless steel (316) for manufacturing these arrestors is crucial, as it offers exceptional resistance to corrosion and high durability. Stainless steel 316 is known for its ability to withstand harsh environments, including exposure to high temperatures and corrosive elements, ensuring that the spark arrestor remains functional and reliable over an extended period. The meticulous construction process involves precision engineering to enhance the product's structural integrity, ensuring it can withstand the rigors of continuous use in demanding conditions. This focus on quality and durability makes the Arresto Spark Arrestor a dependable component in any exhaust system.

### 4. Maintenance

One of the standout features of the Arresto Spark Arrestor is its maintenance-free design. The arrestor incorporates a non blocking mechanism, which means there are no moving parts that could wear out or require regular servicing. This design significantly reduces maintenance costs and downtime, providing a hassle free solution for users. The non blocking design ensures that the device remains effective at capturing sparks without the need for frequent cleaning or adjustments. This reliability and ease of maintenance make it an attractive choice for operators seeking to minimize operational disruptions and costs while ensuring consistent safety and performance.

## 5. Tested & Certification

Arresto Spark Arrestors are subjected to rigorous testing and certification processes to ensure they meet the highest safety standards. These arrestors are certified according to the ATEX standard, specifically complying with ATEX EN1834 parts 1, 2, 3 and Atex directive 2014/32/EU. This certification process involves thorough testing to ensure the arrestors can operate safely in explosive atmospheres, providing reliable spark arresting capabilities. Each spark arrestor is tested for engine of various rating at 3 different levels of low, high & exponentially increase in RPM in dark room as per Atex directive. The certification is granted by an ATEX approved body, identified by the number 2336, Sca Belgelendirme Ve Özel Eğitim Hizmetleri Ltd. Şti. which signifies compliance with international safety standards. This rigorous certification process ensures that the spark arrestors provide effective protection against potential ignition sources, enhancing safety in environments where explosive gases or dust may be present.

## 6. Quality

EnvisionX, the manufacturer of Arresto Spark Arrestors, is committed to delivering products of the highest quality. Each spark arrestor comes with a one year guarantee, reflecting the assessed company's confidence in the product's reliability and durability. EnvisionX is a quality company, certified to ISO 9001:2015 standards. This certification underscores the company's dedication to maintaining robust quality management systems, ensuring that all products meet stringent quality requirements. The ISO 9001: 2015 certification involves regular audits and assessments to verify that the company's processes consistently produce high quality products. This commitment to quality assurance provides customers with confidence in the reliability and performance of Arresto Spark Arrestors.

## 7. Features

- **Twin Centrifugal Type:** The twin centrifuge design enhances the spark arresting capabilities by efficiently capturing and containing sparks within the exhaust system.
- **Good Silencing:** The design provides high noise attenuation, reducing engine noise significantly and contributing to a quieter operating environment.
- **Intended for Permanent Installation:** The arrestors are designed for long term integration into the exhaust system, ensuring consistent performance over time.
- **Used with or as Replacement for Muffler:** The versatility of the arrestors allows them to be used alongside existing mufflers or as direct replacements, offering flexibility in installation.
- **Improved Internal Gas Flow Dynamics:** The enhanced gas flow dynamics ensure minimal back pressure, maintaining optimal engine performance while effectively arresting sparks.
- **100% Stainless Steel Construction:** The use of high grade stainless steel (316) ensures durability and resistance to corrosion, making the arrestors suitable for use in harsh environments.

By choosing Arresto Spark Arrestors, you are investing in advanced engineering, robust construction, and compliance with international safety standards, ensuring reliable and efficient operation in your diesel engine systems.