



**SPARK  
ARRESTORS**



## INSTRUCTIONS FOR INSTALLATION

This installation and maintenance manual is intended for exhaust systems with spark arrestors manufactured by Axces B.V., Netherlands. By following the guidance in this publication, you will be able to get optimal use of the spark arrestor concerning back pressure, effectiveness and a prolonged lifetime. It discusses precautions, handling, mounting and maintenance of the spark arrestor. The requirements of these guidelines are binding.

### INSTALLATION AND COMMISSIONING

- Information regarding dimensions and weight is sealed on one of the end covers of the spark arrestor.
- Under roof dry storage is required.
- The spark arrestors can be lifted on the lifting lugs or with hoisting equipment round the body.
- Before installation remove end covers.
- In case a spark arrestor is installed type (REAB35-IS), (ABS-IS), (CP), (SA) leave enough space around the soot container to clean it.
- Do not cover the nut cap of the soot container in the heat insulation.
- Special care must be taken to the direction of mounting. On the body of the silencer is a flow direction arrow mounted.
- Before start up check that all the bolts of the flange connections are tight, and a gasket is installed.

### GENERAL INFORMATION

- Axces spark arrestors are designed for mounting in exhaust gas lines of diesel and gas engines.
- The working is according to the centrifugal principle.
- The optimal gas speed is between 20 and 50 meters per second.
- The maximum allowable temperature is 500 degrees centigrade.
- The material used is (stainless) steel.

### SPARE PARTS INFORMATION

- There are no recommended spare parts.
- All bolts and nuts have metric thread; therefore no special tools are required.

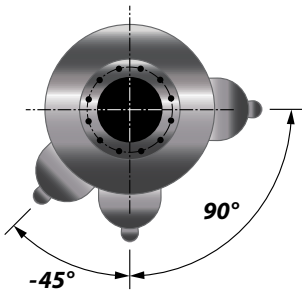


Type Approval acc. BV / DNV / RMRS



## INSTALLATION OF SPARK ARRESTOR

Horizontal



Vertical



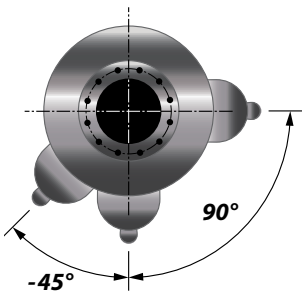
### SPARK ARRESTOR POSITIONING

#### Horizontal

Soot box needs to be situated between  $-45^\circ$  and  $90^\circ$

#### Vertical

Soot box needs to be situated with plug facing downwards



### SILENCER WITH SPARK ARRESTOR POSITIONING

#### Horizontal

Soot box needs to be situated between  $-45^\circ$  and  $90^\circ$

#### Vertical

Soot box needs to be situated with plug facing downwards

## CLEANING INSTRUCTIONS

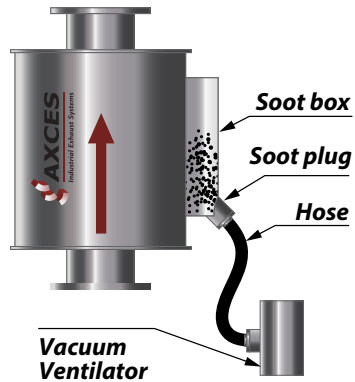
### ALL TYPES

Soot cleaning is compulsory and must be performed every six months. The following precautions must be respected.

- The exhaust spark arrestor or parts thereof may be hot. Injury danger.
- Exhaust gasses are poisonous. Do not inhale.

### PROCEDURE

- If the engine runs, stop the engine.
- Remove the soot plug from the soot box (See picture).



### OPTION 1

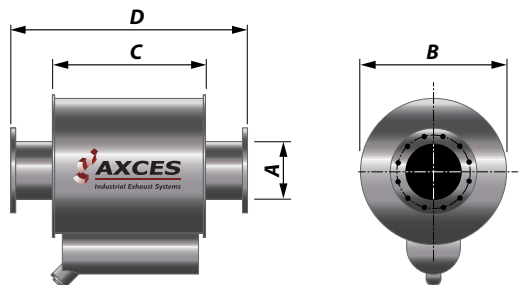
- Connect a socket extended with a rubber hose. The hose must end outdoors or at least in a properly ventilated space.
- Use a container to collect the soot.
- Start the engine and partly cover the tail pipe to increase pressure in the exhaust system. The soot will flow along with exhaust gasses through the rubber hose.

### OPTION 2

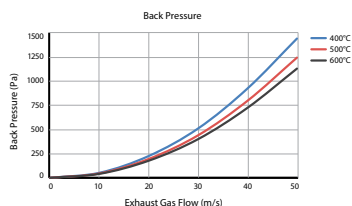
- Connect the socket to a vacuum cleaner and vacuum clean the soot box.
- Install the plug back into the soot box socket.
- Check for proper sealing of the plug so there are no leaks.

It is advisable to clean the spark arrestor with compressed air at regular intervals.

## SPARK ARRESTOR TYPE SA



Article No.	A (inch)	NB (mm)	Pipe (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
11100000015	1.5	40	48.3	114	118	208	2
11100000020	2	50	60.3	143	136	246	5
11100000025	2.5	60	76.1	172	186	276	7
11100000030	3	80	88.9	187	165	285	10
11100000040	4	100	114.3	243	220	360	12
11100000050	5	125	139.7	313	295	435	15
11100000060	6	150	168.3	376	325	485	20
11100000080	8	200	219.1	480	355	565	25
11100000100	10	250	273.0	564	645	895	30
11100000120	12	300	323.9	611	985	985	35
11100000140	14	350	355.6	671	800	1050	50
11100000160	16	400	406.4	751	1000	1300	80
11100000180	18	450	457.2	851	1250	1550	100
11100000200	20	500	508.0	951	1350	1640	120



**Function** The operation of the Spark Arrestors is based on physical centrifugal forces. Gases are forced creating a rotary movements by way of a fixed number of angled positioned blades. As a result the heavy carbon particles are smoothly collected in the designed soot box.

**Maintenance** For correct operation of the spark arrestor, it is important to remove the cap at regular intervals, so caught particles can be removed.

**Principal** The Spark Arrestor type SA has its function to prevent materials usually sparks and other flammable carbon particles leaving the exhaust system.

**Spark Arrestor** The Spark Arrestor type SA can be installed in exhaust systems where sparks, flammable carbon particles, or other parts have to be separated.

**Mounting** The Spark Arrestor can be installed both horizontal and vertical.

**Exhaust Gas Speed** Advised Exhaust Gas Speed between 20 –50 m/s.

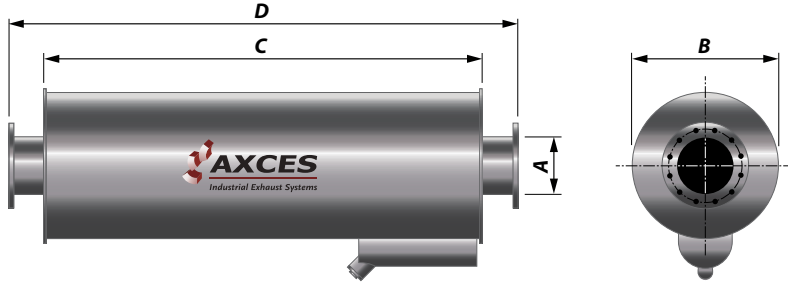
**Material** Spark Arrestors are produced out of Steel 37-2 (S235JRG2).

**Temperature** Maximum allowable temperature is 600°C.

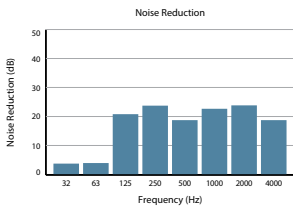
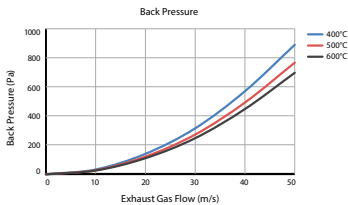
**Custom Made** Spark Arrestors are also manufactured based on specific dimensions or client's requirements.

## TYPE CP18

Damping level 18 dB(A)  
with integrated Spark Arrestor



Article No.	A (inch)	NB (mm)	Pipe (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
121000000015	1.5	40	48.3	200	500	650	16
121000000020	2	50	60.3	200	500	650	16
121000000025	2.5	60	76.1	260	565	715	22
121000000030	3	80	88.9	310	565	715	26
121000000040	4	100	114.3	360	845	1075	40
121000000050	5	125	139.7	400	845	1075	50
121000000060	6	150	168.3	475	1000	1250	70
121000000080	8	200	219.1	560	1165	1415	100
121000000100	10	250	273.0	635	1500	1750	135
121000000120	12	300	323.9	760	1665	1915	185
121000000140	14	350	355.6	800	1835	2085	215
121000000160	16	400	406.4	860	2000	2250	250
121000000180	18	450	457.2	910	2165	2415	285
121000000200	20	500	508.0	960	2335	2585	320



**Damping Of The Noise Level**  $\pm 18$  dB(A).

**Damping Basics** of the silencers type CP18 are according the reflection principal.

**Spark Arrestor** The silencers type CP18 can be installed in exhaust systems where sparks, flammable carbon particles, or other parts have to be separated.

**Mounting** The silencers type CP18 can be installed both horizontal and vertical.

**Exhaust Gas Speed** Advised Exhaust Gas Speed between 20-50 m/s.

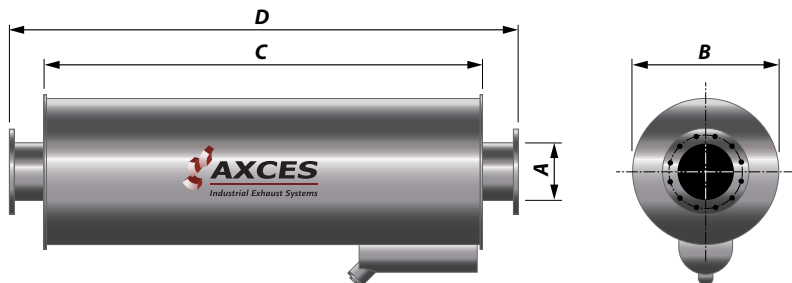
**Material** Silencers type CP18 are produced out of Steel 37-2 (S235JRG2).

**Temperature** Maximum allowable temperature is 600°C.

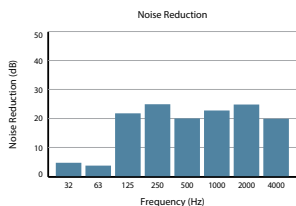
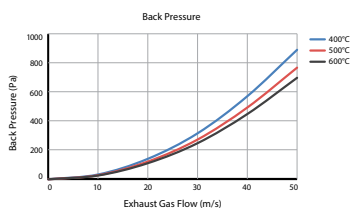
**Custom Made** Silencers type CP18 are also manufactured based on specific dimensions or client's requirements.

## TYPE CP24

Damping level 24 dB(A)  
with integrated Spark Arrestor



Article No.	A (inch)	NB (mm)	Pipe (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
121100000020	2	50	60.3	250	500	650	20
121100000025	2.5	60	76.1	300	500	650	25
121100000030	3	80	88.9	300	665	915	30
121100000040	4	100	114.3	400	835	1085	45
121100000050	5	125	139.7	400	1000	1250	55
121100000060	6	150	168.3	480	1000	1250	75
121100000080	8	200	219.1	600	1165	1415	105
121100000100	10	250	273.0	700	1500	1750	150
121100000120	12	300	323.9	800	1665	1915	195
121100000140	14	350	355.6	950	2000	2250	275
121100000160	16	400	406.4	950	2335	2585	305
121100000180	18	450	457.2	1100	2665	1915	405
121100000200	20	500	508.0	1200	3000	3250	510



**Damping Of The Noise Level**  $\pm 24$  dB(A).

**Damping Basics** of the silencers type CP24 are according the reflection principal.

**Spark Arrestor** The silencers type CP24 can be installed in exhaust systems where sparks, flammable carbon particles, or other parts have to be separated.

**Mounting** The silencers type CP24 can be installed both horizontal and vertical.

**Exhaust Gas Speed** Advised Exhaust Gas Speed between 20-50 m/s.

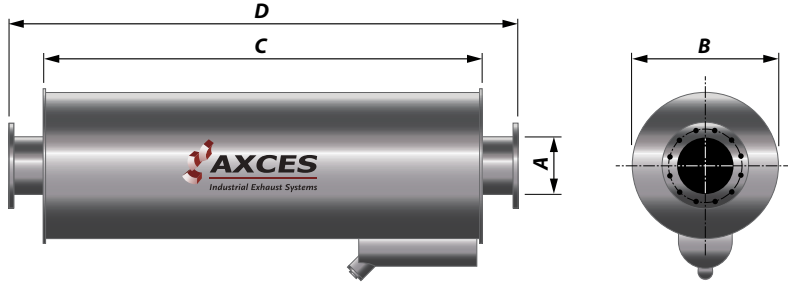
**Material** Silencers type CP24 are produced out of Steel 37-2 (S235JRG2).

**Temperature** Maximum allowable temperature is 600°C.

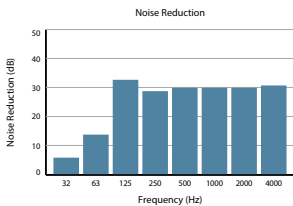
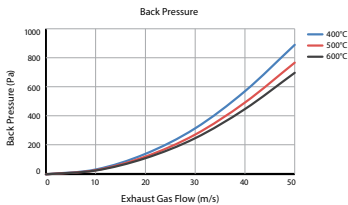
**Custom Made** Silencers type CP24 are also manufactured based on specific dimensions or client's requirements.

## TYPE CP32

Damping level 32 dB(A)  
with integrated Spark Arrestor



Article No.	A (inch)	NB (mm)	Pipe (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
12120000030	3	80	88.9	380	835	1085	40
12120000040	4	100	114.3	475	1000	1250	65
12120000050	5	125	139.7	475	1000	1250	70
12120000060	6	150	168.3	560	1500	1750	110
12120000080	8	200	219.1	660	1500	1750	140
12120000100	10	250	273.0	860	1835	2085	220
12120000120	12	300	323.9	910	2000	2250	255
12120000140	14	350	355.6	960	2335	2585	310
12120000160	16	400	406.4	1060	2665	2915	380
12120000180	18	450	457.2	1210	3000	3250	510
12120000200	20	500	508.0	1300	3335	3585	575



**Damping Of The Noise Level**  $\pm 32$  dB(A).

**Damping Basics** of the silencers type CP32 are according the reflection principal.

**Spark Arrestor** The silencers type CP32 can be installed in exhaust systems where sparks, flammable carbon particles, or other parts have to be separated.

**Mounting** The silencers type CP32 can be installed both horizontal and vertical.

**Exhaust Gas Speed** Advised Exhaust Gas Speed between 20-50 m/s.

**Material** Silencers type CP32 are produced out of Steel 37-2 (S235JRG2).

**Temperature** Maximum allowable temperature is 600°C.

**Custom Made** Silencers type CP32 are also manufactured based on specific dimensions or client's requirements.