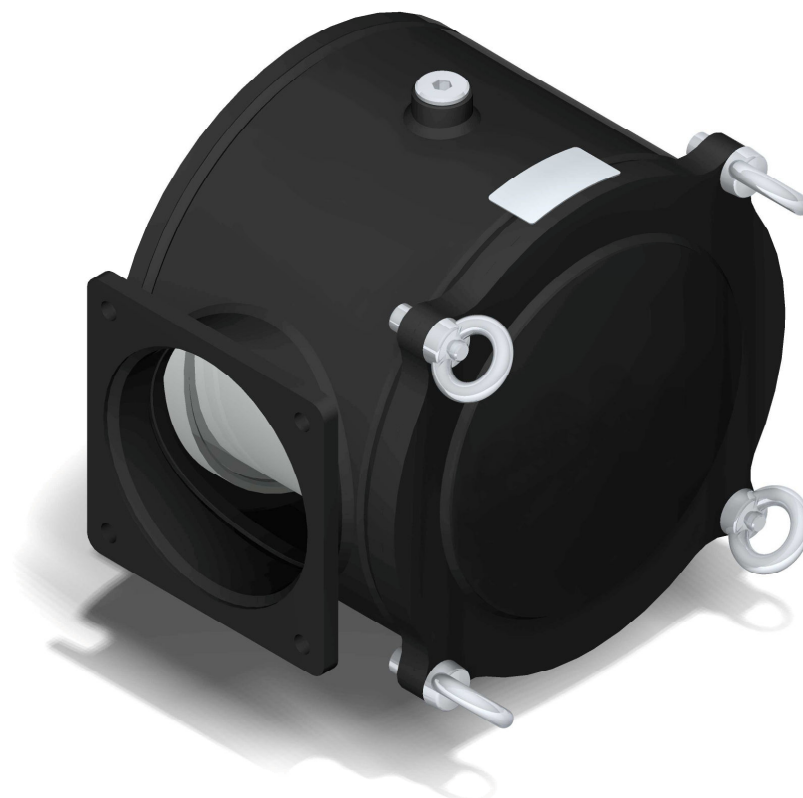


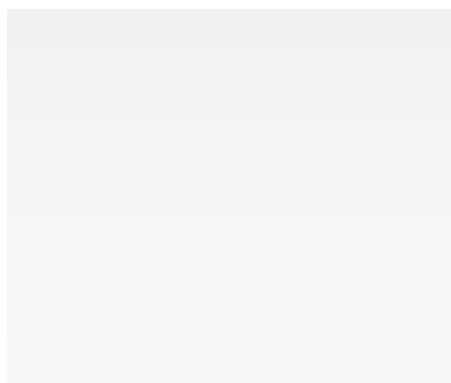
EN

SPARK ARRESTOR DRF/C 140-220



ACCESSORIES AND COMPONENTS

Air filter and spark arrestor



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

COMPANY WITH
ENVIRONMENTAL SYSTEM
CERTIFIED BY DNV GL
= ISO 14001 =

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= UNI EN ISO 3834-2 =



TECHNICAL DATA

The bidirectional explosion-proof spark arrestor is an **ATEX protection system** that prevents the propagation of flames (fire) from one element to the other separated by the spark arrestor itself. The device connects two lines normally used for suction / pressurization of air and stops an eventual flame created or entered in the line itself. The item does also put out the flame by means of a very narrow passage where the presence of oxygen is eliminated by the combustion-gasses themselves created by the flame on the device's exposed surface.

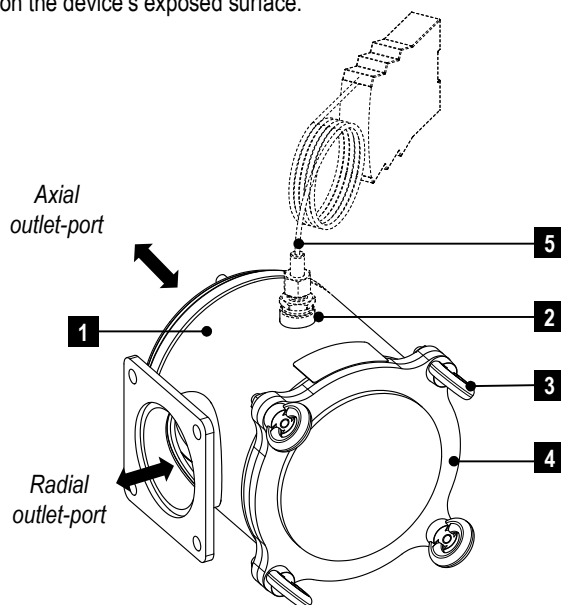
The devices spark arrestors DRF/C are suitable for fluids up to **Group IIA**.

The spark arrestors are available in two versions:

- **DRF/C 140**, code 14450 MNZ B0, ratio Lu/D = 10,30 max length L = 927mm with $\Phi_i = 90$ mm;
- **DRF/C 220**, code 14450 GU6 B0, ratio Lu/D = 10,12 max length L = 1518 mm with $\Phi_i = 150$ mm.

The filter body and cover are made of **Carbon steel S355J2H**. The filtering net is made of **Stainless steel 304 type 18-10**, with filtering capacity of 125 μ m.

The following figure shows a schematic diagram of a spark arrestor, highlighting its main components.



LEGEND

1	Filter-housing	4	Cover
2	Connection port / Port of draining of condensed vapors	5	ATEX certified thermostat (available on demand)
3	Locking eyebolt		

The following table shows the main operating parameters concerning the ratio Lu/D, max air flow, condition of combustion test, maximum work-pressures, temperature (work-temperature, intervention temperature and thermostat adjusting), number of connection ports and weight.

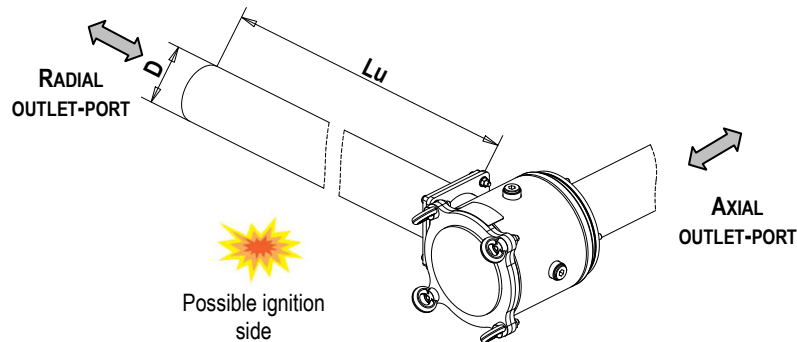
OPERATING PARAMETERS

Parameter	Spark arrestor DRF/C 140 code 14450 MNZ B0	Spark arrestor DRF/C 220 code 14450 GU6 B0
RATIO Lu/D	$\leq 10,30$	$\leq 10,12$
MAX AIR FLOW	$< 1300 \text{ m}^3/\text{h}$	$< 3600 \text{ m}^3/\text{h}$
COMBUSTION TEST LENGTH 1 MIN. (BURN RATING)	b	b
COMBUSTION TIME: 1 MIN. (BURNING TIME T=1 MIN.)	max 30 sec.	max 30 sec.
MAXIMUM WORK-PRESSURE (BAR ABSOLUTE)	1.5 bar (0.15 MPa)	1.5 bar (0.15 MPa)
MAXIMUM WORK-TEMPERATURE	150 °C	150 °C
THERMOSTAT ADJUSTING & INTERVENTION TEMPERATURE	150 °C	150 °C
MAX ALLOWED ENVIRONMENT TEMPERATURE DURING OPERATION	40°C	40°C
NO. 3 CONNECTION PORTS (FOR VENTING-LINE, DRAINING OF CONDENSED VAPORS AND TEMPERATURE MONITORING DEVICE)	3 dia. $\frac{1}{2}$ "	3 dia. $\frac{3}{4}$ "
DEGREE OF FILTRATION	MESH 120, mesh hole \varnothing 0.125mm (at 125 μ m)	
FILTER AREA	735 cm ²	1336 cm ²
WEIGHT	15 kg	35 kg

While positioning/mounting the spark arrestor pay attention that / to:

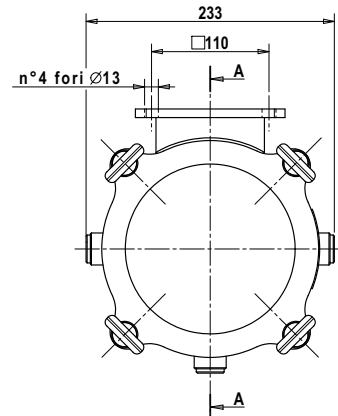
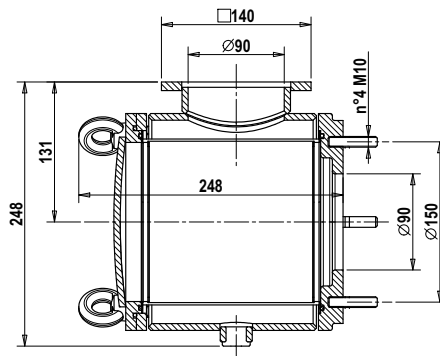
- a) The radial outlet-port has to face the potential spark/flame side;
- b) Mount close to the filtering net, on possible ignition side, an **ATEX certified thermostat**;
- c) In order to prevent possible sparks 'of mechanical origin use suitable cyclone type devices to stop large particles been sucked inside the line;

- d) Fit an effective earthing-line to discharge eventual static-electricity;
- e) Maintain the maximum allowed length of the piping (max distance from the pump) on the potential ignition side;
- f) Branching-out of the piping and valves on the potential spark/flame side have to be fitted as close as possible to the spark arrestor;
- g) Depending of the use / working site the filter net may need a daily cleaning. The filter must therefore have an **easy access (it has not to be sealed off)**;
- h) It has to be possible to use one of the ports (dia. $\frac{3}{4}$ " or $\frac{1}{2}$ ") for draining of eventual liquids. In case there are (fitted) valves, make sure that all elements are perfectly tight;
- i) Use PN16 piping on the potential ignition side.

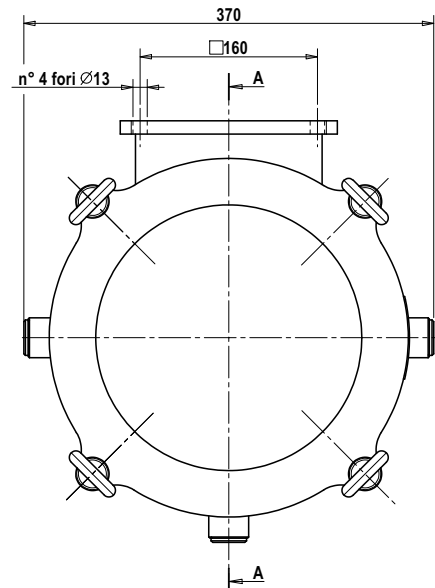
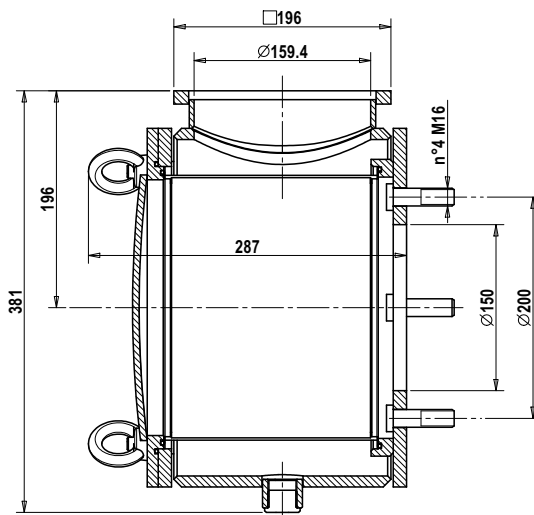


Dimensions of spark arrestor

**Spark arrestor
DRF/C 140**
(code 14450 MNZ B0)

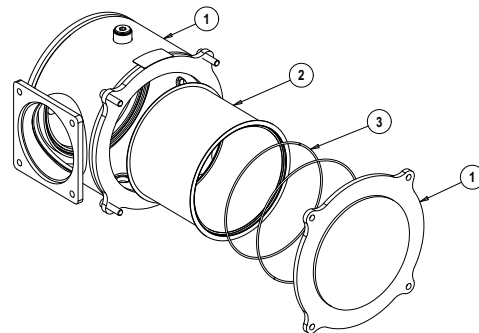


**Spark arrestor
DRF/C 220**
(code 14450 GU6 B0)



MATERIALS

1. Filter-housing and lid made **Carbon-steel S355J2H**.
2. Filtering net made in **Stainless Steel AISI 304 type 18-10**.
3. Inside sealing O-rings are made in **NBR 70**.



Filter-housing and lid are delivered as autophoretic APH866 black colour; can be delivered as raw-execution or painted in the particular colour of specific request.

MARKINGS ON THE SPARK ARRESTOR

Name and address of the manufacturer: **Jurop S.p.A. via Crosera n°50, 33082 Azzano Decimo, Pordenone – Italy**

Type or Series designation: **DRF/C 140 – DRF/C 220**

Manufacturing number : **101234** (esempio)

Certificate Number DRF/C 140-220: **EUM1 12 ATEX 0811**

Number of the Authority encharged and liable
for the production control: **0575**

Applied Normative Number: **EN 16852**

Markings of the Spark Arrestor DRF/C140 – DRF/C220:



- IIG:** indicates the **group of the Protection System**, that's to say the environment of industrial use / application, mining sector/branche not included. Jurop's protection system is suitable to grant protection of working-sites where the eventual explosive atmosphere is formed by gasses/vapours or fogs, with exclusion of dusts;
- IIA:** indicates the **gasses group**, where/whom the protection effectiveness and ATEX safety system has been demonstrated / proven.