

ES8861/ES6860 – Servus
Flame arrester with service hatch



Instructions for installation, operation,
inspection and maintenance

1. General

The flame arrester Servus is designed for use on ventilation pipes for storage tanks at filling stations. The in-line detonation flame arrester shall stop any flame transmissions from the outside from going down the ventilation pipe into the tank.

If the version with the integrated pressure/vacuum vent valve has been chosen (ES8861AA), then the p/v vent valve will keep the tank normally closed to the atmosphere to minimize VOC emissions. At the same time it allows the release of overpressure (such as may occur when the tank is being filled up) and vacuum (such as may occur when the tank is being emptied via a dispenser or suchlike).

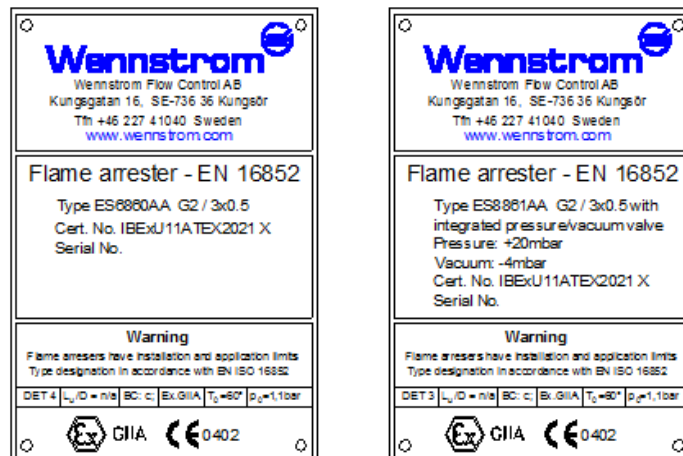
Servus is approved according to EN 16852:2010 and holds EC type approval certificate number IBExU11ATEX2021 X. The in-line detonation flame arrester can be used in atmospheric conditions (pressure: 0,8bar to 1, 1 bar absolute) for protection against stable detonations and deflagrations of explosive vapour/gas-air mixtures of the explosion group II A. The following specific limits for the operating pressure and ambient temperature shall be kept.

- Maximum permissible operating pressure, pO: 1.1 bar absolute
- Maximum permissible operating temperature, TO: 60C°

Servus is part of the Wennstrom solution Environment Safeguard.

2. Marking

Each product is marked with the following label (80mm x 56mm).
The year of manufacture is punched into the housing.



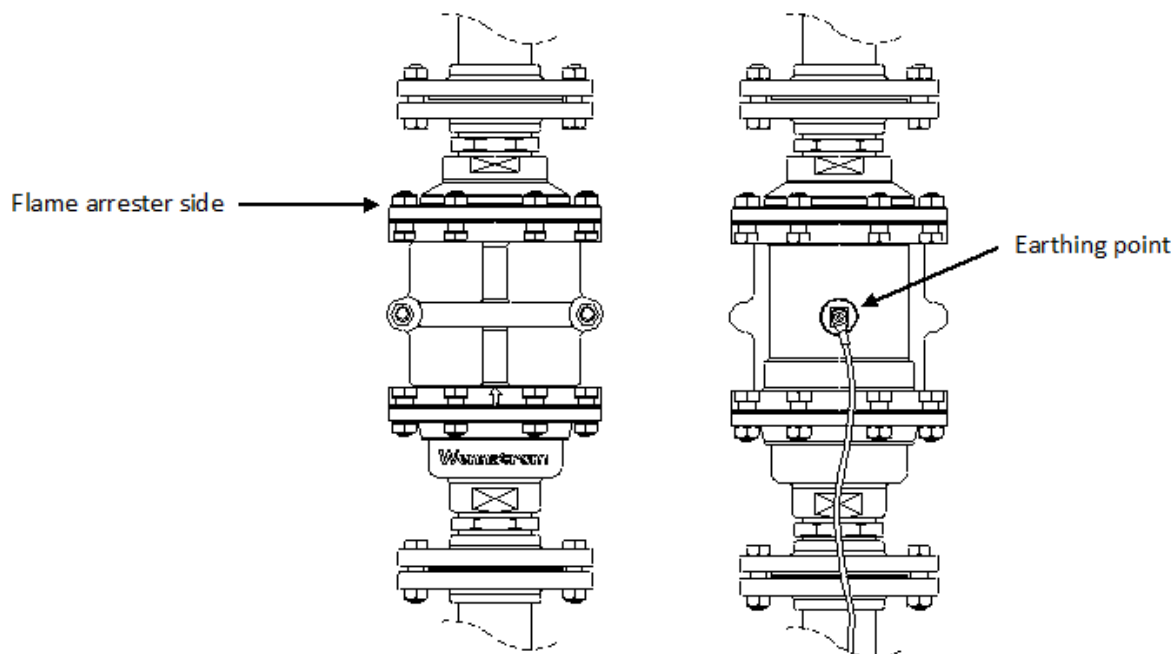
3. Installation

Servus must be mounted professionally in the pipe work in accordance with local installation requirements. It is equipment of ATEX category II approved for mounting in zone 1 and 2 for use with gas group IIA products (such as petrol and E85).

Before the installation in the ventilation pipe, make sure that no damage has come to the flame arrester.

The following assembly instructions must always be observed:

1. The flame arrester is designed with an internal thread, Whitworth G2 according to SS-ISO 228/1. If necessary use a sealant in the thread.
2. Do not support the entire pipe work/ventilation pipe on the flame arrester and should be installed without building in tension.
3. It is important that the product is mounted correctly in the ventilation pipe. The product has two sides: the flame arrester side which should be upwards and the p/v valve side which should be downwards. In this position, a potential flame transmission from the outside will meet the flame arrester first and be stopped by it.
4. The product is mounted in and earthed to the pipe work. If it is problematic to get a good connection between the product and the earthing point then establish a connection via the special earth screw on the product. In order to get a satisfactory and robust connection, a cable with a conductor area of minimum 4mm² is recommended.



4. Operation

During operation there are no moving parts. The product is fixed in the pipe work.

5. Inspection

There are no special requirements for inspection.

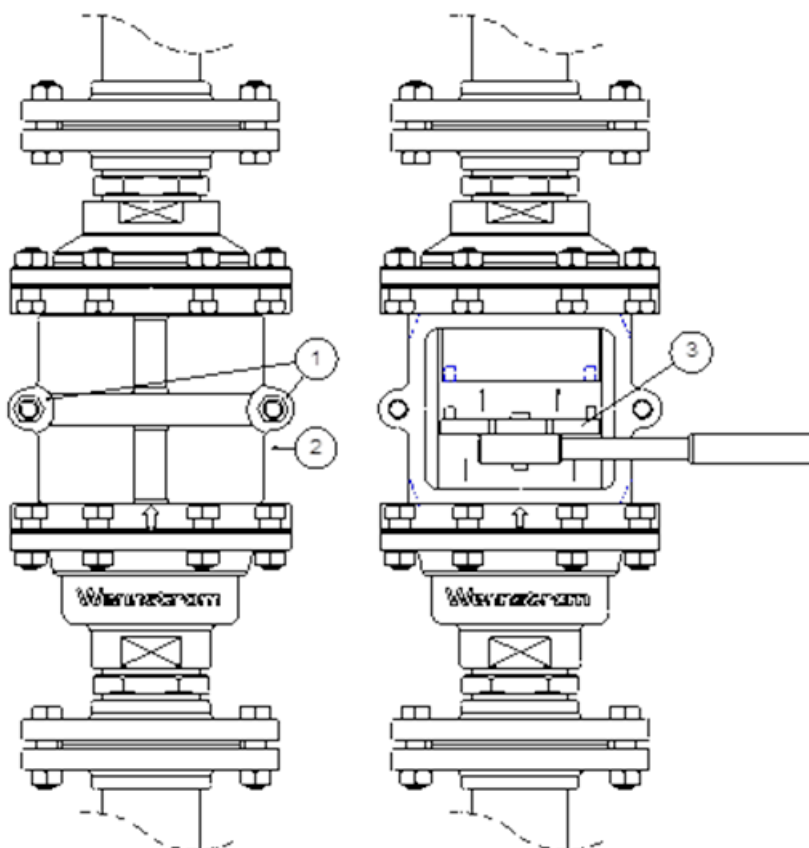
6. Maintenance

It is of utmost importance for safety reasons to observe the following:

No maintenance during thunderstorms!
No dispensing or filling up during maintenance!

The foil element of the flame arrester has a periodic visual control schedule determined by the environment in which the unit is mounted and the type of products that are transported through the foil element.

The periodic visual control is carried out by removing the cover and taking out the flame arrester foil element package. Unscrew the nuts (1) from the front of the flame arrester and dismantle the cover (2). To access the flame arrester package use the special tool (3) together with a wrench.



The foil elements are blown clean with compressed air. If the element is still visibly dirty it can be immersed in the product it protects and thereafter once again blown clean and dry.

A foil element should be replaced if it has been damaged by aggressive corrosion or if dirt that cannot be cleaned off covers more than 30% of the transmission area.

In order to maintain the validity of the certificate only original parts may be used during exchange or repair.

The flame arrester foil elements have to be replaced:

- after an explosion/fire
- if corrosion damages covering >30% of the transmission area are detected
- if there is any visible physical damage to the foils

All the work with the foil elements shall be carried out by trained personnel.

7. EU Declaration of conformity

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer

Wennstrom Flow Control AB
Kungsgatan 16
SE-736 36 Kungsör

The manufacturer is certified according to SS-EN ISO 9001:2015 – Quality management systems, certificate no. SE556197-7710 issued by notified body sbcert, and SS-EN ISO/IEC 80079-34:2011 – Explosive atmospheres Part 34: Application of quality systems for equipment manufacture, certificate no. SP03ATEX4101 issued by notified body RISE.

Object of the declaration:

Equipment:	Flame arrester with integrated p/v valve	Flame arrester without integrated p/v valve
Type:	ES8861AA	ES6860AA
Brand name:	Servus	Servus

The object of the declaration above s in conformity with the relevant Union harmonisation legislation:

- 2014/34/EU – Equipment and protective systems intended for use in potentially explosive atmospheres (ATEX)

Reference

References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:

Used harmonised standards

None

Used other technical specifications

- EN 1127-1:2007 – Explosive atmospheres. Explosion prevention and protection. Basic concepts and methodology
- EN ISO 16852:2010 – Flame arresters. Performance requirements, test methods and limits for use

The notified body IBExU (no. 0637) performed the EU-type examination and issued the certificate

IBExU11ATEX2021 X

Kungsör 2018-07-20



Ulf Ekelund, Managing Director