Marston Bursting Disc Devices
Operating and Safety Instructions (ATEX)

Additional safety instructions for valves and accessories being used in a potentially explosive atmosphere under ATEX 94/9/EC
Before installing any bursting disc, these instructions must be read fully and understood.

Reference
These are additional safety instructions to PED document number: VCOSI-01878.
A declaration of conformity ATEX BD3 (VACCO-01903-EN) has been issued which outlines the relevant conformity of the ATEX directive.
See also: Emerson.com/FinalControl

Marking
The certificate number is: Baseefa03ATEX0251.
The device is considered to meet the Explosion Protection Level: Ex II 1Gd.

Storage
When bursting discs are to be stored for any period before installation, storage should be in the original packaging. Boxes should be on shelves in a clean, dry storage area.
This will then provide adequate protection from accidental damage. Bursting disc assemblies are considered to have an indefinite storage life, provided that they are protected from light.

Identification
All bursting discs are supplied with an identification label. This label identifies the unique equipment number for the disc and related holder, a tag number where relevant, the bore size, rated pressure and temperature details. These must be checked against the application requirements before installation to ensure a safe and satisfactory installation.
Read all warning labels before carrying out any operation.

Directives
This design of Marston bursting disc devices has been examined and certified by our notified body, Baseefa [2001] Ltd, with respect to the ATEX directive 94/9/EC. The device conforms to the Essential Health and Safety Requirements for use in Hazardous Areas identified in Annex II provided that it is installed as directed within the attached Installation and Maintenance Instructions.

Installation

WARNING
For safety reasons, it is important that the following advice is noted:
1. Bursting discs will continue to discharge until pressure has equalized.
2. The discharge may include parts of the bursting disc.
3. The discharged products must be vented to a safe place.
4. Extreme noise levels may occur.
5. The blast may be severe and reaction forces will be imposed.
6. Incorrect fitting can induce over-pressure in the system.
7. The service life of a bursting disc cannot be guaranteed.
8. Various disc types are not suitable for hydraulic applications.
9. Bursting disc devices may be heavy.
10. Bursting discs may be fragile.
11. Bursting discs may have sharp edges.
12. Misalignment or damage may result in leakage.
13. It is not recommended to re-use discs.
14. Modification is not allowed except by Emerson.

Installation
1. Check that the details on the holder label and the disc tag are correct for the position in question.
2. When placing the assembly between flanges, ensure that the flow arrow on the holder and ‘vent side’ on the disc are oriented correctly.
3. Gaskets should be fitted between the holder and plant flanges.
4. Tighten the flange bolts progressively to achieve a seal.
5. The disc performance is not affected by the flange bolt torque.

Assembly
1. Place the vent side holder on a bench with the recess upwards. Ensure that all surfaces are clean and smooth and that the radius is not damaged.
2. Check the disc tag for correct identification number, burst pressure and temperature rating.
3. Place the disc assembly into the recess.
   Note: the disc is prevented from incorrect installation by the foolproofing feature incorporated into the disc tag and holder label. The disc assembly may include a vacuum support.
4. Fit the pressure side holder into the vent side holder.
5a. Standard assemblies
   Fit and tighten the assembly screws that secure the holder parts together. These screws should not be tightened excessively.
5b. Pre-torqued assemblies
   Turn the assembly over carefully, align the holes and fit the assembly screws. Tighten screws evenly and progressively to the advised torque.

The assembly can now be installed into the plant.
Note: Gaskets should not be fitted between the disc and the vent side holder. Gaskets may be fitted between the disc assembly and the pressure side holder - these will have been supplied if required.
Read all warning labels fitted to the device before operation or maintenance.

MAINTENANCE

Bursting discs generally are considered maintenance-free as they have no moving parts. However, it is recommended that discs are checked regularly during service to ensure there are no signs of corrosion or fatigue. This should be done most frequently when commissioning the equipment. A regular service inspection period should be determined or each disc as each application is different.

Disposal
Items should be disposed of after use in accordance with local and national regulations.