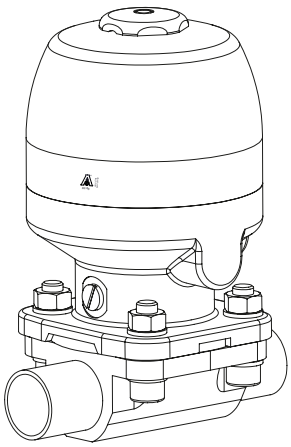
Supplement – 3-A compliant pulsation dampers



Background information

The 3-A standards are USA standards for hygienic construction.

These 3-A standards have their origins back in the 1920s. In 2003, 3-A Sanitary Standards, Inc. was founded as a non-profit organization. There are currently over 70 active 3-A standards, including standard 82-00 for pulsation dampers. These standards are developed by the 3-A work groups in collaboration with, among other bodies, the United States Public Health Service (USPHS), the United States Food and Drug Administration (USFDA) and the United States Department of Agriculture (USDA).

The main postal address:
3-A Sanitary Standards, Inc., 6888 Elm Street, Suite 2D, McLean, VA 22101-3829, USA

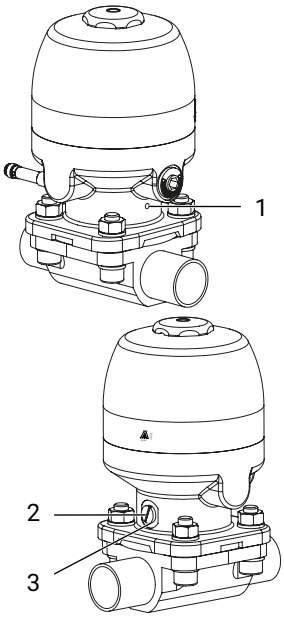
The GEMÜ 652 pulsation damper can be supplied in accordance with 3-A standard 82-00. A corresponding note must be included in the order.

For GEMÜ 652 products that comply with 3-A, the 30th character of the product type designation is the letter **M**.

Example: 652 25D594054 2T1 1537 **M**

3-A compliant pulsation dampers have the following features:

Leak detection hole and an M8x1 thread in the distance piece



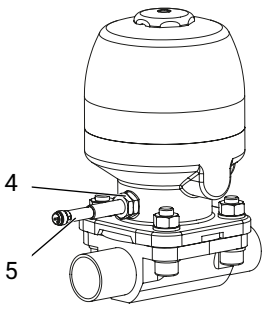
There is one bolt hole (1) with a minimum diameter of 2.4 mm in the distance piece of the actuator. This bolt hole serves as a leak detection hole if the diaphragm fails.

An M8x1 thread is located opposite at the lowest possible point (3). This threaded connection allows a leakage sensor to be fitted where necessary. Capacitance sensors detect the presence of liquid media without contact, e.g. due to a diaphragm break. When using a leakage sensor, the datasheets, safety information and assembly and operating instructions of the corresponding manufacturer on which the sensor is based apply.

Installation of a leakage sensor

An M8x1 thread is fitted as standard in the GEMÜ 652 distance piece.

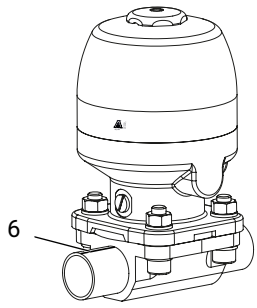
This thread is sealed with a threaded plug (2) in the condition as supplied to customer.



When using a sensor for leak detection, installation is carried out as described below:

1. Move the actuator to the open position.
2. Remove the threaded plug (2).
3. Remove both nuts (4) of the sensor (5).
4. Screw the sensor (5) into the M8x1 thread of the distance piece (3) by hand until resistance can be felt, and then turn the sensor back by one rotation.
   ⇨ The sensor touches the compressor, and is put in working position by turning it back one rotation.
5. Secure the position of the sensor (5) by securing the nuts (4).

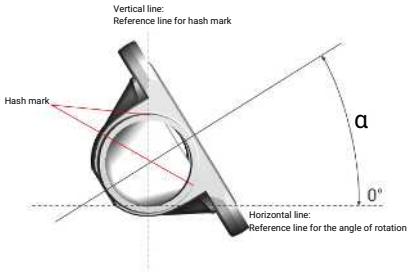
Line markings



To mark the correct angle of rotation, line markings (6) are made on the valve body.

The line markings enable simpler installation of the bodies in the system. The bodies have been positioned in a manner which is optimized for draining if the line markings point vertically upwards, as shown in the figure. The vertical line shall therefore form the reference line for the line markings.

As the GEMÜ 652 has a free flow path, optimized draining is ensured in a range of 90° ± 40°.



Diaphragm

Only PTFE diaphragms with code 54 may be used.

Replacement diaphragms

Diaphragm size	Item	Designation
25	88621265	600 25M54
40	88621267	600 40M54
50	88621269	600 50M54
80	88621276	600 80M54

3-A symbol

The 3-A symbol, along with details of the 3-A standard used and the instruction to use only FDA compliant lubricants, can be found on the actuator itself.