

GEMÜ Code 36

EPDM diaphragm



Features

- Core material with Kevlar® fibres
- Simple mounting thanks to the rubber pin that is vulcanized in place (diaphragm size 8)
- Simple and defined mounting thanks to a threaded pin that is vulcanized in place with integrated screw-in stop (diaphragm size 10 to diaphragm size 50)

Description

The GEMÜ code 36 diaphragm is a one-piece peroxide-cured EPDM diaphragm that has been developed for use in pharmaceutical and biotechnological applications as well as for the food and beverage industries. The diaphragm has good mechanical stability thanks to its core material with Kevlar® fibres. The GEMÜ code 36 EPDM diaphragm is suitable for use with abrasive media. The diaphragm is specifically compounded for GEMÜ.

Technical specifications

- **Media temperature :** -10 to 100 °C
- **Sterilization temperature:** max. 150 °C
- **Diaphragm material:** EPDM
- **Diaphragm sizes:** 8 | 10 | 25 | 40 | 50
- **Conformities:** BSE/TSE | FDA | Ozone resistance | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | USP

Technical data depends on the respective configuration



Product comparison



	GEMÜ Code 3A/13	GEMÜ Code 17	GEMÜ Code 19	GEMÜ Code 29	GEMÜ Code 36	GEMÜ Code 54	GEMÜ Code 5M
Media temperature	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C	-10 to 100 °C
Sterilization temperature¹⁾	max. 150 °C	max. 150 °C	max. 150 °C	Not sterilizable	max. 150 °C	max. 150 °C	max. 150 °C
Diaphragm materials							
EPDM	●	●	●	●	●	-	-
PTFE/EPDM	-	-	-	-	-	●	●
Diaphragm sizes							
8	●	●	●	-	●	●	-
10	●	●	●	●	●	●	●
20	-	-	-	●	-	●	-
25	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●
50	●	●	●	●	●	●	●
65	-	-	-	●	-	●	-
80	●	●	●	●	-	●	●
100	●	●	●	●	-	●	●
125	-	-	-	●	-	●	-
150	-	-	-	●	-	●	-
200	-	-	-	●	-	-	-
Conformities							
BSE/TSE	●	●	●	●	●	●	●
FDA	●	●	●	-	●	●	●
Oxygen	●	-	●	-	-	●	●
Ozone resistance	●	●	●	-	●	●	●
Reg. (EU) No. 10/2011	-	-	-	-	-	●	●
Regulation (EC) No. 1935/2004	●	●	●	-	●	●	●
TA Luft (German Clean Air Act)	●	●	●	-	●	●	●
USP	●	●	●	-	●	●	●

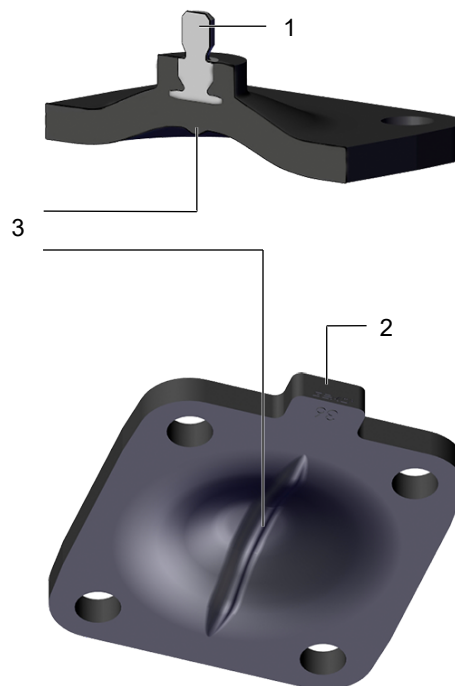
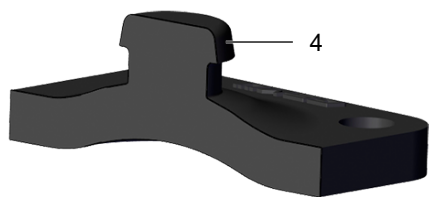
1) The duration of sterilization is limited for some diaphragms; see technical data.

Each application must be analysed before the selection of the diaphragm material. Since the most varied operating conditions often prevail within a plant at different locations, it can be necessary to use different valves and materials. In particular, the chemical properties and the temperature of the working media often lead to different interactions. The suitability of the materials used must therefore always be examined individually with regard to the current resistance list or checked by an authorised specialist. Only this procedure guarantees that the application will operate safely and economically for a longer period. Diaphragms are wearing parts. They need to be regularly inspected and replaced otherwise malfunctions can occur, possibly resulting in hazardous situations.

Please note: The maintenance intervals for inspecting and replacing diaphragms are application-dependent. In order to determine a suitable maintenance interval, the maintenance history and the stresses placed on the parts due to frequent sterilisation or frequent cycle duties must be taken into account.

Product description

Construction



Diaphragm size 8

Diaphragm size 25

Item	Name
1	Threaded pin vulcanised in place with integrated screw-in stop
2	Tab
3	Sealing bead for reliable sealing on the valve weir
4	Rubber pin

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:

www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

For electronic identification purposes, each replaceable component contained in the product you have purchased is equipped with an RFID chip (1). Where you can find the RFID chip differs from product to product.

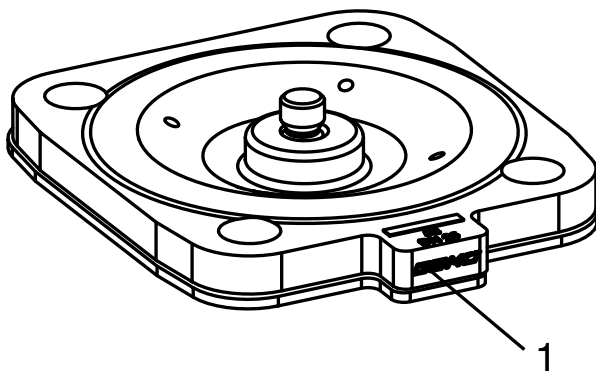


Fig. 1: Diaphragm RFID chip

Availability

Packaging unit	Type of design
P01	Without
Without	0101
Without	0104

Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Order codes

1 Type	Code
Diaphragm	600

2 Diaphragm size	Code
Diaphragm size 8	8
Diaphragm size 10	10
Diaphragm size 25	25
Diaphragm size 40	40
Diaphragm size 50	50

3 Replacement diaphragm	Code
Replacement diaphragm	M

4 Diaphragm material	Code
EPDM	36

5 Packaging unit	Code
Without	
Packaging unit 1 piece for Pharma applications, including inspection certificate 3.1 and FDA certificate of conformity	P01

6 Type of design	Code
Without	
Media wetted area cleaned to ensure suitability for paint applications, parts sealed in plastic bag	0101
Media wetted parts cleaned for high purity media and packed in plastic bag	0104

7 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

Order example

Ordering option	Code	Description
1 Type	600	Diaphragm
2 Diaphragm size	10	Diaphragm size 10
3 Replacement diaphragm	M	Replacement diaphragm
4 Diaphragm material	36	EPDM
5 Packaging unit		Without
6 Type of design		Without
7 CONEXO		Without

Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the diaphragm material.

Temperature

Media temperature: -10 – 100 °C

Sterilization temperature: max. 150 °C¹⁾, max. 60 min²⁾ per cycle

- 1) The sterilization temperature is only valid for steam (saturated steam) or superheated water.
- 2) If the sterilization temperatures listed above are applied to the EPDM diaphragms for longer periods of time, the service life of the diaphragms will be reduced. In these cases, maintenance cycles must be adapted accordingly.

Storage temperature: -10 °C – 25 °C (preferably 15 °C) must be observed

Pressure

Operating pressure: max. 10 bar (dependent on the diaphragm valve used)

Vacuum: Can be used up to a vacuum of 70 mbar (absolute)

Product compliance

Food: Regulation (EC) No. 1935/2004
 Regulation (EC) No. 2023/2006
 FDA 21 CFR 177.2600
 USP Class VI Title 87
 USP Class VI Title 88 (50 °C and 121 °C)
 The materials used for the manufacture of the product comply with the recommendation of the BfR (German Federal Institute for Risk Assessment) XXI Category 4

Ozone resistance: Diaphragm material is resistant to a maximum concentration of ozone of 0.2 mg/l (dissolved in water)

TA Luft (German Clean Air Act): The product complies with the equivalence requirements of section 5.2.6.4 of the German Clean Air Act (TA Luft / VDI 2440 according to section 3.3.1.3)

BSE/TSE: The product conforms to EMA/410/01 revision 3 and is free of animal substances

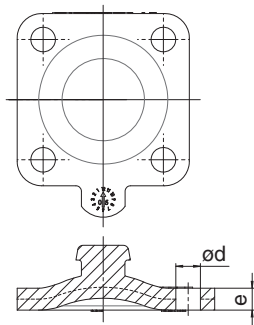
Unused components: Natural or synthetic latex
 Asbestos

Mechanical data

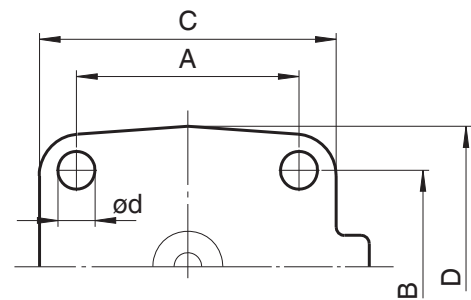
Service life: Max. recommended service life, 8 years
 The service life is the sum of the storage life and operating life.
 Note the Technical Information "Service life, storage and marking of GEMÜ diaphragms".

Dimensions

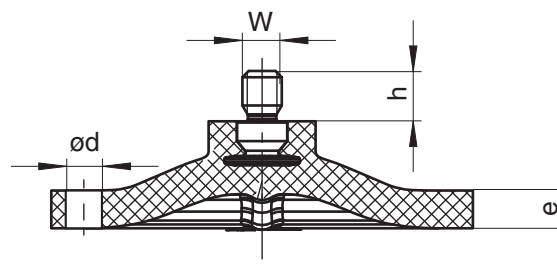
EPDM diaphragm



MG 8



MG 8 to 50



MG 10 to 50

MG	DN	NPS	A	B	C	D	ød	e	h	W	n
8	4 - 15	1/4" - 1/2"	22.0	22.0	31.5	31.5	4.5	4.0	5.6	-	4
10	10 - 20	3/8" - 3/4"	39.0	44.0	48.0	53.0	5.2	5.0	9.0	M4	4
25	15 - 25	1/2" - 1"	54.0	46.0	72.0	67.0	9.0	6.0	8.0	1/4"	4
40	32 - 40	1 1/4" - 1 1/2"	70.0	65.0	100.0	90.0	11.0	7.0	8.0	1/4"	4
50	50	2"	82.0	78.0	124.0	106.0	12.7	7.0	7.0	1/4"	4

Dimensions in mm, MG = diaphragm size

n = number of bolt holes

The thread of the diaphragm pin "W" corresponds to Whitworth standard.



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