GEMÜ 675-7H

Manually operated diaphragm valve

Features

- Suitable for inert and corrosive liquid and gaseous media
- CIP/SIP cleaning and sterilizing capabilities
- Surface finishes down to 0.25 µm, electropolished

Description

The GEMÜ 675 2/2-way diaphragm valve has a metal handwheel and is manually operated. An integral optical position indicator is standard.

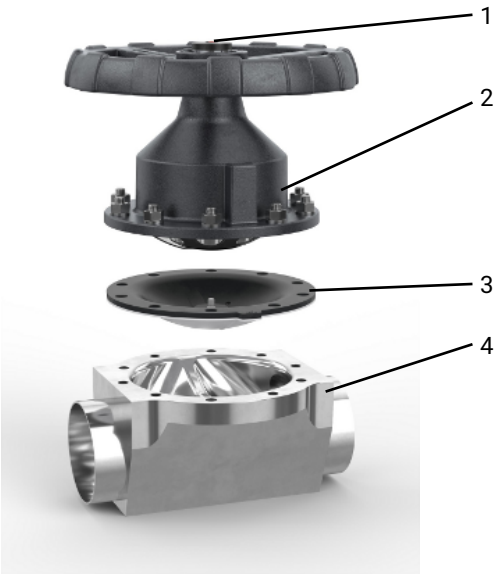
Technical specifications

- Media temperature: 0 to 100 °C
- Sterilization temperature: max. 150 °C
- Ambient temperature*: 0 to 60 °C
- Operating pressure*: 0 to 7 bar
- Nominal size : DN 150
- Body configurations: 2/2-way body
- Connection types: Clamp l Spigot
- Connection standards: ASME l DIN l EN
- Body materials: 1.4435 (316L), block material l 1.4435 (BN2), block material l 1.4539 (904L), block material
- Diaphragm materials: PTFE/EPDM
- Conformities*: EAC l FDA l Reg. (EU) No. 10/2011 l Regulation (EC) No. 1935/2004 l USP

* depending on version and/or operating parameters

Product description

Construction



Item	Name	Materials
1	Optical position indicator	PP red
2	Actuator	5.1301 (GG 25)
3	Diaphragm	PTFE/EPDM (two-piece)
4	Valve body	1.4435 (316L), block material 1.4435 (BN2), block material, Δ Fe < 0.5% 1.4539 (904L), block material

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 valve, manually operated, metal handwheel, metal distance piece, optical position indicator	675

2 DN	Code
DN 150	150

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot ASME BPE / DIN 11866 series C	59
Clamp ASME BPE, face-to-face dimension FTF EN 558 series 7, length only for body configuration D	88

5 Valve body material	Code
1.4435 (316L), block material	41
1.4435 (BN2), block material, Δ Fe < 0.5%	43
1.4539, block material	44

6 Diaphragm material	Code
PTFE/EPDM	5Q

7 Control function	Code
Manually operated (MO)	0

8 Actuator version	Code
Operator size 7H with enlarged handwheel and reinforced spindle for higher operating pressures	7H

9 Surface	Code
Ra ≤ 0.8 µm (30 µin.) for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1502
Ra ≤ 0.8 µm (30 µin.) for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1503
Ra ≤ 0.6 µm (25 µin.) for media wetted surfaces, mechanically polished internal	1507
Ra ≤ 0.6 µm (25 µin.) for media wetted surfaces, electropolished internal/external	1508
Ra ≤ 0.4 µm (15 µin.) for media wetted surfaces, in accordance with DIN 11866 H4, mechanically polished internal	1536
Ra ≤ 0.4 µm (15 µin.) for media wetted surfaces, in accordance with DIN 11866 HE4, electropolished internal/external	1537

9 Continuation of Surface	Code
Ra ≤ 0.25 µm (10 µin.) for media wetted surfaces *), in accordance with DIN 11866 H5, mechanically polished internal, *) for inner pipe diameters < 6 mm, in the spigot Ra ≤ 0.38 µm	1527
Ra ≤ 0.25 µm (10 µin.) for media wetted surfaces *), in accordance with DIN 11866 HE5, electropolished internal/external, *) for inner pipe diameters < 6 mm, in the spigot Ra ≤ 0.38 µm	1516
Ra max. 0.51 µm (20 µin.) for media wetted surfaces, in accordance with ASME BPE SF1, mechanically polished internal	SF1
Ra max. 0.64 µm (25 µin.) for media wetted surfaces, in accordance with ASME BPE SF2, mechanically polished internal	SF2
Ra max. 0.76 µm (30 µin.) for media wetted surfaces, in accordance with ASME BPE SF3, mechanically polished internal	SF3
Ra max. 0.38 µm (15 µin.) for media wetted surfaces, in accordance with ASME BPE SF4, electropolished internal/external	SF4
Ra max. 0.51 µm (20 µin.) for media wetted surfaces, in accordance with ASME BPE SF5, electropolished internal/external	SF5
Ra max. 0.64 µm (25 µin.) for media wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	SF6

Order example

Order option	Code	Description
1 Type	675	Diaphragm valve, manually operated, metal handwheel, metal distance piece, optical position indicator
2 DN	150	DN 150
3 Body configuration	D	2/2-way body
4 Connection type	59	Spigot ASME BPE / DIN 11866 series C
5 Valve body material	41	1.4435 (316L), block material
6 Diaphragm material	5Q	PTFE/EPDM
7 Control function	0	Manually operated (MO)
8 Actuator version	7H	Operator size 7H with enlarged handwheel and reinforced spindle for higher operating pressures
9 Surface	1537	Ra ≤ 0.4 µm (15 µin.) for media wetted surfaces, in accordance with DIN 11866 HE4, electropolished internal/external

Technical data

Medium

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

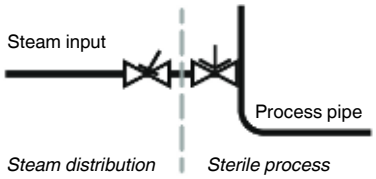
Temperature

Media temperature: PTFE / EPDM (code 5Q) 0 to 100 °C

Sterilisation temperature: PTFE (code 5Q) max. 150 °C [1], constant temperature [2] in cycle

1) The sterilization temperature is only valid for steam (saturated steam) or superheated water.

2) PTFE diaphragms can also be used as moisture barriers; however, this will reduce their service life. This also applies to PTFE diaphragms exposed to high temperature fluctuations. The maintenance cycles must be adapted accordingly. GEMÜ 555 and 505 globe valves are particularly suitable for use in the area of steam generation and distribution. The following valve arrangement for interfaces between steam pipes and process pipes has proven itself over time: A globe valve for shutting off steam pipes and a diaphragm valve as an interface to the process pipes.



Ambient temperature: 0 to 60 °C

Storage temperature: 0 to 40 °C

Pressure

Operating pressure:

MG	DN	PTFE
150	150	0 - 7

MG = diaphragm size
All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.
Information on operating pressures applied on both sides and for high purity media on request.

Pressure rating: PN 16

Leakage rate: Leakage rate A (acc. to EN 12266-1)

Kv values:

MG	DN	Stainless steel
150	150	570

MG = diaphragm size, Kv values in m³/h
Kv values determined in accordance with DIN EN 60534, inlet pressure 5 bar, Δp 1 bar, with ASME BPE connection (code 59 or 88) and PTFE diaphragm. The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.

Product compliance

Pressure Equipment Directive: 2014/68/EU

Food:
FDA*
Regulation (EC) No. 1935/2004*
Regulation (EC) No. 10/2011*
USP Class VI

EAC: TR CU 010/2011

* see availability

Mechanical data

Weight:

Operator

Operator version	Weight
7H	29

Weights in kg

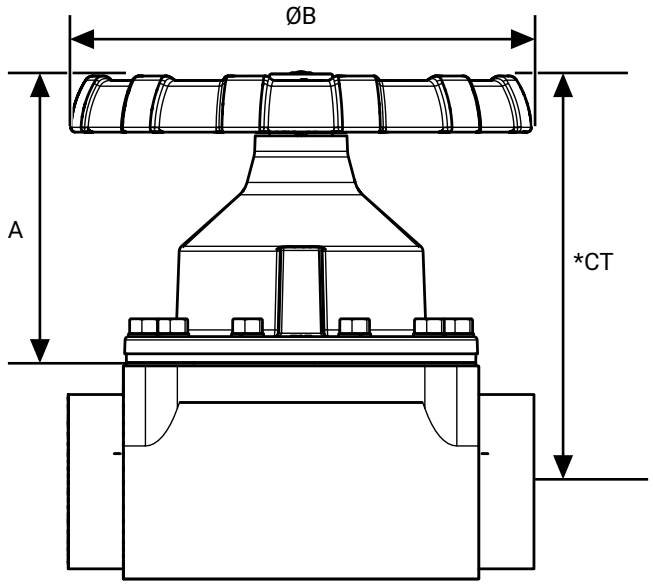
Body

MG	DN	Connection types	
		Spigot (code 59)	Clamp (code 88)
150	150	42.7	43.1

MG = diaphragm size, weight in kg

Dimensions

Actuator dimensions

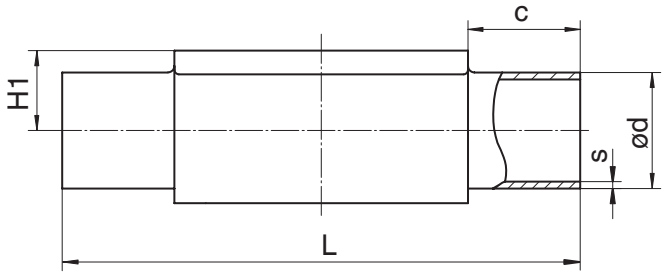


MG	DN	Actuator version	øB	A
150	150	7H	401,0	307,0

* CT = A + H1 (see body dimensions)
Dimensions in mm, MG = diaphragm size

Body dimensions

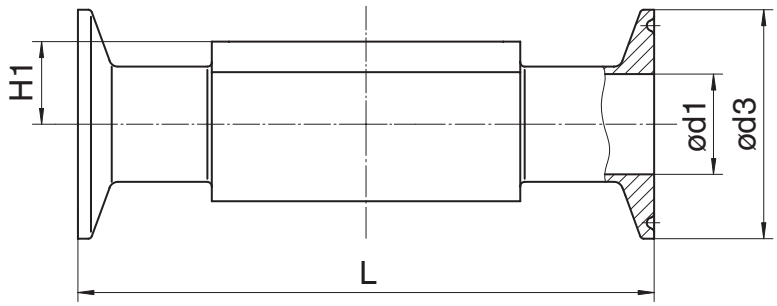
Spigot ASME (code 59)



MG	DN	NPS	L	H1	c (min)	s	Ød	α
150	150	6"	406.0	101.0	48.0	5.54	152.4	19°

Dimensions in mm, MG = diaphragm size

Clamp, ASME BPE (Code 88)



MG	DN	NPS	L	H1	Ød1	Ød3	α
150	150	6"	406.0	101.0	146.86	167.0	19°

Dimensions in mm, MG = diaphragm size