

GEMÜ 507 AK80_WKC2

Manually operated angle seat globe valve



Features

- Available as shut-off or control valve
- High flow rates due to angle seat design
- Suitable for vacuum up to 20 mbar (a)
- Handwheel locknut for fixing the spindle, in order to set a continuous flow rate

Description

The GEMÜ 507 2/2-way angle seat globe valve has an ergonomically designed plastic handwheel and is manually operated. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Technical specifications

- **Media temperature :** -10 to 180 °C
 - **Ambient temperature:** -10 to 60 °C
 - **Operating pressure :** 0 to 25 bar
 - **Nominal sizes:** DN 15 to 65
 - **Body configurations:** 2/2-way body
 - **Connection types:** Clamp
 - **Connection standards:** ASME
 - **Body materials:** 1.4435 (316L), investment casting material
 - **Seat seal materials:** PTFE | PTFE, reinforced
 - **Conformities:** CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP
- Technical data depends on the respective configuration

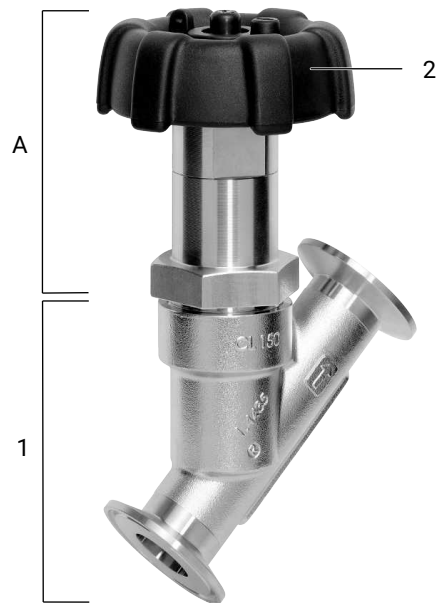


further information
webcode:
GW-507_AK80_WKC2



Product description

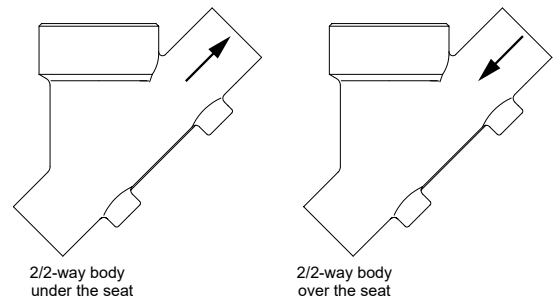
Construction



Position	Name	Materials
A	Actuator	
1	Valve body	1.4435 (316L), investment casting
2	Handwheel	Plastic

Flow direction

The flow direction is indicated by an arrow on the valve body.



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.

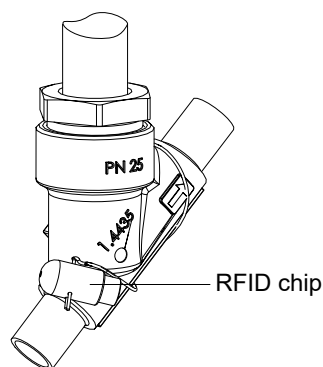
For further information on GEMÜ CONEXO please visit:

www.gemu-group.com/conexo

Ordering

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

In the corresponding design with CONEXO, this product has an RFID chip (1) for electronic identification purposes. The position of the RFID chip can be seen below. The CONEXO pen helps read out information stored in the RFID chips. The CONEXO app or CONEXO portal is required to display this information.



Availabilities

Type of design

Type of design	
Grade of surface finish (code 1903, 1904, 1909, 1953, 1954 and 1959) as per order data	Valve body material (code C2)
Media temperature -10 to 210 °C (code 2023)	Seat seal (code 5G, 5P, 10)
For contact with foodstuffs, the product must be ordered with the following ordering options (code 2013)	Seat seal (code 5, 5G) Valve body material (code C2)

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
Angle seat globe valve, manually operated, plastic handwheel	507

2 DN	Code
DN 15	15
DN 20	20
DN 25	25
DN 40	40
DN 50	50
DN 65	65

3 Housing configuration	Code
2/2-way body	D

4 Connection type	Code
Clamp ASME BPE, face-to-face dimension FTF ASME BPE	80

5 Valve body material	Code
1.4435, investment casting	C2
Note: A surface finish from the order code table "Type of design" must be specified for valve body material C2.	

6 Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
PTFE USP Class VI	5P

7 Control function	Code
Manually operated, with handwheel locknut	0

8 Actuator version	Code
Actuator size 1K	1K
Actuator size 1K Extended valve spindle	1KE

9 Regulating cone	Code
Please find the number of the optional regulating cone (R-No.) for the linear or equal-percentage modified regulating cone in the Kv value table.	R....

10 Type of design	Code
Without	
$Ra \leq 0.6 \mu m$ (25 μ inch) for media wetted surfaces, in accordance with ASME BPE SF2 and SF3, mechanically polished internal	1903
$Ra \leq 0.8 \mu m$ (30 μ inch) for media wetted surfaces, in accordance with DIN 11866 H3, mechanically polished internal	1904

10 Type of design	Code
$Ra \leq 0.4 \mu m$ (15 μ inch) for media wetted surfaces, in accordance with DIN 11866 H4, ASME BPE SF1, mechanically polished internal	1909
$Ra \leq 0.6 \mu m$ for media wetted surfaces, in accordance with ASME BPE SF6, electropolished internal/external	1953
$Ra \leq 0.8 \mu m$ for media wetted surfaces, in accordance with DIN 11866 HE3, electropolished internal/external	1954
$Ra \leq 0.4 \mu m$ for media wetted surfaces, in accordance with DIN 11866 HE4/ASME BPE SF5, electropolished internal/external	1959
PTFE-PTFE spindle seal	2013
For higher operating temperatures	2023

11 Special version	Code
Without	
Rigid plug fixing	C

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

Order example

Ordering option	Code	Description
1 Type	507	Angle seat globe valve, manually operated, plastic handwheel
2 DN	25	DN 25
3 Housing configuration	D	2/2-way body
4 Connection type	80	Clamp ASME BPE, face-to-face dimension FTF ASME BPE
5 Valve body material	C2	1.4435, investment casting
6 Seat seal	5	PTFE
7 Control function	0	Manually operated, with handwheel locknut
8 Actuator version	1K	Actuator size 1K
9 Regulating cone	RS268	9 m ³ /h – mod.EQ
10 Type of design		Without
11 Special version	C	Rigid plug fixing
12 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 body and seal material.

Max. permissible viscosity: 600 mm²/s
Other versions for lower / higher temperatures and higher viscosities on request.

Temperature

Media temperature: -10 – 180 °C

Ambient temperature: -10 – 60 °C

Storage temperature: 0 – 40 °C

Pressure

Operating pressure: DN 15 to 40: max. 25 bar
DN 50, 65: max. 16 bar
All pressures are gauge pressures.

Pressure/temperature correlation:

Connection type code	Material code	Permissible operating pressures in bar at temperature in °C			
		RT	100	150	180
80 (DN 15 - 40)	C2	25.0	21.2	19.3	17.9
80 (DN 50 - 65)	C2	16.0	16.0	16.0	16.0

All pressures are gauge pressures.
The valves are suitable for temperatures as low as -10 °C
RT = room temperature

Kv values:

DN	Actuator version	Kv values		Regulating cone number	
		Open/Close valve	Control valve	Linear	Equal percentage
15	1K	2.1	2.0	RS256	RS266
20	1K	4.1	4.0	RS257	RS267
25	1K	8.5	8.0	RS258	RS268
40	1K	18.5	17.0	RS259	RS269
50	1K	33.8	27.0	RS260	RS270
65	1K	37.9	-	-	-

Always order standard regulating cones with special function code C – rigid valve plug
Kv values in m³/h
Pressures in bar

Leakage rate:

Open/Close valve

Seat seal	Standard	Test procedure	Leakage rate	Test medium
PTFE	DIN EN 12266-1	P12	A	Air

Control valve

Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 60534-4	1	IV	Air
PTFE	DIN EN 60534-4	1	VI	Air

Product conformity

Machinery Directive: 2006/42/EC

Food: Regulation (EC) No. 1935/2004*
Regulation (EC) No. 10/2011*
Regulation (EC) No. 2023/2006*
USP* Class VI
FDA*
CRN

Explosion protection: The product does not contain any potential ignition sources and therefore does not fall within the area of application of the ATEX Directive 2014/34/EU.

Environment: RoHS

Mechanical data

Weight:

Actuator

DN	Weight
15	1.0
20	1.2
25	1.4
40	2.6
50	3.8
65	4.2

Weights in kg

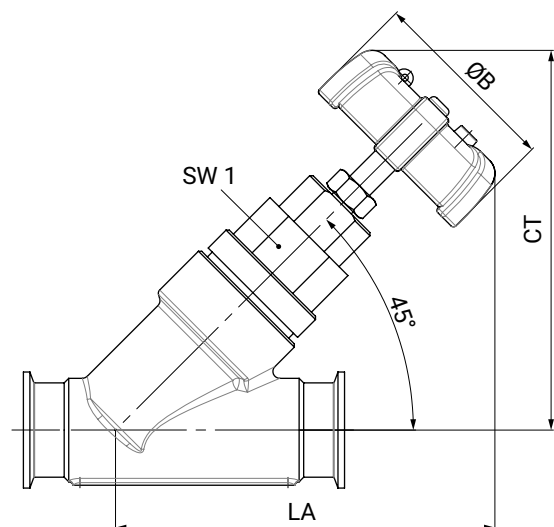
Valve body

DN	Clamp
15	0.35
20	0.30
25	0.50
40	1.00
50	1.40
65	2.40

Weights in kg

Dimensions

Installation and actuator dimensions

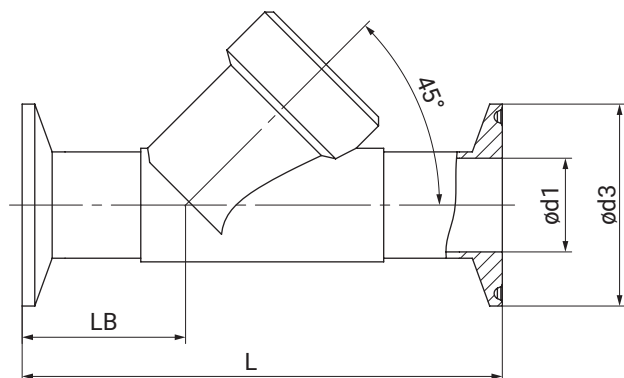


DN	Actuator size	ØB	CT/LA	WAF1 metric	
15	1K / 1KE	90,0	141,0	41,0	Hexagonal
20	1K / 1KE	90,0	141,0	41,0	Hexagonal
25	1K / 1KE	90,0	147,0	46,0	Hexagonal
40	1K / 1KE	90,0	164,0	41,0	Double flat
50	1K / 1KE	90,0	178,0	41,0	Double flat
65	1K / 1KE	90,0	188,0	41,0	Double flat

Dimensions in mm

Body dimensions

Clamp ASME (code 80)



Connection type clamp ASME (code 80)¹⁾, investment casting material (code C2)²⁾

DN	NPS	LB	L	ø d1	ø d3
15	1/2"	28.5	88.9	9.4	25.0
20	3/4"	35.0	101.6	15.75	25.0
25	1"	33.0	114.3	22.10	50.5
40	1 1/2"	40.0	139.7	34.80	50.5
50	2"	44.0	158.8	47.50	64.0
65	2 1/2"	54.3	193.8	60.20	77.5

Dimensions in mm

1) Connection type

Code 80: Clamp ASME BPE, face-to-face dimension FTF ASME BPE

2) Valve body material

Code C2: 1.4435, investment casting



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach, Germany
Phone +49 (0) 7940 1230 · info@gemue.de
www.gemu-group.com