KIESELMANN
FLUID PROCESS GROUP

Translation of the original

Operating Instructions

GEMBRA Aseptic-Single seat valves

Angle valve Type: 5836
T-valve Type: 5838



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1 General informations

1.1 Informations for your safety

We are pleased that you have decided for a high-class KIESELMANN product. With correct application and adequate maintenance, our products provide long time and reliable operation.

Before installation and initiation, please carefully read this instruction manual and the security advices contained in it. This guarantees reliable and safe operation of this product and your plant respectively. Please note that an incorrect application of the process components may lead to great material damages and personal injury.

In case of damages caused by non observance of this instruction manual, incorrect initiation, handling or external interference, guarantee and warranty will lapse!

Our products are produced, mounted and tested with high diligence. However, if there is still a reason for complaint, we will naturally try to give you entire satisfaction within the scope of our warranty. We will be at your disposal also after expiration of the warranty. In addition, you will also find all necessary instructions and spare part data for maintenance in this instruction manual. If you don't want to carry out the maintenance by yourself, our KIESELMANN - service team will naturally be at your disposal.

1.2 Marking of security instructions

Hints are available in the chapter "safety instructions" or directly before the respective operation instruction. The hints are highlighted with a danger symbol and a signal word. Texts beside these symbols have to be read and adhered to by all means. Please continue with the text and with the handling at the valve only afterwards.

Symbol	Signal word	Meaning
	DANGER	Imminent danger which will result severe personal injury or death.
	WARNING	Imminent danger which may result severe personal injury or death.
	CAUTION	Dangerous situation which may cause slight personal injury or material damages.
	NOTICE	An harmful situation which may result in damages of the product itself or of adjacent vicinity.
	INFORMATION	Marks application hints and other information which is particularly useful.

1.3 General designated use

The fitting is designed exclusively for the purposes described below. Using the fitting for purposes other than those mentioned is considered contrary to its designated use. KIESELMANN cannot be held liable for any damage resulting from such use. The risk of such misuse lies entirely with the user. The prerequisite for the reliable and safe operation of the fitting is proper transportation and storage as well as competent installation and assembly. Operating the fitting within the limits of its designated use also involves observing the operating, inspection and maintenance instructions.

1.4 Personnel

Personnel entrusted with the operation and maintenance of the tank safety system must have the suitable qualification to carry out their tasks. They must be informed about possible dangers and must understand and observe the safety instructions given in the relevant manual. Only allow qualified personnel to make electrical connections.

1.5 Modifications, spare parts, accessories

Unauthorized modifications, additions or conversions which affect the safety of the fitting are not permitted. Safety devices must not be bypassed, removed or made inactive. Only use original spare parts and accessories recommended by the manufacturer.

1.6 General instructions

The user is obliged to operate the fitting only when it is in good working order. In addition to the instructions given in the operating manual, please observe the relevant accident prevention regulations, generally accepted safety regulations, regulations effective in the country of installation, working and safety instructions effective in the user's plant.

2 Safety instructions

2.1 Intended use

The valve is utilised as a pneumatically controlled shut-off valve in food and beverage as well as in pharmaceutical, biotechnological and chemical industries.

The valve is designed for media characteristics according to DGRL 2014/68/EU for group 2 (media condition gaseous or liquid).

2.2 General notes



NOTICE - observe the operating instructions

To avoid danger and damage, the fitting must be used in accordance with the safety instructions and technical data contained in the operating instructions.



NOTICE

All data are in line with the current state of development. Subject to change as a result of technical progress.

2.3 General safety instructions



⚠ WARNING

Risk of injury by moving parts

Do not grab into the valve when the actuator is pressurized. Limbs can be crushing or amputating.

- Remove the control air line before dismantling.
- Ensure that the actuator is unpressurized.



⚠ WARNING

Risk of injury by outflowing medium

Dismantling the valve or valve assemblies from the plant can cause injuries.

- Medias flowing through the leakage drain outlet are to be drained off without splashing into a discharge arrangement.
- Carry the disassembling only if when the plant has been rendered pressure-less and free of liquid and gas.



⚠ WARNING

Risk of injury by pre-stressed pressure spring.

The actuator is spring-loaded. When disassembling the actuator, components that jump out may cause injuries.

- For dismantling please observe the separate assembly instructions.
- We recommend having the manufacturer do the maintenance work required for the actuation.



⚠ CAUTION

When mounting the clamps, the max. torque must not be exceeded.

(see technical data)



⚠ CAUTION

To avoid air leaking, only use pneumatic connection parts that have an O-ring seal facing the even surface.



⚠ CAUTION

Before starting the system, the entire pipeline system must be thoroughly cleaned.



⚠ CAUTION

Steps should be taken to ensure that no external forces are exerted on the fitting.

3 Delivery, transport and storage

3.1 Delivery

- Immediately after receipt check the delivery for completeness and transport damages.
- Remove the packaging from the product.
- Retain packaging material, or expose of according to local regulations.

3.2 Transport



⚠ CAUTION

Risk of injury and damage to the product

During the transport the generally acknowledged rules of technology, the national accident prevention regulations and company internal work and safety regulations must be observed.

3.3 Storage



NOTICE

Damage to the product due to improper storage!

Observe storage instructions

avoid a prolonged storage



INFORMATION

Recommendation for longer storage

We recommend regularly checking the product and the prevailing storage conditions during long storage times.

- To avoid damage to seals and bearings,
  - products up to DN 125 / OD 5 inch should be stored horizontally for maximum 6 months.
  - products larger than DN 125 / 5 inch, should be stored in the upright position with the actuator on top.
- Don't store any objects on the products.
- Protect the products for wetness, dust and dirt.
- The product should be stored in a dry and well ventilated room at a constant temperature (optimal indoor temperature: 25 C ±5 ; indoor humidity data 60% ±5%).
- Protect seals, bearings and plastic parts for UV light and ozone.

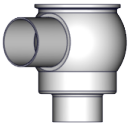
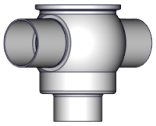
4 Specification

4.1 Modular system

KI-Top control head		feedback unit
		
Stainless steel hood	Transparent hood	Feedback unit with finger guard (E)

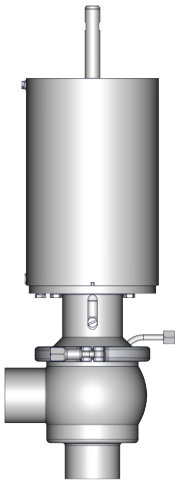
Actuator pneumatical

PTFE / k-flex | PTFE / EPDM

Valve housing	
S - S	SS - S
	

4.1.1 Valve design

GEMBRA Aseptic-Single seat valve

Angle valve S-S	T-valve SS-S
	

5 Function and operation

5.1 Description of function

Valve function:	• Shut off fluid media in pipelines
Operation:	• pneumatic operation by a lift drive (air/spring or air/air)
Activation:	• Pneumatically over a 3/2-way solenoid valve (Pneumatic valve activation)

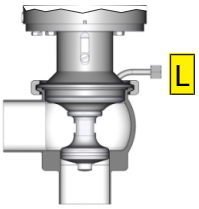
Description of function - Lift actuator

Safety position closed [Fail-closed (FC)]	
pneum. operated	→opens the valve
not pneum. operated	→spring force closes the valve

Safety position open [Fail-open (FO)]	
pneum. operated	→valve “CLOSE“
not pneum. operated	→spring force opens the valve

Safety position not defined [Double acting (DA)][1]	
pneum. operated	→opens the valve
not pneum. operated	→valve “CLOSE“

1. The valve position is not defined in case of decrease of pressure in the compressed air line.



Leakage drain (L)

Leakage detection takes place via the leakage outlet (L) at the lantern.

5.2 Control system and position indicator



Feedback unit -optional-

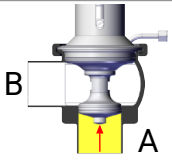
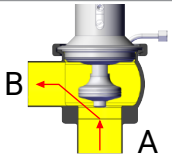
Optionally, modular valve control head systems can be installed to the actuator for reading and actuating valve positions. The standard version is a closed system with SPS or ASI-bus switch-on electronics, and integrated 3/2-way solenoid valves. For tough operating conditions we recommend employing a high-grade steel cover.

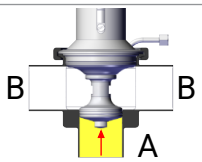
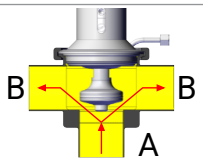


Feedback unit with finger guard -optional-

For the acquisition of the valve positions over inductive initiators (Sensors), a feedback unit is mounted on the actuation. The enquiry takes place over the position of the piston rod.

5.3 Valve basic position:

Basic positon: **Kind of actuation:**	**Valve closed** **Normally closed (NC)**	**Valve open** **Normally open (NO)**
Type: 5836 S-S Angle valve		

Basic positon: **Kind of actuation:**	**Valve closed** **Normally closed (NC)**	**Valve open** **Normally open (NO)**
	Line A - B closed	Line A - B open
Type: 5838 S-S T-valve	 Line A - B closed	 Line A - B open

5.4 Pneumatic valve activation

Valve function	Pneum. activation via control head with solenoid valves (MV)	Pneum. activation via external solenoid valves (MV external)

Kind of actuator: normally closed (NC)

Valve OPEN by pressurised air	control air feed P → MV1 → P1/LA2	control air feed ext. MV → LA2
Valve CLOSED by spring tension	de-aeration LA2/P1 → MV1 → R	de-aeration LA2 → ext. MV

Kind of actuator: normally open (NO)

Valve OPEN by spring tension	de-aeration P1/LA1 → MV1 → R	de-aeration LA1 → ext. MV
Valve CLOSED by pressurised air	control air feed P → MV1 → P1/LA1	control air feed ext. MV → LA1

Kind of actuator: double acting (DA)

Valve OPEN by pressurised air	control air feed P → MV1 → P1/LA2	control air feed ext. MV → LA2
Valve CLOSED by pressurised air	control air feed P → MV3 → P3/LA1	control air feed ext. MV → LA1

D = de-aeration

E = sensor mounting

LA = air supply

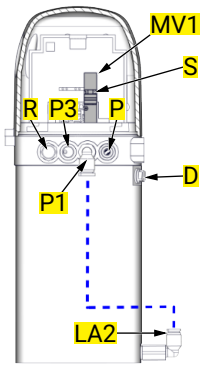
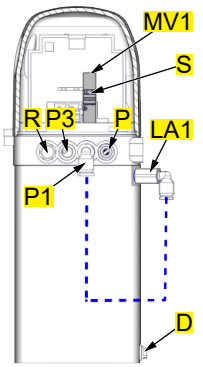
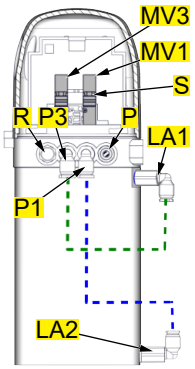
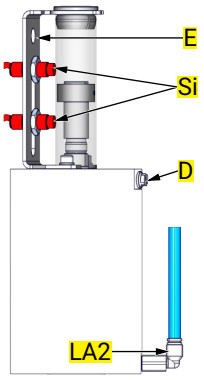
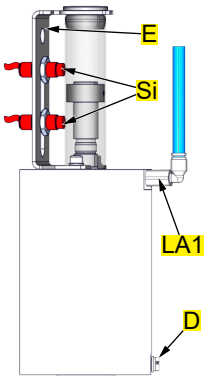
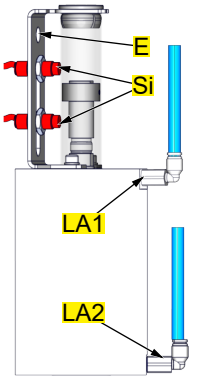
MV = solenoid valve

P = compressed-air inlet

R = de-aeration, sound absorber

S = slide switch for manual operation of the solenoid valve

Si = sensor inductive

NC	NO	DA
		
		

6 Commissioning, service and maintenance

6.1 Commissioning

6.1.1 Installation instructions

Fitting position

The valve must be installed vertically with the actuator at the upwards. Liquid must be able to flow freely from the valve housing.

6.1.2 General welding guidelines

Sealing elements integrated in weld components must generally be removed prior to welding. To prevent damage, welding should be undertaken by certified personnel (EN ISO 9606-1). Use the TIG (Tungsten Inert Gas) welding process.



⚠ CAUTION

Damage and injuries due to high temperature supply

To avoid a distortion of the components, all welding parts must be welded to stress-relieved.

Allow all components to cool before assembling.



NOTICE

Damage due to impurities

Impurities can cause damage to the seals and seals area.

Clean inside areas prior to assembly.

6.1.3 ATEX - Guidelines

For valves or plants/installations that are operated in the ATEX area, sufficient bonding (grounding) must be ensured (see valid ATEX Guidelines EG).

6.2 Service

RECOMMENDATION

Replacement of seals

To achieve optimal maintenance cycles, the following points must be observed!

- When replacement of seals, all product-contacting seals should be replaced.
- Only original spare parts may be installed.

Maintenance interval

The maintenance intervals depend on the operating conditions "temperature, temperature-intervals, medium, cleaning medium, pressure and opening frequency". We recommend replacing the seals 1-year cycle.The user, however should establish appropriate maintenance intervals according to the condition of the seals.

Lubricant recommendation

EPDM; HNBR; NBR; FKM; k-flex	-	Klüber Paraliq GTE703*
Silicone	-	Klüber Sintheso pro AA2*
Thread	-	Interflon Food*

*) It is only permitted to use approved lubricants, if the respective fitting is used for the production of food or drink. Please observe the relevant safety data sheets of the manufacturers of lubricants.

6.3 Cleaning

Cleaning

Ideally, cleaning is carried out with pipe system cleaning when the valve is open.

7 Technical data

7.1 Angle valve 5836, T-valve 5838

Model:	GEMBRA Aseptic-Single seat valve • Angle valve Type 5836 • T-valve Type 5838	
Valve size:	DN40 - DN80	
Connections:	weld-on end EN 10357	
Temperature range:	Ambient temperature: Operating temperature: Sterilization temperature:	+4 to +45°C (air) +0 to +95°C (medium dependent) k-flex/PTFE +140°C (SIP 30 min) EPDM/PTFE +140°C (SIP 30 min)
Working pressure:	DN 40, DN50, DN65 = max.10 bar DN 80 = max. 8 bar	
Leak rate:	A (EN 12266-1)	
Control air:	Control air pressure: 5,5 - 8,0 bar	Quality of control air: ISO 8573-1:2010 [3:(≤5 µm):4:4]
Materials: (in product contact)	Stainless steel: Surfaces: Sealing material:	Ra < 0,8µm metallic bright, blank e-polished Ra < 0,8µm metallic bright, blank e-polished k-flex / PTFE EPDM / PTFE

7.2 Torques

7.3 Valve stroke

DN **Inch**	**25** **1**	**40** **1½**	**50** **2**	**65** **2½**	**80** **3**	**100** **4**
main lift (mm)	18	18	18	27	27	-

8 Disassembly and assembly

8.1 Disassembly

Mounting tools

Tool kit for GEMBRA Aseptic-Single seat valve DN40 - DN80			ST4, ST10, ST20, ST21, ST22, ,	5820000010-000
T1		Combination wrench-Set	SW 8 - SW 24	-
ST20		Spanner	SW 30 - 32	8618030032-000
T2		Allen key - Set	1.5 - 10	-
T3		Screwdriver Set	Size 2,5 - 10 PH0,PH1	-
T4		Soft-head hammer	-	-
T10		Joint -pin wrench	Pin Ø6	8027000065-000
T31		Round rod	ø5	-
T30		Needle	-	-
ST4		Centring ring - valve plate seal	DN 40 - 50 DN 65 DN 80 DN 100 DN 125 DN 150	5620050025-020 5620065025-020 5620080025-020 5620100025-020 5620125025-020 5620150025-020
ST11		Mounting wrench A Mounting wrench B	DN 40 - 65 DN 80	5836000065-000 5836000080-000

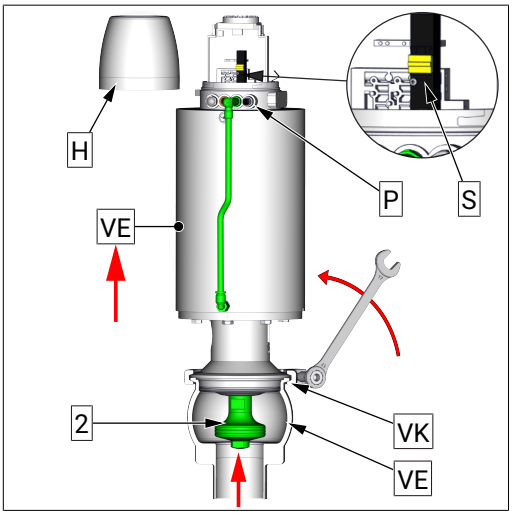
NOTICE

All threaded joint have right-hand thread.

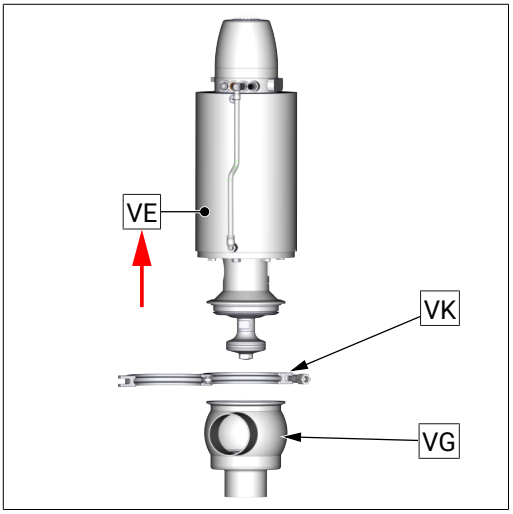
Dismantle pneumatic and electrical connections. Unscrew fittings for CIP,discharge and feed lines.

8.1.1 Assembly valve insert VE

- air open- spring close (NC)
- air open - air close (DA)
  - Remove the hood (H) from control head.
  - Connect control air to the air connection (P) and lift the piston (2) by actuating the slide switch (S).
  - Unscrew and remove the Clamp coupling (VK).
  - Remove the completely valve insert (VE) from the housing (VG).
  - Disconnect the air supply (P), the piston moves back to the basic position.
  - the To prevent damage to the control head, re-install the hood (H).Cap Control head

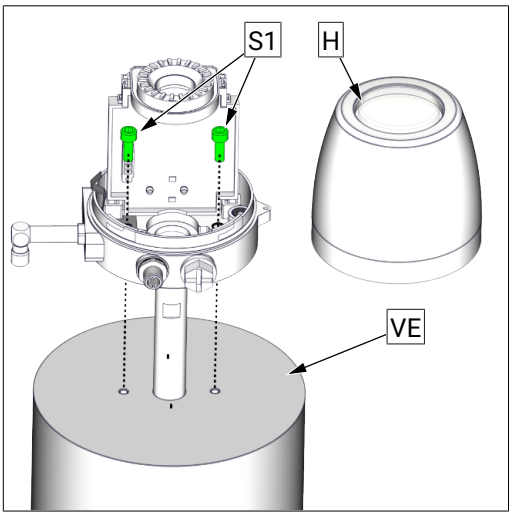


- air close- spring open (NO)
  - Unscrew and remove the Clamp coupling (VK).
  - Remove the completely valve insert (VE) from the housing (VG).

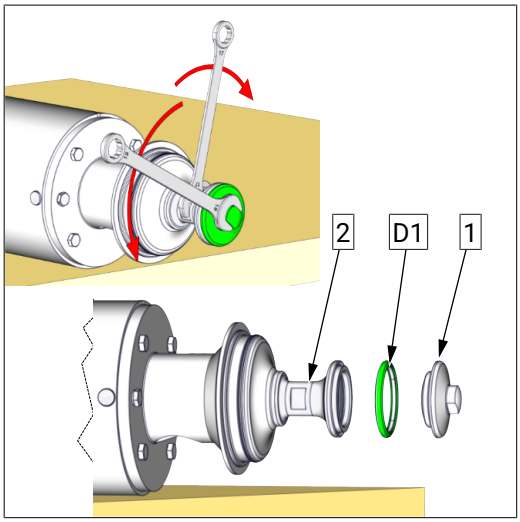


8.1.2 Replacement wear parts

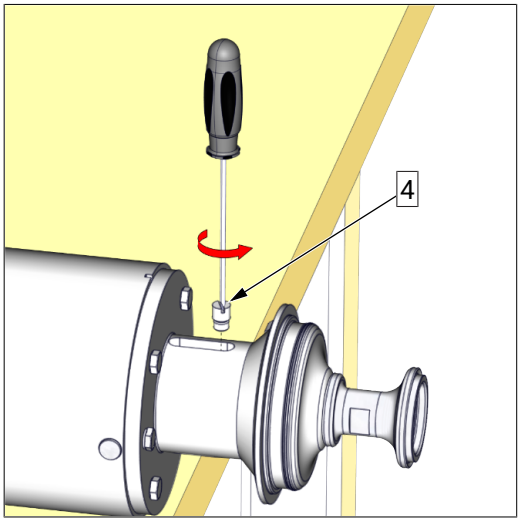
- Remove the hood (H) from control head (bayonet lock).
- Unscrew the screws (S1).
- Remove the control head.



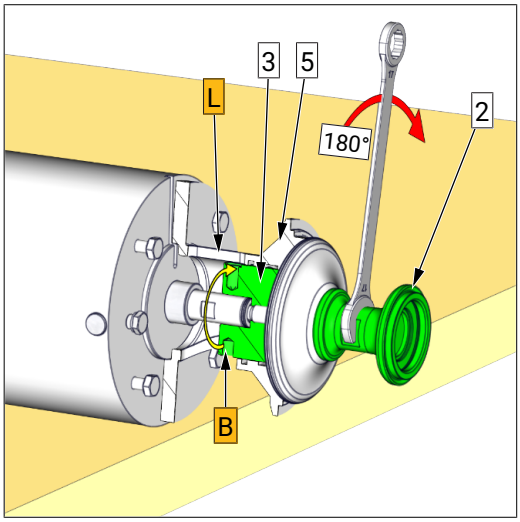
- Unscrew the piston plate (1), hold it against with a fork wrench at the piston (2).
- Remove seal (D1).



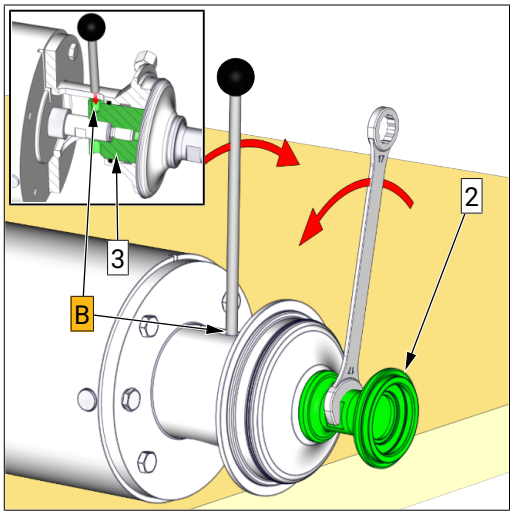
- Unscrew the stud bolt (4).



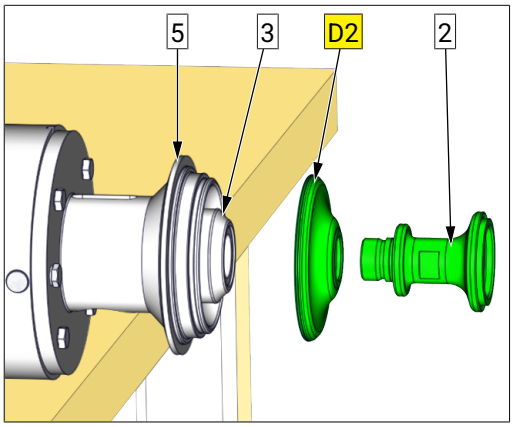
- Turn the piston (2) 180 ° so that the hole (B) is in the slot (L) of the lantern (5).



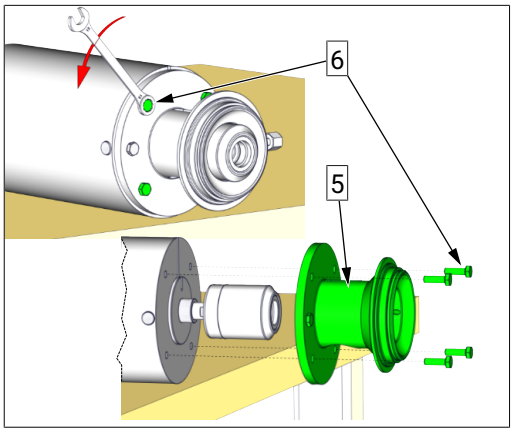
- Insert a round rod Ø8 into the hole (B) and unscrew the piston (2) with a fork wrench from the upper piston (3).



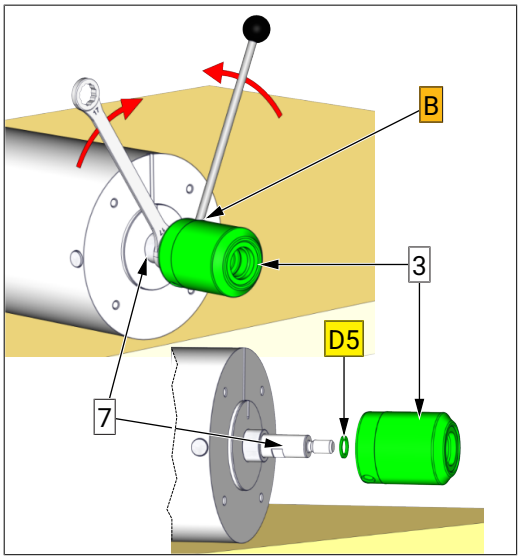
- Dismount the membrane (D2).



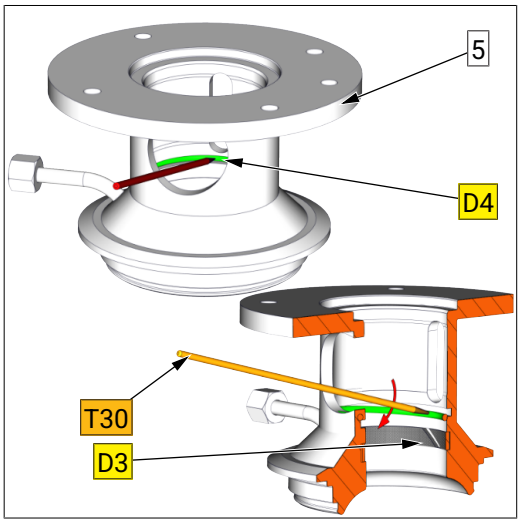
- Unscrew the screws (6).
- Remove lantern (5).



- Unscrew piston (3) from piston rod (7).
- Remove the retaining washer (D5).



- Puncture the O-ring (D4) with a needle and remove them carefully from the groove of piston.
- Check plain bearing (D3) for wear and replace if necessary.



8.2 Assembly

- Before installation, thoroughly clean and slightly lubricate mounting areas and running surfaces.
- Assemble in reverse order.

NOTICE

Alternately press and roll the O-rings into the groove with round body.

Performance test

- Check the function according to the specified performance data in the operating state.

8.2.1 Mounting clamp coupling (VK)

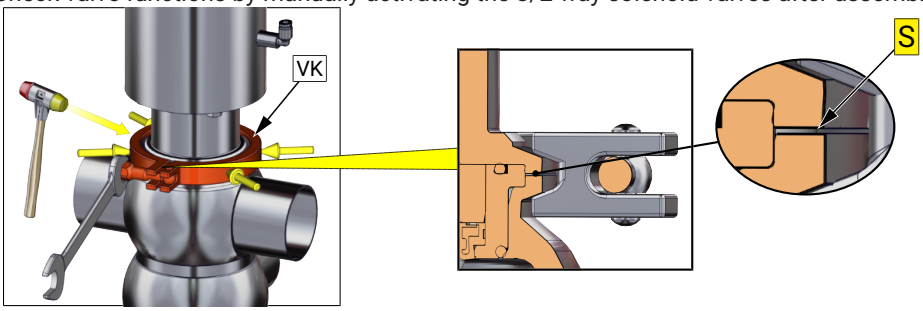
NOTICE

During assembly, the following points must be observed!

Carefully fit in the complete valve insert into the casing. When fitting the valve insert and running surfaces onto the piston, do not damage.

➢ **Mounting clamp coupling**

- For mounting the clamp coupling, please note that it continuously fits form locking to the inclinations of the casing and the lantern/casing bottom.
- The centring of the retaining clamp during tightening can be accomplished with a slight beat (please use a soft-head hammer) on the extent of the retaining clamp.
- When tightening the clamp coupling, please pay attention to the turning moment and the gap size 'S' (≤ 0,4mm) between the components.
- Check valve functions by manually activating the 3/2-way solenoid valves after assembly!



Torque: clamp coupling

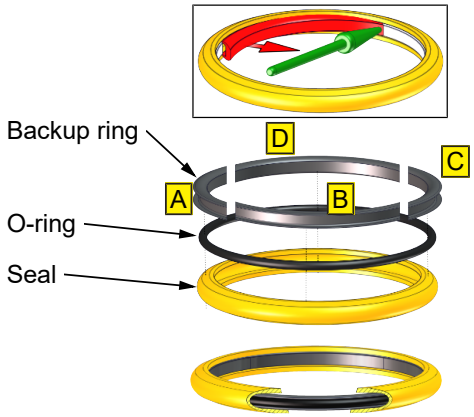
DN	25	40	50	65	80	100
Inch	1	1½	2	2½	3	4
Torque [Nm]	15	15	15	25	25	55

8.2.2 Assembling k-flex Seal (D-1)

Seal D1 - k-flex

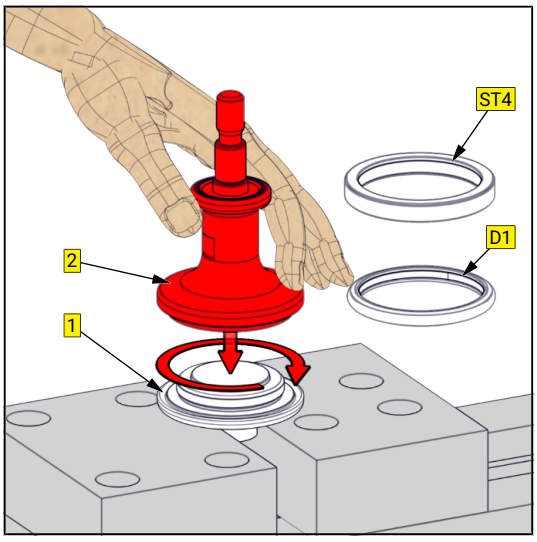
	Nominal diameter	Item number	Material:
k-flex - seal consists of	**DN40-DN50** **DN65** **DN80**	**5621 050 020-114** **5621 065 010-114** **5621 080 010-114**	**k-flex**
Support ring quartered	DN40-DN50 DN65 DN80	5621 050 021-020 5621 065 011-020 5621 080 011-020	1.4301 / AISI304
O-ring	DN40-DN50 DN65 DN80	2304 044 030-159 2304 060 026-159 2304 076 026-159	EPDM
k-flex - seal	DN40-DN50 DN65 DN80	5621 050 022-114 5621 065 012-114 5621 080 012-114	k-flex

(xxx = nominal diameter e.g. 050 for nominal diameter DN50)

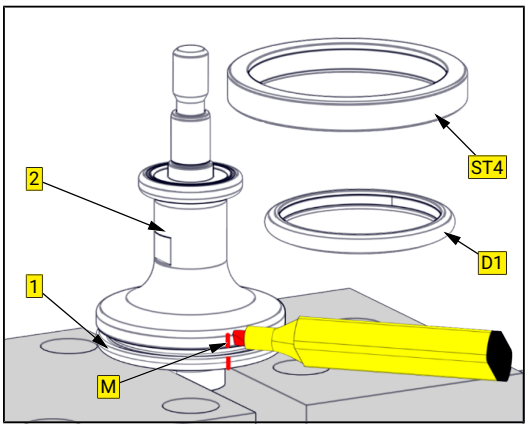
Seal D1 k-flex	
• Install O-Ring in k-flex seal. • Install the support ring shells in the order A, B, C, D	

8.2.3 Mounting k-flex - seal D1

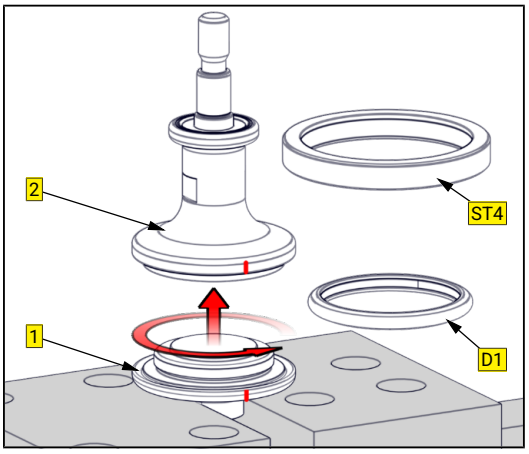
- Clamp piston plate (1) in a vice.
- Screw together the piston plate (1) and piston (2) without the seal (D1) by hand to the metallic stop position.



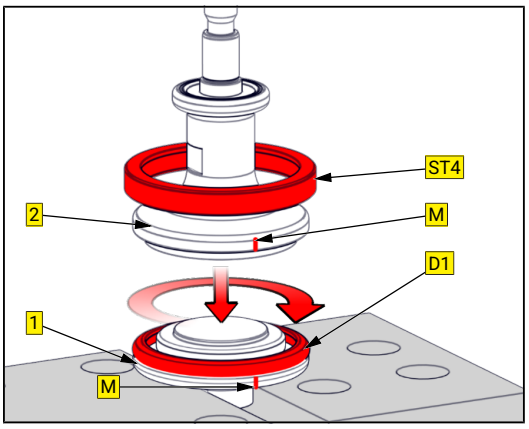
- Make a colored mark at the piston surfaces.



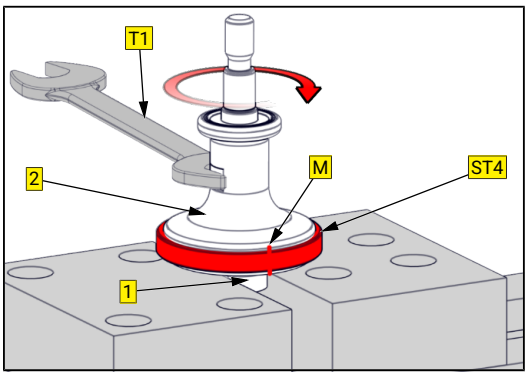
- After then, unscrew the piston (2) from the piston plate (1).



- Push the seal (D1) onto the piston plate (1) and screw the piston (2) into the piston plate (1) by hand.



- For the centring of the sealing ring (D1), the centring ring (ST4) is pushed over the piston (2) and piston plate (1).
- Screw the piston (2) as far as the mark (metallic stop) into the piston, thereby ensuring that the seal is optimally pressed.



1 = Piston plate

2 = Piston

D1 = Seal

M = Mark

ST4 = Centring ring

T1 = Open-end wrench

8.2.4 Mounting diaphragm (D2) and valve insert (VE)

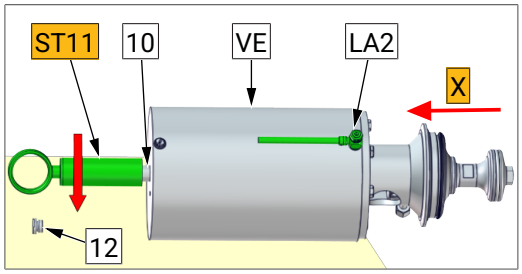
8.2.4.1 Adjusting the mounting position

Adjusting the installation position with mounting tool

ST11		Mounting wrench A Mounting wrench B	DN 40 - 65 DN 80	5836000065-000 5836000080-000

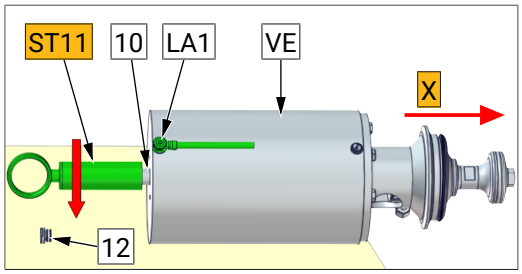
Type of actuator: air open- spring close (NC)

- Unscrew cap (12).
- Connect compressed air to the air supply (LA2). The piston moves toward (X).
- Screw the mounting wrench (ST11) onto the spindle (10) until stop.
- Disconnect the compressed air from the air supply (LA2). The piston moves to the mounting position.



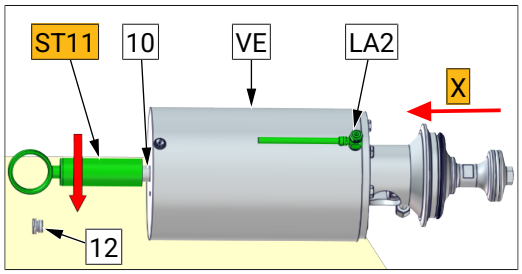
Type of actuator: air close - spring open (NO)

- Unscrew cap (12).
- Screw the mounting wrench (ST11) onto the spindle (10) until stop.
- Connect compressed air to the air supply (LA1).
- The piston moves to the mounting position.



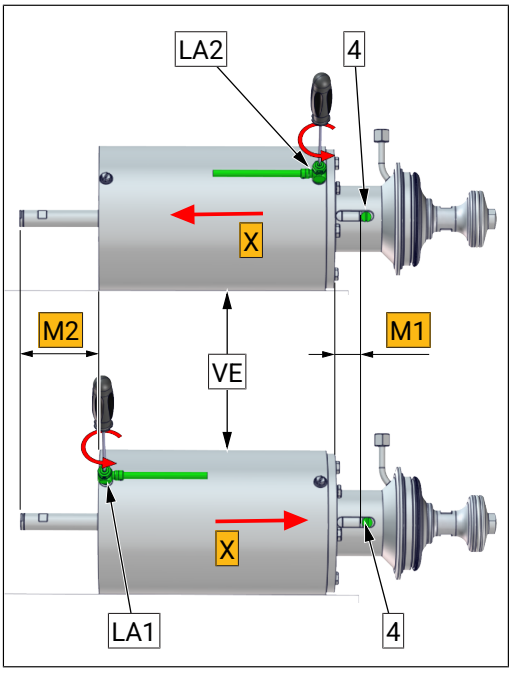
Type of actuator: air open - air close (DA)

- Unscrew cap (12).
- Screw the mounting wrench (ST11) onto the spindle (10) until stop.
- Connect compressed air to the air supply (LA2).
- The piston moves to the mounting position.



Adjusting the installation position without mounting tool

- Unscrew cap (12).
- Connect compressed air at the trottle valve (LA1 NO) or (LA2 NA / NC) Depending on the actuator type the piston moves on or off.
- Disconnect the compressed air (LA1 or LA2).
- The piston remain in the position. Position a calliper on the adjustment dimension M1 or M2.
- Slowly open the throttle valve at so that the piston drives out or in.
- Close the throttle again at the position M1 respectively M2. (If an control head is assembled, the adjustment dimension M1 is measured between the actuator and the pin (4)).

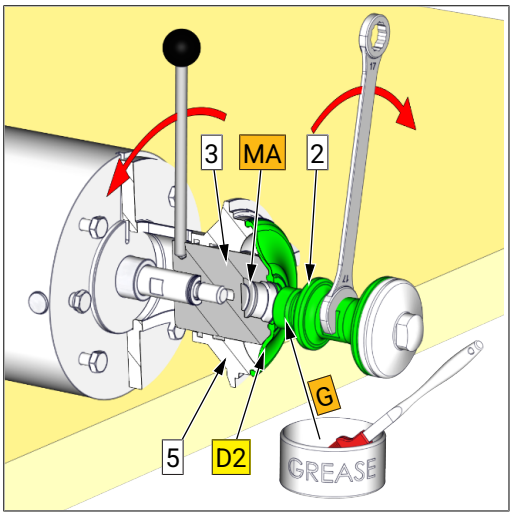


	Bore	Adjustment dimension for mounting position	
	B	M1	M2
DN40	ø7	18.5	107
DN40	ø7	18.5	107
DN50	ø7	18.5	107
DN65	ø8	29	104
DN80	ø8	35	98

8.2.4.2 Mounting Membrane (D2)

- Screw the pre-assembled piston (2) onto the piston (3) to the metal stop (MA).

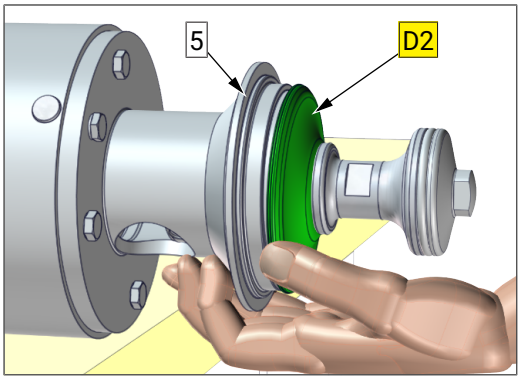
  Slightly grease the threaded connection (G).



- Adjust the piston to the mounting position. Proceed as described in section "Adjusting the mounting position [▶ 24]

  In this valve position the diaphragm (D2) is in its basic position and is optimally compressed between lantern (5) and housing (VG).

- Clip the diaphragm (D2) carefully in the lantern (5).



8.2.4.3 Mounting the valve insert (VE)

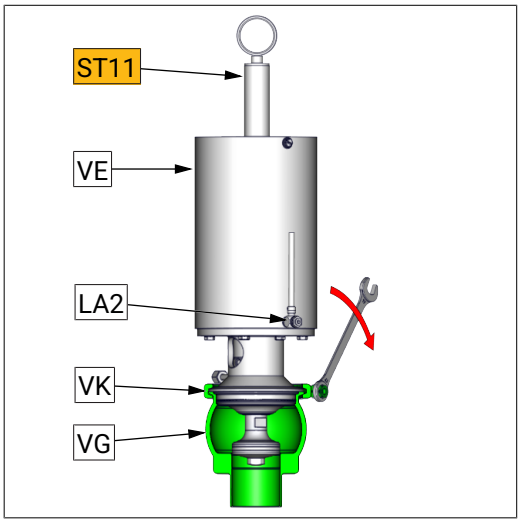
- Adjust the piston to the mounting position. Proceed as described in section "Adjusting the mounting position [▶ 24]".

- Install carefully and without cant the valve insert (VE) into the housing (VG).

- Mount the clamp coupling (VK). Proceed as described in section "Mounting clamp coupling (VK) [▶ 21]".

- Unscrew the mounting wrench or slowly open the throttle valve (LA2). The piston moves to the basic position.

- Check valve functions.



9 Drawings and dimensions

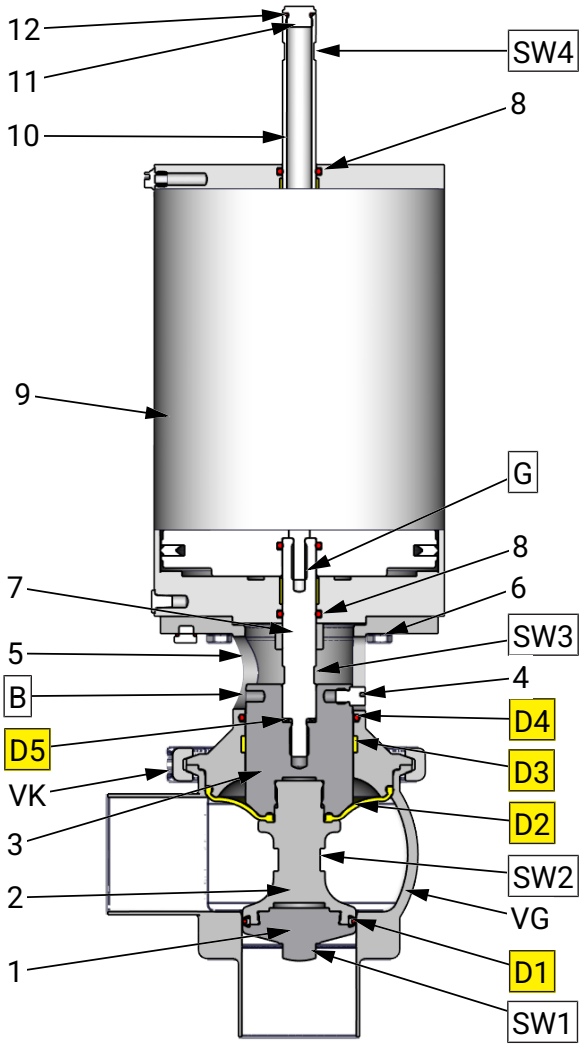
9.1 Drawings

1 = Piston plate
2 = Piston lower
3 = Piston upper
4 = Stud bold
5 = Lantern
6 = Hexagon screw
7 = Piston rod
8 = O-ring
9 = Pneum. actuator
10 = Spindle
11 = O-ring
12 = Cap

VG = Valve housing
VK = Clamp coupling

Spare parts
D1 = Seal
D2 = Membrane
D3 = Piston seal
D4 = O-ring
D5 = Retaining washer

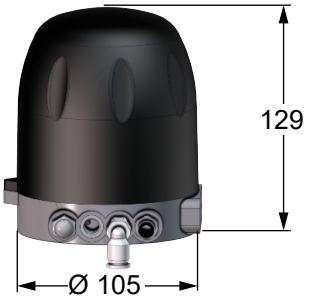
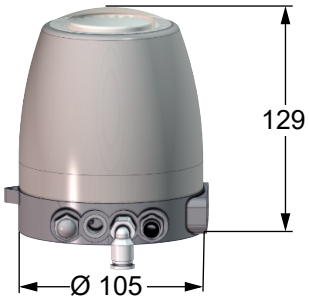
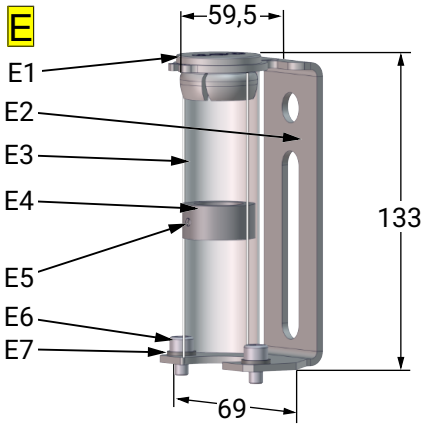
G = Screw retention detachable (e.g. Loctite 243)
B = Bore



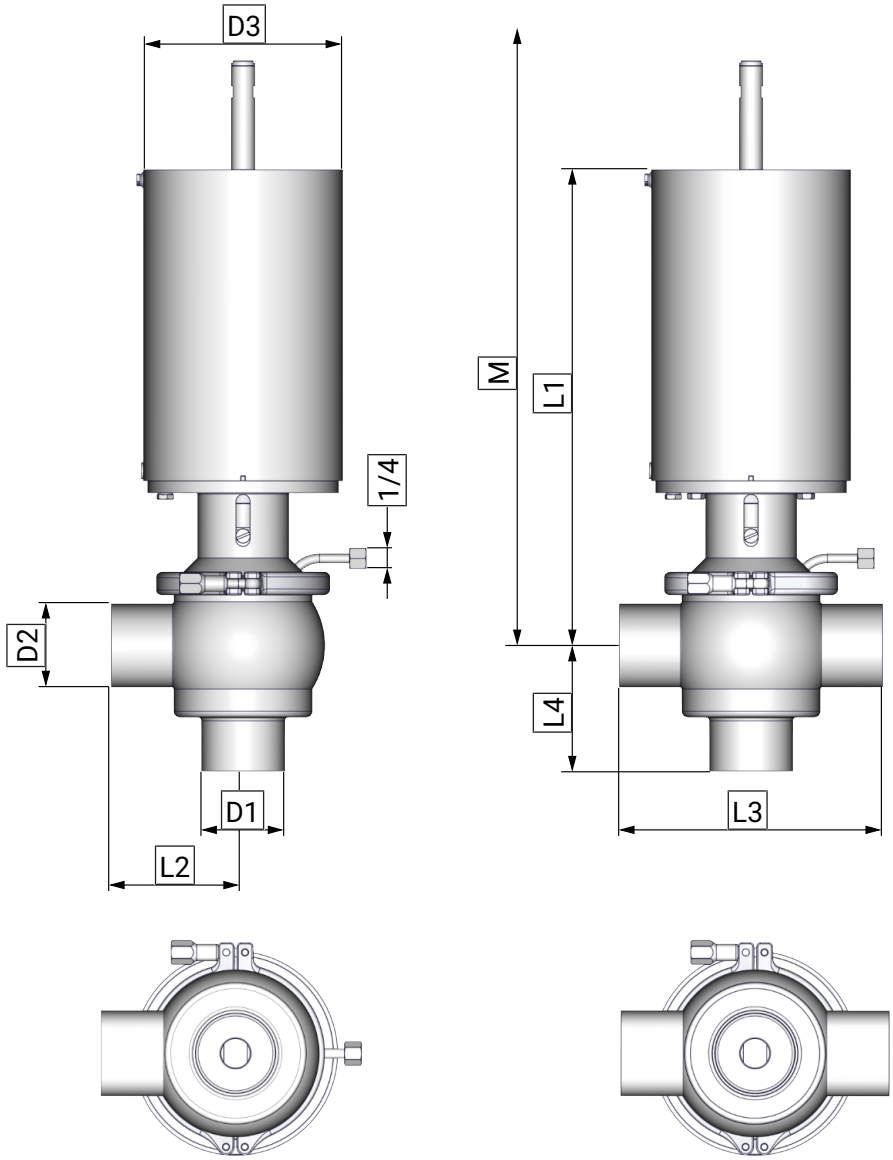
wrench sizes

Nominal diameter	SW1	SW2	SW3	SW4	B
DN 25/ 1“	19	27	17	17	Ø 7
DN 40 / 1½“	19	27	17	17	Ø 7
DN 50 / 2“	19	27	17	17	Ø 7
DN 65 / 2½“	19	24	17	17	Ø 8
DN 80 / 3“	27	30	17	17	Ø 8

9.2 Control units

<table>
<tr><th colspan="2">Control head KI-TOP</th></tr>
<tr><th>with plastic hood - transparent</th><th>with stainless steel hood</th></tr>
<tr><td>
</td><td>
</td></tr>
<tr><th colspan="2">Feedback unit with finger guard (E)</th></tr>
<tr><td>• E1 = Cap
• E2 = Angle bracket
• E3 = Shell transparent
• E4 = Set collar
• E5 = Headless pin
• E6 = Allen screw
• E7 = FLat washer</td><td>
</td></tr>
</table>

9.3 Dimensions



Nominal diameter	d1, d2	d3	L1	L2,	L3	L4	M[1]
DN 25 1 Inch	Ø 29 x 1,5 Ø 25,4 x 1,65	Ø 129	319	75	150	75	~ 520
DN 40 1½ Inch	Ø 41 x 1,5 Ø38,1 x 1,65	Ø 129	325	85	170	85	~ 540
DN 50 2 Inch	Ø 53 x 1,5 Ø50,8 x 1,65	Ø 129	331	85	170	70	~ 560
DN 65 2½ Inch	Ø 70 x 2,0 Ø63,5 x 1,65	Ø 167	397	110	220	105	~ 645
DN 80 3 Inch	Ø 85 x 2,0 Ø76,1 x 2,0	Ø 167	439	121	242	115	~ 705

Valves that do not meet the catalogue standards, can lead to dimensional deviations.

1. Installation dimension M are incl. control head or sensor mounting

10 Wearing parts

10.1 Wearing parts list

GEMBRA Aseptic-Single seat valve

Type: 5836 Angle valve

Seal	Pneum. actuator	Item number	Valve insert VE	Housing VG	Wear parts kit
k-flex PTFE	NC	5836 DN 000-xxx	5836 DN 020-041	5835 DN 001-041	5836 DN 990-000
	NO	5836 DN 100-xxx	5836 DN 120-041		
	DA	5836 DN 300-xxx	5836 DN 320-041		
EPDM / PTFE	NC	5836 DN 030-xxx	5836 DN 023-041	5835 DN 001-041	5836 DN 993-000
	NO	5836 DN 130-xxx	5836 DN 123-041		
	DA	5836 DN 330-xxx	5836 DN 323-041		

Type: 5836 T-valve

Seal	Pneum. actuator	Item number	Valve insert VE	Housing VG	Wear parts kit
k-flex PTFE	NC	5838 DN 000-xxx	5836 DN 020-041	5837 DN 001-041	5836 DN 990-000
	NO	5838 DN 100-xxx	5836 DN 120-041		
	DA	5838 DN 300-xxx	5836 DN 320-041		
EPDM / PTFE	NC	5838 DN 030-xxx	5836 DN 023-041	5837DN 001-041	5836 DN 993-000
	NO	5838 DN 130-xxx	5836 DN 123-041		
	DA	5838 DN 330-xxx	5836 DN 323-041		

DN = Nominal diameter e.g. 5836 050 000-041 = DN50

xxx = Material in product contact / Exterior finish / Control system

lö = air open

ls = air close

fö = spring open

fs = spring close

Valve inserts

Pos.	Description	Material	DN 25	DN 40	DN 50
VE	Valve insert NC	/k-flex	5836 025 020-041	5836 040 020-041	5836 050 020-041
	Valve insert NO	/k-flex	5836 025 120-041	5836 040 120-041	5836 050 120-041
	Valve insert DA	/k-flex	5836 025 320-041	5836 040 320-041	5836 050 320-041
VE	Valve insert NC	PTFE / EPDM	5836 025 023-041	5836 040 023-041	5836 050 023-041
	Valve insert NO	PTFE / EPDM	5836 025 123-041	5836 040 123-041	5836 050 123-041
	Valve insert DA	PTFE / EPDM	5836 025 323-041	5836 040 323-041	5836 050 323-041
1	Piston plate	AISI316L	5821 050 004-040	5821 050 004-040	5821 050 004-040
2	Piston lower	AISI316L	5836 025 005-040	5836 040 005-040	5836 050 005-040
3	Piston upper	AISI316L	5836 040 007-041	5836 040 007-041	5836 040 007-041
4	Stud bold	AISI304	5836 040 008-020	5836 040 008-020	5836 040 008-020
5	Lantern	AISI304	5821 050 014-021	5821 050 014-021	5821 050 014-021
6	Hexagon screw (4x)	AISI304	8106 008 020-020	8106 008 020-020	8106 008 020-020
7	Piston rod	AISI303	5836 040 006-220	5836 040 006-220	5836 040 006-220
8	O-ring (2x)	EPDM	2304 019 035-171	2304 019 035-171	2304 019 035-171
9	Pneum. actuator NC	AISI304	5200 129 151-032	5200 129 151-032	5200 129 151-032
	Pneum. actuator NO	AISI304	5400 129 151-032	5400 129 151-032	5400 129 151-032
	Pneum. actuator DA	AISI304	5300 129 151-032	5300 129 151-032	5300 129 151-032
10	Spindle	AISI303	5622 100 070-220	5622 100 070-220	5622 100 070-220
11	O-ring	EPDM	2304 012 020-170	2304 012 020-170	2304 012 020-170
12	Cap	AISI303	5622 100 071-220	5622 100 071-220	5622 100 071-220
VK	Clamp coupling	AISI304	2122 065 100-020	2122 065 100-020	2122 065 100-020

Pos.	Description	Material	DN 65	DN 80
VE	Valve insert NC	/k-flex	5836 065 020-041	5836 080 020-041
	Valve insert NO	/k-flex	5836 065 120-041	5836 080 120-041
	Valve insert DA	/k-flex	5836 065 320-041	5836 080 320-041
VE	Valve insert NC	PTFE / EPDM	5836 065 023-041	5836 080 023-041
	Valve insert NO	PTFE / EPDM	5836 065 123-041	5836 080 123-041
	Valve insert DA	PTFE / EPDM	5836 065 323-041	5836 080 323-041
1	Piston plate	AISI316L	5821 065 004-040	5821 080 004-040
2	Piston lower	AISI316L	5836 065 005-040	5836 080 005-040
3	Piston upper	AISI316L	5836 065 007-041	5836 080 007-041
4	Stud bold	AISI304	5836 040 008-020	5836 080 008-020
5	Lantern	AISI304	5821 065 014-021	5821 080 014-021
6	Hexagon screw (4x)	AISI304	8106 008 020-020	8106 008 020-020
7	Piston rod	AISI303	5836 065 006-220	5836 080 006-220
8	O-ring	EPDM	2304 019 035-171	2304 019 035-171
9	Pneum. actuator NC	AISI304	5200 167 151-032	5200 167 151-032
	Pneum. actuator NO	AISI304	5400 167 151-032	5400 167 151-032
	Pneum. actuator DA	AISI304	5300 167 151-032	5300 167 151-032
10	Spindle	AISI303	5622 100 070-220	5622 100 070-220
11	O-ring	EPDM	2304 012 020-170	2304 012 020-170
12	Cap	AISI303	5622 100 071-220	5622 100 071-220
VK	Clamp coupling	AISI304	2122 115 100-020	2122 125 100-020

10.2 Wear parts kit

Seal kit EPDM / PTFE

- D1 Valve plate seal without Support ring

Pos.	Description	Material	DN25 - DN 50	DN 65	DN 80
	Seal kit	**EPDM / PTFE**	**5836050993-194**	**5836065993-194**	**5836080993-194**
D1	Valve plate seal consist of:	EPDM	5621050025-084	5621065025-084	5621080025-084
	Seal	EPDM	5621050026-084	5621065026-084	5621080026-084
	Support ring[1]	AISI304L	5621050027-020	5621065027-020	5621080027-020
D2	Membrane	PTFE	5820050020-194	5820065020-194	5820080020-194
D3	Piston seal	PTFE	8051250010-081	8054190010-081	8054220010-081
D4	O-ring	EPDM	2304049035-170	2304063035-170	2304072035-170
D5	Retaining washer	AISI316L	8135012195-040	8135012195-040	8135012195-040

1) The support rings are not included in seal kit When changing the valve disc seal (D1), only the sealing ring and the O-ring are required.

Seal kit k-flex / PTFE

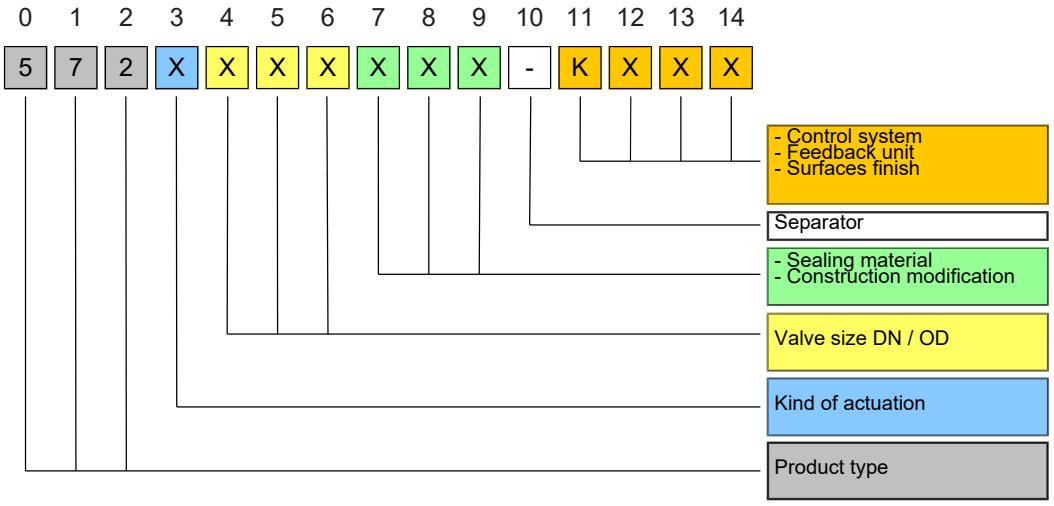
- D1 Valve plate seal without Support ring

Pos.	Description	Material	DN25 - DN 50	DN 65	DN 80
	Seal kit k-flex / PTFE	**EPDM / PTFE**	**5836050990-194**	**5836065990-194**	**5836080990-194**
D1	Valve plate seal consist of:	k-flex	5621050020-114	5621065010-114	5621080010-114
	Seal	k-flex	5621050022-114	5621065012-114	5621080012-114
	O-ring	EPDM	2304044030-159	2304060026-159	2304076026-159
	Support ring[1]	AISI304L	5621050021-020	5621065011-020	5621080011-020
D2	Membrane	PTFE	5820050020-194	5820065020-194	5820080020-194
D3	Piston seal	PTFE	8051250010-081	8054190010-081	8054220010-081
D4	O-ring	EPDM	2304049035-170	2304063035-170	2304072035-170
D5	Retaining washer	AISI316L	8135012195-040	8135012195-040	8135012195-040

1) The support rings are not included in seal kit When changing the valve disc seal (D1), only the sealing ring and the O-ring are required.

11 Classification

11.1 Structure of Order Number



Product name 58 3x xxx xxx-xxxx

Type: 583x GEMBRA Aseptic-Angle valves

Housing type 583x xxx xxx-xxxx

Type	Housing type	3
5836	S - S	6
5838	SS - S	8

Valve size DN/OD 583x xxx xxx-xxxx

DN	4	5	6		OD	4	5	6
DN 25	0	2	5		OD 1 "	0	2	6
DN 40	0	4	0		OD 1 1/2"	0	3	8
DN 50	0	5	0		OD 2 "	0	5	1
DN 65	0	6	5		OD 2 1/2"	0	6	4
DN 80	0	8	0		OD 3 "	0	7	6

Material of seal & Design modification 583x xxx xxx-xxxx

Material of seals & Design modifica				
Variations of actuation	Seal	7	8	9
Normally closed (NC)	EPDM / PTFE	0	3	0
	k-flex / PTFE	0	0	0
Normally open (NO)	EPDM / PTFE	1	3	0
	k-flex / PTFE	1	0	0
air open - air close (DA)	EPDM / PTFE	3	3	0
	k-flex / PTFE	3	0	0

Separator 583x xxx xxx-xxxx

- KIESELMANN Valve

Control system and position indication , External surface 583x xxx xxx-xxxx

Control system and position indicator	11	12	13	14
Control head SPS (old version)	5	x	x	
Control head ASi-Bus (old version)	6	x	x	
Control head KI-Top SPS	K	5	x	x
Control head KI-Top ASi-Bus	K	6	x	x

Feedback unit	11	12	13	14
Feedback unit with finger guard (5630 005 025-000)	7	5	0	

External surface	11	12	13	14
Valve without control system, External surface, AISI304, blank	0	2	0	
Valve without control system, External surface, AISI304, E-polished	0	2	1	
Valve without control system, External surface, AISI316L, E-polished	0	4	1	

12 Appendix

12.1 Declaration of incorporation

Declaration of Incorporation

according to Directive 2006/42/EC of the European Parliament and the Council of 17 May 2006

Manufacturer:
KIESELMANN GmbH
Paul-Kieselmann-Str. 4-10
D-75438 Knittlingen

We declare that the following pressure equipment

Designation	Function
Pneumatic Linear actuator	pneumatically operation of valves
Pneumatic Quarter-turn actuator	pneumatically operation of valves
Butterfly Valve (pneumatically operated)	Separation of medium flow
Ball Valve (pneumatically operated)	Separation of medium flow
Single seat Valve (pneumatically operated)	Separation of medium flow
Changeover Valve (pneumatically operated)	Separation of medium flow
Double-Seat mixproof Valve (pneumatically operated)	Separation of medium flow
Control Valve (pneumatically operated)	Regulation of medium flow
Throttling Valve (pneumatically operated)	Regulation of medium flow
Tank Outlet Valve (pneumatically operated)	Separation of medium flow
Sampling Valve (pneumatically operated)	Separation of medium flow

complies with the definition of an „incomplete machine“ according to Article 2 of the European Machinery Directive 2006/42/EG, when fitted in or merged with other machines or incomplete machines which also comply with the provision of the Directive.

Applied harmonized standards:

Directive 2014/68/EU
EN ISO 12100

Person responsible for documentation:

Achim Kauselmann
Documentation / Development
KIESELMANN GmbH

Knittlingen, 10.10.2020

i.V. Uwe Heisswolf
Head of Development

KIESELMANN
FLUID PROCESS GROUP

Notes

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