KIESELMANN
FLUID PROCESS GROUP

Operating instruction

- Translation of the original -

GEMBRA

Aseptic tank outlet-double seat valve

Type: 5859

4.7.12

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1. List of contents

2. Information 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.

3. Marking of security instructions in the operating manual

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 may cause severe personal injury or death.
	**ATTENTION**	Dangerous situation which may cause slight personal injury or material damages.
	**NOTE**	Marks application hints and other information which is particularly useful.

4. Safety instructions

4.1 Field of application

Based upon its functions, the valve is suitable for use as a leak-proof shut-off valve in the food and beverages, in pharmaceutical, biotechnological and chemical industries.

The valve is designed for media characteristics according to article 9 of DGRL 97/23/EG for group 2 (media condition gaseous or liquid).

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

4.2 General safety instructions

DANGER
- Danger of crushing or amputating limbs.

  Do not reach into the valve housing when in pneumatic mode.
- When removing the valve or valve components from the system, there is a danger of injury from escaping liquids or gases.

  Only dismantle when you are absolutely sure that the system is depressurized and free of liquids and gases.
- Danger of scalding and burns to parts of your body from liquids escaping from the drain outlet fig. 1 /page 4 and the leakage drain fig. 4 /page 10.

  The splash protection fixtures must always be attached to the leakage drain.
- The actuation can be dismantled. Danger of injury by prestressed pressure spring. Observe separate installation instructions. We recommend having the manufacturer do the maintenance work required for the actuation.

ATTENTION
- To avoid air leaking, only use pneumatic connection parts that have an O-ring seal facing the even surface.
- When mounting the clamps, the max. torque must not be exceeded (see technical Data).
- Steps should be taken to ensure that no external forces are exerted on the fitting.

4.3 General notes

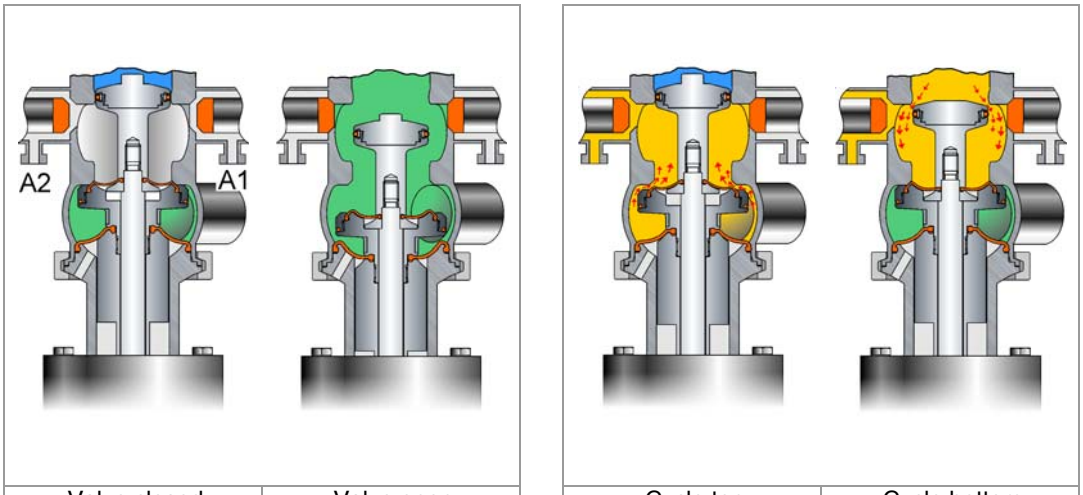
NOTE
- All data are in line with the current state of development. Subject to change as a result of technical progress.

5. Function

5.1 Functional description

Due to the combined diaphragm sealing at a locking and leakage space respectively, safe separation of media is reliably guaranteed.

Cleaning and sterilisation of the locking and leakage area can be carried out inline via lifting/clocking of one the valve seats..



Valve closed	Valve open	Cycle top	Cycle bottom
- Steam barrier active - Drain outlet A2 pulsed - Steam supply A1 active	- Steam barrier inactive	- Steam barrier inactive - Drain outlet A2 open	- Steam barrier inactive - Drain outlet A2 open

Fig. 1

6. Installation informations

6.1 Installation instructions

The valve must be installed vertically with the actuator at the upwards. Liquid must be able to flow freely from the valve housing. In order to obviate damages, the integration of the pipeline has to be carried out without stress.

6.2 Welding guidlines

- Sealing elements integrated in weld components must generally be removed prior to welding. To prevent damage, welding should be undertaken by certified personnel (EN287).
- Use the TIG (tungsten inert gas) welding process.

NOTE
Impurities can cause damage to the seals. Clean inside areas prior to assembly.

7. Maintenance

7.1 Maintenance

The maintenance intervals depend on the operating conditions

- temperature, temperature-intervals
- medium and cleaning medium
- pressure
- opening frequency

We recommend replacing the seals every 2 years. The user, however should establish appropriate maintenance intervals according to the condition of the seals.

NOTE

		Lubricants recommendation
EPDM; Viton; K-flex; NBR; HNBR	⇨	*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.*

7.2 Cleaning

The process housing is cleaned via pipeline cleaning. At the same time the leakage area can be cleaned via pipeline cleaning by clocking of the upper valve plate.

During tank cleaning the leakage area can be cleaned by clocking of the lower valve plate, too.

A cleaning about the drain valve of the sterile barrier is not recommended.

8. Control system - and interrogation system

8.1 Special features valve control -optional-

Optionally, modular valve control 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.

8.2 Sensor mounting set -optional-

For the acquisition of the valve positions over inductive initiators (senors), a limit switch support is mounted on the actuation. The enquiry takes place over the position of the piston rod.

9. Pneumatic valve actuation

Valve function	Pneum. control ➟ with integrated (MV) in control unit (fig. 2 /page 6)	Pneum. control ➟ with external (MV) (fig. 3 /page 6)
Valve stroke valve “OPEN“	control air feed P ➟ MV1 ➟ P1/LA1 & LA3	control air feed ext.MV1 ➟ LA1 & LA3
Valve stroke valve “CLOSED“	de-aeration P1/LA1 & LA3 ➟ MV1 ➟ R valve is closing by spring	de-aeration LA1 & LA3 ➟ ext.MV1 valve is closing by spring
Lower seat lift	AUF = control air feed P ➟ MV2 ➟ P2/LA2	AUF = control air feed ext.MV2 ➟ LA2
	ZU = de-aeration P2/LA2 ➟ MV2 ➟ R valve is closing by spring	ZU = de-aeration LA2 ➟ext.MV2 valve is closing by spring
Upper seat lift	AUF = control air feed P ➟ MV3 ➟ P3/LA4	AUF = control air feed ext.MV3 ➟ LA4
	ZU = de-aeration P3/LA4 ➟ MV3 ➟ R valve is closing by spring	ZU = de-aeration LA4 ➟ ext.MV3 valve is closing by spring

MV = solenoid valve

MV1 = valve stroke

MV2 = lower seat lift

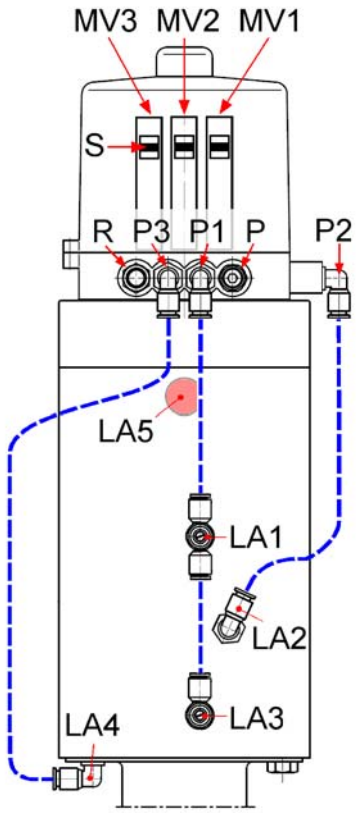
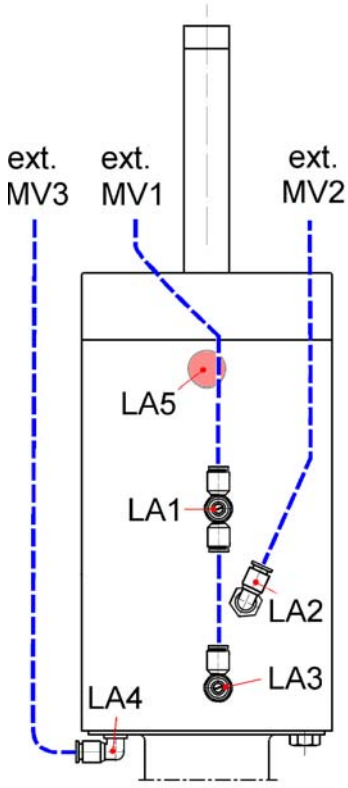
MV3 = upper seat lift

R = de-aeration, sound absorber

P = compressed-air inlet (control unit)

LA = compressed-air inlet (actuation)

S = slide switch - manual control (solenoid valves)

with control unit and solenoid valve	pneum. control external
 Fig. 2	 Fig. 3

10. Technical data

Model:	aseptic Tank outlet-double seat valve
Valve size:	DN40 - DN80
Connection:	Welding end DIN11850 serie 2
Temperature range:	• Ambient temperature: +4° to +45°C • Product temperature: +0° to +95°C medium dependent • Sterilization temperature: +140°C short time (30min)
Operations pressure:	DN40 - 65 = max. 10 bar DN80 = max. 8 bar
Pressure resistance:	30 bar
Vacuum:	1,5 - 10^{-6} mbar x $^{l}/_{s}$ (test pressure 0,5mbar)
Control air pressure:	5,5 - 8,0 bar
Quality of control air:	ISO 8573-1 : 2001 quality class 3

Material:	**in product contact**	**not in product contact**
Stainless steel:	1.4404 / AISI316L	1.4301 / AISI304
Surfaces:	RA ≦0,8 µm e-pol.	metallic bright, e-pol.
Seals:	k-flex (FDA) EPDM (FDA) PTFE (FDA) VITON FKM/FEP (FDA)	EPDM NBR

	Dimension nominal			
Tightening moment (Nm)	DN 40	DN 50	DN 65	DN 80
Retaining clamp	15	15	25	20

	Dimension nominal			
Valve lift (mm):	DN 40	DN 50	DN 65	DN 80
Valve stroke	26	26	28	35
Free cross section	12	12	12,5	15
Upper seat lift	2	2	2	2
Lower seat lift	8	8	8	8
Steam/drain valve stroke	4,5	4,5	4,5	4,5
Free cross section	12	12	12,5	15

11. Disassembly and assembly

11.1 Disassembly - sealing

NOTE
Dismount control air, steam, condensate pipelines and electric lines, complete sensor mounting or control heads.

Assembling tools

Allen key

Round bar

Needle

Set of open-ended wrenches

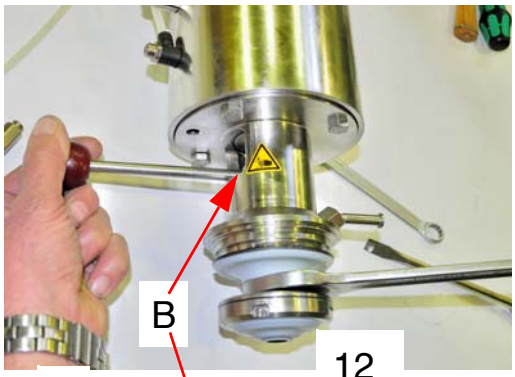
Soft-head hammer

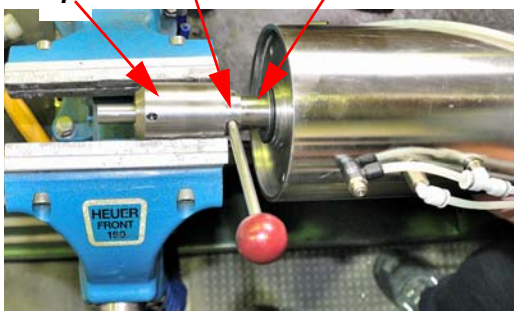
Eccentric ring
DN40: 5620 051 025-020
DN50: 5620 051 025-020
DN65: 5620 065 025-020
DN80: 5620 080 025-020

Diaphragm wrench
5820 000 000-000

- ⚠ ATTENTION spring prestressed valve insert!
- Before unscrew retaining clamp (9) connect control air to LA4 - the piston plate upper (5) is clocked.

- Screw off retaining clamp (9).
- Carefully pull out valve insert from valve housing (VG) without rotary movement.
- Disconnect the compressed air from LA4.
- Unscrew the air supply LA4.
- Screw off piston plate (1) (SW1) while holding against at width across flats (SW2).
- Remove seal (D1).
- Screw off piston (2) at width across flats (SW2) while holding against with round rod 8mm at drilling (B), see figure on the right.
- Unscrew the upper piston plate (5) while holding against with round rod 8mm at drilling (B).
- Carefully put over diaphragm (D5) from lantern (8).
- Unscrew set screw (10) and hexagon screw (11).
- Dismount lantern (8) and O-ring (D9).
- Stretch the valve insert at the piston (7) in a bench vice with protection braces.
- Position a round bar in the bore (B) and release the threaded connection between piston (7) and piston rod (12).
- Open the vice and place the valve insert on the workbench. Unscrew the piston (7) from the piston rod (12).
- Remove O-rings (D11) and (D12).
- Pierce the seal (D7) and the guide bush (D6) with a pointed tool and carefully remove them from the slot.





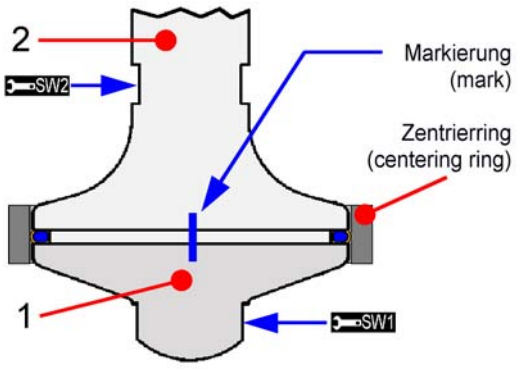
- Unscrew with the diaphragm wrench the thrust collar (4) from the piston plate (5).
- Remove the diaphragm (D2), O-ring (D3) and back-up ring (3).

11.2 Assembly

Assemble in reverse order. Thoroughly clean and slightly lubricate mounting areas and running surfaces.

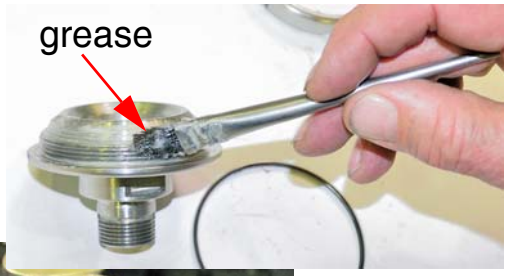
11.3 Assemble Seal (D1)

- Screw together piston plate (1) and piston (2) manually to metallic stop position without sealing ring and carry out colour marking.
- Once again screw off piston plate (1) from piston (2).
- Push sealing (D1) on piston (2) and manually screw the piston plates (1) into the pistons (2).
- For centring sealing (D1) on piston (2), the centring ring has to be placed as shown in figure on the right.
- Stretch construction group at spanner flat (SW1) with soft braces in bench vice and screw in piston (2) over spanner flat (SW2) until marking.

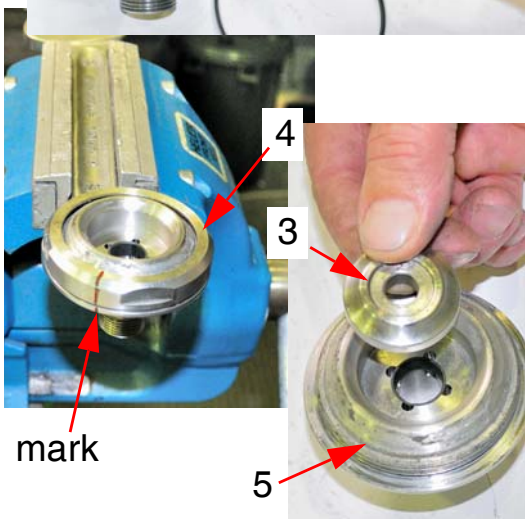


11.4 Assemble diaphragm (D2)

- Screw together manually thrust collar (4) and piston plate upper (5) without O Ring (D3) and diaphragm (D2) until metallic stop position and carry out colour marking.
- Once again screw off thrust collar (4) from piston plate upper (5).
- Insert O Ring (D3) into thrust collar (4).
- Install plain bearing (D4) in piston plate upper (5)
- Insert back-up ring in piston plate upper (5).
- Put diaphragm (D2) on piston plate upper (5).
- Screw on thrust collar (4) with the diaphragm wrench until marking.



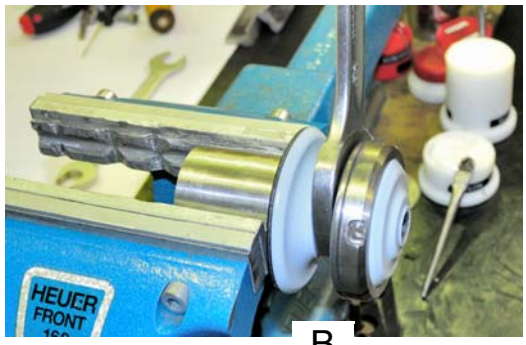
NOTE
The thrust collar (4) deforms in case of a too high radial tension force.



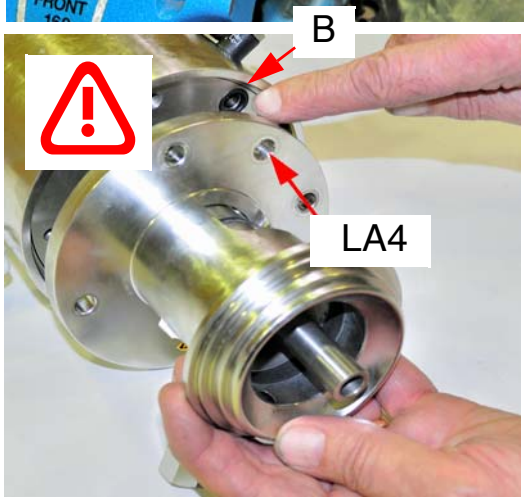
11.5 Assemble diaphragm (D5)

- Stretch piston upper (7) in bench vice with protection braces.
- Mount plain bearing (D4) in piston upper (7).
- Put diaphragm on piston plate (5) and screw in into piston upper (7) until metallic stop position (see figure on the right).
- Built in sealings (D7), (D8), (D9), (D11), (D12) and piston guide bush (D6).
- Screw in piston rod (12) until metallic stop position in actuator (12).
- Build in lantern.

NOTE
When mounting the lantern on the actuator, please note that the through hole (B1) for compressed air complies with the drilling for air connection LA4. (see figure right)



- Apply hexagon screws (11) only in order to avoid tensions while piston (7) is built in.
- Screw in piston (7) in piston rod (12) until metallic stop position while holding against drilling (B2) by means of a round bar steel.
- Screw in lower piston (2) in spindle (6).
- ℹ"Screw threaded connection (G1) with screw locking device so that it can be unlocked (e.g. Loctite 243).
- Centre spindle (6), piston rod (12) and lantern (8) so that the groove in the spindle (6) and the thread in the piston rod (12) are on top of each other. (fig. 6 /page 12)
- Now, screw in set screw (10).
- Pull tight hexagon screws (11).
- Connect control air to (LA4), piston plate upper (5) is clocked.
- Put diaphragm (D5) on lantern (8).



11.6 Assemble valve insert in the housing (VG)

- Before mounting the valve insert into the housing (VG), connect control air to (LA4), piston plate upper (5) is clocked.
- Build in complete valve insert in housing (VG).
- Mount and pull tight retaining clamp (9). ℹ"Note turning moment (See technical data)
- Dismantle control air from (LA4).

12. Drawing

LA1= Air supply - valve stroke

LA2= Air supply - lower seat lift

LA3= Air supply - valve stroke

LA4= Air supply - upper seat lift

LA5= Deaeration optional connection for pressure lokking

AE = Sensor mounting

FI1 = Flange

FI2 = Flange

L = Leckage tell taue

VE = Valve insert

VG = Valve housing

PT =Temperature sensor

9 = Retaining clamp

14 = Hexagon socket screw

15 = Drain valve

16 = Steam valve

17 = Circlip

18 = Hexagon screw

D14= K-flex seal

D15= O-ring

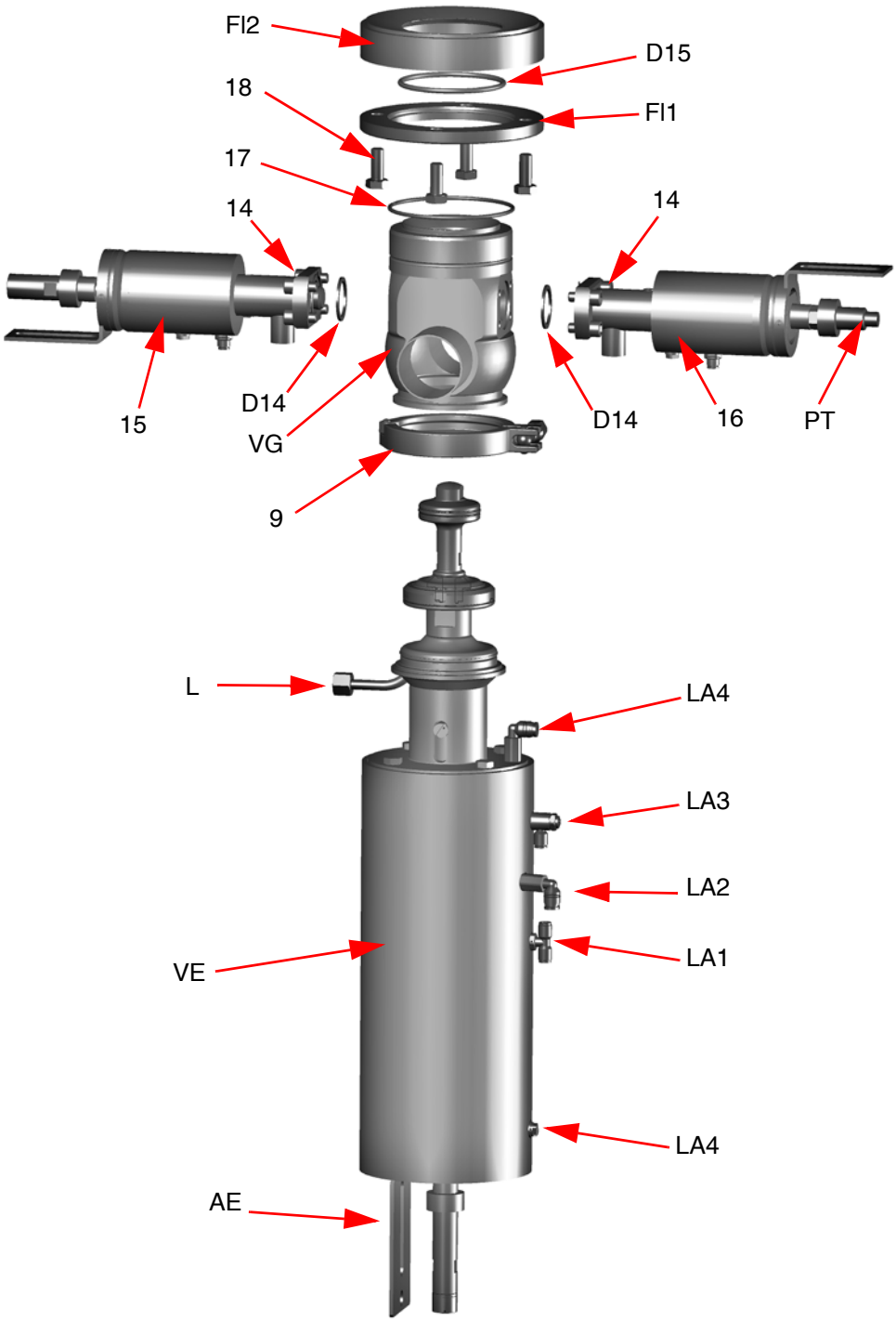
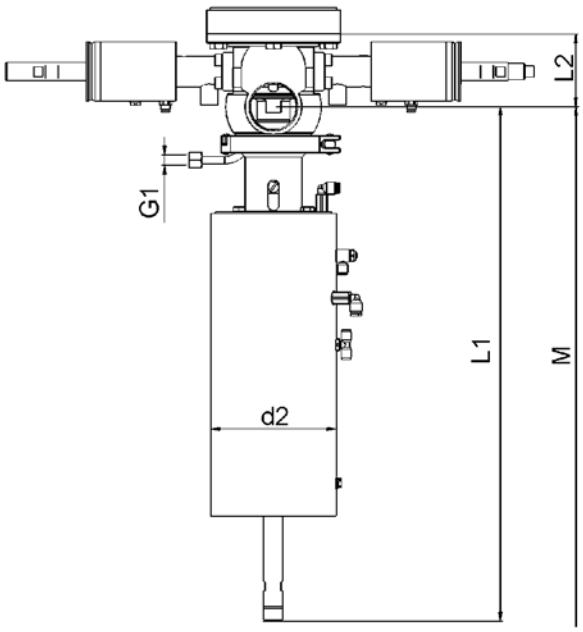


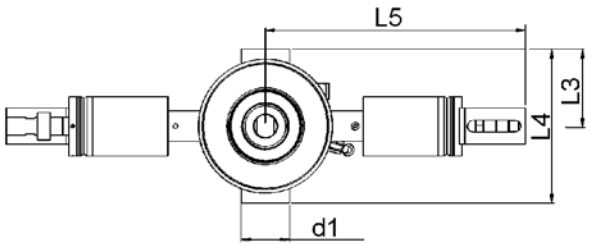
Fig. 4

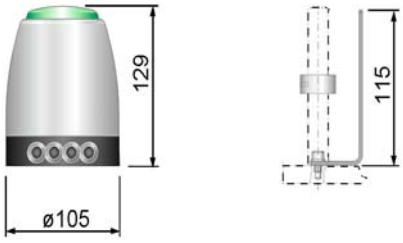
12.1 Dimensions

Dimension nominal	DN 40	DN 50	DN 65	DN 80
d1	ø 41x1,5	ø 53x1,5	ø 70x2	ø 85x2
d2	ø 134	ø 134	ø 170	ø 170
d3	ø 125	ø 138	ø 165	ø 176
d4	ø 133	ø 146	ø 173	ø 186
L1	554	559	638,5	673
L2	---	80	95	---
L3	84	84	110	115
L4	168	168	220	230
L5	---	291,5	---	---
L6	3	3	3	3
L7	29	29	29	33
G1	1/4	1/4	1/4	1/4
M*	731	749	858	938
Valve stroke	26	26	28	35

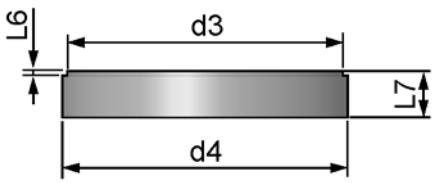
Measures in mm
**) Size when completed M with control head*
---) this measures was not available at the time of going to press







➤ **Flange (Fl) Art.-No.: 5727 DN 001-040**



12.2 Valve insert

1) Piston plate lower
2) Piston
3) Back-up ring
4) Thrust collor
5) Piston plate upper
6) Spindle
7) Piston upper
8) Lantern
9) Retaining clamp
10) Set screw
11) Hexagon screw
12) Piston rod
13) Actuator

Wear parts

D1) Seal
D2) Diaphragm
D3) O-ring
D4) Plain bearing
D5) Diaphragm
D6) Piston guide bush
D7) O-ring
D8) O-ringe
D9) O-ring
D10) O-ring
D11) O-ringe
D12) O-ring
D13) Plain bearing

B = Bore hole

G1 = Lock nut lösbar (e.g. Loctite 243)

G2 = Lock nut lösbar (e.g. Loctite 243)

LA1 + LA3 = Air supply - valve stroke

LA2= Air supply - lower seat lift

LA4 = Air supply - upper seat lift

LA5 = Deaeration optional connection for pressure locking

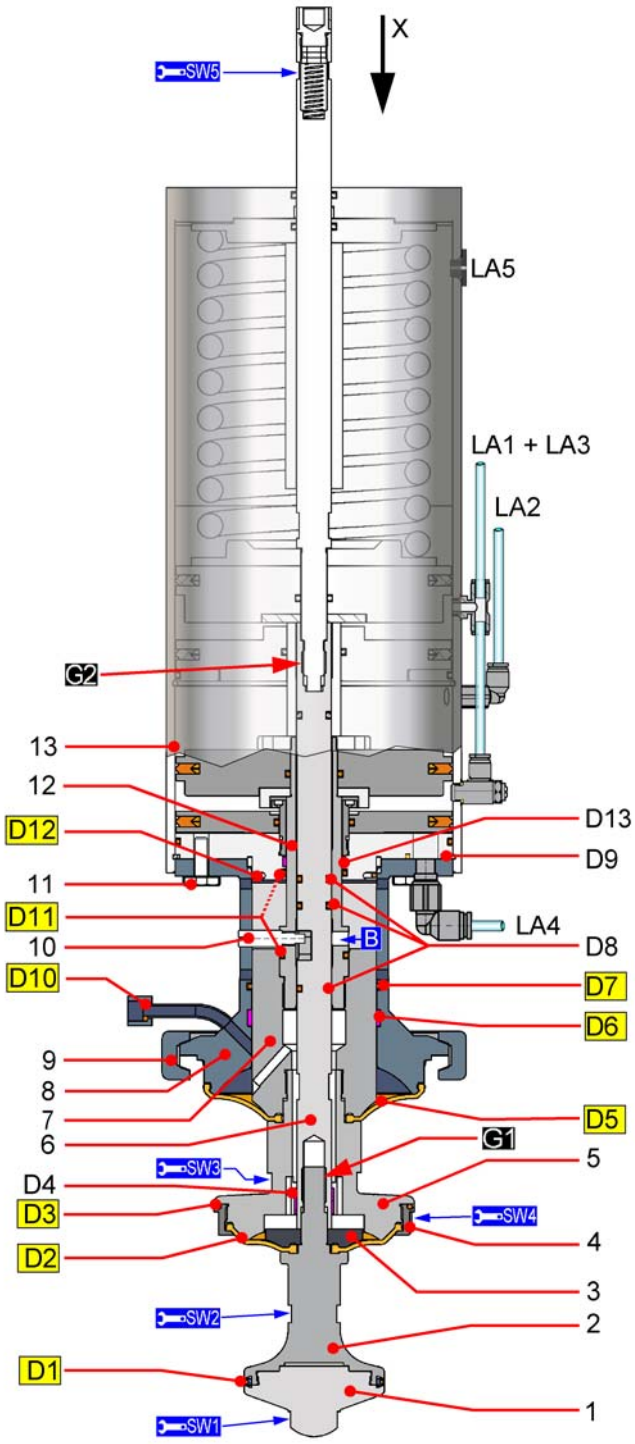


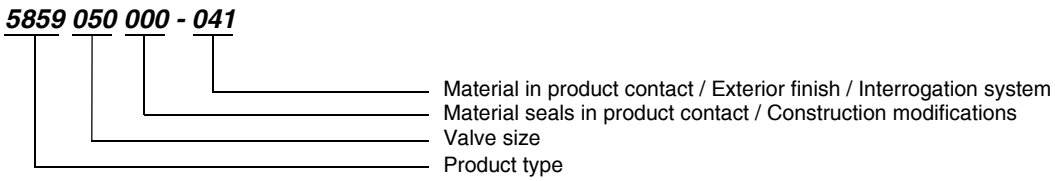
Fig. 6

➢ **wrench size**

	SW1	SW2	SW3	SW4	SW5
DN40	19	17	32	70	17
DN50	19	17	32	70	17
DN65	19	27	42	90	17
DN80	27	27	46	110	17

13. Manufacturing

13.1 Structure of Article number



➤ Product type

5859 = GEMBRA-Aseptic tank outlet-double seat valve

➤ Valve type

DN = Nominal diameter

DIN	**025** = DN25	**040** = DN40	**050** = DN50	**065** = DN65	**080** = DN80	**100** = DN100	**125** = DN125	**150** = DN150
INCH	**026** = DN1	**038** = DN1½	**051** = DN2	**064** = DN2½	**076** = DN3	**101** = DN4	-	-

➤ Material seal / Construction modifications

Material seals in product contact:	k-flex, PTFE
	EPDM, PTFE
Construction modifications:	Kind of actuation - air open - spring close

➤ Material in product contact / Exterior finish

020 - 1.4301/1.4307 AISI304/307 - bright turned	**040** - 1.4301/1.4307 AISI304/307 - bright turned
021 - 1.4301/1.4307 AISI304/307 - E-polished	**041** - 1.4301/1.4307 AISI304/307 - E-polished
022 - 1.4301/1.4307 AISI304/307 - unpolished, glass-bead blasted	**042** - 1.4301/1.4307 AISI304/307 - unpolished, glass-bead blasted

➤ Interrogation system

Article number	Control System or Interrogation System (A1, A2)
58xx DN xxx **-041**	Valve without Control- or Interrogation System
58xx DN xxx **-750**	Valve with Sensor mounting set (5630 005 000-020)
58xx DN xxx **-6xx**	Control head ASi-Bus for GEMBRA-Double seat valve
58xx DN xxx **-K6xx**	Control head KI-Top ASi-Bus for GEMBRA-Double seat valve
58xx DN xxx **-5xx**	Control head SPS for GEMBRA-Double seat valve
58xx DN xxx **-K5xx**	Control head KI-Top SPS for GEMBRA-Double seat valve

DN - nominal diameter e.g. 58xx 050 000-041

14. Spare parts list

14.1 GEMBRA Aseptic tank outlet-double seat valve air open - spring close (AISI316L)

Seal	Article-No.	Temperature sensor PT100	Valve insert VE	Housing VG	Wear part set
k-flex/PTFE	-	-	-	-	-
	-	-			
EPDM/PTFE	*5859 DN 732-xxx*	-	*5820 DN 030-041*	*5859 DN 011-041*	*5859 DN 139-000*
	5859 DN 410-xxx	*6213 500 003-040*			

DN = Dimension nominal e.g. 5859 050 000-041 = DN50
xxx = Control- or Interrogationsystem

Item.	Designation	Material	DN40	DN50	DN65	DN80
15	*Drain valve*	*AISI304*	5822 050 025-021	5822 050 025-021	5822 050 025-021	5822 050 025-021
16	*Steam valve without PT* *Steam valve with PT*	*AISI304*	5822 050 020-021 5822 050 012-021	5822 050 020-021 5822 050 012-021	5822 050 020-021 5822 050 012-021	5822 050 020-021 5822 050 012-021
17	*Circlip*	*AISI301*	5727 040 003-031	5727 050 003-031	5727 065 003-031	5727 080 003-031
18	*Screws (4x)*	*AISI304*	8106 010 025-020	8106 010 025-020	8106 012 025-020	8106 012 035-020
Fl1	*Flange*	*AISI316L*	5727 040 004-041	5727 050 004-041	5727 065 004-041	5727 080 004-041
Fl2	*Flange* [a)]	*AISI316L*	5727 040 001-040	5727 050 001-040	5727 065 001-040	5727 080 001-040

a. not included in delivery
PT = Temperature sensor

14.2 Valve insert

Item.	Designation	Material	DN40	DN50	DN65	DN80
VE	*Valve insert* *Valve insert*	*PTFE/K-flex* *PTFE/EPDM*	- *5820 040 030-040*	- *5820 050 030-040*	- *5820 065 030-040*	- *5820 080 030-040*
1	*Piston plate*	*AISI316L*	*5821 050 004-040*	*5821 050 004-040*	*5821 065 004-040*	*5821 080 004-040*
2	*Piston*	*AISI316L*	*5821 040 005-040*	*5821 050 005-040*	*5821 065 005-040*	*5821 080 005-040*
3	*Back-up ring*	*AISI303*	*5821 040 009-220*	*5821 050 009-220*	*5821 065 009-220*	*5821 080 009-220*
4	*Thrust collar*	*AISI316L*	*5821 050 010-040*	*5821 050 010-040*	*5821 065 010-040*	*5821 080 010-040*
5	*Piston plate upper*	*AISI316L*	*5821 040 006-040*	*5821 050 006-040*	*5821 065 006-040*	*5821 080 006-040*
6	*Spindle*	*AISI303*	*5821 040 011-220*	*5821 040 011-220*	*5821 065 011-220*	*5821 080 011-220*
7	*Piston upper*	*AISI316L*	*5821 050 007-040*	*5821 050 007-040*	*5821 065 007-040*	*5821 080 007-040*
8	*Lantern*	*AISI304*	*5821 050 014-021*	*5821 050 014-021*	*5821 065 014-021*	*5821 080 014-021*
9	*Retaining clamp*	*AISI304*	*2122 065 100-020*	*2122 065 100-020*	*2122 115 100-020*	*2122 125 100-020*
10	*Set screw*	*AISI304*	*5821 050 022-020*	*5821 050 022-020*	*5821 065 022-020*	*5821 080 022-020*
11	*Hexagon screw*	*AISI304*	*8106 008 016-020*	*8106 008 016-020*	*8106 008 016-020*	*8106 008 016-020*
12	*Piston rod*	*AISI303*	*5821 050 008-220*	*5821 050 008-220*	*5821 065 008-220*	*5821 080 008-220*
13	*Actuation*	----	*5820 040 001-021*	*5820 050 001-021*	*5820 065 001-021*	*5820 080 001-021*
14	*Hexagon socket screw*	*AISI304*	*8095 080 020-020*	*8095 080 020-020*	*8095 080 020-020*	*8095 080 020-020*
LA1	*T-air connector G1/8*	----	*8217 000 008-000*	*8217 000 008-000*	*8217 000 008-000*	*8217 000 008-000*
LA2	*Air supply - elbow screw fitting R1/8*	----	*8217 000 004-000*	*8217 000 004-000*	*8217 000 004-000*	*8217 000 004-000*
LA3	*One-way restrictor*	----	*8218 001 020-000*	*8218 001 020-000*	*8218 001 020-000*	*8218 001 020-000*
LA4	*Air supply - elbow screw fitting R1/8*	----	*8217 000 004-000*	*8217 000 004-000*	*8217 000 004-000*	*8217 000 004-000*

14.3 Wear parts set

Item.	Designation	Material	DN40	DN50	DN65	DN80
	Wear parts set PTFE/k-flex *D1a, D2, D3, D5, D6, D7, D10, D11(1x), D12*	*PTFE/k-flex*	-	-	-	-
	Wear parts set PTFE/EPDM *D1b, D2, D3, D5, D6, D7, D10, D11(1x), D12*	*PTFE/EPDM*	*5859 050 139-000*	*5859 050 139-000*	*5859 065 139-000*	*5859 080 139-000*
D1a	*Seal k-flex*	*k-flex*	*5621 050 020-114*	*5621 050 020-114*	*5621 065 010-114*	*5621 080 010-114*
D1b	*Seal EPDM*	*EPDM*	*5621 050 020-084*	*5621 050 020-084*	*5621 065 010-084*	*5621 080 010-084*
D2	*Diaphragm*	*PTFE*	*5821 050 021-053*	*5821 050 021-053*	*5821 065 021-053*	*5821 080 021-053*
D3	*O-ring*	*FEP / VITON*	*2304 067 025-184*	*2304 067 025-184*	*2304 085 035-184*	*2304 107 035-184*
D4	*Plain bearing*	*XSM*	*8050 015 007-156*	*8050 015 007-156*	*8050 020 015-156*	*8050 020 015-156*
D5	*Diaphragm*	*PTFE*	*5821 050 020-053*	*5821 050 020-053*	*5821 065 020-053*	*5821 080 020-053*
D6	*Piston guide bush (hxbxL)*	*PTFE*	*8051 250 010-081 9,5x2,5x155,9*	*8051 250 010-081 9,5x2,5x155,9*	*8051 190 010-081 9,5x2,5x190*	*8051 220 010-081 9,5x2,5x230*
D7	*O-ring*	*EPDM 85°Sh*	*2304 049 035-170*	*2304 049 035-170*	*2304 063 035-170*	*2304 072 035-170*
D8	*O-ring*	*EPDM 70°Sh*	*2304 011 025-159*	*2304 011 025-159*	*2304 013 035-159*	*2304 013 035-159*
D9	*O-ring*	*EPDM 70°Sh*	*2304 010 025-055*	*2304 010 025-055*	*2304 010 025-055*	*2304 010 025-055*
D10	*Seal*	*EPDM 70°Sh*	*2354 012 006-054*	*2354 012 006-054*	*2354 012 006-054*	*2354 012 006-054*
D11	*O-ring (2x)*	*EPDM 70°Sh*	*2304 028 035-159*	*2304 028 035-159*	*2304 032 035-159*	*2304 032 035-159*
D12	*O-ring*	*EPDM 85°Sh*	*2304 041 035-159*	*2304 041 035-159*	*2304 054 035-159*	*2304 062 035-159*
D13	*Plain bearing*	*XSM*	*8050 027 005-156*	*8050 027 005-156*	*8050 032 005-156*	*8050 032 005-156*
D14	*Seal*	*k-flex*	*5822 050 070-114*	*5822 050 070-114*	*5822 050 070-114*	*5822 050 070-114*
D15	*O-ring*	*EPDM 70°Sh*	*2304 062 035-159*	*2304 075 040-054*	*2304 090 040-170*	*2304 102 050-159*

KIESELMANN
FLUID PROCESS GROUP

Declaration of incorporation

Translation of the original

Manufacturer / authorised representative:	KIESELMANN GmbH Paul-Kieselmann-Str. 4-10 75438 Knittlingen Germany
Authorised representative, for compiling technical documents:	Achim Kauselmann KIESELMANN GmbH Paul-Kieselmann-Str. 4-10 75438 Knittlingen Germany

Product name	**Function**
pneum. Lift actuators	Stroke movement
pneum. Rotary actuators	Rotary movement
Ball valves	Media cutoff
Butterfly valves	Media cutoff
Single seat valves	Media cutoff
Flow control valves	Control of liquefied media
Throttle valve	Control of liquefied media
Overflow valve	Definition of fluid pressure
Double seat valve	Media separation
Bellow valves	Sampling of liquids
Sampling valves	Sampling of liquids
Two way valves	Media cutoff
Tankdome fitting	Prevention of overpressure and vacuum, Tank cleaning

The manufacturer hereby states that the above product is considered as an incomplete machine in the sense defined in the Directive 2006/42/EC on Machinery. The above product is exclusively intended to be installed into a machine or an incomplete machine. The said product does not yet conform to all the relevant requirements defined in the Directive on Machinery referred to above for this reason.

The specific technical documents listed in Appendix VII, Part B, have been prepared. The Authorized Agent empowered to compile technical documents may submit the relevant documents if such a request has been properly justified.

Commissioning of an incomplete machine may only be carried out if it has been determined that the respective machine into which the incomplete machine is to be installed conforms to the regulations set out in the Directive on Machinery referred to above.

The above product conforms to the requirements of the directives and harmonized standards specified below:

- DIN EN ISO 12100 Safety of machinery

Knittlingen, 04. 07. 2012

Klaus Dohle
General Director