



KIESELMANN

FLUID PROCESS GROUP

Translation of the original

Operating Instructions

Throttle valve

Type 5061 - 5063

with locking device
manual



KIESELMANN GmbH

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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 throttle valve is used as a control valve in the food and beverage industry, in pharmaceutical and chemical engineering, as well as in bio-engineering.

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 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.



⚠ 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






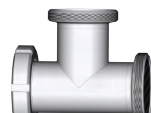
Recommendation for longer storage

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 \pm 5 ; indoor humidity data 60% \pm 5%).
- Protect seals, bearings and plastic parts for UV light and ozone.

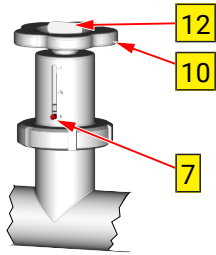
4 Specification

4.1 Modular system

manual		
Handwheel DN25 - DN65	Handwheel DN 80- DN 100	
		
Seal material		
		EPDM NBR
Connections		
S-S	G - G	K/M - G
		

5 Function and operation

5.1 Description of function



The throttle valve is used to control liquid media.

Use the valve by turning the hand wheel (10) by hand. Turn the hand wheel clockwise to close the valve, and counterclockwise to open it. The axial position of the manual hand wheel will not change, as the shaft (2) will execute the actual lifting motion. You will be able to ascertain the position of the valve via the position of the slotted set screw (7). The valve can be arrested by the wing screw (12).

5.2 Commissioning, service and maintenance

5.2.1 Commissioning

5.2.1.1 Installation Instructions

Fitting position

- The installation position is without importance.

5.2.1.2 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.

5.2.1.3 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).

5.2.2 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 half-yearly 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.			

5.2.3 Cleaning

Cleaning

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

6 Technical data

6.1 Throttle valve 5061, 5062, 5063

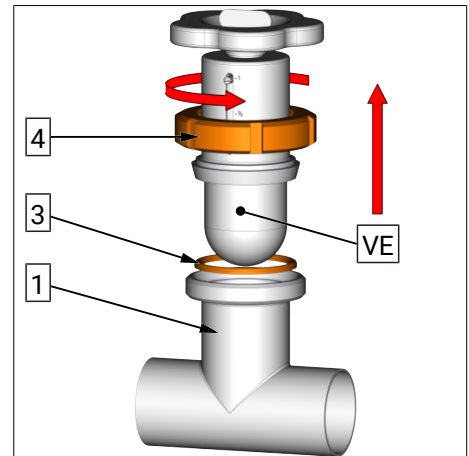
Model	One-way restrictor <ul style="list-style-type: none"> manually actuated with locking device
Size	DN 25- DN 100
Connection type	<ul style="list-style-type: none"> Weld-on end DIN EN 10357 Male part DIN11851 Liner / nut DIN 11851
Operating pressure	16 bar
Leakage rate	A (EN 12266-1)
Temperature range	Ambient temperature: +4° to +45°C (air) Operating temperature: +4° to +95°C (depends on medium) Sterilisation temperature: EPDM +130°C (SIP 30 min) NBR +100°C
Material (in contact with product)	Stainless steel: 1.4404 / AISI 316L Surface: Ra < 0,8µm mat finish Sealing material: <ul style="list-style-type: none"> EPDM NBR

7 Disassembly and assembly

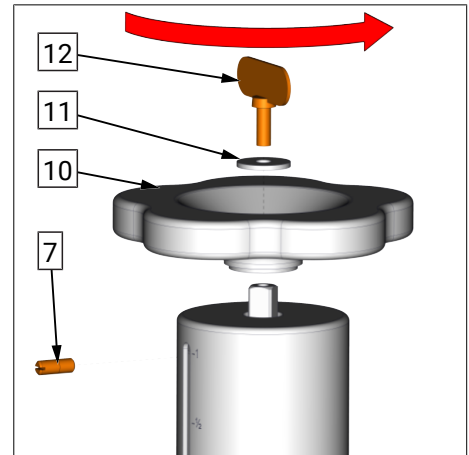
7.1 Disassembly

Replacement the seals Pos. (3), (5)

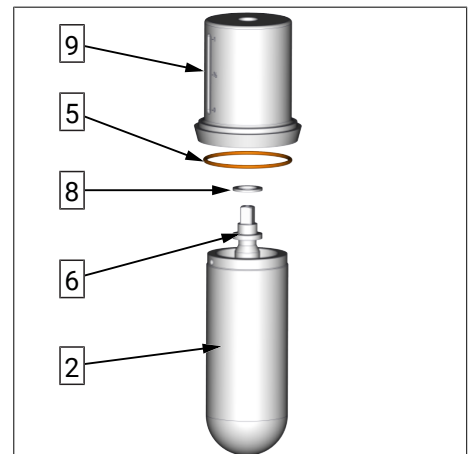
- Open the valve completely.
- Unscrew the groove nut (4) and remove the valve insert (VE) from the housing (1).
- Remove seal (3).
- Unscrew the wing screw (12). Hold the handwheel (10).
- Unscrew set screw (7).



- Unscrew the wing screw (12). Hold the handwheel (10).
- Unscrew set screw (7).



- Remove the shaft (2) with the spindle (6) and the sliding ring (8) from the holder (9).
- Remove O-ring (5).

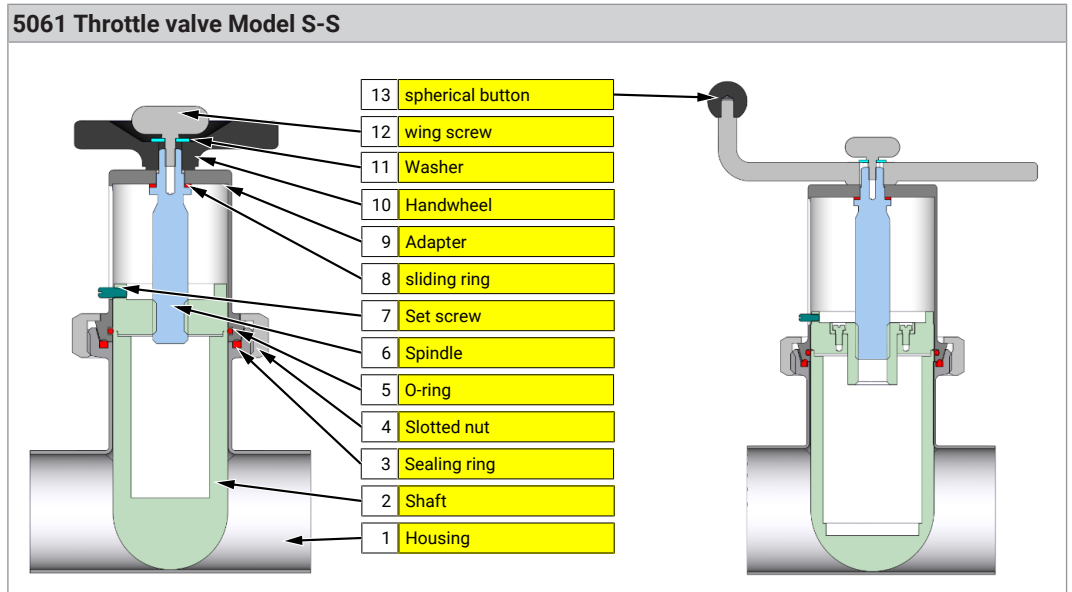


7.2 Assembly

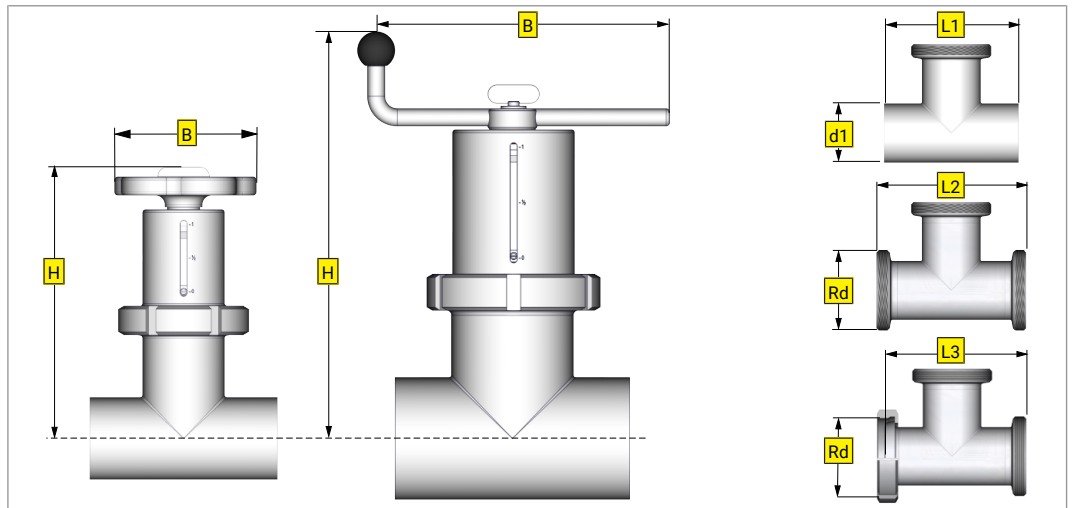
- Before installation, thoroughly clean and slightly lubricate mounting areas and running surfaces.
- Assemble in reverse order.
- Check the function according to the specified performance data in the operating state.

8 Drawings and dimensions

8.1 Drawings



8.2 Dimensions



DN	d1	Rd	L1	L2	L3	H	B
25	Ø 26	52 x 1/6	100	144	137	153	Ø 80 / square 8mm
32	Ø 32	58 x 1/6	110	154	147	177	Ø 80 / square 8mm
40	Ø 38	65 x 1/6	120	164	157	172	Ø 100 / square 9mm
50	Ø 50	78 x 1/6	140	186	179	198	Ø 100 / square 9mm
65	Ø 66	95 x 1/6	160	210	202	225	Ø 120 / square 10mm
80	Ø 81	110 x 1/4	180	230	222	270	174 / square 11mm
100	Ø 100	130 x 1/4	200	260	250	310	250 / square 14mm

9 Wearing parts

9.1 Wear parts kit

Wear parts set (WPS) EPDM

	WPS	Pos. 3 Sealing ring	Pos. 5 O-ring	Pos. 8 sliding ring
Material	EPDM	EPDM	EPDM	PA 6.6
25	5064 025 000-054	2005 025 000-054	2304 024 035-170	8041 018 010-059
32	5064 032 000-054	2004 032 000-054	2304 030 035-159	8041 018 010-059
40	5064 040 000-054	2005 040 000-054	2304 036 035-159	8041 024 016-059
50	5064 050 000-054	2004 050 000-054	2304 048 035-159	8041 024 016-059
65	5064 065 000-054	2005 065 000-054	2304 066 035-159	8041 024 016-059
80	5064 080 000-054	2005 080 000-054	2304 080 040-159	8041 024 016-059
100	5064 100 000-054	2005 100 000-054	2304 100 040-159	8041 030 020-059

Wear parts kit (VTS) NBR

	WPS	Pos. 3 Sealing ring	Pos. 5 O-ring	Pos. 8 sliding ring
Material	NBR	NBR	NBR	PA 6.6
25	5064 025 000-060	2004 025 000-056	2304 024 035-055	8041 018 010-059
32	5064 032 000-060	2004 032 000-056	2304 030 035-055	8041 018 010-059
40	5064 040 000-060	2004 040 000-056	2304 036 035-055	8041 024 016-059
50	5064 050 000-060	2004 050 000-056	2304 048 035-055	8041 024 016-059
65	5064 065 000-060	2004 065 000-056	2304 065 035-055	8041 024 016-059
80	5064 080 000-060	2004 080 000-056	2304 080 040-055	8041 024 016-059
100	5064 100 000-060	2004 100 000-056	2304 100 040-055	8041 030 020-059

10 Appendix

10.1 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.

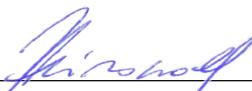
Applied harmonized standards:

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





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