



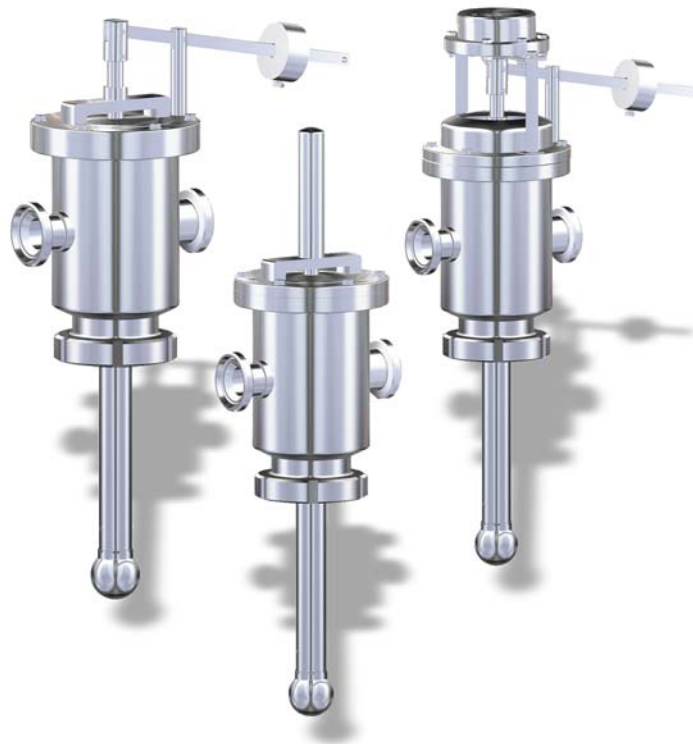
Operating instructions

- Translation of the original -

Tankdome fitting

Type: 6180

- with Vacuum valve Type 6160
- with Vacuum valve Type 6161
- with Vacuum valve Type 6162



English **GBR**

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2. General safety instructions

2.1 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.

2.2 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.

2.3 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.

2.4 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.

2.5 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.

2.6 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 following:

- 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.

3. Safety Instructions

3.1 Field of application

The Tankdome fitting is used as a safety valve for prevention of overpressure and vacuum, for the tank cleaning and for CO₂ recovery in tanks, in vessels of the food and drink industry.



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.

3.2 General safety instructions



DANGER

- Dismantling the valve or valve assemblies from the plant can cause injuries from fluids or gases flowing out. Dismantle the valve or valve assembly only when the plant has been rendered pressure-less and free of liquid and gas.

Danger by withdrawing cleaning medium at the vacuum valve. Cleaning only under pressure subjected tank would drive through. If the cleaning is pressure-free accomplished, squirt-free discharge devices must be attached.



ATTENTION

Internal or external dirt may impair the function of the fitting or the safety equipment. Therefore the fitting must be operated in a way that protects it from external influences and it must be cleaned and maintained at regular intervals.

3.3 General notes



NOTE

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

4. Function

- Function: Overpressure protection

The tank is protected against overpressure by means of a type-tested pneumatically opened safety valve. The safety valve opens when the set opening pressure is exceeded.

- Function: Underpressure protection (Vacuum)

The tank is protected against underpressure by means of a lever safety valve (e.g. vacuum when tank is emptied). The vacuum valve opens when the set opening pressure is undercut.

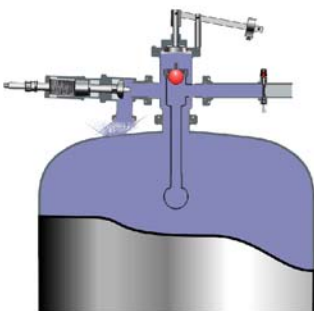
- Function: Tank cleaning

Thanks to the integrated switching valve, the interior of the tank as well as the fitting including the surfaces of the vacuum and safety valve that touch the product can be cleaned by connecting a spray head or jet cleaner (CIP).

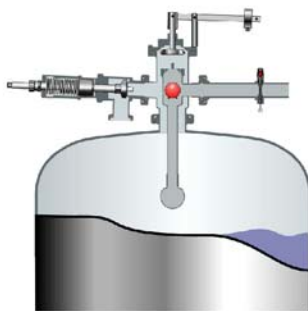
- Function: CO₂ recirculation (degassing)

Gases can be diverted in a controlled manner from the tank by means of the integrated gas recirculation system in the reversing valve.

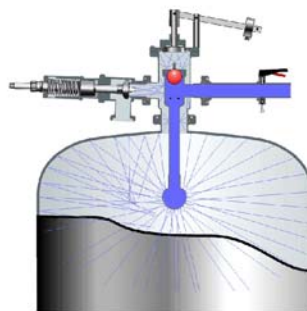
Overpressure protection



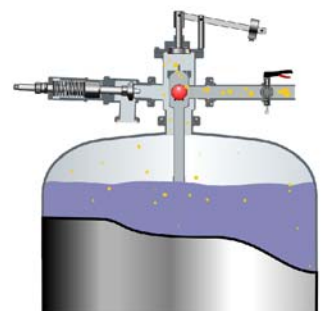
Underpressure protection (Vacuum)



Tank cleaning



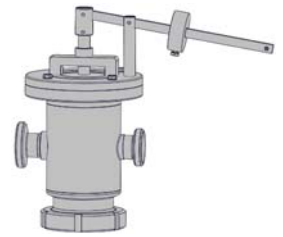
CO₂ recirculation (degassing)



5. Installation informations

5.1 Installation instructions

Generally the Tankdome fitting is installed vertically.



6. Maintenance

6.1 Maintenance

The maintenance intervals depend on the operating conditions "temperature, temperature-intervals, medium, cleaning medium, pressure and 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

		<u>Lubricant recommendation</u>
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.*

6.2 Cleaning

The cleaning of the fitting surfaces that touch the product takes place with the tank cleaning. The cleaning of the external surfaces must be performed at regular intervals. The cleaning cycles are to be defined by the user.

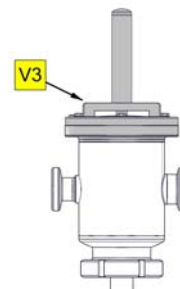
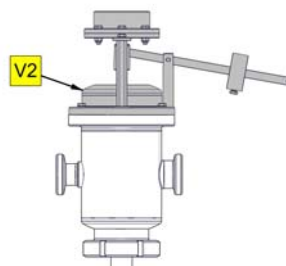
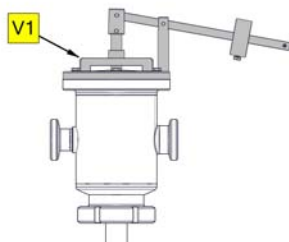
7. Technical data

Model:	Tankdome fitting - with Vacuum valve Type 6160 (spring loaded) - with Vacuum valve Type 6161 (weight loaded) - with Vacuum valve Type 6162 (weight loaded, pneumatic operated)	
Connection:	Liner/nut DIN11851 Flange Clamp	
Temperature:	+60°C (medium-dependent)	
Tank cleaning:	+30°C (tank pressure load-dependent)	
Material:	in product contact	not in product contact
Stainless steel:	1.4301 / AISI304	1.4301 / AISI304
Surfaces:	RA 0,8µm	RA 1,5 - 2,5µm E-polish
Seal:	- NBR - EPDM	

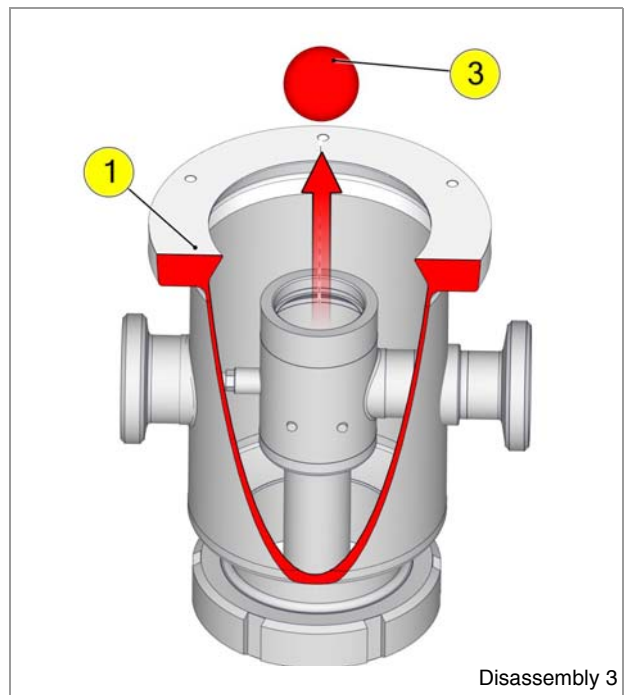
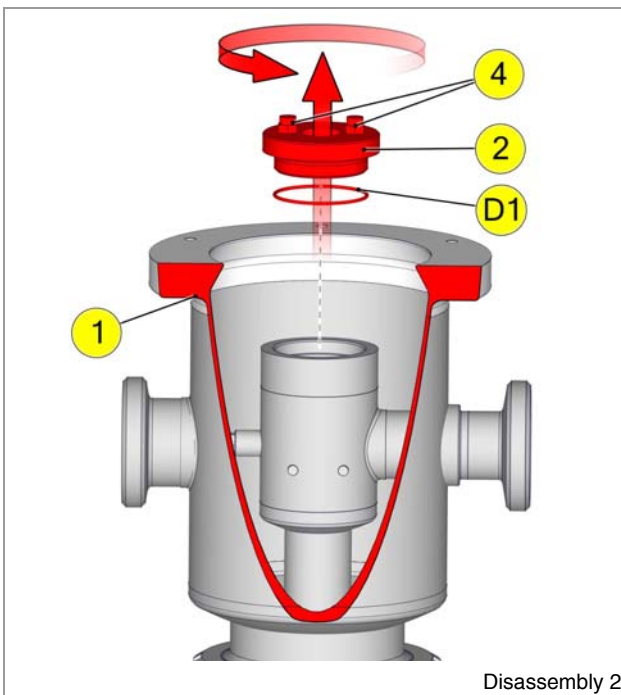
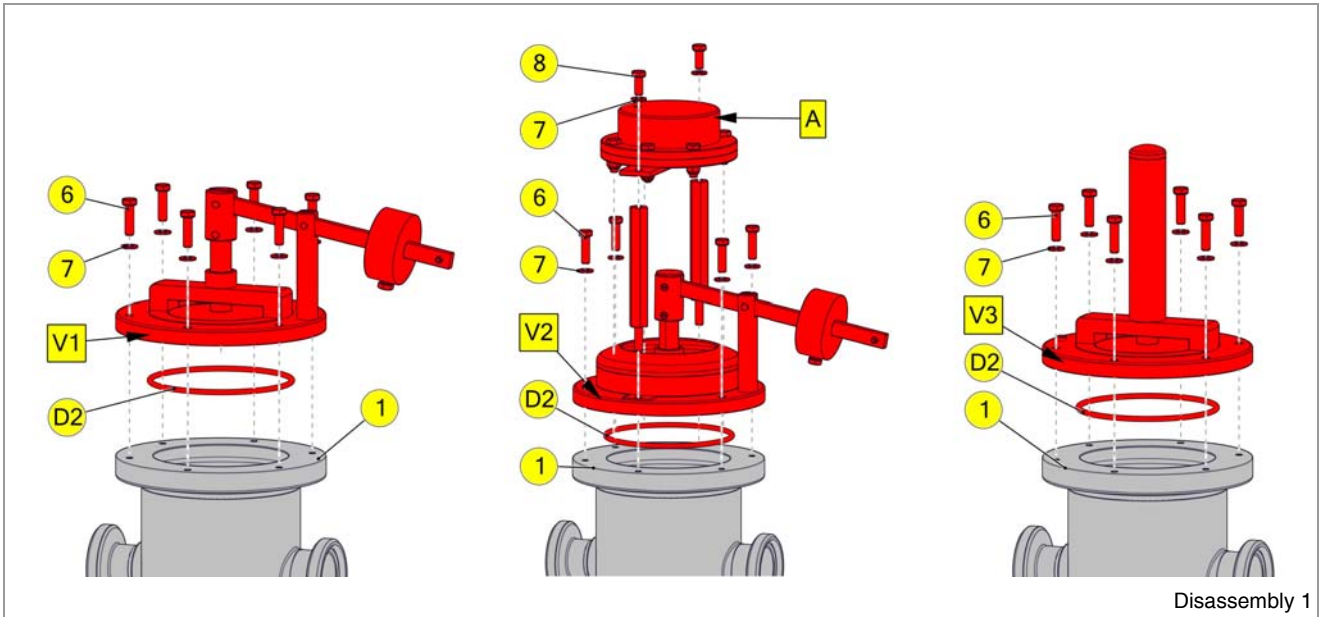
Typ: 6161

Typ: 6162

Typ: 6160



8. Disassembly and assembly



NOTE

For disassembly the vacuum valve, please see operating instructions „Vacuum valve“.

8.1 Assembly

- Thoroughly clean and slightly lubricate mounting areas and running surfaces (see 7.1 Lubricant recommendation).
- Assemble in reverse order.

- Performance test

- Test proper performance in the operating state according to the specified performance data.

9. Drawing

V1 = Vacuum valve
Type: 6161

V2 = Vacuum valve
Type: 6162

V3 = Vacuum valve
Type: 6162

1 = Housing

2 = Tighy seat

3 = Float ball

4 = Spray nozzle

5 = Spray ball

6 = Screw

7 = Disc

D1 = O-Ring

D2 = O-Ring

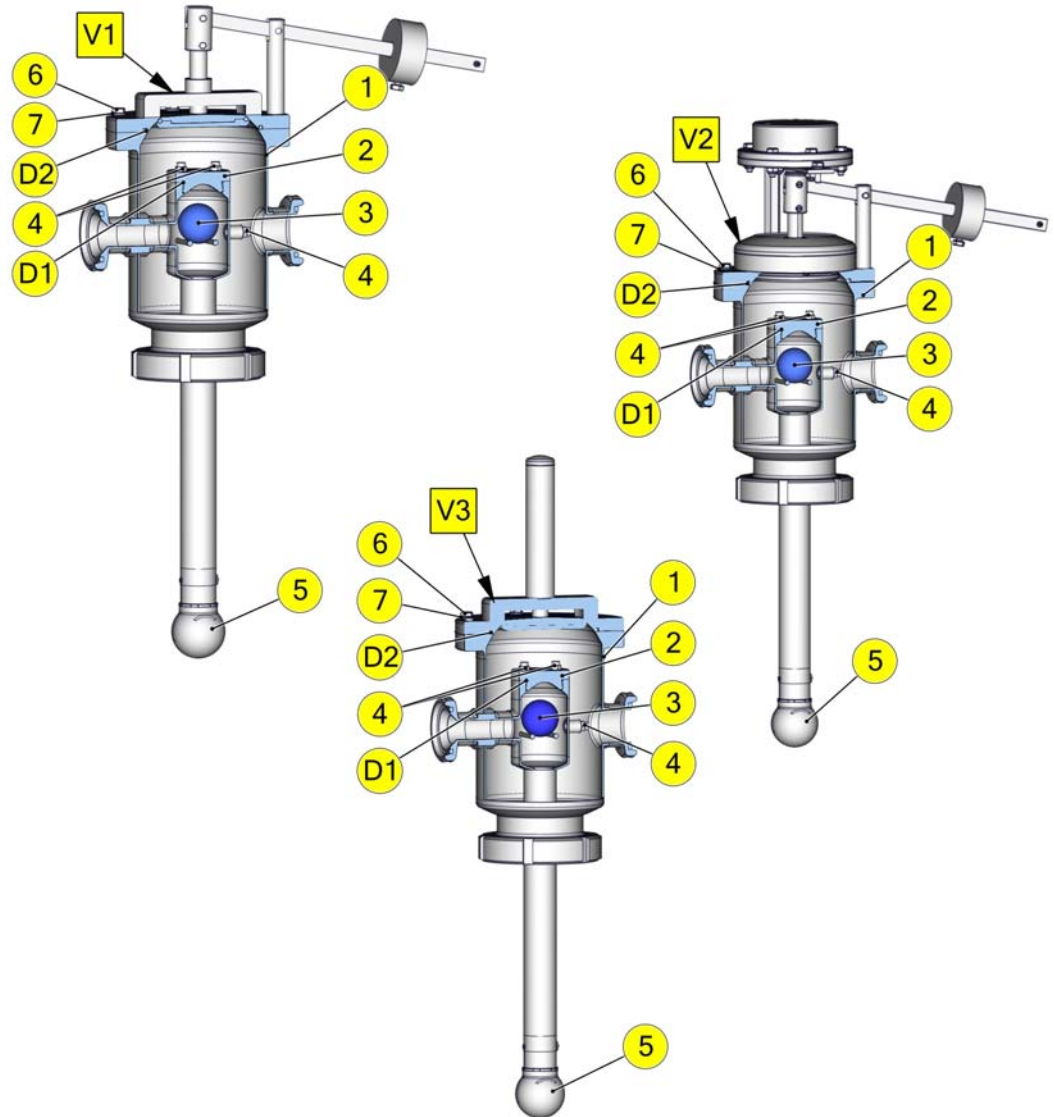


Fig. 1

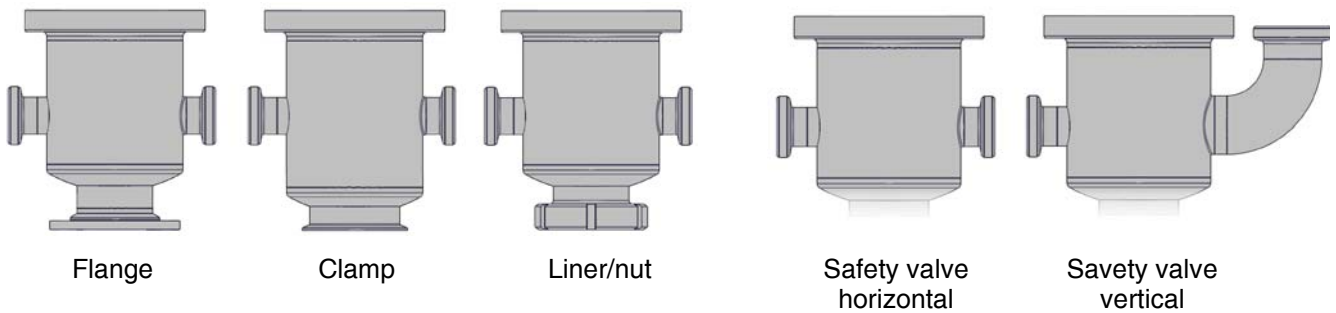


Fig. 2



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

pneum. Lift actuators
pneum. Rotary actuators
Ball valves
Butterfly valves
Single seat valves
Flow control valves
Throttle valve
Overflow valve
Double seat valve
Bellow valves
Sampling valves
Two way valves
Tankdome fitting

Function

Stroke movement
Rotary movement
Media cutoff
Media cutoff
Media cutoff
Control of liquefied media
Control of liquefied media
Definition of fluid pressure
Media separation
Sampling of liquids
Sampling of liquids
Media cutoff
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, 02. 03. 2015

Klaus Dohle
General Director