Operating instructions *- Translation of the original -*

Air-cleaning-combination

Type: 6170

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

The valve is employed for the feed and removal of CO_2 in tanks in the drinks and foodstuffs processing 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.

4.2 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 of injury from liquids flowing.
>   According to the position of the sample valve, outlet pipes or draining devices must be fitted to achieve splash-free draining.

4.3 General notes

> ℹ️ **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

The valve is employed for the feed and removal of CO_2 in tanks. The built-in change-over valve is used to route the CO_2 and CIP medium into the system.

With filling the tank, CO_2 is carried off over the gas nipple by the change-over valve. For the emptying of the tank CO_2 is supplied by the change-over valve over the gas nipple. During cleaning, the valve closes automatically and the CIP medium flows into the cleaning lance. Grooves in the valve seal prevent a complete closure of the valve. As a result of the grooves, spray reaches the gas side by which this space is cleaned. In case of foaming media or constant overfilling of the tank, it is required to lay a separate cleaning line from the CIP side to the gas side.

6. Installation informations

6.1 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 (EN287).
- Use the TIG (tungsten inert gas) welding process.

> ℹ️ **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, 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.

7.2 Lubricants

> **NOTE**
>
> | **Seal material** | | **Lubricants** |
> |---|---|---|
> | *EPDM; Viton; K-flex* | ➔ | *Klüber Paraliq GTE* |
> | *NBR; HNBR; Silicone* | ➔ | *Klüber Paraliq GB 363* |
> | *Thread* | ➔ | *Teflon grease Interflon* |

7.3 Cleaning

The cleaning is performed with the tank cleaning.

8. Technical data

Connection:	• **CIP-gas connection:** Line for supply and removal of CO_2, cleaning line • **CIP connection:** Routed over a connection device and cleaning line to the spray ball • **Gas connection:** Direct connection from the tank space to the protection fittings (e.g. vacuum valve, safety valve)
Temperature range:	• Ambient temperature:+4° - +45°C • Product temperature:+0° - +60°C depending on the medium • Tank cleaning: +30°C depending on the tank pressure load

Material:	**in product contact**	**not in product contact**
Stainless steel:	1.4301 / AISI304	1.4301 / AISI304
Surfaces:	RA $\cong$ 0,8µm e-pol.	metallic bright, e-pol.

9. Disassembly and assembly of the change-over valve

- Screw on groove nut (I) and remove valve completely from the system.
- Remove valve insert core completely from the housing.
- Remove ring gasket (N) and O-ring (J)
- Screw out nut (M).
- Remove gasket (L) and seal (K) from the plate (B).
- Screw out nut (G) and remove gasket (E), spring (K) and plate (B) from the guide.
- Thoroughly clean and slightly lubricate mounting areas and running surfaces.
- Assemble in reverse order.
- Check the valve function

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