

Content

<b>1</b>	<b>General information for assembling the POSV accessories .....</b>	<b>2</b>
<b>2</b>	<b>Purpose .....</b>	<b>2</b>
<b>3</b>	<b>Competences .....</b>	<b>2</b>
<b>4</b>	<b>Scope .....</b>	<b>2</b>
<b>5</b>	<b>Disclaimer.....</b>	<b>2</b>
<b>6</b>	<b>Qualified fitting personnel.....</b>	<b>2</b>
<b>7</b>	<b>Remarks.....</b>	<b>2</b>
<b>8</b>	<b>Basic safety guidelines .....</b>	<b>3</b>
<b>9</b>	<b>Testing instructions.....</b>	<b>6</b>

protected

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 1 General information for assembling the POSV accessories

### 2 Purpose

The documentation describes the assembly of POSV accessories. The description contains every single working step, supplies, tools and appliances.

### 3 Competences

The generation, maintenance and distribution of the documentation takes place in the organisation department. The defaults will be generated by the technical department in consultation with the final assembly department and production planning department.

### 4 Scope

This document must be applied to the assembling of a Pilot Operated Safety Valve with accessories in agencies and subsidiaries of LESER GmbH & Co. KG, customers and independent service center.

### 5 Disclaimer

1. LESER puts in a great deal of effort into making up-to-date and correct
2. documentation available. Nevertheless, LESER GmbH & Co. KG gives no guarantee
3. that the recommended actions presented here are entirely correct and error free.
4. This document is to be applied exclusively to the specified type. LESER GmbH & Co.
5. KG declines any liability or responsibility for the correctness and completeness of the
6. content.
7. LESER GmbH & Co. KG reserves the right to change the information contained in
8. this document, which is for the products of LESER GmbH & Co. KG and is intended
9. for LESER subsidiaries, at any time and without prior announcement.
10. LESER GmbH & Co. KG is available to the users of this document to provide
11. additional information.

### 6 Qualified fitting personnel

LESER safety valves may only be dismantled by trained or qualified fitters. The qualifications must be obtained through the appropriate training measures.

### 7 Remarks



- Gloves must be worn during the entire dismantling process.

protected

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 8 Basic safety guidelines

### Dangerous media

Poisoning, caustic burns, burns, injuries

- Use suitable protective devices
- Use suitable collecting tanks.
- Wear suitable protective equipment.

### Foreign bodies in the safety valve

Danger from failure of safety valve or leaks

- Flush the system before installation of a safety valve.
- Check the safety valve for foreign objects.
- Remove foreign objects

### Bug screen is damaged or missing (B or option)

Dirt, objects or insects get into the safety valve. Danger from malfunction of the safety valve.

- Install the bug screen correctly.
- Check the bug screen regularly.

### Ambient temperature is too high

Material expansion. Danger from malfunction of the safety valve.

### Ambient temperature is too low

Icing, freezing vapours, reduced flow rate due to congealing media. Danger from functional disruption of the safety valve.

### Abrasive or corrosive media

Moving parts jam or become stuck. Danger from functional disruption of the safety valve.

- Service the safety valve after each time it opens.

### Media with high proportion of particles

protected

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

**(only B)**

Deposits and clogging. Danger from malfunction of the safety valve.

- Use a filter with the correct mesh size.
- Use additional filters to increase the filter capacity.

**Residual media in the safety valve**

Poisoning, caustic burns, burns, injuries

- Wear suitable protective equipment.
- Remove residual media

**WARNING**

**Leaky safety valve**

Danger from leaking media due to damaged gaskets and sealing surfaces.

- Protect the safety valve against vibrations and blows especially during transport and installation.
- Check safety valve regularly for leaks.

**Open bonnet or spindle guides**

Danger from leaking media

- Make sure that no danger can arise from leaking media.
- Keep a safe distance.
- Wear suitable protective equipment.

**CAUTION**

**Hot medium**

Burns or scalding.

- Wear suitable protective equipment.

**Hot surfaces**

Burns.

- Wear suitable protective equipment.

**Aggressive medium**

Caustic burns.

- Wear suitable protective equipment.

protected

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

**Open bonnet or spindle guides**

Pinching danger from moving parts.

- Install suitable safeguards.

**Sharp edges and burrs**

Danger of injury.

- Wear safety gloves.
- Handle the safety valve carefully

**High noise emission**

Hearing damage.

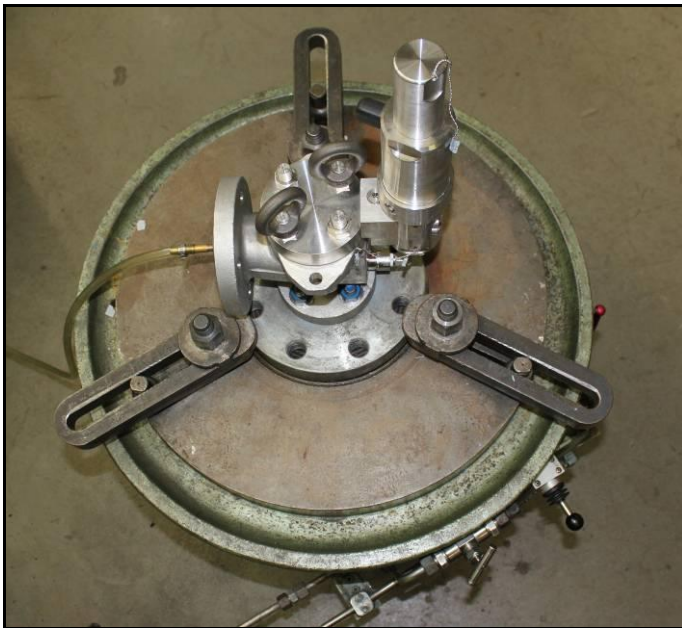
Wear ear protection.

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 9 Testing instructions

### 9.1 Proper installation of the POSV on the test bench

#### 1. Steps - Descriptions



- Place the Main Valve with the flange on the test bench
- Make sure that the air supply of the bench is directly beneath the inlet of the main valve
- Use a soft sealing between the main valve inlet and the test bench
- Place the clamping claws on the flange
- Fasten the clamping claws with the compressed air

protected

#### 2. Aids

- Soft sealings

#### 3. Tools

- Open-end spanner acc. test bench

#### 4. Appliance

- Test bench



disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 9.2 Test devices



### 1. Steps - Descriptions

- Test bench
- Bubble counting unit (Kellog test)
- Rubber plugs/ test plugs
- Leak detection spray

protected

### 2. Aids

- None

### 3. Tools

- None

### 4. Appliance

- Rubber plug
- Test bench

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 9.3 Test the set pressure adjustment



### 1. Steps - Descriptions

- Mount POSV acc. step 9.1 with the inlet on the test bench
- Check set pressure 3x
- If necessary: Screw off the cap; loosen the lock nut; readjust the adjusting screw - acc. LID disassembly / assembly
- Check set pressure 3 x
- Repeat procedure until the set pressure is 3 x **OK**
- Afterwards fasten the lock nut and cap – acc. LID assembly

### 2. Aids

- None

### 3. Tools

- Open-end spanner acc. test bench

### 4. Appliance

- Test bench

protected

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		



## 9.4 Seat tightness test



### 1. Steps - Descriptions

- Mount POSV acc. test description with the inlet on the test bench
- Trigger the safety valve once
- Lower the pressure by 10% of the set pressure
- In case of set pressures  $\leq 3.5$  bar (50.76 psi) by 0.35 bar (5.08 psi)
- Place the hose of the bubble counting unit in the rubber plug
- Start after 10 sec to count the bubbles
- Compare the result with the LID to decide whether the POSV pass the test or not

protected

### 2. Aids

- None

### 3. Tools

- Open-end spanner acc. test bench

### 4. Appliance

- Test bench
- Rubber plug acc. DM
- Bubble counting unit

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 9.5 Shell tightness test



### 1. Steps - Descriptions

- Mount the POSV acc. step 9.1 with the inlet on the test bench
- Charge the POSV with a pressure close to the set pressure – Make sure that the POSV does not reach the set pressure
- After establishing a suitable pressure cover the contact areas, fittings, threads and so on with leak detection spray
- Observe these areas to detect any leaks
- Leaks will be indicated by bubbles
- When there is no recognized foam the test is passed

protected

### 2. Aids

- Leak detection spray

### 3. Tools

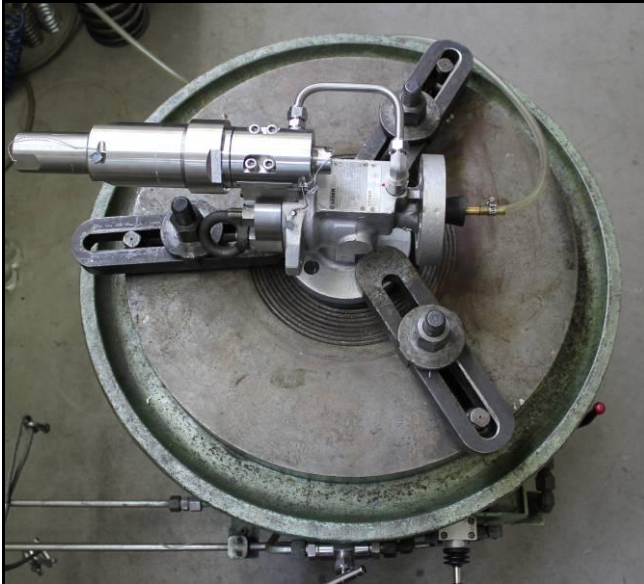
- Open-end spanner acc. test bench

### 4. Appliance

- Test bench

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		

## 9.6 Back seat tightness, test P21 (tightness outwards)



### 1. Steps - Description

- Mount the POSV acc. test description with the outlet on the test bench
- Establish a test pressure of 6 bar
- Cover all connections, threads, fittings with leak detection spray
- When no foam is recognized, the test is passed
- Connect the bubble counting unit
- Start after 10 sec to count the bubbles
- Compare the result with the LID to decide whether the POSV pass the test or not

protected

### 2. Aids

- None

### 3. Tools

- None

### 4. Appliance

- Rubber plug
- Bubble counting unit
- Test bench

disclosure cat.:	II	proofread:	Cal	published date:	tbd	effect. date:	02/12
author:	AW	released by:	KUW	replaces:	initial	status:	published
resp. depart.:	PP	date of release:	01/31/12	revision No.:	0		
doc. type:	LGS	change rep. No.:		retention period:	10y.		