



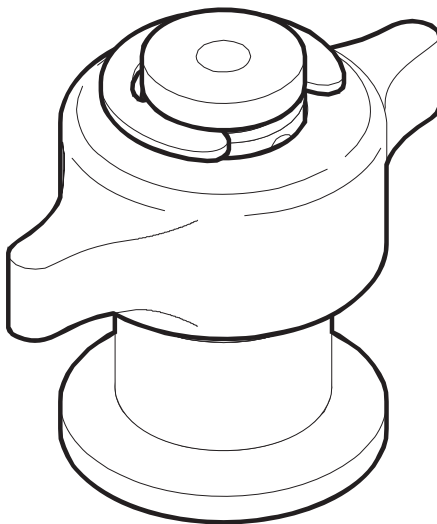
LEYCON

User manual GA06196_002_C0/2016

Venting Valve DN 10 ISO-KF

- manually actuated, with screw cap
- aluminum version
- stainless steel version

Part numbers 173 24, 173 37



Imprint

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Original document The German language version of this user manual is the original document. All other languages are a translation of the original user manual. In case of deviations the information within the original user manual is valid.

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1 Description of product

1.1 Important information



This symbol points to a very important statement that requires particular attention.

Example:



Leybold disclaims any liability for damages resulting from inappropriate packaging.

1.2 Identification of product

The fabrication number and part number are fixed on the product directly or by means of an identification plate.

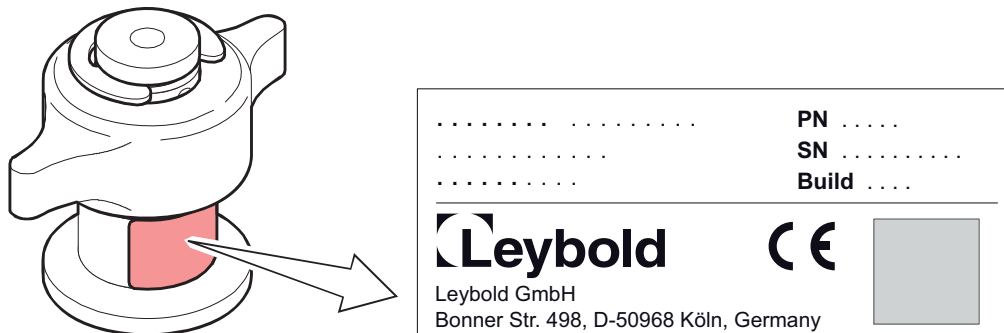


Figure 1-1

PN: Part number

SN: Fabrication number



In all communications with Leybold, please specify the information on the product nameplate.

1.3 Validity of the user manual



This document applies to products with the part numbers:

- **173 24**: aluminum housing
- **173 37**: stainless steel housing

1.4 Technical data

Material

	Material	
Item	Aluminum version	Stainless steel version
Housing	Aluminium 3.0615	Stainless steel 1.4305
Valve plate	Aluminium 3.0615	Stainless steel 1.4301
O-ring	FPM	
Screw cap	Brass, nickel-plated	
Protective lid	PE	
Packing	carton box, foamed material	

Table 1-1

General technical data

	Value / description	
Type / Item	Aluminum version	Stainless steel version
Vacuum connection	DN 10 ISO-KF	
Mounting position	any	
Actuation	manual, with screw cap	
Valve completely opened	two turns from idle stroke	
Venting time, for 50 l [s]	14	
Tightness [mbar l/s]	1×10^{-9}	
Bursting pressure, absolute [bar]	5	
Pressure range, absolute [mbar]	$1 \times 10^{-8} \dots 1000$	
Temperatures [°C]		
Ambient temperature	0 ... 80	0 ... 120
Bakeout temperature	≤80	≤120
Weight [g]	100	150

Table 1-2

Dimensions [mm]

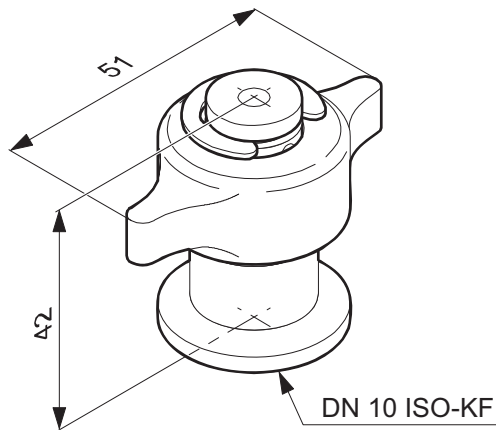


Figure 1-2

1.5 Components delivered with the valve

Protective covers on the flange.

The original document of this user manual in German language is also enclosed.

1.6 Warranty

Leybold assumes no liability if the end-user or third parties:

- disregard the information in this document
- use the product in a non-conforming manner
- make any kind of interventions (modifications, alterations etc.) on the product
- use the product with accessories, options, and add-ons not listed in the corresponding product documentation.

Failures due to contamination or wear and tear, as well as expendable parts (e.g. seals), are not covered by the warranty.

Improperly accomplished maintenance work may reduce the safety, lifetime and performance of the product and lead to refusal of warranty claims.



Maintenance work not described in this user manual may only be carried out by the Leybold service staff or by specialists trained and authorized by Leybold.

2 Safety

2.1 Compulsory reading material

Read this chapter prior to performing any work with or on the product. It contains important information that is significant for your own personal safety. This chapter must have been read and understood by all persons who perform any kind of work with or on the product during any stage of its serviceable life.

	NOTICE Lack of knowledge Failing to read this manual may result in property damage. Firstly, read manual.
---	--



This user manual is an integral part of a comprehensive documentation belonging to a complete technical system. It must be stored together with the other documentation and accessible for anybody who is authorized to work with the system at any time.

2.2 Danger levels

	! DANGER High risk Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
---	--

	! WARNING Medium risk Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
---	--

	! CAUTION Low risk Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.
---	--

	NOTICE Command Indicates a hazardous situation which, if not avoided, may result in property damage.
---	---

2.3 Purpose of use

2.3.1 Permitted use

- The Venting Valve is used for manual venting of small vacuum systems.
- Use product for clean and dry vacuum applications only. Observe the specification in chapter «1.4 Technical data».

2.3.2 Adverse use

- Use of the product for liquid gas.
- Use of the product without instruction or outside of the permitted limits.
- Detaching of hazard notices, disabling safety systems.
- Conducting any kind of interventions (modifications, alterations etc.) on the product.
- Use with accessories and options, which are not mentioned in the corresponding product documentation.
- Either use, not explicitly mentioned as permitted use, applies as adverse use.

2.4 Obligations / area of responsibility

2.4.1 Manufacturer

Leybold GmbH as manufacturer is responsible for supplying the product, with its user manual and original accessories, in a completely safe condition.

2.4.2 Operator



The operator is the person in charge of the product. The operator ensures that the product is used in accordance with the instructions, and the safety of the equipment in use. Training and deployment of personnel who use the product is also the operator's charge.

The operator has the following duties:

- To know local, operative regulations regarding safety and accident prevention.
- To assure that the national laws and directives are respected.
- To understand safety indications on the product, and instructions in the user manual.
- To immediately inform the manufacturer, if safety shortcomings of the product or its use occur.
- To check the sound condition of the product regularly and to assure the execution of the maintenance works mandated.



The end-user assumes the responsibility in conjunction with the process media used.

2.5 Personnel qualifications

	 WARNING
	Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.

2.6 General Safety Instructions

- Adhere to the applicable regulations and take the necessary precautions for the process media used.
Consider possible reactions between the materials and the process media.
- Adhere to the applicable regulations and take the necessary precautions for all work you are going to do and consider the safety instructions in this document.
- Before beginning to work, find out whether any vacuum components are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.

3 Function

The Venting Valve is opened by loosening and closed by tightening the screw cap.

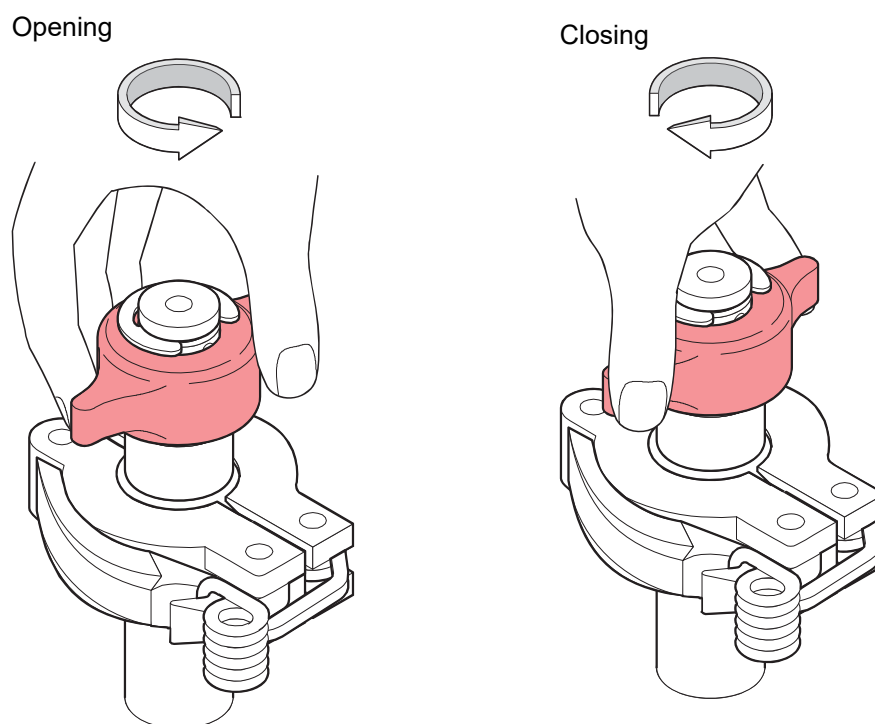


Figure 3-1

4 Installation

The subsequent notes need to be observed for all installation works!

	 WARNING Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.
	NOTICE Contamination Product may get contaminated because of inadequate handling. Always wear cleanroom gloves when handling the product.
	NOTICE Inappropriate tools Sealing surfaces may get damaged. Do not use sharp-edged tools.

4.1 Unpacking



- Before unpacking, check whether the packaging shows transport damages and the goods could be damaged.
- Check whether the goods are complete and in impeccable condition. If you have any objections, please contact the local agency immediately; see backside of the document.
- Store the original packaging material. It may be useful if products must be returned.



Remove the protective covers from the valve only at the moment when the valve is being installed into the system. Keep unprotected sealing surfaces clean and do not damage them.

4.2 Installation into the system

Vacuum connection

	! DANGER Overpressure in the vacuum system >1 bar Injury caused by released parts and harm caused by escaping process gases can result if clamps are opened while the vacuum system is pressurized. Do not open any clamps while the vacuum system is pressurized. Use the type of clamps which are suited to overpressure.
	! DANGER Overpressure in the vacuum system >2.5 bar KF flange connections with elastomer seals (e.g. O-rings) cannot withstand such pressures. Process media can thus leak and possibly damage your health. Use O-rings provided with an outer centering ring.

1. Remove the protective lids and install the product to the vacuum system.

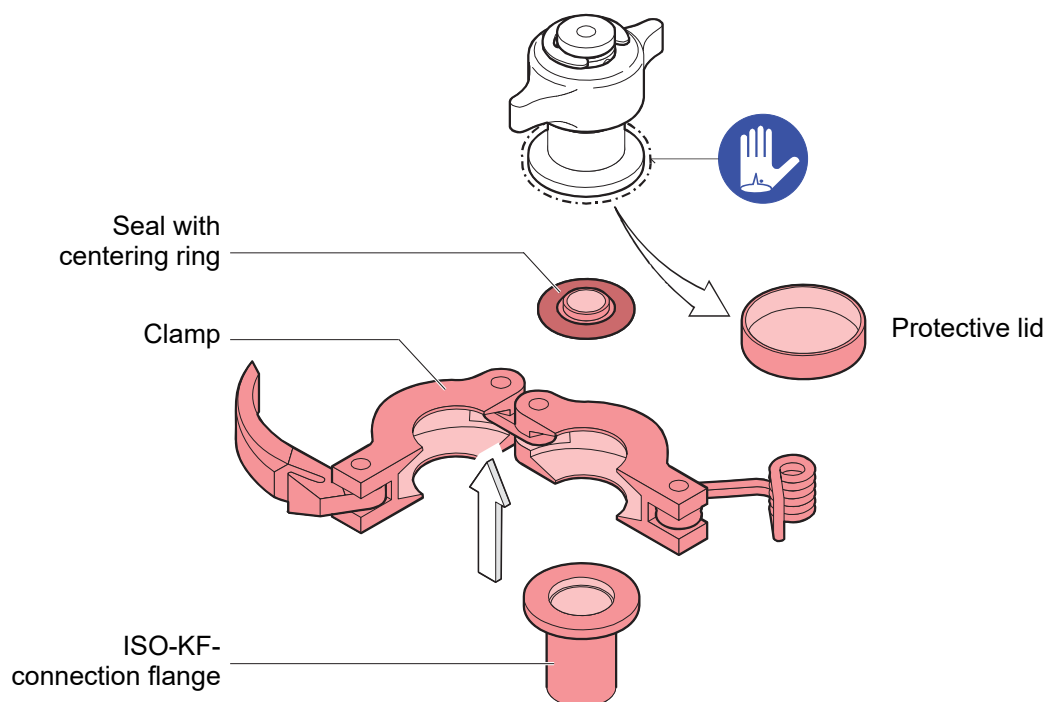


Figure 4-1



Keep the protective lids.

2. Check that the vacuum connections are leak tight.

5 Operation

	⚠ WARNING Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.
	⚠ CAUTION Hot surfaces Risk of burning when touching hot surfaces. Wear protective gloves.



The product is ready for operation as soon as it has been installed.
When the valve is delivered, it is slightly opened (i.e. not tight).

If the valve is operated under harsh or dirty conditions, it should be cleaned / maintained before the specified service time has been reached.

Opening

Two turns from idle stroke.

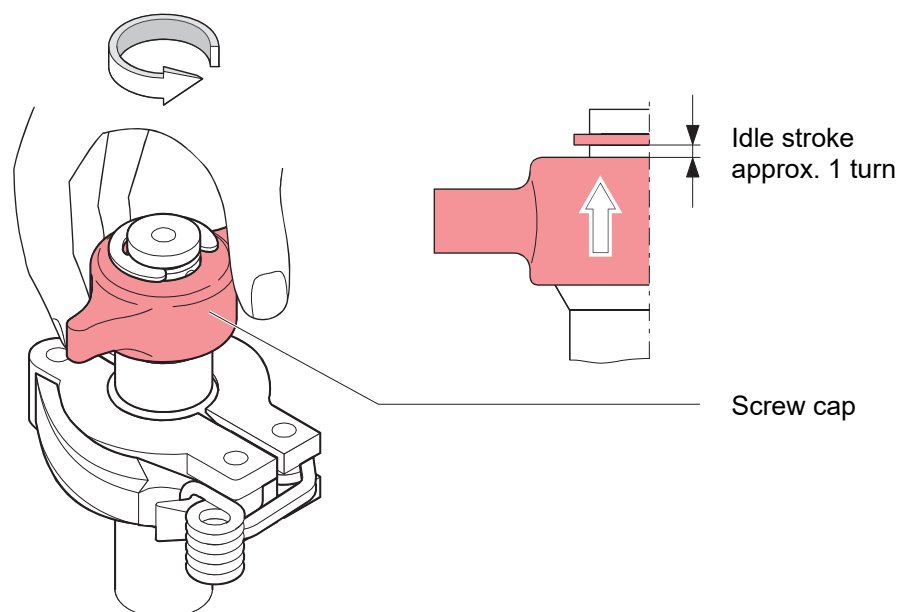


Figure 5-1

Closing

Reliable tightness is achieved with little closing force.

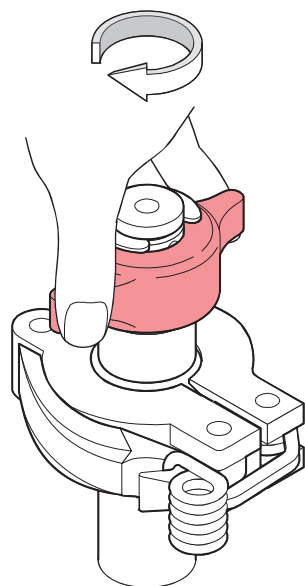


Figure 5-2

6 Maintenance



Under clean operating conditions the valve does not need any maintenance.



Contamination from the process may require more frequent maintenance.



WARNING

Unqualified personnel

Inappropriate handling may cause serious injury or property damage.
Only qualified personnel are allowed to carry out the described work.



WARNING

Contaminated parts

Contaminated parts can be detrimental to health and environment.
Before beginning to work, find out whether any parts are contaminated.
Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.



CAUTION

Hot surfaces

Risk of burning when touching hot surfaces.
Touch hot surfaces only if the valve has cooled down.



NOTICE

Contamination

Product may get contaminated.
Always wear cleanroom gloves when handling the product.



NOTICE

Inappropriate tools

Sealing surfaces may get damaged.
Do not use sharp-edged tools.



Leybold assumes no liability and the warranty becomes null and void if maintenance works are performed, which are not covered by this user manual.

Dismount the valve

1. Vent the vacuum system and wait until the valve has cooled down to $<55^{\circ}\text{C}$.
2. Disassemble the small flange connection and put the protective lid in place.

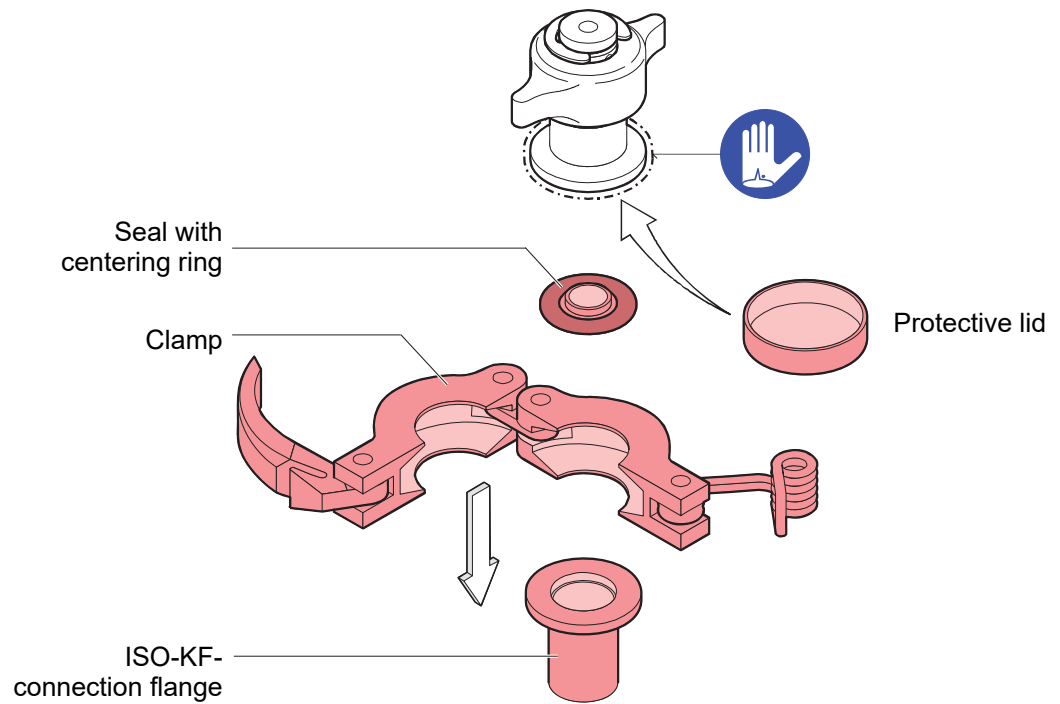


Figure 6-1

Disassemble and clean the valve

3. Completely unscrew the screw cap, approx. $3\frac{1}{2}$ turns from idle stroke.

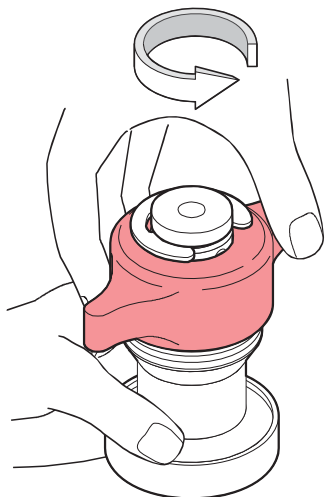


Figure 6-2

4. Remove the circlip.

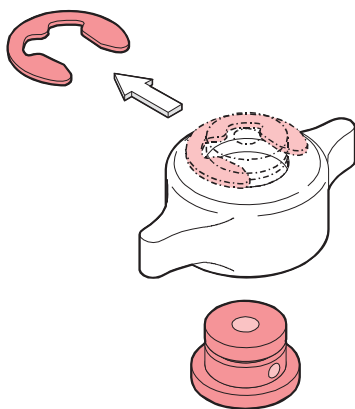


Figure 6-3

5. Carefully remove the O-ring and take off the protective lid.

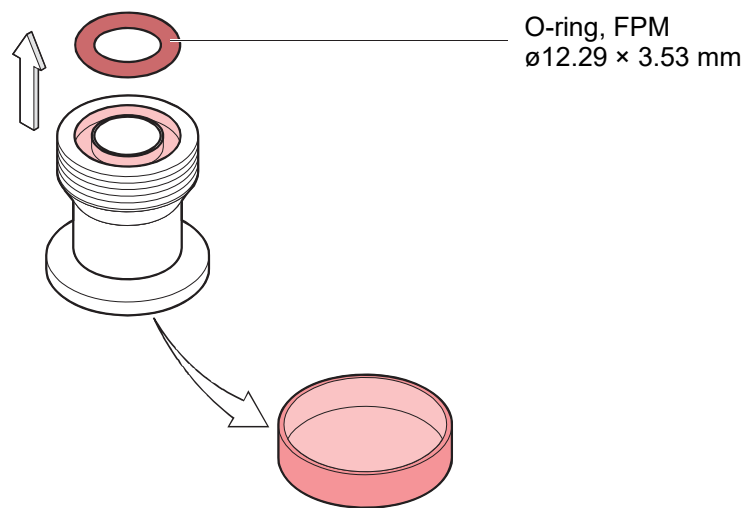


Figure 6-4

 WARNING	
	Cleaning agents Cleaning agents can be detrimental to health and environment. Adhere to the relevant regulations and take the necessary precautions when handling cleaning agents and disposing of them. Consider possible reactions with the product materials.

6. Clean the valve.

- Carefully clean the parts with a grease solving, nonscouring cleaner.
- After cleaning, the parts should preferably be rinsed with alcohol and subsequently heated to $\approx 50\text{ }^{\circ}\text{C}$ in an oven or with an industrial blower.
- Carefully clean the sealing surfaces with a lint-free cloth moistened with alcohol. Allow them to dry.
- Wipe the seals with a lint-free cloth slightly moistened with vacuum oil.

7. Proceed in reverse order to reassemble the valve.



When reassembling the product, be careful to insert the O-rings level into the grooves without twisting them.

7 Repairs

Repairs may only be carried out by qualified personnel. We recommend having this work carried out by one of our service centers.

You will find the addresses of the service centers on the backside of the document. When contacting us, please always specify the fabrication number of the valve; see chapter «1.2 Identification of product».

8 Dismounting and Storage

	⚠ WARNING Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.
	⚠ CAUTION Hot surfaces Risk of burning when touching hot surfaces. Touch hot surfaces only if the valve has cooled down.
	NOTICE Contamination Product may get contaminated. Always wear cleanroom gloves when handling the product.

8.1 Dismounting

	⚠ WARNING Contaminated parts Contaminated parts can be detrimental to health and environment. Before beginning to work, find out whether any parts are contaminated. Adhere to the relevant regulations and take the necessary precautions when handling contaminated parts.
---	--

1. Vent the vacuum system and wait until the valve has cooled down to <55°C.
2. Disassemble the small flange connection and put the protective lid in place.



For detailed information about how to dismount the valve see chapter «6 Maintenance».

8.2 Storage



NOTICE

Wrong storage

Inappropriate temperatures and humidity may cause damage to the product.

Valve must be stored at:

- relative humidity between 10% and 70%
- temperature between 10 °C and +50 °C
- non-condensing environment

1. Clean / decontaminate valve.
2. Cover all valve openings with protective covers or foils.

9 Packaging and Transport

	 WARNING Unqualified personnel Inappropriate handling may cause serious injury or property damage. Only qualified personnel are allowed to carry out the described work.
	 WARNING Harmful substances Risk of injury in case of contact with harmful substances. Remove harmful substances (e. g. toxic, caustic or microbiological ones) from product before you return the product to Leybold.
	NOTICE Inappropriate packaging Product may get damaged if inappropriate packaging material is used. Always use the original packaging material and handle product with care.



When returning products, the completed form «11.2 Declaration of chemical contamination» must be enclosed to the shipment.

9.1 Packaging

1. Cover all valve openings with protective covers or foils.
2. Pack valve appropriately, by using the original packaging material.



Leybold disclaims any liability for damages resulting from inappropriate packaging.

9.2 Transport



NOTICE

Inappropriate packaging

Product may get damaged if inappropriate packaging material is used.
Always use the original packaging material and handle product with care.



Leybold disclaims any liability for damages resulting from inappropriate packaging.

10 Disposal

	 WARNING
	Harmful substances Environmental pollution. Discard products and parts according to the local regulations.

Separating the components

After disassembling the product, separate its components according to the following criteria:

- **Contaminated components**
Contaminated components (radioactive, toxic, caustic, microbiological hazard etc.) must be decontaminated in accordance with the relevant national regulations, separated according to their materials, and disposed of.
- **Other components**
Such components must be separated according to their materials and recycled.

11 Appendix

11.1 Safety information on contamination

Aim and purpose

Each entrepreneur (operating company) is responsible for the health and safety of its employees. The responsibility extends to external personnel carrying out repairs on the site of the operating company and to personnel of contractors.

The enclosed declaration shall inform contractors about contamination of compressors, vacuum pumps and vacuum components returned for repair. Due to this information, the contractor is capable of taking the necessary safety precautions when carrying out repairs.



The same regulations apply for **on-site repairs**.

Preparation for dispatch

Before dispatching the product the operating company must fill out the declaration as per chapter «11.2 Declaration of chemical contamination» and enclose it to the shipping documents. The shipping instructions stated in the relevant user manual must be observed.

For example:

- Drain all service fluids
- Remove filter elements, where applicable
- Close all openings airtight
- Pack products appropriately
- Dispatch products in suitable transport containers



Attach declaration on contamination to the **outside** of the transport container.

11.2 Declaration of chemical contamination

Declaration of Contamination of Compressors, Vacuum Pumps and Components

The repair and / or servicing of compressors, vacuum pumps and components will be carried out only if a correctly completed declaration has been submitted. Non-completion will result in delay. The manufacturer can refuse to accept any equipment without a declaration.

A separate declaration has to be completed for each single component.

This declaration may be completed and signed only by authorized and qualified staff.

Customer/Dep./Institute : _____ Address : _____ _____ Person to contact: _____ Phone : _____ Fax: _____ End user: _____	Reason for return: ☒ applicable please mark Repair: ☐ chargeable ☐ warranty Exchange: ☐ chargeable ☐ warranty ☐ Exchange already arranged / received Return only: ☐ rent ☐ loan ☐ for credit Calibration: ☐ DKD ☐ Factory-calibr. ☐ Quality test certificate DIN 55350-18-4.2.1																																																								
A. Description of the Leybold product: _____ Failure description: _____ Material description : _____ Catalog number: _____ Additional parts: _____ Serial number: _____ Application-Tool: _____ Type of oil (ForeVacuum-Pumps) : _____ Application- Process: _____																																																									
B. Condition of the equipment <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: center;">No¹⁾</th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">No¹⁾</th> <th style="width: 10%; text-align: center;">Yes</th> </tr> </thead> <tbody> <tr> <td>1. Has the equipment been used</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td></td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>2. Drained (Product/service fluid)</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td></td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>3. All openings sealed airtight</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td></td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>4. Purged</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td></td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td colspan="4">If yes, which cleaning agent _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4">and which method of cleaning _____</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4"> ¹⁾ If answered with "No", go to D. </td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Contamination : toxic ☐ corrosive ☐ flammable ☐ explosive ²⁾ ☐ radioactive ²⁾ ☐ microbiological ²⁾ ☐ other harmful substances ☐			No ¹⁾	Yes	No		No ¹⁾	Yes	1. Has the equipment been used	☐	☐	☐		☐	☐	2. Drained (Product/service fluid)	☐	☐	☐		☐	☐	3. All openings sealed airtight	☐	☐	☐		☐	☐	4. Purged	☐	☐	☐		☐	☐	If yes, which cleaning agent _____							and which method of cleaning _____							¹⁾ If answered with "No", go to D.						
	No ¹⁾	Yes	No		No ¹⁾	Yes																																																			
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If yes, which cleaning agent _____																																																									
and which method of cleaning _____																																																									
¹⁾ If answered with "No", go to D.																																																									
C. Description of processed substances (Please fill in absolutely) 1. What substances have come into contact with the equipment ? Trade name and / or chemical term of service fluids and substances processed, properties of the substances According to safety data sheet (e.g. toxic, inflammable, corrosive, radioactive) <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 5%;">X</td> <td style="width: 40%;">Tradename:</td> <td style="width: 55%;">Chemical name:</td> </tr> <tr><td></td><td>a)</td><td></td></tr> <tr><td></td><td>b)</td><td></td></tr> <tr><td></td><td>c)</td><td></td></tr> <tr><td></td><td>d)</td><td></td></tr> </table> 2. Are these substances harmful ? ☐ No ☐ Yes 3. Dangerous decomposition products when heated ? ☐ No ☐ Yes If yes, which ? _____		X	Tradename:	Chemical name:		a)			b)			c)			d)																																										
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²⁾ Components contaminated by microbiological, explosive or radioactive products/substances will not be accepted without written evidence of decontamination.																																																									

D. Legally binding declaration

I / we hereby declare that the information supplied on this form is accurate and sufficient to judge any contamination level.

Name of authorized person (block letters) : _____

Date _____

signature of authorized person _____

firm stamp



300503443_000_A1

Čeština (024)	Návod k použití přiložený k tomuto výrobku je standardně k dispozici v němčině a angličtině. Potřebujete-li návod k použití ve svém jazyce (v rámci EU), obraťte se prosím na některou z poboček Leybold.
Dansk (016)	Den medfølgende brugsvejledning til deres produkt fås på to sprog, engelsk og tysk. Hvis en brugsvejledning på eget europæiske sprog ønskes, bedes man tage kontakt til ens Leybold repræsentant.
Deutsch (001)	Die diesem Produkt beigelegte Gebrauchsanleitung liegt standardmäßig in den Sprachen Deutsch und Englisch vor. Für eine Gebrauchsanleitung in Ihrer Landessprache (EU) wenden Sie sich an die Leybold-Niederlassung.
Eesti (028)	Selle tootega kaasnev kasutusjuhend on standardselt saksa ja inglise keeles. Kasutusjuhendi saamiseks teie riigikeeles (EL) pöörduge Leybold-filiaali poole.
Ελληνικά (017)	Οι οδηγίες χρήσης που συνοδεύουν αυτό το προϊόν είναι διαθέσιμες στα γερμανικά και στα αγγλικά. Για οδηγίες χρήσης στη γλώσσα σας (ΕΕ) απευθυνθείτε σε υποκατάστημα της Leybold.
English (002)	The instruction manual supplied with your product is available in two different standard European languages, English and German. If you wish to have a manual in your own European language, please contact your Leybold representative.
Español (006)	Las instrucciones de operación, adjuntas al presente producto, son en alemán e inglés. Para obtener las instrucciones en su idioma nacional (EU), póngase en contacto con su representante de Leybold.
Français (003)	Le mode d'emploi fourni avec ce produit est rédigé en anglais et en allemand. N'hésitez pas à contacter votre agence Leybold si vous avez besoin du mode d'emploi traduit dans la langue de votre pays (union européenne).
Hrvatski (029)	Uz ovaj proizvod standardno su priložena uputstva za upotrebu na njemačkom i engleskom jeziku. Za uputstva na jeziku Vaše zemlje (u EU), obratite se poslovnici Leybold-a.
Italiano (004)	Le istruzioni per l'uso allegate al presente prodotto sono disponibili di norma in lingua tedesca e inglese. Per le istruzioni per l'uso nella propria lingua (UE) si prega di rivolgersi alla filiale Leybold.
Íslenska (034)	Leiðarvísirinn sem fylgir vörinni er gefinn út á tveimur tungumálum, þýsku og ensku. Hafið samband við næsta útibú Leybold varðandi leiðarvísi á tungumáli ykkar (ESB).
Latviešu (030)	Kopā ar jūsu produktu piegādātā lietošanas instrukcija ir pieejama divās dažādās standart Eiropas valodās, angļu un vācu. Ja jūs vēlaties saņemt instrukciju citā Eiropas valodā, sazinieties ar savu Leybold pārstāvi.
Lietuvių (031)	Prie šio produkto pridedamos naudotojo instrukcijos paprastai pateikiamos dviemomis kalbomis - vokiečių ir anglų. Dėl instrukcijos jūsų valstybine kalba (ES), kreipkitės į Leybold atstovą.
Magyar (033)	A termékhez mellékelte használati útmutató angol és német nyelvű. Ha a használati útmutatót a saját nyelvén (EU) szeretné megkapni, akkor kérjük forduljon az egyik Leybold képviselőhez.
Nederlands (010)	De bij dit product bijgevoegde gebruiksaanwijzing is standaard in het Duits en Engels beschikbaar. Voor een gebruiksaanwijzing in uw taal (EU), neem dan contact op met het Leybold-filiaal.
Norsk (020)	Bruksanvisningen som medfølger dette produktet finnes som standard i språkversjonene engelsk og tysk. Ønsker du en bruksanvisning på ditt nasjonale språk (innen EU), henvender du deg til en Leybold-forhandler.
Polski (022)	Instrukcja obsługi załączona do tego produktu dostępna jest w języku niemieckim i angielskim. Po instrukcję obsługi w innym języku urzędowym Unii Europejskiej proszę zgłosić się do siedziby Leybold.
Português (005)	As Instruções de Uso anexas a este produto são fornecidas normalmente nas línguas alemã e inglesa. Para Instruções de Uso na sua língua (UE), queira dirigir-se à sucursal de Leybold.
Română (013)	Manualul de utilizare anexat acestui produs este disponibil în mod standard în limbile germană și engleză. Pentru a obține un manual de utilizare în limba țării dumneavoastră (EU), vă rugăm să vă adresați unei reprezentanțe Leybold.
Slovenčina (023)	Návod na používanie priložený k tomuto produktu je štandardne k dispozícii v nemeckom a anglickom jazyku. Ak potrebujete návod na používanie v jazyku svojej krajiny (EÚ), obráťte sa na pobočku Leybold.
Slovenščina (032)	Priložena navodila so na voljo v dveh različnih evropskih jezikih, angleščini in nemščini. Če želite navodila za uporabo v svojem jeziku (EU), se obrnite na predstavnika Leybold.
Suomi (019)	Tähän tuotteeneseen liittyvä käyttöopas on saksan- ja englanninkielellä. Mikäli haluatte käyttöoppaan maanne kielellä (EU), voitte käätyä vastaavan Leybold-toimipisteen puoleen.
Svenska (009)	Den användarmanual som följer med denna produkt finns i standardutförandet på tyska och engelska. Vänd dig till en Leybold-återförsäljare för en användarmanual på ditt språk (gäller EU-språk).
Türkçe (018)	Bu ürünün ekinde bulunan kullanım kılavuzu, standart olarak Almanca ve İngilizce dillerinde bulunmaktadır. Kendi dilinizdeki (AB) kullanım kılavuzu için bir Leybold-Şubesine başvurun.
Български (027)	Приложеният към този продукт указания за употреба в общия случай са налични на немски и на английски език. За указания на Вашия език (ЕС) можете да се обърнете към представителството на Leybold.
Русский (007)	В стандартную комплектацию изделия входит руководство по эксплуатации на немецком и английском языках. За руководством по эксплуатации на языке Вашей страны (ЕС), пожалуйста, обращайтесь в представительство Leybold.

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