

# **OPERATING INSTRUCTIONS**

Translation of the Original

EN



**Mechanical oil filter** 



#### Dear customer,

Thank you for choosing a Pfeiffer Vacuum product. Your new Pfeiffer Vacuum accessory should support you in your individual application with full performance and without malfunctions. The name Pfeiffer Vacuum stands for high-quality vacuum technology, a comprehensive and complete range of top-quality products and first-class service. With this expertise, we have acquired a multitude of skills contributing to an efficient and secure implementation of our product.

Knowing that our product must not interfere with your actual work, we are convinced that our product offers you the solution that supports you in the effective and trouble-free execution of your individual application.

Please read these operating instructions before putting your product into operation for the first time. If you have any questions or suggestions, please feel free to contact <u>info@pfeiffer-vacuum.de</u>.

Further operating instructions from Pfeiffer Vacuum can be found in the <u>Download Center</u> on our website.

#### **Disclaimer of liability**

These operating instructions describe all models and variants of your product. Note that your product may not be equipped with all features described in this document. Pfeiffer Vacuum constantly adapts its products to the latest state of the art without prior notice. Please take into account that online operating instructions can deviate from the printed operating instructions supplied with your product.

Furthermore, Pfeiffer Vacuum assumes no responsibility or liability for damage resulting from the use of the product that contradicts its proper use or is explicitly defined as foreseeable misuse.

### Copyright

This document is the intellectual property of Pfeiffer Vacuum and all contents of this document are protected by copyright. They may not be copied, altered, reproduced or published without the prior written permission of Pfeiffer Vacuum.

We reserve the right to make changes to the technical data and information in this document.

## **Table of contents**

1	About this manual	4
	1.1 Validity	4
	1.1.1 Applicable documents	4
	1.1.2 Variants	4
	1.2 Target group	4
	1.3 Conventions	4
	1.3.1 Instructions in the text	4
	1.3.2 Pictographs	4
	1.3.3 Stickers on the product	5
	1.3.4 Abbreviations	5
2	Safety	6
	2.1 General safety information	6
	2.2 Safety instructions	6
	2.3 Safety precautions	8
	2.4 Product usage limits	8
	2.5 Proper use	8
	2.6 Foreseeable improper use	8
	2.7 Personnel qualification	9
3	Product description	10
	3.1 Function	10
	3.2 Identifying the product	10
	3.3 Scope of delivery	10
4	Storage	11
5	Installation	12
	5.1 Remove oil duct cover	13
	5.2 Install oil filter	13
	5.3 Establish electric connection	14
	5.4 Install operations monitoring	15
6	Operation	17
7	Maintenance	18
	7.1 Maintenance information	18
	7.2 Replacing the filter cartridge	18
8	Recycling and disposal	20
-	8.1 General disposal information	20
	8.2 Dispose of oil filter	20
9	Service solutions by Pfeiffer Vacuum	21
10	Spare parts	23
11	Accessories	24
	11.1 Accessory information	24
	11.2 Order accessories	24
12	Technical data and dimensions	25
	12.1 Technical data	25
	12.2 Dimensions	25

## **1** About this manual



IMPORTANT

Read carefully before use. Keep the manual for future consultation.

## 1.1 Validity

This operating instructions is a customer document of Pfeiffer Vacuum. The operating instructions describe the functions of the named product and provide the most important information for the safe use of the device. The description is written in accordance with the valid directives. The information in this operating instructions refers to the product's current development status. The document shall remain valid provided that the customer does not make any changes to the product.

### 1.1.1 Applicable documents

Document	Number
Operating instructions for "Rotary vane pump UNO 35/65   DUO 35/65"	PK0168 BN

You can find this document in the Pfeiffer Vacuum Download Center.

#### 1.1.2 Variants

• OFM 35/65, mechanical oil filter

### 1.2 Target group

These operating instructions are aimed at all persons performing the following activities on the product:

- Transportation
- Setup (Installation)
- Usage and operation
- Decommissioning
- Maintenance and cleaning
- Storage or disposal

The work described in this document is only permitted to be performed by persons with the appropriate technical qualifications (expert personnel) or who have received the relevant training from Pfeiffer Vacuum.

## 1.3 Conventions

### 1.3.1 Instructions in the text

Usage instructions in the document follow a general structure that is complete in itself. The required action is indicated by an individual step or multi-part action steps.

#### Individual action step

A horizontal, solid triangle indicates the only step in an action.

This is an individual action step.

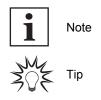
#### Sequence of multi-part action steps

The numerical list indicates an action with multiple necessary steps.

- 1. Step 1
- 2. Step 2
- 3. ...

### 1.3.2 Pictographs

Pictographs used in the document indicate useful information.



### 1.3.3 Stickers on the product

This section describes all the stickers on the product along with their meanings.

PFEIFFER	Rating plate (example)
D.35641 Assiar	The rating plate is located on the side of the filter carrier.
Mod. OFM 35/65 ModNr.: PK Z90 321 Made in Germany 2020/01	

Tbl. 1: Stickers on the product

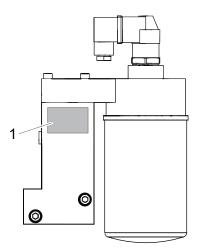


Fig. 1: Position of the stickers on the product

1 Rating plate

### 1.3.4 Abbreviations

Abbreviation	Meaning in this document
OFM	Oil filter, mechanical
WAF	Wrench size
n.o.	Normally open

Tbl. 2: Abbreviations used in this document

## 2 Safety

### 2.1 General safety information

The following 4 risk levels and 1 information level are taken into account in this document.

#### 

#### Immediately pending danger

Indicates an immediately pending danger that will result in death or serious injury if not observed.

Instructions to avoid the danger situation

#### **WARNING**

#### Potential pending danger

Indicates a pending danger that could result in death or serious injury if not observed.

Instructions to avoid the danger situation

#### 

#### Potential pending danger

Indicates a pending danger that could result in minor injuries if not observed.

Instructions to avoid the danger situation

#### NOTICE

#### Danger of damage to property

Is used to highlight actions that are not associated with personal injury.

Instructions to avoid damage to property



Notes, tips or examples indicate important information about the product or about this document.

### 2.2 Safety instructions

All safety instructions in this document are based on the results of the risk assessment. Where applicable, all life cycle phases of the product were taken into account.

#### **Risks during installation**

#### **WARNING**

#### Health hazard and risk of environmental damage from toxic contaminated operating fluid

Toxic process media can cause operating fluid contamination. When changing the operating fluid, there is a health hazard due to contact with poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Wear suitable personal protective equipment when handling these media.
- Dispose of the operating fluid according to locally applicable regulations.

#### **CAUTION**

#### Scalding from hot operating fluid

Danger of burns when draining operating fluid if it comes into contact with the skin.

- ► Wear protective equipment.
- Use a suitable collection receptacle.

#### **Risks during operation**

#### **A** CAUTION

#### Danger of burns on hot surfaces

Depending on the operating and ambient conditions, the surface temperature of the vacuum pump can increase to above 70  $^\circ\text{C}.$ 

Provide suitable touch protection.

#### **Risks during maintenance**

#### **WARNING**

#### Health hazard and risk of environmental damage from toxic contaminated operating fluid

Toxic process media can cause operating fluid contamination. When changing the operating fluid, there is a health hazard due to contact with poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Wear suitable personal protective equipment when handling these media.
- Dispose of the operating fluid according to locally applicable regulations.

#### **WARNING**

#### Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- Decontaminate affected parts before carrying out maintenance work.
- Wear protective equipment.

#### **A** CAUTION

#### Danger of burns on hot surfaces

Depending on the operating and ambient conditions, the surface temperature of the vacuum pump can increase to above 70  $^\circ\text{C}.$ 

Provide suitable touch protection.

#### **CAUTION**

#### Risk of burns due to hot oil filter and hot operating fluid

Risk of burns when removing the oil filter and changing the filter cartridge.

- Wear protective equipment.
- Allow the filter cartridge to cool down.

#### **Recycling and disposal**

#### **WARNING**

#### Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- Decontaminate affected parts before carrying out maintenance work.
- Wear protective equipment.

### 2.3 Safety precautions



#### Duty to provide information on potential dangers

The product holder or user is obliged to make all operating personnel aware of dangers posed by this product.

Every person who is involved in the installation, operation or maintenance of the product must read, understand and adhere to the safety-related parts of this document.



#### Infringement of conformity due to modifications to the product

The Declaration of Conformity from the manufacturer is no longer valid if the operator changes the original product or installs additional equipment.

 Following the installation into a system, the operator is required to check and re-evaluate the conformity of the overall system in the context of the relevant European Directives, before commissioning that system.

#### General safety precautions when handling the product

- ► Observe all applicable safety and accident prevention regulations.
- Check that all safety measures are observed at regular intervals.
- Do not carry out your own conversions or modifications on the unit.

### 2.4 Product usage limits

Parameter	OFM 35/35
Installation location	<ul> <li>Indoors, protected against:         <ul> <li>dust deposits</li> <li>falling objects</li> <li>fire-fighting water</li> </ul> </li> <li>Outdoors, protected against:         <ul> <li>falling objects</li> <li>falling objects</li> <li>direct influence of weather such as rain, splash water, strong drafts and sunlight</li> <li>fire-fighting water</li> <li>lightning strike</li> </ul> </li> </ul>
Ambient temperature	12 °C – 40 °C
Relative humidity of air	≤ 85 % not condensing
Mounting orientation vertical	

Tbl. 3: Permissible ambient and operating conditions

### 2.5 Proper use

- ▶ Insert the oil filter for filtering the operating fluid of Pfeiffer Vacuum rotary vane pumps.
- ► Adhere to the installation, commissioning, operating, and maintenance instructions.
- ► Use the oil filter that matches the rotary vane pump's pumping speed.
- Only operate the oil filter with the intended rotary vane pumps.

#### 2.6 Foreseeable improper use

Improper use of the product invalidates all warranty and liability claims. Any use that is counter to the purpose of the product, whether intentional or unintentional, is regarded as improper use; in particular:

- Connecting to vacuum pumps and units that are not designed for this purpose according to their operating instructions
- Connecting to units with exposed live parts
- Use of accessories or spare parts not listed in these instructions
- · Use in potentially explosive areas

## 2.7 Personnel qualification

The work described in this document may only be carried out by persons who have appropriate professional qualifications and the necessary experience or who have completed the necessary training as provided by Pfeiffer Vacuum.

#### Training people

- 1. Train the technical personnel on the product.
- 2. Only let personnel to be trained work with and on the product when under the supervision of trained personnel.
- 3. Only allow trained technical personnel to work with the product.
- 4. Before starting work, make sure that the commissioned personnel have read and understood these operating instructions and all applicable documents, in particular the safety, maintenance and repair information.

## 3 Product description

### 3.1 Function

The OFM 35/65 mechanical oil filter cleans the operating fluid of a rotary vane pump to remove process-related contamination such as dust and particles. Using an oil filter extends the service life of the operating fluid and reduces wear on the rotary vane pump. An integrated bypass valve ensures the operating fluid supply to the rotary vane pump in case of excessive contamination of the oil filter. A visual pollution indicator shows the degree of pollution. Alternatively, the electrical signal output of the pollution indicator is used for remote monitoring. You can optionally use a pressure switch for operations monitoring.

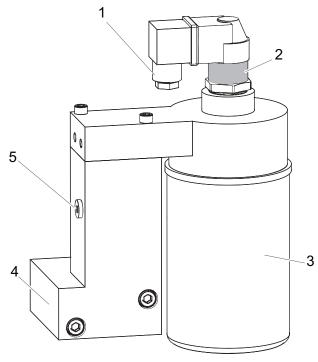


Fig. 2: Structure of oil filter

- 1 Electrical connection
- 2 Pollution indicator3 Mechanical filter cartridge
- 4 Filter carrier
- 5 Connector for operations monitoring

## 3.2 Identifying the product

► To ensure clear identification of the product when communicating with Pfeiffer Vacuum, always keep all of the information on the rating plate to hand.

## 3.3 Scope of delivery

- OFM 35/65 pre-assembled:
  - 1x mechanical filter cartridge
  - Pollution indicator
  - O-ring
  - Fixing screws with nuts
- Operating instructions

## 4 Storage



### Storage

Pfeiffer Vacuum recommends storing the products in their original transport packaging.

#### Oil filter storage

The filter cartridge absorbs moisture; this impacts on the lubricating property of the operating fluid; the final pressure increases as a result.

- 1. Store the oil filter only in dry, dust-free rooms, within the specified ambient conditions.
- 2. Hermetically seal the oil filter together with a drying agent in a plastic bag if high humidity levels occur during storage.

## **5** Installation

#### **WARNING**

#### Health hazard and risk of environmental damage from toxic contaminated operating fluid

Toxic process media can cause operating fluid contamination. When changing the operating fluid, there is a health hazard due to contact with poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Wear suitable personal protective equipment when handling these media.
- Dispose of the operating fluid according to locally applicable regulations.

#### **A** CAUTION

#### Scalding from hot operating fluid

Danger of burns when draining operating fluid if it comes into contact with the skin.

- Wear protective equipment.
- Use a suitable collection receptacle.

#### NOTICE

#### Damage due to an insufficient supply of operating fluid

After installation, there is a risk of the vacuum system being insufficiently lubricated.

- ▶ Increase operating fluid amount to correspond with the oil filter's filling quantity after installation.
- Check the operating fluid level at the sight glass on the vacuum pump during operation.

#### Prerequisites

- Vacuum pump switched off
- Vacuum pump vented to atmospheric pressure
- · Vacuum pump has cooled so that it can be touched
- Operating fluid drained
- Lock nuts removed

#### **Required consumables**

Operating fluid

#### **Required tools**

- Allen key, WAF 5
- Allen key, WAF 6
- Socket key, WAF 24
- Crosshead screwdriver, size 1
- Calibrated torque wrench (tightening factor ≤ 2.5)

#### **Required aids**

- Collection receptacle
- Cleaning cloth
- Funnel (optional)

#### Remove oil duct cover 5.1

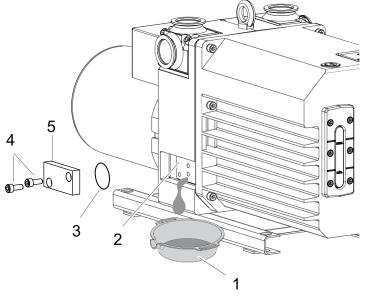


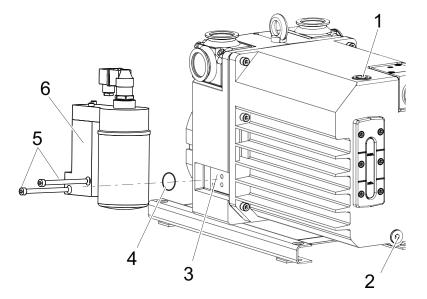
Fig. 3: Remove oil duct cover

- Collection receptacle 1
- 2 3 Screw-on surface
- Interior hexagon socket screw (2x) 4 5 Oil duct cover
- O-ring

#### Remove oil duct cover

- 1. Place a collection receptacle below the oil duct cover.
- 2. Unscrew and remove the screws from the oil duct cover.
- 3. Remove the oil duct cover from the screw-on surface.
- 4. Remove the O-ring.
- 5. Clean the screw-on surface.

## 5.2 Install oil filter



#### Fig. 4: Install oil filter

- 1 Filler screw
  - Drain screw
- 2 3 Screw-on surface
- 4 O-ring
- Interior hexagon socket screw (2x) Filter carrier with filter cartridge 5
  - 6

#### Procedure

- Locate the filter carrier on the screw-on surface.
   Be careful with O-ring.
- Use the interior hexagon socket screws to fasten the filter carrier onto the rotary vane pump.
   Tightening torque: 10 Nm.
- 3. Screw in the drain screw and O-ring.
  - Tightening torque: 6 Nm.
- 4. Fill the vacuum pump with lubricant up to the marks on the sight glass.
- 5. Fill with additional operating fluid in line with the oil filter capacity.
- 6. Screw in the filler screw and O-ring.
  - Tightening torque: 6 Nm.

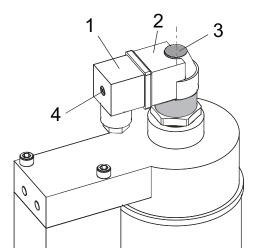
## 5.3 Establish electric connection

#### M S Q E

#### Adjustment options

- Connector assembly can be installed 90° increments.
- The upper part can be continuously rotated after loosening the crosshead screw below the closing cap.

In addition to a visual inspection, you can additionally use a switching signal to monitor the oil filter's degree of pollution.



#### Fig. 5: Establish electric connection

- Connector assembly
   Upper part of pollution indicator
- 3 Sealing plug for crosshead screw for axial rotation
- 4 Crosshead screw

#### Establish electric connection

- 1. Remove the connector assembly from the pollution indicator.
- 2. Establish the electric connection.
- 3. Install the connector assembly on the pollution indicator.
- 4. Loosen the crosshead screw below the sealing plug.
- 5. Rotate the upper part to the desired position.
- 6. Tighten crosshead screw in upper part.
- 7. Seal the hole with the sealing plug.

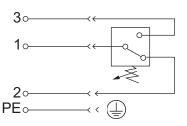


Fig. 6: Connect connector assembly

Pin 1	Input
Pin 2	Signal output: Filter ready for operation

3	Signal output: Degree of pollution increased
PE	Grounding

Parameter	Value
Contact	Changeover
Switching current V AC	5 A
Switching voltage	250 V AC
Protection degree	IP65

Tbl. 4: Connection data for pollution indicator

## 5.4 Install operations monitoring



#### **Pressure switch function**

The pressure switch monitors operation of the rotary vane pump; it is not used to monitor the oil filter.

Optionally install operations monitoring to monitor the rotary vane pump's pressure. Operations monitoring consists of a pressure switch. The contact in the pressure switch opens when the pressure drops and when the rotary vane pump is at a standstill. The signal is used to control external valves.

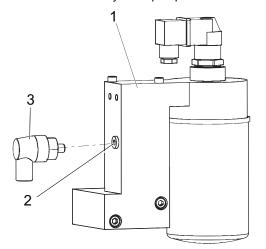
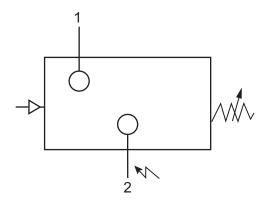


Fig. 7: Screw in pressure switch

- Filter carrier
   Connector for operations monitoring
- 3 Pressure switch with protective cap

#### Procedure

- 1. Remove the protective cap.
- 2. Unscrew and remove the screw at the operations monitoring connector.
- 3. Screw the pressure switch and O-ring into the filter carrier.
  - Tightening torque: 6 Nm



#### Fig. 8: Connect pressure switch electrics

- 1 Normally closed, pressureless open 2 Normally
- 2 Normally closed, pressureless open

#### **Connect pressure switch electrics**

- 1. Connect the pressure switch electrics.
- 2. Install the protective cap.

Parameter	Value
Operating voltage	5 – 250 V
Max. current	2 A
Protection degree	IP 55
Contact	Normally open

#### Tbl. 5: Connection data for pressure switch

## 6 Operation

#### **A** CAUTION

#### Danger of burns on hot surfaces

Depending on the operating and ambient conditions, the surface temperature of the vacuum pump can increase to above 70  $^\circ\text{C}.$ 

Provide suitable touch protection.

Г	•	
	_	

#### Pollution indicator

After a cold start of the rotary vane pump, the oil filter's flow resistance is initially higher. The increased oil pressure is temporary and not caused by a polluted oil filter.

• The rotary vane pump must be at operating temperature for the indication of pollution to be decisive.



#### Checking the fill level

The correct fill level is between the MIN/MAX markings or within the ring mark on the sight glass.

#### Prerequisites

- Vacuum pump switched on
- Vacuum pump heated to operating temperature

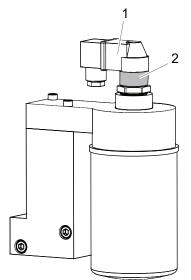


Fig. 9: Check degree of pollution

1 Switching contact 2 Visual pollution indicator

#### Check degree of pollution

- 1. Check the oil filter's degree of pollution at the pollution indicator every day.
- Replace the filter cartridge if the pollution indicator continuously indicates red and the signal output correspondingly continuously switches to pin 3.

Visual pollution indicator	Switching contact	Meaning
green	Signal output at pin 2	Filter ready for operation
red	Signal output at pin 3	Degree of pollution increased, filter polluted

Tbl. 6:	Status of visual/electrical pollution indicator
---------	---

## 7 Maintenance

### 7.1 Maintenance information

#### **WARNING**

#### Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- Decontaminate affected parts before carrying out maintenance work.
- ► Wear protective equipment.

#### **WARNING**

Health hazard and risk of environmental damage from toxic contaminated operating fluid

Toxic process media can cause operating fluid contamination. When changing the operating fluid, there is a health hazard due to contact with poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Wear suitable personal protective equipment when handling these media.
- Dispose of the operating fluid according to locally applicable regulations.

#### **A** CAUTION

#### Danger of burns on hot surfaces

Depending on the operating and ambient conditions, the surface temperature of the vacuum pump can increase to above 70  $^\circ\text{C}.$ 

Provide suitable touch protection.

### **CAUTION**

#### Risk of burns due to hot oil filter and hot operating fluid

Risk of burns when removing the oil filter and changing the filter cartridge.

- Wear protective equipment.
- Allow the filter cartridge to cool down.

### NOTICE

#### Damage due to an insufficient supply of operating fluid

After installation, there is a risk of the vacuum system being insufficiently lubricated.

- ► Increase operating fluid amount to correspond with the oil filter's filling quantity after installation.
- Check the operating fluid level at the sight glass on the vacuum pump during operation.

## 7.2 Replacing the filter cartridge

#### Prerequisites

- Pollution indicator continuously indicates red
- Continuous signal output at pin 3
- Vacuum pump switched off
- Vacuum pump vented to atmospheric pressure
- Vacuum pump has cooled so that it can be touched
- Oil filter has cooled so that it can be touched

#### **Required consumables**

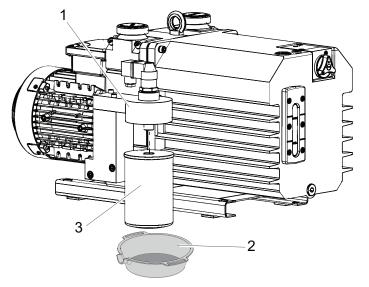
- Mechanical filter cartridge
- Operating fluid of rotary vane pump

#### **Required tool**

• Strap wrench

#### **Required aids**

- Cleaning cloth
- Collection receptacle



#### Fig. 10: Replacing the filter cartridge

- 1 Filter carrier 3 Mechanical filter cartridge
- 2 Collection receptacle

#### Procedure

- 1. Place a collection receptacle below the filter.
- 2. Use the strap spanner to unscrew the filter cartridge counterclockwise and remove from the filter carrier.
- 3. Lightly oil the seal on the new filter cartridge with the operating fluid utilized.
- 4. Clean the filter carrier.
- 5. Screw the new filter cartridge into the filter carrier until hand tight.
- 6. Fill with additional operating fluid in line with the oil filter capacity.

## 8 Recycling and disposal

#### **WARNING**

#### Health hazard through poisoning from toxic contaminated components or devices

Toxic process media result in contamination of devices or parts of them. During maintenance work, there is a risk to health from contact with these poisonous substances. Illegal disposal of toxic substances causes environmental damage.

- Take suitable safety precautions and prevent health hazards or environmental pollution by toxic process media.
- Decontaminate affected parts before carrying out maintenance work.
- Wear protective equipment.



#### **Environmental protection**

You **must** dispose of the product and its components in accordance with all applicable regulations for protecting people, the environment and nature.

- Help to reduce the wastage of natural resources.
- Prevent contamination.



#### **Environmental protection**

The product and its components **must be disposed of in accordance with the applicable regulations relating to environmental protection and human health**, with a view to reducing natural resource wastage and preventing pollution.

## 8.1 General disposal information

Pfeiffer Vacuum products contain materials that you must recycle.

- Dispose of our products according to the following:
  - Iron
  - Aluminium
  - Copper
  - Synthetic
  - Electronic components
  - Oil and fat, solvent-free
- Observe the special precautionary measures when disposing of:
  - Fluoroelastomers (FKM)
  - Potentially contaminated components that come into contact with media

## 8.2 Dispose of oil filter

Pfeiffer Vacuum accessories contain materials that must be recycled.

- 1. Remove the oil filter from the rotary vane pump.
- 2. Separate the components into recyclable materials.
- 3. Recycle the non-contaminated components.
- 4. Dispose of the product or components safely according to locally applicable regulations.

## 9 Service solutions by Pfeiffer Vacuum

#### We offer first-class service

High vacuum component service life, in combination with low downtime, are clear expectations that you place on us. We meet your needs with efficient products and outstanding service.

We are always focused on perfecting our core competence – servicing of vacuum components. Once you have purchased a product from Pfeiffer Vacuum, our service is far from over. This is often exactly where service begins. Obviously, in proven Pfeiffer Vacuum quality.

Our professional sales and service employees are available to provide you with reliable assistance, worldwide. Pfeiffer Vacuum offers an entire range of services, from <u>original replacement parts</u> to <u>service</u> <u>contracts</u>.

#### Make use of Pfeiffer Vacuum service

Whether preventive, on-site service carried out by our field service, fast replacement with mint condition replacement products, or repair carried out in a <u>Service Center</u> near you – you have various options for maintaining your equipment availability. You can find more detailed information and addresses on our homepage, in the <u>Pfeiffer Vacuum Service</u> section.

#### You can obtain advice on the optimal solution for you, from your <u>Pfeiffer Vacuum representa-</u> tive.

#### For fast and smooth service process handling, we recommend the following:



- 1. Download the up-to-date form templates.
  - Explanations of service requests
  - Service requests
  - <u>Contamination declaration</u>
- a) Remove and store all accessories (all external parts, such as valves, protective screens, etc.).
- b) If necessary, drain operating fluid/lubricant.
- c) If necessary, drain coolant.
- 2. Complete the service request and contamination declaration.



3. Send the forms by email, fax, or post to your local Service Center.

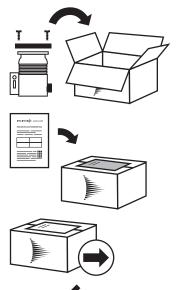


PFEIFFER VACUUN

4. You will receive an acknowledgment from Pfeiffer Vacuum.

#### Submission of contaminated products

No microbiological, explosive, or radiologically contaminated products will be accepted. Where products are contaminated, or the contamination declaration is missing, Pfeiffer Vacuum will contact you before starting service work. Depending on the product and degree of pollution, **additional decontamination costs** may be incurred.



PFEIFFER VACUUM

- Prepare the product for transport in accordance with the provisions 5. in the contamination declaration.
- a) b)
- Neutralize the product with nitrogen or dry air. Seal all openings with blind flanges, so that they are airtight.
- c) Shrink-wrap the product in suitable protective foil.d) Package the product in suitable, stable transport containers only.
- e) Maintain applicable transport conditions.
- 6. Attach the contamination declaration to the outside of the packaging.
- 7. Now send your product to your local Service Center.
- 8. You will receive an acknowledgment/quotation, from Pfeiffer Vacuum.

Our sales and delivery conditions and repair and maintenance conditions for vacuum devices and components apply to all service orders.

## **10** Spare parts

Designation	Order number
Maintenance kit OFM 35/65 - filter cartridge	PK E27 008 -T
Pollution indicator OFC/OFM	P 0105 428

Tbl. 7: Spare parts OFM 35/65

## **11 Accessories**

## 11.1 Accessory information

#### Oil pressure switch

The oil pressure switch monitors operation of the rotary vane pump.

## 11.2 Order accessories

Description	Order number
Oil Pressure Switch	PK 223 806 -T

Tbl. 8: Accessories

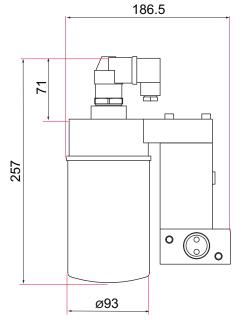
## 12 Technical data and dimensions

## 12.1 Technical data

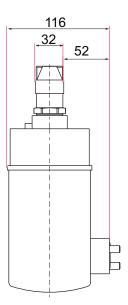
Selection field	OFM 35/65, mechanical oil filter
Type designation	OFM 35/65
Part number	PK Z90 321
For	Duo 35/65
For pumping speed up to	70 m³/h
Grade of filtration	12 μm
Contact	Two-way contact
Switching current V AC	5 A
Switching voltage	250 V AC
Protection degree	IP65
Capacity mech. filter	0.81
Switch-point	2000 hPa
Weight	3.2 kg

Tbl. 9: Technical data for OFM 35/65

## 12.2 Dimensions







## **VACUUM SOLUTIONS FROM A SINGLE SOURCE**

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, technological perfection, competent advice and reliable service.

## **COMPLETE RANGE OF PRODUCTS**

From a single component to complex systems: We are the only supplier of vacuum technology that provides a complete product portfolio.

## **COMPETENCE IN THEORY AND PRACTICE**

Benefit from our know-how and our portfolio of training opportunities! We support you with your plant layout and provide first-class on-site service worldwide.

Are you looking for a perfect vacuum solution? Please contact us

**Pfeiffer Vacuum GmbH** Headquarters • Germany T +49 6441 802-0 info@pfeiffer-vacuum.de

www.pfeiffer-vacuum.com

