

**PFEUFFER**

# Operating Instructions



## Sample Divider Model 8 / 32



Model 8



Model 32

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Translation of the original operating instructions

Item no. operating instructions:  
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These Operating Instructions are a constituent part of the *Sample Divider Model 8 / 32* and must be available to all operating personnel at all times. They are intended for the operating company of the system, the operating personnel and the specialists who are responsible for the transport, assembly, installation, operation, maintenance, cleaning, disassembly and disposal.

The Pfeuffer GmbH has prepared and reviewed these Operating Instructions with the greatest care. However, no guarantee is made for its completeness or accuracy.

Subject to technical modifications.

### **Translation**

If the system is being supplied or subsequently sold to countries of the EEA, the Operating Instructions must be translated into the language of the country of use accordingly. If there are any discrepancies with the translated text, then use the original Operating Instructions (German version) or contact the manufacturer.

### **Operating Instructions in electronic format**

PDFs of the original Operating Instructions (German version) and translations of the original Operating Instructions can be requested by e-mail. Ensure the correct type designation and serial number is stated!

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(DIN ISO 16016)

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## 1 Introduction

### 1.1 Intendend use

The *Sample Divider Model 8 / 32* is used for dividing up samples of grain-like crops (agricultural seed) into eight or thirty-two sub-samples. The division procedure is used for achieving representative sub-samples. The *Sample Divider* is used for the preparation of homogeneous interlaboratory samples. Also for the preparation of internal control samples needed for regular comparison measurements. The sample is completely distributed, resulting in no excess amount. Due to the large number of passed openings during the passage of the sample, the *Sample Divider* achieves a very good statistical distribution of the different sample components.

The *Sample Divider* is designed as a portable machine with a power plug for interiors. The device may not be used as a production machine or put into continuous operation.

Private use of the machine is prohibited.

### NOTICE

The *Sample Divider Model 8 / 32* was designed solely for the aforementioned purpose.

Using it for any other purpose or modifying it without the written consent of the Pfeuffer GmbH is not considered to be in compliance with the intended use. The Pfeuffer GmbH shall not be liable for the resulting damage. Damage caused by such an unintended use is at the sole risk of the operator.

The *Sample Divider* is allowed to be operated only if it is ensured that all the safety devices are functional and the system in which this machine is installed complies with the EU directives.

**The *Sample Divider* is not suitable for the division of**

- **flour, dust and grit**
- **liquid, sticky and oily products**
- **objects made of metal, stone, concrete, plastic or other foreign components**

The samples to be used for the correct operation of the *Sample Divider* are provided by the operator.

The operator bears sole responsibility for the proper handling of these materials and the associated dangers.

Hazard notes and instructions for disposal must be provided by the operator.

Intended use includes also the compliance with the Instruction Manual and User's Guide as well as the maintenance and servicing conditions, as specified in these Operating Instructions.

These Operating Instructions do not relieve the operating company of the obligation to develop and to apply independent health and/or safety regulations or safe working processes which are aimed at the requirements of the overall machine, as well as the obligation to monitor their compliance.

### 1.2 Design characteristics of hazard warnings

The Pfeuffer GmbH Operating Instructions contain information which must be observed for the sake of your personal safety and to avoid damage to property. Information concerning your personal safety is shown by means of a triangle. Note the following categories of hazard warnings and explanation of symbols:

Pictogram



#### SIGNAL WORD

Type of hazard and its source.

Possible result of its disregard.

⇒ Measure to ward off the hazard.

**DANGER**

warns against a very dangerous situation that results in death or serious injuries.

**WARNING**

warns against a dangerous situation that can potentially result in death or serious injuries.












**CAUTION**

warns against a potentially dangerous situation that results in minor or moderate injuries.

**NOTICE**

warns against situations that are dangerous for the product and/or the environment.

**1.3 Pictograms in the Operating Instructions**

|   |   |   |                                |
|---|---|---|--------------------------------|
|    | Remarks of special importance and/or additional information |    | Warning                        |
|  | Follow the Operating Instructions                           |  | Warning – Electrical Voltage   |
|  | Pull the mains plug   |  | Warning – Hand injuries        |
|  | Earth conductor   |  | Warning – Automatic start      |
|  | Recycling marking – Supply refuse for recycling             |  | Warning – Tipping and Crushing |
|  | Disposal with normal household waste is prohibited!         |   |                                |

**1.4 Designation**

The information provided in these Operating Instructions applies only for the machine whose type designation is specified on the title page.

The identification plate with the type designation is located on the machine housing.

Correct information of type designation, serial number and year of manufacture is important for all queries. This ensures fast processing.

**1.5 Declaration of Conformity**



**EC/EU Declaration of Conformity**

In accordance with the EC/EU Directives:

- Machinery 2006/42/EC
- Electromagnetic Compatibility (EMC) 2014/30/EU
- Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU

Manufacturer: **PFEUFFER**

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 97318 Kitzingen  
 GERMANY

Phone: +49 9321 9369-0  
 info@pfeuffer.com  
 www.pfeuffer.com

The manufacturer has sole responsibility for issuing this Declaration of Conformity.

Person authorized to compile technical documents:

Lothar Pfeuffer, General Manager

Product: Sample Divider

Type:  **Model 8**  **Model 32**

Serial number: \_\_\_\_\_

The product mentioned above fulfils the requirements of the following applicable standards:

DIN EN ISO 12100:2011-03+A1:2013

DIN EN 61000-6-2:2019-11

DIN EN 61000-6-3:2011-09+A1:2012-11

EN IEC 63000:2018

This declaration shall become null and void should any alterations be made to the machine without our approval.

Kitzingen, \_\_\_\_\_

\_\_\_\_\_  
Lothar Pfeuffer, General Manager

**2 Safety**

**NOTICE**

**It is strictly forbidden to disable the safety devices or to change their mode of operation.**

**2.1 Installed safety systems**

The installed safety systems must be checked with corresponding test methods at regular testing intervals; refer to the following table:

| Test intervals   | Test methods   |
|--|--|
| <b>d</b> = daily<br><b>w</b> = weekly<br><b>m</b> = monthly<br>$\frac{1}{4}$ <b>y</b> = quarterly<br>$\frac{1}{2}$ <b>y</b> = half-yearly<br><b>y</b> = yearly | <b>VI</b> = visual inspection<br><b>FT</b> = functional test<br><b>M</b> = measurement |

**Supply isolating device (plug/socket combination)**

| Test     |           |
|----------|-----------|
| Interval | Method    |
| <b>y</b> | <b>FT</b> |

The plug/socket combination simultaneously functions as an EMERGENCY STOP device.

⇒ In an emergency, switch off the *Sample Divider* using the main switch in the **OFF** position.



⇒ Disconnect the *Sample Divider* from the electrical power supply.

⇒ Secure the plug suitably against unauthorized re-plugging by placing it where it can remain under constant supervision.

⇒ Ensure that the mains cable is never a tripping hazard or that someone can become caught or step on it.



Electrical connections, see **chapter 2.2**.



Set the plug/socket combination in such a way that it can be easily seen and is quickly accessible in case of an emergency.

**System control**

| Test     |                  |
|----------|------------------|
| Interval | Method           |
| <b>y</b> | <b>VI, FT, M</b> |

The system is controlled internally with a supply system, a phase and an earth connection (with green/yellow covering for the wires).

**Protective caps**

| Test     |           |
|----------|-----------|
| Interval | Method    |
| <b>m</b> | <b>VI</b> |

During the operation, *Sample Divider* is protected against interference affecting the machine using protective caps.



Figure 1: Overview – Protective caps Model 8

| Pos. | Name               |
|------|--------------------|
| 1    | Removable lid      |
| 2    | Solid screwed case |

## 2.2 Electrical connections



The *Sample Divider* may only be operated with the specified voltages. The device may only be connected to a properly earthed socket with a protective earth conductor.

## 2.3 Operating and hazard areas associated with the machine

### Operating area

Ensure a sufficient working height (depending on the body size of the operating personnel) of approximately 60-65 cm. For this, a suitable base frame is necessary so that the operating personnel can access the collecting pans ergonomically.

### Hazard area

The entire area of one meter around the machine is dangerous during adjustment, maintenance and repair work. Do not keep any objects around the machine.

## 2.4 Operating and maintenance personnel

Operating and maintenance personnel are responsible for transport, assembly, installation, operation and cleaning of the *Sample Divider* as well as for fault rectification.

1. The *Sample Divider* is allowed to be operated by authorized personnel and instructed persons only.
2. The responsibilities associated with operating the machine must be clearly defined and adhered to so that there are no unclear competencies concerning safety.
3. The deactivation procedures specified in these Operating Instructions must be adhered to for all tasks (operation, maintenance, repairs etc.) refer to **chapter 2.9**.
4. The operator must forbid all the methods of operation that compromise the safety levels associated with the *Sample Divider*.
5. The operator must also ensure that only authorized persons work on the *Sample Divider*.
6. The operator is obliged to immediately inform the operating company about changes in the *Sample Divider* that compromise safety.
7. The operator must provide the operating personnel with the appropriate protective equipment in accordance with the legal obligations and the material to be processed.
8. The operator must regularly demand that the personal safety equipment is used. The operator must also monitor the usage of this equipment.



## 2.5 Safety measures (to be implemented by the operating company)

It is noted that the operating company

- ⇒ trains the operating and maintenance personnel with regard to the safety devices of the *Sample Divider*.
- ⇒ and monitors their compliance with the safety measures.

The frequency of functional tests described in **chapter 8.2** must be adhered to.

The tasks described in these Operating Instructions are listed in such a way that they are

- ⇒ understood by the operating personnel (with regard to the Function and Operation chapters).
- ⇒ understood by skilled personnel (with regard to the chapters Delivery, transport and storage, installation and commissioning, maintenance and cleaning, disruptions – causes and their rectification and Dismantling and disposal).

The chapters Delivery, transport and storage, installation and commissioning, maintenance and cleaning, disruptions – causes and their rectification and Dismantling and disposal are only intended for **skilled personnel**. Tasks that are described in these chapters must be carried out by **skilled personnel** only.

### Instructed person

A person who has been instructed and, if necessary, trained by a **skilled worker** about the assigned tasks and possible dangers in case of improper behavior, and how has been instructed about the necessary safety devices and safety measures.

### Skilled worker

An individual who is proficient in identifying risks and avoiding hazards that can occur when using the product, on account of their relevant professional training, education and/or experience.  
(Definition as per DIN EN 82079-1:2013-06)

### Qualified electrician

Person who is in a position to carry out work on electrical systems and independently recognize potential dangers on the basis of their technical training, knowledge and experience and knowledge of the relevant standards and provisions. Qualified electricians are specially trained for the working environment in which they work and have knowledge of the relevant standards and provisions.

### Obligations of the operator



In the European Economic Area (EEA), the national implementation of framework directive 89/391/EEC and the relevant specific directives (especially directive 2009/104/EC "about the minimum requirements for safety and health protection in case of the use of equipment by workers") must be considered and adhered to, with regard to the version that is currently valid.

In addition, he/she must comply with the local legal requirements on:

- ⇒ Safety of personnel (accident prevention regulations)
- ⇒ Accident prevention regulation DGUV<sup>1</sup> Regulation 3 (previously BGV A 3) "Electrical systems and equipment"
- ⇒ Safety of work equipment (protective equipment and maintenance)
- ⇒ The permissible noise load, depending on the location and the time of day (in Germany, TRLV<sup>2</sup> apply)

<sup>1</sup> DGUV = Association of German statutory insurance

<sup>2</sup> TRLV = Technical rule for the noise and vibration occupational health and safety ordinance

- ⇒ Product and material disposal (waste legislation)
- ⇒ Cleaning (cleaning agents and disposal)
- ⇒ Hazardous substances (in Germany, TRGS<sup>3</sup> 555 apply)
- ⇒ Environmental protection regulations.

## 2.6 General safety instructions



The safety equipment and safety instructions described in these Operating Instructions must be borne in mind.



1. Disconnect the *Sample Divider* from the mains in case of malfunctioning.
2. Disconnect the *Sample Divider* from mains before starting with the cleaning operation.
3. Do not let the *Sample Divider* get wet during transport, storage, cleaning and operation.
4. Make sure that you only use the *Sample Divider* when it is in a defect-free condition.
5. Never touch the mains cable with wet hands.
6. Always use original spare parts and accessories.

## 2.7 Safety tests

The following safety tests have been conducted by Pfeuffer GmbH at the plant:

Test and inspection as per standard DIN EN 60204-1:

- Inspection to verify that the electrical equipment complies with the technical documentation.
- Continuous connection of protective conductor system
- Insulation resistance tests
- Voltage tests
- Functional tests

The functions of the electric equipment, especially those that relate to safety and safety measures, have been tested.

## 2.8 Residual hazards associated with the Sample Divider

- ⇒ Pay attention to electrical hazards in case of all tasks that are to be carried out vis-a-vis electrically-operated components.
- ⇒ Be mindful of crushing hazards when setting up, servicing, repairing and operating the machine.
- ⇒ Make sure that the *Sample Divider* starts automatically when the mains plug is plugged in and the power supply is periodic.

---

<sup>3</sup> TRGS = Technical rule for hazardous substances

**2.9 Switch-off procedure**

**DANGER**



**Touching live parts can be fatal!**

The following deactivation procedure must be carried out before cleaning, maintaining or repairing the machine (only by skilled personnel):

⇒ Empty the *Sample Divider*.



⇒ Unplug the *Sample Divider* by disconnecting the power plug from the electrical power supply.

⇒ It must be possible to ensure that the plug remains under the direct supervision of the person in the hazardous area.

⇒ Make sure that water, vapor or dust cannot enter the electronic area when cleaning.

**3 Technical data**

|                                  |  |
|----------------------------------|--|
| <i>Sample Divider Model 8/32</i> | Division of all grain crops                                    |
| Sample quantity                  | approx. 1-8 kg   |
| Material/transported material    | Grains, peas, rape seed, maize and similar granular bulk goods |

**3.1 Power supply**

|                           |   |
|---------------------------|---|
| Supply voltage/Frequency  | 230 V <sub>AC</sub> , 50 Hz (115 V <sub>AC</sub> , 60 Hz on demand) |
| Power                     | 100 VA  |
| Power consumption         | 60 VA   |
| Number of phases          | 1 Ph / PE   |
| Earth conductor           | PE (green/yellow) in mains cable                                    |
| Frequency                 | ±1 %  |
| Installation instructions | Executed as per VDE   |

**3.2 Agitator (option)**

|                                      |                             |
|--------------------------------------|-----------------------------|
| Supply voltage/Frequency             | 230 V <sub>AC</sub> , 50 Hz |
| Power                                | 6 VA                        |
| Protection according to DIN EN 60529 | IP10                        |
| Installation instruction             | Executed as per VDE         |

**3.3 General data**

|   |                                |
|---|--------------------------------|
| Ambient temperature Storage and transport | -10 °C to +60 °C               |
| Ambient temperature during operation      | +5 °C to +40 °C                |
| Atmospheric humidity                      | 20 % to 80 % non-condensing    |
| Protection according to DIN EN 60529      | IP 10 (Housing), IP 54 (Motor) |

**3.4 Dimensions and weight**

|        | Model 8:      | Model 32:                                     |
|--------|---------------|---|
| Weight | approx. 50 kg | approx. 62.5 kg (with the 32 extension tubes) |

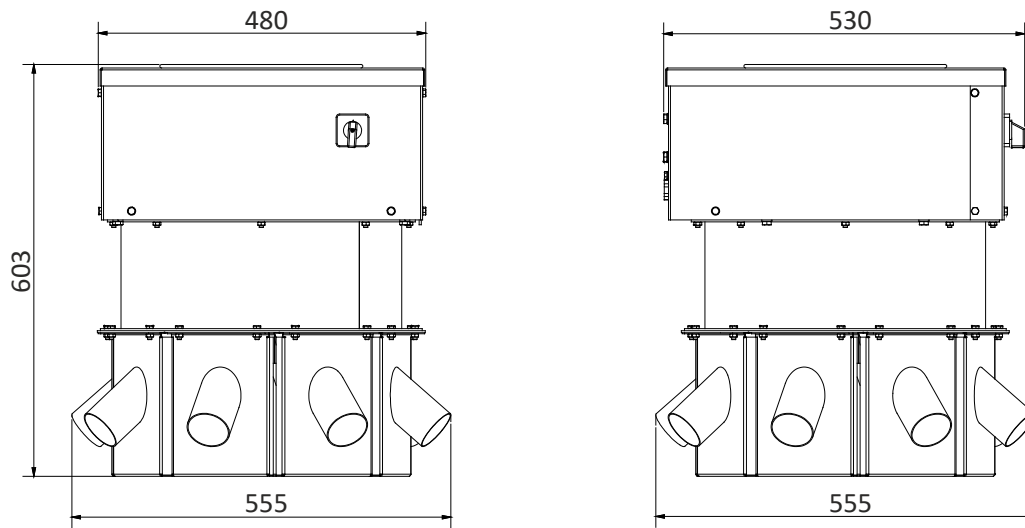


Figure 2: Dimensions Sample Divider Model 8

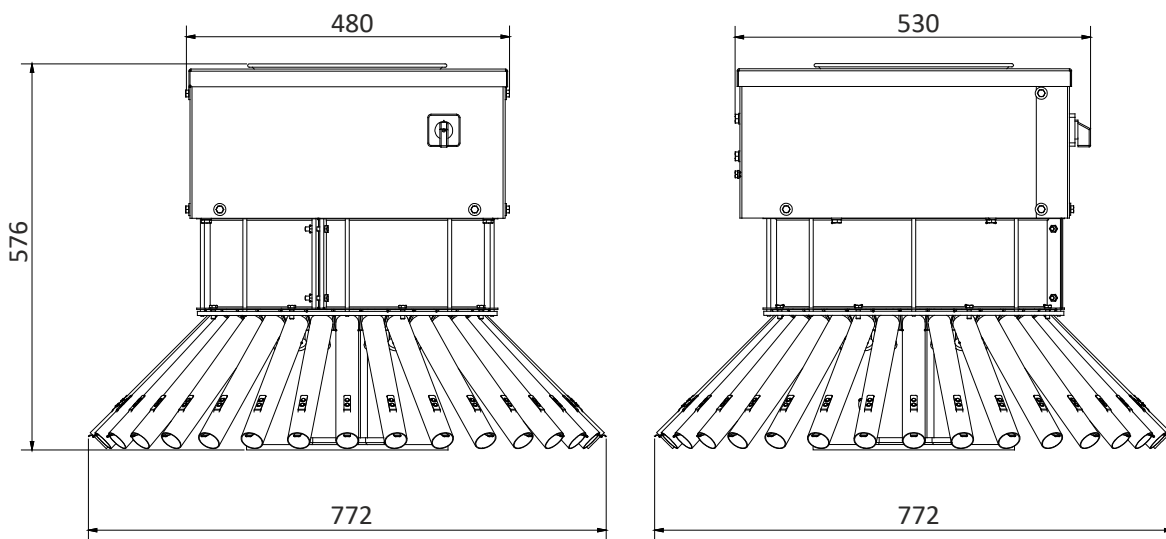


Figure 3: Dimensions Sample Divider Model 32

## 4 Delivery, transport and storage



The chapter delivery, transport and storage is intended for **skilled personnel** only.

### 4.1 Scope of delivery

The scope of delivery to the operator includes:

*Sample Divider Model 8* with standard funnel (capacity ca. 2 kg) Ø 48 mm / 12 kg/min and one operating instruction.

*Sample Divider Model 32* with standard funnel (capacity ca. 2 kg) Ø 48 mm / 12 kg/min, 32 stainless steel extension tubes and one operating instruction.

### 4.2 Transport and packaging

Systems and machines of Pfeuffer GmbH are carefully checked and packaged before dispatching. However, damages during the transport cannot be excluded.

#### Intake control

Run a completeness check using the delivery note.

#### In case of damages

Check the delivery for damages (visual inspection).

#### In case of complaints

If the delivery has been damaged during transport:

- ⇒ Retain the packaging (for the dispatcher to inspect or for return delivery).
- ⇒ Immediately inform the suppliers or Pfeuffer GmbH.

### 4.3 Temporary storage

Freight packaging of the *Sample Divider* and exchange parts and accessories is intended for a storage duration of six months upon delivery.

#### Storage conditions

Closed and dry room with a room temperature from minimum -10 °C to maximum +60 °C.

### 4.4 Transport to installation location (of customer)



The machine must be transported by skilled personnel only and in accordance with the local conditions and, if applicable, the information on the packaging material.

*Sample Divider* is supplied to the installation location of the customer on a transportation pallet.

## CAUTION

**The Sample Divider can tip over during transport!**

**No-one is allowed in the danger area!**

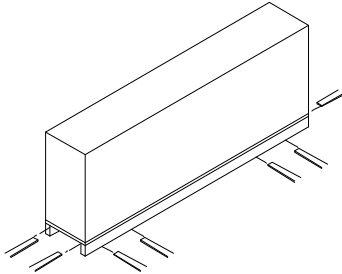


- ⇒ Pay attention to the center of gravity and the weight.
- ⇒ Secure the *Sample Divider* with appropriate slings before transport.
- ⇒ Keep an adequate safe distance.

**Transport with forklift truck**

Packing items that are packaged on pallets or in boxes can be transported by a crane under the following conditions:

- The crane and lifting equipment must be designed for the weight of the packing items.
- The operator must be authorized to use the crane.

**Lashing**

- ⇒ Drive so the tines of the forklift truck pass between or underneath the spars of the pallet/crate.  
The tines must protrude on the opposite side!

Figure 4: Diagram of transport by forklift

**Unpacking**

In order to avoid damages to the casing and other components,

- ⇒ Open the packaging by cutting the tension bands.
- ⇒ Remove the fibreboard cover and remove the styrofoam packaging elements.
- ⇒ Lift the *Sample Divider* with at least two people from the transport pallet.
- ⇒ Pay attention to the specific weight, see **chapter 3**.

**WARNING****Risk of suffocation**

Packaging materials (e.g. film, polystyrene, cardboard boxes) can be dangerous to children.



- ⇒ Keep packaging material away from children.
- ⇒ Do not leave packaging material lying around carelessly.
- ⇒ Dispose of packaging material in an environmentally friendly way.

**Packaging for return delivery**

- ⇒ If possible, use the original packaging and the original packaging material. If neither is available any longer, request new packaging from Pfeuffer GmbH.

## 5 Installation and commissioning



The chapter installation and commissioning is intended for **skilled personnel** only.

### Positioning of Sample Divider

- ⇒ Unpack the *Sample Divider* carefully (refer to **chapter 4.4**) and place it horizontally.
- ⇒ Ensure that a firm footing on a non-slip surface is provided.
- ⇒ Avoid exposure to direct sunlight and extreme ambient conditions.
- ⇒ Make sure that the installation height is ergonomic according to the stature of the operating personnel.



A correct horizontal positioning of the machine guarantees an even division of the grains.

- ⇒ Check if all the components are firmly secured.
- ⇒ Re-tighten all the screws and clamps.

### CAUTION



#### Unexpected automatic start of the Sample Divider!

If the operating switch is activated (**ON** position) and there is a periodic power supply, the *Sample Divider* starts up automatically.

- ⇒ Keep the operating switch in the **OFF** position, before connecting the *Sample Divider* to the electrical power supply.

- ⇒ Ensure that the mains cable is never a tripping hazard or that someone can become caught or step on it.



- ⇒ Insert the mains plug into a correctly-earthed socket with an earth conductor.

- ⇒ Activate the *Sample Divider* keeping in mind all the specifications given in **chapter 7**.

## 6 Functions

### 6.1 Components of Sample Divider



| Pos. | Name  |
|------|---|
| 1    | Filling funnel  |
| 2    | Machine cover   |
| 3    | Operating switch  |
| 4    | Housing of the rotary distributor with motor, timing belt and distributor arm |
| 5    | Housing with eight sample chambers  |
| 6    | Eight outlet tubes  |

Figure 5: Overview Sample Divider Model 8

### 6.2 Functional sequence

The *Sample Divider Model 8 / 32* is used for evenly dividing all grain-like crops.

Set the collecting trays under the outlet tubes. The machine starts up when you set the operating switch to **ON**. Pour the sample into the filling funnel in one movement.

The rotating distributor arm turns and passes the sample chambers. The partial samples reach the collecting trays via the outlet tubes.

## 7 Operation



*Sample Divider* is allowed to be operated by qualified and trained persons only.

### 7.1 ON/OFF operating switch

The **ON/OFF** operating switch starts and ends the dividing process.

### 7.2 Circumferential velocity

The distributor arm turns at a speed of 40 rpm in the dividing process.

There is no provision for adjusting the speed.

### 7.3 Division of samples

- ⇒ Place one collecting tray under each of the outlet tubes at the intended points.
- ⇒ Switch on the *Sample Divider* using the **ON** operating switch.
- ⇒ Pour the sample into the infeed funnel in one movement.
- ⇒ Once the entire sample has run through, set the operating switch to **OFF**.



- ⇒ Empty the collecting trays.
- ⇒ Repeat the process with a new sample.



When dividing maize, it will be necessary to use an agitator. You can obtain this from Pfeuffer GmbH, see **chapter 11**.

**NOTICE**

Make sure that no objects drop into the infeed funnel!  
 These could damage the *Sample Divider* when the dividing process starts.

**Dividing time**

The distributor arm of the *Sample Divider* turns at a speed of 40 rpm (revolutions per minute) in the dividing process. This means one rotation takes about 1.5 seconds (s). In each rotation, the eight outlets are passed over/loaded once.

In order to obtain a representative partial sample, it should consist of at least 40 individual samples. This means the following minimum dividing time must be observed for the various models:



The Pfeuffer GmbH recommends a dividing time of at least 60 seconds.

The time taken for each product to pass through can be influenced by the funnel outlet. The following accessories are available for this:

|                                   | Pass-through time depending on the product |
|-----------------------------------|--|
| Standard funnel Ø 48 mm           | approx. 12 kg/min                          |
| Funnel Ø 30 mm:                   | approx. 8 kg/min                           |
| Insert for funnel passage Ø 25 mm | approx. 4 kg/min                           |
| Insert for funnel passage Ø 20 mm | approx. 2 kg/min                           |



For the item numbers of the inserts to reduce the outlets on the funnel with Ø 30 mm, refer to **chapter 11**.

**8 Maintenance and cleaning**



The chapter maintenance and cleaning is intended for **skilled personnel** only.

**NOTICE**

Opening the housing and inappropriate operation will invalidate the warranty.

In order to guarantee a failure-free operation of the *Sample Divider*, it is absolutely necessary that the machine is regularly cleaned and maintained.



**DANGER**

**Touching live parts can be fatal!**



It is essential to comply with the switch-off procedure prior to cleaning, maintenance or repair work! (see **chapter 2.9**)

- ⇒ During all work that is required, wear personal protective equipment according to the company health and safety regulations.
- ⇒ Pay attention to local statutory accident prevention regulations!



The times for carrying out cleaning and maintenance work are based on one-shift working (8 hour/day, 22 days/month, 12 months/year).

- |                         |                                 |
|-------------------------|---------------------------------|
| <b>d</b> = daily        | <b>¼ y</b> = every three months |
| <b>w</b> = weekly       | <b>½ y</b> = every six months   |
| <b>m</b> = monthly      | <b>y</b> = yearly               |
| <b>ar</b> = as required |                                 |

**NOTICE**

The operating company must provide hazard and disposal information.

**NOTICE**

Following cleaning, maintenance or exchanging wearing parts, check that all safety devices are functioning correctly.

**8.1 Cleaning**

**NOTICE**

Do not use any sharp objects or tools for cleaning. Only use objects that are expressly intended for this purpose.

During cleaning, make sure that no water, steam or dust can penetrate the electronics area.

| Cleaning       | Rectification  | Interval   |
|----------------|--|------------|
| Filling funnel | Clean with a clean, dry, lint-free cloth. For heavy soiling, use a damp cloth. | <b>d</b>   |
| Housing        | Clean with a clean, dry, lint-free cloth. For heavy soiling, use a damp cloth. | <b>w</b>   |
| Motor          | Clean the motor with a dry cloth and/or compressed air.                        | <b>½ y</b> |

**NOTICE**

Excessive dust deposit on the motor can lead to overheating and failure.

**8.2 Inspection interval and function test**

| Sub-assembly  | Interval in one-shift working      |   |     |     |   |
|---|------------------------------------|---|-----|-----|---|
|   | w                                  | m | ¼ y | ½ y | y |
| Normal function tests:  |                                    |   |     |     |   |
| Main switch I/O   |                                    | X |     |     |   |
| Mains isolator (plug/socket combination)  |                                    |   |     |     | X |
| Mains cable and connection  |                                    |   |     |     | X |
| Markings and warnings present and legible (via visual inspection)                                     |                                    |   |     |     | X |
| Check the correctness and firm fit of the entire machine  |                                    |   | X   |     |   |
| Check if wires are tight  |                                    |   |     |     | X |
| Check all cables for damage and aging   |                                    |   |     | X   |   |
| Check protective covers for defects, as well as for correct and tight fit                             |                                    | X |     |     |   |
| Check whether all the plug, screw and clamped connections are tight and if necessary, re-tighten them |                                    |   | X   |     |   |
| Check the belt tension and inspect for damages  |                                    |   |     |     | X |
| Functional test of the drive motors   |                                    |   |     | X   |   |
| Electrical test as per VDE <sup>4</sup>   | see DGUV <sup>5</sup> regulation 3 |   |     |     |   |



**DANGER**

**Damaged cables increase the risk of getting an electric shock!**



- ⇒ Never touch a damaged cable (e.g. cable that has been cut into, insulation damaged etc.)
- ⇒ Disconnect the cable from the electrical power supply immediately.
- ⇒ Replace the cable with a new one.

**8.3 General maintenance instructions**

Maintenance is a part of servicing and refers to the scheduled cleaning, checking and replacement of wearing parts. The aim of maintenance is to maintain the full functionality of the instrument over its lifetime.

The *Sample Divider* should therefore be checked for wear and tear at regular intervals. The inspection intervals depend on the frequency of use and the ambient conditions to which the *Sample Divider* is exposed. Only through regular checks (visual inspection) can damage to the instrument caused during use be detected early and reliably.

| Check  | Interval |
|--|----------|
| Correct and secure position of the gear motor and the torque transfer elements | ½ y      |
| Wear and tear of the gear motor and the torque transfer elements               | ½ y      |
| Correct and secure position of protective cladding                             | m        |

<sup>4</sup> VDE = Association for Electrical, Electronic & Information Technologies (Germany)

<sup>5</sup> DGUV = Association of German statutory insurance

**9 Malfunctions – causes and rectification**



The information provided in this chapter about possible malfunctions is structured to be understood by specialists in electrical, electronic or mechanical maintenance. Appropriate tools and test instruments must be provided to these personnel. If the specified measures do not prove successful, contact Pfeuffer GmbH. It is important for all questions to specify the correct type designation, serial number and year of manufacture. Only in this way will rapid processing be possible. The information can be found on the type plate.



**DANGER**

**Touching live parts can be fatal!**



It is essential to comply with the switch-off procedure prior to cleaning, maintenance or repair work! (see **chapter 2.9**)

| Problem                             | Cause                                   | Rectification  |
|-------------------------------------|---|--|
| Machine does not show any function. | System voltage not available.           | Get the system voltage checked and activated by a <b>qualified electrician</b> . |
|                                     | Operating switch ON/OFF remains at OFF. | Switch the operating switch ON.  |
|                                     | Internal fuse defective.                | Checking and replacement by a <b>qualified electrician</b> .                     |

**10 Spare and wearing parts**

**NOTICE**

We wish to point out expressly that replacement and accessory parts not supplied by us will not have been tested and approved by us either. Installing and/or using such products can thus result in the design properties of the *Sample Divider* being negatively impaired. Pfeuffer GmbH cannot be held liable for damage attributable to the use of non-genuine parts and non-genuine accessories.

Standard parts can be obtained from the dealer.

| Spare part           | Item number |
|----------------------|-------------|
| Gear motor           | 3251 1760   |
| Capacitor gear motor | 3222 4670   |
| Timing belt          | 3122 1750   |

**NOTICE**

Replacement works on the motor, V-belt gear and switch box should be carried out by a skilled person only; refer to **chapter 2.5**. In case of questions, please contact Pfeuffer GmbH.

**11 Supplements and accessories**

| Product  | Item number |
|--|-------------|
| Standard funnel Ø 48 mm                                      | 3331 0500   |
| Extension funnel capacity up to 8 kg                         | 3331 0510   |
| Funnel Ø 30 mm (9 kg/min)                                    | 3331 0520   |
| Insert for funnel passage Ø 25 mm                            | 3332 0503   |
| Insert for funnel passage Ø 20 mm                            | 3332 0506   |
| Insert for funnel passage Ø 16 mm                            | 3332 0509   |
| Insert for funnel passage Ø 12 mm                            | 3332 0512   |
| Agitator for non-free-flowing products                       | 1745 0065   |
| Stainless steel extension tube for Model 32 (length: 250 mm) | 2330 0390   |

**Agitator for non-free-flowing products**

The agitator for non-free-flowing products (e. g. humid maize) consists of an electric motor, a shaft for power transmission and a wire that rotates within the funnel. Rotation allows the agitator to effectively prevent the filling funnel from blocking.



Figure 6: Agitator and mounting of the holder on the cover

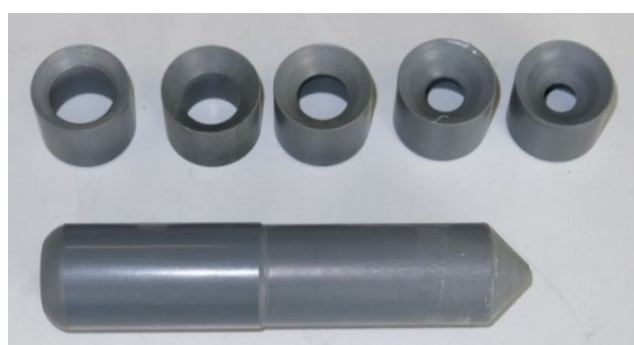


Figure 7: Inserts and installation of the inserts

## 12 Emergency



⇒ In case of an emergency, disconnect the *Sample Divider* from the electrical power supply.

## 13 Dismantling and disposal



Dismantling and disposal is only allowed to be performed by **skilled personnel**.



**DANGER**

**Touching live parts can be fatal!**



It is essential to comply with the switch-off procedure prior to cleaning, maintenance or repair work! (see **chapter 2.9**)



### Special waste

Oil, cleaning agents, contaminated cleaning tools (brush, rags, etc.) must be disposed of according to the local regulations and in accordance with the notes in the manufacturers' safety data sheets.



Disposal with the household garbage is forbidden!

The *Sample Divider* must be disposed of in accordance with the applicable local environmental regulations (Directive for electrical and electronic equipment waste WEEE 2012/19/EU).