# BASIKA rho

# Grease Separator

**with integrated sludge trap made of Polyethylen (PE-LMD) in oval design**

**NS 2 / 4 / 7,5 / 10**

## Indoor installation in rooms protected from frost

# Installation, Operating and Maintenance Instructions

Subject to modifications in terms of technical further development!

## Table of Contents

**Subject to modifications in terms of technical further development!**

# 1. General Advice (excerpt DIN EN 1825-2)

- Only waste water containing fat and grease of plant and animal origin may enter the grease separator.
- The adequate connecting height of the existing drains needs to be checked.
- The materials of the inlet and outlet pipes need to correspond with DIN EN 12056 and must be resistant against the waste water according to DIN EN 1825-2. The required cross section of the pipes which depends on the nominal size of the grease separator needs to be observed.
- The effluent needs to enter the grease separator in gravity fall. If the rest water level is below the backflow level (see EN 752-2) a lifting plant needs to be installed.
- In order to avoid grease settlement in the inlet pipes they need to be laid with a slope of at least 2% (1 : 50) and they should be easy to clean.

Technical regulations to be observed:
- DIN 1986 draining plants for buildings and estates, section 30, 100
- DIN EN 752 draining systems outside of buildings, section 1-7
- DIN EN 1825 grease separators for fatty matters, section 2
- draft DIN 4040, section 100
- DIN EN 12056 draining plants by means of gravity in buildings, section 1-5
- DIN 1988 technical rules for tap water installation

**WARNING**
The valid standards for the installation and connection to the draining system need to be observed.

## 1.1 Purpose of Use

Grease separators separate fatty matters and grease of vegetable and animal origin from waste water by means of gravity.

The following liquids may never enter grease separators:

- foul water („dirty water“)
- rain water
- waste water containing light liquids, e.g. fatty matters and grease of mineral origin

## 1.2 Technical Data

(see data sheet for installation, operating and maintenance instructions)

# 2. Safety

(according to the VDMA-sheet 24292)

These operating instructions include basic advice to be followed during installation, operation and maintenance of the plant. Therefore, it is essential that the technician and operator read the operating instructions prior to installation and commissioning. The operating instructions must always be available at the installation site of the system. Not only that the general safety advice mentioned under the headline „safety“ need to be followed, but all other special safety advice given under other headlines as well.

## 2.1 Identification of Advice in the Operating Manual

All safety advice given in this operating manual which may be hazardous if being ignored are identified with a general risk symbol, safety symbol according to DIN 4844-W 9.

Warnings because of electric voltage are identified with a safety symbol according to DIN 4844-W 8.

**WARNING** stands whenever the device and its function is at risk if the safety instructions are ignored.

Any advice, e.g.

- markings
- lables

attached to the plant must always be readable and strictly observed.

## 2.2 Staff Qualification

Staff responsible for operation, maintenance and commissioning of the plant needs to be qualified accordingly and must be familiar with the installation, operating and maintenance instructions, especially with the instructions regarding occupational safety and prevention of accidents.

## 2.3 Risks if Safety Instructions are Ignored

If safety instructions are ignored people as well as the environment or the plant can be at risk. If safety instructions are ignored this may occur the loss of claim for damages.
If safety instructions are ignored this may cause e.g. the following risks:

- essential functions of the plant may fail
- people are in danger because of electric, mechanical and chemical impacts
- the environment is endangered because of leakage of hazardous substances

## 2.4 Safety-conscious Working

The safety advice, the existing national prescriptions regarding prevention of accidents as well as the operator's internal occupational, operating and safety prescriptions need to be observed.

## 2.5 Safety Instructions for the Operator

Any risks by electric energy need to be avoided (for details see e.g. prescriptions of the VDE and the local electric utility).

## 2.6 Safety Instructions for Maintenance, Inspection and Assembly Work

The operator needs to make sure that only authorized and qualified personnel who is familiar with the operating manual executes the maintenance, inspection and assembly work.
The plant needs to be switched "OFF" and secured against restart whenever any work is being conducted on the plant.

As soon as the work has been finished all safety and protective devices need to be reactivated.
Prior to commissioning the plant again, please observe the advice mentioned under the headline “Commissioning”.

## 2.7 Modification and Manufacture of Spare Parts on One’s Own Authority

Any modifications to the plant require the manufacturer’s approval. Safety is only guaranteed if genuine spare parts and accessories approved by the manufacturer are used. If different parts are used the liability may become void.

## 2.8 Illegal Operating Methods

The perfect performance of the supplied plant is guaranteed only if the plant is used as intended according to section 1 – General Advice – of the operating manual.
The limit values indicated in the data sheet may not be exceeded at all.

This installation and operating manual does not suspend any general prescriptions which are not mentioned hereunder!

VDMA = Association of German Engineering and Plant Construction e.V.

# 3 Transportation

Do not throw the grease separators during transportation!

# 4. Description of the Grease Separators

Grease separators consist of a water- and odour-proof container (polyethylene HDPE) according to EN 1825-1 and DIN 4040-100, either in oval shape, for indoor installation in rooms protected from frost. Equipped with integrated sludge trap or sludge trap connected in series, volume 100 x NS in litres. The container lids are water- and odour tight by means of O-seal ring and clamping rings. Equipped with inlet and outlet pipe connection DN 100 for nominal size NS 2 and 4, DN 150 for nominal size NS 7,5 and 10.

Depending on the construction, as an option and for easy cleaning purposes the separators are either equipped with a suction pipe leaving the container at the bottom and leading to the top (up to the container upper rim) and a flange PN 10 at the end. In addition the grease separators are equipped with a screw connection to connect a filling unit if required later-on.

## 4.1 Design Alternatives

### 4.1.1 Manual semi-automatic disposal device

The separator can be supplied with the following options: inspection window; agitator(s) allowing that the hardened grease layers as well as the settled sludge become a homogeneous slurry which is easy to be sucked off from the disposal car without opening the lid; filling unit, solenoid valve to refill the separator, signalling unit “max. grease storage capacity reached”.

### 4.1.2 Fully Automatic Disposal Device

Equipped with inspection window, agitator(s), filling unit with solenoid valve to refill the separator automatically, pressure sensor to monitor the level and disposal pump.

# 5. Set- up and Installation

**An authorized and competent company has to do the installation.**
**Any national prescriptions regarding prevention of accidents as well as existing internal occupational and safety prescriptions need to be followed.**

**First of all check whether all parts of the plant were supplied and whether these are in perfect condition (never assemble any defective parts).**

## 5.1 Choice of Set-up Area

- Separators should be set-up close to the area where the waste water is produced. In addition the suction connection for disposal vehicles should be easily accessible (excerpt DIN EN 1825-2).

## 5.2 Preparation of Set-up Area

Prior to the set-up of the grease separator please check the following conditions :

- The room is protected from frost
- The room can be illuminated
- The room allows self-ventilation
- The surface of the floor is protected and has a drain
- The floor must be even and have a good bearing capacity [observe stability (floor loading)] and needs to provide sufficient space for the erection of the plant.
- The area must be big enough to allow for operation, maintenance and inspection of the separator
- Water supply for filling and cleaning purposes as well as the respective electric installation need to be available.

# 6. Installation

## 6.1 Sanitary Installation

- The grease separator needs to be set-up horizontally and in flow direction. The outlet suction connection points to the front.
  For grease separators in oval shape which are supplied on disposal pallets with suction pipe first of all the disposal pallet is erected horizontally and in flow direction (the outlet suction connection points to the front).
  Then the grease separator with the connection piece at the bottom of the container is placed on the pallet.
  Finally the connecting sleeve of the suction pipe is attached to the connection piece and screwed to the disposal pallet (see attached mounting sketch).
  Please ensure the stability of the plant.
  For plants having horizontal flanges it is essential to make sure that the connections between the container components (see marking), the O-ring seal and the clamping ring / screwed flange are perfect (also see attached mounting sketch).

- Prior to connecting all pipes the container is to be filled with water in order to ensure that the container is fixed correctly and a leakage test can be run.

- Inlet and outlet pipes need to be laid according to DIN EN 752 and DIN EN 12 056 or DIN EN 1610 and DIN EN 1825-2 respectively, as well as DIN EN 4040 section 100.

- We recommend to connect the vent pipe DN 100 of the grease separator to a separate vent pipe (constantly rising) which leads via the roof.

**ADVICE:**

All lines need to be stress-free and equipped with isolated distance clamps. Loads of pipes (also if made of plastic) and fittings must be supported at site!

- If a tap water system is used to fill the container the connection to ensure filling in gravity fall needs to comply with DIN 1988-4. If a Basika filling unit is used a stop valve and a throttle which has to be pre-adjusted needs to be placed in front of the filling unit.

## 6.2 Electric Installation

When the sanitary installation has been finished an electrician will connect the electric line (if available) in the control panel.

Only a competent electrician may do the electric connection.

| | |
|---|---|
| Supply line: | Three phase current = 400 V, 3 phases, N, PE, 50 cycles |
| Required Fuse: | (see data sheet for installation, operation and maintenance) |

Prior to commissioning an expert needs to make sure that one of the necessary electric protective measures is available. Grounding, protective multiple earthing, differential current-switching, etc. need to comply with the prescriptions of the local electric utility (EVU) and operate perfectly when the electrician runs the function test.

**WARNING!**
Cross section and voltage drop of the power line need to comply with the VDE prescriptions.

The voltage mentioned in the electric documentation needs to comply with the existing power line. The electrician needs to connect the feeder as well as the cables of the individual devices to the terminals of the control panel according to the wiring diagram (in the control panel) of the individual control panel.
The feeder needs to be protected by a sufficiently dimensioned and slow-blowing fuse (according to the nominal power of the total wattage).

**ADVICE**
The motor overload switches in the control panel are pre-adjusted correctly. Please ask the responsible electrician at your site.

When the electric connection has been finished please check the phase sequence (turning to the right) of the power line prior to commissioning. If the phase sequence of the power line is not correct two phases of the power line need to be swapped.

Only a competent electrician may swap the two phases of the power line under stress-free conditions.

## 7. Commissioning

Prior to commissioning the grease separator is to be filled with water.

- Main switch at the control panel is turned to " OFF" and secured against restart by means of a padlock.
- Check whether the cover of the grease separator fits and is closed perfectly by means of the snap buckles (clamping rings).
- Check whole plant for tightness (especially the flanges when the plant was disassembled at site). Condition: Grease separator is filled with fresh water until it drains.
- Check whether the electric connection was made according to the valid prescriptions.
- If necessary have the power supply be added-on from the sub distribution to the control panel of the plant.
- Open the control panel of the grease separator and check the phase sequence (must be turning to the right) at the feeder.
- Are all power supply leads of the devices connected correctly?
- Turn main switch at the control panel to position "ON".

- Check sense of rotation and electric switching functions of all devices.

**ADVICE**
When the preparation work at site has been finished our after-sales service can do the commissioning which will be charged separately.
Please arrange a date for commissioning at least 2 weeks in advance.

**After-Sales Service:**

Drecker Industrie Electronic GmbH
Westfalenweg 279
42111 Wuppertal, Germany
Tel.: +49 (0) 202-704090
Fax: +49 (0) 202-704060
e-mail: DreckerGmbH@aol.com

## 8. Operation

- Detergents, including washing-up powders and liquids may neither contain nor release chlorine and should be used sparingly. If they are used before entering the separator the separation effect may not be affected and they may not form stable emulsions (EN 1825-2).
- According to EN 1825-2 the use of biological additives (bacteria, enzymes etc.) for so-called self-cleaning purposes is not allowed in separators.
- Disposal needs to take place in regular intervals in order to avoid that the storage capacity of the sludge trap (half of the sludge trap volume) and of the separator (max. grease storage capacity) is exceeded.
- Sludge trap and separator need to be emptied completely and cleaned at least once a month, preferably every 2 weeks.
- Finally the plant is to be refilled with fresh water.
- Register the disposal process in the journal and file away the disposal proof.

## 8.1 Option Signalling Unit „Max. Grease Storage Capacity Reached“

The maximum grease storage capacity in the grease separator may not be exceeded since otherwise limit values cannot be observed and fatty waste water may affect the devices following the separator. If very fatty kitchen swills enter the separator the maximum storage capacity may be reached before the monthly disposal interval is run out. Then the grease separator needs to be emptied earlier.
In order to recognize the maximum grease capacity all grease separators – option only with inspection window – can be equipped with a detection device to measure the max. grease storage capacity. A sensor (B1) will be mounted onto the inspection window at the same level where the maximum grease storage capacity is reached. When the limit is reached the control panel releases a message. This message can also be retrieved in a potential-free manner via an in-house alarm signal processing system BMS/GLT.

## 8.2 Disposal of the Grease Separator Content

### 8.2.1 Manual semi-automatic disposal device

Key Assignment at the Control Panel

| | | | |
|---|---|---|---|
| **Acknowledge General Fault** | **Agitator ON / OFF** | **Reserved** | **Option Solenoid Valve ON / OFF** |

Operational Sequence:

- First of all the suction pipe needs to be connected firmly to the disposal car, e.g. by means of a B-coupling.
- The agitators are activated manually by pushing the button „Agitator ON / OFF“ – The text display says “Stirring ON”.
- After a certain stirring time (see table page 14) the container content is being pumped off into the disposal car.
- When the plant has been emptied completely the agitator is switched off manually by pushing the button „ON / OFF“.
- Option:
  The electrically driven solenoid valve at the filling unit is activated manually by pushing the button „Solenoid Valve ON/OFF“. The text display says “Solenoid Valve on”. The solenoid valve switches off automatically as soon as the refill process is over.

- Option:
  Message „Max. Grease Storage Capacity Reached“
  In order measure properly the grease separator needs to be ready for operation and refilled. As soon as the main switch is turned to position „ON“ the measuring process starts. When the max. grease storage capacity is reached an alarm light immediately indicates “Acknowledge General Fault” which means that the disposal process is pending. The display says “Max. Grease Storage Capacity Reached”. At the same time the in-house alarm signal processing system (BMS / GLT) is / can be activated via a floating contact.
  By pushing the button “Acknowledge General Fault” the BMS/GLT message can be confirmed. While the alarm light switches off the message in the text display “Max. Grease Storage Capacity Reached” remains on until the container of the grease separator is emptied. The message disappears automatically as soon as water is recognized.

| Nominal Size NS | Stirring Time in Min. |
|---|---|
| 2 | 5 |
| 4 | 8 |
| 7,5 | 12 |
| 10 | 12 |

### 8.2.2 Fully Automatic Disposal Device

Key Assignment at the Control Panel

| | | | |
|---|---|---|---|
| **Acknowledge General Fault** | **Reserved** | **Disposal**<br><br>**ON / OFF** | **Manual Pump**<br><br>**ON / OFF** |

Operational Sequence:

- First of all the suction pipe needs to be connected firmly to the disposal car, e.g. by means of a B-coupling.
- The disposal process is activated by pushing the button „Disposal ON-OFF“. The fully automatic programme control which operates in connection with the pressure sensor starts.
- The agitators switch on automatically. The text display says “Stirring ON”.
- After a programmed stirring time, depending on the nominal size, the disposal pump switches on automatically and the content of the container is pumped off into the disposal car. The text display says “Pump ON”. If the distance from the separator to the disposal car is quite long the device to accelerate the pump off process can now be activated at the disposal car.
- The agitators switch off automatically. When the containers are completely empty the solenoid valve at the filling unit opens. Since the disposal pump continues to operate for a predefined time the fresh water flushes out any residues which are still in the sludge trap or grease separator.
- As soon as the disposal pump switches off automatically the solenoid valve at the filling unit remains open for refilling purposes. The text display says “Solenoid Valve ON”.
  The disposal process is finished and the suction pipe connection (B-coupling) can be disconnected from the disposal car.
- The pressure sensor indicates the container filling level „Full“, the solenoid valve closes and the plant is in „stand by“ mode until the next disposal process starts.

- Option:
  Message „Max. Grease Storage Capacity Reached“
  In order to measure properly the grease separator needs to be ready for operation and refilled. As soon as the main switch is turned to position „ON“ the measuring process starts. When the max. grease storage capacity is reached an alarm light immediately indicates “Acknowledge General Fault” which means that the disposal process is pending. The display says “Max. Grease Storage Capacity Reached”. At the same time the in-house alarm signal processing system (BMS / GLT) is / can be activated via a floating contact.
  By pushing the button “Acknowledge General Fault” the BMS/GLT message can be confirmed. While the alarm light switches off the message in the text display “Max. Grease Storage Capacity Reached” remains on until the container of the grease separator is emptied. The message disappears automatically as soon as water is recognized.

Our service personnel can optimise and adapt all predefined and control times to your requirements.

## 8.3 Default settings for LOGO!

The following default settings can be laid down for LOGO:

**Clock settings**
You can determine the default settings for time and date, summer/winter time changeover and synchronisation:

- In the parameterization operation mode under the "Set" menu item.” (Menu item - “Clock”)
- In the programming operation mode under the "Setup" menu item.” (Menu item - “Clock”)

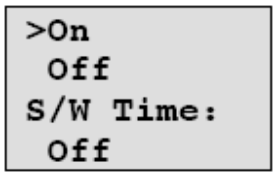
For time and date see Chapter 8.3.1

**Summer/Winter time changeover**
The automatic summer/winter time changeover can be activated/deactivated:

- In the parameterization operation mode under the "Set" menu item.”
- In the programming operation mode under the "Setup" menu item”.

**Activating/deactivating summer/winter time changeover in the programming operation mode:**
1. Switch LOGO! to the programming operation mode.
2. You are now in the main menu and want to pre-select the ’**Setup**’ menu: Keys ▲ or ▼
3. Accept ’Setup’: Key **OK**
4. Move ’>’ to ’**Clock**’ : Keys ▲ or ▼
5. Accept ’Clock’: Key **OK**
6. Move ’>’ to ’**S/W Time**’ : Keys ▲ or ▼
7. Move ’S/W Time’: Key **OK**

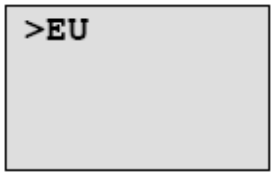
LOGO! reveals the following display:




The ongoing setting of the automatic summer/winter time changeover is shown in the bottom line. In the as-delivered condition this setting is shut down (’Off’: deactivated).

**Activating/deactivating summer/winter time changeover in the parameterization operation mode:**
If wanting to activate/deactivate the summer/winter time changeover in the parameterization operation mode, then select ’**Set..**’ in the parameterization menu – followed by the ’**Clock**’ and ’**S/W Time**’ menus. The summer/winter time changeover can now be activated / deactivated:

**Activate summer/winter time changeover**
You now want to activate this changeover and set and/or define your parameters:
1. Move '>' to 'On': Keys ▲ or ▼
2. Confirm 'On': Key **OK**
The display shows:




3. Select desired changeover: Keys or explanation of the display:
- '**EU**' is equivalent to the beginning and end of summer time in Europe.
- '**UK**' is equivalent to the beginning and end of summer time in Great Britain.
- '**US**' is equivalent to the beginning and end of summer time in the Unites States.
- '**AUS**' is equivalent to the beginning and end of summer time in Australia.
- '**AUS-TAS** ' is equivalent to the beginning and end of summer time in Australia/Tasmania.
- '**NZ**' is equivalent to the beginning and end of summer time in New Zealand.
- **. .** : any month, day and time difference can be set here.

The pre-programmed settings are in the following
Tables:

**A. German / B. English**

**A. German**

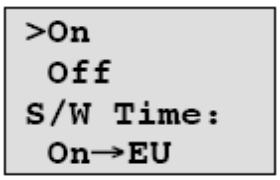
| | Beginn der Sommerzeit | Ende der Sommerzeit | Zeitunterschied Δ |
|---|---|---|---|
| EU | Letzter Sonntag im März: 02:00—>03:00 | Letzter Sonntag im Oktober: 03:00—>02:00 | 60 Min |
| UK | Letzter Sonntag im März: 01:00—>02:00 | Letzter Sonntag im Oktober: 02:00—>01:00 | 60 Min |
| US | Erster Sonntag im April: 02:00—>03:00 | Letzter Sonntag im Oktober: 02:00—>01:00 | 60 Min |
| AUS | Letzter Sonntag im Oktober: 02:00—>03:00 | Letzter Sonntag im März: 03:00—>02:00 | 60 Min |
| | Beginn der Sommerzeit | Ende der Sommerzeit | Zeitunterschied Δ |
| AUS-TAS | Erster Sonntag im Oktober: 02:00—>03:00 | Letzter Sonntag im März: 03:00—>02:00 | 60 Min |
| NZ | Erster Sonntag im Oktober: 02:00—>03:00 | Dritter Sonntag im März: 03:00—>02:00 | 60 Min |
| . . | Monat und Tag frei einstellen: 02:00—> 02:00 + Zeitunterschied | Monat und Tag frei einstellen: 03:00—> 03:00 – Zeitunterschied | wird von Ihnen bestimmt (minutengenau) |

**B. English**

| | Start of summer time | End of summer time | Time difference |
|---|---|---|---|
| EU | Last Sunday in March: 02:00am—>03:00am | Last Sunday in October: 03:00am—>02:00am | 60 min |
| UK | Last Sunday in March: 01:00am—>02:00am | Last Sunday in October: 02:00am—01:00am | 60 min |
| US | First Sunday in April: 02:00am—>03:00am | Last Sunday in October: 02:00am—>01:00am | 60 min |
| AUS | Last Sunday in October: 02:00am—>03:00am | Last Sunday in March: 03:00am—>02:00am | 60 min |
| | Start of summer time | End of summer time | Time difference |
| AUS-TAS | First Sunday in October: 02:00am—>03:00am | Last Sunday in March: 03:00am—>02:00am | 60 min |
| NZ | First Sunday in October: 02:00am—>03:00am | Third Sunday in March 03:00am—>02:00am | 60 min |
| | Set month and day at will: 02:00—> 02:00 + time difference | Set month and day at will: 03:00—> 03:00 - time difference | Determined by yourself (precisely - to the minute) |

**Caution:**
The time difference Δ can be determined within a range of 0 to 180 minutes.

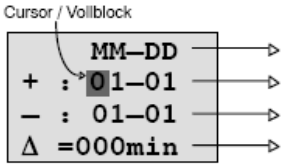
Let us assume you want to start the European summer/winter time changeover:
4. Move '>' to '**EU**': Keys ▲ or ▼
5. Confirm 'EU': Key **OK**
LOGO! reveals the following display:




LOGO! then shows that the European summer/winter time changeover has switched on.

**Setting one's own parameters**
All parameters/changeovers which do not conform to your country can be defined at will under menu item '**. .**' . Proceed as follows:
1. Confirm 'On' once again: Key **OK**
2. Move '>' to'**. .**': Keys ▲ or ▼
3. Accept menu item '. .': Key **OK**

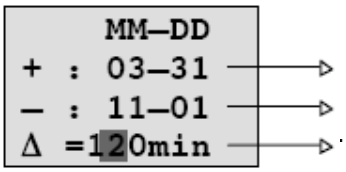
The display shows:




Start of summer time
End of summer time
Time difference wanted in min.

Let us assume you want to enter the following parameters: Start of summer time 31 March, end of summer time 1 November and a time difference of 120 minutes (two hours).
You can enter your data in the following manner:
- Keys ◄ and ► move the cursor/filled-in square to and fro.
- Keys ▲ and ▼ change the value at the cursor position.
-

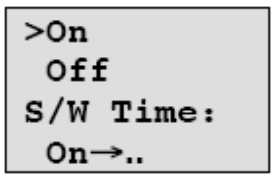
The display shows:




31 March
1. November

When you have entered all the values, then press Key **OK**.
In this way you have entered your personal summer/winter time changeover.

LOGO! then displays the following:




LOGO! shows that the summer/winter time changeover is switched on and that the parameters have been freely set ( '..' ).
**Caution:**
The only thing you need to do to deactivate the summer/winter time changeover is to confirm 'Off' with key **OK** in this menu.

**Caution:**
The summer/winter time changeover only functions when LOGO! is in operation (RUN or STOP). It does not function when LOGO! is in the backup supply operational mode.

**Backup supply of the clock**
The LOGO! internal clock continues to run even when the mains voltage fails i.e. the clock has a power reserve. The duration of the power reserve is affected by the ambient temperature. At a 25°C ambient temperature, the power reserve is usually 80 hours.
In case the mains voltage of a LOGO! fails for over 80 hours, then the internal clock responds to reflect the product line involved as follows.

- Product line - 0BA0:

On re-starting the clock is at “Sunday 00:00 1 January”. The time runs. This results in processing the automatic timers which, if necessary, trigger actions.

- From product line - 0BA1:

On re-starting the clock is at “Sunday 00:00 1 January”. The time remains as it is and flashes. LOGO! is in the state in which it was before the power supply was interrupted. RUN processes the automatic timers which are parameterized with the above time. The clock, however, continues not to run.

**Setting the display contrast**
You can determine the display contrast:

- In the parameterization operation mode under the "Set" menu item.” (Menu item - “Contrast”)
- In the programming operation mode under the "Setup" menu item.” (Menu item “Contrast”)
-

See Chapter 8.3.2

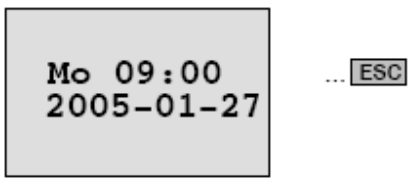
**Set time and date (LOGO! ... C)**

You can set the time and date:

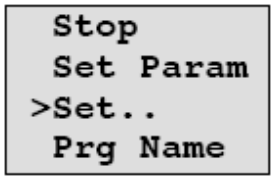
- In the parameterization operation mode under the "Set.." menu item.” (Menu item - “Clock”)
- In the programming operation mode under the "Setup" menu item.” (Menu item - “Clock”)

Setting time and date in the parameterization operation mode:

1. Change to the parameterization operation mode.
Press the ESC key to change from the RUN mode into the parameterization operation mode:

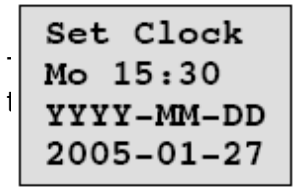


2. Select in the ’Set..’ parameterization menu:: Keys ▼, ▲




3. Accept ’Set..’: Key **OK**
4. Move the ’>’ to ’**Clock**’: Keys ▲ or ▼
5. Accept ’**Clock**’: Key **OK**
6. Move the ’>’ to ’**SetClock**’: Keys ▲ or ▼
7. Accept ’**SetClock**’: Key **OK**

Caution:
The ’Set Clock’ command is only carried out given that LOGO! is fitted out with a real-time clock (LOGO!..C). The ’Set Clock’ command sets the LOGO! real-time clock.
LOGO! reveals the following display:




8. Select the day of the week: Keys ▲ or ▼
9. Move the cursor to the next position: Keys ◄ or ►
10. Change the value at the position: Keys ▲ or ▼
11. Set the clock to the correct time, repeat Steps 9 and 10.
12. Set the correct date, repeat Steps 9 and 10.
13. Close the input: Key **OK**

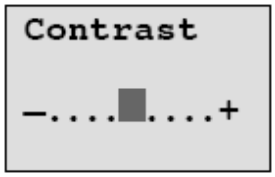
**Setting time and date in the programming operation mode:**
If wanting to set the time and date in the programming operation mode, then select ’**Setup**’ in the main menu – followed by the ’**Clock**’ and ’**Set Clock**’ menus. As described above (as of Step 8), you can now set the day of the week, time and date.

**Adjust display contrast**

You can determine the display contrast:
- In the parameterization operation mode under the "**Set..**" menu item." (Menu item - "Contrast")
- In the programming operation mode under the "**Setup..** " menu item." (Menu item "Contrast")

**Set display contrast in the parameterization operation mode:**
1. Change to the parameterization operation mode. (See Chapter 8.3.1, Item 1.)
2. Select in the **'Set..'** parameterization menu:: Keys ▼, ▲
3. Accept **'Set..'**: Key **OK**
4. Move the '>' to '**Contrast**': Keys ▲ or ▼
5. Accept '**Contrast**': Key **OK**

LOGO! reveals the following display:




6. Change the display contrast: Keys ◄ or ►
7. Close the input: Key **OK**

**Set display contrast in the programming operation mode:**
If wanting to set the display contrast in the programming operation mode, then select '**Setup**' in the main menu – followed by the '**Contrast**' menu. As described above (as of Step 6.) you can now set the display contrast.

## 9. Maintenance

A competent expert* should maintain the plant **once a year** considering the following requirements.

Observe the safety advice „Cleaning work in a container“ prior to cleaning the plant!
Please always observe all relevant protective measures at work when cleaning a container as well as when handling contaminated waste water (safety glasses and safety clothing).

**Please have the maintenance work only be done when a disposal company is at site and after having emptied the grease separator.**

**Danger**

1. Turn the main switch to position „OFF“ and secure it against restart by a padlock.

2. While the inside of the container is cleaned the suction pump at the disposal car needs to be switched on.

3. Internal Cleaning of the Container:
   - open the container lid
   - thorough cleaning of all pipes (inlet pipe, outlet pipe and integrated sampling device, vent pipes) by using a high-pressure cleaner (if necessary pipe cleaning set).
   - thorough internal cleaning of the container also by using a high-pressure cleaner

4. External Cleaning of the Container:
   - Depending on the degree of contamination by using a high-pressure cleaner.

* „Competent experts“ are people at the operator’s site or assigned third parties who ensure that - due to their qualification, skills and experiences gained by practical activity – they do evaluations or inspections in the relevant field of reference in a proper way.

5. Check (if available):
   - agitators, especially shaft seal and agitator blades for wear / damages
   - disposal pump, conveying performance and shaft seal
   - whether the pressure sensor is clean
   - cover seals

6. Prior to filling the plant remove the padlock at the main switch and turn the switch to position „ON“.

7. Fill the plant with water:
   - After having executed the above works and prior to commissioning the plant again the container is to be filled with water and a leakage test needs to be done.

8. Check all electric switching functions

9. The outer surface of the grease separator is rubbed in with maintenance oil.

10. Listing of required spare parts

11. Make a final report

If you wish our after-sales service to do the maintenance which will be charged separately please get in touch with us.

**Advice**

**We can only guarantee the performance of the plant if the prescriptions EN 1825 – 2 regarding disposal and cleaning are observed.**

The disposal of the content in the BASIKA grease separator in time and in regular intervals guarantees a perfect performance. Fatty matters and grease coming from kitchens form fatty acids quickly which may not enter the drains. Overstress (supply higher in ltrs./sec than nominal size of the plant) also increases the percentage of fat in the waste water and leads to clogging of the drains which is expensive to remove.

# 10. Failures during Operation

The failures mentioned below generate a general fault message which is available also potential-free as break contact (voltage loss and electric break protection) for external fault detection systems (BMS/GLT).

**Agitator:**

A motor overload switch monitors continuously the power device of the agitator. In case of a failure the reason for the failure needs to be eliminated and the motor overload switch is to be released. The text display says “Fault MOS drives”. The failure needs to be confirmed by pushing the button “Acknowledge General Fault”.

**Pump:**

A motor overload switch monitors continuously the power device of the pump. In case of a failure the reason for the failure needs to be eliminated and the motor overload switch is to be released. The text display says “Fault MOS drives”. Then, the failure needs to be confirmed by pushing the button “Acknowledge General Fault”.

**Solenoid Valve:**

The operating time of the solenoid valve is always controlled. If the switch-off signal for the filling unit is not reached after a predefined monitoring time the system generates a general fault and the valve is deactivated. The text display says “Filling Time too long”.
Then, the failure needs to be confirmed by pushing the button “Acknowledge General Fault”.

**Advice**

If you cannot remedy a failure please contact our after-sales service.

**Please do not hesitate to contact us if you have any questions or suggestions.**

**We always do our utmost to service you as good as possible.**

**MAGUS GmbH**
**Am Westerbusch 63a-65**
**D-42111 Wuppertal**

**Tel.:** **+49 202-7581920**
**Fax:** **+49 202-75819220**
**E-Mail:** **info@magus-solutions.de**
**Internet:** **www.magus-solutions.de**

# LEISTUNGSERKLÄRUNG

**Declaration of Performance**

## 1825-1 – MAGUS Rho

Tabelle 1

**Abscheideranlagen für Fette aus Kunststoff mit integriertem Schlammfang**

| *Typen* | | *Nenngröße* | *Schlammfang* | *Beschreibung* |
|---|---|---|---|---|
| MAGUS Rho | MR 020 0200 | NS 2 | 200 Liter | PE-LMD, ovale Bauform EN 1825-1, 200:2004 |
| MAGUS Rho | MR 040 0400 | NS 4 | 400 Liter | PE-LMD, ovale Bauform EN 1825-1, 200:2004 |
| MAGUS Rho | MR 075 0750 | NS 7,5 | 750 Liter | PE-LMD, ovale Bauform EN 1825-1, 200:2004 |
| MAGUS Rho | MR 100 1000 | NS 10 | 1000 Liter | PE-LMD, ovale Bauform EN 1825-1, 200:2004 |

1) Kenncode des Produkttyps

*Siehe Tabelle 1*

2) Typen, Chargen-, Serien-Nr. oder sonstige Kennzeichnung zur Identifikation des lll Bauproduktes

*Siehe Tabelle 1*

3) Verwendungszweck oder vorgesehene Verwendungszwecke des Bauproduktes gemäß der ....anwendbaren, harmonisierten, technischen Spezifikationen wie vom Hersteller n b v vorgesehen:

*Fettabscheidung aus Abwässern zum Schutz von Entwässerungssystemen und Oberflächengewässern*

4) Name, eingetragener Handelsname oder eingetragene Marke und Kontaktanschrift des nv Herstellers:

MAGUS GmbH

Am Westerbusch 63a-65
42111 Wuppertal
Deutschland
Telefon +49 202 75819 20
Fax +49 202 75819 220
info@magus-solutions.de

5) Ggf. Name und Kontaktanschrift des Bevollmächtigten

*Unzutreffend*

6) Systeme zur Bewertung und Überprüfung der Leistungsbeständigkeit

*System 3 (Brandverhalten)*
*System 4 (Flüssigkeitsdichtheit, Wirksamkeit, Tragfähigkeit, Dauerhaftigkeit)*

7) Sofern das Bauprodukt von einer harmonisierten Norm erfasst wird:

*Die notifizierte Stelle FIRELABS (Steinstr. 18, 14822 Borkheide), Kennnummer 1507, hat die Typprüfung hinsichtlich des Brandverhaltens System 3 vorgenommen.*

*Bestimmung des Produkttyps und werkseigene Produktionskontrolle nach System 4 durch den Hersteller*

8) Wenn für das Bauprodukt eine Europäisch technische Bewertung ausgestellt ist

*Unzutreffend*

**9) Erklärte Leistung**

| *Wesentliche Merkmale* | *Leistung* | *Harmonisierte Technische Spezifikation* |
|---|---|---|
| Brandverhalten | Kunststoff - Klasse E | EN 1825-1:2004 |
| Flüssigkeitsdichtheit | erfüllt | EN 1825-1:2004 |
| Wirksamkeit | erfüllt | EN 1825-1:2004 |
| Tragfähigkeit | erfüllt | EN 1825-1:2004 |
| Dauerhaftigkeit | erfüllt | EN 1825-1:2004 |

Die Leistung des Produktes gemäß den Nummern 1 und 2 entspricht der erklärten Leistung nach Nummer 9. Verantwortlich für die Erstellung dieser Leistungserklärung ist allein der Hersteller gemäß Nummer 4.
Unterzeichnet für den Hersteller und im Namen des Herstellers von:

Wuppertal den 27.10.2014

Torsten Grüter (Geschäftsführer)

## EG-Konformitätserklärung nach Maschinenrichtlinie 2006/42/EG Anhang II 1.A

Der Hersteller der Maschine


Hersteller: MAGUS GmbH
Am Westerbusch 63a-65
D-42111 Wuppertal

Tel. +49 202-7581920
Fax: +49 202-75819220


erklärt hiermit, dass folgendes Produkt

| | | | |
|---|---|---|---|
| Produktbezeichnung: | Abscheideranlage für Fette aus Kunststoff (PE-LMD) mit integriertem Schlammfang | | |
| Typen: | BASIKA rho | NS 2 | SF 200 Liter |
| | BASIKA rho | NS 4 | SF 400 Liter |
| | BASIKA rho | NS 7,5 | SF 750 Liter |
| | BASIKA rho | NS 10 | SF 1000 Liter |

allen einschlägigen Bestimmungen der oben genannten Richtlinie, einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen - entspricht.

| | | |
|---|---|---|
| Weitere angewandte Richtlinien: | Niederspannungsrichtlinie: | 2006/95/EG |
| | Bauproduktrichtlinie: | 89/106/EWG |

Folgende harmonisierte Normen wurden angewandt:

| | |
|---|---|
| EN ISO 12100:2011 | Sicherheit von Maschinen – Allgemeine Gestaltungsleitsätze - Risikobeurteilung und Risikominderung |
| EN ISO 13849-1:2008 | Sicherheit von Maschinen - Sicherheitsbezogene Teile von Steuerungen – Teil 1: Allgemeine Gestaltungsleitsätze |
| EN 60204-1:2007 | Sicherheit von Maschinen - Elektrische Ausrüstung von Maschinen – Teil 1: Allgemeine Anforderungen |
| EN 1825-1:2004 | Abscheideranlagen für Fette- Teil1: Bau-, Funktions- und Prüfgrundsätze, Kennzeichnung und Güteüberwachung |

Für den verwendeten Werkstoff PE-LMD wurde die Brandverhaltensklasse E nach EN ISO 13501:2002, Abschnitt 10.3 durch FIRELABS (Steinstr. 18, 14822 Borkheide) nachgewiesen.

Die bezeichneten Abscheideranlagen sind bestimmt zur Abtrennung von Fetten pflanzlichen und / oder tierischen Ursprungs aus Abwasser mittels Schwerkraft zum Schutz von Entwässerungssystemen.

Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:

Torsten Grüter
Am Westerbusch 63a-65
42111 Wuppertal

Ort: Wuppertal
Datum: 12.01.2015

Torsten Grüter
Geschäftsführer
MAGUS GmbH