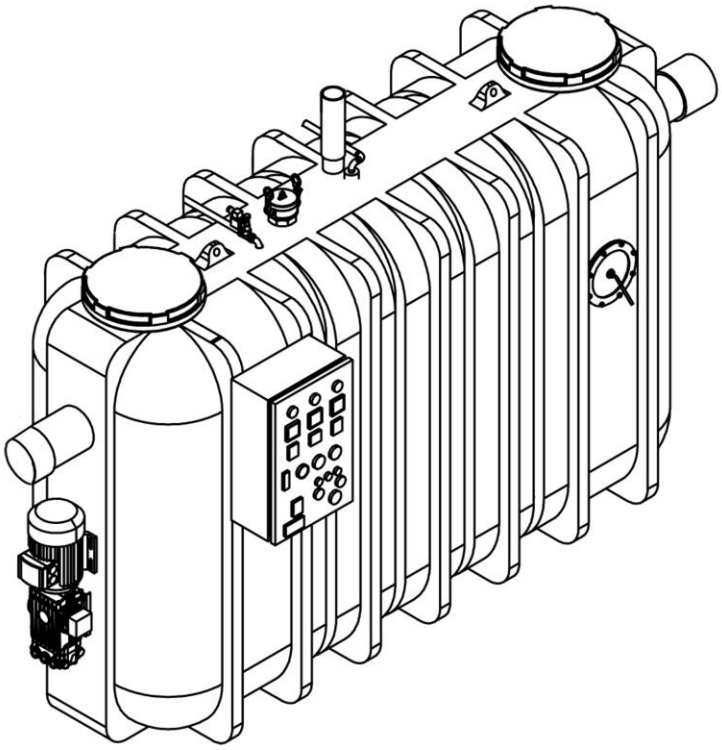
METUSAN LIMITED

Metusan Polyethylene (HDPE)

Free Standing Grease Water Separator Automatic

TS EN 1825



Contents

1 Safety

1.1 General safety notes

- Heed the following points when working on electrical cables and connections.
- The national regulations concerning electrical safety apply to all connections and installation work.
- The system must be supplied through a residual current protection device (RCD) with residual current of not more than 30mA.
- The drive motor can develop a high temperature during operation.
- Wear protective gloves.
- Danger of slipping due to fatty liquid. The floor can be wet with fatty liquid during cleaning or disposal. Remove liquid spills, wear suitable footwear.

Prescribed personal protective equipment. Always use personal protective equipment during installation, maintenance and disposal work on the system.

1.2

- Protective clothing
- Protective gloves
- Safety footwear
- Face protection
- Operating and maintenance instructions must be kept available at the product.
- Personnel - qualification
- The relevant operational safety regulations and the haz- ardous substances ordinance or national equivalents apply for the operation of the system.
- The operator of the system must: Prepare a risk assessment
  identify and demarcate corresponding hazard zones carry out safety training
  secure the system against unauthorised use.

Operating company: Visual check

Competent expert / inspector (familiar with, understands operating instructions): Emptying, cleaning (inside), functional check

Competent skilled person (specialist craftsman, in accordance with installation instructions and execution standards): Installation, replacement, maintenance of components, commissioning

General inspector (in accordance with EN 1825) : Leak test, checking on correct design and proper assembly before initial commissioning

Qualified electrician (accord- ing to national regula- tions for electrical safety): Work on electrical installation

1.3 Intended use

The product is a system for separating grease out of domes- tic or commercial wastewater per DIN EN 1825. Greases are substances of vegetable origin and/or animal origin with a density of less than 0.95 g/cm3, which are partially or completely insoluble in water or saponifiable. Disposal and maintenance cycles as well as requirements concerning the installation site must be complied with for proper operation.

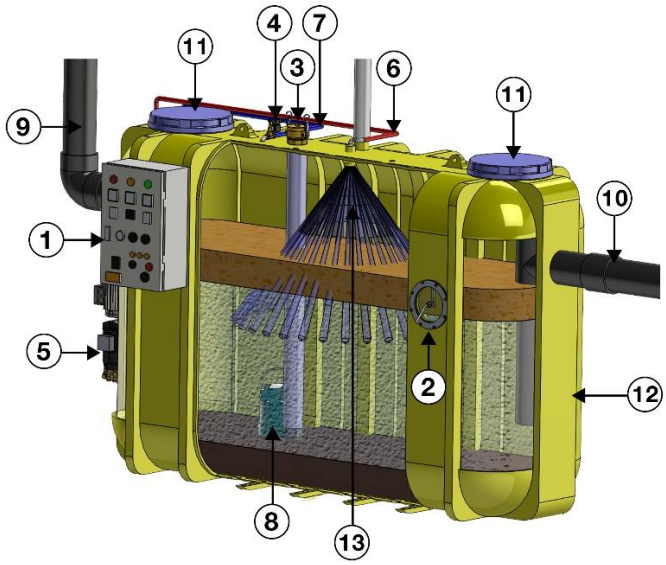
All modifications or attachments, use of non-genuine spare parts, repairs carried out by companies or persons not authorised by the manufacturer without the express and written approval of the manufacturer can lead to a loss of warranty.

1.4 Product description

Conversion of the system for a higher degree of automation of the disposal process is possible with specific retrofit kits.

This system has a control unit which pump and solenoid valve control runs as a fully automatic disposal program. Manual intervention or the disposal vehicle pump are not required.

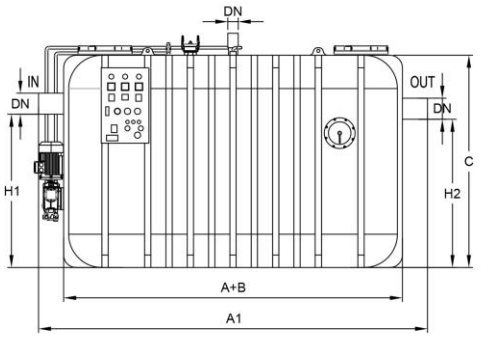
1- Control Panel
2- Optional Sight Glass
3- Disposal Storz coupling 2”
4- Filling solenoid valve
5- High pressure pump
6- High pressure pipe
7- Filling pipe
8- Disposal pump
9- Inlet pipe
10- Outlet pipe
11- Access cover
12- HDPE separator body
13- Washing unit

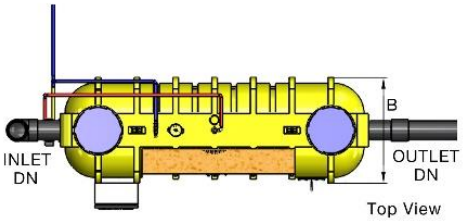


2 Technical Data

2.1 Dimensions and weights

Code	Lt/sn	DN	A1	A	B	C	H1	H2	Grease Vol.	Sludge Storage Vol.	Total Capacity
HDPE	3	150	1540	1360	890	1390	970	900	150 lt	300 lt	750 lt





Electrical connection values

415 V
50 Hz
Direct Connection 6,6 kW
16 A
IP 54
IP 55
C 25A
I 30 mA

Data	Value
Max. pumping height	26 m
Max. pumping capacity	19 m³/h
(Permanent) temperature of conveyed material	max. 40 °C

3 Installation

3.1 Transport information

The pump and the pipes can be dismantled for easier installation. A leak test must be performed after reattachment of the pump and the pipes.

Transport by forklift truck. During transport by forklift truck the pump should be disconnected at the pipe clamps of the rinsing pipe and tank connection in order to avoid a heavy load on the weldseams at the connection between the pump and the tank.

3.2 Choose suitable installation location

Pre-requisites for the operation of separator systems:

- Ensure aeration and/or ventilation of the room.
- Set-up area level and capable of bearing sufficient load
- Room temperature at least 15 °C.
- Sealed floor covering with integrated drain.
- Water connections available.
- Room height at least 60 cm higher than the grease separator, so that the inspection openings can be opened for cleaning work.
- At least 1 m free working space in front of the grease separator.
- Inlet with calming section of at least 1 m (gradient 1: 50). Transition of on-site downpipe to calming section equipped with 2 x 45° bends.
- If the inlet pipe is longer than 10 m horizontally, it must be vented separately.

3.3 Installing the pipes

Attachment of the refill inlet
½"selenoid valve connection should be done.

Connecting the riser pipe/disposal pipe
Undo the pipe clamps at the end of the direct disposal pipe.
Connect the riser pipe (HDPE) provided by the customer to the direct disposal pipe.

Connect the inlet and outlet
Connection of inlet and outlet to the draining system on site.

3.4 Installing the control unit

WARNING

- Disconnect system from energy sources.
- Make sure that cables and electrical components are disconnected from the power supply during work.
- The control unit can only be opened if the main switch is in the OFF position. Undo screws in the housing cover and lift up housing cover.
- Mount housing in place provided; to do so, use all fixing options of the housing. Take the ambient conditions into account.

3.5 Installing the solenoid valve(s)

- Identify supply pipe for refill inlet.
- Switch off water supply.
- Cut through the pipe, cut threads into both sides. Loosen the screw for the connector plug.
- Pull the connector plug off.
- Fit the solenoid valve in the pipe, check for a tight fit. Fit the connector plug again analogue to its removal.
- The solenoid valves are normally closed.

3.6 Establishing electrical connections

(a)	Mains (415 V AC 50 Hz)
(b)	Pump (415 V AC 50 Hz)
(c)	Washing pump (415 V AC 50 Hz)
(d)	Selenoid valve (230 V AC, 50 Hz, NC normally closed)
(e)	Selenoid valve (230 V AC, 50 Hz, NC normally closed)
(f)	Potential free contact
(g)	Bridge
(h)	Grease level sensor

Connecting the control unit ;

- Select a suitable position for attachment of the control unit.
- Set up connections (pump, solenoid valves, actuator, mains cable) in accordance with the connection diagram

3.7 Mount the accessory parts

Connecting Storz-B coupling

- Connect the Storz-B coupling to the riser pipe/disposal pipe provided by the customer.
- If the Storz-B coupling is to be positioned at some distance outside the building; move the coupling connection to new position and connect the pipe.

4 Commissioning

Preparing commissioning

Connect water supply if necessary.
Fill separator with cold water up to the static level (level of the outlet).
Have a general inspection carried out (during initial commissioning and then every 5 years).
Give safety instruction.
File all records in the log book and document required disposal cycle.
All documents must be kept available at the system. The local supervisory authority can ask to examine the documents.

Switch the control unit on.

Connect the power supply.
Set the main switch to the "ON" position.
Control unit starts automatically.
The control unit is initialised during the initial commissioning.

4.1 Functional test

- **Disposal pump functional test**
- **Washing pump functional test**
- **Filling selenoid valve functional test**
- **Pipe leakage (inlet/outlet, venture) test.**

5 Disposal

1- Disposal:

- Connect the Storz-B coupling to sewage truck.
- Turn on the disposal pump button, wait untill emptying the separator.

2- Washing:

- Turn on the washing button. After 5 minutes washing, turn off the washing button.

3- Disposal:

- Turn on again the disposal pump button. After emptying the separator turn off the diposal pump button.

4- Filling:

- Turn on the filling button. Fill the separator up untill the outlet pipe level. After filling turn off the filling button.

5- Preparation:

- Storz coupling pipe will get out and coupling cap puts on and check the leakage for odour and write down the actions.
- The service ends up and the separator is ready to next run.

6 Maintenance

6.1 Interval for general inspection

A general inspection (including leak test) must be carried out on this system every 5 years in accordance with DIN EN 1825.

6.2 Maintenance interval and tasks

The system must be serviced annually by a competent expert / inspector. The following tasks are to be carried out during maintenance:

- Carry out disposal.
- Check the inside of the tank.
- Cleaning of the inside of the tank (particularly the inlet and outlet spots) using a high-pressure cleaning device. Pump out the tank again.
- Use a gripper and scraper to remove objects and deposits.
- Fill the separator with clear water up to the still water level, Check the tightness of the pipe connections.
- If necessary, clean the outside of the system.
- Record the maintenance in the log book.

6.2.1 Servicing/replacing shredder-mix pump

Disconnect system from energy sources

- Ensure that the electrical components are disconnected from the electrical power supply during the work.
- In the event of any interference noises and/or irregular pump running, proceed as follows:
- Close the shut-off valve
- If necessary, replace the pump.

6.3 Troubleshooting

Help with faults

Fault	Cause	Action(s)
Rotary field error	Wrong rotary field for mains connection	Connect rotary field correctly.
Motor protection	Motor protection switch has triggered	Switch motor protection switch on again.
	Motor current too high due to faulty or blocked pump.	Carry out pump maintenance.
	Increased current due to phase failure	Check the voltage for phase failure.

Temperature fault	Winding temperature switch has triggered	Self-resetting when the motor cools down. Acknowledge fault message with alarm button.
Undercurrent	The minimum current of the pump is not being reached. (The cable from the control unit to the motor could be interrupted or damaged).	Check cable and repair if necessary. Replace pump, if defective.

Fault	Cause	Action(s)
Overcurrent	The maximum current of the pump has been exceeded. (e.g. blockage)	Remove blockage (follow the safety instructions). Replace pump, if defective.
Relay error	Power contactor is no longer switching	Switch off the voltage supply for the control unit and have the power contactor replaced by Customer Service.

Troubleshooting (pump)

Fault	Cause	Action(s)
Pump does not start up, power too low	Motor protection switch has triggered	Switch off and wait until the pump has cooled down then try again.
	Motor is blocked	Remove blockage / service the pump (heed the safety instructions).
	Motor turns sluggishly	Check the voltage for phase failure.
	Fault in the power supply: one or two phases are missing or there are heavy fluctuations in current	
	Pump capacity reduced	Remove blockage / service the pump (heed the safety instructions).
	Wrong direction of pump rotation	Connect rotary field correctly. Make sure that the counter-clockwise function is not activated (only on systems with cor- responding control unit).
Loud and unusual noises	Motor / pump components are blocked	Remove blockage / service the pump (heed the safety instructions).

Error	Cause	Remedial measures
Odour pollution	Wastewater pipes leaking	Check firm fit and seals, repair if necessary.
	No ventilation pipe, cross-section too small	Retrofit on-site.
	System parts are leaking	Eliminate leak.
	Closed room with no air exchange.	Create ventilation options, forced ventilation.

General inspection

The owner-operator of a separator system is obliged according to valid legal principles as well as according to EN 1825 to subject the system to a general inspection with leak test before commissioning and repeated every 5 years. This test may only be carried out by a technical specialist. We will be happy to send you a quotation for the general inspection by an independent expert.

Maintenance requirements

For you, it is important that the quality and functional ability of your system is kept at the best possible standard, particularly when this is the pre-condition for warranty conditions.

7 Declaration of Conformity (DOC)

METUSAN LIMITED

Declaration of Performance

Declaration of Performance according to Annex III of EU Regulation 305-2011

Document Number: METU05

Document Revision: A

1. Identification of product-type: Grease separators — Part 1: Principles of design, performance and testing, marking and quality control

2. Type, batch or serial number or any other element allowing identification of the construction product:
TAYT 2 – 5, TAYT A 1-20, TAYT B 1 – 10, TAYT B / OTO 1 – 10, TAYT HDPE 1 – 20, TAYT GRP 15 – 50 Liters/Second

3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification as foreseen by the manufacturer: Applies to separators for the separation of greases and oils of vegetable and animal origin from wastewater by means of gravity and without any external energy.

4. Name, registered trade name or registered trade mark and contact address of the manufacturer:
METUSAN YAPI ELEMANLARI SAN. TİC. LTD. ŞTİ.
Address: Eyüp Sultan Mahallesi İbni Sina
Caddesi No:38 Sancaktepe-İstanbul-Turkey
Trade Mark:METUSAN

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks:
Not applicable

6. System or systems of assessment and verification of constancy of performance of the construction product: System 3

7. Name and identification number of notified body
TURKISH STANDARDS INSTITUTION: Notified Body Number is 1783.

8. **In case of the declaration of performance concerning a construction product covered by a harmonised standard:** EN 1825 – 1 APRIL 2007, EN 1825 – 2

9. In the case of declaration of performance concerning a construction product for which a European Technical Assessment has been issued: Not applicable

Metusan Yapı Elemanları San. Tic. Ltd. Şti.
İstanbul-Turkey

CE

METUSAN LIMITED

Declaration of Performance

10. Declared Performance

Essential characteristics	Performance	Harmonised technical specification
Liquid tightness	No Leakage	EN 1825 – 1, 5.3.2
Load bearing capacity	N.A.	EN 1825 – 1, 5.4
Effectiveness	Pass	EN 1825 – 1, 4,5.3.1,5.3.3 to 5.3.10, 5.5
Durability	N.A.	EN 1825 – 1, 5.2

11. The performance of the product identified in points 1 and 2 is in conformity with the declared performance:
This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Hilmi Çetin AKYAR
Technical Managing partner.

Signature:

METUSAN YAPI ELEMANLARI SAN. VE TİC. LTD. ŞTİ.
Eyüp Sultan Mah. Cani Sıtkı Cad. No: 36
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28.01.2019
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