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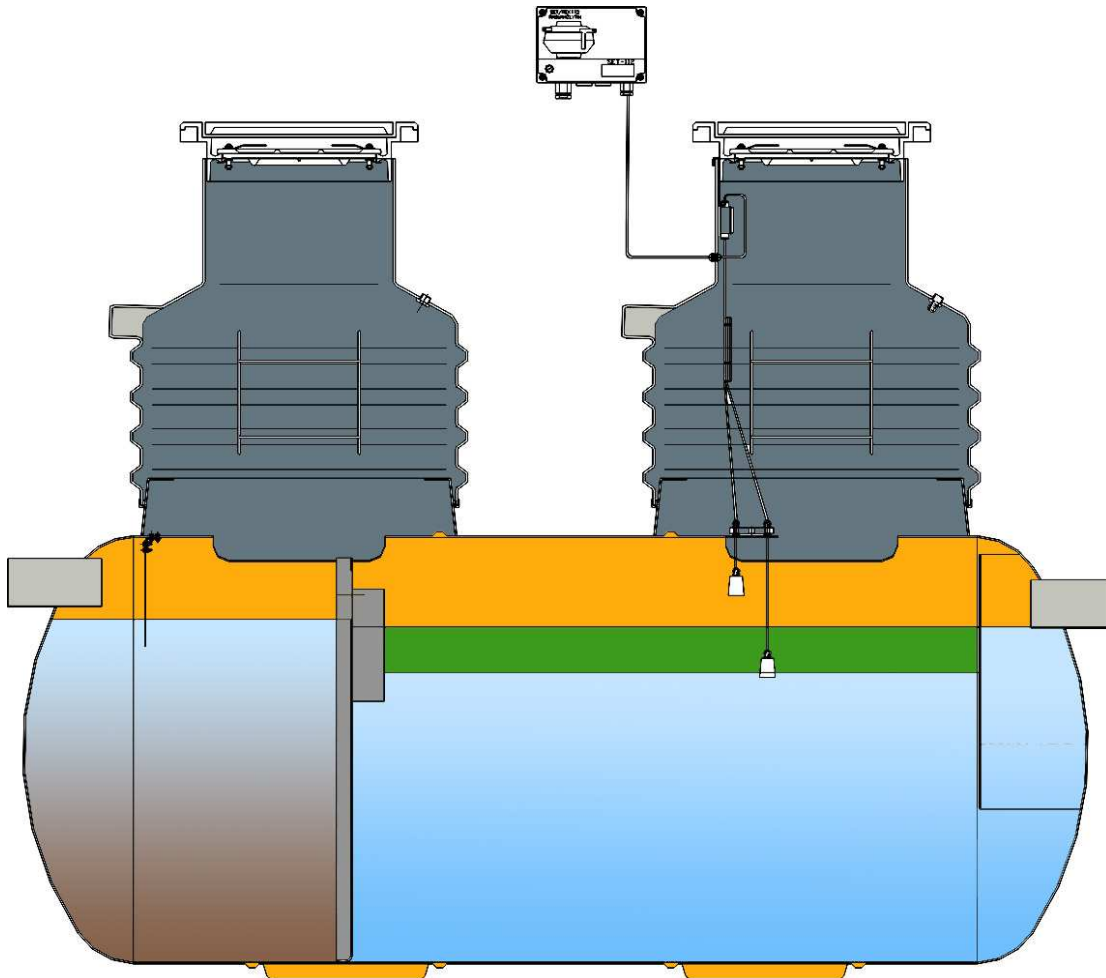
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EuroREK[®] Grease Separator

Instructions for Installation, Operation and Maintenance



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1 GENERAL

The grease separators manufactured by Wavin-Labko Ltd are dimensioned according to the demands of Finnish regulations (Code of Building Regulations, part D1) and also to the new European standard EN1825.

In the grease separator the water flow is divided evenly around the separator tank with a standardized inlet pipe. All EuroREK type grease separators are equipped with a SET - 2000 grease alarm unit, which enables service of the separator always at the correct time. The Labcom data transfer unit is used to forward the alarm information, for example, directly to the maintenance and emptying company.

Separate Installation and Service Instructions are delivered with the alarm unit SET-2000.

2 TECHNICAL DETAILS

The EuroREK grease separators manufactured by Wavin-Labko Ltd represent cylindrical tanks made of reinforced plastic, which are designed to stand the earth pressure. The maximum installation depth of a reinforced plastic EuroREK grease separator is 2500 mm as measured from the ground surface to the lower edge of the inlet pipe of the separator tank. If it is necessary to install the separator deeper, the separator tank should be manufactured with extra reinforcement.

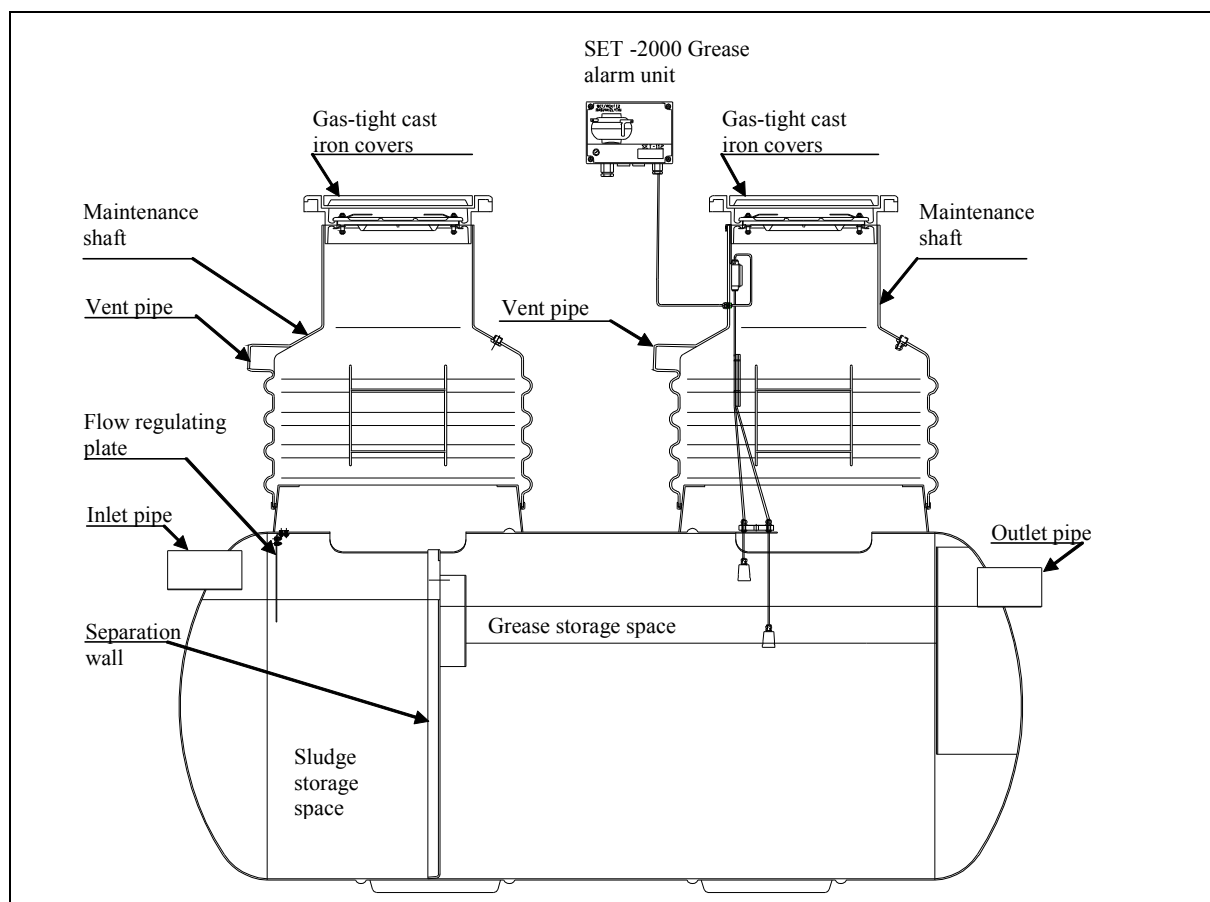


Figure 1. Structure of the EuroREK NS10...25 grease separator.

EuroREK grease separator	NS	10	15	20	25
Maximum flow rate	l/s	10	15	20	25
Inlet/outlet pipe	DN	160	200	200	200
Ventilation pipe	DN	110	110	110	110
Skid – inlet pipe	mm	1230	1370	1370	1970
Skid – outlet pipe	mm	1160	1300	1300	1900
Inner diameter	mm	1400	1600	1600	2200
Total length	mm	3400	4200	6500	5100
Height without maintenance shafts	mm	1700	1900	1900	2500
SET -2000 grease alarm unit	pcs	1	1	1	1
EuroHUK 600 maintenance shaft (access.)	pcs	2	2	2	2
Effective volume	l	2490	5380	7170	13820
Grease storage volume	l	395	830	1000	1400
Sludge storage volume	l	1235	1650	2160	2630
Anchoring belts* (accessory)	pcs	2	3	4	5
- Width of the belt	mm	35	35	35	35
- Length of the belt	m	10	10	10	10
- Tighteners and hooks		stainl.	stainl.	stainl.	stainl.

- Capacity of the anchoring belts should be at least 2500 kg.

3 INSTALLING THE PROBES

3.1 Installing the probes and connection box to EuroREK grease separator

1. Hang the connection box inside the maintenance shaft with a steel hook.
2. Lead the cable into the maintenance shaft with a M16x1.5 inlet.
3. Install the probes through the hole in the tank body. Place the PVC flange on the hole to set the probes at the right height.
4. The probe cables are delivered in exact length, ready for installation. (*Figure 2*)
5. The probe cables are long enough for lifting the probes out for service without going down into the maintenance shaft.

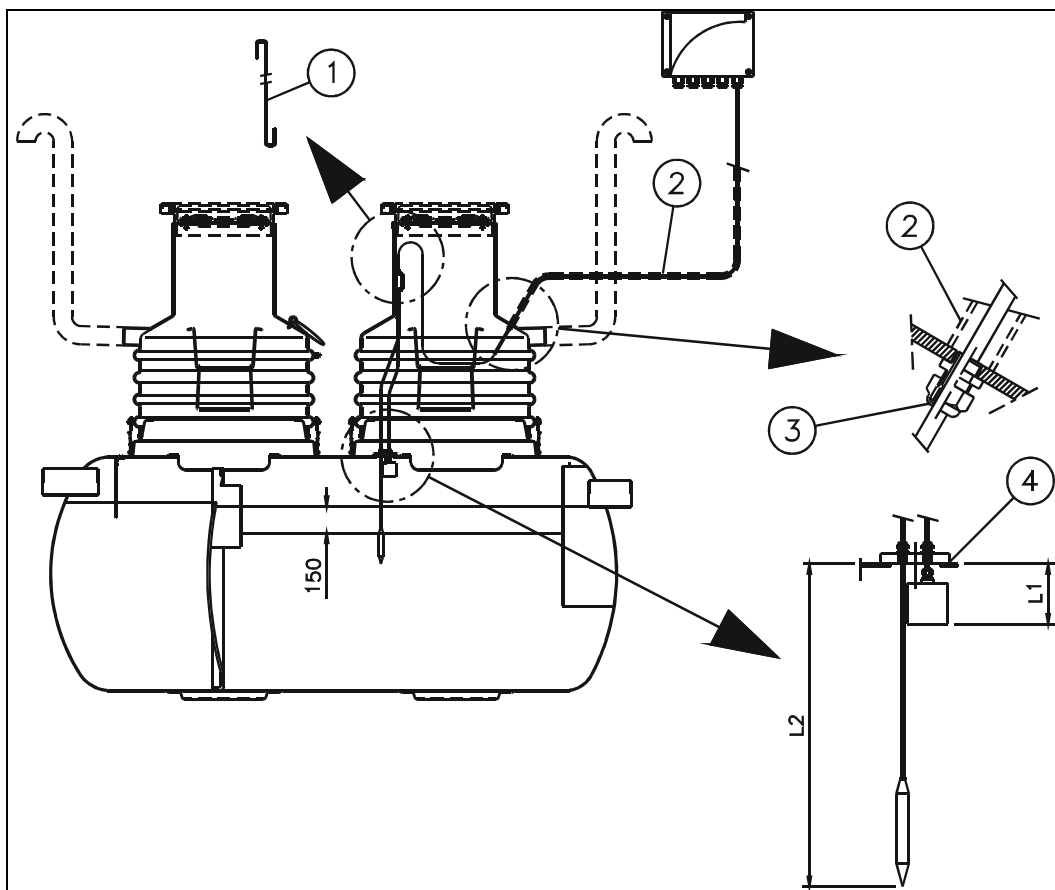


Figure 2. Installing the alarm probes .

1. Hang the connection box inside the maintenance shaft with a steel hook.
2. Protection tube for the cable of alarm probe.
3. Cable inlet : M16x1.5
4. Lead the probes through the hole in the tank body.
Place the PVC flange on the hole.

L1 = 180 mm, L2 = 520 mm

4 INSTALLATION AND MAINTENANCE OF EUROREK GREASE SEPARATORS

4.1 Installation

1. Compact a 30 cm stone-free sand layer horizontally on the bottom of the mounting pit.
2. If necessary, cast a concrete anchoring slab on the sand layer with a necessary quantity of min. Ø10 mm RFe lugs for tying the anchoring belts. Determine the exact places of the RFe lugs according to the length of the separator tank and the quantity and spacing of the anchoring belts. Note! Places of the anchoring belts are not determined by the manufacturer of the separator. The belts should be placed evenly on the straight part of the tank (ca. 0.8-1 m; by the maintenance shafts ca. 1,5 m). At the ends the belts should be placed so that they do not slip off from the tank.
3. Compact at least a 20 cm stone-free sand layer over the slab.
4. Lift the separator on the sand layer and pour ca. 20 cm of water on the bottom of the tank in order to stabilize the separator in its place.
5. Anchor the separator with non-stretching anchoring belts to the base slab. Quantity of the belts needed for each separator is one for each meter of the separator's length.

Anchoring will be sufficient when all the belts, determined by the instructions, are used (see the tables of each separator). If the quantity of the belts is not sufficient or they are not properly tightened, an empty separator may get lifted up by the influence of the ground-water's lifting force.

The anchoring belt is pulled over the separator and fastened on both sides of the tank to the RFe lugs in the concrete slab. It is recommended to tighten the belts with proper ratchet tighteners. (If you order the anchoring belts at the same time with the separator, you will get also the necessary tighteners.) Do not use other device for tightening the belts, because there is a risk of over-tightening, which might damage the tank.

It is recommended to tighten the belts in two stages: at first, each belt to tightness where the force of the tightener begins to grow considerably. After this, start again from the first belt and follow the previous procedure. Ensure that the tighteners are not pressed to the tank's surface.

6. Compact the sand carefully around the skids of the separator. Continue compacting the sand around the separator in ca. 20 cm layers. At the same time, keep adding water into the separator.
7. Install the incoming and outgoing sewage pipes in their places. Avoid using strong vibration above the connection pipes and the tank itself.
8. Remove protecting covers from the manholes. Place the maintenance shaft vertically to the mounting collar and fasten it with the locks. Continue adding and compacting sand ca. 40 cm more.

9. Pull the cable of the alarm system in a protecting tube from the maintenance shaft into the building. Install the alarm probes in the separator. (See **Figure 2** on page 5)
10. Fill the pit with sand up to the ground level.
11. On the area of medium and heavy transport, a reinforced concrete slab should be cast above the separator for equalizing the wheel loads. On the area of light traffic (pedestrians and light passenger cars) a load equalizing slab is not needed.

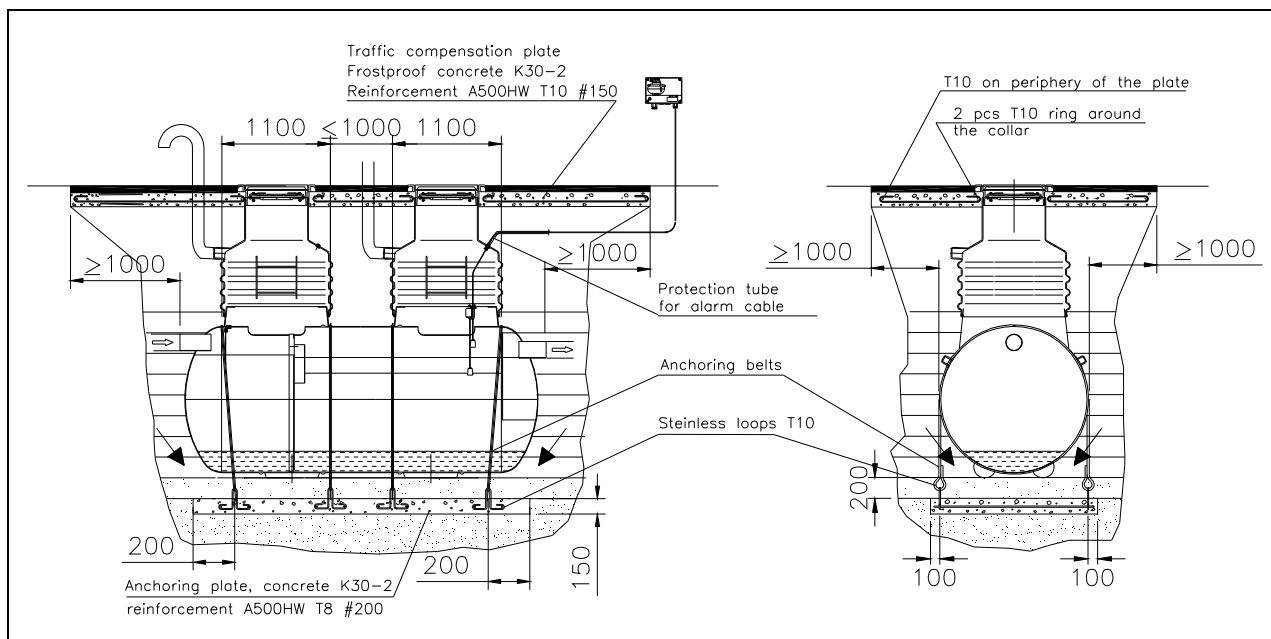


Figure 3. Anchoring the separator on areas with ground-water and on weak grounds.

4.2 Maintenance

The separators should be emptied when the alarm system gives a light signal showing the filling of the storage space or back-water in the separator. In addition, the sludge part of the separator is emptied when needed. The sludge part must be emptied at the latest when half of the sludge part volume has filled with sludge.

The alarm signal can also be forwarded directly to the draining company through the Labcom data transmission unit (accessory). Using of the remote data transmission requires conclusion of a corresponding service contract with the teleoperator and the maintenance and emptying company. If necessary, you will find extra information at the Labko's Internet site www.wavin-labko.fi.

The following tasks shall be completed after the signal showing the filling of the storage space has been received:

1. If you are going to empty the grease layer from the separator surface only, lower the suction hose 0,5 m below the grease layer's surface. If the grease layer is very hard, start the suction a little bit deeper in order to break the layer. If necessary, soften the grease with hot water, air blast, or steam.
2. The sludge, which has gathered in the separator, should be removed from the bottom often enough (e.g. 3 times a year). The sludge can be removed also at the same time when the grease is removed from the surface. In this way the separator will become drained completely. If you are going to empty the grease storage space thoroughly,

lower the suction hose of the emptying lorry very gently into the grease separator to avoid causing damage to the separator bottom.

3. If grease has stuck to separator walls, remove it by pressure washing with warm water.
4. **Note!** Do not forget to clean the probes when emptying the separator.

The following tasks shall be completed after the signal showing back-water in the separator has been received:

1. Check if the blockage is inside the separator or in the outlet sewage pipe.
2. If the blockage is inside the separator, empty the separator completely.
3. Clean the separator with warm water. Pay particular attention to cleaning the outlet water seal of the separator.
4. **Note!** Do not forget to clean the probes when emptying the separator.

IMMEDIATELY AFTER EMPTYING, ALWAYS FILL THE GREASE SEPARATOR TANK WITH WATER to ensure that the separator starts functioning properly. The separator should be filled with clean water up to the level of the outlet pipe, also when it is not completely emptied. In case the ground-water level is high around the separator, water filling reduces the ground-water's lifting force.