

# Grease trap

### EN1825





Grease trap

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# A grease trap and how it works

### **CHARACTERISTICS**

A grease trap is an appliance to remove grease (vegetable and animal greases and oils) from waste water. The installation of a grease trap can be required in the following cases:

- With homes: If water treatment takes place, this is recommended if water treatment happens too far from the kitchen to prevent pipe blockages.
- At hotel and catering establishments, companies, schools, butchers, domestic caterers, etc.: A grease trap is always required in these cases.

The volume of the grease trap depends on the discharged flow rate, the temperature of the water, the use of cleaning products and the waste load. Please contact our technical department to identify the appropriate type.

There are two types of grease trap with sludge trap:

- Built-in sludge trap: Here a partition is welded in the tank so the first compartment serves as a sludge trap. The advantage here is that installation is simpler and quicker than with a separate sludge trap.
- Built-on sludge trap: Here a tank is installed before the grease trap.

DYKA will be happy to assist you in determining the correct capacity of the grease trap by including a capacity calculation, see page 6.

#### **OPERATION**

The greasy water originating from the kitchen and/or dishwasher arrives in the tank through a baffle. The greases separate from the water for two reasons:

- The grease has a lower density than water (so it is lighter)
- The grease clots as soon as it arrives in the colder water in the trap

The grease trap is constructed in such a way that the collected grease stays on the surface and practically no grease is discharged (this involves the condition that the grease trap is cleaned and emptied at regular intervals, see the user instructions).



Grease trap in the initial phase (clean water)



Grease trap saturated (grease layer floats)



### Provided with: QUALITY DECLARATION and CE MARK Suitable for the separation of animal and/or vegetable greases and/or oils

The sludge trap content of grease traps must be least 100 litres per litre second.

Example:

a 2 l/s grease trap has a minimum sludge volume of 200 litres

a 4 l/s grease trap has a minimum sludge volume of 400 litres

The standard uses a factor of x 1.3 for the use of cleaning agents. This must be applied at all times.







All standard HDPE grease traps have been given the CE mark. The HDPE grease traps have successfully completed efficiency tests (PA mark) with the German LGA TÜV-Rheinland approval body. This means first class materials and accredited welders guarantee quality as well as efficiency.

### Applicable at businesses and establishments such as:

- Restaurants, hotels, pubs and cafeterias
- Nursing homes, rest homes and hospitals
- Butchers, slaughterhouses and meat product producers
- Fishmongers and fish-processing companies
- Sports, local authority and works canteens

### The big advantages of our grease traps:

- Robust construction
- High quality, so long-lasting
- Low installation cost
- High efficiency conform NEN-EN 1825
- Also available for heavy traffic loads
- Simple cleaning and maintenance
- Fast delivery times, normally available from stock

### The grease traps are available in the following materials:

- High quality High Density Poly Ethylene (standard)
- Prefab reinforced B45 concrete provided with a grease-resistant epoxy coating (on request)
- Prefab reinforced B45 concrete provided with a HDPE lining (on request)
- AISI 304 or AISI 316 stainless steel (on request)
- Coated steel plate (on request)

# Capacity calculation

### **GREASE TRAP IN CONFORM NEN-EN1825**

### 1. industrial waste water:

		volu	me flow		simul	taneity fa	actor		
Number (Z)	Appliance	es	Q	N=1	N=2	N=3	N=4	N=>5	${Z*Q*N} = QS$
	Boiler 1"		1,0	0,45	0,31	0,25	0,21	0,20	
	Boiler 2"		2,0	0,45	0,31	0,25	0,21	0,20	
	Boiler drainage 75 mm.		1,0	0,45	0,31	0,25	0,21	0,20	
	Boiler drainage 100 mm		3,0	0,45	0,31	0,25	0,21	0,20	
	Rinsing basin with sipho	on 40 mm.	0,8	0,45	0,31	0,25	0,21	0,20	
	Rinsing basin with sipho	on 50 mm.	1,5	0,45	0,31	0,25	0,21	0,20	
	Rinsing basin without si	phon 40 mm.	2,5	0,45	0,31	0,25	0,21	0,20	
	Rinsing basin without si	phon 50 mm.	4,0	0,45	0,31	0,25	0,21	0,20	
	·								
	Dishwasher *		2,0	0,60	0,45	0,40	0,34	0,30	
	Baking dish (tilting)		1,0	0,45	0,31	0,25	0,21	0,20	
	Baking dish (fixed)		0,1	0,45	0,31	0,25	0,21	0,20	
	High-pressure cleaner *		2,0	0,45	0,31	0,25	0,21	0,20	
	Peeling machine		1,5	0,45	0,31	0,25	0,21	0,20	
	Vegetable washer		2,0	0,45	0,31	0,25	0,21	0,20	
	Tap point ½" (15 mm.)	(separate tap)	0,5	0,45	0,31	0,25	0,21	0,20	
	Tap point ¾" (20 mm.)	(separate tap)	1,0	0,45	0,31	0,25	0,21	0,20	
	Tap point 1" (25 mm.) (	separate tap)	1,7	0,45	0,31	0,25	0,21	0,20	
	Tap point 1½" (40 mm.) (separate tap)		3,0	0,45	0,31	0,25	0,21	0,20	
* Any high	er values specified by the	supplier must b	e used.						
Subtotal	(= OS)								L/s.
	lr	dustrial waste water x	Temp	erature x	De	ensity x C	leaning agents	-	
2. QS* Ft*	Fd* Fr =	X		X		Х		= [	L/s.
Ft = Tempe	rature coefficient (tempe	erature <60°C * 1	1.0 / temp	erature ≥	:60°C * 1	.3 (at the	e inlet))	[	
Fd = Densit	y factor (mass density <0	).94 kg/m³ * 1.0	/ mass de	nsity >0.9	94 kg/ *	1.5 (min.)	)		
Fr = Cleani	ng agent factor (No use o	of cleaning agent	ts * 1.0/I	Regularly	to				
much use c	of cleaning agents * 1.3 /	'Special situation	ns e.g. Ho	spitals, et	c. ≥ 1.5)				
				, ,	,				
3. Liquid	to be trapped:						Minim	al sluda	e trap volume
a. Name: ve	egetable and animal grea	ises.				ſ	Situation	:	Content []]
b Dwell tin	ne in tran <sup>.</sup> <b>3 minutes</b>						Meat r	rocessing	200*NS
c Minimal sludge tran volume conform NEN-EN1825-1&2					situations	100*NS			
c. minimu						100 113			
4. Advice	DYKA B.V.:								

 a. Advised trap
 :
 Conform NEN-EN 1825-1&2 :
 Litres/second

 b. Advised sludge trap
 :
 Volume :
 Litres

 c. Advised inspection pit
 :
 :
 .

We advise you to submit this advice for approval by the Public Works Department, Sewers section.

# GREASE TRAP KITCHEN SINK

### **GREASE TRAP combined with sludge trap, material HDPE.**

Provided with	-	Efficiency declaration
Suitable for	-	Above-ground installation.
Capacity	-	0.3 l/s 0.5 l/s 0.7 l/s 1.0 l/s.
Material	-	Black High Density Poly Ethylene (HDPE) (temperature max. 60°C).
Material cover	-	Black High Density Poly Ethylene (HDPE).



Trap capacity	Sludge	Grease	d	Diam.	Н	T1	T2	Weight
	trap	storage						
	volume							
0.3 l/s	20 litres	15 litres	50	550	700	580	530	35
0.5 l/s	28 litres	20 litres	50	650	700	580	530	45
0.7 l/s	40 litres	25 litres	50	650	1000	880	830	55
1.0 l/s	65 litres	50 litres	110	850	1000	820	770	75

Sizes in millimetres, weights in kilograms, changes to illustrations, custom designs and description reserved.



### GREASE TRAP 2L/SEC

### rectangular

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

Provided with	-	CE mark, efficiency declaration.
Suitable for	-	Underground installation.
Construction	-	Double-sided, extruded.
Capacity	-	2.0 l/s conform NEN-EN 1825.
Sludge trap volume	-	216 litres.
Grease storage volume	-	150 litres.
Туре	-	A Euromal-p
Material	-	Black High Density Poly Ethylene (HDPE) (temperature max.
		60°C). Reinforced with welded HDPE pipes provided with steel
		inner core.
Cover and maintenance shaft	-	2 cast-iron covers, traffic class A15 kN (pedestrian).
Connection in/out	-	Ø 110 mm (O.D.).
Installation depth	-	Variable min. 300 mm, max. 900 mm.
Height minimum (exterior)	-	1250 mm.
Dimensions L x W (external)	-	1500 x 750 mm.
Weight	-	Total approx. 185 kg.

Rectangular trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 98-115 mm flexible couplings. (2 per trap). Optional: locked covers traffic class B125 kN. (2 per trap). Optional: inner covers for indoor installation (only in combination with locked covers). Optional: PVC non-return valve with lock, Ø 110 mm. Optional: grease alarm (notifies when maximum grease storage is reached)

#### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A15 kN (pedestrian).
Connections in/out	-	Ø 110 mm (O.D.). At equal height. (Available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	Total approx. 40 kg.

Optional: locked covers traffic class B125 kN. Optional: inner covers for indoor installation (only in combination with locked covers).

# GREASE TRAP 2L/SEC

### round

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

Provided with	-	CE mark, efficiency declaration.
Suitable for	-	Underground installation.
Capacity	-	2.0 l/s conform NEN-EN 1825
Sludge trap volume	-	203 litres.
Grease storage volume	-	173 litres.
Туре	-	A Euromal-pr
Material	-	Black High Density Poly Ethylene (HDPE) (temperature max.
		60°C).
Cover and maintenance shaft	-	1 cast-iron cover, traffic class A15 kN (pedestrian).
Connection in/out	-	Ø 110 mm (O.D.).
Installation depth	-	Variable min. 300 mm, max. 900 mm.
Height minimum (exterior)	-	1400 mm.
Dimensions diam. (external)	-	Ø 1250 mm.
Weight	-	Total approx. 175 kg.

Round trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 98-115 mm flexible couplings. (2 per trap).

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

Optional: PVC non-return valve with lock, Ø 110 mm.

Optional: grease alarm (notifies when maximum grease storage is reached)

#### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A. 15 kN (pedestrian).
Connections in/out	-	Ø 110 mm (O.D.). At equal height (available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	Total approx. 40 kg.

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

### GREASE TRAP 4L/SEC

### rectangular

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

CE mark, efficiency declaration.
Underground installation.
Double-sided, extruded.
4.0 l/s conform NEN-EN 1825.
403 litres.
210 litres.
A Euromal-p
Black High Density Poly Ethylene (HDPE) (temperature max.
60°C). Reinforced with welded HDPE pipes provided with steel
inner core.
2 cast-iron covers, traffic class A15 kN (pedestrian).
Ø 110 mm (O.D.).
Variable min. 300 mm, max. 900 mm.
1250 mm.
2000 x 750 mm.
Total approx. 250 kg.

Rectangular trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 98-115 mm flexible couplings. (2 per trap). Optional: locked covers traffic class B125 kN. (2 per trap). Optional: inner covers for indoor installation (only in combination with locked covers). Optional: PVC non-return valve with lock, Ø 110 mm. Optional: grease alarm (notifies when maximum grease storage is reached)

#### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A15 kN (pedestrian).
Connections in/out	-	Ø 110 mm (O.D.). At equal height. (Available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	lotal approx. 40 kg.

Optional: locked covers traffic class B125 kN. Optional: inner covers for indoor installation (only in combination with locked covers).

# GREASE TRAP 4L/SEC

### round

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

-	CE mark, efficiency declaration.
-	Underground installation.
-	4.0 l/s conform NEN-EN 1825
-	403 litres.
-	170 litres.
-	A Euromal-pr
-	Black High Density Poly Ethylene (HDPE) (temperature max.
	60°C).
-	1 cast-iron cover, traffic class A15 kN (pedestrian).
-	Ø 125 mm (O.D.).
-	Variable min. 300 mm, max. 900 mm.
-	1800 mm.
-	Ø 1250 mm.
-	Total approx. 250 kg.
	-

Round trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 120-136 mm flexible couplings. (2 per trap).

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

Optional: PVC non-return valve with lock, Ø 125 mm.

Optional: grease alarm (notifies when maximum grease storage is reached)

### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A. 15 kN (pedestrian).
Connections in/out	-	Ø 125 mm (O.D.). At equal height (available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	Total approx. 40 kg.

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

# GREASE TRAP 7L/SEC

### rectangular

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

Provided with	-	CE mark, efficiency declaration.
Suitable for	-	Underground installation.
Construction	-	Double-sided, extruded.
Capacity	-	7.0 l/s conform NEN-EN 1825.
Sludge trap volume	-	703 litres.
Grease storage volume	-	386 litres.
Туре	-	A Euromal-p
Material	-	Black High Density Poly Ethylene (HDPE) (temperature max.
		60°C). Reinforced with welded HDPE pipes provided with steel
		inner core.
Cover and maintenance shaft	-	2 cast-iron covers, traffic class A15 kN (pedestrian).
Connection in/out	-	Ø 160 mm (O.D.).
Installation depth	-	Variable min. 300 mm, max. 900 mm.
Height minimum (exterior)	-	1500 mm.
Dimensions L x W (external)	-	2000 x 1000 mm.
Weight	-	Total approx. 350 kg.

Rectangular trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 145-168 mm flexible couplings. (2 per trap). Optional: locked covers traffic class B125 kN. (2 per trap). Optional: inner covers for indoor installation (only in combination with locked covers). Optional: PVC non-return valve with lock, Ø 160 mm. Optional: grease alarm (notifies when maximum grease storage is reached)

#### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A15 kN (pedestrian).
Connections in/out	-	Ø 160 mm (O.D.). At equal height. (Available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	Total approx. 40 kg.

Optional: locked covers traffic class B125 kN. Optional: inner covers for indoor installation (only in combination with locked covers).

# GREASE TRAP 7L/SEC

### round

### **GREASE TRAP combined with sludge trap, material HDPE conform NEN- EN 1825.**

Provided with	-	CE mark, efficiency declaration.
Suitable for	-	Underground installation.
Capacity	-	7.0 l/s conform NEN-EN 1825
Sludge trap volume	-	703 litres.
Grease storage volume	-	385 litres.
Туре	-	A Euromal-pr
Material	-	Black High Density Poly Ethylene (HDPE) (temperature max.
		60°C).
Cover and maintenance shaft	-	1 cast-iron cover, traffic class A15 kN (pedestrian).
Connection in/out	-	Ø 160 mm (O.D.).
Installation depth	-	Variable min. 300 mm, max. 900 mm.
Height minimum (exterior)	-	2065 mm.
Dimensions diam. (external)	-	Ø 1600 mm.
Weight	-	Total approx. 350 kg.

Round trap model with CE mark + LGA/TÜV Rheinland efficiency certificate

Optional: 145-168 mm flexible couplings. (2 per trap).

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

Optional: PVC non-return valve with lock, Ø 160 mm.

Optional: grease alarm (notifies when maximum grease storage is reached)

#### **Optional: INSPECTION PIT, material HDPE.**

Material	-	High Density Poly Ethylene.
Covers	-	1 cast-iron cover, traffic class A. 15 kN (pedestrian).
Connections in/out	-	Ø 160 mm (O.D.). At equal height (available on request with drop).
Shaft diameter	-	Ø 250 mm.
Weight	-	Total approx. 45 kg.

Optional: locked covers traffic class B125 kN.

Optional: inner covers for indoor installation (only in combination with locked covers).

# SIZES AND WEIGHTS



Trap capacity	Volume sludge trap	Grease storage	D	L	W	H min.	T1	T2	Total weight	Number of covers
2 l/s	216 litres	150 litres	110	1500	750	1250	variable	variable	185	2
4 l/s	403 litres	210 litres	110	2000	750	1250	variable	variable	250	2
7 l/s	703 litres	386 litres	160	2000	1000	1500	variable	variable	350	2
10 l/s	1012 litres	633 litres	160	2500	1250	1500	variable	variable	550	2
15 l/s	1515 litres	1049 litres	200	3000	1500	1750	variable	variable	750	3
20 l/s	2281 litres	1435 litres	200	4000	1500	1750	variable	variable	950	3

variable

.

b





							Diam		
Trap capacity	Sludge trap volume	Grease storage	Diam.	D	H min.	T1	T2	Total weight	Number of covers
2 l/s	203 litres	173 litres	1250	110	1525	variable	variable	185	1
4  /s	403 litres	170 litres	1250	125	1800	variable	variable	250	1
7 l/s	703 litres	385 litres	1600	160	2065	variable	variable	350	1

Sizes in millimetres, weights in kilograms, changes to illustrations, custom designs and description reserved.

### Bringing into use

Before bringing into use, the trap installation must be filled with clean water up to the outlet. When filling the installation, it must be checked that:

- the supply and discharge pipes have a free flow.
- intermediate parts (e.g. inspection pit) and coverings are correctly assembled.
- construction waste, etc. has been cleaned from the installation.

#### **Emptying and maintenance**

Opening coverings:

- Undo locking bolts
- Lift the cover with the specially supplied key-tow hook

The installation should be emptied by specialized companies. Emptying must take place during pauses in operation or at time of low water discharges. When sucking the installation empty, the cover above the sludge trap and above the trap part must be open. It must be ensured that the whole installation is emptied.

Closing coverings:

- Clean supporting surfaces
- Clean the support rings
- If necessary, grease and in case of damage, replace
- Put the cover back in position
- Gradually tighten the sealing bolts in turn. (Bolt threads are best greased)





The installation must in any event be emptied in the following situations:

1. When the sludge trap space is half full

2. When the maximum permissible grease layer thickness has been reached

It is, however, recommended to empty the installation earlier. After emptying, the basin must be cleaned, whereby the inside walls (particular in range of the grease zone) and the bottom of the sludge trap are sprayed down with water. Hot water makes cleaning easier. To bring it back into use, the installation must again be filled with water to the outlet and the covers must be correctly replaced.

One must have the whole installation maintained and inspected at least once a year. To do this, the installation must be emptied and the inside spaces cleaned. Then the whole installation must be checked for any cracks.

When cleaning the installation, unblocking and/or degreasing agents may not be used because of their aggressive nature. Removing parts (baffle wall, baffle, etc.) present in the trap is not allowed.

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