

Verification Report

REPORT NO:
957983-2



**DANISH
TECHNOLOGICAL
INSTITUTE**

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Customer: Contact: Jacob L. Kristensen
Company: Watercare
Address: Stejlebjergvej 14
Town/Country: DK-5610 Assens

Material: The grease separator from Watercare with nominal sizes NS4, type Lipo 4 There is no sludge trap combined with the separator.

All materials pe also the inlet and outlet.

Purpose and scope of the test: The Pipe Centre at Danish Technological Institute is a Certified Body and can conduct tests of grease separators according to the European Standard EN 1825-1:2004. The purpose of this report is to verify the design, watertightness and effectiveness of the grease separator from Watercare and to obtain CE-marking for the NS 4 separator.

Sampling: The drawings were sent to the Danish Technological Institute in Taastrup by Watercare and received in 2009 and October 2020.

Method: The verification was carried out according to:
1. EN 1825 - 1, 2004, clause 5.2, 5.3.2-5.3.6, 5.3.9 and 5.5.3

Period: The verification was carried out in 2009 but a new drawing (see appendix 2) and test report has been made in December 2020.

Result: The verification shows that the NS 4 separator, type Lipo 4 meet all relevant requirements in EN 1825-1, clause 5.2.3, 5.3.2 and 5.5.3, see results in appendix 1. Furthermore, the grease separators conform to the design requirements in 5.3.1, 5.3.4-5.3.6.

Terms: The verification has been performed according to EN 1825-1:2004. The verification is only valid for the verified specimen.
The test report may only be extracted, if the laboratory has approved the extract.

Place: Date: 18.12.2020, Danish Technological Institute, Taastrup, Pipe Centre

Ulrik Hindsberger

Signatur: Ulrik Hindsberger
Center Manager



Appendix 1

5.2.3

Materials

All materials are PE except the inlet and outlet. All materials in pe must be resistant to the influences to which they are exposed to according to EN 1825-1, section 5.2.4. All metal parts must be made of stainless steel AISI 304 or 316. In some countries the legal authorities recommend that manufacturers use stainless steel AISI 316L instead of AISI 304 for grease separators.

5.3.2

Watertightness according to 8.4.1

The grease separators have been tested in 2008 by filling up water to 100 mm above the maximum operational liquid level. There were no leaks after 20 min of testing. The tightness of the extension shaft has not been tested. If extension shafts are used, the tightness of the connections must be tested after installation.

5.3.4

Inlets and outlets

Minimum nominal diameters for inlets and outlets is OK according to table 1 in EN 1825-1. The only difference is that the design of the inlet and outlet differs slightly from Figure a) in EN 1825-1. It is not considered to have an effect on the efficiency of the separator.

5.3.5

Internal component

All internal components have a free passage for a ball of 80 mm diameter.

5.3.6

Sludge traps

The is no sludge trap combined with the separator. It is permissible to perform grease separation without sludge trap according to EN 1825-1

5.3.9

Fall

The total fall through the grease separator shall be at least 20 mm: **OK**

5.5.3

Determination of the nominal size

The grease separators have been designed according to 5.5.3 and verified according to the given values in Table 2 in EN 1825-1, see the drawings in appendix 2.

Minimum surface of grease separation zone

Size	Surface of grease separation zone from drawing (m ²)	From table 2: Minimum 0.25 x NS (m ²)
NS4	> 1.0 m ²	1.0 m ² (OK)

Minimum volume of grease separation zone

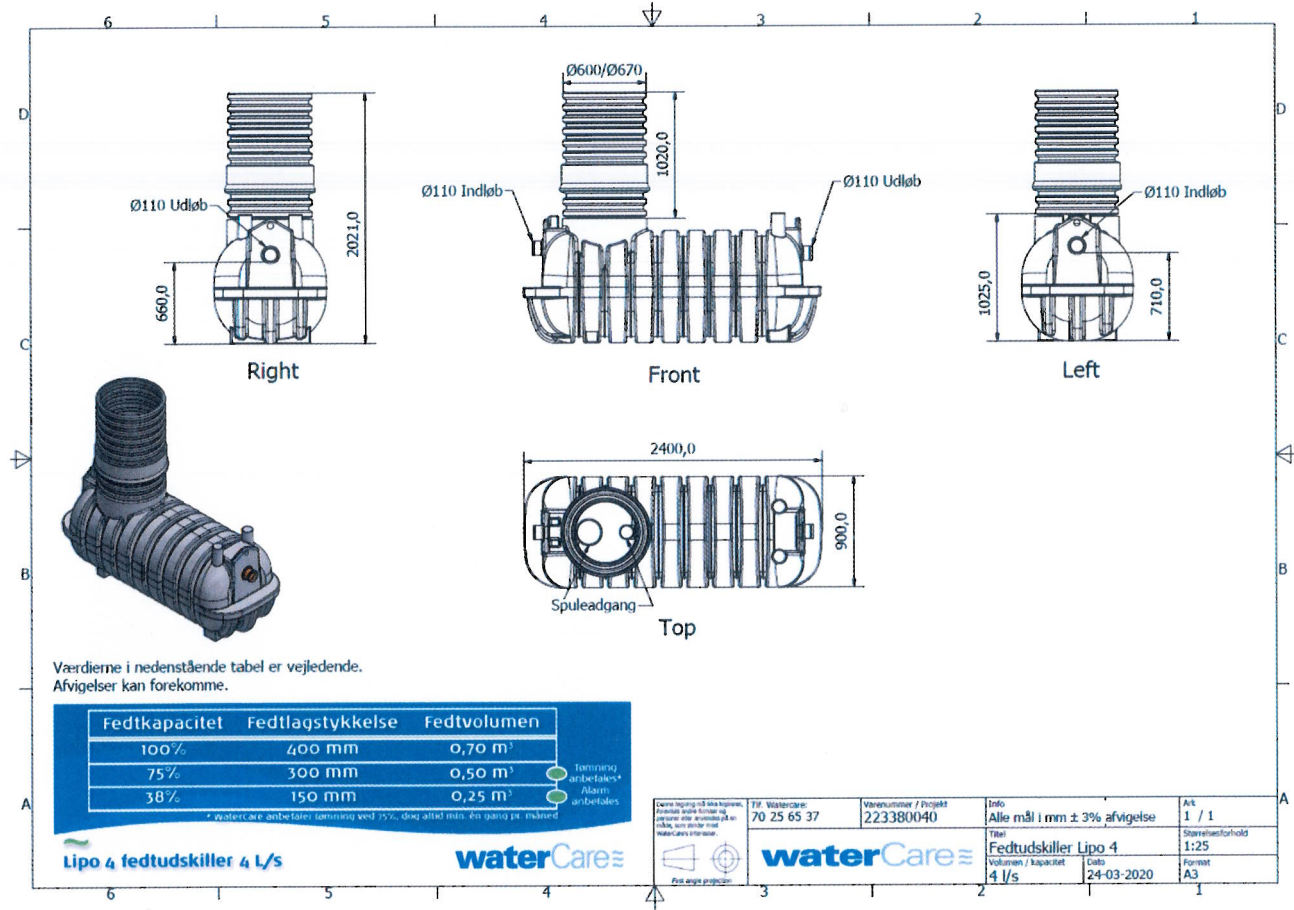
Size	Volume of grease separation zone from drawing (m ³)	From table 2: Minimum 0.24 x NS (m ³)
NS4	Min 2.2*0.8*0.6=1.056 m ³	0.96 m ³ (OK)

Minimum volume of grease collection area

Size	Volume of grease collection area from drawing (m ³)	From table 2: Minimum 0.04 x NS (m ³)
NS4	0,70 m ³ (100%)	0.16 m ³ (OK)



Appendix 2: Drawing of the NS 4 grease separator



Værdierne i nedenstående tabel er vejledende.
 Afvigelse kan forekomme.

Fedtkapacitet	Fedtlagstykkelse	Fedtvolumen
100%	400 mm	0,70 m ³
75%	300 mm	0,50 m ³
38%	150 mm	0,25 m ³

* waterCare anbefaler tætnings ved 75%, dog altid min. 20 g/m² på inderside

Lipo 4 fedtudskiller 4 L/s **waterCare**

<small>Denne tegning er ikke gyldig, hvis den ikke er trykt på et papir eller en elektronisk fil, som er godkendt af waterCare.</small> 	Tlf. WaterCare: 70 25 65 37	Varenr./Projekt: 223380040	Info: Alle mål i mm ± 3% afvigelse	Ark: 1 / 1
	waterCare		Titel: Fedtudskiller Lipo 4	Skærmforhold: 1:25
			Volumen / kapacitet: 4 l/s	Dato: 24-03-2020
				Format: A3