TREATMENT PERFORMANCE RESULTS

Initial type test performed by **KLARO GmbH**

Spitzwegstraße 63, 95447 Bayreuth, Germany
Distributed by **Wastewater Solutions**

EN 12566-3 Annex B
Results corresponding to EN 12566-3 and S.R. 66

PIA-SR66-1803-1023.03, shared itt

KLARO one
Fully aerated sequence batch system (initial type test)
in combination with PPR Carlow concrete

Nominal organic daily load (influent)		0.27 kg BOD_5/d	
Nominal hydraulic daily load		0.75 m^3/d	
Treatment efficiency (nominal sequences)		Efficiency	Effluent
	COD	94.8 %	41 mg/l
	BOD_5	98.1 %	7 mg/l
	NH_4-N	98.5 %	0.5 mg/l
	SS	96.6 %	14 mg/l
Electrical consumption		0.63 kWh/d	
Number of desludging		Itt: not more than once	
		For range check page 3 and following	

Tested by:

PIA – Prüfinstitut für Abwassertechnik GmbH
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

This document replaces neither the declaration of performance nor the CE marking.

Notified Body
No.: 1739

Certified according to
ISO 9001:2015

PIA - Sustainable Certification

geprüft - tested- testé

Martina Wermter July 2021

TREATMENT PERFORMANCE RESULTS

Initial type test performed by **PPR Carlow Concrete Tanks**

Drumberry, Bunclody, Co. Wexford, Ireland

EN 12566-3 Annex A and C

Results corresponding to EN 12566-3 and S.R. 66

PIA-SR66-1803-1023.03

PPR Concrete Tanks

PPR Carlow concrete tanks in combination with
KLARO treatment kit KLARO one (fully aerated sequence batch system)

Material	Concrete
Watertightness	Pass
Structural behaviour (crushing resistance)	Pass (also wet conditions)
Durability	Pass

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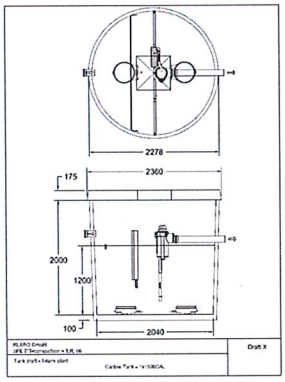
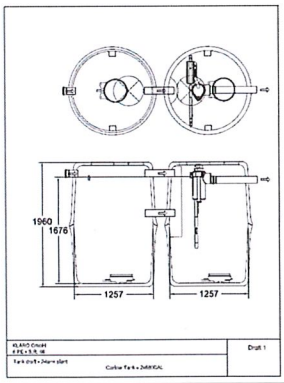
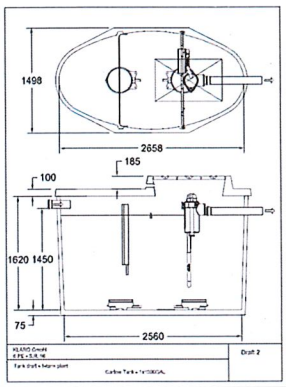
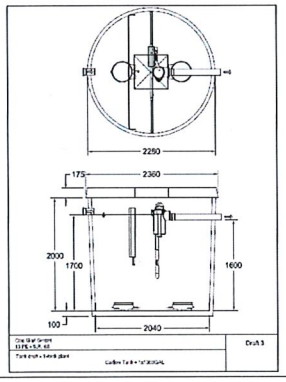
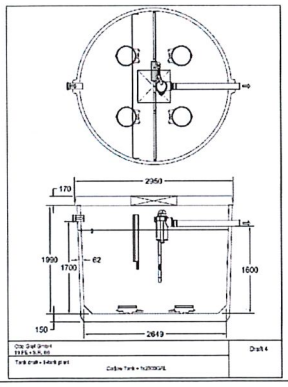
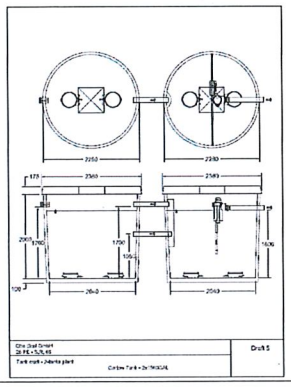
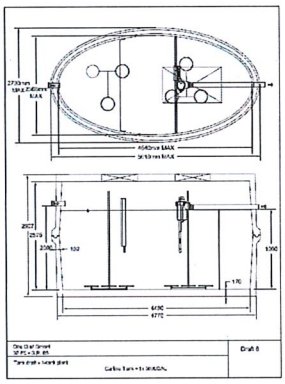
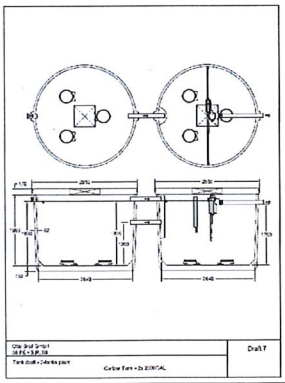
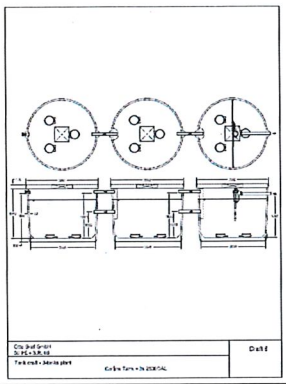
Daniela Schmitz July 2021

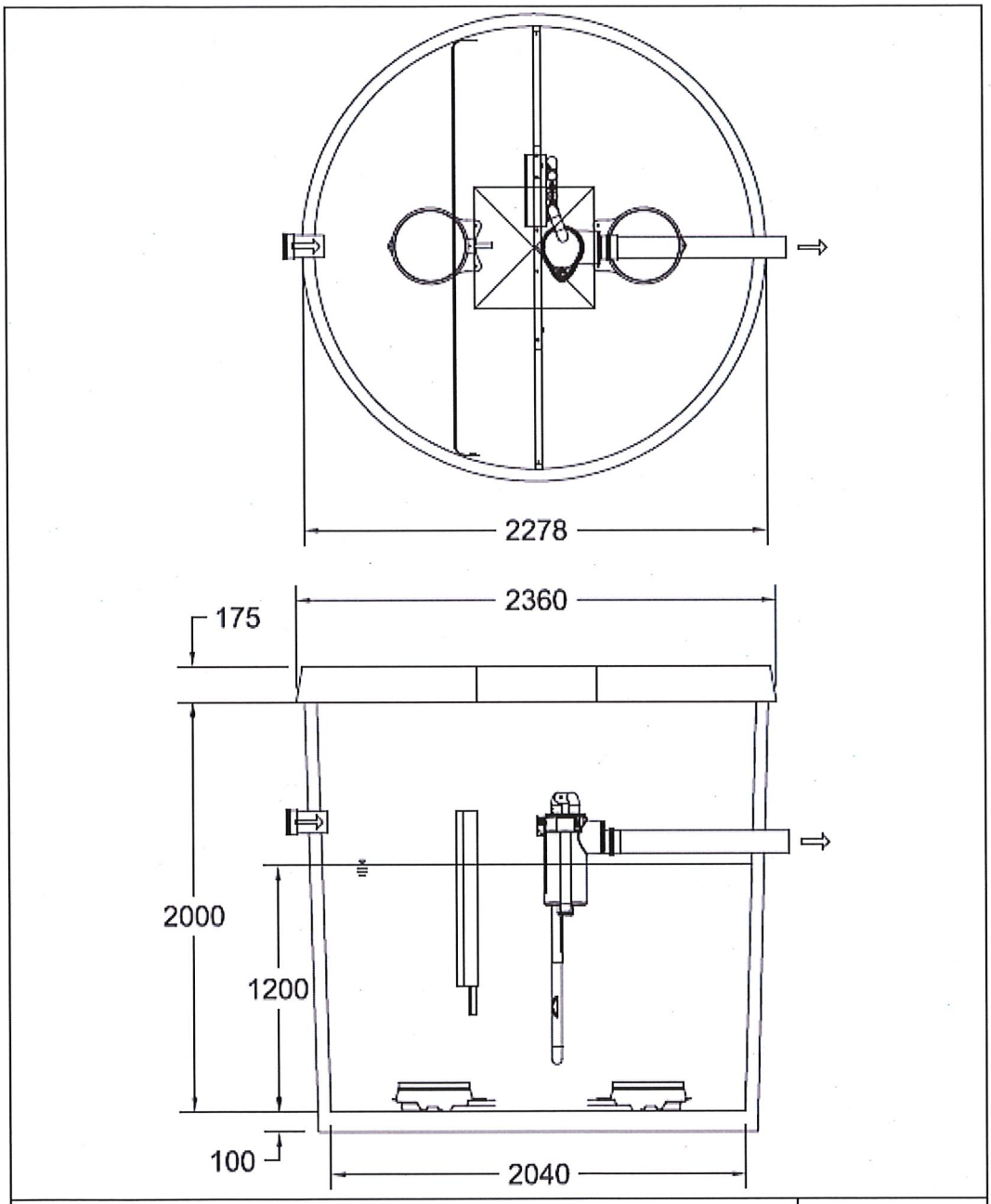
KLARO one range shared ITT and its referring test reports:

Population equivalent (PE)	Drawing of model of the range	Watertightness (EN 12566-3 Annex A)	Treatment Efficiency (EN 12566-3 Annex B)	Structural Behaviour (EN 12566-3 Annex C)	Durability	Number of desludging per year
Initial type test (ITT) 5	Not relevant	Not relevant	Pass PIA2014-216B14.02.e	Not relevant	Not relevant	
Compared Tank 5		Pass PIA2013-WD-1203-1017	Pass Shared itt conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	1
6		Pass PIA2012-WD-1203-1016	Pass Range conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	1

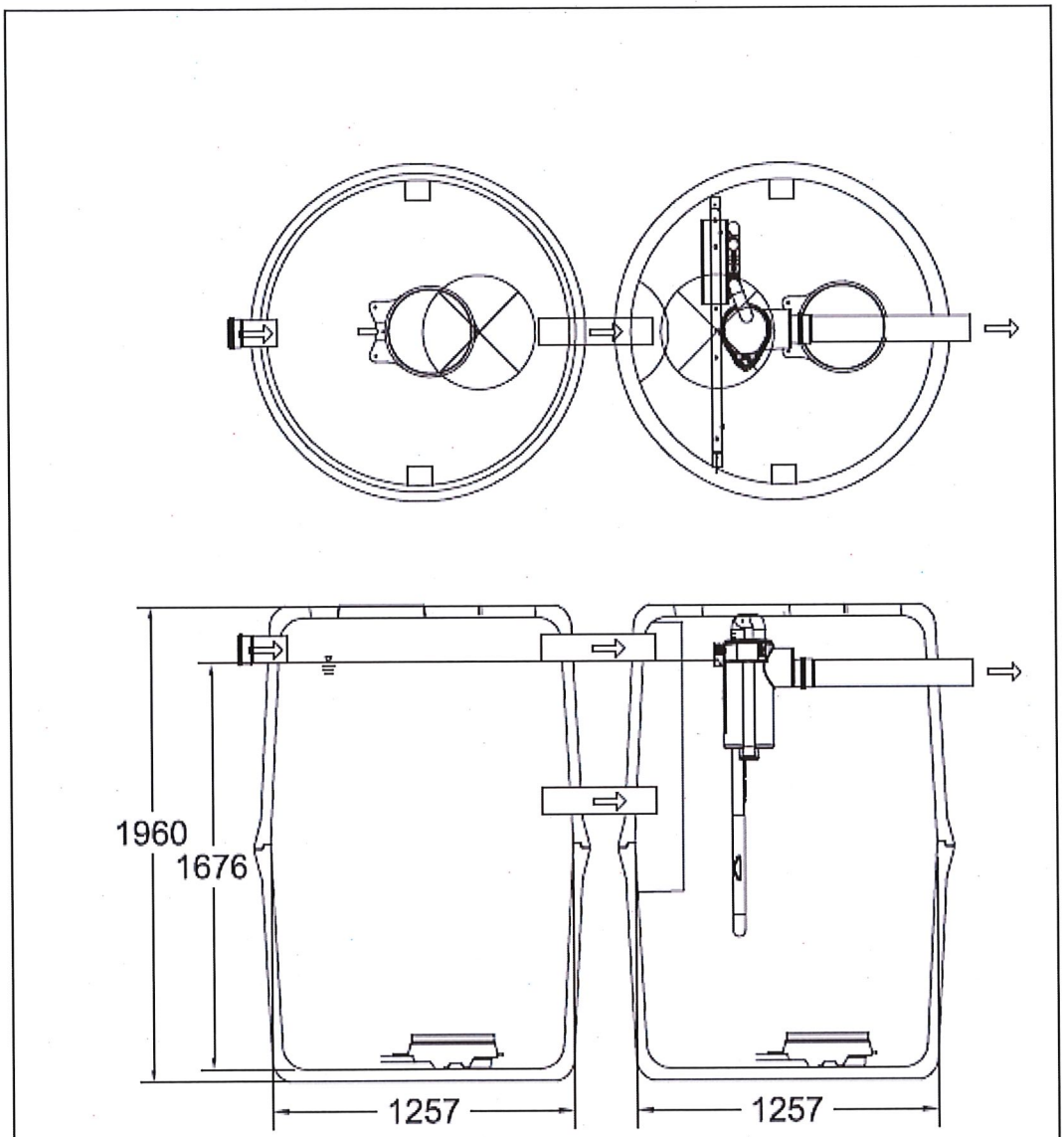
Population equivalent (PE)	Drawing of model of the range	Watertightness (EN 12566-3 Annex A)	Treatment Efficiency (EN 12566-3 Annex B)	Structural Behaviour (EN 12566-3 Annex C)	Durability	Number of desludging per year
6		Pass PIA2012-WD-1203-1016	Pass Range conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	1
13		Pass PIA2013-WD-1203-1017	Pass Shared itt conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2
19		Pass PIA2012-WD-1203-1016	Pass Range conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2

Population equivalent (PE)	Drawing of model of the range	Watertightness (EN 12566-3 Annex A)	Treatment Efficiency (EN 12566-3 Annex B)	Structural Behaviour (EN 12566-3 Annex C)	Durability	Number of desludging per year
26		Pass PIA2013-WD-1203-1017	Pass Shared itt conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2
35		Pass PIA2013-WD-1203-1017	Pass Range conformity check according to S.R. 66:2015	Pass PIA2009-ST-AT0710-1012 For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2
38		Pass PIA2012-WD-1203-1016	Pass Range conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2

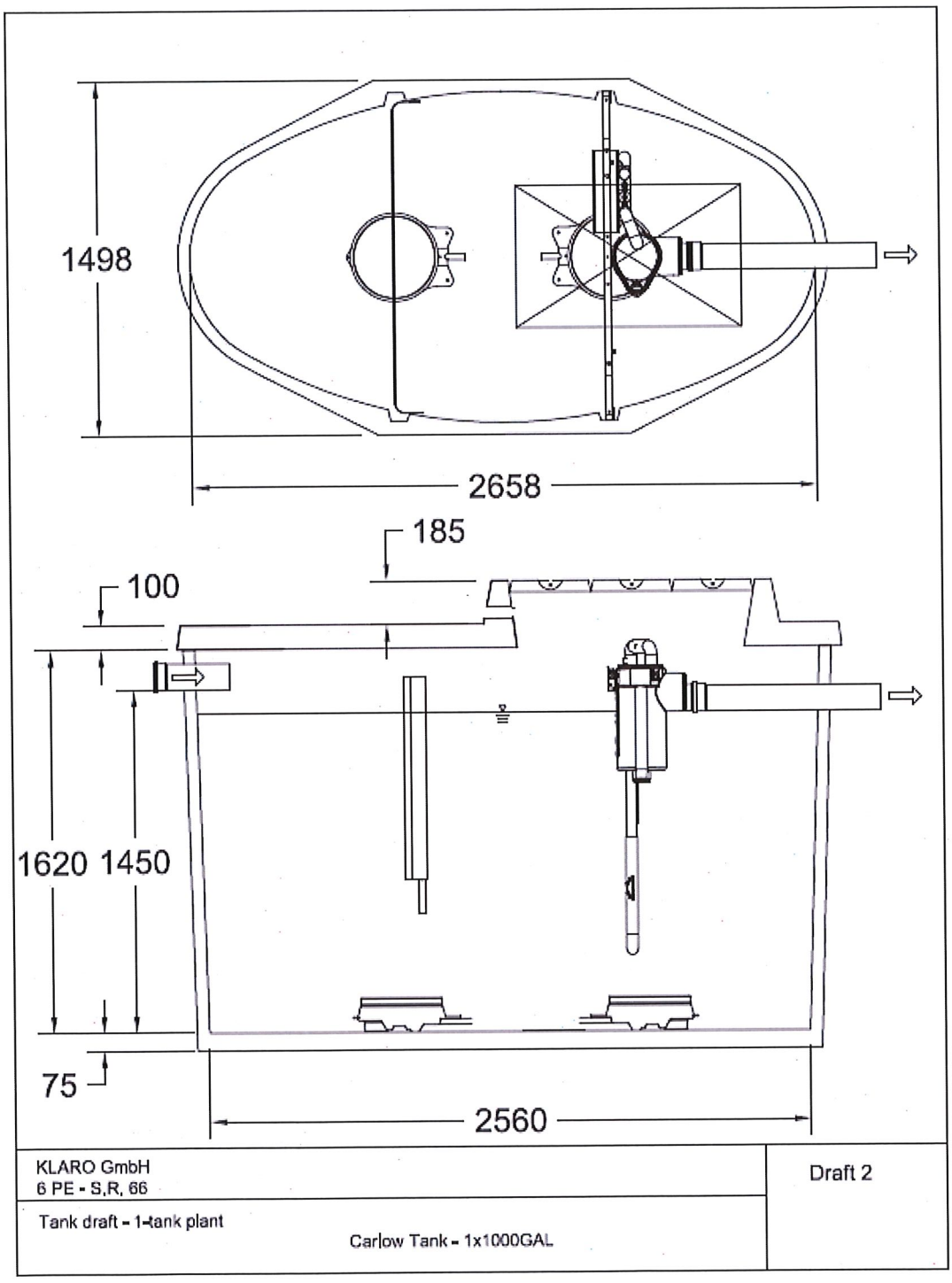
Population equivalent (PE)	Drawing of model of the range	Watertightness (EN 12566-3 Annex A)	Treatment Efficiency (EN 12566-3 Annex B)	Structural Behaviour (EN 12566-3 Annex C)	Durability	Number of desludging per year
50		Pass PIA2012-WD-1203-1016	Pass Range conformity check according to S.R. 66:2015	Pass For wet ground conditions also, 1.25 m installation depth from inlet invert	Pass PIA2016-DH-1601-1003.01	2

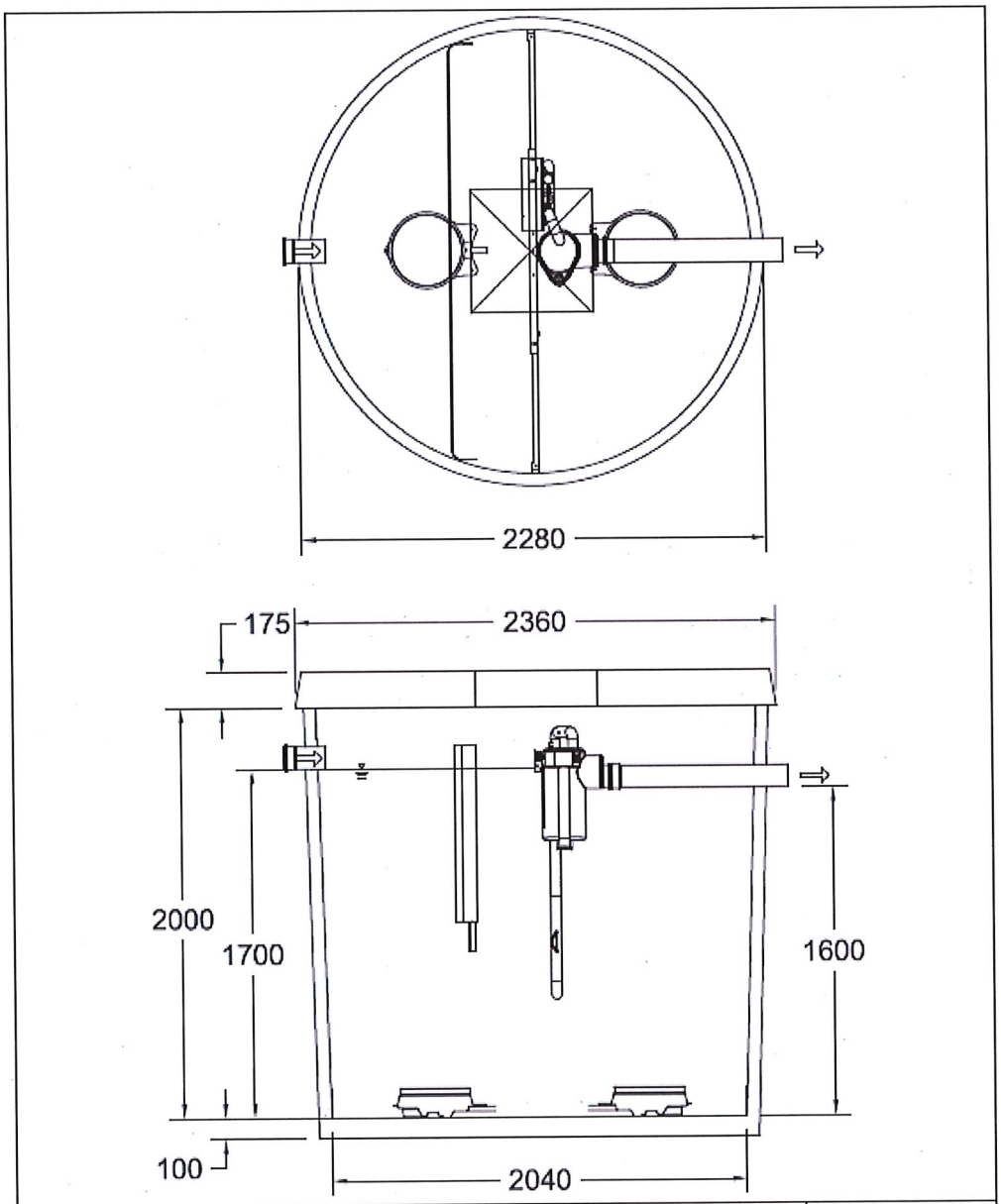


KLARO GmbH 5PE ITT-comparison - S,R, 66	Draft X
Tank draft - 1-tank plant Carlow Tank - 1x1500GAL	

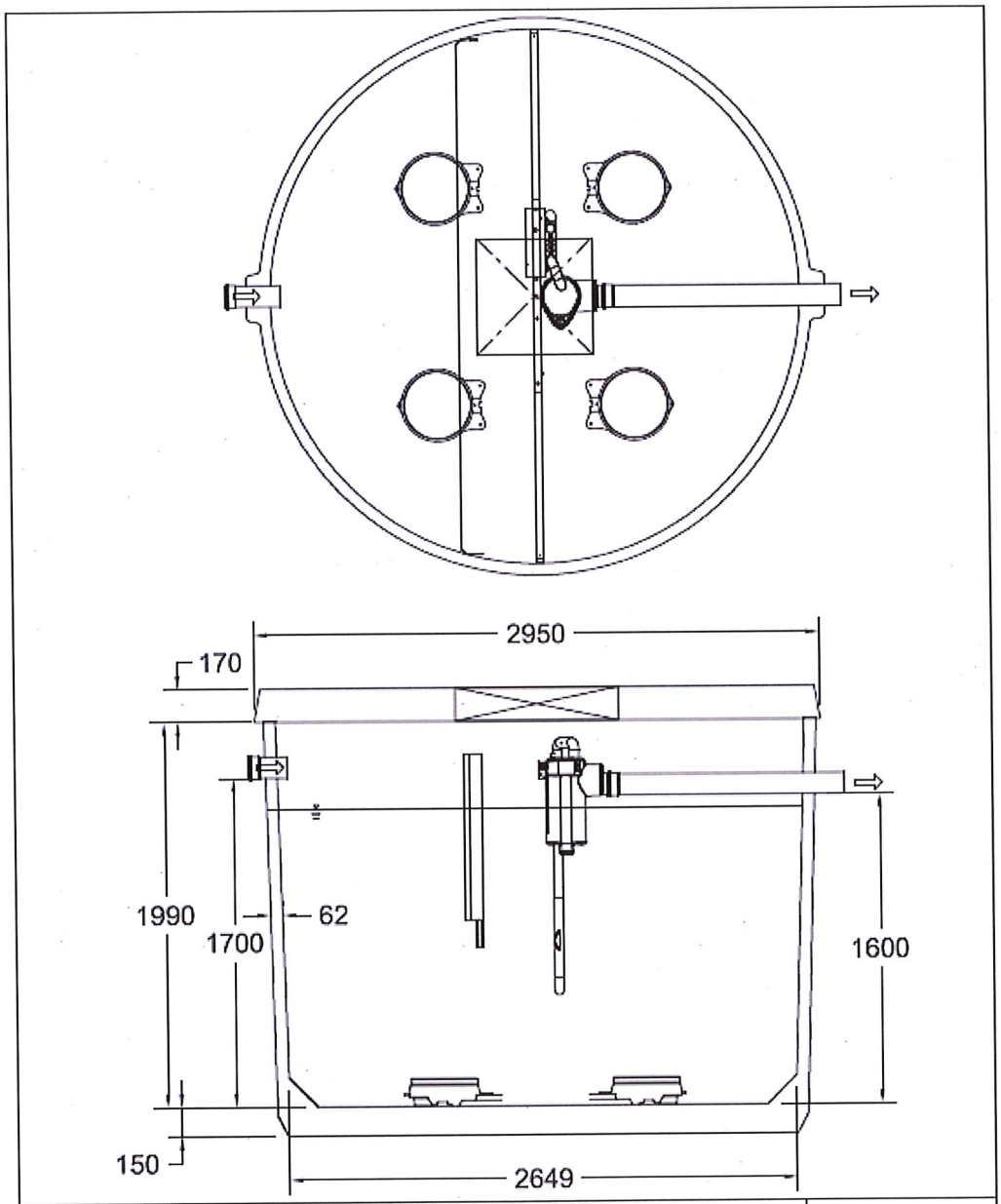


KLARO GmbH 6 PE - S,R, 66	Draft 1
Tank draft - 2-tank plant Carlow Tank - 2x880GAL	

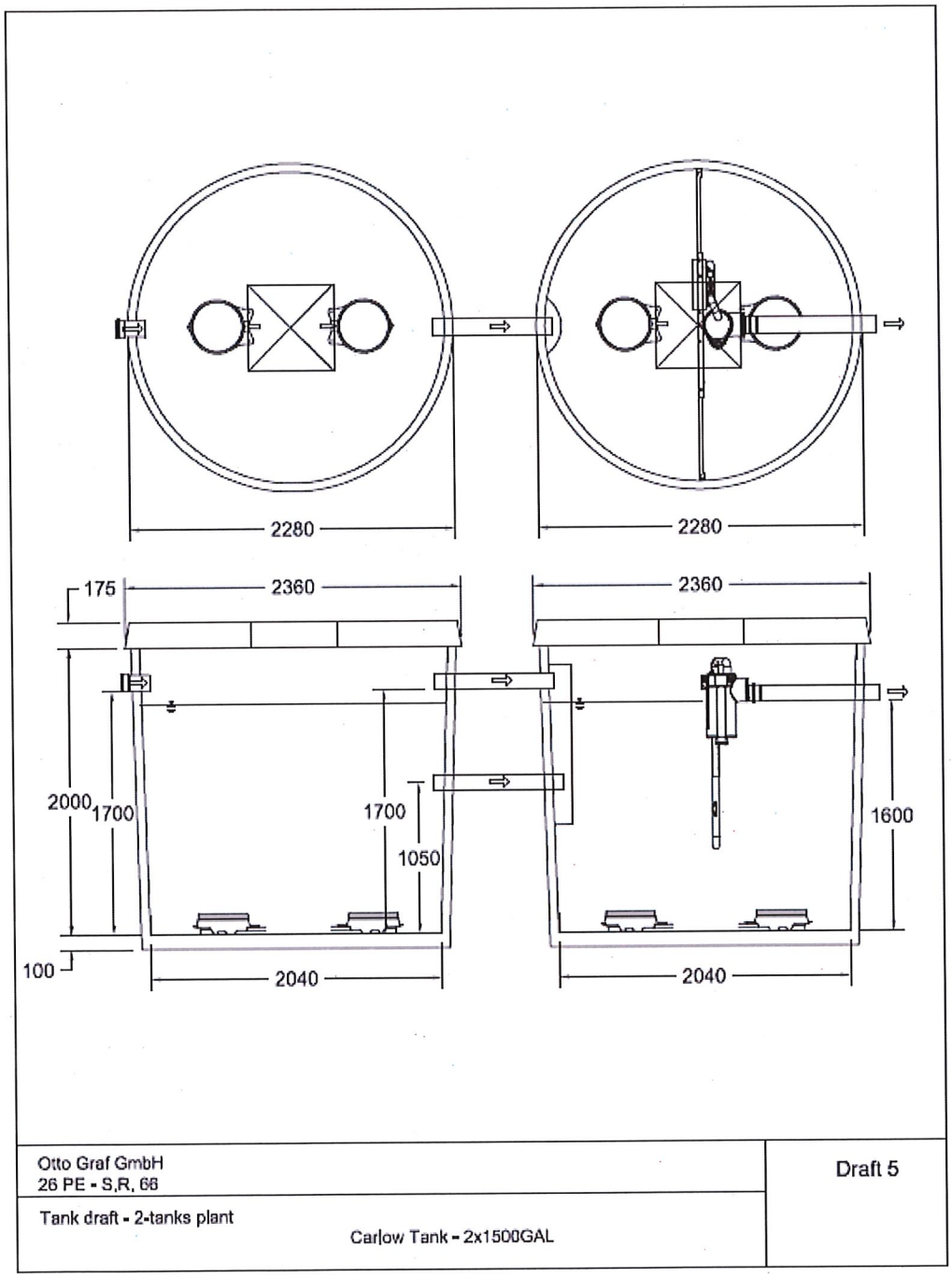

1498
2658
185
100
1620
1450
75
2560
KLARO GmbH
6 PE - S,R, 66
Draft 2
Tank draft - 1-tank plant
Carlow Tank - 1x1000GAL



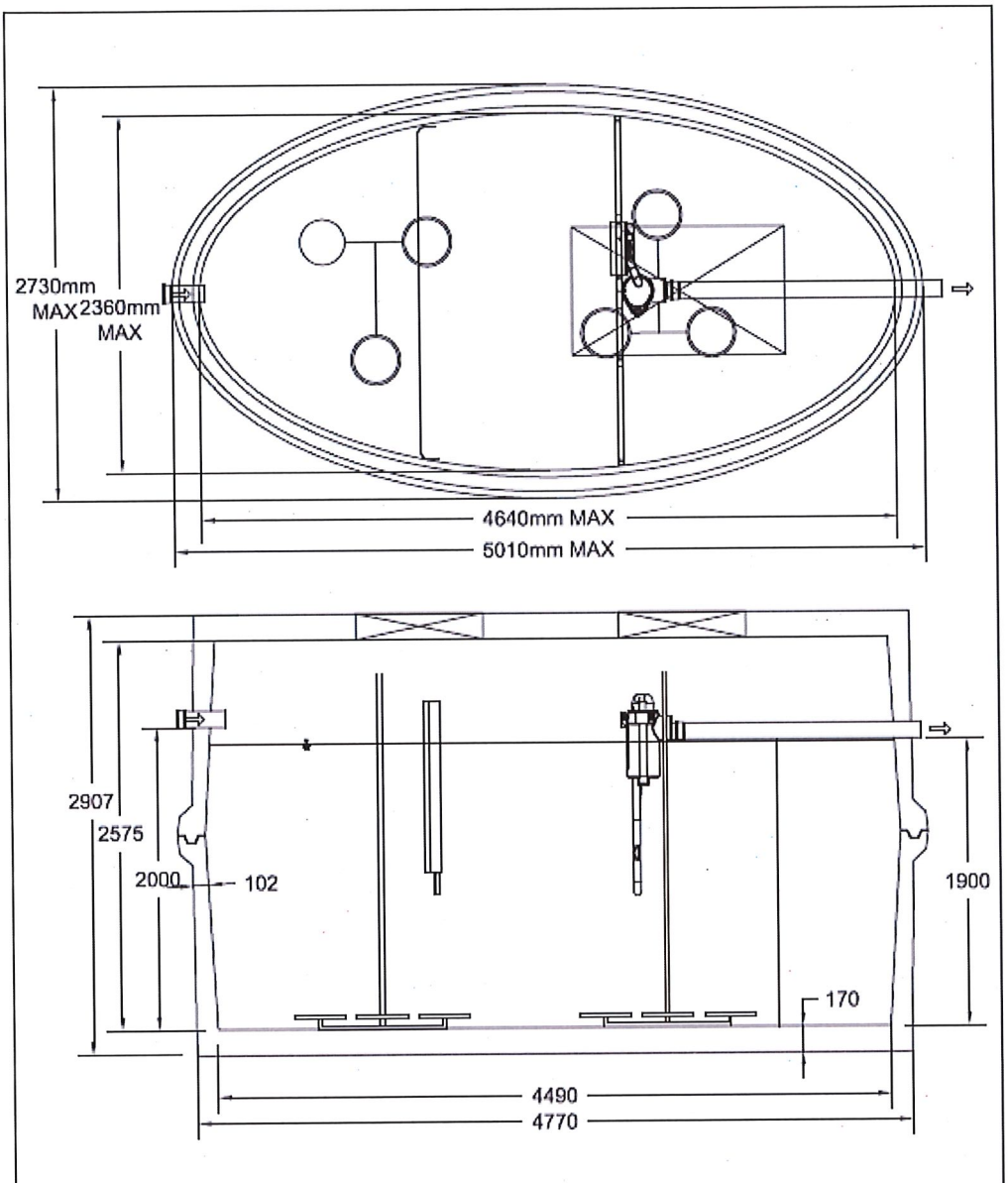
Note: 2 times desludging required



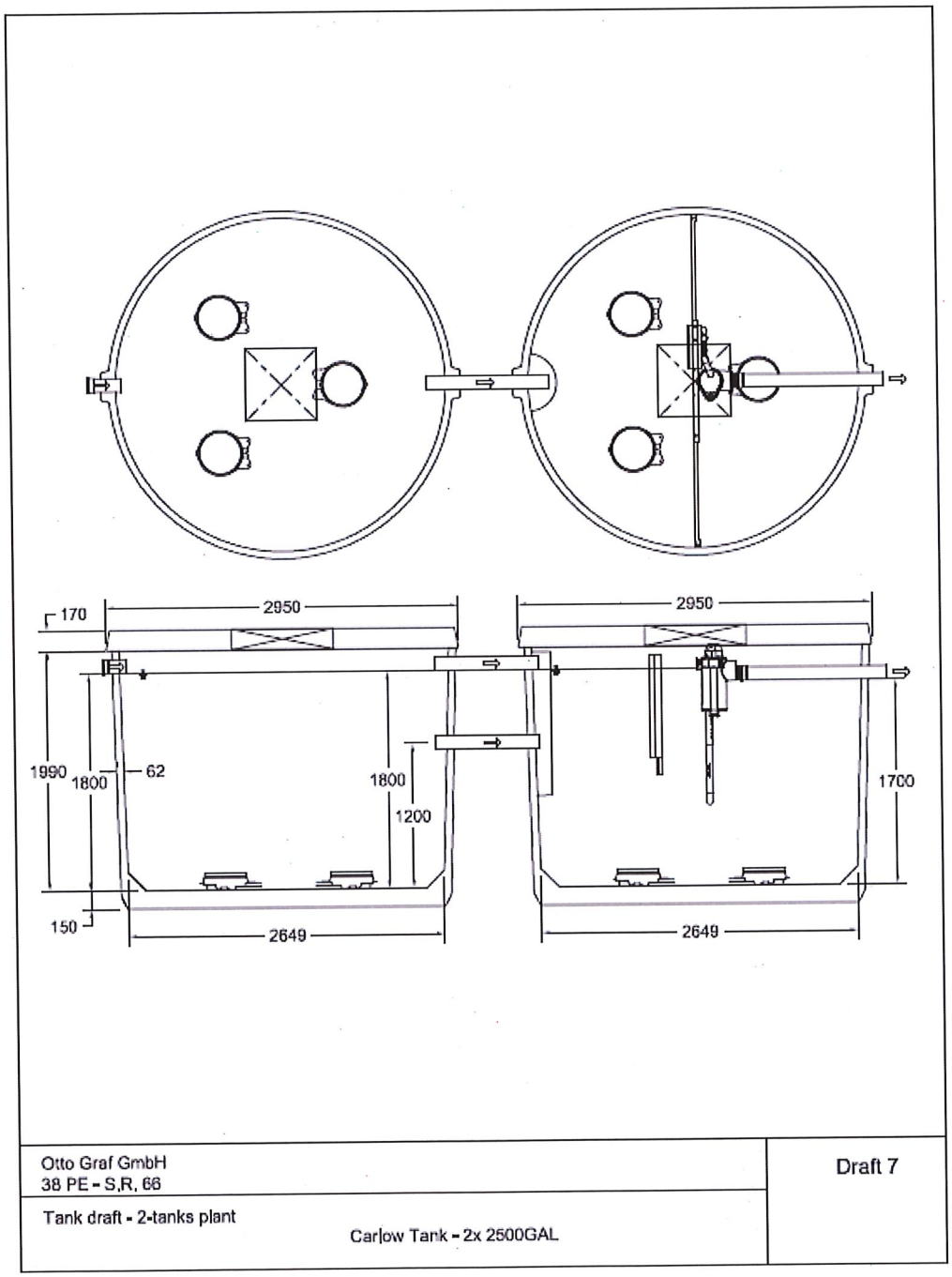
Note: 2 times desludging required



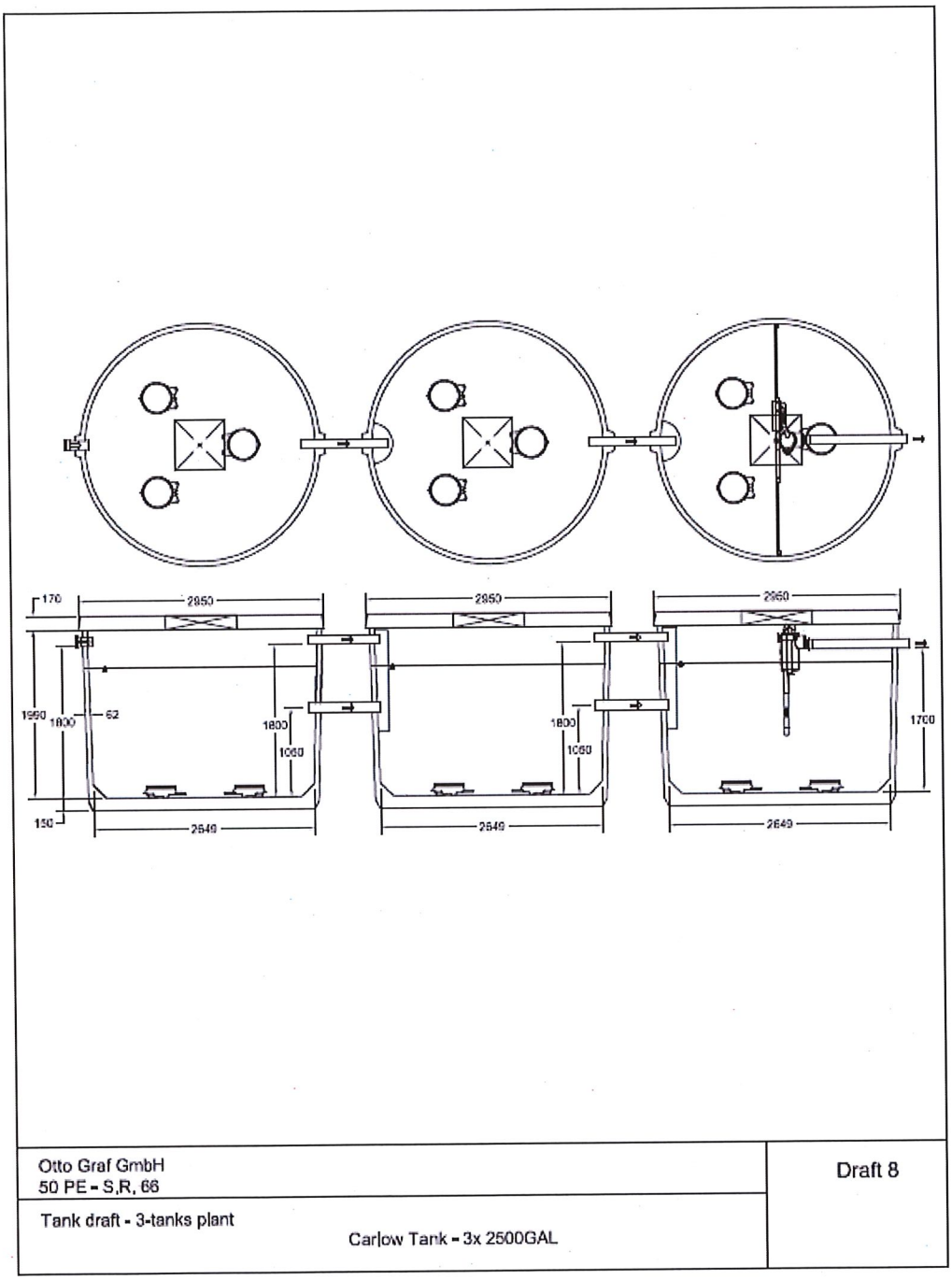
Note: 2 times desludging required



Note: 2 times desludging required



Note: 2 times desludging required



Otto Graf GmbH 50 PE - S,R, 66	Draft 8
Tank draft - 3-tanks plant Carlow Tank - 3x 2500GAL	

Note: 2 times desludging required