



Design Code: ASME section VIII, division 1 2010 edition,  
addenda 2011 (with U-Stamp)  
Design covers only internal and external pressure as per UG-22(a)

General Data		
Description	Vessel	Units
Design Pressure	1000 / -100	kPa
Design Temperature	-25 / 95	°C
Working Pressure min/norm/max	0 / 6	Barg
Working Temperature min/norm/max	-10 / -5 / 60	°C
Test Pressure Hydr./Pneum.	13 / -	Barg
Test Temperature Min.	5	°C
Norm. Vac. Conditions	None	-
Contents	Coffee +Crystals	
Total Weight Empty	396	kg
Total Weight Full of Water	516	kg
Total Max Weight Operating	-	kg
Capacity	0.12	m3
Corrosion Allowance	0	mm
M.A.W.P.	1000 kPa at 60°C	
M.D.M.T.	-10°C at 1000kPa	
M.A.E.W.P.	100kPa at 60°C	
Inspection by	L.R.Insurance Incorporated/Client	
Heattreatment	None	
N.D.T. Examination X-Ray	Spot + UV-II(a)(5)(b)	(%)
Out of Roundness Max.	UG79 Code / Client 4.5 mm	mm
Insulation	COLD (Not by SRI)	mm
Impact Test Item -	Exempted as per UHA 51 d	°F
Joint Efficiency Shell/Head	0.85	
Finishing	Vessel Inside Ra < 0.8 Screw Mirrorpolished Ra=0.4m Outside pickled and passivated	
Main Material	AISI 304(L) Bolting A193 B8 Cl 1 Gaskets EPDM + FDA	

Additional Drawings and Specifications

Drawing No./Spec. No.	Description
12099/C	Code strength Calculation
12099/V	WPS / PQR
12099/FIP	Inspection & Testing Plan
NR-0047.1-1	Shell & cover
NR-0047.2-1	Assembly bearings & filter
NR-0047.3-1	Scraper & lower bearing
NR-0047.4-1	Top bearing
NR-0047.5-1	Screw
NR-0047.6-1	Filter

Purch. Order No.	2722614 / 006161
Item No.	Production Vessel
Proj. No.	LUKE : 272.2.614
Proj. Location	-

Nozzle Data

Mark	Numb.	Service	Nom. Dia.	Rate	Flange	Remarks
N1	1	Liquid + Crystals in	1.1/2" Ø43x4	PN75	15WH1	I-Line
N2	1	Liquid + Crystals out	2" Ø57x4.8	PN55	15WH1	I-Line
N3	1	Liquid out	2.1/2" Ø70x4.8	PN45	15WH1	I-Line
N4	1	Drain	1" Ø32x4.8	PN75	15WH1	I-Line
N5	1	Spare	2" Ø57x4.8	PN75	15WH1	I-Line
N6	1	Temperature Transm.	2" Ø57x4.8	PN55	15WH1	I-Line
N7	1	Agitator Drive	Ø200/145	MAVP	Special	BC-165 4xM10
N8	1	Bottom bearing	Ø200/145	MAVP	Special	BC-174 8xM12
N9	Pair	Main flange	Ø470/400	MAVP	Special	BC-440 20xM12

Remarks  
1. Clamped connections are according to WCB standard  
and comply with UG-11(a) and are suitable for the design condition

1

Ø=2

75

35

135

40

140

10

Sealweld

Sealweld

11

Ø=2

Certified by: Speciaal Roestvrijstaal Industrie bv

MAMP 1000 kPa at 60 °C  
MAEWP 100 kPa at 60 °C  
MDMT -10 °C at 1000 kPa

W  
RT4

S/N 091212099  
YEAR 2013

NIRO nameplate

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Pen: proj

Rev.	Date	Description	Approved	Date
2	07-12-2012	Comments A.I. / Client		
1	05.11.'12	Nameplate, topview added		
0	04.10.'12	New Drawing	TH	04.10.'12

UNLESS shown on drawing  
tolerances acc. DIN 7500 material for machined parts

from	to	1/-	from	to	1/-
0.5	3	0.1	4000	2000	1/2
3	6	0.1	2000	4000	2
6	30	0.2	4000	8000	3
30	120	0.3	8000	16000	4
120	315	0.5	16000	32000	5
315	1000	0.8	32000	64000	6

drilled holes H7

Surface tolerance  
acc. DIN 3218-3508  
for machined parts

Screwthread tolerance

fine	normal	rough
DIN 9141, 9141, 9222, 9223		

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Description	Scale 1:2.5	Date
Produktion Vessel 1201	Drawn by TH	04.10.'12
Project: LUKE	Approved by JBU	04.10.'12
GEA-NIRO PT 272.2.614	Revised and WPS by RS	04.10.'12
	Seen by JBU	04.10.'12

Order No.	 VEENWOUDEN - HOLLAND © 2009		Drawing No.
0912 12099			NR-0047.0-1

GEA MESSO 614.151.110.0  
RECEIVED 09/13/13