



DATE	REV	DESCRIPTION	ENGINEER	APP
20 NOV 2013	A	PRELIMINARY DESIGN	KM	MM
29 NOV 2013	B	PER INTERNAL DESIGN REVIEW	KM	MM
14 FEB 2014	C	FOR APPROVAL	KM	MM
25 MAR 2014	D	UPDATED TO COMMENTS - FOR APPROVAL	KM	MM
09 APR 2014	0	FOR CONSTRUCTION	KM	MM
18 JUL 2014	1	AS BUILT	KM	RME
03 SEP 2014	2	AS BUILT POST-FAT	KM	RME

Design Data	Vessel	Jacket	Surface Finish
Design Pressure (Bar)	6	6	Surface Internal Polished to $\leq 0.8 \mu\text{m Ra}$ & EP
Design Vacuum (Bar)	FV	FV	Surface External 2B Mill Finish
Design Temp Max (°C)	150	150	Welds Internal Polished to $\leq 0.8 \mu\text{m Ra}$ & EP
Design Temp Min (°C)	0	0	Welds External Ground smooth (Alcove internals polished $\leq 1.6 \mu\text{m Ra}$)
Working Pressure Max (Bar)	5	5	Third Party NOBO
Working Pressure Min (Bar)	-0.1	Atm	NDT Vessel
Working Temp Max (°C)	130	100	NDT Radiography Weld rty
Working Temp Min (°C)	6	6	Dye Penetrant
Contents	Compounds	Steam & Water	Hydrostatic Test (Bar)
Density of Content (kg/m³)	1,000	1,000	Drainability Test
Nominal Capacity (L)	4,000	119	Ribblavin Test
Capacity Full (L)	4,491	119	Empty Weight (kg)
			Flowrate (m³/hr)
			Full Weight (kg)

PED 97/23/EC Data	Vessel	Jacket	ATEX 94/9/EC
Phase of Medium	GAS	GAS	ATEX Classification
PED Medium Group	1	2	Internal Classification
PED Category	IV	II	Wind Speed
Conformity Module	G	G	Agitator Run Test
Design Code	Intent of ASME VIII DIV.1, 2010		EN Inspection Category

EQUIPMENT SCHEDULE	
NOZZLE GASKETS	EPDM
MANWAY O-RING	EPDM
AGITATOR	MAYAG MD8600 BOTTOM MOUNTED MAG DRIVE AGITATOR
INLET & OUTLET VALVE	GEMU WELD-IN DIAPHRAGM VALVE
SIGHTGLASS	SIGHTGLASS TO DIN 28120 CW BOROSILICATE GLASS TO DIN 7080, 150mm VIEWING DIAMETER
LIGHT	LIGHT NOT SUPPLIED WITH VESSEL
SPRAYBALL N1	STATIC TYPE - CUSTOM DRILLED ANGLED IN LINE SPRAYBALL FROM STAINLESS SOLUTIONS
SPRAYBALL N2	STATIC TYPE - CUSTOM DRILLED IN LINE SPRAYBALL FROM STAINLESS SOLUTIONS
HIGH POINT VALVE	0.5" MANUAL BALL VALVE, BW/BW

NOZZLE SCHEDULE					
NOZZLE ID	SERVICE	STANDARD	MATERIAL	TYPE	SIZE
N1	CIP INLET 1	A 182	(1.4435) 316L	HEAVY WALL TANK FERRULE	3" x 1.5"
N2	CIP INLET 2	A 182	(1.4435) 316L	HEAVY WALL TANK FERRULE	3" x 1.5"
N3	LEVEL	A 479	(1.4435) 316L	HEAVY WALL TANK FERRULE	4"
N5	LIGHT	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	2"
N6	LEVEL SWITCH 1	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	2"
N7	PRESSURE	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	2"
N8	MANWAY	A 240	(1.4435) 316L	ZIMMERLIN MANWAY, 6mm NECK	500mm
N8.1	SIGHTGLASS	A 479	(1.4435) 316L	HZ CONNECT 25mm THK (AS PART OF MANWAY)	6"
N9	BURSTING DISK	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK, CW RELIEF LINE	1.5"
N10	FUTURE	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	2"
N11	AIR VENT	A 182	(1.4435) 316L	HEAVY WALL TANK FERRULE	1.5"
N12	WFI INLET	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	3" x 1.5"
N13	JACKET OUTLET	A 182	304L	ANSI B16.5 150lb RFSO Flange	2"
N14	LEVEL SWITCH 2	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	2"
N15	SAMPLE PORT	A 479	(1.4435) 316L	NA CONNECT - 25mm WALL THK	1.5"
N17	JACKET INLET	A 182	304L	ANSI B16.5 150lb RFSO Flange	2"
N18	PRODUCT INLET	A 479	(1.4435) 316L	GEMU FLUSH MOUNTED DIAPHRAGM VALVE, 120mm	1"
N19	THERMOWELL	A 182	(1.4435) 316L	0.5" BSP/FI CONNECTION FROM 028mm R BAR	0.5" BSP
N20	AGITATOR	A 182	(1.4435) 316L	MAYAG BOTTOM MOUNTED AGI MD8600	120mm
N24	PRODUCT OUTLET	A 479	(1.4435) 316L	GEMU FLUSH MOUNTED DIAPHRAGM VALVE, 120mm	1"

NOZZLE ID	SERVICE	STANDARD	MATERIAL	TYPE	SIZE
1	TOP HEAD	A 240	(1.4435) 316L	10% TORISPHERICAL DISHED END	9.1mm A/F
2	SHELL	A 240	(1.4435) 316L	1500mm HIGH SHELL x 1700mm ID	6mm
3	BOT TOM HEAD	A 240	(1.4435) 316L	10% TORISPHERICAL DISHED END	9.3mm A/F
4	LIMPET COIL	A 240	304L	3mm LIMPET COIL ON BTM DISH AND SHELL	3"

Unless otherwise specified, dimensions are in 'mm' & tolerance are:

Dimensions Angles
None +/- 5 +/- 1
0° +/- 1

Job Number PVGE006
Drawn By K. Mahon
Date 20 NOV 2013
Checked By M. MADDEN
Date 25 NOV 2013
Scale N.T.S.

GENZYME
4,000L COMPOUNDING VESSEL
TAG NO: VSL-901

Dwg. No. PVGE006-GAD-001 Rev 2

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