



Maskam Water sold the first Clarus Fusion On-site Waste Water Treatment Plant in Africa in 2010. Since then we have sold and installed these systems in 9 countries on the African Continent.

The Clarus Fusion has proved to be a reliable, easy to install and easy to operate WWTP. In most installations, the treated effluent is being re-used on site, saving the customer water and saving money.

Water security is no longer a given. We all have to work together to save water where we can. Re-using is one of the most sustainable and most affordable ways of saving. It pays for itself!

We invite you to take the tour with us and see for yourself how easy it is to retrofit with a Clarus Fusion and start saving. An installation like this can be done in only two days....



Old Concervancy tank is now used as a lifting station.

U282 Zoeller pump on timer dose sewage to the Clarus Fusion ZF2400 (9000 lpd)



Marking out the position of the Clarus Fusion



Installing electrical supply





Excavation



**Stable base or concrete slab
(ensure 100% level)**



Anchor hooks

(only required in high water table conditions)





Delivery

- Tank weighs 700kg
- Treatment capacity: 9000 lpd
- Footprint: 4.7m x 2m
- Wet weight: 13 537 kg
- Power: 261 watts



Placement



- Ensure 100% level
- Fill with water





Secure tank

**Only needed in high ground water conditions
Only use stainless steel cables and tensioners**



Connect air line and high level float switch





Backfill and compact

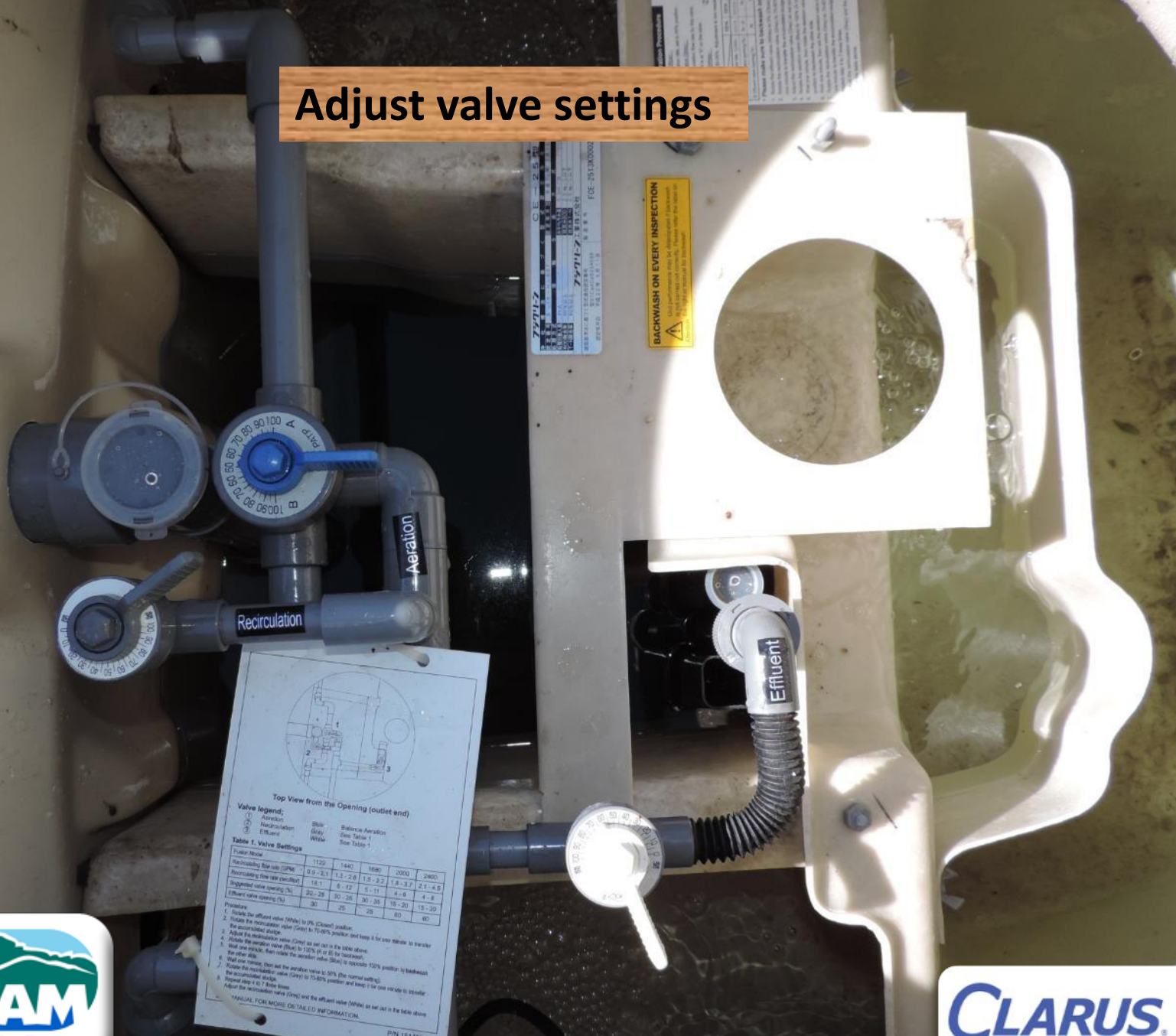
Vent pipe



**Air pump and electrical panel
(air supply and monitoring of plant)**



Adjust valve settings



BACKWASH ON EVERY INSPECTION
 Backwash performance must be maintained 1 backwash per 1000 cycles. Backwash only when the unit is not in use. Backwash only when the unit is not in use.

Top View from the Opening (outlet end)

Valve legend:
 (1) Aeration
 (2) Recirculation
 (3) Effluent

Flow: Slow, Medium, Fast
 Balance Aeration: None, Table 1, Table 1

Table 1. Valve Settings

Flask Model	1120	1440	1680	2070	2400
Recirculating flow rate (LPM)	0.9 - 2.5	1.3 - 2.6	1.2 - 2.2	1.8 - 3.7	2.1 - 4.5
Recirculating flow rate (gph)	1.8 - 5.1	2.7 - 5.2	2.4 - 4.6	3.6 - 7.4	4.2 - 9.1
Effluent valve opening (%)	20 - 29	30 - 36	30 - 35	10 - 20	15 - 25
Aeration valve opening (%)	30	25	25	60	60

Procedure:
 1. Rotate the effluent valve (3) to the 100% (Closed) position.
 2. Rotate the recirculation valve (2) to the 75-80% position and keep it for one minute to transfer the accumulated sludge.
 3. Adjust the recirculation valve (2) to the setting in the table above.
 4. Rotate the aeration valve (1) to the 100% (Full) or 0% (Off) for recirculation.
 5. Wait one minute, then rotate the aeration valve (1) to the setting in the table above.
 6. Wait one minute, then set the aeration valve to 50% (the normal setting).
 7. Rotate the recirculation valve (2) to the 75-80% position and keep it for one minute to transfer the accumulated sludge.
 8. Repeat step 4 to 7 three times.
 Adjust the recirculation rate (flow) and the aeration rate (flow) as set out in the table above.

*MANUAL FOR MORE DETAILED INFORMATION.

PN 151485-A





Final Grade



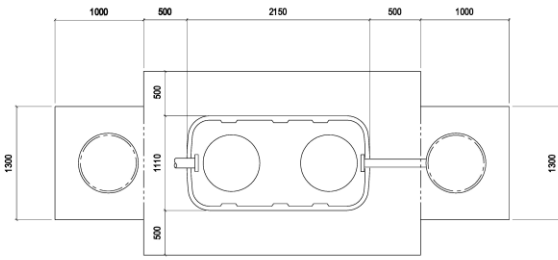
Air pump covered with artificial rock to blend in with garden (ensure enough air flow to prevent overheating)



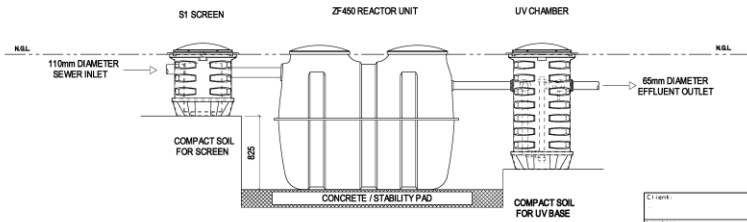


Water sample after 4 weeks



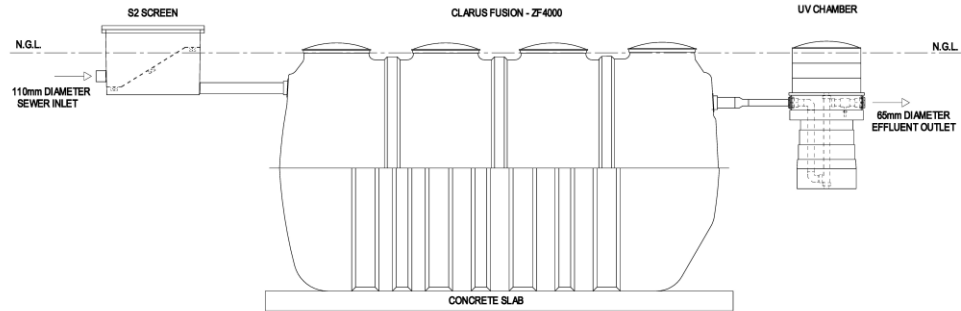


CLARUS FUSION ZF450 - TYPICAL INSTALLATION



Client:	This drawing is the property of:			
Location:				
Drawn: wac				Date: 04/11/2018
Checked: wac				Date:
Project: wac				Date:
Finish:	Drawing Title: ZF450 WITH SCREEN & UV CHAMBER			
Material:	Scale: NTS	Drawing No: 181118-001	Rev: 0	
			Sheet Size: A3	

Typical installations with pre-screen and UV for disinfection



Client:	This drawing is the property of:			
Location:				
Drawn: wac				Date: 04/11/2018
Checked: wac				Date:
Project: wac				Date:
Finish:	Drawing Title: FUSION - TYPICAL INSTALLATION LAYOUT			
Material:	Scale: NTS	Drawing No: 181104-001	Rev: 0	
			Sheet Size: A3	

Applications

- Sewage treatment – domestic, from single house to communities
- Farms, guest houses/lodges, function venues, schools
- New developments
- Retrofit for conservancy tanks
- Retrofit for septic tanks
- Suitable for both urban use and rural areas
- Re-use of water
- Pollution control – where raw sewage pollute water sources
- Secondary treatment of industrial effluent
- COD reduction of industrial effluent before discharging to municipal sewer line (prevent high COD penalties)
- Informal settlements
- Temporary installations
- Mobile ablution facilities (can be built into container)



Lifting stations

When gravity flow is not possible...

Applications:

- Sewage removal from locations lower than gravity sewer mains
- Sewer main is not accessible
- Lifting sewage into Clarus Fusion STP (if gravity not possible)
- Dewatering
- Lifting grey water or rain water into surface tanks

Features:

- Durable polyethylene basin
- Cast iron pump with non-clogging vortex impeller
- Rubber seal gasket on cover reduce odours
- Screw-down lid
- Wide range of pumps available, from dewatering to 50mm solids handling
- Wide range of basins up to 2m deep
- Rail systems optional



24" x 24"
Poly molded basin (top discharge)



Multizone Valve



Mechanical diaphragm valve change to new zone each time pump starts

2 – 6 zone

Supplementing products



Rail System

Easy installation and removal of pumps in deeper sumps, auto disconnect

Quick Disconnect



For easy removing and installing pumps in a shallow sump, no tools needed to remove pump for servicing





Low pressure / domestic use, 40mm



Full bore check valves



Threaded, high pressure,
40mm, 50mm & 63mm
Flanged 75mm+



Clamp-on, low
pressure 50mm



Clamp-on spring loaded,
40mm, reduce water hammer
(also ideal for pool pumps)





Dewatering

Engineered sump pumps – delivery in two weeks from order



Trusted. Tested. Tough.™

Zoeller sump pumps

All sump pumps up to 2kW fits into the plastic lifting stations



Bottom View

ZOELLER
PUMP COMPANY



Grinder pumps,
single directional
and auto reverse



Solids handling 19mm –
100mm. Cast iron, brass
or bronze impellers



Thermal overload built-in

**Contact your local
more information
or to request a quotation**



for

www.maskamwater.com