



BUCCANEER RESERVOIR CHLORINATION UNIT

MODE OF OPERATION:

The Buccaneer is an easy operating, user friendly system. The system operates as a non-pressurised system and can be controlled by a Hydraulic Valve and Apex Double Ball float arm or electronic solenoid valve.

Water enters the Buccaneer Chlorine Head where it creates a vortex and erodes the Calcium Hypochlorite cartridges in a controlled manner, creating a highly concentrated solution of chlorine. If the water flow is less than 6,000 Lt/hr, the Reservoir Unit is ideal. This unit is used for low volume water flows.

CALIBRATING THE BUCCANEER:

There are five main calibration components inside the Buccaneer Chlorine Head, which can be adjusted to allow for accurate and constant chlorination.

CHLORINE HEAD:

1) Cartridges:

The Buccaneer Chlorine Head has 6 cartridge slots. This gives you the flexibility of increasing or decreasing the number of cartridges to achieve higher or lower levels of the Calcium Hypochlorite concentrate.

2) Turbulence Nozzles:

The Buccaneer comes equipped with 2 sets of nozzles namely:

RED: Low volume / High pressure - Result in a fast, high velocity swirl generated inside the Buccaneer head. This rapidly dissolves the tablets in the cartridges and increases the Calcium Hypochlorite concentrate.

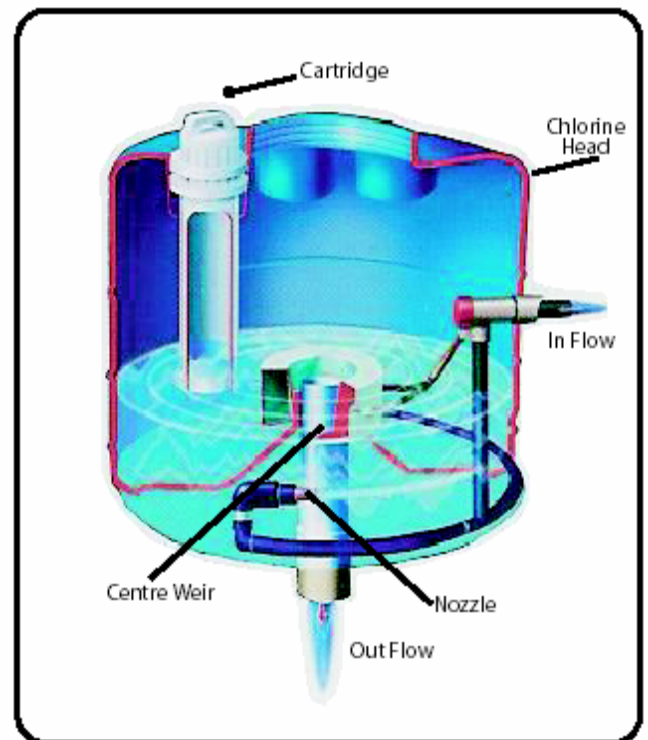
GRAY: High Volume / Lower Pressure - Resulting in a high flow but low turbulence inside the chlorine head. This retards the dissolution rate of the cartridges and reduces the strength of the Calcium Hypochlorite concentrate.

3) Centre Weir:

The centre weir is used to adjust the height of the water inside the Buccaneer Head. Reducing the length (lowering) of the centre weir reduces the height of the water around the cartridges. Increasing the length of the centre weir (higher) increases the water heights around the cartridges.

4) Inlet Valve: (Installed on the main feed line to the Buccaneer Chlorine Head)

The Inlet Valve can be adjusted to increase the flow from the main water feed into the Buccaneer System.





OPERATIONAL COMPONENTS: (optional extra)

Each Buccaneer Reservoir Unit can be fitted with a BERMAD 205 Hydraulic Valve and APEX Double Ball Float arm with 150mm Ball, or an Electronic Solenoid can be connected.

Bermad Hydraulic Valve & Apex Double Ball Float Arm:

- The Buccaneer Head inlet is fitted with the BERMAD 205 Hydraulic valve, which is connected to an APEX Double Ball Float Arm in the holding tank/reservoir via a 6mm pilot line.
- The APEX Float Arm controls the level of water in the holding tank/reservoir, and via a Hydraulic Pilot Line will signal the BERMAD 205 valve to open or shut off, as the water level in the holding tank/reservoir rises or falls.
- The BERMAD 205 has a needle valve connected between the top and the bottom of the BERMAD 205. Its function is to create a differential pressure between the incoming water pressure and the APEX Double Ball Float arm. Its setting can speed up or slow down the shut off mechanism inside the BERMAD 205 valve.

Operating pressure of the BERMAD 205 valve:

Minimum - 1.5 BAR (21 PSI) with spring & 0.08 BAR (10 PSI) without spring
Maximum - 7 BAR (100 PSI)

THE BUCCANEER OPERATES ON FLOWS & PRESSURES SPECIFIC TO EACH APPLICATION.
INCORRECT FLOWS & PRESSURES WILL RESULT IN A POOR OPERATING SYSTEM



TROUBLE SHOOTING GUIDE:

1) No turbulent swirl in the Buccaneer Chlorine Head or inadequate chlorine generated...

- Operating pressure must be higher than 1.5 BAR (21 PSI)
- Check that the PVC ball valve on the main inlet to the Buccaneer is totally open
- Check that the main water flow & pressure has not been altered
- The BERMAD 205 valve may not be opening correctly, this could be due to the following reasons:
 - a) Blocked Diaphragm
 - b) Blocked Filter, this filter screen is situated in the 6mm Elbow underneath the BERMAD 205 valve. Remove the Elbow and ensure that is free of dirt.
- If the filter is clean, the cause may be that the pressure of the main system has dropped
- below the operating pressure for the BERMAD 205

2) Buccaneer Chlorine Head fills up and overflows...

- Insert 1 or 2 cartridges into the Buccaneer. This will immediately drop the level of water in the Chlorine Head
- Check the height of the Buccaneer CENTRE WEIR. If it is set too high, lower the setting

3) Buccaneer Chlorine Head and Holding Tank / Reservoir overflows entirely when main system shuts off...

- Check for faulty valves on the inlet
- Check that the APEX Float Valve is operational and not jammed

4) Buccaneer Chlorine Head runs dry...

- Main water flow is cut off
- Check if Bermad 205 Valve is operational

EFFECTIVE DISINFESTATION IS DIRECTLY RELATED TO CONTACT TIME & pH



MAINTENANCE & SERVICE:

Maintenance is the most important part of operating any machine! Depending on usage - every 2 to 3 months the Buccaneer Calcium Hypochlorite Generator should receive a regular maintenance service.

1. Remove all cartridges from the Buccaneer Generator and flush the top and bottom tanks of the unit with clean water.
2. Add 3g of Dry Acid per litre of water and mix in a bucket, wash top and bottom tank until completely clean.
3. Wash and flush the "Hydraulic Bermad 205 Control Valve" in the same manner, ensuring 6mm small needle tap and 6mm hose is clear and open - water runs freely.
4. Wash and flush "Apex Float Valve" in bottom tank and ensure it is opening and closing freely. (If this valve is not opening correctly, it can cause this unit to flood)

BUCCANEER GENERATOR IS NOW SERVICED & READY FOR USE

for sales & service contact your Buccaneer Distributor:



Phone: SA (08) 8346 9100
Phone: Vic (03) 9587 9811
Fax: (08) 8358 6015 (all areas)
Email: flowcontrol@bigpond.com