



## How it Works - Top Loader

The VP Series pumps are float actuated, fully automatic, self-regulating pneumatic borehole pumps that require no external form of control.

### Description

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1) Strainer                     | 7) Float                         |
| 2) Inlet /Outlet valve assembly | 8) Spring on Actuator Rod Boss   |
| 3) Air Inlet Valve              | 9) Access Port to Discharge Tube |
| 4) Exhaust Valve                | 10) Bottom Plug                  |
| 5) Rocker Mechanism             | 11) Top Check Valve              |
| 6) Counter Weight               |                                  |

- Liquid enters the pump via the strainer (1) and inlet / outlet valve assembly (2)
- Air trapped within the pump escapes through the air exhaust (4)
- The float (7) rises as the liquid enters and when it gets to the top of its travel it trips the rocker mechanism (5)
- The exhaust valve (4) closes
- The air inlet valve (3) opens allowing compressed air into the pump
- Compressed air closes the inlet/outlet valve assembly (2)
- Liquid within the pump is discharged from the pump through the discharge port (9) and up the central discharge tube
- Liquid passes the top check valve (11)
- Float descends as liquid is discharged
- Float pulls the rocker mechanism back when the spring (8) is compressed
- The air inlet closes, air exhaust opens
- Compressed air trapped within the pump can now escape to atmosphere via the exhaust valve (3)
- The pump continues to cycle in this way.

Sold By:

**Viridian America Environmental Pumps**

19900 County Rd. 81

Maple Grove MN 55311

1-800-762-8418 | [info@viridianamerica.com](mailto:info@viridianamerica.com)

[www.viridianamerica.com](http://www.viridianamerica.com)