

# THE TURRET

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**SHALLOW  
WATER?  
NO PROBLEM.**

A floating water intake device  
for shallow water.



**TURRET**

Turret Engineering Pty Ltd  
39 Farmers Avenue  
Boddington  
WA 6390



# TURRET

## WATER INTAKE DEVICE



## INTRODUCING THE TURRET

**The Turret is a floating water intake device that solves the problems of vortexing, pump cavitation and drawing from shallow water with its patented radial geometric design**

### **SPACE-AGE SHAPE – LEGENDARY PERFORMANCE**

The Turret creates a barrier against vortexing and is a water intake solution for drawing from shallow water in dams, rivers and other waterways. Filters around the intake to greatly reduce fish and debris entering your pumps.

**The Turret is an all-round solution for shallow water bodies:**

- Rivers and dams: The Turret is a replacement for foot valves and old-fashioned steel filters at the end of a suction line. No more digging holes at the edge of a river or dam for a foot valve. Now, you can simply push a Turret out into the water and let it float whilst it draws the cleanest water from just under the surface. Because it takes water from the top, the Turret lets you draw from much shallower water.

- Shallower water bodies: The one-metre wide Turret can draw water from a depth of only to 200mm. Not only can you now draw water from water bodies that were previously too shallow, but you can also now have dams that are much shallower and have less surface area. This can result in lower evaporation losses and more comfort in dry years that you can still draw water.

### **TOUGH, SAFE AND SIMPLE**

- The Turret is built tough. The Turret was developed and tested in the unforgiving environment of Australia's gold mines where water is at a premium.
- The one-metre Turret was developed specifically for agriculture. It is made from 5mm thick and weighs less than 15kg. It can easily be carried by one person and fits neatly into the back of a ute.

# HOW DOES THE TURRET WORK?

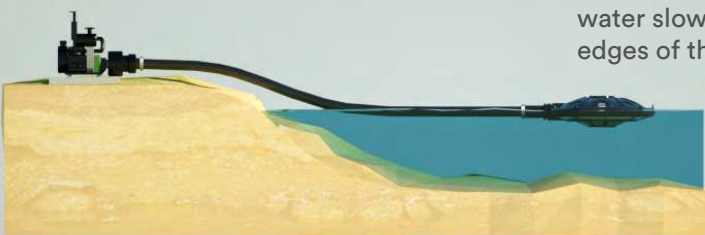
**Ordinary Water Intake:**  
The pump intake is too low and taking in slurry.



**Ordinary Water Intake:**  
The pump intake is too high causing a vortex.



**Turret:**  
The intake is just right because the Turret sits on top of the water, taking in water slowly from around the edges of the radial intake.



## THE GOLDEN RULE

The golden rule is that the pump suction must be:

- Sufficiently above the bottom of a river or dam to avoid sand or silt being drawn into the pump, and
- Sufficiently submerged to avoid the formation of vortices on the water surface.

The damage that sand, silt and debris can do to a pump is well known. Fish entrainment can also block pumps, cause excessive backflushing of filters and reduce fish populations.

The damage a vortex can do is more insidious. A vortex causes air to enter the pump through the suction line, which leads to reduced efficiency and may lead to pump damage. A vortex can also cause air bubble to implode, which results in cavitation damage to pumps.

# HOW TO USE THE TURRET

## ONE-METRE TURRET



1. Take the Turret to the dam or river in the back of a ute or on a trailer. The one-metre Turret weighs just 15kg and has two carry handles, so it can be carried by one person.



2. Take the Turret off the vehicle and walk it to the dam or river.



3. Lay the Turret on the ground and connect it to the suction line of the pump using HDPE pipe.
  - a) If using a flood prime system, fit a non-return valve between the suction line and the Turret.
  - b) If using a vacuum system, a non-return valve is not required.



4. Slide the Turret into the water by hand, feeding it out with the suction hose. Keep the hose and the Turret level.



5. Connect the Suction Pipe to the pump. Wait five minutes for the bottom of the Turret to fill with water and allow the Outer Ring of the Turret to touch the water level.



6. Prime the pump.  
a) Once primed, there will be slight air turbulence coming through the pump for two-to-three minutes. This is the last of the air in the Turret. Then water will flow normally.

# THE TURRET ADVANTAGE

**The Turret floats on the surface,  
away from slurry, sand or mud.**

The slow speed of water intake around the wide radial intake means, sand and mud are not stirred up. Fish and debris usually drift right past. Taking water from around the surface prevents vortexes forming, damaging pumps and creating downtime.

## SHALLOW WATER? NO PROBLEM.

**Are you ready to take charge?  
Then order your Turret today.**

### **ENQUIRIES AND ORDERS:**

**Turret Engineering Pty Ltd** (ABN: 92 636 457 317)  
39 Farmers Avenue, WA 6390, Australia  
T: +61 8 9883 8206  
E: [manager@rbhmechanical.com.au](mailto:manager@rbhmechanical.com.au)  
E: [robhair@rbhmechanical.com.au](mailto:robhair@rbhmechanical.com.au)



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