Ultimate Pumping Solutions ™

THE MUSSEL ®

Patent PCT/AU2004/001097

"As seen on The New Inventors".

The Mussel is a two-piece containment device which clamps around the pick-up end of a suction hose or pipe of pumping installations.

Range

Open showing Valve

Operating Mode

Working in Shallow Water

Pump Water - Not Air, Mud, Sand, Stones or Weed

No - Air! - Due to no vortex being formed, the Mussel allows water to be pumped to very low levels in dams, creeks, wells etc.

No - Mud! - Due to low velocity, mud is not sucked into the system if installed properly and therefore buildup of mud in the impellers, pipes, filters and sprinklers is reduced dramatically.

No - Sand! - Due to low velocity, sand is not sucked into the system to cause blockages in pumps, filters, pipes and sprinklers. Foot valves and check valves are more likely to seat properly and not leak.

No - Stones! - Due to low velocity, stones will not be sucked into the system causing problems with foot valves, check valves, pump impellers, pipes, filters and sprinklers.

No - Weed! - Due to low velocity and protected inlet, the amount of weed sucked into the system will be minimal, helping with filtration problems, foot valve problems and pump impeller problems.

Improve Pump Efficiency

The specifications of the Mussel are carefully designed to optimize fluid flow dynamics into and inside the device. The area of the inlet gap, the angle of the diffusion shells and the volume of the expansion envelope are all designed to work together to create better suction and pump efficiencies.

How Does This Work?

The suction pickup is held in the centre of the two opposing discs, surrounded and protected. The inlet gap which fully encircles the unit, expands the limited suction area, horizontally spreading and slowing down the ingressing liquid. By housing and protecting the inlet, horizontally spreading and diffusing a laminar flow and optimising the fluid velocity of the ingressing liquid to pressurise the inlet, major problems such as blockages, vortices, turbulences and pump cavitations are all virtually eliminated, even when operating in very shallow depths with high capacity pumps.

SIDE ENTRY MODEL	FLOW RANGE L/MIN	TOP ENTRY MODEL
M40EPSCOMP	50 – 350 l/min	M50EPTCOMP
M50EPSCOMP	150 – 550 l/min	
M80EPSCOMP	250 – 900 l/min	M80EPTCOMP
M100EPSCOMP	400 - 1800 l/min	M100EPTCOMP
	900 - 3600 l/min	M150EPTCOMP

Other Flows and special installations can be catered for

Points to Watch

- Must be within flow range to work efficiently.
- Mussel must be able to swivel on hose to sit properly and work properly.
- Will not sit on top of some types of sludge and silt.
- Does not give 100% protection in all cases.
- Go to bottom of flow range for best weed protection.
- Go to middle of flow range for high suction heads.
- Made to fit specific foot valves.
- If suspended by floats the Mussel must still sit horizontally to work efficiently.