

## ASPIRO PLUS™



### Operation

ASPIRO PLUS™ is the latest development of the PCPL ASPIRO™ unit. It arises from experimentation with many different propeller discharge head assemblies coupled with assisted positive airflow through the aspirator shaft into the water provided by a regenerative blower connected into the housing of the aerator which is otherwise sealed from the atmosphere.

The ASPIRO PLUS™ supplies air below the water surface and transfers it into a highly mixed horizontal water stream not unlike the wake of a boat. This efficiently mixes air and water into the lagoon, tank or other basin that requires it.

The development of the ASPIRO PLUS™ provides higher oxygenation efficiencies than standard ASPIRO™ units, and also a greater level of control in your plant through the capability to aerate and mix, or to mix alone by turning air blowers off. This is a great advantage to batch operated plants and allows for nitrification and denitrification using the one unit.

### Mixing

The ASPIRO™ range is amongst the best of mixing aerators available worldwide, and as the ASPIRO PLUS™, now offers higher oxygen transfer rates competitive with any type of surface aeration system. It can be used alone or in combination with other types of aerators to provide optimal efficiencies.

Multiple ASPIRO PLUS™ units can completely or partially mix very large volumes of water at lowest installed power, and provide excellent turndown capabilities.

### Even Higher Treatment Efficiencies

This means that the power put into your super-efficient ASPIRO PLUS™ equipment ensures oxygen distribution throughout even the largest basins – something many other types of aerators fall short on. This results in better treatability of water or wastewater at lower installed power by more effective use of available volume in the treatment plant.

There is little benefit in installing what appears on paper to be an extremely efficient aerator that, in the end, only affects one small portion of your plant and leaves large volumes un-aerated and unmixed.

### Odor Control

The ASPIRO PLUS™ aerator is extremely valuable where there are odor problems as it's subsurface action negates the possibility of splashing and associated vapor born odors common to other surface aerators.

### Low Noise

The ASPIRO PLUS™ is also very quiet in operation compared to most surface aerators available today. It's aerating and mixing action takes place below the water's surface in all cases. There is also no low frequency noise associated with reduction gearboxes common to many other surface aerators.



## Intermittent System Operation - Nitrification/Denitrification

The ASPIRO PLUS™ is ideally suited to intermittently operated treatment systems, especially those used for biological nutrient removal (nitrification/denitrification).

The key feature of the ASPIRO PLUS™ is that the air provided by the regenerative blower situated on the aerator assembly can be cycled 'ON' & 'OFF' as required without compromising mixing capabilities of the unit.

Thus the ASPIRO PLUS™ can mix and aerate during aeration cycles in an intermittent system, and can then easily make the change to mixer alone for anoxic cycles of the system.

This of course negates the need for extra mixing power in such systems, which results directly in cost savings

## Added Control

Both ASPIRO™ and ASPIRO PLUS™ can be further controlled via oxygen measurement systems and/or variable frequency drives to give the end-user ultimate management of their aeration system. Greater efficiency at lesser cost is the end result.

## Maintenance

Maintenance on the ASPIRO PLUS™ is extremely simple and can usually be carried out with little downtime experienced.

## Australian Made - World Class

The entire ASPIRO™ and ASPIRO PLUS™ ranges are designed and manufactured wholly within Australia with local parts support – and have been exported all over the world. There are now some thousands of units installed.

For further information or an application design using ASPIRO PLUS™, contact PCPL or your local ASPIRO PLUS™ representative.

# ASPIRO PLUS™ Specifications

ASPIRO PLUS™ Aerator Models AQP-2, AQP-3

Range: 60 Hz, 480 V models typical values stated below (50 Hz and variable voltages data available on request)

MODEL NO. AQP	DRIVE MOTOR HP	DRIVE MOTOR RPM	DRIVE MOTOR Noise dB(A)	BLOWER HP	WEIGHTS Aerator Only (lb)	FLOATS Float Assembly (lb)	ASSEMBLY Combined (lb)	FLOAT TYPE Flotation Type
AQP-2-7.5-60	7.5	3450	62		330	450	780	3-FLOAT
AQP-2-10-60	10	3450	62		350	450	800	3-FLOAT
AQP-2-15-60	15	3450	68		400	480-550	880-950	3 or 4-FLOAT
AQP-2-20-60	20	3450	68	Proprietary	400	480-550	880-950	3 or 4-FLOAT
AQP-2-25-60	25	3450	68	blower data	420	480-550	900-970	3 or 4-FLOAT
AQP-3-30-60	30	1725	66	available on	660	770-880	1430-1540	5 or 6-FLOAT
AQP-3-40-60	40	1725	65	application	915	770-880	1685-1795	5 or 6-FLOAT
AQP-3-50-60	50	1725	66		1050	880-1100	1930-2150	6 or 8-FLOAT
AQP-3-60-60	60	1725	67		1250	880-1100	2130-2350	6 or 8-FLOAT
AQP-3-75-60	75	1725	67		1365	1100-1350	2465-2715	8 or 10-FLOAT
AQP-3-100-60	100	1725	69		1550	1100-1350	2650-2900	8 or 10-FLOAT

\*Note: Specs are correct at time of publication, but may be changed at any time - please confirm specification data with PCPL or your local representative.

# AeratorSolutions

For the World's Wastewater™

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