

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 type aerator is a surface mounted aspiration propeller type aerator that is supplied with air from a close coupled regenerative blower rather than from the atmosphere. The aerator 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 sees higher oxygenation efficiencies than standard ASPIRO units, and also a greater level of control in your plant by the capability to aerate and mix with the one piece of equipment, or to mix alone by turning air blowers off. This is a great advantage to batch operated plants.

MIXING

The ASPIRO range is amongst the best 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 installations 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 aeration 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 effects one small portion of your plant and leaves large volumes un-aerated and unmixed.

ODOUR CONTROL

The ASPIRO PLUS aerator is extremely valuable where there are odour problems as it's subsurface action negates the possibility of splashing and associated vapour borne odours 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.



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AERATION AND WASTEWATER TREATMENT EQUIPMENT EXPERTS

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.

ADDITIONAL 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 be carried out for the most part by the unskilled personnel, 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 Aerators AQ-1, AQ-2, AQ-3

Ranges (50 Hz, 415 V models typical values stated, 60 Hz and variable voltages data available on request)

Model No.	kW	rpm	Noise dB(A)	Blower	Weights (kg) Aerator Only	Float Assembly (kg)	Combined (kg)	Flotation Type
AQP-2-5.5	5.5	2900	62		100	120	220	3-FLOAT
AQP-2-7.5	7.5	2900	62		105	120	225	3-FLOAT
AQP-2-11.0	11.0	2940	68		145	120	265	3-FLOAT
AQP-2-15.0	15.0	2940	68	Proprietary	150	120	270	3-FLOAT
AQP-2-18.5	18.5	2940	68	blower data	165	220	385	4-FLOAT
AQP-3-22.0	22.0	1470	66	available on	300	250	550	5-FLOAT
AQP-3-30.0	30.0	1465	65	application	415	250	675	5-FLOAT
AQP-3-37.0	37.0	1470	66	to PCPL	480	250	730	5-FLOAT
AQP-3-45.0	45.0	1470	67		570	325	895	6-FLOAT
AQP-3-55.0	55.0	1470	67		620	325	945	6-FLOAT
AQP-3-75.0	75.0	1475	69		700	375	1075	7-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

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