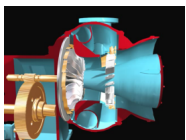


### Description



Aquatec Maxcon is the agent for Howden Blowers in Australia and New Zealand. We supply single stage centrifugal compressors both as a traditional geared unit, or the latest technology high speed, oil free, direct driven unit. The unique design of Howden blowers means turndowns of 45% can be achieved with the potential of 35% turndown available in some cases without any losses in efficiency. Flows range from 1,000m<sup>3</sup>/hr up to 100,000m<sup>3</sup>/hr are available with differential pressures up to 200kPa make them ideal for wastewater treatment. **With over 150 blowers installed around Australia and New Zealand** since 1986 and over 8000 blowers worldwide, Aquatec Maxcon has the experience and expertise required to engineer customised solutions for all aeration challenges.



Howden are the leading manufacturer of aeration blowers in the world today. Their advanced design techniques and use of modern materials and manufacturing processes result in highly efficient designs which provide sustained power savings and stable, smooth running, reliable operation.

### Design

#### Dual Point Control

The unique Dual Point control process allows to independently regulate the flow and head of the compressor, giving superior efficiency at design and especially off design conditions. The control management system operates automatically and simultaneously with the position of the Variable Diffuser Vanes, and Inlet Guide Vanes, or VSD.

The compressor flow function is managed through the diffuser vanes, which increase or decrease the airflow path exiting the impeller wheel, allowing a step-less turndown range from 100% to as low as 35% in some cases. With almost no efficiency losses. The compressor head function is controlled by either moving the Inlet Guide Vanes, or through a VSD. The control methodology maintains the isentropic efficiency at its maximum relative value across a wider range of flow, pressure and temperature conditions.



### Impeller

The core of the compressor is the impeller, which is machined from a solid forged piece of high-grade aluminium alloy and is statically and dynamically balanced.

We can provide different impeller sizes for customisation of flows and pressures to suit all our customer requirements

### Control Options

#### Type S

Use outlet diffusers for capacity regulation from 100% to 45% without throttling.

#### Type V

Use inlet, pre-rotating guide vanes to reduce power consumption under conditions of reduced pressure or inlet temperature and for capacity control from 100% to 45%.

#### Type SV

Uses both outlet diffusers and inlet, pre-rotating guide vanes to eliminate excess power draw under conditions of reduced flow and reduced head..By far the most energy efficient system on the market today.

#### S+VSD

The latest form of dual point control replaces the pre-rotating inlet guide vanes with VSD..This option is equally efficient as SV with a reduction in capital cost..Suitable for smaller units only.

### Works Test

Each blower assembly is fully tested in accordance with ISO5389 to ensure that all specified duty conditions can be met. Works tests are usually made with the blower's own drive motor and can be witnessed if required.

### Overlapping Flow

Overlapping in the flow ranges, because of the 45% turndown, means there are no “black holes” in flow capacity ensuring smooth and efficient aeration is provided.

### Technical

#### Capacities

<i>Flow Rate</i>	100,000 Nm <sup>3</sup> /hr	100,000 Nm <sup>3</sup> /hr
<i>Differential Pressure</i>	45kPa	200kPa
<i>Flow Turndown</i>	35%	100%

#### Accessories

Customised accessories available as optional extras.

These include:

- Client's choice of PLC
- Actuated isolation valve
- Oil heater
- Fan forced oil cooler
- Water-to-oil heat exchanger
- Vibration monitoring
- and more.

### Applications

We can customise the design parameters for a range of pressures and flow rates for any aeration system.

We provide solutions to all industries, including:

- Municipal Sewage
- Industrial Wastewater
- Fermentation
- Yeast Production
- Enzyme Production

## Blowers

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- Various Mining Applications

## Services

We are available for planned and unplanned maintenance, troubleshooting and service work.

We also supply genuine spare parts.