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# *WL-i Series*



## SMART TURBO BLOWER

INNOVATION OF TURBO TECHNOLOGY  
FOR BLOWER INDUSTRY  
BEYOND IMAGINATION

### SMART IoT FUNCTION

OIL-FREE AND CONTACTLESS AIR BEARING  
VARIABLE SPEED AND DIRECT DRIVING



## WL-i Series

# Smart Turbo Blower

## Navigate the Industry 4.0 revolution from innovative R&D of Turbowin

The first phase of the industrial revolution began with the invention of the mechanized loom in 1784, as mechanical production plants were driven by water or steam power. The second phase was heralded in at the end of the 19th century with the use of electricity to power machinery. The third phase commenced with the use of IT and electronics in production in the 1970s. 1969 saw the first programmable logic controller (PLC), which enabled further automation. We are now at the start of the Fourth Industrial Revolution, in which connected, intelligent systems interact in Turbowin's smart factory. Turbowin's advanced WL-i Series turbo blower products connect our precious people with Turbowin's smart factory machinery and smart networking systems so as to enable processes that are largely automated.



# WL-i Series

## World Class Efficiency Proven to be the Best

Living in the globe means that we are no stranger to the growing issue of global warming. Every member of the population is actively encouraged to make even the smallest of lifestyle changes to improve their efficiency. We should all aim to take a ‘kind to nature’ approach to daily tasks, using ‘green technology’ which relates to smart devices that have been designed aiming to lower or reverse the effects humans have on the environment. Now, Turbowin is familiarised with the definition of eco-friendly technology with another self-renewing energy saving efficiency figure, which is already difficult to achieve, achieved a whopping 57.5%.



## Verified Case Study

Project	Unit	Roots	Turbo Blower	Efficiency	Energy Saving	
Expectation	KW	132	93	39	33.7	29.5%
Real Value	A	127	54	73	53.2	57.5%



Customer	AUO
Location	Hsinchu Science Park, Hsinchu City 30078, Taiwan, R.O.C.
Application	Wastewater treatment
Model	125 HP 0.6Bar
Units	1 unit
Commissioning	October 14th, 2019

# Major Applicable Fields

## Directly Applicable thru Industry 4.0 Revolution



### WATER

#### Sewage / Wastewater Treatment Plant

Aeration blowers associated with the biological treatment of effluent within municipal sewage treatment plants

#### Downstream Control

Bioactive Response System (BARS) is a fully-automated, highly efficient control system that optimizes the operation of aeration turbo blowers



### POWER

#### Circulating Fluidized Bed Combustion

Blowers providing fluidizing air within the loop seal system on a circulating fluidized bed

#### Flue Gas Desulphurization

Oxidation air blowers associated with the cleaning of flue gases produced within power and heavy industrial plants



### MINING

#### Iron Production

Blast furnace air blowers for reaction (hot blast) and combustion air applications

#### Metal Refining

Aeration, oxidation and combustion air blowers for biological and conversion processes

#### Metal Smelting

Oxidation air blowers for smelting processes




### PETROCHEMICAL / REFINING

#### Fertilizer Production

Blowers / Compressors providing atomizing air for fertilized bed

#### Sulphur Recovery Units

Blowers/compressors providing reaction air for the catalytic recovery of Sulphur within refineries and gas processing facilities



### INDUSTRIAL

#### Carbon Black

Blowers providing combustion air for the associated furnaces

#### Effluent Treatment

Aeration blowers associated with the biological treatment of effluent within industrial plants

#### Fermentation

Air blowers associated with biochemical fermentation within pharmaceutical and yeast production markets



## # 5-YEARS WARRANTY GUARANTEE

### Commitment to Assure the Highest Quality

Turbowin's continuous effort on developing turbomachinery has led to the creation of new-generation SMART turbo blower that can endure even in surge areas without being easily overloaded. We proudly offer a 5-YEAR warranty period to ensure our global customers to experience the best quality of turbo blowers anytime, anywhere. Our Customer Service Center is always on stand-by 24/7 to quickly respond to our customers' needs and provide assistance in case of any emergencies.



## # USER FRIENDLY INTERFACE

### Extra Convenience for Blower Management

Turbowin's latest SMART blower provides users with the ideal user interface (UI) that is carefully designed to be more user-friendly. Even for customers that are new to turbo machine can easily manage and control the machine with our advanced system. Our enhanced data visualization allows users to easily monitor the performance of the machine. By eliminating multiple layers of channels for different options, users will have less trouble switching operations and changing settings through our new user interface.



## # SMART Internet of Things (IoT)

### From Compressed Air Solutions to Life Care Solutions

Turbowin has become a game changer in revolutionizing and re-defining turbo blowers into a greater meaning in our daily lives. The newest WL-i Series is embedded with Internet of Things (IoT) system, enabling us to connect with the machine in various ways - through smart phones, tablet PCs and laptops, anywhere at any given time. This allows users to simply control and monitor blower systems with just a touch of a button even in remote areas. All data are real-time measured and processed through our latest version of control system, which are then sent to users, allowing them to constantly monitor the performance of their blower.



## # NEW SMART FACTORY

### Achieving Economies of Scale

To improve productivity and quality of our products, Turbowin has expanded its facility to a new SMART factory in the year 2020. The new facility includes Internet of Things (IoT) based production line where most of our resources and data are processed automatically to ensure precision and the right timing for all manufacturing processes. Our production capacity has tripled compared to the past, enabling us to achieve economies of scale by increasing the production units and ultimately lowering the overall production costs.

