Breezair™
By SEELEY INTERNATIONAL

TBSI SERIES

SuperStealth®

The world's coolest, quietest and most **energy efficient** evaporative cooler

Introducing the advanced

MAGIQTOUCH®

Next generation smart controller

BREEZAIR OFFERS

evaporative cooling solutions suitable for:

Homes and apartments	Sport recreational areas
Schools	Laundries / dry cleaners
Offices	Greenhouses
Restaurants & clubs	Farm buildings
Repair/maintenance areas	Institutional facilities

THE BREEZAIR TBSI SERIES: INVERTER A
HIGH PERFORMANCE EVAPORATIVE COOLER

COOL WORKING ENVIRONMENTS WITH EASE

Breezair TBSI boasts the most advanced features available in evaporative air conditioners. It's led the market in its class for many years – and still remains the most efficient and quietest available.

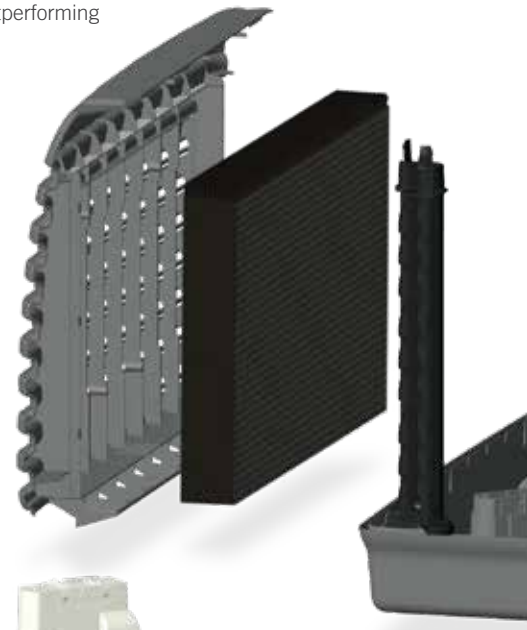
Designed and made in Australia to cope with even the harshest conditions, Breezair features a range of benefits exclusive to Seeley International – while delivering 100% fresh, cool, outside air at much lower costs than refrigerated cooling methods.

HIGHLY DURABLE AND NON-CORROSIVE CABINET AND WATER RESERVOIR

High performance Permatuf® polymer construction will not corrode or rust.

EXCEPTIONAL WATER DISTRIBUTION INCREASES COOLING EFFECT

This Australian designed, world patented, free flow, water distributor ensures constant, even pad saturation increasing the cooling effect and outperforming competitor products.



AUTO WEATHERSEAL

The AUTOWeatherseal closes the cooler air discharge outlet automatically, thus significantly reducing natural air currents from circulating in and out of the building. The result – a more comfortable and controlled environment.

BREAKTHROUGH BLACK OPAL™ MINI-CELL^ CHILLCEL® PAD TECHNOLOGY

- The only evaporative cooling medium of its kind. Fully manufactured in Australia to address the harsh global climate. It's an **absolute out-performer!**
- Exclusive small cell design provides cutting-edge cooling capacity.
- Maintains our global leading Mini-Cell^ Chillcel® pad technology, which increases surface area of the pads by 25%, dramatically multiplying cooling capacity and efficiency - **BEYOND BELIEF!**
- **BLACK OPAL™ MINI-CELL^ CHILLCEL® pads** deliver transformational aesthetics to your home enabling the unit to blend seamlessly into its surroundings.

DIGITAL SMARTBOX™

The Smartbox™ digital control module monitors and controls all of the cooler's features to provide ultimate comfort conditions, temperature sensing and water quality supervision – completely safely and reliably.

TORNADO® PUMP THAT WON'T BLOCK

- Australian designed and manufactured
- Exceptional reliability in extreme conditions
- Dual directional – it can't block!

MAGIQTOUCH®
TOUCH SCREEN TECHNOLOGY

Smart, sophisticated and incredibly intuitive, your MagIQtouch® controller makes operating your Breezair, a breeze. Control the temperature, fan speed and many more features on a user friendly touch screen. Discreet and modern design will blend seamlessly into the décor of your home.

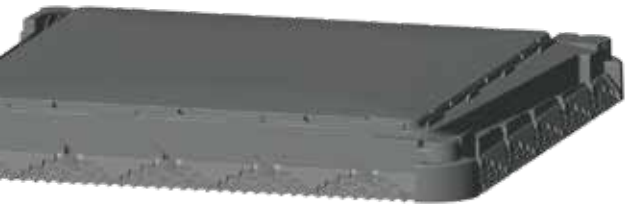
MAGIQTOUCH® wired controller
Supplied with Cooler

Touch screen, wall mounted controller wired to your home or building

MAGIQTOUCH® wireless controller
(Radio Frequency) *Optional*

Use the latest in Radio Frequency (RF) channel hopping technology with no need for wiring

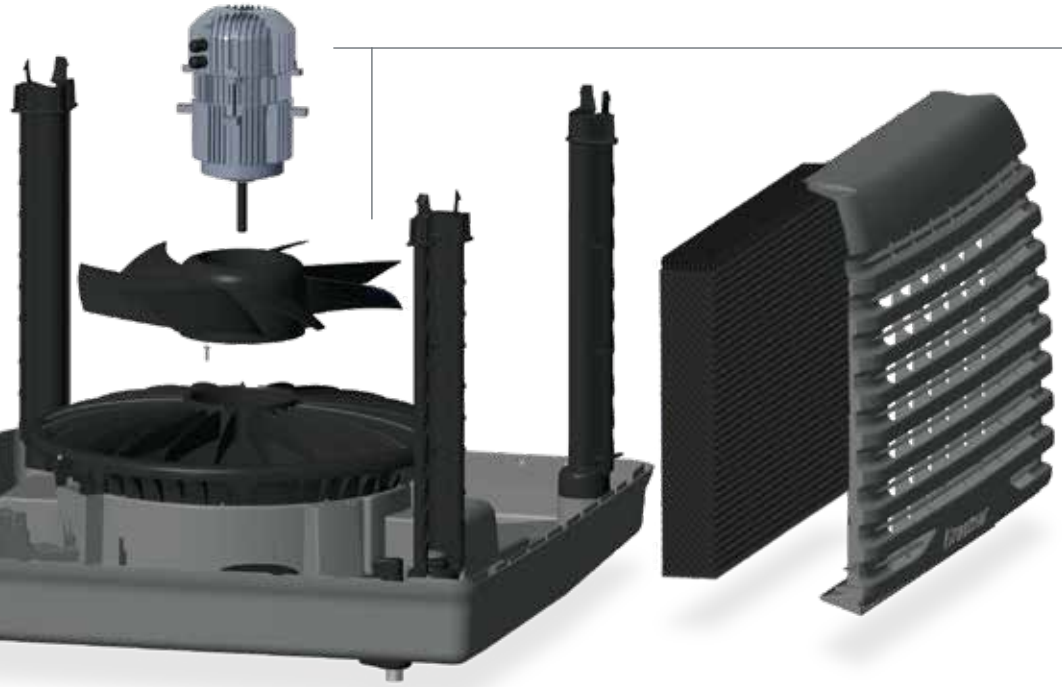
AXIAL



BREEZAIR GUARANTEE

For complete peace of mind, Breezair backs every one of its air conditioning systems with an industry leading comprehensive guarantee program.

Please refer to your home owner's manual for all service and guarantee terms and conditions.



INVERTAIR™ INVERTER MOTOR

- Ensures long term performance and incredible reliability of your system
- Variable speed motor offers maximum control over staff comfort level and uses far less energy rgan a standard fan and motor

SUPERSTEALTH® FAN

SuperStealth® axial fan is specifically designed to be more energy efficient and even quieter than the standard Stealth fan.

WATERMANAGER™ SAVES WATER

- Uses the minimum amount of water to achieve high efficiency cooling
- Water quality monitoring to maximise water savings

AUTO WATER DRAINING KEEPS YOUR SYSTEM CLEAN

- Empties the reservoir automatically when system is not in use, leaving it clean and dry
- Ensures the system is operating at maximum efficiency, while using the minimum amount of water
- Helps to avoid the seasonal maintenance* as required by some other similar products

*Seasonal maintenance does not replace regular maintenance of the unit as required for peak performance.

OPTIONAL EXTRAS MAGIQTOUCH® AIR SENSORS

Internal Air Sensor

A remote temperature and humidity sensing module.

Enables the MagIQtouch® Controller to be mounted in a convenient location (e.g. control room or living area), while still sensing air from the conditioned space.

External Air Sensor

Intuitively optimises water and energy usage based on outside ambient conditions and displays current outside temperature.

Sensing module automatically drains the water tank when temperature nears freezing.

COOLER CONNECTIVITY

Operate multiple coolers from a single MagIQtouch® controller, using optional link module and wiring loom – no special controllers required!

For all connectivity options, please refer to the installation manual.

Technical Information

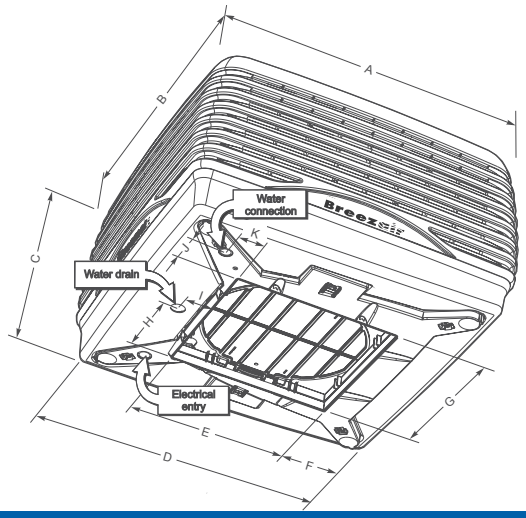
Specification		TBSI 580
Airflow	Industry standard (cfm)	10,000
Cooling capacity*	0.3 IWG (BTU/hr)	62,700
Power consumption (total)	Watts max	1500
	Current max (amp)	7.0
Power supply	Voltage / Phases / Hz	200-240 / 1 / 60
Controller	Type	Digital
Fan	Type	Axial
	Diameter (mm)	534
Motor	Type	Inverter
	Speed max (rpm)	1700
	Rating (Watts)	950
	Current (amp)	5.5
	Voltage / Phases / Hz	200-240 V / 1 / 60
	Overload	Two 'one shot' fuses
Pump	Type	Centrifugal
	Motor	Synchronous
	Rating Watts (input)	30
	Flow rate (gal/min)	4.4 @ 3.9 ft head
	Voltage / Phases / Hz	200-240 / 1 / 60
	Overload	Thermal One Shot
	Enclosure rating	IP X4
Cooling pad Chillcel	Size (inches)	33½ x 20¾ x 4¾ x 4 pads
	Pad area (ft2)	19.3
Water	Tank capacity (gal)	6
	Inlet (inches)	1/2" male BSP
	Drain (mm/inches) Configurable to local requirements	40mm / 1½" male BSP
Shipping	Dimensions including pallet (inches)	45¼ x 45¼ x 35½ (H)
	Volume (ft3)	42
	Mass (lbs)	150
	Operating (lbs)	201
Connecting duct (raw edged)	Length x width (inches)	21 5/8 x 21 5/8

*This cooler has been tested in accordance with the requirements of the California Energy Commission Appliance Efficiency Regulations, Section 1603 and 1604.

Cooler Discharge Air Temperature Chart

Ambient Dry Bulb Temperature °F	Ambient Relative Humidity %								
	10	20	30	40	50	60	70	80	90
50	36.6	38.3	39.9	41.5	43.0	44.5	45.9	47.3	48.7
60	43.3	45.5	47.6	49.6	51.5	53.3	55.1	56.8	58.4
70	49.8	52.6	55.2	57.6	59.9	62.1	64.2	66.3	68.2
80	56.0	59.5	62.7	65.6	68.4	71.0	73.4	75.7	77.9
90	62.1	66.3	70.1	73.6	76.9	79.9	82.6	85.2	87.7
100	68.0	73.1	77.6	81.7	85.4	88.8	91.9	94.8	N/A
110	73.9	79.9	85.2	89.8	94.0	N/A	N/A	N/A	N/A
120	79.7	86.8	92.8	98.0	102.6	N/A	N/A	N/A	N/A
130	85.5	93.7	100.5	106.3	N/A	N/A	N/A	N/A	N/A

This chart represents approximate air temperatures based on 87% saturation efficiency at sea level. From tests carried out to Australian Standard 2913.



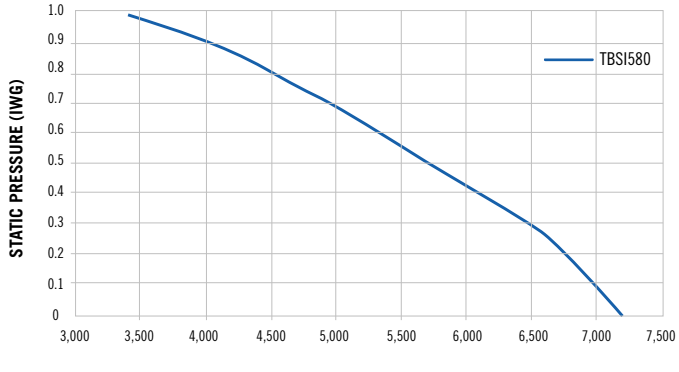
CABINET DETAILS											
Model#	A	B	C	D	E	F	G	H	I	J	K
TBSI 580	45.2	45.2	32.9	45.2	21.6	9.7	21.6	1.4	3.7	3.2	3.2

Note: All dimensions are in inches.

Typical installation

Drain outlet	1 ½" BSP to ¾" OD Reducer piece designed for push-on use with a flexible hose (3/4" ID) or solid PVC pipe (3/4" ID)
Water inlet	½" BSP to 3/8" Nom or ½" BSP to ¼" compression adapter pieces
Electrical	½" Flexible conduit
Install kit	The kit consists of MagIQtouch wall control, 65' wiring loom, auto drain valve and plumbing fittings (supplied as standard inside cooler).

FAN CURVE (CFM)



Model#	Industry STD Rating CFM	Motor H.P	Certified Air Delivery (CFM) (static pressure inches water)					
			0.0	0.2	0.4	0.6	0.8	1.0
TBSI 580	10,000	1 ¼	7200	6780	6120	5360	4560	3370

Sizing Instructions

Use the Certified Air Delivery performance tables and the following procedure to properly size a Seeley International evaporative cooling unit for your application.

The performance or Cooling Capacity of an evaporative cooler is a function of both the air flow (CFM) and air discharge temperature.

Static pressure, or duct system resistance, also impacts on air delivery and should be considered to correctly size the cooling unit.

1. Determine design Conditions

Outside Dry-Bulb (DB)
Outside Wet-Bulb (WB)
Inside Dry-Bulb (TI)

2. Determine the design Sensible Heat Load (Btu/h)

3. Determine the Cooler Leaving Air Temperature (LAT)

LAT = DB – [(DB-WB) EFF]
where EFF = 0.87 for Chillcel media

4. Determine the CFM required

$$CFM = \frac{0.925 \times \text{Sensible Heat Load}}{(TI - LAT)}$$

5. Determine the cooler(s) required by referring to the air flow charts above.

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