TEKTOWER
Cooling Tower Specialists

TEKTOWER Package & Modular Cooling Towers

a Member of IWC

TEKTOWER is a leading cooling tower manufacturer, having an comprehensive range of package and modular cooling towers for all applications and industries.

Our cooling towers are 100% South African made. A wide range of spares are kept on hand to assist customers at short notice.
Our cooling towers have long been the benchmark against which other cooling towers have been compared.

Our range of cooling towers is as follows:

- Compact Package Cooling Towers (EWK – Factory assembled)
- Large Package Cooling Towers (EWB – Field assembled)
- Modular Cooling Towers (FM – Multiple fan units, factory assembled)
- Low Profile Package Towers (TLP – Low profile, factory assembled)
- Closed Circuit Fluid Coolers and Evaporative Condensers

EWK -
Compact Cooling Towers

The iconic EWK cooling tower is an evaporative cooling tower in a robust, durable compact fiberglass casing. EWK cooling towers have truly stood the test of time and thousands of these units are still successfully operational after many decades of reliable service.

Components

Casing

The cooling tower casing is available with or without a water basin, and is made of GRP (glass-reinforced plastic). All fasteners are from stainless steel. The standard colour is blue however other RAL colours are available on request.

Axial ventilation fan

The aerodynamically optimised blades are made of GRP (glass-reinforced plastic) or aluminium, and are adjustable. A protective grille covers the fan and the fan is driven by a geared motor. Multiple direct drive fans and VSD's are available as an option.

Drift eliminator

Profiled plastic elements (PVC, Polypropylene or ABS) prevent water droplets from being carried out of the cooling tower by the air flow.

Water distribution system

Self-cleaning, full-cone plastic nozzles are attached onto the water distribution pipes. These ensure a uniform distribution which is key to the performance of the cooling tower.

Fill

Various cooling tower fills are available and are selected to best suit the process conditions (both temperature and water quality). Fill materials are generally either from PVC or polypropylene but other materials to suit higher temperature applications are also available.

Cooling components

The cooling components are carefully selected to ensure that these are non-corroding and not subject to degradation (rotting).

Louvres

The air inlet louvres are made of plastic, and prevent water from splashing out. These are easily removed for inspection and cleaning purposes.

Sieve / basket strainer

The sieve / basket strainer is attached to cooling tower outlet, and prevents dirt from entering the water system.

Make-up float valve

The float valve is connected to the make-up water supply.

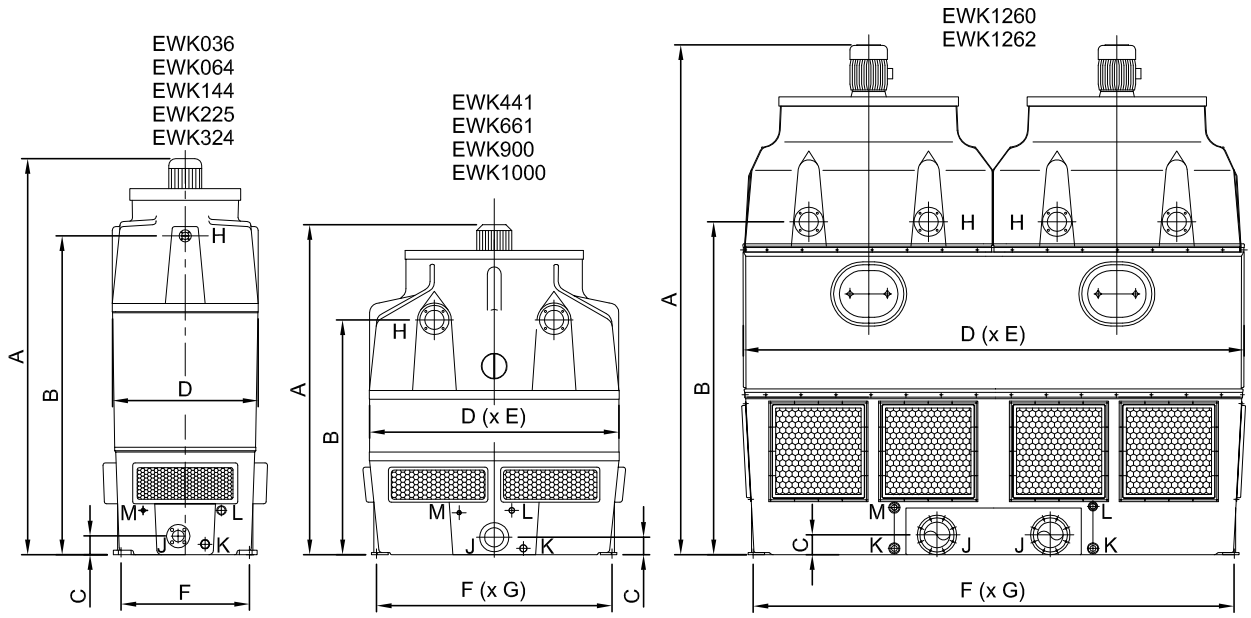
Advantages

- Non-corrosive, long life and light weight, as only GRP (glass-reinforced plastic) is used.
- Very high cooling capacity, re-cooling of up to 350 m^3 of water per hour in a single tower.
- Low energy consumption and easy maintenance due to induced draught fans.
- Long maintenance intervals & service life.
- Plug and play design results in simple, economical installation.

EWK Cooling Tower Installation

EWB Cooling Tower

EWK Cooling Tower



Complete EWK Tower Range

		WEIGHT		A	B	C	D	E	F	G	H	J	K	L	M
TYPE FM	MOTOR kW	OPER kg	NETT kg	mm	mm	mm	mm	mm	mm	mm	NB INLET	NB OUTLET	NB DRAIN	NB FLOW	NB MAKE-UP
036/06	0,37	130	60	1720	1365	80	610	-	556	-	32 F	50 F	40 M	25 M	15 M
064/06 /09	0,75	243 260	100 115	2015 2315	1525 1825	80	810	-	757	-	65 S	50 F	40 M	25 M	15 M
144/06 /09	1,50	618 668	200 240	2385 2658	1775 2075	125	1210	-	1151	-	65 S	100 S	40 M	40 M	15 M
225/06 /09	2,20	1118 1185	330 385	2505 805	1740 2040	125	1510	-	1430	-	80 S	100 S	40 M	40 M	25 M
324/06 /09	3,00	1557 1645	440 510	2805 3105	1870 2170	125	1810	-	1698	-	100 S	100 S	0 M	40 M	25 M
441/06 /09 /15	5,50	2105	780	3125	2310	150	2110	-	2016	-	150 S	150 S	50 M	40 M	25 M
661/06 /09 /15	7,50	4280 4530	1040	3300 3600 4200	2180 2480 3080	180	2110	3160	2002	3052	2X100 S	200 S	50 M	40 M	25 M
900/09 /12	11,00	6200 6400	1400 1600	4435 4635	2775 2975	170	2025	4125	1869	3962	2X100 S	200 S	50 M	50 M	50 M
1000/06 /9 /12	15,00 11,00	6600 7400	1750 1690	4300 4365	2676	180	2416 2416	4212 2474	4250 3970	2456 2280	2X100 S	200 S	50 M	50 M	50 M
1260/09 1260/12	15,00	9000 9200	2450 2650	4765 4805	3025 3225	170	4240	3020	4092	2870	4X100 S	200* S	50 M	50 M	50 M
1262/09 1262/12	2 X 7.5	-	-	4765	3025	170	4240	3020	4092	2870	4X100 S	200* S	50 M	50 M	50 M

Notes:

1. 2 standard outlets on EWK1260/2
2. Dimensions not to be used for construction - subject to change at Tektower's descretion.
3. S = SANS 1123/1000/3
4. F = Female thread PVC.
5. M = Male thread PVC.

EWB -
Field Assembled Cooling Towers

The EWB range of modular cooling towers comprises an easily expandable range of evaporative cooling towers produced from non-corroding components. Shipped in knock-down form the EWB range of cooling towers is suitable for project sites where large cooling capacities are required but where access maybe restricted.

Components

Casing

The casing is available with or without a water basin. The EWB design consists of a galvanised or stainless steel frame, brackets and supports for installation. The casing consists of profiled GRP (glass-reinforced plastic) side sheets and GRP (glass-reinforced plastic) fan casing.

The readily accessible cooling tower fan deck is provided with a non-slip surface and a safety handrail. Access to this deck is by means of cat ladder or staircase (staircase is non standard and is supplied on request only).

All fasteners are from stainless steel. The standard colour is blue however other RAL colours are available on request.

Axial ventilation fan

The aerodynamically optimised blades are made of GRP (glass-reinforced plastic) or aluminium, and are adjustable when stationary. A protective grille covers the fan and the fan is driven by a geared motor.

Multiple direct drive fans and VSD's are available as an option.

Drift eliminator

Profiled plastic eliminators (PVC, Polypropylene or ABS) prevent water droplets from being carried out of the cooling tower by the air flow.

Water distribution system

Self-cleaning, full-cone plastic nozzles are attached onto the water distribution pipes. These ensure a uniform distribution which is key to the performance of the cooling tower. For dirty water applications alternative non-clogging spray nozzles are available.

Fill

Various cooling tower fills are available and are selected to best suit the process conditions (both temperature and water quality). Fill materials are generally either from PVC or polypropylene but other materials to suit higher temperature applications are also available.

Cooling components

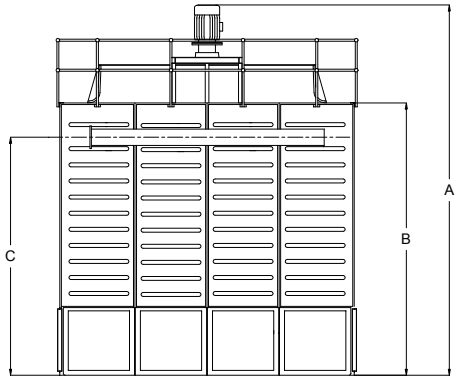
The cooling components are carefully selected to ensure that these are non-corroding and not subject to degradation (rotting).

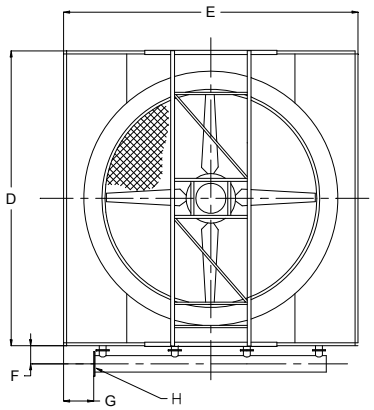
Louvres

The air inlet louvres are made of plastic, and prevent water from splashing out. These are easily removed for inspection and cleaning purposes.

Advantages

- Flexible expansion and accurate size determination due to modular system and large variety of models.
- Very high cooling capacity, re-cooling up to 950 m^3 of water per hour in a single tower.
- No corrosion, long lifespan, and a large cooling tower structure made from galvanised steel or stainless steel constructed in a robust industrial design.
- Low energy consumption.
- Simple to inspect and maintain due to removable panels and accessible cooling tower deck.
- Long maintenance intervals and long service life.
- Different RAL colours available, allowing for colour to matched to building architectural style.





Complete EWB Tower Range

		WEIGHT			A	B	C	D	E				F	G	H
MODEL EWB	MOTOR kW	OPER kg	NETT kg	Type	mm	mm	mm	mm	1 CELL	2 CELL	3 CELL	4 CELL	mm	mm	mm
864	7.5/11	3280	2150	E12	4750	3720	3150	3700	2500	4950	7400	9650	225	500	150
				E15	5030	4000	3450								S
				E20	5530	4500	3950								
1300	15	4690	3000	E12	5095	3720	3150	3700	3700	7350	11000	14650	285	500	200
				E15	5375	4000	3450								S
				E20	5880	4500	3950								
1730	18,5	6020	3840	E12	5350	3720	3150	4900	3700	7350	11000	14650	285	500	200
				E15	5635	4000	3450								S
				E20	6135	4500	3950								
2300	22	7940	5000	E12	5350	3720	3150	4900	4900	9750	14600	19450	300	500	250
				E15	5635	4000	3450								S
				E20	6135	4500	3950								
2875	30	9430	5700	E12	5500	3720	3150	4900	6100	12150	18200	24250	300	500	250
				E15	5785	4000	3450								S
				E20	6285	4500	3950								
3600	37	11787	7175	E12	5500	3720	3150	6100	6100	12150	18200	24250	300	500	250
				E15	5785	4000	3450								S
				E20	6900	5120	4550								

Notes:
1. S-Sans 1123/1000/3
2. Dimensions refer to towers without sumps.
3. Standard drawings of concrete sumps available.
4. Dimensions subject to change at Tektower's discretion.
5. Motor and height subject to change based on design requirements.

FM –
Modular Cooling Towers

The FM range of cooling towers is a modular range of multi-fanned factory assembled cooling towers constructed from non-corroding materials. This range of cooling towers provides high cooling capacity units that are easily transported (standard transport), installed (with minimal site time) and easily maintained.

Components

Casing

The casing is available with or without a water basin. The FM design consists of a 3CR12 or stainless steel frame (either 304 or 316 stainless steel), the casing consists of profiled GRP (glass-reinforced-plastic) side sheets and fibreglass-reinforced polyester fan casings.

The readily accessible cooling tower fan deck is provided with a non-slip surface and a safety handrail. Access to this deck is by means of cat ladder or staircase (by request).

All fasteners are from stainless steel. The standard colour is blue however other RAL colours are available on request.

Axial ventilation fan

Each unit has multiple direct driven fans.
The aerodynamically optimised blades are made of polyamide or aluminium, and are adjustable when stationary. A protective grille covers the fan and VSD's are available as an optional extra.

Drift eliminator

Profiled plastic eliminators (PVC, Polypropylene or ABS) prevent water droplets from being carried out of the cooling tower by the air flow.

Water distribution system

Self-cleaning, full-cone plastic nozzles are attached onto the water distribution pipes. These ensure a uniform distribution which is key to the performance of the cooling tower.

Fill

Various cooling tower fills are available and are selected to best suit the process conditions (both temperature and water quality). Fill materials are generally either from PVC or polypropylene but other materials to suit higher temperature applications are also available.

Cooling components

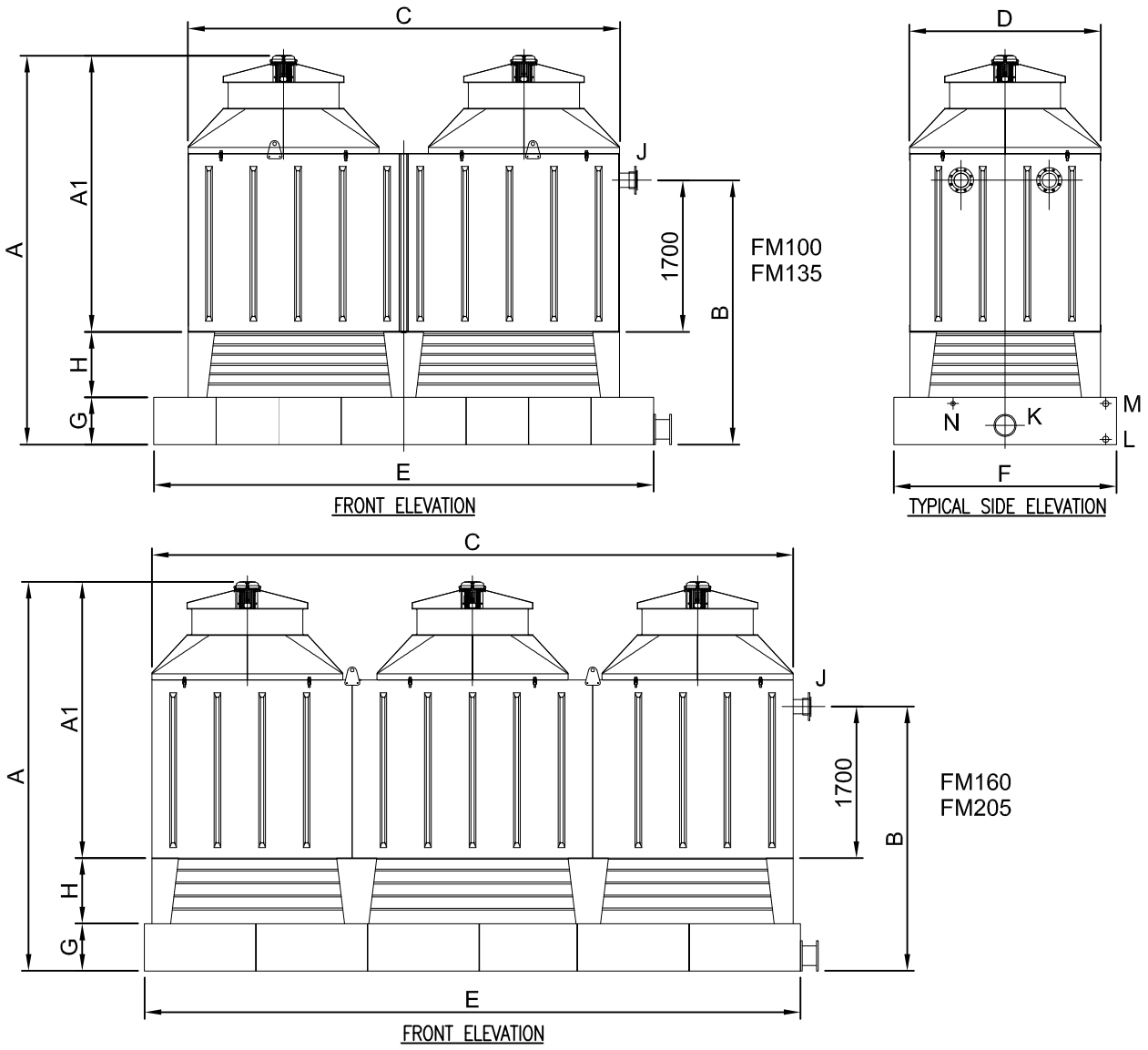
The cooling components are carefully selected to ensure that these are non-corroding and not subject to degradation (rotting).

Louvres

The air inlet louvres are made of plastic or stainless steel depending on customer preference, and prevent water from splashing out. These are easily removed for inspection and cleaning purposes.

Advantages

- Customised site layout available to suit client requirements
- Reduced on-site erection time & cost
- Certain sizes can be containerised for export
- Modular design



Complete FM Tower Range

		WEIGHT		A	A1	B	C	D	E	F	G	H	J	K	L	M	N
MODEL FM	MOTOR kW	OPER kg	NETT kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	NB INLET	NB OUTLET	BSP (with plug) DRAIN	BSP SOCKET O/FLOW	BSP MALE MAKE-UP
FM 100	5.5kW	3500	2400	4360	3100	2960	4850	2150	5610	2500	530	730	150	200	2"	2"	1 1/2"
FM135	7.5 kW	4000	2600	4360	3100	2960	5450	2450	5810	3000	600	660	150	200	2"	2"	1 1/2"
FM160	5.5kW	4400	2800	4360	3100	2960	7550	2150	8270	2500	530	730	150	200	2"	2"	1 1/2"
FM205	7.5kW	5850	3700	4360	3100	2960	8450	2450	8815	3000	600	660	150	200	2"	2"	1 1/2"

Notes:
1. Dimension "A1" to be used for towers on concrete basins.
2. Dimension "H" air inlet heights to be confirmed for multiple tower configurations.

TLP -
Low Profile Cooling Towers

The TLP range of cooling towers is a forced draught open circuit cooling tower in a compact GRP structure.

Components

Casing

The cooling tower casing is made of GRP (glass-reinforced plastic) with an integral water basin. All fasteners are from stainless steel. The standard colour is blue however other RAL colours are available on request.

The cooling tower and fan assembly are supported on a heavy duty hot dip galvanised steel base frame.

Radial ventilation fan

Each tower is equipped with a belt driven low noise radial fan. A flexible connection is provided between the fan discharge and the fibreglass casing. VSD's are available as an optional extra.

Drift eliminator

Profiled plastic eliminators (PVC, Polypropylene or ABS) prevent water droplets from being carried out of the cooling tower by the air flow.

Water distribution system

Self-cleaning, full-cone plastic nozzles are attached onto the water distribution pipes. These ensure a uniform distribution which is key to the performance of the cooling tower.

Fill

Various cooling tower fills are available and are selected to best suit the process conditions (both temperature and water quality). Fill materials are generally either from PVC or polypropylene but other materials to suit higher temperature applications are also available.

Cooling components

The cooling components are carefully selected to ensure that these are non-corroding and not subject to degradation (rotting).

Sieve / basket strainer

The sieve / basket strainer is attached to cooling tower outlet, and prevents dirt from entering the water cycle.

Make-up float valve

The float valve is connected to the make-up water supply.

Advantages

- Non-corrosive, long life and light weight, thanks to the GRP (glass-reinforced plastic) casing and hot dip galvanised steel base frame.
- Low noise due to use of radial fans.
- Low overall height.
- Long maintenance intervals & service life.
- Suitable for use in enclosed spaces due to low noise emission levels, low height and duct connections.
- Simple and inexpensive installation thanks to our factory assembled skid mounted design.

TLP 661 Low Profile Cooling Tower.

EWB & EWK Cooling Tower Installation

EWB Cooling Tower Installation

Closed Circuit Fluid Coolers and Evaporative Condensers

At TEKTOWER we are able to custom engineer many of the above range of cooling towers into a closed circuit evaporative cooler OR evaporative condenser. Depending on the duty required these can easily be accommodated in our EWK, EWB, FM or TLP range of cooling towers.

The fluid to be cooled (or gas to be condensed) flows through the tubes of a serpentine tube type heat exchanger (Closed circuit) without coming into contact with the external air stream thereby preventing dirt or pollution from entering the primary circuit. Heat is transferred from the fluid (or gas) through the tube walls to the secondary cooling water (Open circuit) which is sprayed continuously over the coil.

A axial or radial fan (depending on model selected) drives air through the cooler thereby evaporating some of the secondary cooling water and in so doing releases the required heat into the atmosphere. The remainder of the secondary water is recirculated by means of a spray water pump from the cooling tower basin to the spray nozzles.

EWB-C-2875 Evaporative Condenser

Components

Casing

The cooling tower casing is made of GRP (glass-reinforced plastic) with an integral water basin. All fasteners are from stainless steel. The standard colour is blue however other RAL colours are available on request. Depending on the model selected the cooling tower may have an internal frame manufactured of hot dip galvanised steel, 3CR12 or stainless steel.

Serpentine coil

The internal coil can be provided in either hot dip galvanised carbon steel, 304 or 316 stainless steel.
The coils are of a multi-pass design and the number of passes is dependent of the cooling / condensing load and the ambient conditions under which the unit operates.

Axial or radial ventilation fan

Each tower is equipped a fan. Depending on the model selected these are either directly driven, belt driven or driven by a geared motor.

Drift eliminators

Profiled plastic eliminators (PVC, Polypropylene or ABS) prevent water droplets from being carried out of the cooling tower by the air flow.

Water distribution system

Self-cleaning, full-cone plastic nozzles are attached onto the water distribution pipes. These ensure a uniform distribution which is key to the performance of the cooling tower.

Cooling components

The cooling components are carefully selected to ensure that these are non-corroding and not subject to degradation (rotting).

Sieve / basket strainer

The sieve / basket strainer is attached to cooling tower outlet, and prevents dirt from entering the water cycle.

Make-up float valve

The float valve is connected to the make-up water supply.

Advantages

- Non-corrosive, long life and light weight, thanks to the GRP (glass-reinforced plastic) casing and appropriate choice of material for the serpentine coil.
- Optional GRP, steel, stainless steel or concrete basins.
- Low energy consumption.
- Simple to inspect and maintain.
- Long maintenance intervals & service life.
- Simple and inexpensive installation thanks to our factory assembled design.

EWK Closed Circuit Fluid Coolers

Smart Fan

As optional equipment we offer our SMART FAN solution. The SMART FAN option is proven to reduce electrical operating costs by more than 50%, and water consumption by as much as 2.5%.

The payback period on our SMART FAN option is less than 9 months (based on an utilisation factor of 90%) and will save the cooling tower operator thousands in operational costs over the life of the plant.

Water Quality

Good water quality is critical to cooling tower long term performance and reliability. We recommend that all cooling towers are equipped with our optional WATER CARE package.

This package ensures that the critical elements of your cooling tower water treatment requirements are catered for ensuring long term reliable operation of your cooling tower and associated equipment. Due to differing water qualities, water treatment chemicals are excluded but can be provided. Please contact our sales department for further assistance in this regard.

Other Services

TEKTOWER offers not only cooling towers, but complete solutions including the following:

- Installation of cooling towers
- Pumps, piping and installation thereof
- Electrical, controls and Instrumentation
- Commissioning
- Service plans
- Cooling Tower optimisation surveys
- Cooling Tower Condition Surveys

Tektower is a wholly owned subsidiary of Industrial Water Cooling (Pty) Ltd and a proudly South African company. TEKTOWER provides outstanding experience and support in the design and development of cooling solutions to suit our customers requirements.

EWB 3600 - 4 Cell Cooling Tower

4 of FM 200 Modular Cooling Towers

EWB-C-2300

Tektower
38 Electron Avenue, Isando, Ekurhuleni, South Africa, 1609
PO Box 1112, Isando, 1600, South Africa

T +27 (0)11 466 0699 / +27 (0) 861 112 339
F +27 (0) 11 974 6118
E mail@iwc.co.za
W www.iwc.co.za

Agents information to be placed here

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