IWC INDUSTRIAL

Package Cooling Towers

www.iwc.co.za

IWC Industrial is a subsidiary company of NEXT Cooling and specialises in factory built, package cooling towers and heat exchangers for a variety of industries.

Our cooling tower range includes small EWK cooling towers which are simple plug and play towers suitable for small to medium size applications such as distilleries, dry cleaners and wineries. Our larger FM range of cooling towers is a range of multi-fanned factory assembled cooling towers manufactured in a robust, durable, and compact glass reinforced polyester casing. This range of cooling towers provides high cooling capacity units that are easily transported, installed, and maintained and are ideal for larger processing facilities or remote locations.

We also offer a range of plate heat exchangers for numerous applications and as well as spares and gaskets for most brands of exchangers.

EWK Range

The iconic EWK cooling tower is manufactured in a robust, durable and compact glass reinforced polyester 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 glass reinforced polyester. All fasteners are from stainless steel. The standard colour is grey, however other RAL colours are available on request.

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 made of 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 there is minimal corrosion and no degradation (rotting).

Inlet Louvres

The cooling towers are generally supplied with Dark Room type air inlet louvres which are made of plastic (PVC or Polypropylene), and prevent water from splashing out. These can easily be dismantled for inspection and cleaning purposes.

Basket strainer

The sieve/basket strainer is attached to the 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

Very high cooling capacity, re-cooling of up to 350 m³ of water per hour in a single tower

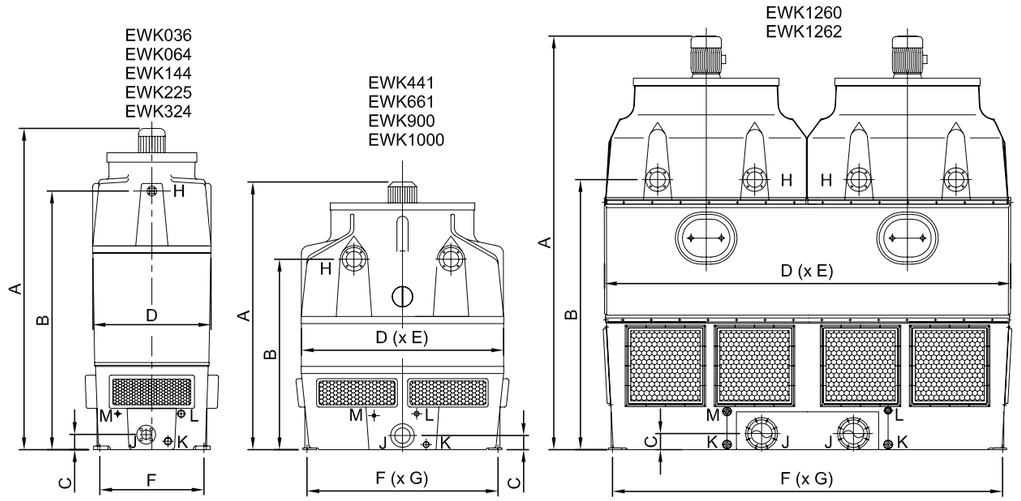
Individual systems in a modular system with several variants and modular designs, with an optional water basin

Low energy consumption and easy maintenance due to induced draught fans

Long maintenance intervals and service life

Plug and play design results in simple, economical installation

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	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
1525	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 our descretion.
3. S = SANS 1123/1000/3
4. F = Female thread PVC.
5. M = Male thread PVC.

FM Range

The FM range of cooling towers is a range of multi-fanned factory assembled cooling towers manufactured in a robust, durable and compact glass reinforced polyester casing.

This range of cooling towers provides high cooling capacity units that are easily transported, installed and 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 glass reinforced polyester side sheets and glass 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 made from stainless steel. The standard colour is grey 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.

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.

Louvres

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

Drift eliminator

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

Cooling components

The cooling components are carefully selected to ensure that there is minimal corrosion and no degradation (rotting).

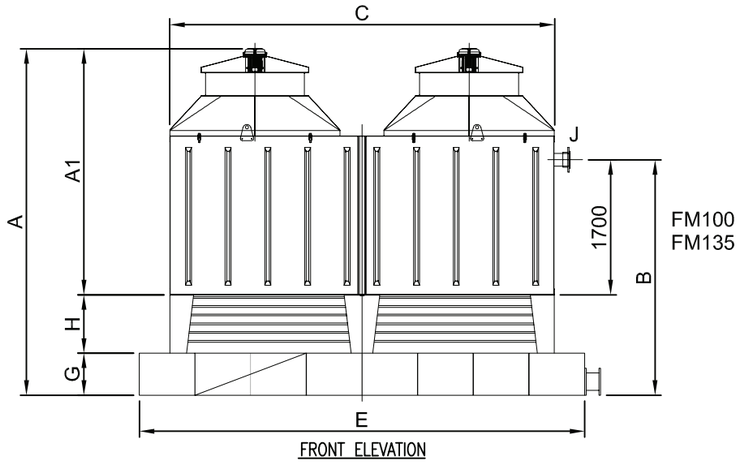
Fill

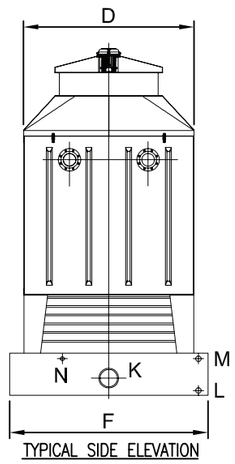
Various cooling tower fills are available and are selected to best suit the process conditions (both temperature and water quality), fill materials are generally either made of PVC or polypropylene but other materials to suit higher temperature applications are also available.

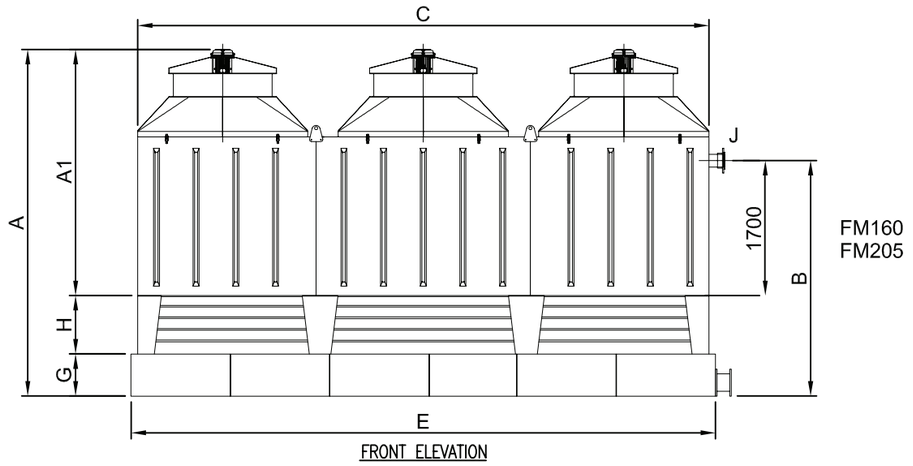
Advantages

- Non-corrosive, long life and light weight
- Low energy consumption and easy maintenance due to induced draught fans
- Long maintenance intervals and service life
- Plug and play design results in simple, economical installation

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	4230	3100	2830	4850	2150	5610	2500	530	600	150	200	2"	2"	1 1/2"
FM135	7.5 kW	4000	2600	4350	3100	2950	5450	2450	5810	3000	600	650	150	200	2"	2"	1 1/2"
FM160	5.5kW	4400	2800	4230	3100	2830	7550	2150	8270	2500	530	600	150	200	2"	2"	1 1/2"
FM205	7.5kW	5850	3700	4350	3100	2950	8450	2450	8815	3000	600	650	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.

Closed Circuit Fluid Coolers & Evaporative Condensers

At IWC Industrial we are able to custom engineer almost any of our Cooling Towers into a closed circuit evaporative cooler OR evaporative condenser. Depending on the duty required these can easily be accommodated in our EWK and FM 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.

Components

Casing

The cooling tower casing is made of fibreglass-reinforced polyester 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.droplets from being carried out of the cooling tower by the air flow.

Drift eliminators

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.

Cooling components

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

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 fibreglass reinforced polyester casing and appropriate choice of material for the serpentine coil

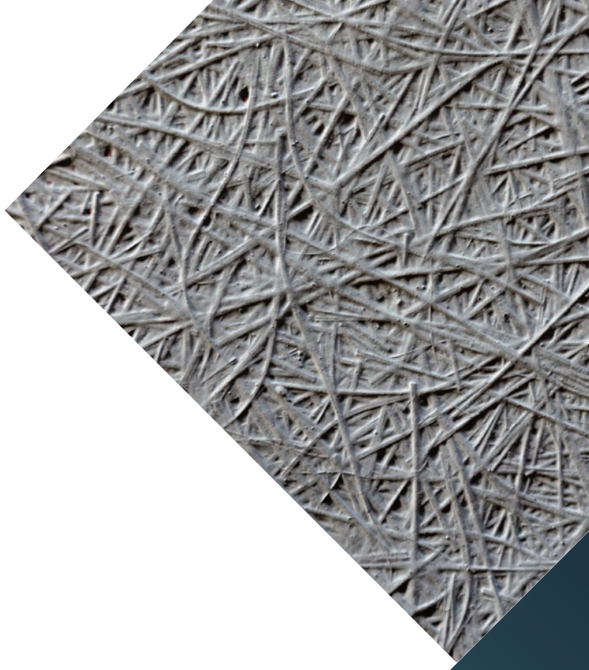
Optional fibreglass, steel, stainless steel or concrete basins

Low energy consumption

Simple to inspect and maintain

Long maintenance intervals and service life

Simple and inexpensive installation thanks to our factory assembled design



Other Services

IWC Industrial offers more than just cooling towers, we provide additional solutions which include the following:

- Installation of cooling towers
- Pumps, piping and installation thereof
- Electrical, controls and Instrumentation
- Commissioning
- Aftermarket services including service plans and parts

IWC INDUSTRIAL

South Africa

148 Fleming road,
Meadowdale,
Edenvale

T +27 11 466 0699

E sales@iwc.co.za

NEXT
NEXT COOLING | IWC | ASCTI

IWC Industrial is part of NEXT COOLING with offices in

South Africa | Australia | India | Switzerland