



Since 1981



STEEL AND FRP COOLING TOWER

**TGK / TRK** SERIES

CONCRETE COOLING TOWER

**IC / FC** SERIES

**FIELD ERECTED**

WATER COOLING TOWERS



## > CONCRETE COOLING TOWERS

ILMED IMPIANTI has a long list of references in Concrete Cooling Towers application.

These kind of Cooling Towers are the ideal solution in very long term investments and for medium/large application. ILMED Impianti is able to provide both induced draft and forced draft Concrete Cooling Tower meeting all Customer's needs.

### > IC SERIES INDUCED DRAFT CT

Induced Draft Concrete Cooling Towers are suitable from little to large applications like:

- ✓ Chemical Industry
- ✓ Cogeneration plants
- ✓ Food processing Industry
- ✓ Heavy industry
- ✓ Oil & gas industry
- ✓ Petrochemical industry
- ✓ Power generation
- ✓ Refineries
- ✓ Steelworks

High performances with high durability make this kind of cooling towers ideal for long term investments in critical applications. Erection can be executed both in pre-cast and on-site cast optimizing project scheduling and costs.

Selecting filling, accessories and concrete coating, accordingly with water composition and climate conditions, it is possible to use concrete cooling tower in extreme weather environment and in sea water applications.

### > FC SERIES FORCED DRAFT CT

Forced Draft Concrete Cooling Towers are suitable from little to medium applications like:

- ✓ Cogeneration plants
- ✓ Food processing Industry
- ✓ Heavy industry
- ✓ Power generation
- ✓ Steelworks

The simple structure of this kind of cooling towers makes them ideal for cost effective installation or for fast erection in countries where making complex structures can be difficult.

The structure has a very short erection time and it can be made both in pre-cast and in on site cast concrete optimizing project scheduling and costs.



## > FRAME STRUCTURE COOLING TOWERS

ILMED IMPIANTI has a long list of references in Frame Structure Cooling Towers using both Steel and Pultruded FRP beams. Design is made using advanced software and construction is made with high quality materials explicitly approved for Cooling Towers applications. Robustness of IImed Impianti structures make this kind of Cooling Towers for hash application like in seismic areas or when high additional loads are applied. Easy and fast frame assembling are considered during design in order to minimize erection costs.

### > TKG SERIES STEEL STRUCTURE CT

The main structure of TKG Series Cooling Towers is entirely made in hot dip galvanized steel, suitable for any environmental condition.

TKG series is easy to be erected and installed without involving a Building Company.

Fast installation and long life make this kind of Cooling Towers cost effective and a good investment both for new and existing plants.

### > TRK SERIES PULTRUDED FRP CT

Pultruded FRP Cooling Towers have all Steel Cooling Tower advantages plus a extreme resistance to corrosion. This makes them suitable for application in very aggressive environment, like sea water applications, being cost effective respect than Stainless Steel Cooling Towers.

IImed Impianti uses high quality Pultruded FRP, specifically approved for Cooling Tower application, with following specific characteristics:

- ✓ UV resistant
- ✓ Flame retardant (ASTM E 84)
- ✓ According to CTI STD-137
- ✓ Large application temperature range for extreme weather conditions



## > OPTIONAL EQUIPMENT

ILMED IMPIANTI is able to design the best solution, finding the correct tradeoff between performances and costs, thanks to its experience in Cooling Tower applications, including harsh environment, extreme weather conditions, aggressive water and specific local regulations.

### > A FILLING FOR EACH APPLICATION

Correct filling selection allow to maximize performances, reliability and durability, reducing maintenance cost.

#### FILM FILLING

FILMED 20 Film Filling is usable with clean or moderately dirty water. It ensures an high thermal exchange with the best heat dissipation and anti-clogging design. FILMED 20 is available with following optional feature also:

- ✓ high water temperature
- ✓ very low environmental temperature
- ✓ flame retardant

FILMED 20 is available in different thickness suitable for sea water applications too.

VERTICAL FLUTE Film Filling, thanks to its no-clogging capabilities, is usable with moderately dirty water ensuring an heat dissipation higher than Splash Filling.

#### SPLASH FILLING

SPLASH GRIDS are usable for dirty water with an high suspended solid content. They ensure excellent no-clogging features with good thermal exchange.

The system consists of ILMED exclusive grids, in polypropylene, injection molded. The supports of the grids are made in stainless steel cables, through the interposition of special spacers. The grids are mounted on overlapping planes, with alternate arrangement of the profiles, to form a very aerated whole, which excludes any risk of clogging.

#### HYBRID SPLASH FILLING

The new filling system TRUST (Tridimensional Ultimate Splash Type) consists of modular elements made of high thickness polypropylene copolymer (PP) "SPLASH" type; it is specially developed by IImed Impianti to be used in and to cool water in cooling towers with dirty industrial water and high levels of suspended solids. The modular characteristics of the filling system facilitate its handling and cleaning during maintenance phases, in order to prolong the functional and performance life of the component. The TRUST system is the natural evolution of the traditional grid system, setting new high levels of robustness, installation easiness, performance and durability.

### > ACCESSORIES

To face specific applications needs a complete accessories range is available:

- ✓ LOW TEMPERATURE ENVIRONMENT: for extreme temperature environment special fillings, heated motors, gearboxes and louvers and hot water curtain are available.
- ✓ LOW NOISE REQUIREMENT: to reduce emitted noise special fans and motors can be installed. Also countermeasure against rainfall into the basin are available.

In a turn-key vision IImed can provide also VFD panels, control panels, water treatment and water filtration systems

# > MATERIALS

Correct Material selection is important for reliability and durability. ILMED IMPIANTI design consider always the most proper material for every environmental condition.

| IC / FC                |                  |                  |                 |                |
|------------------------|------------------|------------------|-----------------|----------------|
| ITEM                   | STANDARD         | ALTERNATIVE      |                 |                |
| MAIN FRAME             | CONCRETE         |                  |                 |                |
| CASING                 | CONCRETE         |                  |                 |                |
| LOUVERS                | FRP              | CONCRETE         |                 |                |
| FAN STACK              | FRP              | CONCRETE         |                 |                |
| FAN                    | FRP              | ALUMINIUM        |                 |                |
| FAN UNIT BRIDGE        | GALVANIZED STEEL | STAINLESS STEEL  |                 |                |
| BOLTS                  | GALVANIZED STEEL | STAINLESS STEEL  | DUPLEX          | SILICON BRONZE |
| PRIMARY DISTRIBUTION   | CONCRETE         | PP               | PVC             | FRP            |
| SECONDARY DISTRIBUTION | PVC              | PP               | FRP             | CONCRETE       |
| SPRAYING NOZZLES       | PPG              | STAINLESS STEEL  |                 |                |
| FILM FILLING           | PVC              | PVC LT           | PVC HT          | PP             |
| SPLASH FILLING         | PP               | PULTRURED FRP    |                 |                |
| DRIFT ELIMINATORS      | PVC              | PP               |                 |                |
| TGK                    |                  |                  |                 |                |
| ITEM                   | STANDARD         | ALTERNATIVE      |                 |                |
| MAIN FRAME             | GALVANIZED STEEL | STAINLESS STEEL  |                 |                |
| CASING                 | FRP              | GALVANIZED STEEL | STAINLESS STEEL |                |
| LOUVERS                | GALVANIZED STEEL | FRP              |                 |                |
| FAN STACK              | FRP              |                  |                 |                |
| FAN                    | FRP              | ALUMINIUM        |                 |                |
| FAN UNIT BRIDGE        | GALVANIZED STEEL | STAINLESS STEEL  |                 |                |
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| FILM FILLING           | PVC              | PVC LT           | PVC HT          | PP             |
| SPLASH FILLING         | PP               | PULTRURED FRP    |                 |                |
| DRIFT ELIMINATORS      | PVC              | PP               |                 |                |
| TRK                    |                  |                  |                 |                |
| ITEM                   | STANDARD         | ALTERNATIVE      |                 |                |
| MAIN FRAME             | PULTRURED FRP    |                  |                 |                |
| CASING                 | FRP              |                  |                 |                |
| LOUVERS                | FRP              |                  |                 |                |
| FAN STACK              | FRP              |                  |                 |                |
| FAN                    | FRP              | ALUMINIUM        |                 |                |
| FAN UNIT BRIDGE        | GALVANIZED STEEL | STAINLESS STEEL  |                 |                |
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| FILM FILLING           | PVC              | PVC LT           | PVC HT          | PP             |
| SPLASH FILLING         | PP               | PULTRURED FRP    |                 |                |
| DRIFT ELIMINATORS      | PVC              | PP               |                 |                |

FIELD ERECTED

TK SERIES

DRY COOLER

GT SERIES

GTP SERIES

NC/ST SERIES

REVAMPING &  
SPARE PARTS

T SERIES

TURN-KEY PLANTS

IC<sup>3</sup> SERIES

ITC SERIES



**YOUR COLD WATER**



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*UNI EN ISO 14001:2015*  
*UNI ISO 45001:2023*

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