



**SPX**<sup>®</sup>

CP cooling tower

**> Marley**<sup>®</sup>

## The CP is a truly unique cooling tower design

Corrosion resistant fiberglass and stainless steel construction makes it an excellent alternative to other cooling towers. Fill choices including high performance, low clog or splash fill ensure product flexibility to meet your exact water conditions at the maximum efficiency possible.

For decades, SPX Cooling Technologies has been a leading producer of counterflow cooling towers for large industrial installations. The redesigned CP is the ideal solution for space-sensitive industrial applications.

The CP cooling tower is either factory-fabricated and ships fully assembled or in modules for quick field assembly.



**SPX Cooling Technologies**

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# The CP counterflow cooling tower: the right answer for many applications

## MODE OF OPERATION

CP towers are mechanical-draft counterflow cooling towers. Hot water flows into the cooling tower through pipes to spray nozzles and is distributed uniformly above the cooling tower fill. The required cooling air is delivered by an induced-draft axial fan. The air absorbs the heat from the water by evaporation and convection.

## DISTRIBUTION SYSTEM

The water distribution system is located above the fill and consists of PVC (polyvinyl chloride) or PP (polypropylene) piping. PP spray nozzles are designed to distribute the hot water uniformly in fine droplets over the fill.

## FILL

The standard fill for clean water consists of glued PVC or welded PP film-fill packs. For dirty water applications with higher suspended solids content, PP or PE (polyethylene) trickle-grid type splash fill is available in different configurations.

## MECHANICAL EQUIPMENT

The cooling tower fan consists of FRP (fiber reinforced polyester) or aluminum axial fan blades with a steel fan hub mounted directly on the geared motor shaft. The fan blade pitch is adjustable at standstill to accommodate process conditions. The geared motor, designed specifically for cooling tower operation (100% humid hot air), is a low noise design and suitable for continuous operation with variable frequency drives (VFD). Geared motor and fan are mounted on an HDG (hot dip galvanized) steel support frame structure above the fan.

## MULTIPLE CELLS CONFIGURATION

The CP cooling tower can be installed as a multicell in-line configuration. Each two adjacent cells have a one joint center wall. Back to back configurations are also available.



## SUPERIOR STRUCTURE DESIGN

The CP cooling tower is designed to meet the high quality requirements of the industrial market and meets the Eurocode 3\*

\*Eurocode 3 replaced the former German Standard DIN 18800 for steel structure.



## Inert, noncorroding construction ensures long service life

### STANDARD FEATURES

The side casing consists of a stainless steel support structure with integrated FRP (fiber reinforced polyester) casing panels that offer chemical and corrosion resistance. The air inlets at the side-walls are fitted with honeycomb louvers to prevent water splash out and reduce icing in winter operation.

### OPERATION AND MAINTENANCE CONSIDERATIONS

Louvers limit the sunlight entering the collection basin, reducing the potential for algae growth. Counterflow towers offer easy access to the collection basin from all sides. The wet surface is totally enclosed providing protection from environmental elements, and the tower utilizes a corrosion-resistant self-draining spray system. The tower is designed to prevent any water accumulation, minimizing legionella contamination risk.

### VALUE-ADDED OPTIONS

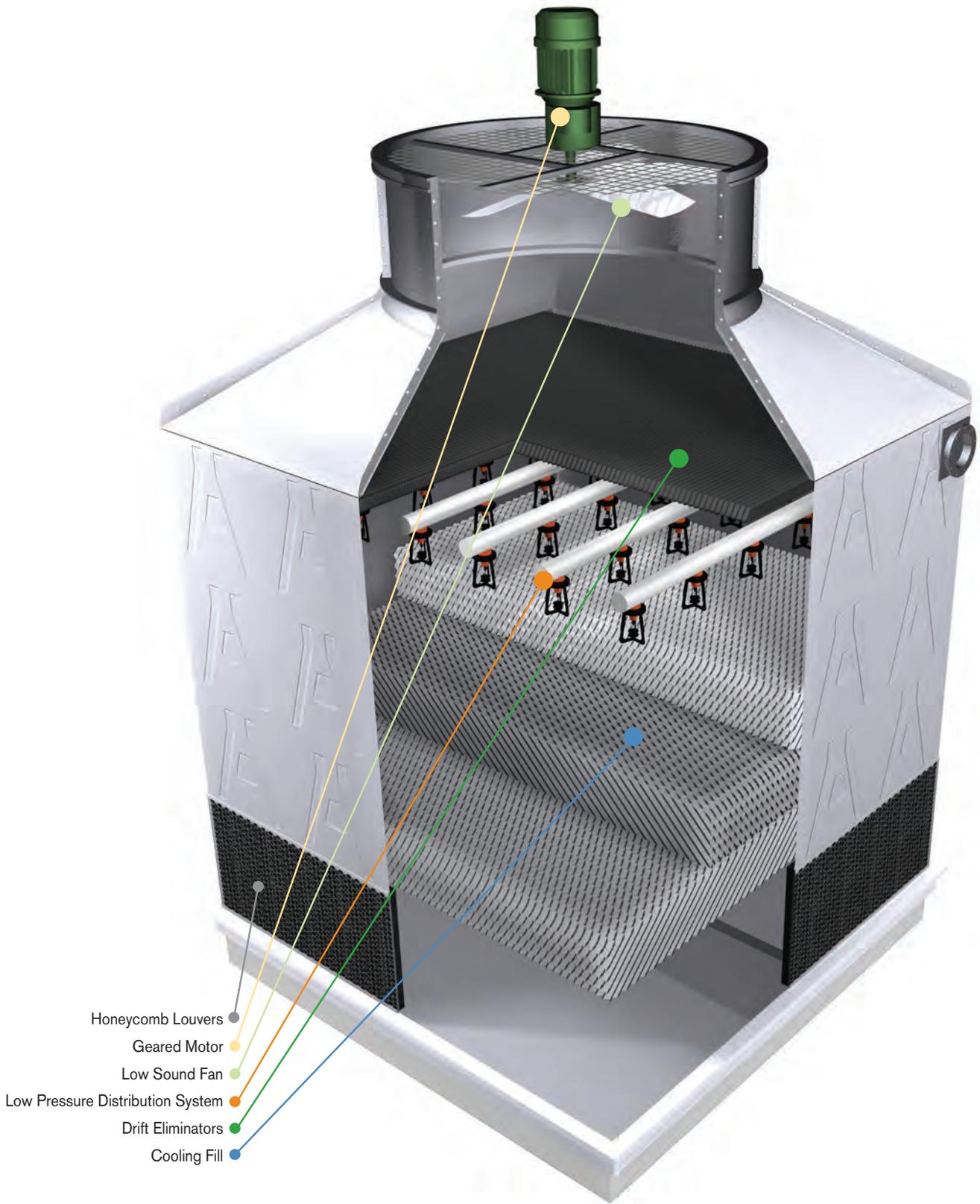
- **FRP water collection basin:** Available with either bottom or side suction outlet, including an HDG basin support structure and outlet flange.
- **Electric basin heater:** This electric immersion heater helps prevent freezing during cold weather.
- **Electric oil level switch:** Allows gearbox oil level to be remotely monitored.
- **External lube line:** Allows user to facilitate changing the gearbox oil.
- **Maintenance Platform:** An HDG steel platform provides a stable work surface from which routine maintenance of the mechanical equipment can be performed even during operation.
- **HDG safety cage and ladder:** Provides safe, convenient access to the mechanical equipment and maintenance platform.
- **Vibration switch:** This option protects against mechanical failure should the tower experience high vibration levels by automatically shutting down the motor. Manual reset ensures inspection to correct root cause. Several models are available.
- **Ultra quiet fan:** Wide-chord acoustic geometry fan design maximizes efficiency while significantly reducing sound levels.
- **Sound attenuation:** Splash attenuation installed in the collection basin reduces falling water noise effectively and economically. Air inlet and outlet attenuators are also available.
- **Special components:** Available upon request.

### All This... and Green, Too

Designed to be environmentally responsible, the CP cooling tower conserves water by keeping splash out to a minimum. And being remarkably energy efficient, it doesn't waste a single kilowatt.



**COOL IS  
GREEN  
IS COOL™**

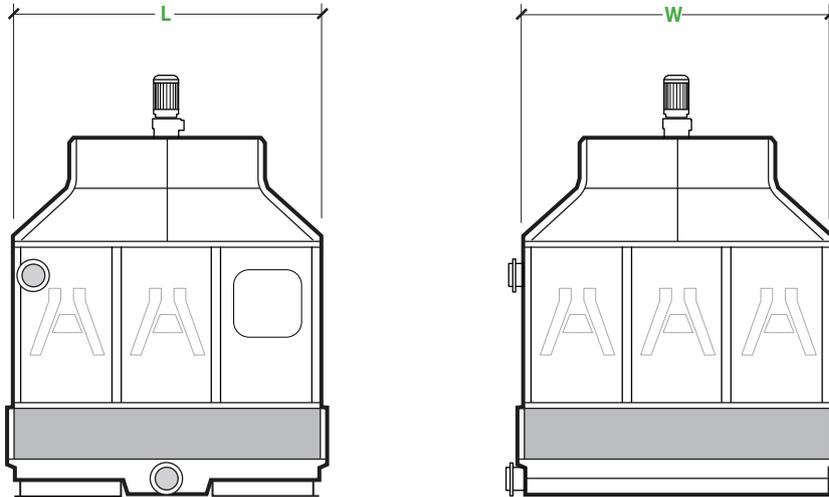


■ high-efficiency PVC/PP film-fill    ■ clog-resistant PE/PP splash-fill



## Induced draft counterflow design

The perfect fit makes all the difference.



### fan hood design

Models	L mm	W mm	Footprint m <sup>2</sup>	Fan Diameter mm
CP060	2440	2440	5.95	1830
CP080	2840	2840	8.07	1830
CP100	3240	3240	10.50	2135
CP130	3640	3640	13.25	2135
CP160	4040	4040	16.32	2440
CP200	4040	4840	19.55	2745
CP241	4840	4840	23.43	3350
CP281	5240	5240	27.46	3350
CP320	5640	5640	31.81	3960
CP360	6040	6040	36.48	3960
CP420	6440	6440	41.47	4270
CP470	6840	6840	46.79	4270
CP520	7240	7240	52.42	4270

### flat fandeck design

Models	L mm	W mm	Footprint m <sup>2</sup>	Fan Diameter mm
CP590	7640	7640	58.37	4880
CP650	8040	8040	64.64	4880
CP710	8840	8040	71.23	5490
CP780	8840	8840	78.15	5490
CP850	9640	8840	85.37	6100
CP920	9640	9640	92.93	6100
CP1000	10040	10040	100.80	6100

## What makes the CP counterflow tower stand out as the logical choice?

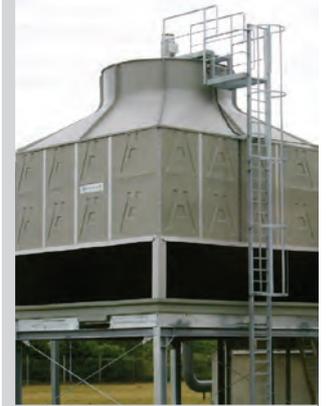
- The structural components of the CP cooling tower are designed in accordance to Eurocode 3 (DIN EN 1993 together with its German national Annex).
- Completely assembled without field welding
- Open profiles reduce the risk of legionella
- Preassembled modular design
- Hoisting of completed tower after assembly
- Variability – able to adapt perfectly to your conditions and requirements
- The SPX product range – the single solution provider for all configurations of cooling towers, fluid coolers and air-cooled condensers.
- The SPX / Marley / Balcke reputation. Our brand promise. Our service commitment. Our position as an undisputed industry leader in product innovation and quality.

## The bottom line

As a leading producer of cooling towers for over 125 years, we are committed to building the best. So, when we decide to offer an improved CP line of towers you can be sure that we've made sure it's going to live up to our standards in every way.

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CP cooling tower

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