NC cooling tower insight

Overview

Marley's flagship factory-assembled cooling tower, providing higher performance, fast installation and easy maintenance.

Primary Benefits

- Higher tonnage and efficiency per cell can lower energy costs up to 20%
- Up to 64% less installation time per cell, providing over \$1400 savings per cell, over previous designs
- Less than half the maintenance costs for gear drives compared to belt drive systems

Benefit Detail

Higher Tonnage and Efficiency:

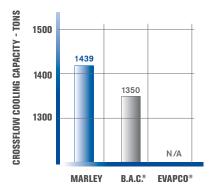
- Highest capacity package cooling tower in the market* helps to reduce the number of cells required, saving purchasing costs
- Higher efficiency design can provide up to 20% lower energy costs

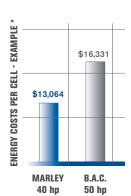
Fast Installation:

- Up to 64% faster installation than previous designs provides over \$1000 in savings per cell
- Quick Installation features include:
 - Factory-mounted terminal box option provides a single location for all controls wiring
 - Quick-Install guardrails and aluminum ladders and welded aluminum safety cages options
 - Four-point support allows parallel I-beams in any direction or separate piers

more III







* assumes nameplate motor horsepower for a 610 ton cooling tower with a footprint of 250 sq ft — \$0.10/kWh and 50% annual usage

field installation hours	latest design	previous design
Ladder and Guardrail	2	3
Ladder Safety Cage	.25	4
Fan Cylinder	0	1
Access Platform	5	7
Factory Installed Terminal Box	4	16
total	11.25	31

based on \$75/hour, savings per tower cell would be over \$1,480

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Benefit Detail

Easy Maintenance:

- Gear drive standard 5 year no-hassle operation
- Integral louvers and eliminators provide water containment and freezing prevention compared to blade louvers used by other manufacturers
- Bolted and/or welded basins stop leaks better than tap screwed connections used by other manufacturers
- Large access doors and a flat fan deck designed as a walking surface makes tower service checks easier

Special Design Considerations

- ASHRAE® Std. 90.1 compliant
- Full set of design options:
 - CTI Certified sound options including attenuation and/or Ultra Quiet fan
 - Splash fill for dirty water applications NC alpha
 - Plume abatement NCWD
 - Marley controls and VFD options for superior energy management
- 3D configuration specific drawings provided with quotes and orders
- FM Approval option on every model including FRP fan cylinder and PVC inlet piping

Capacity Range

101 to 1439 tons per cell at 95°/85°/78°F 303 to 4307 gpm per cell hydraulic limit

No-Hassle System 5 Geareducer*		belt drive
Annual Maintenance	\$624	\$2,380
5 Year Maintenance	\$4,270	\$11,900
example savings	\$7,630	

Technical Features

- Induced draft, crossflow design with vertical air discharge
- Non-corrosive stainless steel or galvanized structure with bolted galvanized or welded stainless steel cold water basin
- TEFC motor, low sound fan standard
- Drift rates as low as 0.0005%
- Belt drive available on all models up to 60 hp
- Assembled with as much as 71% recycled content

Common Applications

HVAC

 Mission critical data centers, hospitals and health treatment facilities, commercial buildings, schools and colleges

Industrial

 Chemical, fertilizer, grain processing, ethanol production, metals, mining, oil refining, textiles and steel production

Power Generation

 Turbine inlet cooling, jacket cooling and trim cooling during peak heat load



7401 WEST 129 STREET

OVERLAND PARK, KS 66213 USA
913 664 7400 | spxcooling@spx.com

spxcooling.com



