Cooling Towers - Global Strategic Business Report

Description: The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World. Annual estimates and forecasts are provided for the period 2015 through 2022. Also, a six-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

This report analyzes the worldwide markets for Cooling Towers in US$ Thousand by the following End Use Segments: Air Conditioning/HVAC Applications, Heavy Industrial & Utility Applications, Chemical Industry, and Other Applications.

Company profiles are primarily based on public domain information including company URLs. The report profiles 64 companies including many key and niche players such as -

Babcock & Wilcox Enterprises, Inc.
Baltimore Aircoil Company
BERG Chilling Systems, Inc.
Brentwood Industries, Inc.
Cooling Tower Depot, Inc.

Contents:

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS
   Study Reliability and Reporting Limitations
   Disclaimers
   Data Interpretation & Reporting Level
   Quantitative Techniques & Analytics
   Product Definitions and Scope of Study
   Cooling Tower Systems
   Air Conditioning/HVAC Applications
   Heavy Industrial & Utility Applications
   Chemical Industry
   Other Applications

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW
   Heat Exchangers
   A Rudimentary Overview
   Table 1: Global Heat Exchangers Market (2016E): Percentage Share Breakdown of Dollar Sales by Technology (includes corresponding Graph/Chart)
   Cooling Towers
   A Market Perspective
   Impact of Economic Upheavals in Recent Past on Cooling Towers Market
   A Retrospective Overview
   Market Hits a Low During 2007-2009 Economic Recession
   Following an Encouraging Recovery in 2010, Market Growth Tempered Once Again During 2012 & 2013
   Continued Lethargy in Global Economic Recovery Creates Soft Growth Patches in the Cooling Towers Market
   Global Economy Continues to Tread On Egg Shells
   Table 2: World Real GDP Growth Rates in % by Country/Region for the Period 2014-2017P (includes corresponding Graph/Chart)
   Mixed Outlook for Cooling Towers Market as Slow But Encouraging Economic Recovery Presents Both Opportunities & Challenges
   Falling Oil Prices Temper Oil & Gas Industry
   Squeezes Demand for Cooling Towers in Heavy Industry Segment
   Mixed Case Scenario for Cooling Towers in Production & Process Industries
   Steady Energy Sector and Growth in Non-Residential Building HVAC Installations Sustain Demand for Cooling Towers
Outlook Europe
The Traditional Revenue Contributor Reaching Market Maturity
Asia-Pacific Continues to Remain Hotspot for Growth

2. MARKET TRENDS, GROWTH DRIVERS AND ISSUES
Improvement in Non-Residential Construction Activity Boosts HVAC Deployments
Bodes Well for Cooling Towers Market
Table 3: Global Commercial Real Estate Market: Value of Investments in Commercial Real Estate for years 2014 through 2017 (includes corresponding Graph/Chart)
Table 4: Global Commercial Real Estate Market (2015): Percentage Breakdown of Direct Investments by Region Americas, Asia-Pacific and EMEA (includes corresponding Graph/Chart)
Steady Growth in Electricity Generation & Continued Reliance on Traditional Power Generation Creates Demand for Cooling Towers
Table 5: Global Electricity Consumption (2010-2015): Yearly Breakdown of Electricity Consumption Volume (in TWh) (includes corresponding Graph/Chart)
Table 6: Global Electricity Production (2010-2015): Yearly Breakdown of Electricity Production Volume (in TWh) (includes corresponding Graph/Chart)
Table 7: Long Term Growth Forecasts for Global Electricity Generation & Consumption Volumes (in TWh) for Years 2020, 2025 & 2030 (includes corresponding Graph/Chart)
Coal-Fired Power Generators Boost Cooling Towers Sales
Table 8: Global Traditional Fossil Fuel Based Electricity Generation: Percentage Share Breakdown of Electricity Generated by Energy Source
Existing and Proposed Nuclear Reactors Augurs Well for Cooling Towers
Table 9: Rise in the Number of Nuclear Reactors in Operation to Spur Opportunities for Cooling Towers in Nuclear Power Plants: Global Nuclear Power Operational Fleet Size for the Years 2010 through 2015 (includes corresponding Graph/Chart)
Prolonged Decline in Oil Prices & Uncertain Exploration Investments Dampen the Demand Outlook in the Oil & Gas End- Use Sector
Table 10: Steep Decline in Crude Oil Prices Push Cooling Towers in the Oil & Gas Sector into a Rough Growth Patch: OPEC Crude Oil Prices (In US$ Per Barrel) for the Years 2013 Through 2016 (includes corresponding Graph/Chart)
Chemical Industry Presents Mixed Outlook for Cooling Towers Demand
Table 11: Projected Long-Term Gains in the World Chemical Industry Encourages Cooling Tower Manufacturers to Look Beyond Current Uncertainties to Focus Developmental Efforts on Innovative Solutions: Breakdown of the World Chemicals Industry (In US$ Billion) by Sector for the Years 2015, 2025 & 2035 (includes corresponding Graph/Chart)
Table 12: World Sales of Renewable Chemicals (In US$ Million) by Geographic Region (2015 & 2020): A Measure of Addressable Opportunity for Cooling Towers in Chemical Production (includes corresponding Graph/Chart)
Petrochemical Industry too Offers Mixed Bag of Opportunities & Challenges for Cooling Towers
Table 13: Mixed Outlook for Oil Refining Capacity Additions Brings Combination of Opportunities & Challenges for Cooling Towers in the Oil Refining & Processing End-Use Sector: World Net Refining Capacity Additions (In 000 Barrels of Oil Per Day) by Region for the Years 2013 through 2017 (includes corresponding Graph/Chart)
Falling Agricultural Commodity & Oil Prices to Spur Growth in the Food Processing Industry & Benefit Demand for Cooling Towers
Table 14: Growing Food & Beverage Sales to Positively Influence Food Processing Plant Equipment Investments: World Retail Sales of Food & Beverages (In US$ Trillion) for the Years 2014 & 2016 by Geographic Region (includes corresponding Graph/Chart)
Steel Manufacturing
A Key End Use Market
Growing Focus on Achieving Energy Efficiency & Reducing Water Consumption Driving Demand for Cooling Towers in Key End-Use Industries
Environmental Norms Governing Key Industries Drive Demand for Cooling Towers
Replacements Demand on the Rise
Key Product Related Trends
While Open Circuit Cooling Towers Continue to Dominate the Market Closed Cooling Towers Gain Focus Due to their Water Saving Ability
Dry Cooling Towers Enjoy High Penetration Rates
Hybrid Cooling Towers Expand Presence
Field Erected Cooling Towers
Major Revenue Contributor
Round Bottle Cooling Towers in Vogue
Technology Developments & Product Innovations
Critical to Market Growth
Energy Efficiency & Eco-Friendliness: Buzzwords for Product Innovation
Automation Systems Makes In Roads
Modular Cooling Towers Gain Adoption at the Expense of Conventional Cooling Towers
Temporary Cooling Towers Makes the Cut
Portable Cooling Towers Gain Widespread Popularity
Electric Pulse Technology
An Alternative to Water Treatment Chemicals in Cooling Towers
Use of FRP as Structural Material for Cooling Tower Manufacturing Grows in Prominence
Competition
Manufacturers to Focus on Enhancing Customer Service Efforts as a Competitive Strategy
Key Challenges & Issues
Pricing Pressures Become Intense with Rising Competition from Alternative Technologies and Growing Presence of Low Cost Manufacturers
Table 15: Global Heat Exchangers Market: Compounded Annual Growth Rates (in%) Over the Period 2015-2022 for Various Heat Exchanger Technologies (includes corresponding Graph/Chart)
Air Cooled Condensers
A Major Threat for Cooling Towers
Gradual Shift Away from Traditional Coal-Fired and Nuclear Power Plants to Renewable Energy Projects
A Cause of Concern
Environmental Concerns Continue to Dog Cooling Towers Market
High Dependency on Water
A Major Issue for Cooling Towers in Some Markets
Long Lead Times and Lack of Labor
Key Challenges
Technical Issues & Maintenance Costs

3. PRODUCT OVERVIEW
Cooling Towers
An Introduction
Cooling Tower Systems
Basic Design
Classification of Cooling Towers
Direct (or Open) Cooling Tower
Indirect (or Closed) Cooling Tower
Cooling Towers Classification by Function
Forced/Natural Draft Towers
Induced/Mechanical Draft Towers
Cooling Towers Classification by Availability (Prepackaged or Customized)
Based on Design
Dry Cooling Towers
Wet Cooling Towers
Hybrid Cooling Towers
Design Systems
Design Factors
Based on Raw Material
Fiberglass Reinforced Polymer based Cooling Towers
Wood
Concrete
Steel
Cooling Tower Applications in key End-Use Segments
Air Conditioning/HVAC Applications
Heavy Industrial & Utility Applications
Oil Refining
Petrochemical Industry
Power/Utilities
Chemical Industry
Other Applications
Food Processing
Paper & Pulp
Functioning of Cooling Towers
Components of Cooling Towers
Condenser Pump & Distribution System
Cooling Loop System
Heat Transfer Media
Cooling Tower Fan System
Cooling Tower Basin
Cooling Tower Pumps
Drift Eliminators
Cooling Tower Fills
Installation of Cooling Towers
Tower Performance
Cleaning of Cooling Towers
Problems Associated with Cooling Towers
Fouling
Fouling Prevention Method
Corrosion of Towers
Corrosion Prevention Method
Scale Formation Within Loops
Scale Control Unit
Other Factors Behind Poor Performance of Cooling Towers
Poor Air Flow
Poor Pump Performance
Clogging of Nozzles
Factors Critical to Cooling Tower Performance
Hydraulic Factors
Time-Related Factors
Water Chemistry Factors
Saturation Factor
Biocides and Cooling Towers
Ozone Treatment
Ion Systems & Cooling Towers

4. REGULATIONS IMPACTING THE INDUSTRY
Legionnaire's Disease
Prevention of Significant Deterioration (PSD) permits
New Source Review (NSR) Permits
Title V Operating Permits
NESHAP Regulations
Toxic Release Inventory (TRI) Reports
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
Environment Protection Agency (EPA)
Monitoring of Cooling Tower Performance

5. RECENT INDUSTRY ACTIVITY
B&W Acquires SPIG
HAMON POLSKA Bags Natural Draft Cooling Tower Order
Paharpur Cooling Towers Ltd Agrees to Buy SPX' Dry Cooling Business
Researchers from the University of Queensland's Geothermal Energy Centre of Excellence Develop Modular Hybrid Cooling Tower
Baltimore Aircoil Company Releases a New Series 3000 Cooling Tower with ENDURADRIVE™ Fan System
Evapco Introduces New Cooling Tower - "AXS"
Triton Acquires GEA's Heat Exchangers Business
Evapco Introduces First-of-its-Kind CTI Cert. Cooling Tower
Conair Introduces Energy Efficient EarthSmart Adiabatic Cooling Towers
Ecolab Acquires Purate Business from AkzoNobel
MFRI Inc. Voices Intentions to Divest Subsidiary Company Thermal Care
J.D. Cousins Unveils EconoCool
Southern Cooling Towers Introduces Draft FRP Cooling Towers
Aggreko Introduces Portable Cooling Tower
6. FOCUS ON SELECT GLOBAL PLAYERS
Babcock & Wilcox Enterprises, Inc (US)
Baltimore Aircoil Company (USA)
BERG Chilling Systems, Inc. (Canada)
Brentwood Industries, Inc. (USA)
Cooling Tower Depot, Inc. (USA)
Cooling Tower Systems, Inc. (USA)
Delta Cooling Towers, Inc. (USA)
ENGIE Refrigeration GmbH (Germany)
Evapco, Inc. (USA)
Gactel Turnkey Projects Ltd (India)
HAMON & CIE SA (Belgium)
Ilmed Impianti Srl (Italy)
Kelvion Holding GmbH (Germany)
Liang Chi Industry Co. Ltd (Taiwan)
Mesan Cooling Tower Ltd. (Hong Kong)
OK-Markovi Ltd. (Bulgaria)
Paharpur Cooling Towers Limited (India)
Ryowo Holding Co., Ltd. (Hong Kong)
SPX Corporation (USA)
SPX Cooling Technologies, Inc (USA)
Star Cooling Towers LP (USA)
Superchill Australia Pty Ltd. (Australia)
Thermal Care, Inc (USA)
Tower Tech, Inc. (USA)

7. GLOBAL MARKET PERSPECTIVE
Table 16: World Recent Past, Current & Future Analysis for Cooling Towers by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022
(includes corresponding Graph/Chart)
Table 17: World Historic Review for Cooling Towers by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014
(includes corresponding Graph/Chart)
Table 18: World 14-Year Perspective for Cooling Towers by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)
By End-Use Applications
Table 19: World Recent Past, Current & Future Analysis for Cooling Towers in Air Conditioning/HVAC Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022
(includes corresponding Graph/Chart)
Table 20: World Historic Review for Cooling Towers in Air Conditioning/HVAC Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014
(includes corresponding Graph/Chart)
Table 21: World 14-Year Perspective for Cooling Towers in Air Conditioning/HVAC Applications by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)
Table 22: World Recent Past, Current & Future Analysis for Cooling Towers in Heavy Industrial & Utility Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022
(includes corresponding Graph/Chart)
Table 23: World Historic Review for Cooling Towers in Heavy Industrial & Utility Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets
Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014
(includes corresponding Graph/Chart)
Table 24: World 14-Year Perspective for Cooling Towers in Heavy Industrial & Utility Applications by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

Table 25: World Recent Past, Current & Future Analysis for Cooling Towers in Chemical Industry Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

Table 26: World Historic Review for Cooling Towers in Chemical Industry Applications by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 27: World 14-Year Perspective for Cooling Towers in Chemical Industry Applications by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

Table 28: World Recent Past, Current & Future Analysis for Cooling Towers in Other End-Use Industries by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

Table 29: World Historic Review for Cooling Towers in Other End-Use Industries by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 30: World 14-Year Perspective for Cooling Towers in Other End-Use Industries by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Latin America and Rest of World Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES

A. Market Analysis
Outlook
Overview
Modernization of Existing Thermal Power Plants to Drive Replacement Demand for Cooling Towers
Projected Recovery in Industrial Sector Drives Demand for Cooling Towers
Opportunities Exist for New Entrants in HVAC Cooling Towers Market
Strategic Corporate Developments
Key Players

B. Market Analytics
Table 31: US Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 32: US Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 33: US 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

2. CANADA

A. Market Analysis
Outlook
Key Player

B. Market Analytics
Table 34: Canadian Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 35: Canadian Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 36: Canadian 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

3. JAPAN
A. Market Analysis
   Outlook
   Concrete Fiscal & Stimulus Policy Measures to Brighten Market Prospects
B. Market Analytics
   Table 37: Japanese Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
   Table 38: Japanese Historic Review for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
   Table 39: Japanese 14-Year Perspective for Cooling Towers by End Use Industry
   Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4. EUROPE
A. Market Analysis
   Outlook
   A Review
   Replacement Market Driving Growth
B. Market Analytics
   Table 40: European Recent Past, Current & Future Analysis for Cooling Towers by Geographic Region
   France, Germany, Italy, UK, Spain, Russia & Rest of Europe Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
   Table 41: European Historic Review for Cooling Towers by Geographic Region
   France, Germany, Italy, UK, Spain, Russia & Rest of Europe Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
   Table 42: European 14-Year Perspective for Cooling Towers by Geographic Region
   Percentage Breakdown of Dollar Sales for France, Germany, Italy, UK, Spain, Russia & Rest of Europe Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)
   Table 43: European Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
   Table 44: European Historic Review for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
   Table 45: European 14-Year Perspective for Cooling Towers by End Use Industry
   Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4a. FRANCE
A. Market Analysis
   Outlook
B. Market Analytics
   Table 46: French Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
   Table 47: French Historic Review for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
4b. GERMANY

A. Market Analysis
Outlook
Strategic Corporate Development
Key Players

B. Market Analytics

Table 49: German Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 50: German Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 51: German 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4c. ITALY

A. Market Analysis
Outlook
Strategic Corporate Development
Key Player

B. Market Analytics

Table 52: Italian Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 53: Italian Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 54: Italian 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4d. THE UNITED KINGDOM

A. Market Analysis
Outlook
Strategic Corporate Development

B. Market Analytics

Table 55: UK Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 56: UK Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 57: UK 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4e. SPAIN

A. Market Analysis
Outlook

B. Market Analytics

Table 58: Spanish Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 59: Spanish Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 60: Spanish 14-Year Perspective for Cooling Towers by End Use Industry Percentage Breakdown of Dollar Sales for Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4f. RUSSIA
A. Market Analysis
B. Market Analytics
Table 61: Russian Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 62: Russian Historic Review for Cooling Towers by End Use Industry
Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 63: Russian 14-Year Perspective for Cooling Towers by End Use Industry Percentage Breakdown of Dollar Sales for Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

4g. REST OF EUROPE
A. Market Analysis
B. Market Analytics
Table 64: Rest of Europe Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 65: Rest of Europe Historic Review for Cooling Towers by End Use Industry
Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 66: Rest of Europe 14-Year Perspective for Cooling Towers by End Use Industry Percentage Breakdown of Dollar Sales for Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC
A. Market Analysis
B. Market Analytics
Table 67: Asia-Pacific Recent Past, Current & Future Analysis for Cooling Towers by Geographic Region China and Rest of Asia-Pacific Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 68: Asia-Pacific Historic Review for Cooling Towers by Geographic Region China and Rest of Asia-Pacific Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 69: Asia-Pacific 14-Year Perspective for Cooling Towers by Geographic Region Percentage Breakdown of Dollar Sales for China and Rest of Asia-Pacific Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

Table 70: Asia-Pacific Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 71: Asia-Pacific Historic Review for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 72: Asia-Pacific 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

5a. CHINA
A. Market Analysis
Outlook
Despite Recent Slowdown, China Continues to Remain Major Market for Cooling Towers
Table 73: China's Dominant Hold on Global Manufacturing Output & Its Central Role in World Trade Makes the Country a Major Market for Cooling Towers in Asia: % Breakdown of Global Manufacturing Output by Region for the Years 1990 and 2013 (includes corresponding Graph/Chart)

Nuclear Power Industry
A. Lucrative Market for Cooling Towers
HVAC Applications
Fastest Growing End-Use Market for Cooling Towers in China
Governmental Initiatives to Drive Growth
Need to Sustain Technology Advancements Drives International Collaboration
B. Market Analytics
Table 74: Chinese Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 75: Chinese Historic Review for Cooling Towers by End Use Industry
Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 76: Chinese 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

5b. REST OF ASIA-PACIFIC
A. Market Analysis
Outlook
Indian Market
A Snapshot
Strategic Corporate Developments
Key Players
B. Market Analytics
Table 77: Rest of Asia-Pacific Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 78: Rest of Asia-Pacific Historic Review for Cooling Towers by End Use Industry
Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 79: Rest of Asia-Pacific 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

6. LATIN AMERICA
A. Market Analysis
Outlook
B. Market Analytics
Table 80: Latin American Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 81: Latin American Historic Review for Cooling Towers by End Use Industry
Air Conditioning/ HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently
Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 82: Latin American 14-Year Perspective for Cooling Towers by End Use Industry
Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

7. REST OF WORLD
A. Market Analysis
   Outlook
   B. Market Analytics

Table 83: Rest of World Recent Past, Current & Future Analysis for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2015 through 2022 (includes corresponding Graph/Chart)

Table 84: Rest of World Historic Review for Cooling Towers by End Use Industry
   Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets Independently Analyzed with Annual Sales Figures in US$ Thousand for the Years 2009 through 2014 (includes corresponding Graph/Chart)

Table 85: Rest of World 14-Year Perspective for Cooling Towers by End Use Industry
   Percentage Breakdown of Dollar Sales for Air Conditioning/HVAC, Heavy Industrial & Utility, Chemical Industry and Other Markets for the Years 2009, 2016 and 2022 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE
Total Companies Profiled: 64 (including Divisions/Subsidiaries 79)

- The United States (21)
  - Canada (1)
  - Japan (1)
  - Europe (28)
- France (2)
  - Germany (5)
  - The United Kingdom (5)
  - Italy (3)
  - Spain (1)
  - Rest of Europe (12)
- Asia-Pacific (Excluding Japan) (19)
  - Middle East (6)
  - Africa (3)

Ordering:
Order Online - http://www.researchandmarkets.com/reports/338756/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Cooling Towers - Global Strategic Business Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Address:</td>
<td><a href="http://www.researchandmarkets.com/reports/338756/">http://www.researchandmarkets.com/reports/338756/</a></td>
</tr>
<tr>
<td>Office Code:</td>
<td>SC2GZYFG</td>
</tr>
</tbody>
</table>

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User:</td>
<td>USD 4950</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 5 Users:</td>
<td>USD 6930</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 10 Users:</td>
<td>USD 9405</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 15 Users:</td>
<td>USD 11880</td>
</tr>
</tbody>
</table>

* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title: Mr</th>
<th>Mrs</th>
<th>Dr</th>
<th>Miss</th>
<th>Ms</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code:

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp