



# **ECOTHERM References** Hot Water, Steam and Solar Systems

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# Ecotherm is the leading brand for turnkey hot water, steam and solar systems for hotels, hospitals and the industry.

Ecotherm amazes with "Individual Heat Transfer Solutions" for hot water and steam generation.

#### Individuality

Ecotherm produces extensive turnkey systems as well as separate components. Each plant is specifically aligned to the customer's individual requirements. The base is our own production facility in Austria and a wide product portfolio, which enables the combination of all relevant energy sources such as oil, gas, electricity and renewable energies.

#### Premium quality

Amongst others, our High Capacity Water Heaters are made of high-class duplex stainless steel and guarantee a long-life cycle and perfect hygiene. Ecotherm is certified to ISO 9001 : 2015 with all European standards. Our own test bench assures highest quality and reliability.

#### Innovation

We are always open to new ideas, we constantly investigate new technologies and we develop path-breaking and future-oriented products. Many patents are the result of the in-house innovation management. With an elaborated 3D visualization, Ecotherm systems can be guided and controlled at all times.

#### Premium service

Clients benefit from our extensive service at consulting, planning, engineering, supervision and training. Ecotherm regularly improves the know-how of its partners and clients with selective trainings.

#### Efficiency

The Ecotherm Group, managed by the owner, has slim decision-making structures. Consequent research and development work permanently optimize the energy efficiency and the durability of the products. Ecotherm turnkey solutions offer an optimal cost-benefit ratio.

#### Experience

With thousands of installations in the last 30 years in Europe, the Middle East, Asia, North Africa and Central America, Ecotherm has become the leading brand in technology and innovation for individual hot water, steam and solar solutions. The Ecotherm team is continuously refreshing their know-how with exceptional trainings and seminars that the Ecotherm Academy provides.

#### Reliability

Ecotherm systems are monitored all around the clock and can be serviced at low cost, quickly and efficiently with an advanced control panel. Our products and plants have low maintenance requirements.

#### Sustainability

Ecotherm products help our customers save energy and money. We save valuable resources by using renewable energies. Ecotherm high-performance plants have minimal space requirements and provide maximum energy savings. When planning new products, Ecotherm engineers take all the qualitative and economic principles into account in accordance with the ecological principles.

#### Partnership

We live in a partnership with all our customers, suppliers and employees. This relationship is characterized by honesty, commitment, openness, trust and reliability. The object is a joint long-term success.

#### Internationality

The international alignment of Ecotherm with branches in Dubai, Mexico and Hungary and further partners in more than 25 countries is the base for our flexible and efficient project implementation.

# **ECOTHERM Group**





## **CEO & Founder**

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# **ECOTHERM® Product Overview**





# **Turnkey Hot Water, Steam and Solar Systems**

As the leading brand for turnkey hot water, steam and solar systems, Ecotherm provides solutions for hotels, hospitals and the industry in accordance with your individual requirements.

## ECOTHERM turnkey system benefits:

- all components come from one supplier, therefore, only one guarantee partner
- space and energy savings, hygiene, low maintenance costs, long life-time of the plants
- pre-assembled and pre-wired systems
- quality management according to ISO 9001 : 2015
- professional project management for project handling in time
- perfectly coordinated design of the components for safety in the daily operation
- individual 3D-models of the project as well as 3D-animations and presentation videos
- professional engineering with design, dimensioning, specification, CAD design
- thermal and static calculation according to all relevant standards
- self-developed Ecotherm design software for heat exchanger and hot water systems
- Ecotherm's production facility with complete pre-assembling of the customized systems
- high quality stainless steel components
- eco-friendly pickling plant
- most modern remote control via touchscreen-panel with 3D-visualization
- supervision, commissioning, documentation and trainings

## Your additional plus after implementing:

• possibility of telemaintenance and visualization for monitoring, checking the functional efficiency and cost effectiveness

## **Our Turnkey Solutions:**





# **Ecotherm High Capacity Water Heaters** "The Green Calorifiers" with patented Shell & Tube Heat Exchangers up to 2,000 kW



#### High performance

- Highly increased performance due to free-floating turbulator rods
- $\cdot$  Cold water heated up from 12°C to 60°C in one second

#### **Compact Construction**

- · Floor space saving up to 95%
- · Minimal radiation heat loss and enhanced overall fuel efficiency

#### Anti-Fouling System

• Prevention of fouling deposits due to high speed water flow and free-floating turbulator rods

Hygienic / Anti-Legionella-Cycle

Lifelong corrosion-free service

· Stainless Steel AISI / duplex

Sustainable - Energy & Space Saving



# **Ecotherm High Capacity Water Heaters** "The Green Calorifiers" with internal patented Flat Spiral Heating Coils up to 1,000 kW

- Up to 20 m<sup>2</sup> heat exchanger surface in one layer
- · Height of only 170 mm
- Horizontal installation at the bottom of the storage tank
- · Possibility of mounting several heating coils on top of each other
- Combinable with tube heat exchangers, removable & external heat exchangers
- · Increased Heat Transfer Rate
- · 95% Standby Capacity
- · ECOSIZE software for sizing





# **ELC11 ECOTHERM Logic Controller**

All ECOTHERM hot water, steam & solar systems are equipped with their own logic control unit to ensure permanent control and performance monitoring at all times.

The control panel is an intelligent terminal for programming and visualizing automated processes with a 5.7" to 19" touchscreen VGA TFT color display. Features:

- remote control and BMS
- control of pumps and valves
- exact temperature control
- flexible control facilities
- performance logging
- fuel saving program
- anti-fouling system
- Legionella decontamination cycle

- early warning fouling alarm
- temperature sensors



A touch panel enables easy control or efficiency checks.

# **Virtual Reality**

Virtual or Augmented Reality is an interactive computer-generated experience within a simulated environment. It allows new forms of communication between companies and their customers, supporting current manners of customer service. Ecotherm offers virtual reality models of complete turnkey systems for realistic product presentations and simple cooperation without on-site presence.





Scan this QR-Code for a VR model of a complete Ecotherm Turnkey System.

# **Fibre-Fleece Insulation**





## Maximum Efficiency

· Up to 30% less heat loss in standby-mode

## Sustainability

- · Produced from recycled PET bottles
- · No chemical additives, 100% recyclable
- Flame retardant to DIN 4102-1 in the building material groups B1 or B2

#### Innovative

- Patented aluminium closure strips allow quick opening of the insulation
- Covering rosettes for the connecting sleeves provide an optimal and completely reliable seal

#### Individual

• The material of the outer cover is made of robust PP or ALUCUBOND, available in different colors

# **ECOTHERM Austria GmbH - Hartkirchen, Austria**

ECOTHERM - Turnkey Solar Hot Water, Space Heating & Cooling System, Solar Steam System







## ECOTHERM Austria

We combine all available energy sources such as gas, oil, electricity and renewable energy. The result is access to perfectly hygienic water or steam all around the time. Using our own manufacture, we develop, construct and produce quality stainless steel products and provide the possibilities of automatic welding, robot welding and laser cutting as well as creating small series of products or prototypes. Our plants are mainly used in hotels, hospitals and the industry.

We offer systems of the highest quality and efficiency as a result of our unrivaled experience in over thousand installations in Europe, the Middle East, Asia, North Africa and in Central America. Each one of our units is specifically aligned to the customer's individual requirements with the most extensive range of excellent services starting from advice and consulting, to planning, engineering, supervision and specialized training.

#### Installations

116 nos. solar collectors ESC-7250 (266 m² gross area)
42 nos. vacuum tube collectors ESC-V18 (126 m²)
mild steel buffer tank, 2x 15,000 liters
solar cooling with absorption chiller 70 kW (EACM-C20)
2,500 liters chilled water storage tank
2 heat pumps 90 kW
1 stores sustant 500 km/h

1 steam system 500 kg/h



#### ECOTHERM Solar Steam System

This pilot project for solar steam was developed in 2016 as the first on-roof Fresnel system in Austria. The solar steam generation is designed to save energy costs and reduce the consumption of fossil fuels.

Ecotherm offers a complete solar steam system for the industry and enables the integration of solar steam fields into existing steam systems.

The main application area is the substitution of oil and gas as fuel for existing steam boilers in production companies. The primary energy is solar energy. The choice of materials has always taken the environmental aspect of (raw material) production and recycling in consideration.

#### Installations

20 nos. fresnel collector FRX 2.1 (230 m<sup>2</sup> gross area)

- 1 no. steam drum 200 ltr / 12 bar
- 1 no. pressure control unit 165 kg / h
- 1 no. performance test unit (DNI sensor)



# Sheikh Jaber Al-Ahmad Al-Jaber Al-Sabah Hospital - Kuwait

ECOTHERM - Turnkey Steam, Clean Steam & Hot Water System



#### The building

After a 5-year construction period, the Sheikh Jaber Al-Ahmad Al-Jaber Al-Sabah Hospital will be the largest health center in Kuwait. Equipped with 1,168 beds, the hospital additionally includes 36 operating rooms for patients of all classes. It has four cardiology laboratories, four MRI laboratories, four CT laboratories on 13 floors and is one of the largest trauma centers in the Middle East.

#### ECOTHERM Installations (2011)

Turnkey Steam System with 12 m<sup>3</sup> Feed Water Tank 3x Steam Boilers, each 7,000 kg/h 3x Clean Steam Generators, each 4,500 kg/h 5x Hot Water Boilers, each 6,000 kW 31x High Capacity Water Heaters (Total Capacity: 6,920 kW) 15x Drinking Water Cooler Stations Installation, Supervision, Commissioning



# King Saud bin Abdulaziz University for Health Sciences - Riyadh

ECOTHERM - Turnkey Steam, Clean Steam & Hot Water System



## The building

Both, a hospital and a research center, are located inside the King Saud bin Abdulaziz University for Health Science. The hospital is specialized in treatment for children. That makes it the first hospital of its kind in Saudi Arabia, with a complete floor space of 85,000 m<sup>2</sup>. The building has 350 beds which makes concentrated pediatric medical care possible. Each hospital ward has its own classrooms, play rooms, storage areas and other support services.

## ECOTHERM Installations (2011)

5x Steam Boilers (6,820 kg/h, 12 bar)
1x Feed Storage Water Tank (25,300 litres)
4x Clean Steam Generator (3,550 kg/h at 10 bar)
11x High-Performance Stainless Steel
Instantaneous Water Heaters





# **Sidra Medical and Research Center - Doha**

ECOTHERM - Turnkey Steam, Clean Steam & Hot Water System









## The building

With its 412 hospital rooms and 400 beds, Sidra Medical and Research Center is truly a landmark development on a total floor space of 130,000 m<sup>2</sup>. It is the first academic medical center in the region, being designed and planned to have the best international standards in health sciences.

#### ECOTHERM Installations (2012)

3x Steam Boilers 15,000 kg/h, 16 bar
2x Feed Water Tanks 16,000 l/each
1x Cold Water Tank 2,000 l
Blow Down Tank & Flash Vessel
3x Condensate Return Stations
26x ECOTHERM High Capacity EDRE
Domestic Steam to Water Heaters
6x ECOTHERM High Capacity LTHW Steam to
Water Heat Stations
4x ECOTHERM High Capacity EHRE Water to
Water Heat Stations
3x Clean Steam Generators, each 950 kg/h
PRV-Stations for the different pressure ranges
Valves and Accessories for Steam and
Condensate Distribution

# **Royal Oman Police Hospital - Oman**

ECOTHERM - Stainless Steel Electric Water Heaters, Turnkey Solar Hot Water & Steam System



## The building

It is the largest medical city in Oman. The hospital is designed to accommodate 600 beds in the first phase, comprising of 6 floors. It will provide medical care to the members of the Royal Oman Police and their families. Each specialized hospital floor includes an OP unit, diagnostic & treatment zone. The total project area takes up about one million square meters sharing the hospital staff accommodation buildings, and 20 other hospital functional requirement facilities.

## ECOTHERM Installations (2018)

Electric Water Heaters 4x 90kW 5000 litres 12x 90kW 3000 litres 3x 1,2kW 80 litres 15x 1,2 kW 100 litres

584x Solar Collectors ESCF-N26 (1518 m<sup>2</sup> gross area) 71x EF Solar Water Heater 757 ltr 71x Electric Backup With Ceramic Heating Elements 9 kW, delivered as pre-assembled units

2x Steam Boilers 2,000 kg/h, 15 bar 1x Feed Water Tank 1500 litres







# Maliha Military Hospital - Sharjah, UAE

ECOTHERM - Turnkey Steam System

The 221-bed facility is serving the Military and their families. It is in the Kalbaa region of Sharjah in the United Arab Emirates. The new hospitals includes inpatient and outpatient services comprising of emergency, dialysis, dental, diagnostics, six operating theatres, ICU, CCU and burn unit. Additionally the complex includes accommodations for doctors and nurses.

2x Steam Boilers ESBH-H 2500 kg/h 1x Clean Steam Generator 750 kg/h





# New Sabah Hospital - Kuwait

ECOTHERM - Turnkey Steam System

#### 2019

The trauma center is designed to provide general and specialized clinical services. It will be the first of its kind, on a total area of 250,000 m<sup>2</sup> and 11 floors. The hospital consists of three separate buildings and 617 beds in total. It will also support the AI Amiri Hospital in providing general secondary care services.

5x Steam Boilers ESBH-H 6000 kg/h 16bar, 2x Feed Water Tank 12.000 ltr. & Feed Water Pumps, 1x water treatment unit with softener 12m<sup>3</sup>/h, 1x flash vessel 2000ltr., 1x steam header, 2x preheating tanks 1000ltr. with circulation pumps, 3x PRV station for calorifier & LTHW, 1x condensate return tank 10.000ltr., 3x motive condensate pumps 5/7/9,3m<sup>3</sup>/hr, 22x High Capacity Water Heaters 60 kW - 3000 kW & 540 litres - 6000 litres, 6x Clean Steam Generators



# Al Salam International Hospital - Kuwait

ECOTHERM - Turnkey Steam System / Stainless Steel Electric Water Heaters

#### 2004

The Al Salam International hospital is considered a benchmark in the healthcare industry, providing high quality and safe comprehensive healthcare services in a caring and ethical environment. The complex is located at Bneid Al Qar in Kuwait, including 12 floors with a total gross area of 38,000 m<sup>2</sup>, plus a 6-floor car park comprising 23,000 square meters and a 9-floor staff residential building with 10,800 square meters.

2x EESG-C270 Electrical Clean Steam Generators / 12x EETS 60 kW 1900 litres, 1x EETS 60 kW 1900 litres



# Al Amiri Hospital - Kuwait

ECOTHERM - Turnkey Steam System

#### 2017

The Amiri hospital is a general hospital located in Kuwait City, serving about 400,000 patients per year. The hospital was built in 1949 to be the first government owned hospital in Kuwait. In 2010 a new complex was planned to be built as an extension to the existing hospital. The new building has 415 beds, 12 floors and an overall gross area of 141,816 square meters.

1x feed water tank, 8.000 ltr, 1x blow down cooler, 1.000 ltr, 1x condensate return station 3.000 ltr, 1x clean steam generator 2500kg/h, 8x high capacity water heaters EDRE 220 kW - 2500 kW, 3.000 - 6.000 ltr, 2x high capacity water cooler ECM 3 - 20 m<sup>2</sup> per hour



## Hospital BHB - Graz, Austria ECOTHERM - Stainless Steel High Capacity Water Heaters

2x EHRE 100kW 1000I, 2xEHRE 150kW 1000I, 1x EHRE 150kW 750I | General hospital in Styria with 487 beds and 9 departments



## Al Mafraq Hospital - Abu Dhabi ECOTHERM - Turnkey Solar Hot Water System

2010

512 nos. Solar collectors ESC-SM10 (1.064  $\rm m^2$  gross area), 6 nos. EHRE solar water heater 4,000 ltr, 2 nos. EHRE solar water heater 5,000 ltr, 8 nos. Electric backup 192 kW

739-bed-hospital after a revamp, on a total gross area of 306,803  $\ensuremath{m^2}$ 



## Innsbruck Medical Uni - Tyrol, Austria ECOTHERM - Stainless Steel High Capacity Water Heaters 1996

8x EHRE 240 kW, 8x 3,200 litres hot water storage capacity 57,000 litres per hour continuous at 60°C

One of the biggest hospitals in Austria with 1,400 beds in total





## ShouGuang ChenMing Hospital - China ECOTHERM - Turnkey Solar Hot Water System

2010

phase 1: 330 m<sup>2</sup> solar panels, 2x 5,000 ltr buffer tank, 2x EF-120-6550-1560-4000, 2x EHRE-210-7040-1560, 2x EDRE 300-18090-4085 Completed in 2011 with a total restriction area of 5200 m<sup>2</sup>, 16 floors and 600 beds



## Hospital Harlaching - Munich, Germany ECOTHERM - Stainless Steel High Capacity Water Heaters 2011

2x EHRE 150kW 540 litres | Amongst the biggest hospitals in Munich with over 700 beds and 57,000 patients per year



## Al Naufar Rehabilitation Center - Qatar ECOTHERM - Turnkey Solar Hot Water System

2012

12x stainless steel calorifiers, 540 - 1,500 liters capacity each / 6x solar systems, 18 - 46 m<sup>2</sup> each / 6x external solar heat exchanger EHRE, 12 - 30 kW each / emergency cooler

127 residential rooms with over 50 individual and group therapy rooms





## St. Vincent's Private Hospital - Dublin, Ireland

ECOTHERM - Stainless Steel High Capacity Water Heaters

3x EHRE 700 kW 1060 I / 1x buffer tank 9,000 litres Hospital with the widest range of specialist care in Ireland



## Al Farwaniya Hospital - Kuwait ECOTHERM - Turnkey Steam System

2x Steam Boiler, 2x Economiser ECXV 15-20, 2x blow-down kit, 2x TDS desalting drainage, 2x dual diesel & gas burner, 1x feed water tank with feed pumps 5000 ltr, 1x steam header, 1x sampler cooler, 1 condensate return tank 2000 ltr.

New hospital divided in 5 buildings, with a total gross area of 230,000  $m^2$  on the main hospital and a car park for 1,400 cars



## Al Najaf Teaching Hospital - Iraq ECOTHERM - Turnkey Steam & Hot Water System

2013

1x steam system / 3x hot water boilers - each 3,000 kW / 2x EHRE each 1,500 kW and 15,500 litres

Teaching hospital with 492 beds in total, 16 operating theatres and one of the best health services in Iraq



2016



Infectious Disease Hospital - Kuwait Turnkey Hot Water System



Al Adan Hospital - Kuwait High Capacity Water Heaters



Saudi German Hospital - Jeddah Turnkey Hot Water System



Hirslanden Salem Spital - Bern High Capacity Water Heaters



Hospital BHS - Ried, Austria High Capacity Water Heaters



**New Ahmadi Hospital - Kuwait** High Capacity Water Heaters



Hospital Klinikum Augsburg - Germany High Capacity Water Heaters



University Clinic - Düsseldorf, Germany High Capacity Water Heaters



Hospital BHS - Linz, Austria High Capacity Water Heaters



Hamad Medical Corporation - Qatar High Capacity Water Heaters



Hospital St. Vinzenz - Tyrol, Austria High Capacity Water Heaters



Western District Hospital - Qatar Electric Water Heaters

## Further References on www.ecotherm.com

# JW Marriott Marquis Hotel - Dubai

ECOTHERM - Turnkey Hot Water System



#### The building

The JW Marriott Marquis Dubai is one of the tallest hotels in the world. Opened in December 2012, this landmark hotel was set to become one of the region's most desirable destinations, offering a spectrum of business facilities for the most discerning of travelers. It's a brand synonymous with intuitive service and refined taste, a title given only to the finest properties in the Marriott portfolio. Elevated above Dubai's business district, on Sheikh Zayed Road, the JW Marriott Marquis Dubai resides in the Business Bay area. Spread across two iconic towers, the hotel features exceptional event and business facilities, an enticing array of bars and restaurants and the sublime Saray Spa and Health Club.

## ECOTHERM Installations (2009)

3x M3-1800 kW hot water boiler with burner 2x plate heat exchanger 1,400 kW 2x plate heat exchanger 800 kW

High Capacity Water Heaters 4x 400 kW 4000 litres 4x 300 kW 4000 litres 4x 260 kW 4000 litres









# **Grosvenor House Hotel - Dubai**

ECOTHERM - Turnkey Hot Water System

## The building

With its two iconic 48-storey towers, the Grosvenor House is a landmark of unrivaled luxury complemented by breathtaking panoramic views of both the Arabian Gulf and the Dubai Marina. Both hotels have a height of 210 meters and are named after the Grosvenor House in London. The first hotel on Dubai Marina offers 744 sophisticated rooms, suites and apartments as well as 14 restaurants and 7 meeting rooms - setting new standards in hospitality. The construction of the building began in 2003 and was completed and officially opened in 2005. The second tower was completed in 2011 and has a total space of 113,110 m<sup>2</sup>.

## ECOTHERM Installations Grosvenor House I (2004)

4x EHRE - High Capacity Water Heaters 750 kW 2000 litres 2x M3 1900 kW hot water boiler with burner

## ECOTHERM Installations Grosvenor House II (2010)

2x EHRE - High Capacity Water Heaters 1000 kW 2000 litres 2x C2 1200 kW hot water boiler with burner

## ECOTHERM Installations Grosvenor House II (2017)

Air Cooled Liquid Chiller 275 kW 2x Water Cooler 275 kW & 170 kW









# Burj Khalifa - Dubai

ECOTHERM - Turnkey Hot Water System



## The building

With a height of over 828 meters, Burj Khalifa is the world's tallest free-standing structure ever built. The floor plan of the building resembles an Y-shape to maximize views of the Arabian Gulf.

The construction of the building began in September 2004, with the exterior of the structure completed on 1 October 2009. Over 45,000 m<sup>3</sup> of concrete (with a weight of about 110,000 tons) was used for the construction of the concrete and steel foundation.

The building officially opened on 4 January 2010. Burj Khalifa is part of the 2 km² flagship development called Downtown Burj Khalifa at the "First Interchange" along Sheikh Zayed Road, near Dubai's business district.



## ECOTHERM Installations (2008)

11x 300 kW skid mounted turnkey hot water systems with ECOTHERM gasfired condensing boilers

# Abraj Al-Bait Towers & Mecca Royal Clock Tower Hotel

ECOTHERM - Stainless Steel Electric Water Heaters



## The building

After equipping Burj Khalifa with turnkey hot water systems, ECOTHERM has also provided products, such as high-quality electrical hot water systems, for the thirdhighest building in the world - the 601-meter Abraj Al Bait Towers and the Mecca Royal Clock Hotel Tower.

The edifice's main tower features a Big Ben-styled timepiece with a clock that can be read from up to a distance of 7 kilometers. The tower is topped by a long, solid spire ending in a half-moon at its apex. The extremely compact building complex offers over one million square meters of floor space and was constructed to accommodate the numerous Muslim pilgrims who visit the Great Mosque and other holy sites in Mecca: when full, the complex can house over 30,000 people.



## ECOTHERM Installations (2007)

A total of 63 stainless steel electrical hot water systems were supplied, with a combined output of 3,900 kW and 66,150 litres of hot water.

Electrical Water Heaters 2x 200 kW 7500 litres 2x 250 kW 3800 litres 1x 250 kW 3600 litres 1x 22,5 kW 540 litres 3x 50 kW 650 litres 1x 24 kW 1500 litres 1x 24 kW 1500 litres 2x 50 kW 1500 litres 1x 150 kW 3200 litres Instantaneous Electric W.H. 31x 45 kW 1x 24 kW 1x 4,5 kW 1x 30 KW 1x 24 kW 1x 26 kW



# **Sheraton Hotel & Towers - Hong Kong**

ECOTHERM Turnkey Steam & Hot Water System









## The building

The Sheraton Hotel is located along the Victoria Harbour in Hong Kong. It comprises of 782 guest rooms as well as several spas, saunas and health clubs with professional instructors. In addition to that it offers various ballrooms, meeting spaces, restaurants, lounges, cafes and bars and a swimming pool on the rooftop with a view of the Victoria Harbour.

Ecotherm replaced the entire steam & hot water system during full operation of the hotel through a door of only 1.2 meters, without interrupting hot water & steam supply to guest rooms, kitchen and laundry.

#### Savings:

Reduction of hot water storage volume from total 150.000 litres to only 8.000 litres Space saving appr. 200 m<sup>2</sup> Energy saving appr. 25 %

## ECOTHERM Installations (2008)

4x Electric Hot Water Systems 800 kW, 2,500 litres 2x Electric steam boilers, each 1,800 kg/h 10 bar 4x Heat Pumps 350 kW

2016

## Four Seasons Hotel - Bangalore, India

ECOTHERM - Turnkey Hot Water System

The Four Seasons Hotel in Bangalore is in the centre of the landmark "Embassy ONE" development. The hotel comprises of 230 guest rooms, 31 executive suites and a presidential suite. It has a banquet space of 1,200 m<sup>2</sup>, vibrant restaurants and lounges as well as big gardens and a pool.

8x Hybrid High Capacity Water Heater, 1x 185 kW 2000 litres, 2x 185 kW 1000 litres, 5x 185 kW 1500 litres



# Shangri-La Barr Al Jissah Resort & Spa - Oman

ECOTHERM - Stainless Steel High Capacity Water Heaters

2005

The Resort and Spa is spread across two distinctive hotel wings, Al Bandar and the family-focused hotel Al Waha. There are 460 rooms and suites, 15 restaurants and bars and several swimming pools and spas.

#### 1x EHPE 60 kW 540 litres



## Grand Hyatt Hotel - Doha ECOTHERM - Turnkey Steam & Hot Water System

3x steam boiler three-pass reverse flame (4,000 kg/h), gas burner (3,000 kW), feed water tank  $80^{\circ}$  -  $90^{\circ}$ C, water softener station, 6 x stainless steel water heaters (450 kW) / 2x EDRM stations (600 kW)

5-star hotel with 249 guest rooms and suites, located on the shoreline of West Bay Lagon District, meeting rooms and banquet facilities of over 2,200 m<sup>2</sup> in total



# Jumeirah Messilah Beach Hotel - Kuwait

ECOTHERM - Stainless Steel Electric Water Heaters & Coolers

2x EEHI 360 kW 7600 l, 1x ECM-72880-0612-3527-6000-VA, 1x EEII 325 kW, 1x EEII 225 kW, 1x ECM-58300-0612-3628-0, 1x ECM-24300-0612-3628-0





Hotel with 316 rooms and suites, as well as 80 apartments and 12 elegant villas



## W Goa Hotel - Goa, India ECOTHERM - Turnkey Hot Water System

3x Hot Water Boiler Packages 160 kW / 1x Hot Water Boiler Packages 500 kW Stylish rooms between 52-60  $m^2,$  suites of 90  $m^2$  and villas with a total space of up to 265  $m^2$ 





#### 2008

2006

2017

## Hotels

## **Bio-Hotel Stanglwirt - Going, Tyrol, Austria**

ECOTHERM - Stainless Steel High Capacity Water Heaters

2003

1x EF 200 kW 1000 litres / 1x EH 180 kW 1000 litres | On the "gold list" of the 142 best hotels in the world, 12,000 m<sup>2</sup> total space



## Marriott Hotel Central Laundry - Doha ECOTHERM - Turnkey Steam System

2004

3x steam boiler three-pass reverse flame (5,300 kg/h), feed water tank, 6x stainless steel water heaters (450 kW), 2x EDRM stations

World's leading hotel company with more than 6,400 hotels in over 126 countries and 30 brands



#### Hilton Istanbul Bomonti Hotel - Istanbul, Turkey ECOTHERM - High Capacity Water Heaters 2012

8x High Capacity Water Heaters EHRE 450 kW - 550 kW, 1560 Liter | 34-storey-building with 829 hotel rooms and 85 suites





## Marsa Malaz Kempinski - Doha ECOTHERM - Turnkey Steam & Hot Water System

2x steam boiler - 5,000 kg/h at 12 bar each / 2x high capacity W.H. EDRE - 1,500 litres & 400 kW each / 2x high capacity water heaters EDRE - 2,000 litres & 1,520 kW each 281 luxurious and spacious rooms, 69 suites, two presidential and two royal suites



## The Ritz-Carlton - Doha ECOTHERM - Turnkey Steam & Electric Water Heaters

turnkey steam system 2,000 kg/h / 1x plate heat exchanger / 2x EEHI 150 kW 4500 I / 2x EEHI 75 kW 2500 I / 2x EEHI 162 kW 3000 I 149 rooms, 12 luxury villas and a spa on a total space of more than 6.500  $m^2$ 



## Mövenpick Hotel - Yemen ECOTHERM - Turnkey Steam & Electric Water Heaters

2010

2005

1x ESBR-340-AX200-12 bar / 4x EEHI105 kW 4500 I / water softener and blow down cooler / completely pre-cabled







## Hotels

## Radisson Blu Hotel - Doha ECOTHERM - Turnkey Hot Water System

2x 1,150 kW triple pass boilers / 1x 2,000 litres & 2x 700 kW stainless steel calorifiers / 1x 2,000 litre & 2x 900 kW stainless steel calorifiers / 6  $m^2\,$  total space required

## Rixos The Palm Hotel - Dubai ECOTHERM - Turnkey Hot Water System

 $2x\ \text{EHRE}\ 600\ \text{kW}\ 2500\ \text{litres}\ /\ 2x\ \text{hot}\ \text{water}$  boiler R-620 LPG fired

Multi-concept resort featuring 231 rooms and suites with floor-to-ceiling windows



## The Royal Cancun - Cancun, Mexico ECOTHERM - Turnkey System: Hot Water Boilers & Heat Exchangers 2008

3x WTE heat exchangers, 2x M3 hot water boilers

Spacious bedroom suites, pool heating for two swimming pools





2006

583 stylish, well-designed rooms, 10 conference rooms and in addition, two spacious pre-function areas for upscale business events

## The Royal Caribbean - Cancun, Mexico ECOTHERM - Hot Water Boilers & Heat Exchangers

6x WTE heat exchangers / 1x M3 hot water boiler

Hotel with 207 two-bedroom villas, pool heating for 5 swimming pools



## Resort All Ritmo Cancun - Cancun, Mexico ECOTHERM - Turnkey Hot Water System

2011

2005

turnkey retrofit project, complete hot water system & HWR circuit, pool heating for one pool

Resort and waterpark offering 155 spacious suites with garden or ocean views - each with a total space of 732 sq. ft.





## Fiesta Americana Grand Guadalajara Country Club - Mexico

ECOTHERM - Turnkey System: Hot Water Boilers & Stainless Steel High Capacity Water Heaters

2011

3x EF high capacity water heaters / 2x M3 hot water boilers

Hotel featuring 207 spacious, luxurious rooms and suites



2006

## Frankfurt Marriott Hotel - Germany ECOTHERM - Stainless Steel High Capacity Water Heaters

2x EHRE 260 kW 1000 I / 2x EHRE 425 kW 1500 I Modern hotel rooms & suites, 25 different sized meeting rooms



Interalpen Hotel - Austria ECOTHERM - Stainless Steel High Capacity Water Heaters

1998

1x EF 200 kW 1000 I / 1x EHRE 200 kW 1000 I / 1x EHRE 450 kW 1000 I / 2x EHRE 500 kW 1000 I

Offering 282 rooms & suites between 45 and 120  $m^2,$  wellness area of 5,300  $m^2$ 



#### Victoria-Jungfrau Hotel - Switzerland ECOTHERM - Stainless Steel High Capacity Water Heaters 1999

2x EHRE 200 kW 1500 l 216 rooms, 106 suites and junior suites, 22 conference rooms



## Waldorf Astoria Hotel - Dubai ECOTHERM - Turnkey Solar Hot Water System

430 m<sup>2</sup> high performance solar collectors / 5 mild steel calorifiers 12,500 litres and 2 stainless steel calorifiers 3,500 litres / 2 three pass boilers 130 kW

Luxury hotel offering 319 spacious and elegant hotel rooms in Dubai's Palm Jumeirah



Al Meydan Racecourse - Dubai ECOTHERM - Turnkey Steam & Hot Water System

2x steam boiler - each 2,500 kg/h -10 bar / 2x stainless steel high capacity water heaters - each 650 kW - 28,000 litres per hour at 60 °C / hot water boilers R-3000

72 suites with an expansion potential to up to 500 guests



## Royal Sands - Mexico ECOTHERM - Turnkey Solar Hot Water System & Pool Heating

2010

1x M3 1000 kW, 1x M3 530 kW Duplex, 355 m<sup>2</sup> solar collectors | Luxurious family resort with various recreational facilities







2008



**Royalton White Sands Hotel - Jamaica** Hot Water / Boiler Package U3 + HE



Hotel Emporio Cancun - Mexico Hot Water System & Pool Heating



Beau-Rivage Palace - Lausanne, Switzerland High Capacity Water Heaters



Marriott Hotel Jeddah - Saudi Arabia Electric Water Heaters



**Sheraton Hotel - Kuwait** Electric Water Heaters



**Resort Royal Islander - Cancun, Mexico** Hot Water System & Pool Heating



Four Seasons Burj Al Shaya - Kuwait Steam System



Pelican Resort Club - Netherlands Antilles Hot Water System



**InterContinental Resort - Mauritius** Hot Water System



Mövenpick Hotel Qassim - Saudi Arabia Electric Water Heaters



Grand Hotel - Kitzbühel, Austria High Capacity Water Heaters



Hotel Ibis - Guadalajara, Mexico Hot Water System & Space Heating

# Further References on www.ecotherm.com

# Sabah Al-Salem Kuwait University City - Kuwait

ECOTHERM - Turnkey Solar Heating and Cooling

Each of the four colleges (College of Art, College of Education, College of Business and College for Women) contains Ecotherm's installations in both the male and female campuses.

The College of Art consists of seven academic departments and languages teaching unit . The college comprises of five floors above the ground and basement level for staff parking. The approximate built up area is 104,845 square meters. The College of Education consists of five academic departments and languages teaching unit plus one future program. The total built up area is 105,690 square meters. The College of Business occupies a total space of approximately 126,760 square meters and consists of six departments. The male college has four floors, the female six floors above the ground with a basement level for staff parking. The College for Women consists of five academic departments and a total built up area of about 132,832 square meters.

## College of Art (2015)

Solar System ESC 8231-1 (157 m<sup>2</sup>) Accessories



**College of Business (2014)** Solar System ESC 8231-1 (400 m<sup>2</sup>) Total 8x EF 4000 - 500 I + Electric backup



## **College of Education (2015)**

Solar System ESC 8231-1 (184 m<sup>2</sup>) Accessories



**College for Women (2014)** Solar System ESC 8231-1 (552 m<sup>2</sup>) Total 14x EF 4000-750 I + Electric backup


# **College of Engineering and Petroleum (COEP) - Kuwait**

ECOTHERM - Turnkey Solar Heating and Cooling



### The building

The COEP represents the opportunity to bring Kuwait University's engineering, architecture and allied technical disciplines together in a world-class, state-of-the-art laboratory and classroom facility. It has a total area of 78,025 square meters. The new COEP complex, designed to meet LEED Silver criteria, will be a dynamic interdisciplinary environment where faculty, students and staff cooperate in preparing individuals for successful careers.

### ECOTHERM Installations (2014)

222 nos. solar collector ESC-8231-1 (577 m² gross area)
1 nos. EF solar water heater 2.000 ltr
2 nos. EF solar water heater 4.000 ltr
4 nos. EF solar water heater 3.000 ltr
7 no. electric backup 30-78 kW
with ceramic heating elements
2 nos. solar buffer tank 10.000 ltr
2 no. absorption chiller 105 kW (for solar cooling)
2 no. chilled water tank 1.500 ltr
delivered as turnkey system







### Convention Center - Hong Kong ECOTHERM - Electric Water Heaters & High Capacity Water Heaters

1x EEHI 125 kW 1500 litres, 1x EHRE 300 kW 500 litres Officially opened in 1997, total available rental space of 92,061  $\rm m^2$  and about 1,100 events and 5.7 million visitors per year



### **Emirates Airline Staff Accommodation - Dubai**

2010

2010

ECOTHERM - Turnkey Hot Water System with Heat Pump

5x heat pumps 200/160 kW / 5x cooling towers 200/160 kW / 2x EHRE-2x-200-6555-2060-4000-6bar / 3x EHRE-2x-160-6555-2060-4000-6bar / 2x EEHI-TS-175-5000-6bar / 3x EEHI-TS-100-5000-6bar / switch cabinets, valves and accessories

Living complex for the Emirates Airline staff, between 5 and 11 floors, offering 825 apartments



### Estadio BBVA Bancomer - Monterrey, Mexico ECOTHERM - Turnkey Hot Water System

2014

complete hot water system for showers, suites & kitchens, 4x UG + 4x PH5



Holding capacity of more than 53,500 people and a field size of 265x223 meters



### Public Swimming Pool Vianden - Luxembourg ECOTHERM - Stainless Steel Electric Water Heaters 2011

EEII 500 kW 2000 litres Olympic-sized, heated swimming-pool with a slide having a height of 6,5 m and a length of 65 meters



### Al Bayt Stadium - Doha, Qatar ECOTHERM - Stainless Steel Electric Water Heaters

4x EEHI-B2S-100-5000-VA-SS-12,5, 3x EEHI-B2S-81-4000-VA-SS-12,5bar

Proposed football stadium which will be built in Al Khor, Qatar in time for the 2022 FIFA World Cup



### City Bath - Vienna ECOTHERM - Stainless Steel High Capacity Water Heaters

1996

2017

2x EHRE 500 kW 940 l, total output: 27,000 litres per hour

Holding capacity of 566 visitors





### Palm Jumeirah Shoreline Residences - Dubai ECOTHERM - Turnkey Solar Hot Water System

6x turnkey system consisting of:  $150 - 200 \text{ m}^2$  solar collectors, 3x EF-120/4000, 2x skid-mounted unit UG-boilers

20-building-complex, offering one-, two- and threebedroom formats as well as four bedroom Penthouses



### Al Tijaria Tower - Kuwait ECOTHERM - Electric Water Heater

2006

1x ECM-7800-0813-4525-0 heat exchanger, 2x EEHI-TS-45-1500-VA, 4x EECI-TS-30-1000-VA, 1x EEII-TS-162-0 Kuwait's Trade Center, constructed in 2009, 41 storey-building on a height of 218 meters



### Paracelsus Bad - Salzburg, Austria ECOTHERM - Stainless Steel High Capacity Water Heaters

2018

2x High Capacity Water Heaters EHRE 100 kW 560 l, 2x High Capacity Water Heaters EHRE 300 kW 750 l Indoor swimming pool reconstruction, the city's biggest construction project with a total gross floor space of 11.000 square meters





**Green City Graz - Austria** High Capacity Water Heaters



Airport Passenger Terminal - Kuwait Electric Water Heaters



**Ferrari School - Tirol** High Capacity Water Heaters



Allianz Arena - Munich, Germany Heat Exchanger



Zoo Hellabrunn - Munich, Germany High Capacity Water Heaters



Palm Garden - Frankfurt, Germany High Capacity Water Heaters



Al Bahar Tower - Kuwait Electric Water Heaters



University of Hong Kong - Hong Kong High Capacity Water Heaters



**Domino's Pizza - Nigeria** Electric Water Heaters



Vegetable Fruit Market - Kuwait Electric Water Heaters



Caritas Retirement Home - Germany High Capacity Water Heaters



Ministry of Public Health - Qatar Electric Water Heaters

# Further References on www.ecotherm.com

### Edita Factory - Cairo, Egypt ECOTHERM - Turnkey Hot Water & Steam System

Edita Factory Beni Suef: 1 x ESBR-4270-AX2000 / 4,000 kg/h / 2x EDRE 500 + 1,100 kW / feed water tank Edita Factory 6th of October: 1x steam boiler - 2,000 kg/h / 1x EDRM 310 kW / feed water tank / piping Comprising of five production facilities encompassing 28 production lines



# DB German Railway - Cologne, Germany ECOTHERM - Stainless Steel Electric Water Heaters

1x Instantaneous Electric Water Heaters 275 kW, 2x Instantaneous Electric Water Heaters 144 kW Germany Railway active in 130 countries, 310.000 employees worldwide





### L'Oreal Cosmetics Plant - Cairo, Egypt ECOTHERM - Turnkey Hot Water & Steam System

2011

2x steam boiler (each 3,000 kg/h at 12 bar) / chimneys and piping / water softener station (5  $m^3/h$ ) / condensate return system (1 $m^3$ ) / 1x feed water tank (10,000 litres) / 1x EHRE high capacity water heater (3,000 litres & 120 kW) / 1x EDRE high capacity water heater (820 kW)

17,000 m<sup>2</sup> building area including manufacturing and warehouse facilities with expansion potential





2011

## Swarovski Kristallwelten - Tyrol, Austria ECOTHERM - High Capacity Water Heater

2014

1x High Capacity Water Heater EHRE 350 kW 1000 I A crystalline world, designed by Austrian artist André Heller for Swarovski



#### Aircraft Maintenance Airport - Zürich, Switzerland ECOTHERM - High Capacity Water Heaters 2016

1x High Capacity Water Heater EHRE 300 kW 2000 I + external cold water flush

7 maintenance hangars on a total space of 354,670 m<sup>2</sup>, 800 planes per year



### Heumann Pharma - Feucht, Germany ECOTHERM - High Capacity Water Heaters

2013

1x High Capacity Water Heater EDRE 200 kW 540 litres A significant pharmaceutical company in Germany, founded in 1913





# Continental AG - Hannover, Germany ECOTHERM - High Capacity Water Heaters

5x High Capacity Water Heaters 230kw 1000l

Amongst the first five leading automotive suppliers worldwide



### S. Spitz Beverages - Attnang-Puchheim, Austria ECOTHERM - High Capacity Water Heaters

2012

2016

High Capacity Water Heater 225kw 2000

Production company for unchilled foods and beverages of premium quality



# Kraftanlagen München - Munich, Germany ECOTHERM - Stainless Steel Electric Water Heaters

2013

Electric Water Heaters 80-250kW for district heating buffer tank

A versatile partner for industry and the energy sector, utilizing state-of-the-art processes and technologies all across Europe



# Wiberg Spice Factory - Salzburg, Austria ECOTHERM - High Capacity Water Heaters

2004

1x EHRE 160 kW 1000 litres

International Austrian company for high-quality spice mixtures, herbs & vinegars



## Unterweger Früchteküche - Tyrol, Austria ECOTHERM - High Capacity Water Heaters

2018

1x High Capacity Water Heater EDRE 135 kW 1000 l, ELC11 including electric back-up A family business run by the third generation, production of jams, fruit spreads and compotes, syrups and honey



# AGRANA - Aschach an der Donau, Austria ECOTHERM - Stainless Steel Components

2015

Reaction mixing tank material 1.4539 5000 l with semi tubular cups for heating the tank with steam and shell and tube heat exchanger



International Austrian industrial company for fruit, starch and sugar production, 59 production sites all over the world





### Industry



**OEBB Austrian Railway - Linz Austria** High Capacity Water Heaters



ALPENHAIN Camembert - Germany High Capacity Water Heaters





Frisco Findus - Rorschach, Switzerland High Capacity Water Heaters



**Spirax Sarco - Germany** Stainless Steel Products



Rosenbauer - Leonding, Austria Stainless Steel Products



ARI Armaturen - Germany Stainless Steel Products



Cavendish & Harvey Confectionery - Germany High Capacity Water Heaters



Lenzing AG - Lenzing, Austria Heat Exchanger



**Linde Gas - Austria** Stainless Steel Products



**Z Montagen - Switzerland** Heat Exchanger



Nuclear power station - Switzerland High Capacity Water Heaters

# Further References on www.ecotherm.com



# Philosophy

### **Our Mission**

ECOTHERM amazes its customers with individual solutions for hot water, steam and solar systems.

### **Our Vision**

ECOTHERM is the leading brand for individual hot water, steam & solar solutions for hotels, hospitals and industry in Europe, Middle East, Asia, North Africa and Central America.

### **Our Values**

Quality Experience Innovation Individuality Sustainability Partnership

**ECOTHERM** Individual Heat Transfer Solutions



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