

## **Greenwell for trading and contracting**

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**GREEN WELL**  
*TECHNICAL MANUAL*



**CEILING RADIANT SYSTEM**



**CEILING RADIANT SYSTEM**



**SMART CONTROL**



**FLOOR RADIANT SYSTEM**



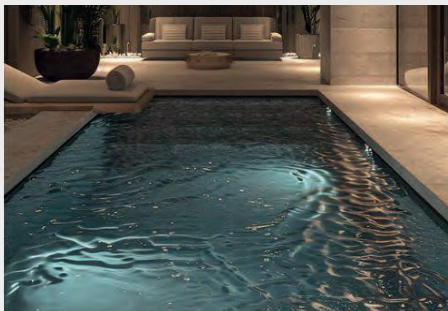
**AIR CONDITIONING**



**SOLAR WATER HEATERS**



**GAS WATER HEATERS**



**SWIMMING POOL**



**RADIATORS**

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**WHO ARE WE**

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# WHO ARE WE

Greenwell is an Egyptian private sector Company that is operating in the field of general construction contracting. working with a sharp eye for dedicating details and great passion for changing the norms; passionate about engineering field, started from scratch seeking the top of engineering marketplace. Inspired by our working powerful engineers with great knowledge. We will be your ambassador to a world of innovation & your gateway to excellence and unmatched scheme

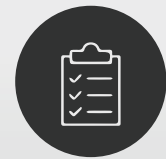
With over **10** years of experience and 2 operating offices in **Egypt** and **Germany** we provide and implement eco-friendly solutions **+15 years** staff experience .

We introduce to the market a range of European technology and products that offer the best combination of design and performance into your home from sanitary works, heating systems and air-conditioning to smart home solutions, all of which can be controlled by a simple touch BY high standards of workmanship, European Brands and above all that, a well-trained after sale service team.



**Predictive Maintenance** to prevent unexpected stoppages, and to achieve cost savings.

## WHY US



Highly Experienced Technical to maintain an appropriate technical quality level



Unlimited Free site visits to offer Expert Tips and Advices for All technical inquires.

### **Man Power**

All Greenwell manpower were selected carefully to maintain our high technical and soft skills requirements to guarantee a highly technical service.

### **Engineering**

Starting from understanding client requirements and finishing with all necessary technical design, Shop drawings and As-Built Drawings. We are providing a high technical support reference to international standards.

# OUR SUCCESS PARTENERS

During **10 Years** Greenwell Worked For

## +500 CLIENTS

- Concordia October
- Katameya Hights
- Patio - Shorouk city
- Mivida
- Les Rois
- Granda life Shorouk city

- Cairo festival city
- Allegria Zayed
- Rabwa Zayed
- Sodic Vilette
- Sodic west
- Lake view

- Swan Lake
- Uptown Cairo
- New Giza
- Hacienda White - Sahel
- Hacienda Bay - Sahel
- Al Burouj

- Hyde Park
- Mountain View
- Badeya
- ZED
- District 5 - 5th Settlement
- Palm Hills October

## +900 PROJECTS

- Karma residence October
- Hayah Residence
- Taj City
- Layan Sabbour
- Katameya Dunes
- Water Way

- Beverly hills Zayed
- Palm Hills
- Madinaty
- Badr city
- Ramblas
- Sodic East town

- Misr Italia
- La Vista
- Telal - Alamien
- Katameya Gardens
- Katameya Hills
- Dyar

- Smoha - Alexandria
- Rivers Zayed
- West Golf
- Cairo Gate
- El Shorouk Springs
- Paradise El Shorouk

# OUR PROJECTS

15



**KATAMEYA HEIGHTS**  
CAIRO - EGYPT

4



**EL PATIO**  
— CASA

12



**MIVIDA**  
Where life comes together

6



**GRANDA**  
*Life*

8



**KARMA**  
RESIDENCE

13



**LAYAN**

5



**TAJ**  
CITY

10



**HAYAH**  
RESIDENCE

7



**Katameya**  
Dunes

4



**THE WATERWAY**  
RESIDENTIAL & COMMERCIAL

15



**allegria**

9



كايرو فيستيفال سيتي  
**Cairo Festival City**

6



**THE LAKEVIEW**  
RESIDENCE  
New Cairo

12



**Al Rabwa**  
Al Sheikh Zayed

11



**SODIC**

5



**Beverly Hills**  
Property Management

# OUR PROJECTS

5



PALM HILLS  
KATAMEYA

14



B  
Bait City

8



madinaty  
New Cairo

12



RAMBLAS  
The classic life way!

4



SwanLake  
EMBROIDERY

11



UPTOWN  
CAIRO  
HEART OF CAIRO

5



NEWGIZA

17



VILLETTE  
NEW CAIRO

3



MISR ITALIA  
PROPERTIES

2



LAVISTA  
DEVELOPMENTS

6



Telal  
Soul

10




Katameya Hills

8



DYAR

10



MOUNTAIN VIEW  
iCity

7



ZED

12



HYDE PARK  
DEVELOPMENTS

# OUR PROJECTS

15



**PALM HILLS**  
DEVELOPMENTS

4

**Badyā**  
THE CREATIVE CITY

12

DISTRICT

6



**mirage**  
residence

8

RIVERS  
NEW ZAYED

13



EMAAR

5

CAIRO  
gate

10



LANDMARK  
SABBOUR

7



El Sherook  
Springs

4



مجموعة الفطيم  
Al-futtaim group

15



WADI DEGLA  
DEVELOPMENTS

9



الركاب

6

Hacienda White

12



SODIC  
EAST

11



haciendabay  
PALM HILLS DEVELOPMENTS

5

ALBURUJ  
THE PERFECT INTEGRATED  
COMMUNITY

# REFERENCE PROJECTS

## Our Partners



### 4A for Contracting And Interior Finishing



- Layan Villa D66 central heating by radiators + Domestic hot water
- Layan Villa N68 Domestic hot water Boiler
- Layan Villa M05 central heating by radiators + Domestic hot water
- Layan Villa B52 Domestic hot water Boiler
- Layan Villa N58 Underfloor Heating + Domestic hot water
- Layan Villa C24 Domestic hot water boiler
- Sheraton apartment central heating by radiators + Domestic hot water

### SCAS for contracting and interior finishing



- Sodic Villette main GYM Domestic hot water system
- Sodic Villette club house domestic hot water system
- Arabella villa (Underfloor + radiators + Domestic hot water)
- Shorouk villa (Domestic hot water boilers)
- Shorouk villa 2 (Domestic hot water boilers)

### M N Group for contracting and interior finishing



- Beverly hills Zayed Apartment underfloor heating + Domestic hot water
- El Rabwa compound Zayed villa – underfloor heating + Domestic hot water
- El Nada compound Zayed villa 30 - underfloor heating + Domestic hot water heating

### Studio Plus Interiors



- Lake view Villa G45/5 Underfloor heating + Domestic hot water
- Lake view Villa G35/5 Underfloor heating + Domestic hot water
- Madinaty Villa 148 central heating by radiators + Domestic hot water
- Madinaty Villa 149 central heating by radiators + Domestic hot water
- SODIC
- MIVIDA
- WATER WAY

# REFERENCE PROJECTS

## Our Partners



### Design Avenue Interiors

- Qattameya Heights PALACE Central heating by radiators + swimming pool heating
- West Golf 4 apartments building Central heating by radiators
- Concordia palm hills villa 35 Domestic hot water + swimming pool heating



### A K for contracting and interior finishing

- Akoya compound C3/8 apartments underfloor + domestic hot water
- Akoya compound C2/9 apartments Radiators + domestic hot water
- Badya compound villa underfloor heating + solar domestic hot water
- Sodic Villette flat L1-1611-1 under floor heating + Domestic hot water
- Sodic Villette Villa 1544 underfloor heating + solar domestic hot water + Swimming pool heating



### Grid fine Architects

- Sodic Villette main buildings central domestic hot water systems

## Others

- Qattameya dunes villa 355
- Los Rois villa 143 Radiators, domestic hot water and swimming pool heating
- District 5 compound – Villa NHA-33-C Radiators and domestic hot water
- District 5 compound – Villa NHA-34-C Radiators and domestic hot water
- Villar compound villa 13 – Central radiant heating and cooling, central domestic hot water and swimming pool heating
- Granda El Shorouk villa B2 – Radiators
- NEW GIZA VILLA NO.56

# OUR SOLUTIONS AND SERVICES

## HEATING SOLUTIONS

- Underfloor Heating & Radiators
- Central Domestic Hot Water Systems  
(Gas Heaters)
- Solar Water Heater  
(Gas & Electric Backup)
- Swimming Pool Heating
- Capillary Tube Mats
- Circulating Pumps
- Heat Pump  
(Swimming pool)

## COOLING SOLUTIONS

- Heat Pump & Chillers
- Air Conditioning
- Indoor Air Quality Solution

## HEATING AND COOLING

- Heat Pump
- Capillary Tubes Mats

*All our products or installations are subjected to four aspects:*



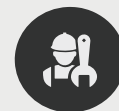
HIGH QUALITY



ENERGY SAVING



MINIMUM COST



ADEQUATE MAINTENANCE  
AND AFTER SALES SERVICE

# MEET THE TEAM



## A WORD FROM THE FOUNDERS

As founders of Greenwell, we are driven by a vision to transform the industry through relentless innovation and uncompromising quality. Our commitment to embracing advanced technologies, sustainable practices, and exceptional engineering standards shapes every project we undertake. We strive to make a meaningful impact on our clients and communities.



**BEHIND  
A GREAT  
COMPANY,  
A GREAT  
TEAM**

# OUR PEOPLE



## AT GREENWELL

Our team seamlessly blends the skills of highly trained engineers and seasoned technicians. We design and optimize cutting-edge heating solutions, ensuring peak performance and regulatory compliance.

Our technicians then expertly handle installation, maintenance, and repairs, delivering reliable and efficient systems tailored to your needs.

*Trust us to provide top-tier heating solutions for your commercial building.*



# OUR PEOPLE



## *THOROUGHNESS*



# OUR PEOPLE



## *DEDICATION*

### **AT GREENWELL**

We promise to deliver innovative and reliable heating solutions tailored to your specific needs. Your satisfaction and comfort are our top priorities, and we strive to exceed your expectations with every project.



# OUR PEOPLE



## DEDICATION

### AT GREENWELL

We promise to deliver innovative and reliable heating solutions tailored to your specific needs. Your satisfaction and comfort are our top priorities, and we strive to exceed your expectations with every project.



# OUR PEOPLE





# LIVE FROM OUR PROJECTS

SAMPLES FROM OUR PROJECTS DURING THE PAST 10 YEARS

## WHY GREENWELL

Quality

Sustainability

Accuracy

Safety

Credibility

European  
Standards

Details

Cost  
Effectiveness

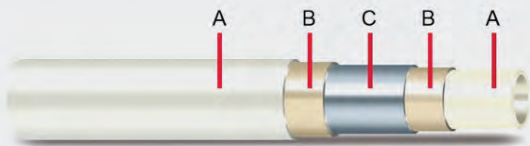
Luxury

# OUR PRODUCTS

## 1. High Quality PEX Multilayer Pipes



**BLANSOL: MADE IN SPAIN.**  
*Exclusive agent in Egypt*



A: PEX layers | B: Adhesive layers | C: Intermediate aluminum layer

Multilayer pipe is composed of two layers of polyethylene (PERT), two layers of adhesive and an intermediate layer of aluminium.

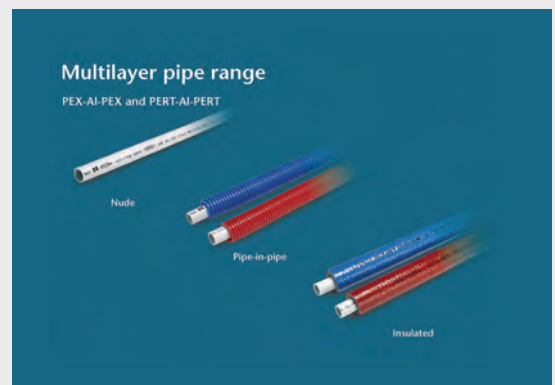
PERT is a non-crosslinked polyethylene containing additives that provide the polyethylene with strong resistance to high temperatures. This material does not require any cross-linking process.

PERT-AI-PERT multilayer pipes are a more economical alternative compared to PEX-AI-PEX pipes as the price of the raw material used to manufacture PERT-AI-PERT pipes is cheaper and the fabrication costs lower.

**Blansol manufactures two types of multilayer pipes:**  
*PEX-AI-PEX and PERT-AI-PERT multilayer pipes.*

### THE PROPERTIES OF PLASTIC PIPES ARE THE FOLLOWING:

- Flexibility.
- Lightness.
- Lack of corrosion.
- Easy to handle and to transport.
- Long lifetime.
- Competitive price.



### The Advantages Of Pex-Ai-Pex Multilayer Pipes Compared To Metallic Pipe

#### FROST RESISTANCE.

In case of frost, multilayer pipes, thanks to their flexibility, will simply expand. This advantage avoids the break risk of metallic pipes.

#### SUITABLE FOR DRINKING WATER.

Multilayer pipes keep organoleptic properties of the water and its use is allowed by European Union authorities.

#### CORROSION RESISTANCE.

Multilayer pipes bear a great number of chemical agents (acids, bases, etc.) and are resistant to any type of corrosion.

#### LOW THERMAL CONDUCTIVITY.

The low thermal conductivity of multilayer pipes produces energy savings as heat losses are reduced.

#### LIGHTNESS.

Multilayer pipes are lighter than metallic pipes. So, handling and transport are much easier.

#### FLEXIBILITY.

The flexibility of multilayer pipes saves time in the installation process.

#### NOISE REDUCTION.

Metallic pipes are very noisy at water speeds exceeding 1m/second. To the contrary, multilayer pipes do not make noise at lower speeds than 2,5m/second.

#### LONG LIFETIME.

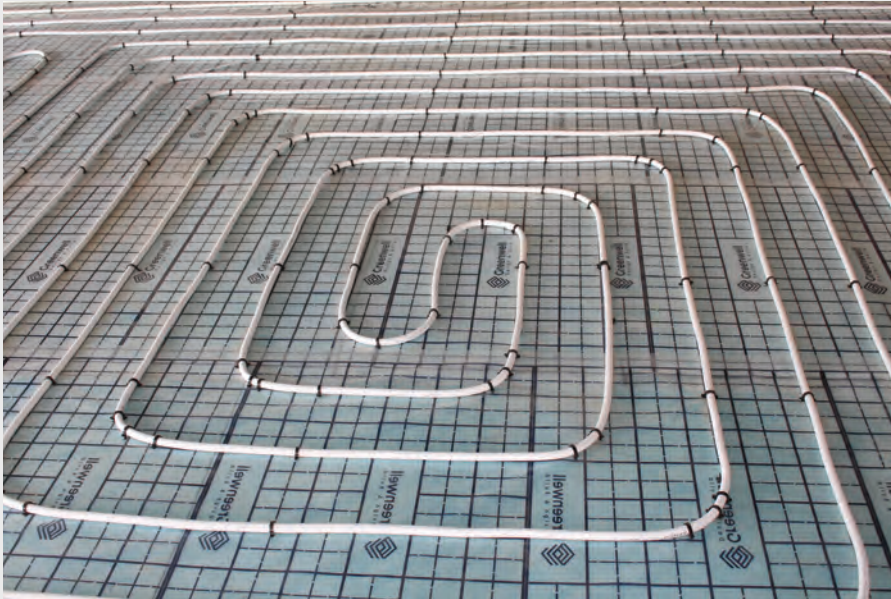
Multilayer pipes lifetime is bigger than the lifetime of metallic pipes. The lifetime of multilayer pipes can reach 50 years, even at high temperature and pressure conditions.

# PIPES

## Construction and Design

### High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



Hayah Residence

*These pipes offer superior resistance to temperature fluctuations and pressure, excellent thermal insulation, with zero risk of leakage.*

### Bonding:

The layers are bonded together through an advanced manufacturing process, ensuring high performance and durability.

### Multilayer Structure:

consists of an inner layer of cross-linked polyethylene (PEX), a middle layer of aluminum, and an outer layer of PEX. This design combines the flexibility of PEX with the rigidity and strength of aluminum.



### Versatile Use:

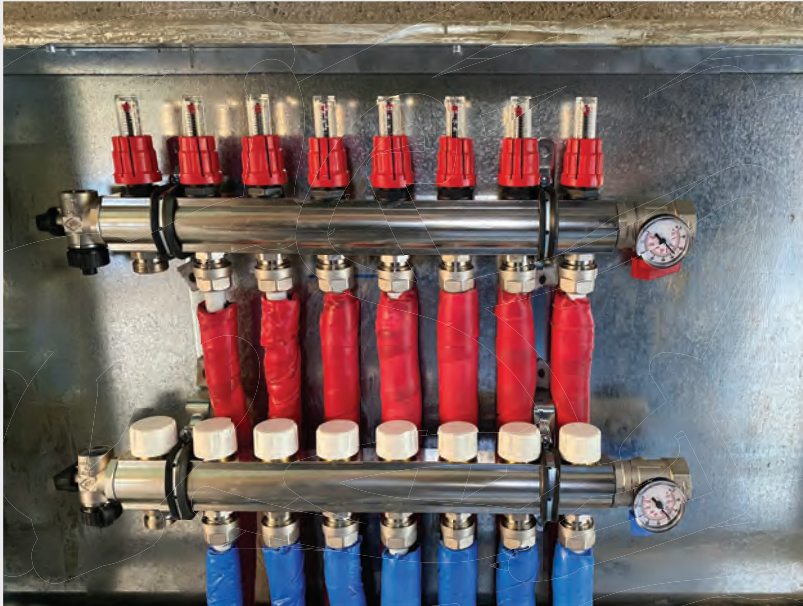
Suitable for a variety of applications including residential plumbing, underfloor heating, cooling systems, and industrial processes.

# PIPES

## Durability and Performance

### High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



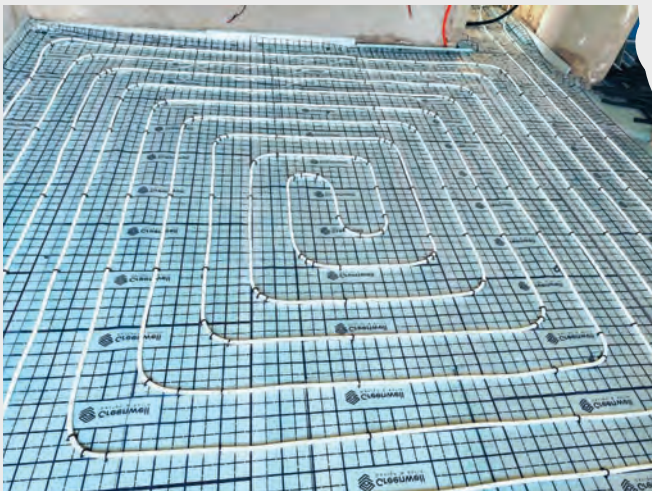
Their multilayer construction ensures robustness and longevity, making them ideal for both residential and commercial applications.

### Temperature Resistance:

Capable of withstanding both high and low temperatures, making them suitable for a wide range of applications, from hot water systems to chilled water lines.

### Corrosion Resistance:

The aluminum layer protects against corrosion and scaling, extending the pipe's lifespan and reducing maintenance needs.



### Pressure Resistance:

Designed to handle high pressures without deforming or leaking, ensuring reliable performance over time.

# PIPES

## Efficiency and Insulation

### High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



Katameya Gardens

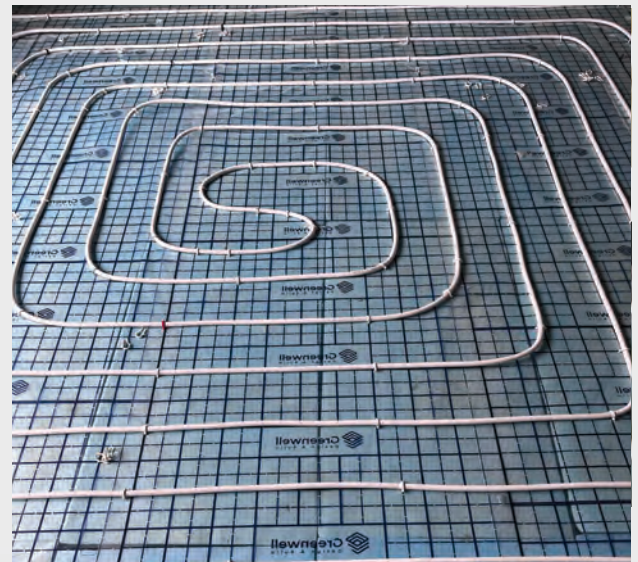
*Their ease of installation and resistance to corrosion and scale buildup further enhance their appeal as a reliable and efficient choice for modern piping systems.*

### Energy Efficiency:

Enhanced insulation leads to lower energy consumption and cost savings in heating and cooling systems.

### Thermal Insulation:

The multilayer construction provides excellent thermal insulation, reducing heat loss in hot water systems and maintaining temperature stability.



### Compatibility:

can be used with a range of fittings and connection methods, offering flexibility in different system designs.



Qattameya Dunes

# PIPES

## Safety and Reliability

### High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



Karma Residence - October

### Non-Toxic:

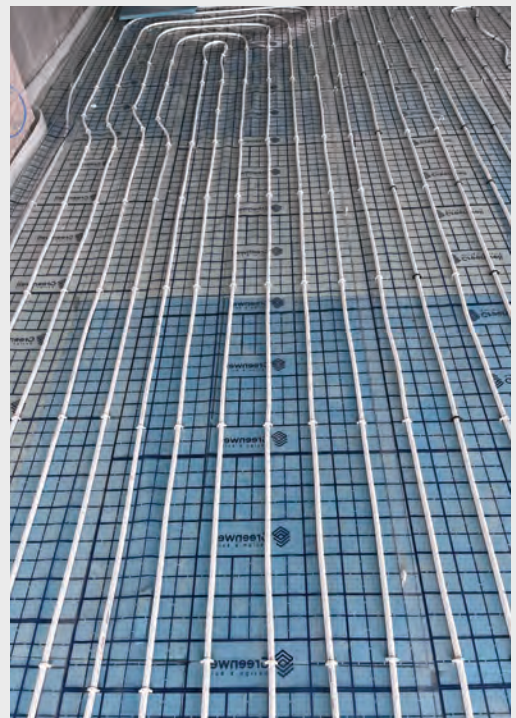
PEX is non-toxic and doesn't affect Heater quality making it a safe choice for potable water systems.

### Leak Prevention:

The fusion of layers creates a robust barrier against leaks, reducing the risk of water damage and system failures.



Karma Residence - October



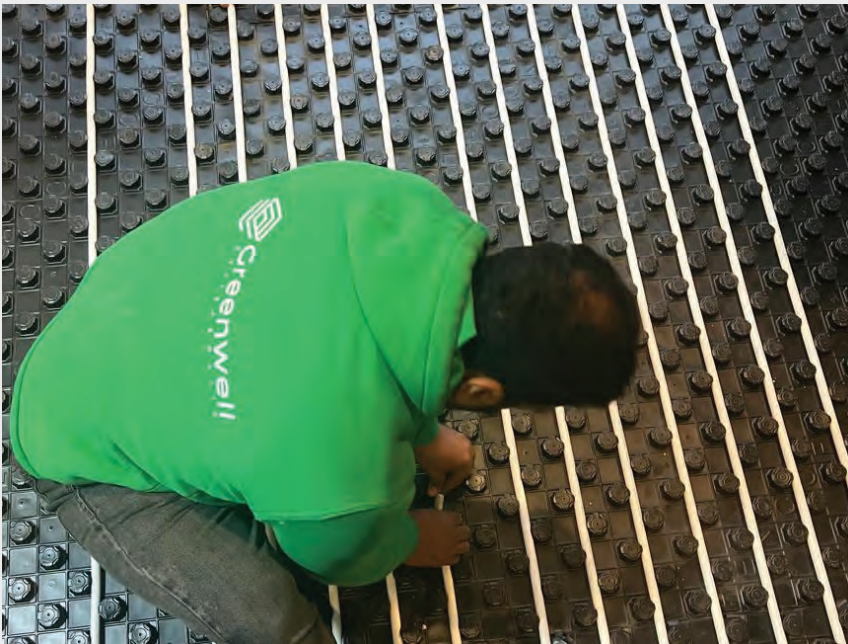
Qattameya Dunes

# PIPES Preparation

## Installing the Foam Layer

High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



### Surface Preparation:

#### Clean the Floor:

Ensure the subfloor is clean, dry, and free of debris.

### Lay the Insulation:

#### Foam Board:

Place a layer of foam board insulation over the subfloor. This helps in reducing heat loss downward and improves the efficiency of the heating system.



### Overlap and Seal:

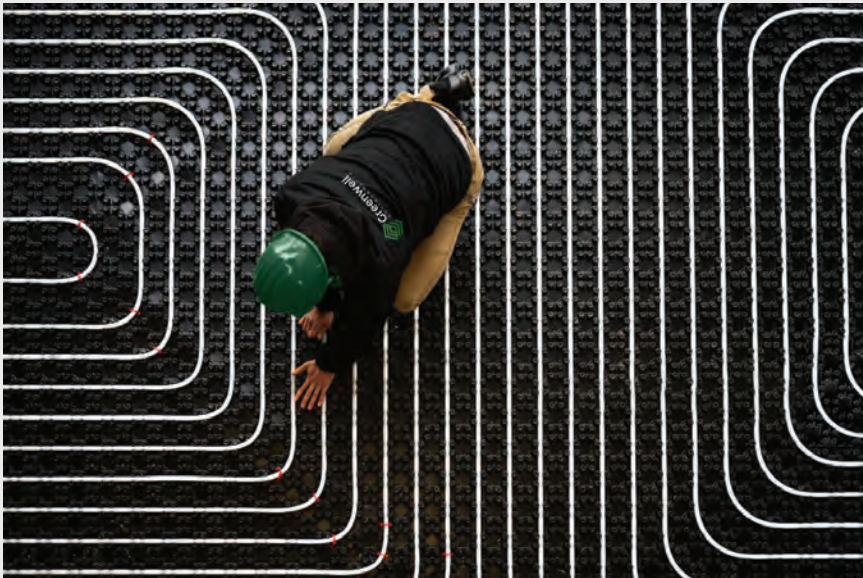
Ensure that the foam boards overlap slightly and seal any joints with tape to create a continuous insulating layer.

# PIPES

## Installing the PEX Multilayer Pipes

### High Quality Pex Multilayer Pipes

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



### Pipe Layout:

#### Design the Pattern:

Plan the layout of the pipes based on the heating requirements. Common patterns include serpentine and spiral layouts.

#### Spacing:

Ensure the pipes are spaced evenly according to the heating design specifications. Typically, spacing ranges from 6 to 12 inches apart, depending on the system and desired heat output.

Les Rois

### Securing the Pipes:

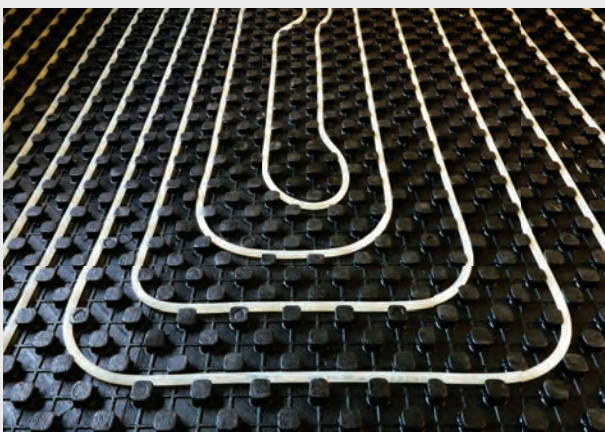
#### Pipe Holders or Staples:

Use pipe holders, clips, or staples to secure the PEX pipes to the foam insulation. Ensure the pipes are securely fastened and are not prone to shifting or moving during the installation of the cement layer.



#### Avoid Kinks:

Carefully lay the pipes to avoid kinks or sharp bends, which can affect the flow and efficiency of the heating system.



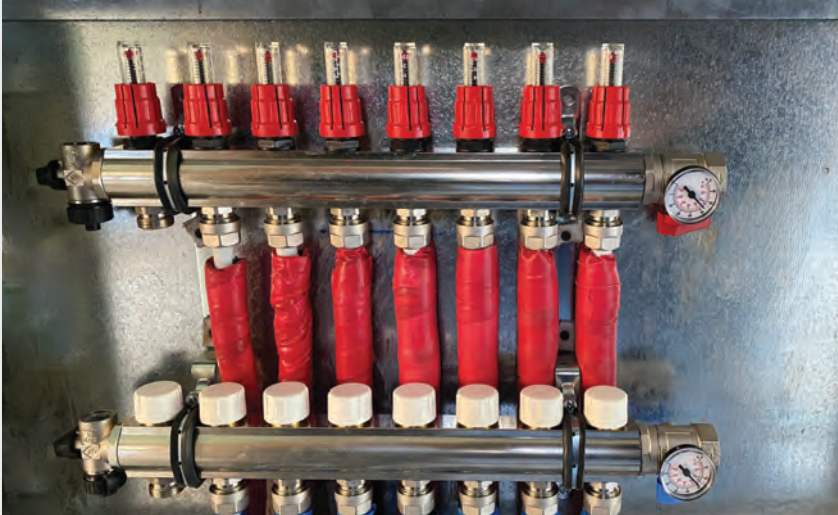
Les Rois

# PIPES

## Installing the PEX Multilayer Pipes

*High Quality Pex Multilayer Pipes*

The advanced insulation properties of KCX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



Katameya Gardens

### Connecting the Pipes:

#### Fittings and Connectors:

Connect the KCX pipes using appropriate fittings and connectors. Ensure all connections are secure and leak-proof. For multilayer pipes, ensure that the fittings are compatible with the specific type of KCX you are using.

### Testing:

Before proceeding to the next layer, perform a pressure test to check for any leaks in the pipe system. This involves pressurizing the system with water and checking for leaks at all joints and connections.



Hyde park

# PIPES

## Finalizing Pouring the Cement Layer

*High Quality Pex Multilayer Pipe*

The advanced insulation properties of PEX multilayer pipes significantly contribute to their energy efficiency. The combination of materials provides excellent thermal insulation, which helps to reduce heat loss and maintain stable temperatures.



*Les Rois*

### Pouring the Cement:

#### Initial Pour:

Begin pouring the cement mix over the pipes, ensuring even coverage. Use a screeding tool to spread and level the cement.

#### Cover the Pipes:

Ensure the pipes are completely covered by the cement layer. The thickness of the cement layer should be sufficient to protect the pipes and provide adequate heat transfer. typically, a minimum of 1.5 to 2 inches of cement is recommended above the pipes.

### Leveling and Finishing:

#### Leveling:

Use a straightedge or screed to level the cement surface. Smooth out any irregularities and ensure an even, consistent layer.

#### Curing:

Allow the cement to cure properly. follow the manufacturer's recommendations for curing time to ensure the cement achieves its full strength.



*Up Town Cairo*

# OUR PRODUCTS

## 3. Heating & Cooling with Capillary Tube Mats



**CLINA: MADE IN GERMANY**  
Official & Exclusive Agent in Egypt

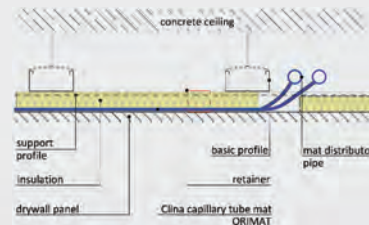
### TECHNICAL DATA

<b>MATERIAL/COLOUR</b>	Polypropylene (PP-R) recyclable/blue
<b>MAT DISTRIBUTOR PIPE</b>	20 x 2,0 mm, round
<b>CAPILLARY TUBE</b>	<b>4,3 x 0,8 mm</b>
<b>DISTANCE A</b>	20 mm
<b>LENGTH L</b>	600-6000 mm in 10 mm steps
<b>WIDTH B</b>	as from 150 mm in 20 mm steps
<b>CONNECTION TYPE</b>	with open mat distr. pipes/with 2 push-locks 10 mm or 15 mm
<b>SPECIFIC WEIGHT</b>	approx. 430 g/m <sup>2</sup> capillary tube surface
<b>SPECIFIC VOLUME OF WATER</b>	0,320 l/m <sup>2</sup> capillary tube surface
<b>SPECIFIC TOTAL WEIGHT</b>	ca. 750 g/m <sup>2</sup> capillary tube surface
<b>PRESSURE STAGE</b>	PN 10
<b>MAX. RECOMMENDED OPERAT. PRESSURE</b>	4 bar
<b>MAX. ALLOWED HEATING TEMPERATURE</b>	60 °C

### DIFFERENT WAYS OF INSTALLATION JOINTLESS DRYWALL CEILING

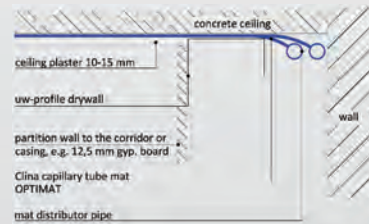
#### JOINTLESS DRYWALL CEILING

Heating and cooling ceiling with capillary tube mat ORIMAT S 10 applied on site  
The capillary tube mats and insulation are placed on a suspended drywall ceiling.  
On the visible side, there is a closed, jointless ceiling for the removal or supply of sensitive heat loads. The water circulates noiselessly in the capillary tube mats and regulates the room temperature to a large extent via radiation, partly also by convection.



#### PLASTER ON CONCRETE – CEILING

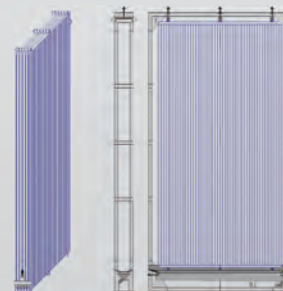
Heating and cooling ceiling with capillary tube mat OPTIMAT SB 20.00  
The capillary tube mats are plastered directly underneath a concrete ceiling. On the visible side, a closed, jointless plaster ceiling is created for the dissipation or supply of sensitive heat loads. The water circulates noiselessly in the capillary tube mats and regulates the room temperature largely by radiation, partly by convection.



#### CONVECTOR GRAVIMAT

Cooling, heating and dehumidifying

The capillary tube mats are arranged vertically and hooked in a frame, as a front-wall installation or integrated into the wall, behind any air-permeable and moisture-resistant material. On the visible side, there is a neutral or decorative room element, depending on the customer's requirements, for the dissipation or supply of sensitive heat loads. The water circulates noiselessly in the capillary tube mats, regulating the room temperature and dehumidifying rooms



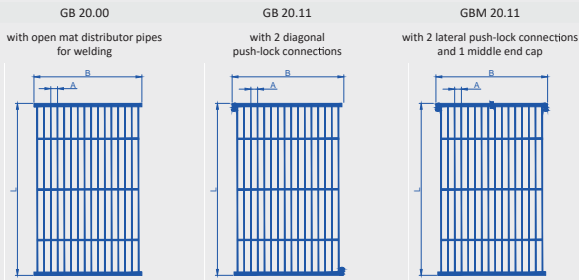
# OUR PRODUCTS

## 2. Heating & Cooling with Capillary Tube Mats



**CLINA: MADE IN GERMANY**

*Official & Exclusive Agent in Egypt*



Clina Capillary Tube Mats are installed directly under the surface of one or several room enclosing surfaces – these can be the ceiling, the walls or the floor. For heating or cooling spaces, warm or cold water flows through the very thin capillary tubes having outer diameters of 3.4 or 4.3 mm. The surfaces equipped with Clina mats are maintained at an even surface temperature. They ensure a quick dissipation of the cooling load or a quick supply of the heat requirement, mainly through radiation and partly through convection. Due to the large exchange surfaces, considerable amounts of energy can be transferred draught-free and silent even at minor temperature differences between the active room surfaces and the room air.

### For COOLING Purposes.

Clina Capillary Tube Mats are preferentially installed either in or on the ceiling; in this case the surface temperature of the ceiling is, depending on the supply temperature, approx. 19 °C at only 2 to 3 K spreading between supply and return (supply temperature = usually 16 °C; return temperature = 18 °C or 19 °C). Depending on the type of ceiling or the way the capillary tube mats are installed, cooling capacities of up to 100 W/m<sup>2</sup> ( $\Delta=10$  K) can be achieved for closed radiant cooling ceilings.

### For HEATING Purposes.

Warm water with a temperature between 28 °C and 35 °C flows through the Clina capillary tube system. In this case, the surface temperature of the ceilings is at approx. 27-30 °C. That way, even during the heating phase, the radiant energy from the user is transferred to the ceiling.

Clina capillary tube mats can be integrated into walls of various designs and used as wall heating and wall cooling. The mats are very flexible and can be adapted to all spatial conditions, e.g. slopes or vaults. Thanks to its flexibility and very low installation height, this Clina system solution is ideal for building renovation.

### PUSH-LOCK CONNECTIONS

Designation	GB 20.11	GBM 20.11	GB 20.20	GB 20.02
Description	with 2 diagonal push-lock connections	with 2 lateral push-lock connections and 1 middle end cap	with 2 push-lock connections on the left	with 2 push-lock connections on the right
Pictogram				

### FIELD OF APPLICATION

- concrete ceiling or concrete wall | prefabricated concrete element, in-situ concrete (ceiling)
- plaster ceiling or wall | bare concrete, brick wall, gypsum board
- Floor | in screed
- soil | ground collector
- facade | facade absorber

# CAPILLARY TUBE MATS SYSTEM INSTALLATION

## Heating & Cooling with Capillary Tube Mats

Modern approach to heating and cooling, offering efficiency, comfort and flexibility while saving energy and improving indoor air quality. Their innovative design and performance make them a compelling choice for both new constructions and renovation projects.



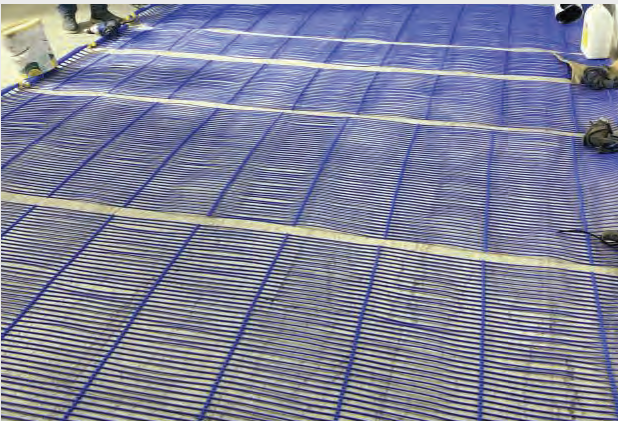
### Capillary Tubes:

The system consists of thin, flexible tubes arranged in a grid pattern within mats or panels. These tubes carry either warm or cool water, which regulates the temperature of the surfaces they are embedded in.

*Ideal for homes seeking an efficient and unobtrusive heating and cooling solution that enhances comfort and reduces energy costs.*

### Surface Integration:

capillary tube mats can be installed within floors, ceilings, or walls, making them versatile for different types of buildings and renovation projects.



### Even Distribution:

The capillary tube design ensures uniform heating or cooling across the entire surface area, eliminating hot or cold spots and providing consistent comfort.

# CAPILLARY TUBE MATS SYSTEM INSTALLATION

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### Easy Integration:

Capillary tube mats can be installed under various flooring types, within wall cavities, or even in ceiling panels, providing flexibility in design and application.

*This technology uses a network of thin, flexible tubes embedded in floors, ceilings, or walls to provide uniform heating or cooling throughout a space.*

### Improved Air Quality:

Since the system does not rely on forced air, it reduces dust circulation and allergens, contributing to better indoor air quality.



### Enhanced Comfort:

The gentle and even heating or cooling from capillary tube mats creates a comfortable indoor environment without the noise or drafts associated with traditional HVAC systems.

# CAPILLARY TUBE MATS SYSTEM INSTALLATION

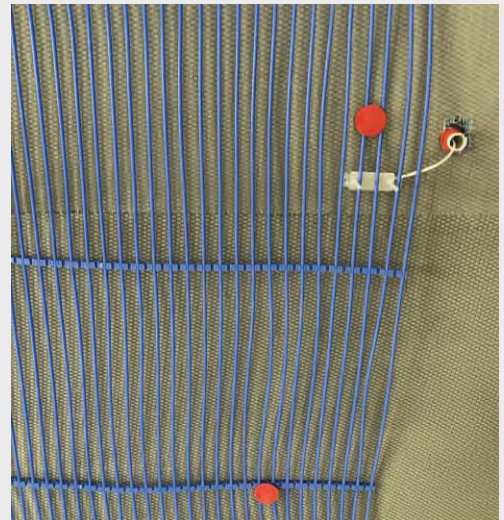
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### Thin Profile:

The system's low-profile design allows for minimal impact on room height or space, making it suitable for both new constructions and renovations.



*The system has fewer moving parts compared to traditional HVAC systems, reducing the likelihood of breakdowns and the need for regular maintenance.*

# CAPILLARY TUBE MATS SYSTEM INSTALLATION

## *Heating & Cooling with Capillary Tube Mats*

Modern approach to heating and cooling, offering efficiency, comfort and flexibility while saving energy and improving indoor air quality. Their innovative design and performance make them a compelling choice for both new constructions and renovation projects.



## **Long-Lasting Materials:**

capillary tubes are made from durable materials that resist corrosion, ensuring a long lifespan with minimal maintenance.



*Suitable for office buildings, retail spaces, and other commercial environments where consistent temperature control and energy efficiency are priorities.*

# OUR PRODUCTS

## 4. Wall Hung Gas Boilers

**De Dietrich** 

**DE DIETRICH: MADE IN FRANCE**

*Official Distributer in Egypt*



De Dietrich has been in business since 1684 providing innovative solutions for the heating market and the DE Dietrich MCA PRO & ZENA PLUS is another proven innovative solution.

De Dietrich is ranked **No. 2** all over the world in Boilers Manufacturing

A well-known brand in the heating and domestic hot water industry, particularly in Europe. They offer a range of domestic hot water storage tanks that are known for their quality, efficiency, and innovation.

### De Dietrich Wall-Hung Gas Boilers

The wall-hung gas low temperature boiler is constructed with a rugged cast aluminium heat exchanger with a 30-year proven performance record around the world.

Wall-Hung Gas Boilers allows gas heating to be controlled by radiators or underfloor heating and instantaneous or accumulation domestic hot water production (with integrated or additional tank).



### Advantages of wall-hung boilers

- SPACE SAVING.**  
Crammed with technology, they are more compact than floor-standing boilers to save on space.
- SIMPLE, SEAMLESS INTEGRATION.**  
Attractive and compact, they can be easily installed in a side room, kitchen, bathroom, cupboard, loft, etc.
- INEXPENSIVE TO BUY WITH AN AVERAGE SERVICE LIFE OF 15 YEARS.**
- SUITABLE FOR ALL REQUIREMENTS.**  
Heating and domestic hot water for optimal comfort
- GUARANTEED EFFICIENCY.**  
High performance, further enhanced on condensing models.

### Wall-hung low temperature gas boiler ZENA

The reduced dimensions and the clean aesthetic line of Zena boilers make every installation option available to you:

- Attractive price
- Boiler delivered fully assembled, easy to install and ready to use.
- Ultra-compact to fit in anywhere in your home.
- 24 kw & 31 kw output, ideal for heating and domestic hot water alike.

# OUR PRODUCTS

## 5. Central Domestic Hot Water Storage Tank



### DE DIETRICH: MADE IN FRANCE

Official Distributer in Egypt



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### De Dietrich Domestic Hot Water Storage Tank

De Dietrich DHW storage tanks are made from high-quality materials such as stainless steel or enamelled steel. These materials are chosen for their durability, resistance to corrosion, and ability to maintain water quality.

### Safety and Compliance

De Dietrich DHW storage tanks are designed to exceed industry standards for safety and performance, including regulations for pressure and temperature control.



### Advantages of Domestic Hot Water Storage Tank

- HIGH-QUALITY CONSTRUCTION.**  
premium materials such as stainless steel or enamelled steel in their tanks, ensuring durability, resistance to corrosion, and long-term performance.
- ENERGY EFFICIENCY.**  
Their tanks are well-insulated to minimize heat loss, which helps to reduce energy consumption and lower heating costs.
- INTEGRATION WITH RENEWABLE ENERGY.**  
Some models are designed to be compatible with solar thermal systems or other renewable energy sources, allowing homeowners to further reduce their carbon footprint and energy bills.
- ADVANCED TECHNOLOGY.**  
De Dietrich integrates advanced heating technology and energy-saving features into their tanks, enhancing efficiency and providing greater control over water heating.
- VERSATILITY IN APPLICATIONS.**  
They offer a range of tank sizes to suit different household needs, from smaller capacities suitable for apartments to larger tanks for family homes.

### Domestic Hot Water Storage Tank DE DIETRICH

- Storage of large quantities of hot water (150 to 3000 litres).
- Thick steel tank with a vitreous enamel coating on the inside.
- Durability guaranteed by a magnesium anode with a charge indicator to prevent corrosion of the tank.
- Easy to install:  
Specifically sized to allow it to fit through doorways, the tank has a side inspection hatch to facilitate maintenance during statutory inspections.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.



Alegria Zayed

## Efficiency:

Many modern wall-hung gas boilers are highly efficient, with some achieving efficiency ratings of over 90%. They use advanced technology to ensure minimal energy waste.



## Compact Design:

Wall-hung boilers are much more compact and take up less space, making them ideal for smaller homes or apartments.

# Efficient Heating *and* Hot Water Solutions

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Alegria Zayea

### Heat Output:

They are suitable for a range of applications, from small apartments to larger homes, depending on the model and its heat output capacity.



Sodic Vilette



Sodic Vilette

### Control:

Many models come with digital controls and smart thermostats, allowing for precise temperature adjustments and remote control.

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### Mounting the Boiler:

#### Wall Mounting:

The boiler is secured to the wall using brackets. Ensure that the wall is strong enough to support the unit and that it is level.



### Connecting to Gas Supply:

#### Gas Line:

A qualified technician connects the boiler to the gas supply. This involves running a gas line to the boiler and ensuring all connections are secure and leak-free.

#### Safety Checks:

The gas connections are tested for leaks and to ensure they comply with safety standards.



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Alegria Zayed

## Plumbing and Heating Connections:

### Water Pipes:

The boiler is connected to the central heating system and, if applicable, to a domestic hot water storage tank. This involves connecting the inlet and outlet pipes for water flow.

## Pressure Testing:

The system is tested for pressure to ensure there are no leaks and that it operates correctly.



Sodic Vilette

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A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.

### Electrical Connections:

#### Power Supply:

connect the boiler of the electrical supply. This may involve wiring for the control panel, thermostat, and any additional features.



*The system is calibrated to ensure efficient operation and to meet the home's heating and hot water needs*



#### Controls and Thermostat:

Install and configure the digital controls and thermostat for optimal operation.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

A wall-hung gas boiler paired with a domestic hot water heater storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.



Sodic Vilette

### **Combination Systems**

*In many modern heating systems, a wall-hung gas boiler and a domestic hot water storage tank are used together:*

### **Hydraulic unit pumps:**

hydraulic unit pumps are essential for the proper functioning of heating systems, ensuring that hot water or other heating fluids are circulated effectively and provide consistent and efficient heating throughout the space.



Alegria Zayed

# Efficient Heating and Hot Water Solutions

## Wall Hung Gas Boiler & Domestic Hot Water Storage Tank

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.



### Supply Pipes:

These pipes transport heated water from the gas boiler to the water tank and then to radiators or underfloor heating systems on each floor. In multi-floor buildings, they are routed through vertical risers, and proper insulation is essential to minimize heat loss and ensure efficient heating.



### Return Pipes:

These pipes carry cooler water back from the radiators or heating system to the water tank and gas boiler for reheating. They are also routed through vertical risers and must be well-insulated and carefully installed to maintain smooth flow and system efficiency.



### Expansion tanks

#### Pressure Regulation:

Expansion tanks absorb the extra volume of water as it expands due to heating, helping to regulate and maintain stable pressure levels within both water tanks and gas boiler heating systems. This prevents excessive pressure that could lead to leaks or damage.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.

### Storage Capacity:

Hot water tanks come in various sizes, with capacity ranging from 100 to 1000 liters or more, depending on the needs of the household.

*A domestic hot water storage tank, also known as a hot water cylinder, stores hot water for household use. These tanks can work in conjunction with a boiler or a separate heating system.*



Sodic Vilette



Sodic Vilette

### Heat Source:

They can be heated by a variety of sources, including gas, electricity or even solar panels. Some systems use a boiler to heat the water stored in the tank.

### Heat Exchange:

Many hot water tanks use a heat exchanger to transfer heat from the boiler or another heat source to the water in the tank. This helps ensure that the water is kept at a consistent temperature.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.

### **Boiler with Hot Water Storage:**

Some wall-hung boilers can provide hot water directly (combi boilers), but if hot water demand is high, a separate storage tank is often used. The boiler heats the water in the tank, which can then be used for various household needs.



### **Space Efficiency:**

This setup allows the boiler to focus on heating while the storage tank ensures there is a readily available supply of hot water.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.

### Temperature Control:

Modern tanks often include built-in thermostats and controls that ensure the heater is kept at the desired temperature and prevent overheating.



### Distribution:

The stored hot water is pumped through the building's distribution system to where it's needed. For heating, it's circulated through radiators or underfloor systems; for hot water, it's delivered to faucets, showers, and other outlets.

# Efficient Heating *and* Hot Water Solutions

## Wall Hung Gas Boiler & Domestic Hot Water Storage Tank

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### Zoned Heating:

Large commercial buildings often have multiple zones, each with its own temperature control. The boiler system must be designed and accommodate these zones, often with separate pumps and valves.

### Buffering:

In larger systems, the heater tank acts as a buffer, storing excess hot water to meet peak demand times without working the boiler.



Together, a well-integrated boiler and water tank system enhance overall efficiency. The boiler produces heat, and the water tank stores it, minimizing energy waste and ensuring a steady supply of hot water.

# Efficient Heating *and* Hot Water Solutions

## Wall Hung Gas Boiler & Domestic Hot Water Storage Tank

A wall-hung gas boiler paired with a domestic hot water storage tank offers a compact and efficient solution for home heating and hot water needs. This combination optimizes performance, reduces energy costs, and maximizes comfort in residential settings.



Granda life Shorouk city

### Insulation:

Modern tanks are well-insulated to keep the water hot for longer periods, reducing the need for reheating and improving energy efficiency.



### Types:

There are different types of storage tanks, including vented (open) and unvented (sealed) systems. Unvented tanks are generally more efficient and provide better water pressure.

# Efficient Heating *and* Hot Water Solutions

## *Wall Hung Gas Boiler & Domestic Hot Water Storage Tank*

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### **Cost Savings:**

Using a storage tank can be more cost-effective for homes with high hot water demand, as it allows the boiler to operate more efficiently.



*Combining these components effectively can lead to a more efficient and reliable heating and hot water system for your home.*

# OUR PRODUCTS

## 6. Heat Pumps

(Central Space Heating)



### VALTERRA

Official & Exclusive Agent in Egypt



Company History:  
VALTERRA was founded in 1999 and has 25 years of experience in solar thermal heat pump and energy storage production . .

Heat pump for **COOLING** and **HEATING** (*space and domestic*) cost more than gas heaters, but they typically have much lower annual operating costs because of their higher efficiencies. With proper maintenance, heat pump solutions typically last longer than gas pool heaters. Therefore, you'll save more money in the long run.

Proper installation and maintenance of your heat pump heater can optimize its efficiency. It's best to have a qualified professional to install the heater, especially the electric hookup, and perform complicated maintenance or repair tasks.

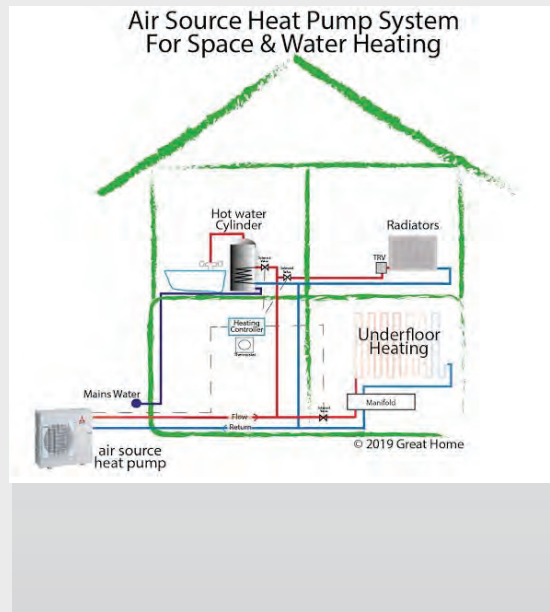
*When selecting a heat pump for cooling and heating, you should consider its:*

Valterra heat pumps incorporate premium Mitsubishi components such as compressors, heat exchangers, fan motors, control boards, reversing valves, and sensors, ensuring long-lasting performance and reliability. Selected models benefit from Mitsubishi's Enhanced Vapor Injection (EVI) technology for improved efficiency in cold climates. With Mitsubishi-engineered indoor units, smart controllers, and Wi-Fi integration, Solar East systems deliver high efficiency, consistent comfort, and dependable operation all year round.

Size

Efficiency

Costs



### Benefits of Heat Pump Repair and Installation

Using a heat pump is one of the most energy-efficient ways to heat your home. Unlike a typical furnace, this pulls in the heat from outdoors and circulates it throughout your home. It allows you to save more than 50% on electricity and lower your monthly bill. Let VALTERRA, Inc be your guide throughout the process of installing and maintaining your heat pump.

Another advantage is safety. A fireplace can be dangerous for obvious reasons, having an open flame with children and animals around speaks for itself. A furnace typically needs frequent maintenance to make sure there are no leaks or problems. An efficient heat pump system does not have any open flames or hot surfaces meaning this is one of the safest options for you and your family.

They also have an average lifespan of 15-20 years and maybe longer!

# OUR PRODUCTS

## 7. Heat Pumps (Swimming Pool Heating)



**VALTERRA:**  
Official & Exclusive Agent in Egypt



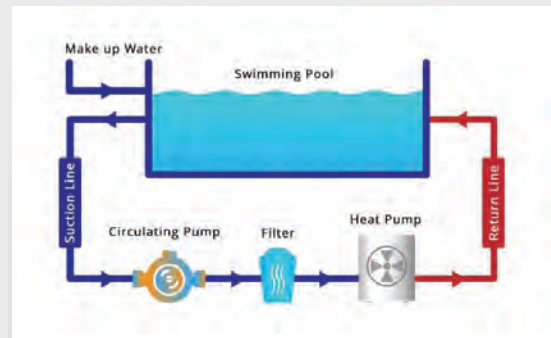
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# OUR PRODUCTS

## 8. Central Domestic Hot Water



**RHEEM: MADE IN U.S.A**  
Official & Exclusive Agent in Egypt

Brothers Richard and Donald Rheem founded Rheem Manufacturing Company in Emeryville, CA, in 1925. While the company has produced a number of products in its nearly 100 years of operation, Rheem is currently the only manufacturer in the world that produces heating, cooling, water heating, pool & spa heating and commercial refrigeration products, and it is the largest manufacturer of water heating products in North America.

### Rheem Gas Boiler

Available capacities of these Rheem gas water heaters in Egypt range from **110 to 300** Litre.

Instead of using an independent hot water source in each bathroom such as a gas or electric water heater, this solution provides a supply of hot water to all your outlets (bathrooms, kitchen, etc) from a central point where a gas boiler takes care of heating a hot water tank big enough to supply the needed capacity.

Modern gas boilers have been created with technology that has specifically been designed to keep you, your family and your home safe

### Professional Classic® Atmospheric gas water heaters are engineered for more hot water at a low operating cost

#### Efficiency

- 55 - 66 UEF
- More hot water at a low operating cost

#### Performance

- FHR: 51 - 67 gallons
- Recovery: 30.3 to 40.4 GPH at a 50° F rise, depending on model

#### Guardian System™ & Sensor

- Exclusive air/fuel shut-off device
- Maintenance free - no filter to clean
- Proactive water leak system™ that disables the heater in the presence of flammable vapor accumulation



#### Low Emissions

- Eco-friendly burner, low NOx design
- Meets 40 ng/L NOx requirements

#### Longer Life

- Premium grade anode rod provides long-lasting tank protection

#### Altitude Certification

- All models certified up to 5,999 feet above sea level, some certified up to 10,000 feet. Consult factory for specifications

#### Plus...

- Easy to light - no matches required
- EverKlean® patented system fights sediment build-up
- Exclusive Phosmag® tank lining resists corrosion and prolongs tank life
- Enhanced flow brass drain valve
- Temperature and pressure relief valve included
- Factory installed temperature and pressure relief valve on select models
- Low lead compliant
- Standard replacement parts

#### Warranty

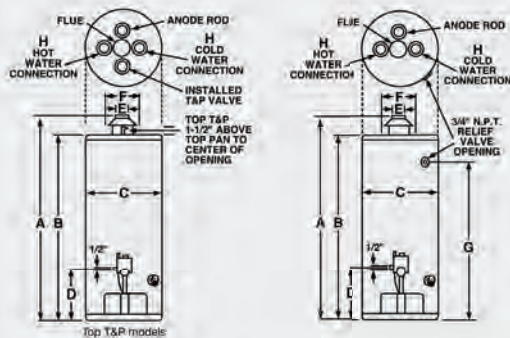
- 1-Year limited tank and parts warranty\*
- With ProtectionPlus® the 6-year limited tank warranty becomes 10-year

\*See Residential Warranty Certificate for complete information.

Units meet or exceed ANSI requirements and have been tested according to D.G.E. protocols. Units meet or exceed the energy efficiency requirements of IECC, ASHRAE Standard 90, ICC Codes and all state energy efficiency performance criteria.



**Professional Classic Atmospheric**  
29, 30, 40 and 50-Gallon Capacities  
Up to 40,000 BTU/h  
Natural and LP Gas



### Professional Classic® Atmospheric Specifications

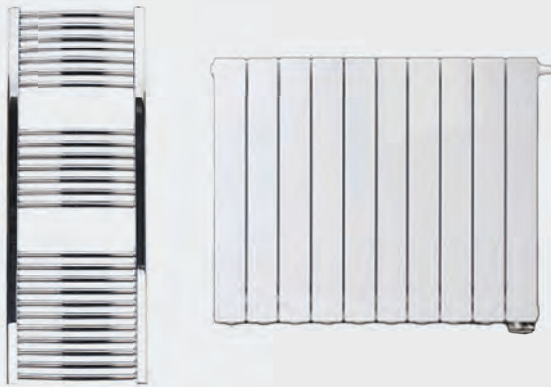
TYP	NOMINAL GALLON CAPACITY	AFTER GALLON CAPACITY	MODEL NUMBER	EFFECTIVE BTU INPUT			TANK VOLUME			HEIGHTS			DIMENSIONS (SHOWN IN INCHES)			ENERGY MPD
				NET	MAX	LP	NET	MAX	MIN	MIN	MAX	MIN	MAX	MIN	MAX	
Tel	29	26	PROG29-30N PHB2	32	32.3	63	59-3/4	96-7/8	16-1/2	14-1/4	3 or 4	8	50-3/4	214	110	0.67
Tel	29	26	PROG29-30P PHB2	32	32.3	63	59-3/4	96-7/8	16-1/2	14-1/4	3 or 4	8	50-3/4	214	110	0.67
Tel	40	36	PROG40-30N PHB2	38	38.4	76	61-1/2	98-1/8	19	14-1/2	3 or 4	8	50-1/4	214	127	0.98
Tel	40	36	PROG40-30P PHB2	38	38.4	76	61-1/2	98-1/8	19	14-1/2	3 or 4	8	50-1/4	214	127	0.98
Tel	40	36	PROG40-40N PHB2	40	40.1	84	63-1/4	99	19-1/2	14	3 or 4	8	51-1/2	214	135	0.90
Tel	40	36	PROG40-38P PHB2	38	38.3	84	63-1/4	99	19-1/2	14	3 or 4	8	51-1/2	214	135	0.69
Sheet	30	29	PROG30-30N PHB2	30	30.3	51	49-7/8	87	19-3/4	14-1/4	3 or 4	8	40-3/8	214	112	0.65
Sheet	40	36	PROG40-30N PHB2	40	40.4	66	53-7/8	90-1/2	21	14-1/2	3	8	44	214	125	0.78
Sheet	40	36	PROG40-30P PHB2	38	38.4	86	53-7/8	90-1/2	21	14-1/2	3	8	44	214	125	0.58
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# OUR PRODUCTS

## 9. Aluminum Wall Mounted Radiator & Radiator Towel



FONDITAL: MADE IN ITALY



*Engineered in Italy, Fondital radiators deliver powerful, even heat while adding a touch of elegance to your space. Made from high-quality materials for exceptional durability and energy efficiency, they're designed to work flawlessly with both modern heat pumps and traditional boilers, ensuring comfort in every season..*

### FONDITAL Radiators Suitability

Crafted in Italy, Fondital radiators combine elegant style with high thermal efficiency. Built from premium materials for rapid heat distribution and long-lasting durability, they're designed to complement any interior while delivering consistent comfort. Perfectly matched with modern heating systems, including heat pumps and traditional boilers.

### ALICE ROYAL

Characterized by an essential and modern design, Alice Royal is the radiator for heating in die-cast aluminum appreciated for technology and environmental comfort. Its surfaces are slightly rounded towards the ends, giving it an aesthetic appearance that adapts to any environment.

### FLEX CHROME

Realized in steel and chromed finished: the very top as for aesthetics and functionality. It has sharp and rounded surfaces. This radiator suits different ambience with its elegance.



Thanks to the special epoxy polyester paint, FONDITAL radiators have a perfect finish and a unique brilliance. In addition, the special care given to the packaging allows to preserve the radiators intact even after repeated movements and transport.

# OUR PRODUCTS

## 10. Aluminum Wall Mounted Radiator & Radiator Towel



PLUS EVO: MADE IN ITALY



### **Radiatori 2000**

With over 15 years of activity in this sector, Radiatori 2000 S.p.A. is one of the key player in the production of die-cast aluminium radiators. The answer to the demands of those are looking for functional products without foregoing quality and aesthetic.

Radiatori 2000 S.p.A. is part of the FECS Group, a world leading verticalized system in the recovery, treatment and valorisation of aluminium from scrap..

### **Contemporary Elegance**

The Plus collection traces the evolution of the classic radiator, but with a more contemporary and minimalist mood. Perfect even in the darker colours for those who wish to dare a little without changing course completely..

### **SIMPLY**

Simple and elegant, Simply is the towel radiator in high quality carbon steel white colored characterized by flat and smooth surfaces. Thanks to modern welding, assembly and processing techniques, the Sira heated towel rails are guaranteed for 2 years.



### **ALUMINUM RADIATORS HEATING ARE:**

#### **ECONOMICAL.**

It is economical not only at the time of purchase, mainly in operating costs thanks to the high thermal efficiency and flexibility of use.

#### **ECOLOGICAL.**

Aluminum is 100% recyclable and substantially limits the energy consumption with low operating temperatures.

#### **HYGIENICAL.**

Low temperatures limit the air convective motions and so the dust and dirt motions on the walls.

#### **EASY.**

Both on the installation mode and also on the possibility of controlling the various systems in the home.

# OUR PRODUCTS

## 11. Aluminum Wall Mounted Radiator & Radiator Towel



**SIRA: MADE IN ITALY**



### *Sira Aluminum Wall Mounted Radiator*

Sira brand radiators are made using the most modern production techniques to offer maximum performance with the lowest energy consumption. Elegance, versatility, safety, power and environmental comfort are just some of the main advantages that characterize the entire range of radiators for heating Sira.

### **Sira Radiators Suitability**

All Sira radiators with water operation are perfectly suited to modern low temperature heating systems powered by condensing boilers, integrated heat pumps to solar panels and geothermal energy systems; their reduced water content also allows a rapid adaptation of the system to any desired temperature change, achieving a further lowering of energy consumption.

### **ALICE ROYAL**

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# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



Beverly hills Zayed

### Rapid Heating:

Aluminum conducts heat efficiently, allowing these radiators to warm up quickly and provide a consistent, even heat.

### Lightweight:

Compared to traditional steel radiators, aluminum models are lighter, making them easier to handle and install.



Beverly hills Zayed



Beverly hills Zayed

### Corrosion Resistance:

Aluminum is resistant to rust and corrosion, enhancing the radiator's longevity and reducing maintenance needs.

# Radiators: Combining Efficiency, Design, and Durability

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Palm Hills PK2

### Design Flexibility:

Available in various styles and sizes, aluminum radiators can complement modern interior designs and fit into different spaces.

### Energy Efficiency:

They often have a high thermal output relative to their size, which can help lower energy bills and improve overall heating efficiency.



Greenwell Office



Mivida

### Design Versatility:

They are available in various finishes, including anodized, painted, or polished, which can match different decor styles.

# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



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## Enhanced Comfort:

Because of their quick heating capabilities, aluminum radiators can rapidly improve comfort levels in a room, especially in colder climates.

## Environmental Impact:

Aluminum radiators are often favored for their environmental benefits. Aluminum is highly recyclable, which can contribute to a more sustainable heating solution.



Mivida



Mivida

## Heat Control:

Many models come with adjustable thermostats or can be integrated with smart home systems, allowing precise control over room temperature.

# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

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## Low Water Content:

They typically have a low water content, meaning they heat up and cool down faster compared to radiators with a larger volume of water.

## Design Options:

Available in a variety of designs and finishes, including sleek modern styles and more traditional looks. Some feature flat panels, while others have more decorative designs.



Alegria Zayed



Alegria Zayed

## Material:

Made from aluminum, these radiators are known for their excellent thermal conductivity. Aluminum heats up quickly and cools down just as fast, providing responsive and efficient heating.

# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



Badr City

### Compatibility:

Aluminum wall-mounted radiators are compatible with most central heating systems, including those that use gas, oil, or renewable energy sources.



Layan



Layan

### Longevity:

Aluminum's resistance to rust and corrosion extends the lifespan of the radiator, ensuring long-term performance with minimal maintenance. This durability is particularly beneficial in a new house where you want to avoid frequent replacements or repairs.

# Radiators: Combining Efficiency, Design, and Durability

## *Aluminum Wall-Mounted Radiator*

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



*Aluminum wall-mounted radiators are ideal for new homes due to their energy efficiency, lightweight design, and durability. Their stylish and versatile appearance enhances comfort while being a cost-effective heating solution for modern living.*

## **Customization:**

Many models offer customizable options, such as different panel configurations and finishes, to match the specific design vision of a new home.



# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

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## Slim Profiles:

Many aluminum radiators are designed to be thinner than traditional models, making them less obtrusive and more suitable for tight spaces.

aluminum wall-mounted radiators combine efficient heating with modern design, making them a versatile choice for various home aesthetics and heating needs.



Alegria Zayed



Alegria Zayed

## Matching Decor:

Choose a radiator that complements your interior style—whether it's sleek and modern or something that matches a more classic decor.

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# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



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## Vertical and Horizontal Options:

You can choose from vertical designs that maximize wall space or horizontal options that fit below windows.

## Complementary Accessories:

Consider matching valves and other fittings to complete the look.



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Alegria Zayed

## Discreet:

Their modern design means they often don't dominate the room's appearance, blending into the background while still being functional.

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# Radiators: Combining Efficiency, Design, and Durability

## Steel Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



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## Versatile Appearance:

Steel radiators come in a wide range of styles, colors, and finishes, allowing them to complement various interior design themes. They can be sleek and modern or have a more traditional look, depending on the design.

## Custom Options:

Many manufacturers offer customizable options, so you can choose the size, color, and even add decorative elements to match your decor.



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Alegria Zayed

## Affordable:

Compared to some other types of radiators, such as those made from cast iron or high-end designer options, steel radiators are generally more affordable while still providing good performance.

# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



## Safety Considerations

### Low Surface Temperature

Aluminum radiators typically operate at lower surface temperatures compared to traditional radiators. This reduces the risk of burns, making them safer, especially in homes with children or pets. The heat they emit is gentle and evenly distributed, minimizing the chance of hot spots.

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Alegria Zayed



Algeria

### Built-in Safety Features

Many modern aluminum radiators come equipped with safety features such as pressure relief valves and thermostatic controls. These features help regulate temperature and pressure, further enhancing safety and preventing potential hazards.

# Radiators: Combining Efficiency, Design, and Durability

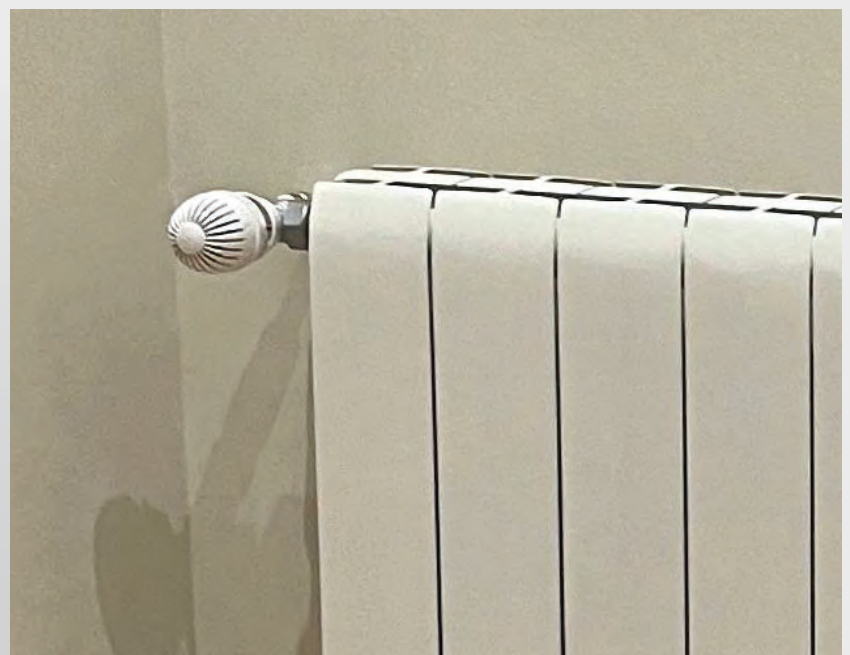
## *Aluminum Wall-Mounted Radiator*

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



## **Compliance with Standards**

Aluminum radiators are designed and manufactured to comply with industry safety standards and regulations. This ensures that they meet the necessary requirements for safe operation in residential settings.



# Radiators: Combining Efficiency, Design, and Durability

## Aluminum Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



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## professional Installation:

### Pipe Connections:

connect the radiator to the central heating system's pipework. This involves attaching the inlet and outlet pipes to the radiator's valves. It's important to use the correct fittings and ensure all connections are leak-proof.

## Bleeding the Radiator:

After connecting, the radiator should be bled to remove any trapped air that could hinder its performance. This is done using a radiator key to open the bleed valve until water flows out smoothly.



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## Positioning:

It's important to position the radiator for optimal heat distribution, often under windows or in cold spots of a room.

# Radiators: Combining Efficiency, Design, and Durability

## Steel Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



## Integration with Interior Design

These radiators can be integrated into a room's layout and design. Placing them strategically can enhance the flow and function of the space. For instance, they can be installed beneath windows or as part of a room divider.

## Architectural Features:

Radiators can be designed to mimic architectural features like columns or panels, enhancing the overall aesthetic and blending with the home's architecture.



# Radiators: Combining Efficiency, Design, and Durability

## Steel Wall-Mounted Radiator

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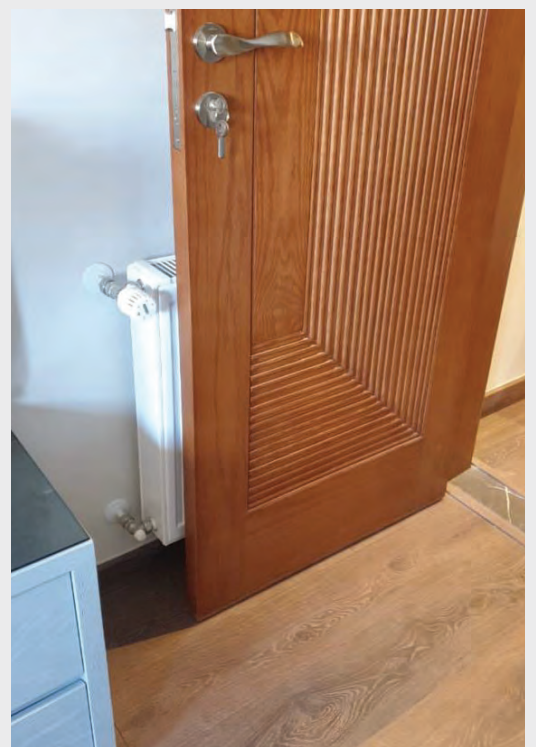


## Space-Saving Solutions:

Steel radiators are often designed to be more compact than traditional models, making them suitable for smaller spaces.

## Functional Decor:

By choosing visually appealing radiators, homeowners can transform a traditionally utilitarian object into a decorative element that enhances the overall beauty of the space.



# Radiators: Combining Efficiency, Design, and Durability

## Steel Wall-Mounted Radiator

A popular choice for modern heating systems due to its efficiency, lightweight design, and rapid heat distribution. These radiators are mounted directly on the wall, making them ideal for both residential and commercial spaces.



## Incorporation into Themes:

Decorative radiators can be selected to fit specific design themes, such as industrial, vintage, or contemporary, reinforcing the chosen aesthetic.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating, dryer and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.



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## Design Options:

Available in various designs, including traditional and modern styles, to match different bathroom aesthetics.

## Dual Functionality:

Serves as a radiator for the toilet while also drying and warming towels, which can be especially pleasant in colder weather.



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# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating, dryer and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.



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## Efficiency:

Towel radiators are efficient at both heating a bathroom and drying towels, and they can be connected to the central heating system or be electric models for standalone use.



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## Materials:

Typically made from steel or stainless steel, with options for finishes like chrome, white, or matte black.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known as a towel rail, is a dual-purpose fixture that provides both heating, dries and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.

### Enhanced Comfort:

Because of their quick heating capabilities, aluminum radiators can rapidly improve comfort levels in a room, especially in colder climates.

*They are available in various finishes, including anodized, painted, or polished, which can match different decor styles.*



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### Convenience:

Adding a touch of luxury and convenience to bathrooms.

### Space Saving:

By combining a radiator and towel rack into one unit, radiators save space and reduce clutter in smaller rooms.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known as a towel rail, is a dual-purpose fixture that provides both heating, drier and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.



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## Positioning:

Ideally placed in bathrooms where towels can be easily hung and accessed.

## Mounting:

Installed on the wall with mounting brackets or wall mounts. The installation includes connecting the radiator to the heating system or electrical supply, depending on the model.



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Beverly hills Zayed

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating, dryer and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.

## Surface Care:

Aluminum is relatively easy to clean. Regularly wipe down the surface with a soft cloth and mild detergent to maintain its appearance.



Alegria Zayed

## Avoid Harsh Chemicals:

Use gentle cleaning agents to prevent any damage to the finish.



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Alegria Zayed

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known as a towel rail, is a dual-purpose fixture that provides both heating and a place to hang towels. It's commonly used in bathrooms and kitchens to ensure towels are warm and dry.



Beverly hills Zayed

## Durable Construction:

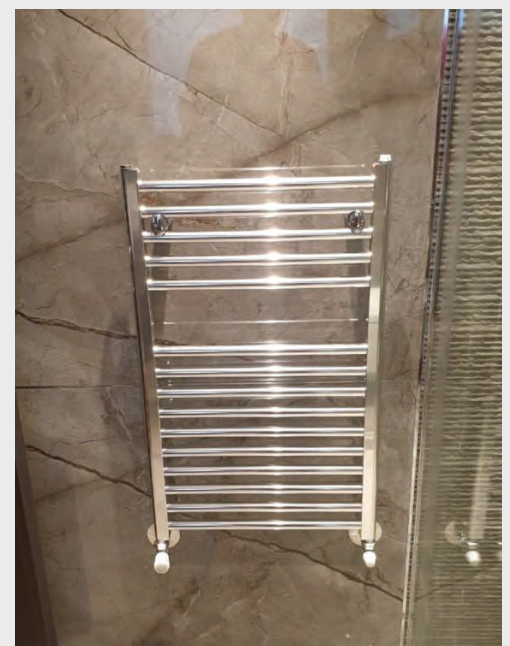
Constructed from materials resistant to corrosion and rust, towel radiators maintain their integrity over time. This durability reduces the risk of leaks or malfunctions, contributing to overall safety.

## Low Surface Temperature:

Towel radiators are designed to operate at lower surface temperatures compared to traditional radiators. This reduces the risk of burns, making them safer, especially in bathrooms where wet conditions prevail.



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# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating and a place to hang towels. It's commonly used in bathrooms and kitchens to ensure towels are warm and dry.

### Color:

Radiators are available in a variety of colors. Select one that matches or contrasts tastefully with your bathroom tiles, fixtures, and cabinetry.



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### Built-in Safety Features:

temperature controls and timers. These features help regulate Modern towel radiators often include safety features such as heat output, preventing overheating and enhancing user safety.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating, dryer and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.

## IP Ratings:

Many towel radiators are designed specifically for bathroom use and come with appropriate IP (Ingress Protection) ratings. These ratings indicate their resistance to moisture and splashes, ensuring safe operation in damp environments.



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Lake View

## Style:

Choose a radiator design that complements the existing bathroom decor. For a modern bathroom, a sleek, minimalistic radiator may work best. For more traditional spaces, a radiator with classic detailing might be more appropriate.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known as a towel rail, is a dual-purpose fixture that provides both heating, drying, and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.

## Decorative Radiator – Heat with Style

Our decorative radiators combine elegant design with powerful heating performance, turning a functional necessity into a statement piece. Built from high-quality materials for durability and efficiency, they deliver consistent warmth while enhancing the aesthetics of any space. With a range of colors, textures, and styles, they are the perfect choice for those who value both comfort and design.



## Style:

Choose a radiator design that complements the existing bathroom decor. For a modern bathroom, a sleek, minimalistic radiator may work best. For more traditional spaces, a radiator with classic detailing might be more appropriate.



Elevate your bathroom comfort with our decorative towel warmers, designed to combine efficient heating with elegant style. Crafted from high-quality steel and finished with a durable powder coat or chrome plating, they provide rapid, even warmth to keep towels dry and cozy while gently heating the room. Suitable for use with both central heating and electric systems, they are available in a variety of sizes, colors, and designs, adding a statement of sophistication to any bathroom décor.

# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

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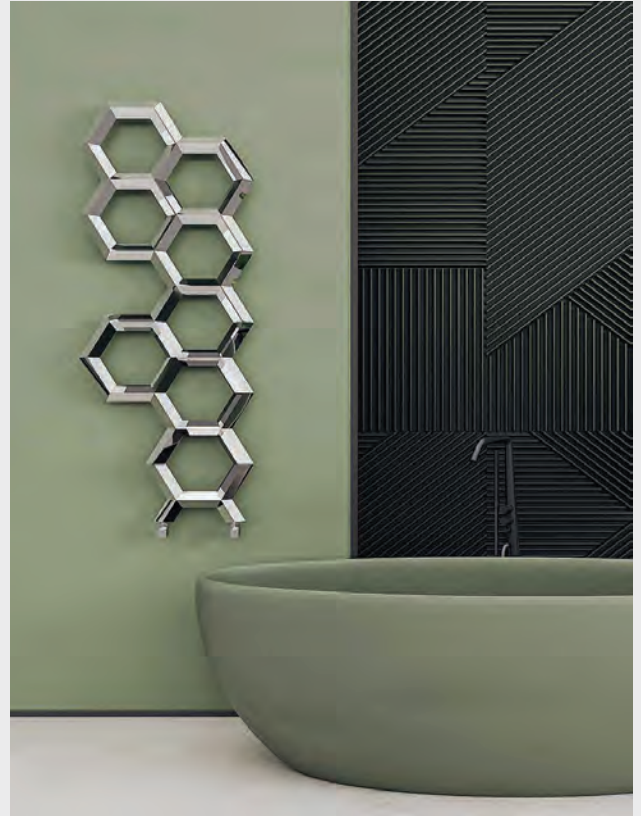
## Comfort in Cold Seasons:

Acts like a mini-heater in the bathroom taking the chill off.



## Space-Saving Heating:

Wall-mounted warmers save space while serving as both heater and rack.



# Towel Radiators: Combining Efficiency, Design, and Durability

## Wall-Mounted Towel Radiator

Also known towel rail, is a dual-purpose fixture that provides both heating, dryer and a place to hang towels. It's commonly used in bathrooms to ensure warm weather and dry and warm towels.

## Smart Options:

Digital thermostats & timers let you schedule warming for energy efficiency.



## Design Statement ;

modern or classic finishes  
(chrome, matte black, brushed gold)  
that elevate bathroom décor



# OUR PRODUCTS

## 10. High Quality Copper Manifolds & Fittings



### CARLO POLETTI: MADE IN ITALY

Official Agent in Egypt



**Ensures flow** to each circuit is regulated precisely, while also controlling shut-off and allowing the venting of air from the heating system.

**Innovative push-to-connect design** with a 1 in. FNPT inlet and 1/2 in.

**SharkBite connections** are integrated on the loop ports making connecting the loops to the manifold significantly easier and faster than other connection methods.

**The stainless steel manifold** is built for durability and corrosion resistance.

**Minimizes the risk of leaks** by eliminating excess connection points.

**Designed for** use in a PEX system.

## Electrothermic Actuator

Carlo Poletti – Made in Italy

Electrothermic Actuators are able to

1. React quickly to temperature changes
2. Deliver dependable performance with quick and accurate adjustments.

These actuators are frequently employed in systems like air conditioning, radiator control, and underfloor heating. Moreover, actuators are fabricated in such a way to resist harsh conditions.

*They are known for long lifespan and durability.*



### Features and benefits

#### QUALITY AVOIDS ISSUES.

Avoid any risk of corrosion and leakages in a floor heating system by using high-quality materials only. We only use brass produced according to the CW617N standard.

#### MADE TO MATCH MIXING SHUNTS.

The dimensions of the manifolds and mixing shunts match exactly so you can establish a low-temperature floor heating distribution unit according to your needs.

#### SIMPLIFIED PRE-SETTING.

Avoid warm-up complaints by hydronic balancing the system at all times. We make the pre-setting easy. Danfoss 'throttle' pre-setting requires no tools, is accurate, visible for checking and constructed from one piece (valve with integrated seat instead of a seat inside the manifold collector).

#### COMPONENTS PROVIDE FLEXIBILITY.

Not every floor heating system has the same requirements. With our components you can establish a manifold according to your needs.

#### TESTING MINIMIZES FAILURES.

All manifold components are pressure, temperature and capacity tested to achieve a solid system for years to come.

# Manifolds & Fittings

## Reliable and Resilient

### High Quality Copper Manifolds & Fittings

High-quality copper manifolds and fittings are essential components in plumbing, heating, and cooling systems, offering superior performance and reliability. Here's a detailed look at their features, benefits, and applications.



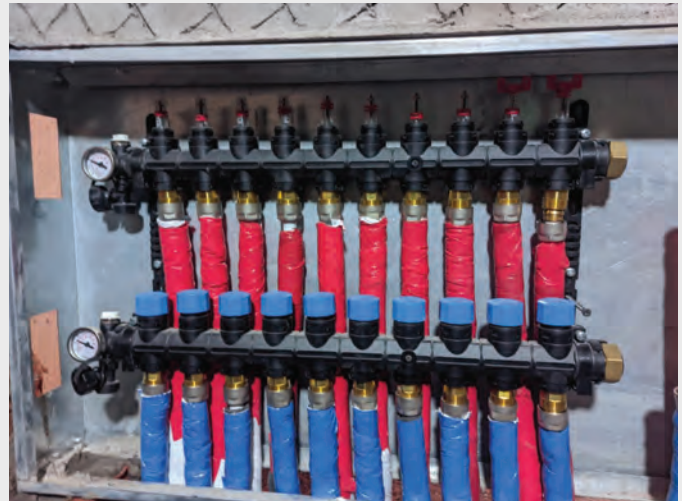
Beverly Hills

### Material:

High-quality copper manifolds are made from premium copper, ensuring excellent durability and corrosion resistance. Copper's intrinsic properties make it ideal for handling high temperatures and pressures commonly found in plumbing and heating systems.

### Design Versatility:

These manifolds come in various designs, including single or multi-port configurations, to suit different system requirements. They are designed to facilitate efficient distribution and collection of fluids, such as water, throughout the system.



### Durability:

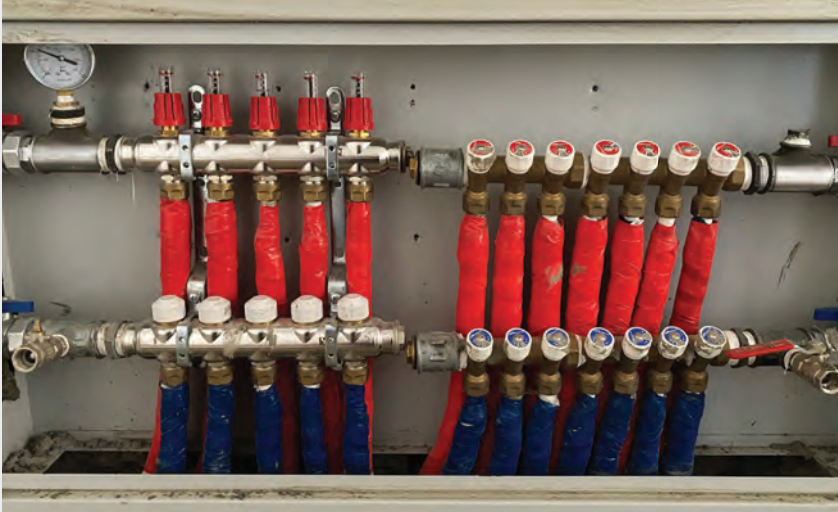
Copper's natural resistance to corrosion and oxidation extends the lifespan of the manifold, reducing the need for frequent replacements and maintenance.

# Manifolds & Fittings

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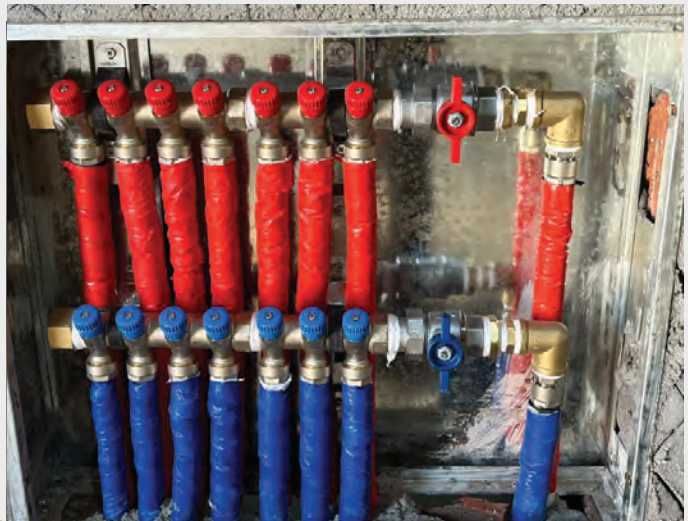
Palm Hills - 6th October

### Thermal Conductivity:

Copper manifolds efficiently conduct heat, making them ideal for both hot and cold water distribution in heating systems, underfloor heating.

### Pressure Handling:

High-quality copper manifolds can handle high pressures without deforming or leaking, ensuring reliable operation in demanding environments.



Layan - 5th settlement



Sodic Villette - 5th settlement

### Leak Prevention:

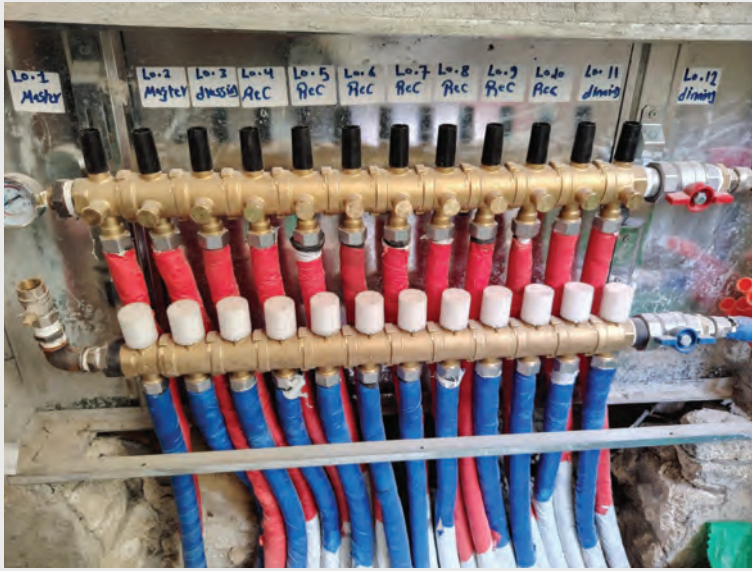
High-quality copper fittings provide a tight seal when joined with copper pipes, minimizing the risk of leaks and ensuring a dependable connection.

# Manifolds & Fittings

## Reliable and Resilient

High Quality Copper Manifolds & Fittings

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Mivida - 5th settlement

### Plumbing Systems:

Used in residential and commercial plumbing systems to distribute water from a central supply to various outlets.

### Heating Systems:

Essential in hydronic heating systems for distributing hot water to different areas or zones.



### Cooling Systems:

Employed in cooling systems to manage the flow of refrigerants or chilled water.



Badr City

# Manifolds & Fittings

## Reliable and Resilient

### High Quality Copper Manifolds & Fittings

High-quality copper manifolds and fittings are essential components in plumbing, heating, and cooling systems, offering superior performance and reliability. Here's a detailed look at their features, benefits, and applications



Alegria Zayed

### Reliability:

Both manifolds and fittings provide reliable performance, reducing the likelihood of system failures and maintenance issues.

### Efficiency:

Copper's excellent thermal conductivity contributes to the overall efficiency of heating and cooling systems by ensuring effective heat transfer.

Lorem ipsum



Lake View

### Longevity:

High-quality copper components have a long service life, which can translate to cost savings over time due to their durability and reduced need for replacements.



Lake View

# Central Domestic Hot Water: Maximizing Efficiency and Longevity

## Central Domestic Hot Water

Gas boilers remain a popular choice for central domestic hot water due to their efficiency and reliability. When selecting a gas boiler, consider the size of your home, your hot water needs, and whether you have space for a hot water tank.

## Efficiency:

Modern gas boilers are quite efficient, often over 90% efficient. They use less energy to produce the same amount of heat compared to older models.



## Longevity:

A well-maintained gas boiler can last between 10 to 15 years. Replacement might be needed if the boiler becomes unreliable or if it is no longer efficient.

# OUR PRODUCTS

## 11. Circulating Pump



### GRUNDFOS: MADE IN DENMARK



#### Grundfos

Grundfos is the largest pump manufacturer in the world, based in Denmark, with more than 19,000 employees globally.

Grundfos circulator pumps are used for heating, ventilation and air-conditioning in many applications, including private homes, office buildings, and hotels. In industry, circulator pumps are used in processes, plant maintenance, and as built-in parts in Original Equipment Manufacturer (OEM) products.

#### Grundfos Circulating Pump

A hot water recirculating pump with return line is a system that uses a pump and a special pipe to circulate hot water from the water heater to the farthest fixture and back. This way, the water in the pipes is always hot and ready to use, saving water and energy. The pump is activated by a thermostat or a timer, and the return line has a valve that shuts off when the water reaches the desired temperature.

### Benefits of Hot Water Recirculation Pumps

Hot water recirculation pumps offer significant benefits, including instant access to hot water, which enhances user convenience and comfort. Additionally, they dramatically reduce the amount of wasted water, contributing to both water conservation and lower utility bills. Their efficient circulation system also means that water heaters operate more effectively, potentially extending their lifespan and saving on energy costs.

### Circulating Pump USP 15

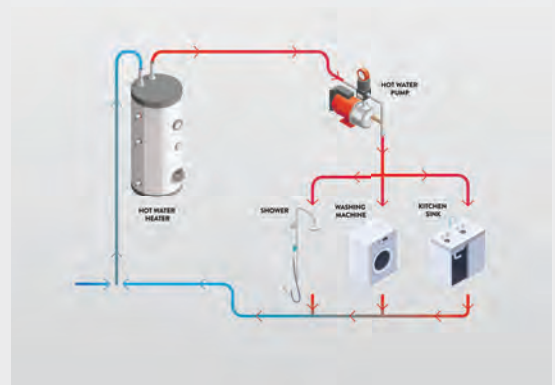
UPS is a three-speed circulator pump designed for heating and air-conditioning systems and is also used for central and district heating systems. The pump provides reliable and maintenance-free operation.

Head max  
19 ft

Liquid Temperature  
32 .. 230 °F

Max flow  
18 US gpm

p max  
145 psi



#### UPS 15-58 FRC

The pump is of the canned rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

### Benefits:

#### CONVENIENCE.

A recirculation system considerably reduces the time it takes for water to heat up, providing users with instant hot water on tap.

#### INCREASED WATER SAVINGS.

A recirculation system cuts down on water losses by delivering nearly instant hot water for use instead of wasting water while waiting for it to heat up.

#### LOWER UTILITY COSTS.

A recirculation pump can lower the cost by reducing the amount of hot water needed.

#### SMART HEATING.

Some pumps are equipped with timers, or can be programmed to operate only in periods when hot water demand is high (for example, they can automatically turn on during the morning and shut off during working hours). This cuts down on unneeded heating, and reduces costs and wear.

# The Role and Benefits of the Circulating Pump

## *Circulating Pump ( For Central space Heating)*

The circulating pump is a critical component in both gas boiler and water tank heating systems, responsible for ensuring efficient heat distribution throughout the system.

### Efficient Heat Distribution:

The circulating pump moves hot water from the gas boiler to radiators or heating zones, ensuring even heat distribution throughout the building. This helps maintain consistent temperatures and prevents hot spots.

### Enhances System Efficiency:

Continuous circulation of water by the pump improves overall system efficiency by ensuring that all areas of the building receive appropriate heating, reducing energy consumption and improving comfort.



*The circulating pump helps maintain adequate water pressure within the system, which is essential for optimal performance and reliable operation of the heating system.*



### Consistent Water Flow:

In a water tank heating system, the circulating pump ensures steady water flow from the tank to the heating system. This consistent flow is crucial for effective heat transfer and temperature control.

### Prevents Stratification:

By keeping water in motion, the pump helps prevent stratification in the water tank, where hot water rises and cooler water stays at the bottom. This promotes uniform heating and efficient use of the stored hot water.

# The Role and Benefits of the Circulating Pump

## *Circulating Pump*

A circulation pump moves hot water continuously through a heating or hot water system, ensuring even heat distribution, preventing temperature loss in pipes, and providing instant hot water at outlets. This improves comfort, reduces waiting time, and increases the system's overall efficiency.



Sodic Vilette

## **Reduced Wear and Tear:**

By ensuring smooth and continuous water flow, the circulating pump helps minimize wear and tear on other system components, such as the boiler and radiators. This reduces the likelihood of breakdowns and extends the lifespan of the system, leading to lower maintenance costs and increased reliability.



Alegria Zayed

## **Improved Comfort:**

Consistent heat distribution and efficient operation directly contribute to improved comfort within the building. By providing uniform heating and maintaining stable temperatures, the circulating pump helps create a more pleasant living or working environment, enhancing overall satisfaction for occupants.

# OUR PRODUCTS

## 12. Floor heating smart controllers

**TECH**  
CONTROLLERS

TECH CONTROLLERS : MADE IN POLAND



The TECH Controllers Company was established in 2004. Since then, it has been continuously growing, rapidly becoming a leader in the production of electronic devices for heating, whether powered by solid fuel or other energy sources. Currently, our company occupies a total area of 7500 m<sup>2</sup>, with several hundred employees working in various departments. The specialized controllers for various types of devices are sold both nationally and in 19 European countries.

### Floor heating controllers EU-L-9r

Universal controller for electric actuators, designed to manage underfloor heating. The EU-L-9r controller is used to manage thermoelectric actuators mounted on the manifold valves. In a mixed system, EU-L-9r also controls STT-868 or STT-869 wireless electric actuators.



#### HOW IT'S WORKING?

The EU-L-9r controller is a device that allows you to operate up to 50 electric actuators, control a heating device, surface cooling and operation of the floor pump. The mixing valve can be operated with an optional module (EU-i-1, EU-i-1m). Thanks to conscious control in the rooms, thermal comfort will be maintained without excessive energy consumption.

#### Why eu-l-9r?

- Rational control of thermal energy.
- Full adjustment to the needs and daily activities.
- Possibility of wired or wireless communication between devices.
- Expansion to a total number of 4 eu-l-9r controllers, allows you to control the temperature in 32 zones.
- Possibility of remote control via the emodeul application.



#### Remote control

The EU-L-9r controller has an option of remote control of the installation via the eModul application when expanded with the EU-M-9r/EU-M-9t control panel.

# OUR PRODUCTS

## 13. Wall Mounted Digital Room Thermostat


**Honeywell**

HONEYWELL: MADE IN USA



### Wall Mounted Digital Room Thermostat

Honeywell helps organizations solve the world's most complex challenges in automation, the future of aviation and energy transition. As a trusted partner, we provide actionable solutions and innovation through our Aerospace Technologies, Building Automation, Energy and Sustainability Solutions, and Industrial Automation business segments – powered by our Honeywell Forge software – that help make the world smarter, safer and more sustainable.



**Application**  
T6661 digital thermostats are designed for application of 3-speed fan and valves in fan coil systems, including:  
2-pipe cool only/heat only/manual changeover and 4-pipe manual or automatic changeover  
Ventilation mode  
Manual or automatic 3-speed fan control  
Water valve control  
Fan speed can be selected to automatic or manual 3-speed control mode. In ventilation mode, fan only support manual speed control.

**Features**

- Super modern appearance design, suitable for office, hotel and residential building
- Horizontal and vertical model available for variant application
- Slim design, direct installation on 88 size box
- Stylish and elegant blue/green backlight with blue/green colour ring
- 2-pipe/4-pipe integrated into one unit with easy configuration
- Big LCD display with English and icons
- Easy to install and set-up
- Time switch function
- Selectable room temperature or setpoint display
- Manual or automatic fan speed selection
- Remote temperature sensor
- Energy saving mode activation by button press or dry contact (key card)
- Cycle per Hour (CPH) function
- Adjustment of display room temperature
- Temperature unit either °C or °F
- User setting can be kept when power off
- Freezing protection function available
- Lock or unlock keys or part of keys in Installer Set-up
- Heat and cool setpoint limitation for energy saving



Set a customized temperature schedule tailored to your lifestyle, control your home's comfort on the go through our app, and enjoy potential utility savings with energy-saving programs when you upgrade to a smart home thermostat.

Travel with the convenience of checking your home's temperature from wherever you are with a T9 smart home thermostat. Upgrade today!

### Features & Benefits

- CYCLE PER HOUR (CPH) FUNCTION.
- LOCK OR UNLOCK KEYS OR PART OF KEYS IN INSTALLER SET-UP.
- FREEZING PROTECTION FUNCTION AVAILABLE.
- ADJUSTMENT OF DISPLAY ROOM TEMPERATURE.
- HEAT AND COOL SET POINT LIMITATION FOR ENERGY SAVING.
- MANUAL OR AUTOMATIC FAN SPEED SELECTION.
- TIME ON/OFF FUNCTION.
- USER SETTING CAN BE KEPT WHEN POWER OFF.
- REMOTE TEMPERATURE SENSOR AVAILABLE.

# Accurate Climate Control for Your Home

## Wall Mounted Digital Room Thermostat

It's a modern upgrade that provides precise control over your home's temperature with user-friendly features. It's a great choice for improving comfort, efficiency, and overall climate control in your living space.



### Digital Display:

These thermostats have a digital screen that shows the current temperature and allows you to adjust settings with precision. The display is often backlit, making it easy to read in various lighting conditions.

Digital thermostats are known for their accuracy compared to traditional analog models. They can often maintain the temperature within a narrow range, improving comfort and efficiency.

### Simple Controls:

Most wall-mounted digital room thermostats have straightforward controls, which includes buttons or a touchscreen interface, so in order to set and adjust the temperature. Some models may also have dial controls, but digital displays provide clearer feedback.



Cairo festival city Oriana



Badr City

### Temperature Settings:

You can usually set a desired temperature with ease. Digital thermostats allow for precise adjustments, often in 1-degree increments, which helps maintain a consistent climate.

# Accurate Climate Control for Your Home

## Wall Mounted Digital Room Thermostat

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## Weekly Work Schedules

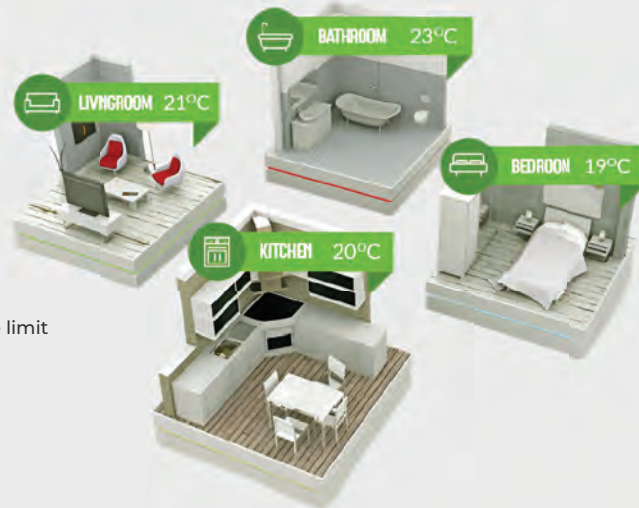
For Both : Heating And Cooling

Possibility to set different schedules for individual zones or one schedule for all zones

LOCAL SCHEDULES : weekly schedule in assigned to given zone

GLOBAL SCHEDULES Same temperature in all zones

In addition to the schedules the user can set a constant temperature and with a time limit



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## Device Operation Modes

The device can work in one of four different modes to choose from :

- Normal Mode
- Holiday Mode
- Economy Mode
- Comfort Mode

# OUR PRODUCTS

## 15. Swimming Pool Heating Solution



RAYPAK: MADE IN AMERICA



**Raypak: A Rheem Company**

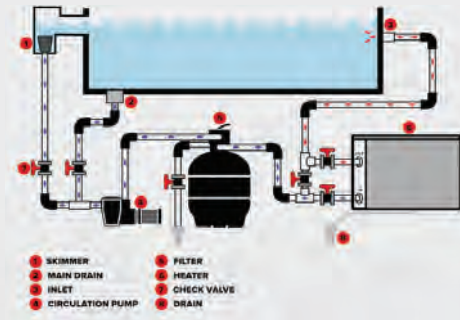
Raypak has been at the forefront of environmental efficiency and sustainability for over 70 years, leading the evolution of hot water as a top manufacturer of energy-efficient boilers, water heaters, and pool heaters.

### Pool Heater

Named #1 Pool Heater by Forbes, the Raypak Digital Gas is a tried and true favorite among pool pros. Its durable design and intuitive controls make it one of the strongest workhorse pool heaters on the market. This pool and spa heater is the perfect solution for environments requiring efficiency, convenience and versatility.

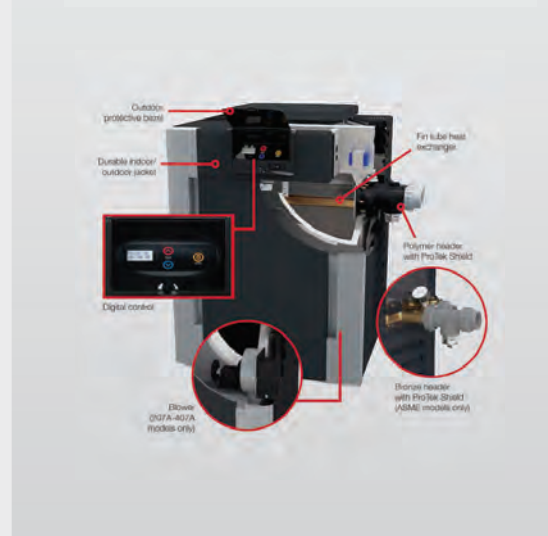
### Function

Pool heaters play a vital role in maintaining a comfortable water temperature, ensuring that swimming pools remain enjoyable regardless of external weather conditions. By regulating the water temperature, they extend the swimming season and enhance the overall swimming experience, allowing users to comfortably swim even during cooler months or in variable climates. This function is particularly useful for preparing the pool for spontaneous activities or social gatherings, as heaters can quickly raise the water temperature to a desirable level.



### FEATURES OF POOL HEATERS:

- ENERGY EFFICIENCY.**  
Modern pool heaters are designed to maximize energy efficiency, reducing operational costs.
- QUICK HEATING.**  
Pool heaters are capable of rapidly increasing the water temperature, allowing you to enjoy your pool sooner.
- TEMPERATURE CONTROL.**  
Most pool heaters come with precise temperature control settings.
- DURABILITY.**  
High-quality pool heaters are built to withstand various weather conditions and frequent use.



# OUR PRODUCTS

## 16. Plate Heat Exchanger



**ZILMET: MADE IN ITALY**



### Zilmet

Zilmet is one of the oldest and largest expansion tank manufacturers in the world. Established in Italy on 1962, Zilmet is an international manufacturer of quality expansion vessels, pressure tanks and plate heat exchangers with several branches across the globe with worldwide distribution.

Zilmet is an ISO 9001 certified company that produces in excess of over 7 million tanks and 1 million heat exchangers every year. We take great pride in our globally renowned quality and service and look forward to sharing our story and products with you and your customers.

A plate heat exchanger is a compact device that transfers heat between two fluids through a series of thin, stacked plates. These plates maximize the surface area for efficient heat transfer while maintaining a small footprint, making the exchanger effective and space-saving. It is commonly used in various applications, including pool heating, for its efficiency and ability to handle high temperatures and pressures.

### Function

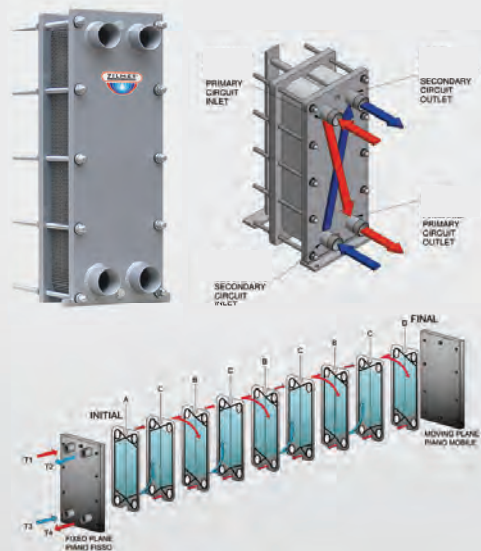
A plate heat exchanger serves the crucial function of efficiently transferring heat between two fluids without them mixing. By utilizing a series of thin, stacked plates, it maximizes the surface area for heat exchange, allowing pool water to be heated quickly and effectively as it flows over these plates. This efficient transfer ensures that the pool reaches the desired temperature faster, improving the overall energy efficiency of the heating system.

### FEATURES OF POOL HEATERS:

- HIGH THERMAL EFFICIENCY.**  
 Plate heat exchangers are designed for optimal heat transfer, ensuring that pool water is heated quickly and efficiently.
- COMPACT SIZE.**  
 Plate heat exchangers are compact and space-saving, making them ideal for installations where space is limited.
- CORROSION RESISTANCE.**  
 Many plate heat exchangers are constructed from materials resistant to corrosion, such as stainless steel.
- LOW PRESSURE DROP.**  
 These heat exchangers offer a low pressure drop, meaning they do not significantly impede the flow of water through the system.

### ADVANTAGES:

The Zilmet Difference High efficiency Long life Low price Small dimensions High modularity Easy maintenance High reliability



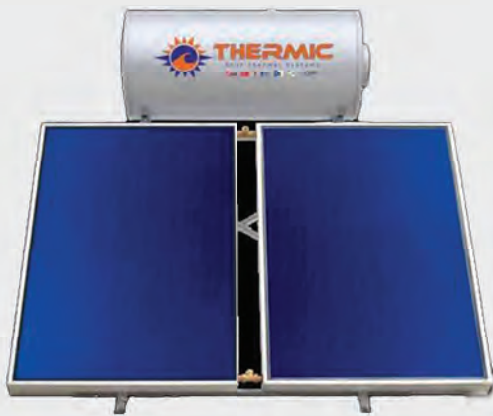
### Features Of Zilmet Plate Heat Exchanger:

Suitable to a wide variety of applications including:

- Production of sanitary hot water.
- Decoupling of thermal circuits.
- District heating systems.
- Cooling of industrial machineries
- Recovery of heat coming from industrial processes.
- Heating of water for swimming pools and solar systems

# OUR PRODUCTS

## 17. Solar Water Heaters



### THERMIC: MADE IN GREECE

#### THERMIC

Was founded in 1977 with main activity the production and trade of Solar Water Heaters. Today's activities cover the product sectors of Solar Water Heaters, Solar collectors, Vertical tanks and related accessories.

MALTEZOS SA holds a leadership position in the production and trade of Solar Water Heaters in Greece. The company evolved into a leader in the Renewable Energy sector due to its consistent and high quality product range along with its customer-focused approach regarding after sales technical support and service.

#### How Solar Water Heaters Work

**Absorption:** The collector absorbs sunlight and heats a fluid (usually water or a glycol mixture).

**Heat Transfer:** In passive systems, water naturally circulates through the collector due to convection. In active systems, a pump moves the heated fluid to the storage tank.

**Storage:** The heated water is stored in a tank, ready for use when needed.

**Usage:** When hot water is needed, it is drawn from the storage tank.

#### Function

Solar water heaters primarily function to harness solar energy to heat water for various uses, including domestic hot water for showers, dishwashing, and laundry. They can also maintain swimming pool temperatures, support space heating systems, and provide hot water for industrial processes. By utilizing renewable energy, these systems reduce reliance on conventional sources, lower energy bills, and minimize environmental impact, making them a sustainable choice for hot water needs.

#### FEATURES OF POOL HEATERS:

##### COLLECTORS.

They typically use flat plate or evacuated tube collectors that maximize sunlight absorption.

##### STORAGE TANKS.

Insulated tanks maintain water temperature and ensure a reliable supply of hot water.

##### ACTIVE AND PASSIVE SYSTEMS.

Active systems use pumps for circulation, while passive systems rely on natural convection, offering flexibility in design.

##### CONTROLLERS.

Many systems include temperature controllers that monitor water temperature and manage pump operation to optimize efficiency.

##### ENERGY EFFICIENCY.

They provide a sustainable alternative to conventional heating, significantly reducing energy costs.

##### LOW MAINTENANCE.

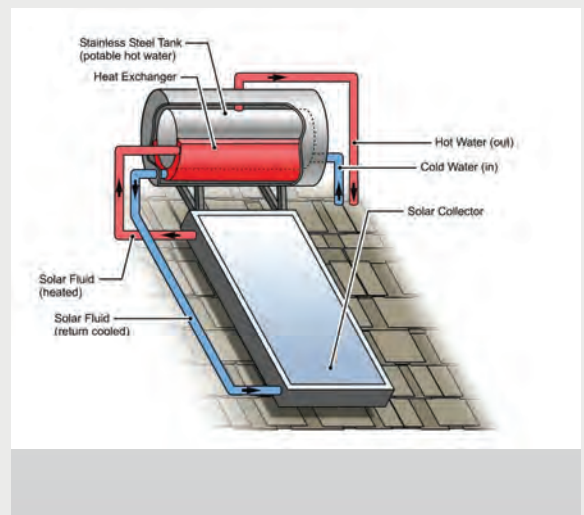
Generally require minimal maintenance, making them a convenient long-term solution.

##### SCALABILITY.

Systems can be tailored to different sizes, suitable for residential or commercial applications.

##### DURABILITY.

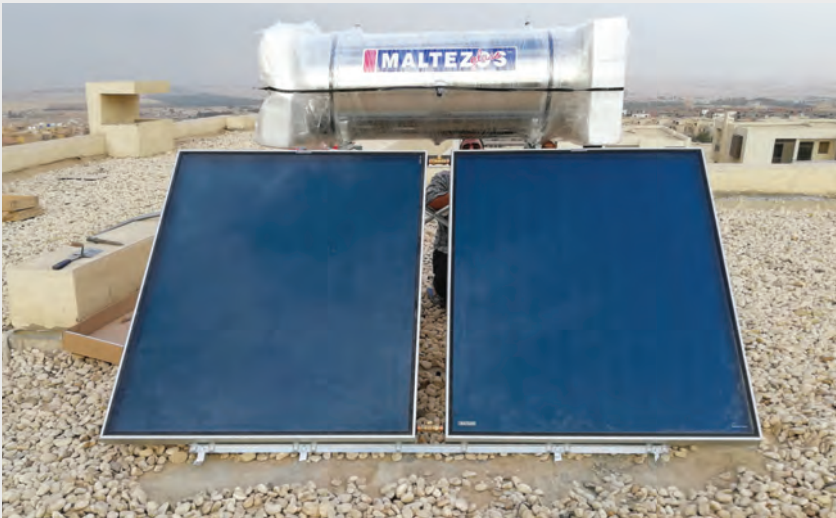
Made from corrosion-resistant materials, solar water heaters are designed to withstand various weather conditions.



# Go Green Eco-Friendly and Cost-Effective

## Solar Water Heaters

Solar domestic hot water heating is an effective and eco-friendly way to meet your household's hot water needs. By harnessing the power of the sun, these systems offer substantial energy savings, reduced environmental impact and low operating costs.



### Solar Collectors:

The system begins with solar collectors, which capture sunlight and convert it into heat. There are two main types:

#### Flat-Plate Collectors:

These are insulated panels with a dark absorber plate that absorbs solar radiation. They are covered with a transparent cover that allows sunlight to pass through while reducing heat loss.

#### Evacuated Tube Collectors:

These consist of glass tubes with a vacuum between the inner and outer layers, providing excellent insulation and reducing heat loss. They are more efficient in colder climates.

*The system includes controls and valves to regulate the flow of fluid, maintain optimal temperatures, and switch to backup heating when necessary.*

### Heat Transfer Fluid:

Solar collectors heat a fluid (water or a heat-transfer fluid) that circulates through the system. In active systems, this fluid is pumped through the collectors, while in passive systems, natural convection circulates the fluid.



### Storage Tank:

The heated water is stored in a well-insulated tank, where it remains until needed. The storage tank is often equipped with a backup heating system to ensure hot water availability during periods of low solar radiation.

# Go Green Eco-Friendly and Cost-Effective

## Solar Water Heaters

Solar domestic hot water heating is an effective and eco-friendly way to meet your household's hot water needs. By harnessing the power of the sun, these systems offer substantial energy savings, reduced environmental impact, and low operating costs.



### Energy Savings:

Solar water heaters can significantly reduce your energy bills by using free solar energy to heat water. They are particularly effective in sunny regions.

Homes with solar water heating systems may have higher property values due to the appeal of energy-efficient features.

### Environmental Impact:

They reduce greenhouse gas emissions by decreasing reliance on fossil fuels for water heating, contributing to a lower carbon footprint.



### Low Operating Costs:

Once installed, solar water heaters have minimal operating costs. The main costs are related to maintenance and occasional repairs.

# Go Green Eco-Friendly and Cost-Effective

## Solar Water Heaters

Solar domestic hot water heating is an effective and eco-friendly way to meet your household's hot water needs. By harnessing the power of the sun, these systems offer substantial energy savings, reduced environmental impact, and low operating costs.



### Climate and Location:

The effectiveness of solar water heaters depends on the amount of sunlight received. They are most efficient in sunny climates but can still be effective in less sunny areas if combined with a reliable backup heating system.

*The installation of solar collectors may affect the appearance of your home. Consider the visual impact and placement of collectors when planning your installation.*

### Space Requirements:

Solar collectors need to be installed in an area with adequate sunlight, such as a roof or an open space. Ensure you have sufficient space and structural support for the collectors.



### Maintenance:

While solar water heating systems generally require low maintenance, periodic checks are necessary to ensure they are functioning correctly. Regular maintenance can extend the system's lifespan and efficiency.

# Concealed Central AC – Invisible Comfort

Experience powerful, uniform cooling without compromising your interior design.

Our concealed central AC units are hidden within the ceiling or wall, delivering quiet energy-efficient performance through discreet air outlets. Perfect for homes, offices, and luxury spaces they combine seamless aesthetics with reliable, year-round climate control

## Central Air Conditioning

### Whole-Home Comfort

Our central AC systems deliver powerful, even cooling to every room through a single, efficient network. Engineered for quiet performance and energy efficiency, they maintain consistent temperatures while improving indoor air quality with advanced filtration. Designed for durability and seamless integration, they provide year-round comfort for homes and businesses alike.



## Concealed Central AC

### Invisible Comfort

Experience powerful, uniform cooling without compromising your interior design. Our concealed central AC units are hidden within the ceiling or wall, delivering quiet, energy efficient performance through discreet air outlets. Perfect for homes, offices, and luxury spaces, they combine seamless aesthetics with reliable, year-round climate control.



# PEX Plumbing System with Manifold Distribution

pipe directly connected to a central manifold This eliminates unnecessary branch connections and ensures optimal hydraulic performance throughout the building.

## System Overview

The PEX manifold plumbing system is a modern distribution solution where each fixture is supplied with an individual PEX pipe directly connected to a central manifold. This eliminates unnecessary branch connections and ensures optimal hydraulic performance throughout the building.



## Key Technical Benefits

- Minimized pressure loss
- Reduced number of joints and fittings
- Accessible and serviceable manifold unit
- Longer service life with corrosion and scale resistance
- Optimized distribution efficiency





Egypt Branch  
Tel:01146787877:  
5th Settlement, New Cairo



Germany Branch:  
Tel:+4917624040385  
Friedrich Bergius St. 9, Wiesbaden



Libya Branch  
Tel:+218912616225  
New Zantac Road ,Tripoli