



Sustainable Engineering Solutions



**Richmond Sustainable Engineering Solutions (Richmond SES) was formed in 2007 to provide innovative designs, engineering solutions, use of sustainable energy resources and high quality services to clients region wide.**

**“ At Richmond SES we set the standards for Sustainable Engineering Solutions. ”**

**Preliminary Design**  
**Design Construction**  
**FM Training and Workshops**  
**3D Analysis**  
**Energy Audit & Consultancy**  
**Maintenance**  
**Spare parts Supply**  
**24/7 Service**  
**Shop Drawings**  
**Energy and Building Solutions**

# Services

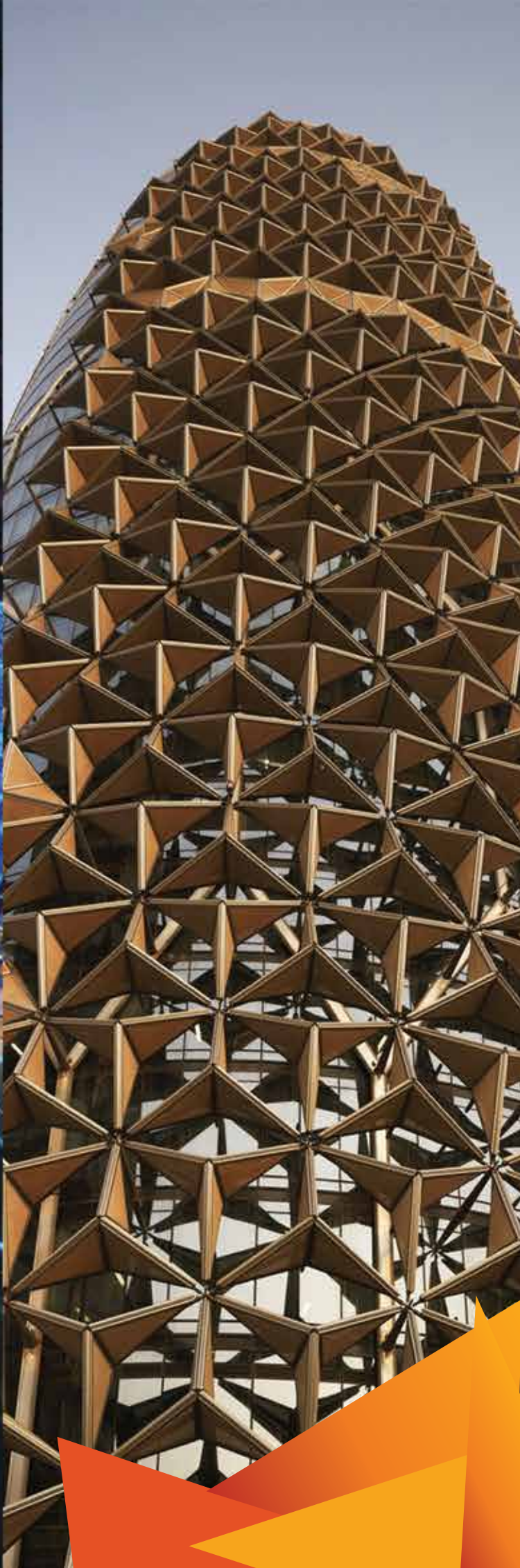
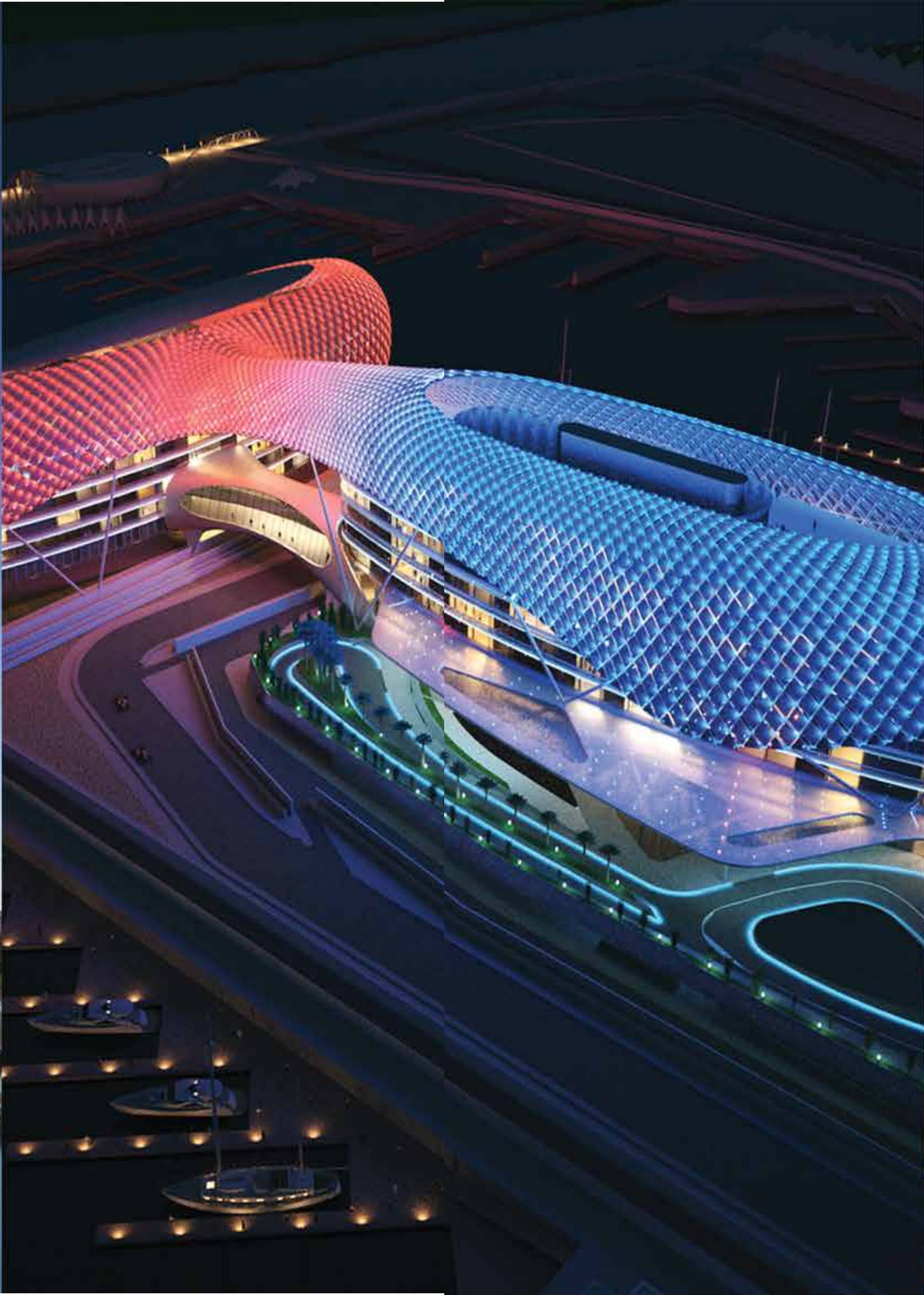
## Business Function

Richmond SES specializes in planning, supplying, installing, commissioning and maintaining the following, in a pioneering, unique, and innovative way:

- Plumbing & Drainage Systems.
- HVAC Systems.
- Green Building Systems.
- Other Alternative Revolutionary Systems & Technologies.



# Project Portfolio



2008

**National Exhibition Centre (ADNEC)**  
Abu Dhabi

FabricAir Dispersion System



2010

**Crowne Plaza, Yas Island**  
Abu Dhabi

Valsir HDPE Waste System  
Buderus Hot Water Boilers  
Buderus Hot Water Storage Tanks



2009

**Al-Muneera**  
Abu Dhabi

Valsir HT-PP Waste System



2011

**Abu Dhabi Court House Complex**  
Abu Dhabi

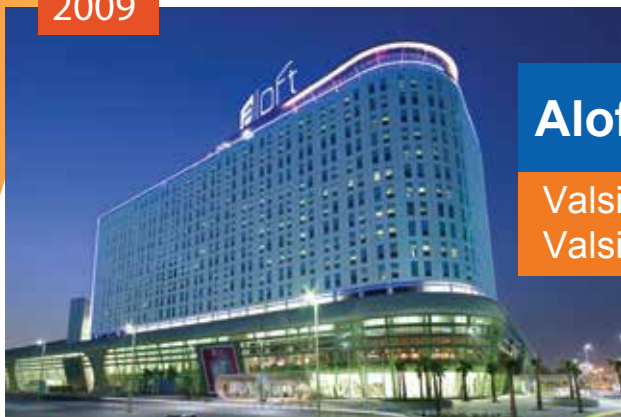
Valsir Soundproof Waste System  
Valsir HT-PP Waste System



2009

**Aloft Hotel, Abu Dhabi**

Valsir Soundproof Waste System  
Valsir HDPE Drainage System



2012

**Dubai International Airport**  
Dubai

Valsir HDPE Waste System



2009

**Al Zeina, Abu Dhabi**

Buderus Solar Thermal Collector  
Buderus Hot Water Storage Tanks  
Buderus Wall Hang Condensing Boilers  
Aquatechnik Domestic Water System



2013

**Nation Towers**  
Abu Dhabi

Valsir Sound Proof Waste System





## Plumbing & Drainage Division



We are well aware of our responsibilities towards the environment and the future, that's why we focus on environmentally friendly materials. Whether we are developing concepts for residential, commercial or industrial buildings, the environmental impact of our products and sustainability is always in mind.



Valsir's undertakings have always been inspired by sustainability principles that take two directions: production processes and technologies that involve the responsible employment of energy resources.

Through investment in research and technological innovation of its products, the company offers the market sustainable technology and advanced products.



WASTE SYSTEMS TRAPS

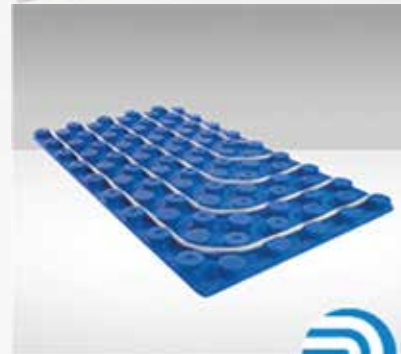
- HDPE
- PP
- TRIPLUS
- SILERE



TRAPS TRAPS



DRAINAGE SYSTEMS RAINPLUS



RADIANT SYSTEMS

Radiant Systems



FLUSH CISTERNS

FLUSH CISTERNS ARIAPUR



BATHROOM SYSTEMS

RAINPLUS



PEXAL , MIXAL, PEXAL EASY, BRAVOPRESS  
 PEX and PPR pipes and fittings for Domestic water application



### Rain Water Management

Channel systems manufactured from GRP (Glass Reinforced Plastic) are used in a wide range of applications with high demands - Airports, Industrial, Stadia and Motor Circuits. We rely on SMC technology (Sheet Moulding Compound) a composite of polyester resin, mineral fillers, additives, and glass fibre mats.

SMC has the highest strength and dimensional stability, unlike thermoplastics. SMC does not deform after hardening, but remains stable, durable and in good condition. Our extensive experience and expertise with this material guarantees lightweight and durable products that create added value.





## HVAC Division

**We believe sustainable growth is in continuous improvement in quality and innovation. High investment in test facilities and Research & Development provide a competitive advantage serving the HVAC market. We provide a wide range of equipment to meet clients' requirements.**



## Water Cooled Chiller

EUROKLIMAT Water cooled chillers feature leading-edge screw unit design and innovative technology for over 40 years and have 13 patents. The units work at optimal efficiency with the help of an intelligent control system. The units can meet multi-function requests and energy saving. This system best applies to many applications that require central air conditioners and hot water systems, such as high-grade hotels, office buildings, schools, hospitals, and industrial factories.



## Heat Recovery & Hot Water System



EUROKLIMAT Air cooled heat pump is a unit with total heat recovery features, leading manufacturing and excellent designs from Italy. The unit is a perfect combination of aesthetics and technology. Environment friendly refrigerant is used to provide cooling, heating and domestic hot water. Compared to traditional households, this series unit can save up to 40% of energy.



## Air Cooled Water Chiller

EUROKLIMAT Air cooled screw chillers originate from Italy, the home of chiller technology. They inherit the European leading large-scale air cooled unit design achievement, adopting the new-generation screw technology with optimized system configuration. Units of this series are energy-saving, reliable, easily maintained and have a low operation cost.



## Air Handling Unit

EUROKLIMAT Air handling units feature standard modulus design, outstanding performance, simple structure and a flexible assembly. Available functional sections including fresh/return air mixing section, cooling section, heating section, primary/medium/high efficiency filter, electric heating section, humidifying section, sound attenuation section, heat recovery section, secondary air-return section, fan section, and air diffuser section.



## Split Unit Air Conditioning



The Golden Hydrophilic Condenser is designed to create a healthy and comfortable environment by efficiently preventing bacteria from breeding and spreading. The system improves heating efficiency by accelerating the defrosting process. A unique anti-corrosive gold coating on the condenser makes it withstand salty air, rain and other corrosive elements.



## Precision Air Conditioning

EUROKLIMAT Precision air conditioners are designed to provide an ideal environmental temperature and humidity for electronic devices that produce high sensible heat and can avoid severe temperature fluctuations when the working conditions of the equipment room changes. Compact structures can save more space for an equipment room, and all components can be serviced at the front, therefore saving maintenance space.





## Green Building Division

With a dedication, to environmental solutions we have achieved the highest standards in design and materials. Along with our excellent service, maintenance and work inspection, we can guarantee smooth and professional services.



### SKS Solar Collector

The Solar Flat Collector is a high performance collector that is hermetically sealed and filled with an inert gas leading to a decrease in heat loss.

The double meander absorber optimizes heat transfer and allows 10 collectors to be connected in a single row with perfect hydraulic balance.

### Steam Boiler

Tailored solutions for sophisticated steam productions with a standard output range from 175 to 55,000 kg/h are available for a wide range of applications.

This system maximises energy efficiency, has excellent conservation of resources and outstanding availability. The intelligent control technology from Bosch ensures a convenient and fully automatic steam boiler operation



### ORC/CHP Co Generation Systems

#### ORC:

Transferring waste heat into green power, the ORC (Organic Ranking Cycle) is a thermodynamic process. It is based on an organic coolant that enables generations of electrical power at a comparatively low temperature

#### CHP:

The Bosch CHP (combined heat and power) not only protects your finances, but also our environment. This is because, ultimately, less fuel is required to simultaneously generate electricity and heat, and so emissions are also lower.



### Thermosiphon Solar Systems

This system reduces your energy costs in the long term while protecting the environment.

The solar system benefits from free solar energy and provides your family with a convenient and environmentally friendly supply of hot water.



### Advance Boilers & Control Systems

For more than 275 years, Buderus has been a World Wide leading brand in heating technology. With an output range from 11Kw to 19200 Kw, Buderus offers a full spectrum of wall mounted and floor standing gas and oil condensing boilers.

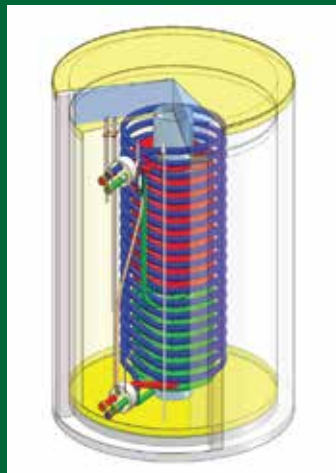
Proven solutions using condensing technology and stainless steel are available in an output range of 50Kw to 1500 Kw. These boilers have an internal condensing heat exchanger sold with an extremely quiet modulating premix burner.



### Haase Energy Tanks

The HAASE energy tanks unique model of modular construction and its superior energy conservation makes it the most sensible choice for cost-effective energy creation and storage.

Our tank is a pressure-free tank with internal heat exchangers made from high grade steel corrugated pipes. The tanks interior wall is prefabricated using fiberglass, reinforced plastic (FRP). For maximum versatility, the HASSE Energy Tank is designed to work with virtually any heating source including solar collectors, solid fuel burners, oil burners, heat pumps and block-type thermal power stations.





## Other Business Lines

At Richmond we provide you with the most updated solutions for the construction industry to ensure our services and products meet your requirements.



## LED Lights

We offer LED systems which are quickly becoming the light source of choice for various applications due to their ruggedness, reliability, long life, energy efficiency and low maintenance requirements.

Our Innovative LED technology has opened new avenues with dynamic colour mixing and colour sequencing capabilities. These new capacities coupled with their small size and system flexibility makes LED ideal for a variety of applications.

## CCTV:

Bosch Security Systems commitment is to securing people and premises, wherever lives and property are at risk. We offer you an extensive portfolio of innovative, high-quality products, solutions, services and systems for security, safety and communications featuring intelligent functionality and modular concepts that grow with your requirements.

## Access Control:

A New Age Access Control System, which can be designed to work with your CCTV/intrusion/fire detection system, is another means of achieving the security you seek. Whether you have one door or thousands of doors across the globe, New Age Security can design an Access Control System for any business size with any set of requirements to increase the safety and security of your building. Access Control enhances security that traditional keys can't.





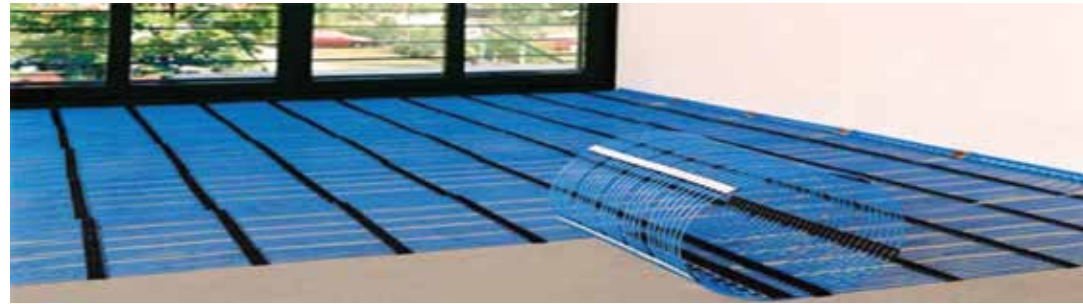
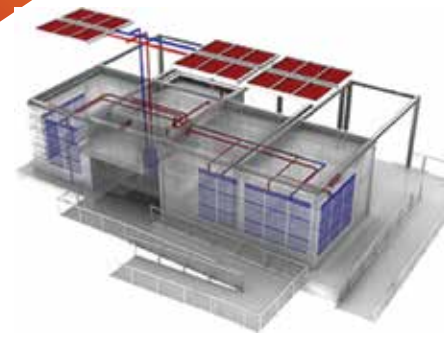
## Alternative Solutions

In our Alternative Solutions Department we offer a very unique and convenient solution to address any difficult engineering challenge. We pride ourselves in this department for being objective and unconventional.

## Capillary Tube Systems

BEKA Capillary Tube Technology is Radiant HVAC eco friendly, healthy, silent, and invisible. Capillary mats are fitted in ceilings, walls, or floors to allow for radiant heating or cooling without obstructive radiators. The capillary tube technology facilitates a high energy transfer for efficient and eco-friendly radiant heating and cooling.

The ecological and economic advantages of the capillary tube technology are already utilized in gentle air conditioning and radiant HVAC systems. BEKA Capillary Tube Technology opens spaces for new interior design and saving up to 60% in HVAC connected load.



## Dispersion Systems

FabricAir uses fabric for dispersing cooling, heating, ventilation or air-conditioning. The ability of fabric to disperse air provides ideal ventilation and a healthy indoor climate. FabricAir Dispersion System is suspended from a series of aluminium rails or steel cables that are easy and simple to install, thus making it cost effective.

The ducts are customized, available in round and half-round shapes alike and a wide range of colours. They are tailored to fit ceilings, roof structures or end walls with ease. The ducts area could also be individually dyed or printed with logos, texts or promotional messages.



## Atmospheric water generation

Gathering water from the atmosphere, the most reliable, secure and untapped resource on the planet. Our atmosphere holds an unlimited source of pure and available drinking water.

Humidity from the air we breathe is captured by the AWG unit. It is then converted into pure healthy drinking water. In comparison to drinking tap or bottled water, referred to as "dead" water (containing very little oxygen), AWG water is referred to as "live" water, as it is 100% oxygenated water.



## Variable Refrigerant Flow System

EUROKLIMAT air cooled digital multi-connected central air conditioner features large capacity, high efficiency, stable performance, wide operation range, no power supply contamination and powerful intelligent control.

In addition, a full range of models for indoor and outdoor units, easy system design and installation, maximizes the satisfaction of customer requirements. It can be widely used in residences, villas, office buildings, hotels, schools, hospitals, and so on.





## Revolutionary Technology

Myrtha is simply the most advanced technology in the swimming pool industry. Its patented pre-engineered modular system, based on the use of laminated stainless steel panels and buttress systems, enables a Myrtha structure to attain perfect waterproofing.



## Myrtha Pools

More than 50 years of experience and research have allowed Myrtha Pools to develop unique technologies. Our patented stainless steel modular panels provide a state of the art, exclusive and advanced solution to building pools that surpass expectations. Myrtha uses only reliable, sustainable materials, ideal for competition swimming pools which require the utmost precision. Myrtha Technology guarantees a quick installation in any condition and the highest standards in quality that international competitions require. A quality that has been rewarded by Myrtha's longtime partnership with FINA and by working on the most important events in the competitive swimming world.



Myrtha Pools is extended to the field of sustainability. LEED® Certification through the USGBC.



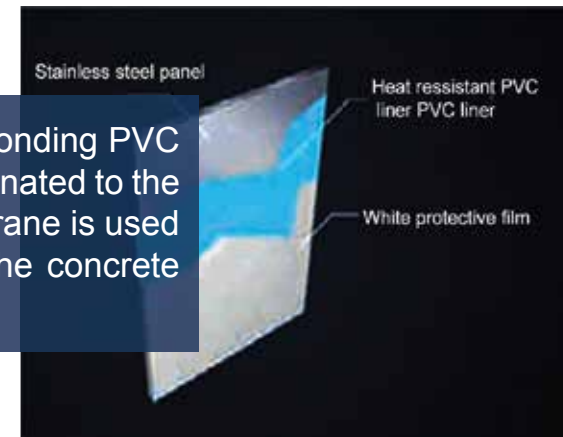
Myrtha Pools through the Myrtha Water Parks and Attractions department offer themselves also as a complete partner in the realization of water parks. Thanks to the vast Myrtha Water Parks and Attractions experiences in this world of water ranges, the Company can guarantee a great support to those who decide to invest in the world of water and amusement.



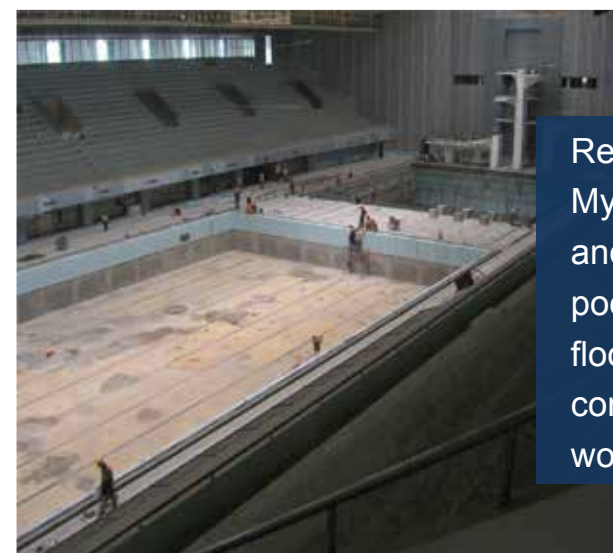
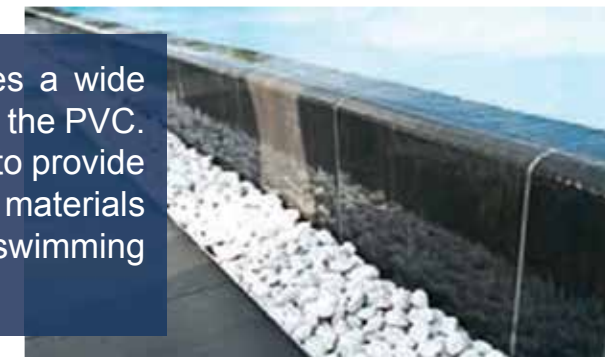
High quality stainless steel used in a Myrtha pool guarantees long life to the structure regardless of the presence of highly aggressive soils or high water-tables. Myrtha uses exclusively-engineered components bolted together, thereby eliminating the need for welding, which is subject to increased corrosion. The use of stainless steel materials ensures maximum mechanical strength of the panels, buttresses and the other components that form the structure of the swimming pool.



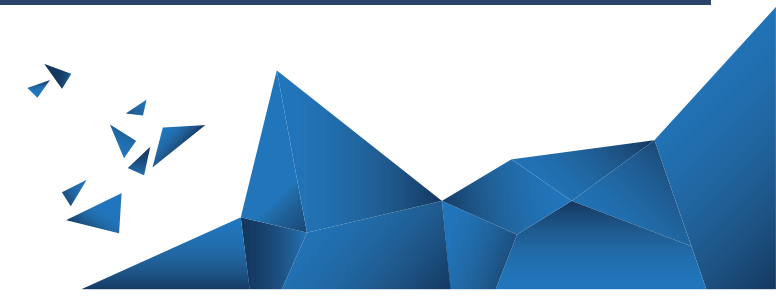
Perfect waterproofing is ensured by the unique process of bonding PVC to the Myrtha steel panels. A hard PVC membrane is hot-laminated to the steel in the manufacturing process. A reinforced PVC membrane is used on the floor of the pool in order to follow the contours of the concrete sub-surface.



For high level aesthetic finishes, Myrtha technology uses a wide range of exclusive materials that match with the colours of the PVC. Myrtha allows the use of special stone and marble finishes to provide more elegance for the pool project. The combination of materials and colors allow the client to personalize each and every swimming pool according to their specific needs.



RenovAction® is the patented and exclusive technology by Myrtha Pools®, based on the proven Myrtha Technology and specifically developed for the refurbishment of existing pools. The renovation process may include the walls, the floor covering, and the overflow gutter separately or in combination and it does not require any major demolition works.



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