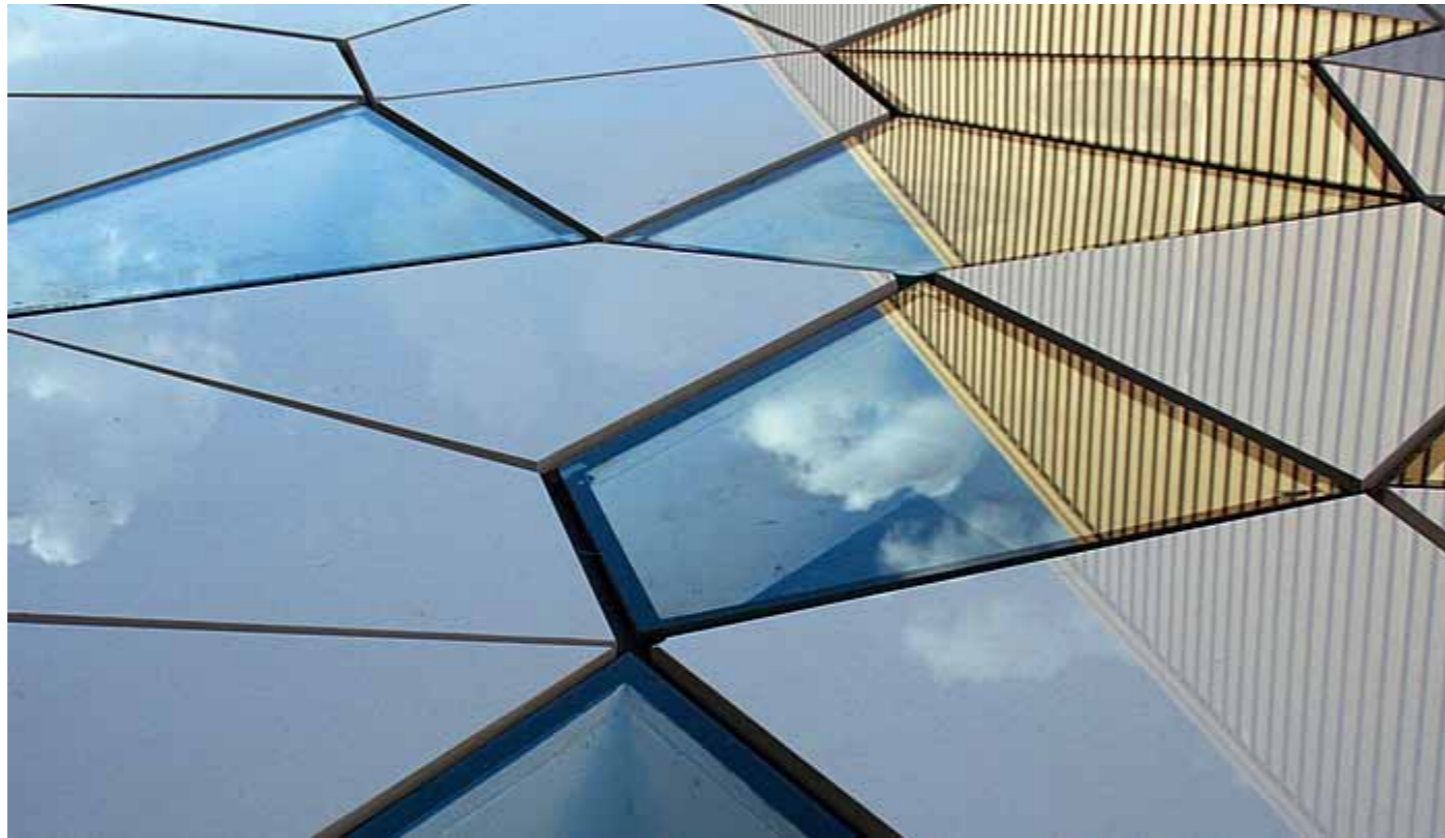


< MEDINA HARAM  
PIAZZA SHADING  
PROJECT, MEDINA, KSA,  
COMPOSITE ARM  
CLADDINGS FOR 250  
UMBRELLAS.



CONTACT US:

**Premier Composite Technologies LLC.**

Dubai Investment Park  
P.O. Box 282777, Dubai UAE  
P: +971 (0) 4 885 2225  
F: +971 (0) 4 885 2244  
info@pct.ae

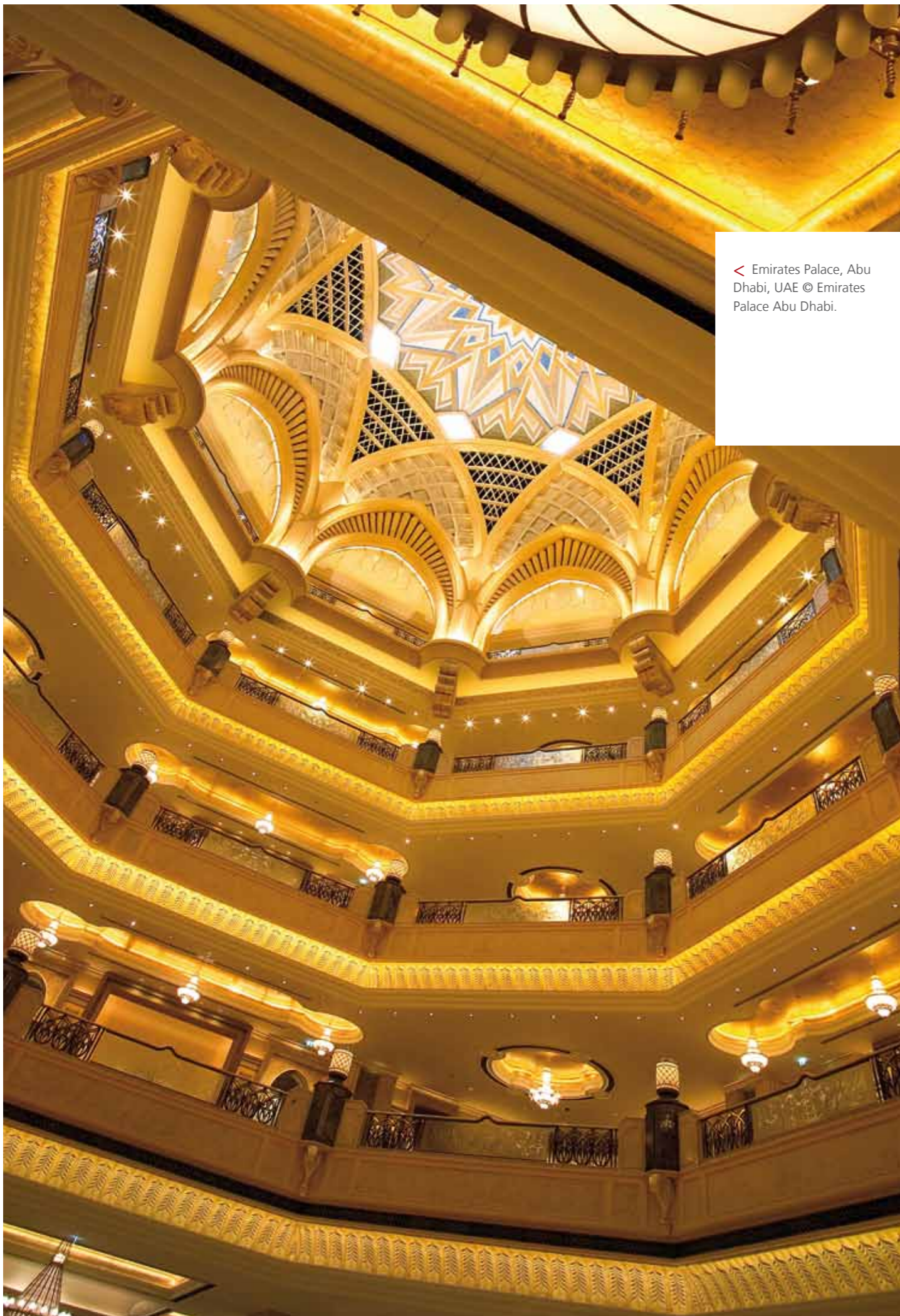
[www.pct.ae](http://www.pct.ae)



FRONT COVER: Installation of Dokkae Tower Clock Face © Premier Composite Technologies, Dubai UAE  
BACK COVER: Composite tower cladding © Premier Composite Technologies, Dubai UAE

Premier Composite Technologies for Architecture





← Emirates Palace, Abu Dhabi, UAE © Emirates Palace Abu Dhabi.



Emirates Palace, Abu Dhabi, UAE © Emirates Palace Abu Dhabi



Medina Haram Piazza shading project, Medina



Prophets Mosque, 27 Sliding Domes, Medina



Dokaee Tower, Mecca, KSA, by Day by Night

**Premier Composite Technologies ... The premier choice for advanced composite solutions.**

Premier Composite Technologies is a global supplier and manufacturer of advanced composite components for the Architectural Design and Boatbuilding markets.

Founded by MD Hannes Waimer in 2006, with over twenty years experience of constructing advanced composite components, the internationally renowned composite solutions company based in Dubai, UAE, is ideally positioned to serve a truly global customer base.

Premier Composite Technologies offers unrivalled expertise in Advanced Composites Construction. Over the past 20 years, the team has undertaken the construction of a large number of projects covering a wide range of complex composite structures. Of these, 11 were high profile architectural design projects including the 35,000m<sup>2</sup> composite tower cladding and clock faces for Saudi Arabia's "Dokaee Clock Tower" - the largest clock in the world.

The following range of other projects each have one common theme, they are all realised by using the latest advanced materials, structural engineering and processing techniques:

- 27 sliding domes up to 18m diameter, Prophets Mosque
- Guek Tepe Mosque, Turkmenistan
- 5 domes up to 26m diameter, Prime Minister Office Putrajaya
- 5 domes up to 38.2m diameter, Putra Mosque, Putrajaya
- 20 outer domes up to 31.2m diameter, 17 Inner Domes Wilayah Mosque, KL, Malaysia
- 11 outer domes up to 13.5m, 11 inner domes, Al-Bukhary Mosque, Alor Setar, Malaysia

- 5 outer domes up to 32m diameter, 1 inner dome, Palace of Justice, Putrajaya, Malaysia
- 118 outer domes up to 42m diameter, 3 inner domes, Emirates Palace, Abu Dhabi
- 250 composite cladding for Umbrellas, Medina Haram Piazza
- 200m upper tower cladding for biggest clock in the world, Dokaee Tower, Mecca, KSA.

**Why Premier Composites...?**

Composite materials offer a range of properties and advantages in construction which are impossible to match with traditional materials. These include:

- New aesthetic possibilities and an ability to mould complex, fluid and creative forms
- The ability to integrate special surface finishes and effects
- Hugely significant savings in weight - usually up to 15%
- Superior durability with reduced through life costs and less degradation
- Rapid installation saving time and cost on site.

The successful creation of large, high quality, epoxy composite structures requires specialist knowledge of structural design, materials technology, engineering and processing. Premier Composite Technologies is in the unique position of possessing all of these disciplines in their one design centre in Dubai Investment Park.

The team consists of just under 500 people and is made up of Architects, Design Engineers, Chemists, Account Managers, Quality Assurance, Purchasing, Marketing and production staff.

Together they allow the designer to build their concept from start to finish, on time and to budget.

**Expanding Facilities**

Phenomenal market growth has meant that Premier Composite Technologies has expanded its facilities in Dubai Investment Park to 229,000ft<sup>2</sup>. There are designated zones for production, assembly and carpentry as well as metal and tiling workshops. This integrated facility also includes:

- The largest (28m) 5-axis, CNC milling machine in the UAE
- High performance CAD/CAM systems for precision tooling
- 3 Axis milling machine
- Waterjet cutting machine
- CNC cutting table, ovens and spray booth.

**Case Studies**

**27 Sliding Domes for the Prophet's Holy Mosque in Medina**

Innovative techniques were developed for the production of 27 sliding domes for the Prophet's Holy Mosque in Medina. The lightweight composite domes provide a mobile roof to the internal courtyards, sliding open and closed to counter-act extreme temperature changes and control and support the air-conditioned environment of the mosque.

The domes are made from a sandwich of glass fibre and epoxy resin composite with a thermoplastic foam core. This material is strong, durable and extremely lightweight with as little as 10-15% of the weight of an equivalent dome built in concrete. Low thermal expansion means there are no shrinkage problems and edge flanges give them stiffness for a bolted panel-to-panel connection. The richly decorated interior domes are fabricated in maple wood veneer and western red cedar.

**The largest clock in the world - Dokaee Tower, Mecca, KSA**

As the leading supplier of large, composite components Premier Composite Technologies was the ideal partner to take on the challenge of building the upper cladding and the clock faces for the largest clock tower in the world that will be installed in Mecca throughout 2010.

The clock tower is an incredible 590 metres in height. Premier Composite Technologies will supply the uppermost 200 metres of the tower, a project that involves 35,000m<sup>2</sup> of cladding made from glass fibre composites. Premier Composite Technologies will also laminate the Epoxy glassfibre foam sandwich clock faces that each measure 43m diameter. The massive clock hands, measuring 23m in length, will be produced from carbon fibre prepegs.

The Dokaee Tower will be covered in Italian mosaic tiles, 13,000 of which are made from real gold. 700,000 LED lights will also be integrated into the composite cladding to light up the clock face by night. To date, Premier Composite Technologies has dedicated over 40,000 square feet of their recently expanded facilities to the tiling and LED works for the tower.



Composite component with gold tiling and integrated LED lighting.