

Press release

Waldachtal, 27.10.2017



fischer fixing systems in the Louvre Abu Dhabi

## Anchor put in place for a new cultural landmark

**Art and culture from every country, era and category combined under one roof – this is the aim of the Louvre Abu Dhabi on Saadiyat Island. The emirate erected an architectural masterpiece for this purpose, with its charisma reaching beyond continental borders. fischer fixing systems were used for MEP applications (Seismic and Thermal expansion/contraction supports).**

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Corporate Communications

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Saadiyat Island is creating new resources in Abu Dhabi. The construction and beach surface is comprised of approximately 27 square kilometres, and was created through earth deposits around a natural sand core in the mangrove zone. The area is used for residential buildings, hotel complexes, retail and educational facilities as well as venues and attractions for residents and tourists.

The emerging cultural district is garnering considerable public attention. Multiple architectural milestones are in planning, including a new Guggenheim Museum by Frank O. Gehry, as well as other cultural buildings designed by Norman Foster, Zaha Hadid and Tadao Ando. The Louvre Abu Dhabi has already been completed under the direction of the French architect Jean Nouvel. The construction consists of 55 cubes which appear to be a town floating on water when seen from afar, thanks to integrated water surfaces. The dome flooded in light is a dominating and combining element, with a diameter

of 180 metres. 8,000 stars of various sizes and angles are “woven” into the steel construction, stacked on top of each other in eight layers. By daylight, the roof creates a “rain of light” in the exhibition rooms. At night, the artificial light shines outwards in reverse towards the starry sky.

The building comprises approximately 24,000 square metres. The museum’s construction was approved by the French parliament on the 9<sup>th</sup> October 2007. It will be opening on 11<sup>th</sup> November 2017, where it will be exhibiting its own collection in temporary exhibitions spanning from ancient history to the present with 300 items on loan from 13 of France’s leading museums.

DRAKE and Scull International PJSC and Habtoor Leighton Speacon (HLS) were responsible for the facilities’ mechanical, electrical and plumbing and HVAC (heating, ventilation, air conditioning) installations. The companies created a joint venture called DSI-HLSpeacon JV. The experts opted for fischer fixings in order to safely attach power lines and pipes for plumbing and HVAC facilities.

This included in particular the internally threaded anchor EA, the fixpoint saddle and clamp FFPK and FFPS, the bolt anchor FAZ II, the highbond-system FHB II, Epoxy Mortar FIS EM, FUS type installation channels, construction and connection elements FAF and FFF1, the construction element FUF 180°, the connector FCN Clix P, the saddle flange SF L as well as threaded rods, nuts and washers.

The fischer FZE (fischer Fixings Middle East) sales and technical team were in constant contact with the client’s engineers and purchasers to provide advice and deliveries. Numerous extraction tests and training sessions were carried

out. The fischer application technicians also implemented earthquake simulations and stress analyses. “To a large extent, the DSI-HLSpeacon engineers required tests on deformation behaviour and seismic tests on the mounts within a very short space of time”, explained Jayanta Mukherjee, Managing Director at fischer FZE. “Our team succeeded in carrying out over 150 cases of earthquake and stress analyses in approximately four months”. The technical foundations for a special architectural experience as well as an art and culture venue were therefore successfully created.

### **Construction table**

Architects: Ateliers Jean Nouvel, Paris

Executing architects: HW architecture, Paris

Client: Tourism Development & Investment Company, Abu Dhabi

Structural framework planning: BuroHappold Engineering, Bath

Structural framework planners steel construction execution: Waagner Biro, Vienna

Construction company: Joint venture between Arabtec, Sanjose Constructora and Oger Abu Dhabi LLC under direction of Arabtec, Dubai

Mechanical, electrical and plumbing installations: Joint venture between Drake and Scull International PJSC, Dubai, and Habtoor Leighton Speacon (HLS), Dubai

Image captions:

### **Image 1**

Firmly built on sand: The Louvre Abu Dhabi appears like a mirage in the desert. Engineering skill gives the architecture adhesion and stability.

© Louvre Abu Dhabi, Photography: Mohamed Somji

### Image 2

During the day the light-flooded dome of the Louvre Abu Dhabi causes sharp shadows as under palm trees and interesting light effects in the exhibition rooms.

Image: © Louvre Abu Dhabi, Photography: Mohamed Somji

### Image 3

Museum full of energy: the media conduits in the Louvre Abu Dhabi were safely and firmly installed using fischer heavy duty anchors and installation systems.

Image: fischer

### Image 4

High tech meets highlight: modern facilities enable the supply of light, water, heat and much more in the Louvre Abu Dhabi. The media conduits were attached with fischer systems.

Image: fischer

### Image 5

fischer fixing systems such as the FUS rails and many others were used for MEP applications, e.g. the water supply and drainage.

Image: fischer

## **The fischer group of companies**

The fischer group of companies, headquartered in Waldachtal in Germany's Northern Black Forest, generated sales of 755 million Euros in 2016 with a worldwide staff of 4,600 employees. The family-owned enterprise operates 46 of its companies in 34 countries and exports to more than 100 countries. It includes the five divisions: fischer fixing systems, fischer automotive systems, fischertechnik, fischer consulting and LNT Automation.

fischer fixing systems is the technological market leader in important areas of fixing technology. fischer offers products that deliver technical perfection to a wide range of customers, from do-it-yourselfers to craftsmen to key account partners.

fischer automotive systems manufactures high-quality parts for car interiors. The company is highly competent in the plastics processing segment and is an important partner for the automotive industry. fischer automotive systems produces air vents, cup holders, trays and multi-function components.

fischertechnik is active both in the construction kit and in the educational toy sector. As one of the last toy makers, fischertechnik develops and produces exclusively in Germany.

fischer consulting evolved from the competence and skills developed in the company itself, among these the fischer ProcessSystem with its central aim of permanent and continuous improvement for the ultimate benefit of the customer. fischer consulting advises small and medium-sized businesses, government agencies and major companies on their way towards lean and efficient processes.

LNT Automation develops and manufactures custom electronic solutions. The company also develops, produces and distributes custom and capacitive touch systems such as multi-touch solutions made of glass and the corresponding controller units. All electronics are manufactured in-house.

[www.fischer.group](http://www.fischer.group)

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