

# KAPSARC

Riyadh, Saudi Arabia

# The cellular structure of crystalline forms from the desert landscape

**A completely tailor-made solution for the cleaning and maintenance.**

Client: Saudi Aramco

The King Abdullah Petroleum Studies and Research Center (KAPSARC) is a premier, globally recognized center for energy and environmental research and policy studies. At KAPSARC, multinational experts will engage in in-house, independent research in the areas of energy, environment, economics, markets, technology, and policy and also promote collaborative research and studies with centers around the world. It has been designed by renowned architect Zaha Hadid to integrate with the environment and to minimize energy and water consumption.

## Scope

The aim of this work was the design, production, delivery on site, inspection and certification of the entire mansafe system and associated ladders, steps and platforms which are required for the complex roofs shapes of the following buildings: Research Center, Library, Musalla, IT Center and Conference Centers. The models, drawings and access strategy were established by the FBA/Fallprotec project team, client Saudi Aramco and its representatives.

## Strategy

Due to the high temperature and sand impact it was necessary to give particular attention to the weather requirements.



Cradle suspended from SafeAccess rail.

The hot and dry atmosphere combined with the industrial air pollution have been considered by the architect, consultants and FBA Gomyl/Fallprotec for the complete access system design and materials selection.

To reach the roofs of the whole complex it was necessary for the installation of walkways, platforms and ladders equipped with lifelines and fall arrest systems in aluminium and stainless steel to avoid corrosion. Negative aesthetic impact related to corrosion was not acceptable in this massive project. The complex has several courtyards in which SafeAccess rails have been installed for the suspension of motorized cradles.



Maintenance of courtyards: SafeAccess monorail for cradle suspension.

Cable lifeline type SecuRope

Approximately 5.000m installed over special posts

Wide range of platforms, SafeLadders and step ladders

Approximately 3.000m, made in aluminium

Safe access equipment type SafeAccess

12 climbing monorail systems with active chain drive system and powered trolleys

Cradles for cleaning and maintenance of courtyards facades

12 powered cradles with traction hoists