



# FRAMECAD™

UNITED ARAB EMIRATES

## Steel frame is the way of future for UAE portable buildings giant

As a leading supplier of prefabricated buildings in the United Arab Emirates, Spacemaker recognised the need to future-proof their operation by transitioning to a steel frame construction system.

### BACKGROUND

Established in 1990 and based in Dubai, Spacemaker manufactures and transports a wide range of prefabricated buildings. Over the years, the company has built a solid reputation for quality products at competitive prices.

Operating from a modern, fully equipped factory in the Al Quoz industrial area, Spacemaker has a fully trained workforce of 368 people. Until 18 months ago, all the buildings produced at the factory were made with timber framing.

“Frankly, there were no particular problems with timber framing in terms of the structural integrity of the buildings, but there’s quite a lot of problem with perception”, says Graeme Clack, Group Chief Executive of Byrne Investments, Spacemaker’s parent company.

“Just about everything in this part of the world is predominately concrete – even very cheap buildings. When we’re offering buildings for temporary site offices, our traditional product is fine. But with more permanent buildings, timber framing was a real issue. We needed to move forward with steel frame technology.”

Graeme Clack also says that local municipalities are getting very concerned with fire ratings – another good reason to start making buildings with steel structures.

### SOLUTION

Intending to evolve into steel frame construction, then gradually phase out timber framing, Spacemaker dipped a toe in the water with one of FRAMECAD’s low volume turnkey factory solutions for commercial construction. Later, they added a second higher volume manufacturing plant upgrading the operation to a mid volume turnkey factory solution to expand the types of steel frame buildings Spacemaker can offer.

“Building with steel framing gives us much more credibility. When you’re competing with low - end operators it’s important to have a point of differentiation that’s linked to quality. With FRAMECAD, our customers have the reassurance of an engineered product.”



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## USER EXPERIENCE

Spacemaker are currently using the FRAMECAD steel frame system to build portacabins, large span roofing systems, multi-storey office buildings, labour accommodation blocks and service blocks.

Graeme Clack says that apart from enhancing the company's credibility in the market, steel framing is a real time saver.

"As the steel comes off the FrameMaster machine we can start putting it together straight away. With timber, our team have to go through our raw material stocks, draw the timber, measure it and cut it. It takes time to do that, and obviously there's wastage."

For Spacemaker, another positive attribute of steel framing is its ability to provide structural support with a minimum number of components – a factor that gives designers more scope for improving the aesthetics of prefabricated buildings. This benefit is contributing to the company's competitive advantage and is helping them to win new contracts.

In conclusion, Graeme says that effective change management procedures are important for companies intending to evolve from timber framing to steel framing.

"Our change-over is on-going, and it will be for some time. The biggest issue for us really is the confidence of our operators and supervisors. They were dyed-in-the-wool users of timber, but we're winning them over with the support and guidance of the FRAMECAD team. We're aiming for total steel frame production which we would expect to achieve in early 2009."

## PRODUCT SUMMARY

- FRAMECAD ProDesign is recognized as a world-leading design detailing and engineering software package for walls, trusses and sub-floors. It incorporates structural analysis and engineering for a wide variety of environmental conditions. Designs are optimised for the best use of material while remaining structurally sound.
- FRAMECAD™ Detailer is a versatile detailing package with world-leading design flexibility that makes it easy to adhere to local building codes, standards and practices. The detailed framing plans produced by this application are transferred directly to the Steel FrameMaster manufacturing equipment.
- The FRAMECAD manufacturing plant optimised to automatically produce roof, wall and floor frames using a powerful combination of FRAMECAD Detailer and FRAMECAD ProDesign Engineering software. Every output is accurately formed, cut, punched, dimpled and individually labelled, ready for screw-together assembly.
- FRAMECAD turnkey factory deployments provide fully integrated, cold-formed steel manufacturing operations for customers who need to quickly increase production, commission a factory at a new site or move away from traditional building systems. Spacemaker's transition to a medium volume commercial turnkey solution is a combination of various FrameMaster manufacturing plants, integrated software, supply chain and services delivering a sure path to consistent, high-quality productivity that will continue to grow with their production requirements.
- FRAMECAD's turnkey factories harness steel frame expertise and technology that's unrivalled in the world, taking care of all components of a steel frame manufacturing operation - planning, delivery, implementation, day-to-day management advice and ongoing support.



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