

# Modular design & offsite manufacture

A recent £120M pharmaceutical installation, was technically demanding and one of the key drivers for the project was speed of delivery. The potential of offsite manufacture and modular construction were recognised early in the project, with opportunities being identified and evaluated. They were then developed through concept and detailed design through to installation on site.

## Key Opportunities

To attain the fast paced schedule required to deliver the project, the plant desk service pipework was identified to be integrated, modularised and prefabricated offsite. This resulted in the design of 9 modules each weighing up to 5 tonnes.

## Key Points

- Improved safety performance – reduction in hours working at height and risk levels, as construction was offsite at ground level.
- Speed of construction – module fabrication and shell construction ran in parallel (22 weeks from breaking ground to module install – highly serviced 5400m<sup>2</sup> building) delivering and estimated saving of 1 month against the overall schedule.
- Reduced on site workforce – less on site resource required = lower on site welfare and provision costs.
- Enables additional work faces – the fast paced module installation freed up on the area below to allow early access to additional work faces.
- Accelerated design.



*Module delivery and installation*