Jones Engineering talk MODUL AR SOLUTIONS

here are challenging times ahead in the Construction Industry. The Covid-19 pandemic is changing the way we all work. Jones Engineering believe

productivity and innovation need to be a huge focus, making the Irish construction industry the most productive, highest quality, safest and competitive in Europe and beyond.

One of the ways Jones is looking to the future of productivity is with the movement of the construction process away from the physical site into controlled manufacturing and

assembly environments by providing modular and off site construction solutions.

With the backdrop of increasing demand for Life Science, Data Centre and Microelectronic manufacturing campuses - the timescale between Basis of Design (BOD) to Facility Ready (FR) is under increasing pressure to reduce.

Jones Engineering, in an effort to increase efficiency and predictability, improve safety, minimise the level of disruption to site, client and the environment, and reduce the

time frame of BOD to FR, have invested heavily in the past number of years, in not just leaner ways of working but in challenging how the Engineering and Construction sector approaches the delivery of projects. These efforts have culminated in the launch of a new division Jones Engineering Manufacturing Ltd. in 2019.

Jones

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Jones Engineering Manufacturing is based in a recently constructed 9,000m2 centre of Design for Manufacturing & Assembly (DfMA) excellence. This state of the art facility brings their core competencies Their multidiscipline team, having a core understanding of traditional stick-build construction, have delivered on several "Product Modules" for clients based on the simple ideal of "plug and play"; whereby they have taken a Client BOD to fully tested and commissioned CE Marked products ready for site infrastructure integration.

The journey from BOD to CE Marked Product progresses in parallel with the Client and A/E (Architectural / Engineering) Teams, striving for the design to be 100% complete prior to any physical manufacture or assembly. This ensures the end product is fit for purpose with the end user (Operations) always in mind. This collaborative and open approach has allowed Jones Engineering to transform how it delivers on projects providing for: improved design compliance, improved quality control, upfront efficient design processes and reduced manufacturing, assembly, integration (site) and operational risks. This results in improved predictable costs and allows for off-site commissioning



in Mechanical, Electrical & Instrumentation and Fire Protection and the added competencies of Civil, Structural & Architectural under one roof. This allows their teams to design, manufacture, install and deliver modules from small to large scale projects.

and testing along the way while focussing on the speed of delivery of the overall project.

Using fast track modular design processes also takes a large percentage of the project work off-site which improves site congestion.

This is of even more importance now due to the current Covid-19 pandemic. Reducing the number of people on site at any one time increases the safety of everyone. It is possible to provide clients with "Speed for Delivery" while prioritising safety when we look to innovative solutions such as this.



Jim Curley CEO, Jones Engineering

"The modular building industry is replacing traditional construction particularly in large scale developments. In a sector that is often accused of being inefficient and lacking in innovation, this is an innovative solution to achieving more sustainable construction. We design and manufacture on site and then ship completed modular or prefabricated units to the construction site. We are currently exporting to mainland Europe and we expect the market to continue to grow." says Jim Curley CEO, Jones Engineering.

This solution has been working well for their current clients. They have successfully transported cooling modules to Holland, Belgium, Finland and Denmark. The average size of each component was 19m long by 4.2m wide by 4m high which has involved detailed planning and cooperation between the Jones logistics teams and the authorities involved including permit applications etc. It has proved so successful they will be focusing on extending this solution on additional global sites in the future.

Building Information Modelling (BIM) / Digital engineering is also critical to prefabrication and modular construction. It enables integrated







architecture and engineering workflows. It supports the concept of repeatable designs which enables optimisation of a design across the feasibility study and conceptual engineering. Jones have been leading the way in BIM for over 15 years now. Unrivalled experts with a proven trackrecord they apply specific design solutions and value engineering based on project scope, relevant challenges and exact end user requirements ensuring a risk free programme for both the client and design team.

Jones are accredited to BSI BIM Level 2 as well as the KitemarkTM for PAS 1192-2:2013 and have been recognised with a number of industry awards over the years. They credit these achievements to the fact they constantly evaluate different BIM software versions, system applications and advancements in construction methods in order to offer the best and most optimum solutions to deliver specific projects based on Clients requirements. The Jones BIM Team utilise the latest BIM modelling techniques incorporating new self-established BIM initiatives to overcome previous challenges successfully.

Jones Engineering currently employ over 4,000 people working throughout Ireland, Europe and the Middle East in 14 different countries. They have an annual training budget of over €2million and encourage all of their employees to attend internal and external training courses on a regular basis. A list of current vacancies can be viewed on their website joneseng.com.

Over the last five years Jones Engineering teams have successfully completed almost €2billion worth of projects ranging from the Medical, Life Science, Building Services, Industrial, Semi-Conductor, Data Centre and Power and Energy Sectors, almost half of which was overseas.



Built on a history of innovation

Improve productivity, programme and site congestion. Our modular manufacturing expertise allows us to design, manufacture and install modules on projects of any size, delivering a plug and play solution.



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Electrical | Fire Protection