

PUTTING THE SCREWS ON COMPLIANCE: Factory-fixed screws shift responsibility from builders' shoulders

Pryda engineer Bernard Kennelly examines the tricky business of screws and, in the age of panelisation and modularisation, the advantages of factory-fixed screws over site-fixed screws.

Industry has cottoned on to the advantages of using screws over traditional stud ties to secure frames. Screws make stronger connections and they get the job done faster.

But is there a builder alive who enjoys spending the day finding the correct bit or driving screws? Didn't think so. Of course, there's always an apprentice or subbie who can be handed the short straw. "Just make sure nothing pokes out the other side and she'll be right". So much for structural integrity and compliance.

As manufacturing technology systemises ever bigger chunks of building design and assembly, factory machines are shouldering more of the work typically done on the building site. Truss and frame assembly is a good example, with factories providing the controlled environment and software-driven processes to manufacture building components within millimetre margins specified by engineers and designers.

More than simply churning out consistently accurate pre-assembled frame components, the shift to manufacturing-led construction is cost-efficient, takes care of compliance, and lessens the load on builders, who can build faster when components are delivered ready-to-go on site.

However, when connections between frame components are as critical to overall structural integrity as frame components themselves, a similar level of precision should apply to the job of securing frames and trusses.



On this front, factory processes also provide the answer, ensuring the right screw goes in the right place, every time, at every connection point. Pryda offers truss and frame manufacturers a factory-fixed screw for the job.

And yet plenty of site fixing goes on, which raises questions about compliance and integrity. Because there are no guarantees unless every connection between frame components is completed according to design requirements – something machines and factory processes do particularly well.

When frames are secured onsite, builders must consider factors likely to impact accuracy, such as skills of the installer, working at height, and handling multiple building components simultaneously. And when the job's done, who's going to check that every screw is fixed in the correct position? Was the right screw used even? And does everything align within design tolerances?

There's an awful lot to think about, never mind the time and hassle to ensure each connection is up to standard. Factory-fixed screws are the best way forward – an altogether faster, smarter way to build high-integrity structures.

