

Press Release

They reign in panes



The glass canopy for Yurakucho underground station in Tokyo, Japan.

When the big players in glass shy away from a cutting edge project, engineers can find a champion in a small family firm in Essex. By Thomas Lane - published in the October 2001 issue of Building

Yurakucho canopy in Tokyo redefined the boundaries of glass technology. The longest cantilevered all-glass structure ever built, it shelters the entrance to the Yurakucho underground station. Such a cutting edge project surely called for the skills and expertise of a major glass manufacturer, yet the Japanese giant Asahi Glass said it couldn't be done.

Rather than giving up the idea, engineer Dewhurst Macfarlane approached a small company called Firman Glass based in Romford, Essex. This family-run business turned out to be the only company with the skills and the can-do attitude that was prepared to take the project on.

"They are prepared to try things, they are flexible and don't say 'that's not in the book'," enthuses Stephen Bandy at Dewhurst Macfarlane. "They will tackle the unusual in a positive way, particularly the stuff we do which is pretty cutting edge."

Despite its small size, the company offers all the skills and expertise needed for glass processing and installation. "We are the knights of the square table," quips sales director Jody Hodgson.

He is sitting at a big, square glass table with the other "knights": his father John, the managing director, his father's business partner, Mark Leddra, who is the operations director and John Cook, who handles sales processing. They are busily answering phones, taking orders,

dispensing advice and barking instructions to staff working in other parts of the large lime green room. The glass table is the nerve centre of the whole operation.

Firman Glass offers a unique product. It takes a plain sheet of glass and shapes it, curves it and toughens it, making anything from a simple toughened glass door to a major piece of structural glasswork.

About 70% of its work is for the commercial sector and 30% domestic. Typical projects include shop front glazing complete with glass doors, structural glass conservatories for the wealthy, glass tread staircases and cantilevered structural glass balustrades.

Firman also does a lot of work for other glass companies, particularly toughening glass for small local suppliers.

John Hodgson set up the company in 1975 as a 24hr. replacement glazing contractor and it gradually evolved into a specialist glass company.

Ten people work in the office, including two draughtsmen, and 17 people every shift work in the glass and metal fabrication workshops - this is a 24-hours-a-day, six-days-a-week operation. The rest of the staff work in the field installing the finished product - Firman refuses to employ subcontractors so that it can keep tabs on things.

This broad spread of skills on tap enables Firman to offer a complete service, from design to manufacture to final installation.

The groundbreaking Yurakucho canopy was one of the company's toughest assignments. Dewhurst Macfarlane turned to Firman Glass because it was the only company in the UK at the time that had the computer-numerically-controlled glass cutting and polishing machine, capable of producing glass to the tight tolerances required. However, Firman didn't have any glass-toughening equipment and had to get another company to carry out that part of the operation.

John Hodgson says that despite sophisticated computer control, glass toughening is still a bit of a black art and requires a great understanding of the process if the glass is to come out intact.

"We cut the glass to size and engineered it to shape," he recalls. "Eight hours of work went into each piece; we then had to watch it explode in someone else's plant. We must have made the job twice." Despite these setbacks they got the job done.

Even though Firman Glass will tackle almost anything, it is important to the Hodgsons that they offer a quality service. To this end they are keen to maintain the company at its present size so they can deliver what they promise to the customer. John says, "This is why we have decided not to get any bigger - to maintain the equilibrium."

Jody echoes this customer-led philosophy, explaining, "We would like to think we try; we charge a tad more, but we jump a bit higher, and we would hope we try to please our customers."

This means the knights sometimes have to rise from their table to do what it takes to deliver on their promises.

"The four of us will do anything and everything. It's not sensible for the managing director to drive a van 50 miles to pick up a piece of glass, but to make things happen it's the only way," John says.

In the factory, everyone is hard at work putting this philosophy into practice. A CNC-polishing machine is busily buffing the edges of a small piece of 19mm glass. It is for glass manufacturing giant, Pilkington.

There is also a metal workshop where bespoke brackets to hang the glass can be made if nothing suitable is available off the shelf. Other metal items, including handrails, are created to go with glass balustrades.

Getting the staff with the right level of skill to do this challenging work can be difficult. John prefers to train people from scratch, as other glass companies have different working practices that might not suit his approach.

Poaching of skilled staff can be a problem. John believes not much can be done about this except to treat people fairly. "We try not to poach people, so we can be angry when they poach from us," he admits cheerfully.

The company is prepared to invest heavily in new equipment to improve its service. It recently bought a water-jet cutting machine which can cut through steel up to 100 mm thick with great accuracy, equipping Firman with a facility it couldn't offer before. John is about to invest another £1m in a new machine that can bend and toughen glass in one operation rather than separately and with less optical distortion.

This confident investment strategy has been tempered a little by recent world events and the possibility of a recession, though John concedes, "We have never known a recession; the only recession is when we don't get paid."

It is hard to plan ahead. Glass is a fast-moving business, being one of the last things to go into a building and the last thing ordered. Staff at Firman often don't even know what they will be making in two weeks time. John admits to feeling a little concerned about what the future holds. He is clearly worried about whether it is wise to be spending so much money on a new machine at this unpredictable time.

But given the flexibility and positive attitude of the knights of the square table, it is more than likely they will see this as an opportunity rather than a threat and turn events to their advantage.