



Fred Turner

Managing Director, Flood Technologies Ltd



PROFESSIONAL PROFILE

Fred Turner is an accomplished patternmaker, inventor, manufacturer and businessman.

In 2001, Fred manufactured and bought to market his own invention; a patented range of demountable aluminium flood barrier systems, designed specifically for residential and commercial property level protection. Earlier than most, and from his Coventry factory, he recognised there was going to be a growing challenge with property flooding. Back then, many told him: "Flooding? That'll never happen!" which has always stuck in his mind. The rest, as they say, is history!

With a strong insight, coupled with his engineering prowess and great determination, he persisted against all the odds, both technically and commercially, to successfully create his flood barrier systems. They have now sold right across the UK and internationally, including being installed inside one of the UK's highest security buildings in London. This success has enabled him to create a prosperous 'Made in Britain' business venture that continues to manufacturer outstanding world-class products within the flood mitigation industry, worldwide.

Being synonymously linked with his market leading products, which are affectionately known in the industry as 'Fred's barriers', has made him a highly-respected engineer in the field of flood defence technologies, where he was honoured to receive The Manufacturer Top 100 2016 Award for his outstanding contribution to UK manufacturing.

Having left school with no real qualifications, Fred began his working life when his Careers Officer suggested Patternmaking. Back then, Coventry had 100s of small patternmaking firms, so having attended his first interview he joining Patternmakers Coventry Ltd. This was the start of his real passion for engineering, saying: "It soon struck me that this was the right thing to be doing!" He spent the next five years as an apprentice, enthusiastically studying his newly found craft, by learning from the skilled patternmakers on the shop floor, while attending The Butts Technical College, Coventry, on day-realise.

He further refined his craftsmanship by creating intricate patterns for such prestigious customers as Jaguar, Triumph, Alfred Herbert, and the like, achieving his Part 1 City & Guilds certificate in patternmaking craft studies in 1975 and then completing Part 2 in 1977, both with merits. As patternmaking was a highly-respected profession in Coventry, in April 1979, Fred was honoured, by the Lord Mayor, and became a Freeman of the City of Coventry, which he's still immensely proud of today.

By the late 1970's the patternmaking industry started to decline, so in the early 1980s recession, Patternmakers Coventry folded with Fred quickly joining another local firm T.W. Patterns where, after a few months, he was asked to take on an unofficial commercial role with more responsibilities; running the shop floor, estimating, quoting and learning all about the business side of the trade. This is where he met fellow engineer, Dave Underhill, who'd later become his business partner.

Two years on, ambitious, and having handled all his new responsibilities successfully well, someone suggested: "Why don't you set-up in business on your own?" So, in 1987, having invited his former work colleague to join him, Fred began his inspirational and extraordinary journey towards his own business success.

With the support of their respective families, along with an overdraft from the local bank manager, Fred and Dave Underhill launched Precise Pattern & Die Co. Ltd. With no customers, no machines, and no factory, they felt the fear and did it anyway! What made it even more exciting for Fred was that he managed to persuade his former apprenticeship boss and mentor, Bernard Church, to join the new firm.

Fred had never forgotten the values of his patternmaking roots, the experienced tradesmen who taught him, and the formidable Bernard, who sternly taught him about the



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importance of quality and innovation, which Bernard, in turn, had learnt when working alongside Sir Frank Whittle, Coventry's famous inventor of the World's first jet engine.

At the time, Fred also had the privilege of spending time with his father-in-law, Ernie, who worked at the Dunlop Aviation Company developing the braking system for the great iconic supersonic airliner, Concorde.

It was an inspiration and delight for Fred to have known and learnt from two brilliant engineers that had been associated with such great feats of British engineering. These were the standards Fred aimed to adopt, which he still adheres to today with his family run business, Flood Technologies Ltd.

After a slow start, his new business began securing sub-contract work for some prestigious customers like Rolls-Royce Cars, Land Rover, Jaguar, Lotus, Ford Motor Co, and Perkins Engines. With a reputation that preceded them for inventive, accurate and quality work, their standing quickly grew, expanding into larger premises, and eventually employing nine patternmakers.

However, this continued until 1992, when recession hit once again and their largest customer, Bromsgrove Castings, saw their work declining and going overseas. To survive, Fred had to both reduce his headcount and reinvent his business. His diversification began by experimenting in-house with the idea of inventing a new kind of flood barrier system. His thoughts began to crystallise following a conversation with the Environment Agency's Project Manager for the Midlands, Roy Stokes, who told him no other manufacturer made such a barrier system in the UK. Having undertaken years of prototyping, tooling, testing, alpha then beta versions, in 2001 Fred began full production.

As an engineer, Fred believes he's been blessed with a special skill and talent. He's developed a rare ability to take a sample component and, in his head, and without the aid of a computer-generated isometric drawing, he can turn it inside out, sketch it and build the exact cavity needed to create it.

He believes patternmaking is the universal discipline to a deeper understanding of all things engineering as, besides 3D printing, which has really captured Fred's imagination, everything starts with a mould tool. All transportation has an engine, which starts from a mould. Whether metal or plastic, a tile or a brick, mould making plays a vital role, saying: "Even if you're making a cake, a jelly or a sandcastle, you still start with a mould".

He thinks he gets his innovative and creative streak from being practical and hands-on, saying: "Whatever I do, I give

it my all! Whether building models as a kid, doing pencil artwork or watercolour painting, arranging flower beds, or installing my own kitchens and bathrooms, I've always enjoyed being creative and bringing things to life."

Born in Cleethorpes in 1956, then moving shortly after to a remote countryside village near Binbrook, both in Lincolnshire, he enjoyed spending time in his Dad's garden workshop, plus hanging around with his friends on the surrounding rural farms where he took an interest in the old farm machinery and tractors. In 1964, aged 8, he then moved, along with his family, to Coventry.

He's also been a committed athlete, playing in school teams, participating in football, rugby, running and even playing football to a very high amateur level, before getting an injury that stopping him playing, aged 26, which coincidentally made way for his growing business commitments.

He's passionate about inspiring youngsters to get involved in engineering, with his greatest legacy being his two children, Vicky and Anthony, who are both in engineering. Vicky, an engineer at BMW cars, was the first female engineer to be employed at BMW's Warwickshire, Hams Hall, engine factory where she's now a CNC operator in their component machining facility. While Anthony joined the family firm early on, both making the flood barriers and now running the company's production. Fred's even inspired his 10-year-old grandson, Archie, to value engineering, who now enjoys visiting the old steam engine fairs, along with trips to the factory too.

More recently, Fred has invited University students to visit his facilities, where he shares all his manufacturing knowledge and expertise, using his own story as a shining example of the business opportunities, and possibilities, engineering can bring to youngsters' lives and careers.

His vehement belief is: "Despite the setbacks, if you've got that drive and ambition in you, you will be successful! Bringing the flood barrier systems to life and seeing them installed worldwide, especially seeing Flood Technologies develop from conception to what it is today, has been a dream come true!"

Patternmaking and manufacturing were Fred's pathway to starting his various business ventures. He feels his biggest achievements and contribution has been through starting out as a humble kid with no qualifications, flourishing on his wits, and building a series of marketable products and services that have led to a succession of successful and profitable business ventures.



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