

Patent Glazing, A History of

The patent glazing bar design originates from Victorian enterprise and ingenuity.

Patent Glazing is a generic term derived from early patents taken out to protect concepts of glazing bars having a drainage facility with dry glazing techniques. These early methods advanced the former putty glazed wood or iron bar methods, which required regular maintenance.

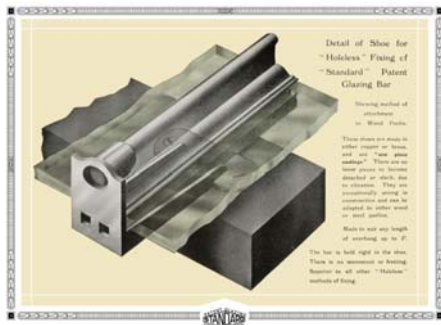
The Standard Patent Glazing Company has been manufacturing Patent Glazing Systems, Bars and Ancillaries for over 100 years.

When the company was founded in 1902, the recent innovation of Lead Covered Patent Glazing Bars had ensured a positive demand for the product. This was due mainly to the earlier success of re-glazing the Central Transept of the Crystal Palace with the new Patent Glazing bars.



Shortly after its incorporation, Standard Patent Glazing became a leading provider in patent glazing systems and roof-lights with offices and agents spread throughout the Empire.

For decades, the superior Lead Covered Patent Glazing Bar had proved to be King of all roof glazing systems. No other materials could offer such low maintenance and longevity at an affordable price.



Our original glazing bar

During WWII, the aluminium industry grew rapidly to provide the light metal needed for military aircraft. When the war ended, there was a large aluminium industry and a high demand for new building projects. The new technology from this industry enabled an alternative material to be offered for glazing bars. The extruded aluminium glazing bar was about to be conceived.

The arrival of the aluminium glazing bar in the 1950's was gradually accepted and adopted by all the major Patent Glazing Companies. With similar low maintenance, greatly reduced section weights and significantly lower manufacturing costs than its predecessor, the Aluminium Patent Glazing Bar was to see its share of the market increase year upon year.

By the late 1960's the Lead Covered Patent Glazing Bar's crown had been truly taken and aluminium was the new King.

Originally, the new aluminium sections were installed in their natural 'Mill Finish' state. This description applies to untreated aluminium surfaces. Due to environmental conditions, the original bright metallic appearance of aluminium becomes dull as the surface oxidizes and develops a roughened texture. To produce colour and also protect the metal from the oxidization process, 'finishing' was introduced in the 1960's.

Initially Stove Enamelling, followed by Nylon and Plastic Coatings were the forerunners of the 'finishing' market, none of which were completely successful.

The introduction of Anodizing, with its limited colour range followed by Polyester Powder Coating, with its vast colour choice, proved to be a winner in the next stage to Patent Glazing and other aluminium products.

Early attempts to Double Glaze Patent Glazing in the 1950's were carried out. By the standards of the time this method was deemed relatively successful. However, the double glazing units were constructed in-situ by the installers from loose glass and glazing components. Affected by the weather, site conditions and the skill of the labour, the reliability of this method could prove to be inconsistent.

With the exception of wired glasses many roofs were only glazed during this period with annealed (non-safety) glasses.

In the 1960's, factory made hermetically sealed double glazed units, manufactured in a controlled environment, provided a higher level of consistency. By the use of toughened and laminated layers of glass (in both single and double glazing), the safety aspect of the product was also enhanced and another step forward by the Patent Glazing industry was secured.

Further advances would follow in double glazing technology by the addition of High Specification, Solar Control and Low Emissivity glasses to the composition of the units.

Almost from the original introduction of the lead covered steel glazing bar, integral 'seatings' had been of asbestos cord

or rope (both dry condition and greased). This remained the medium upon which the glass was positioned, even with the early aluminium bars.

Due to the acknowledged health and safety issues and legislation, the asbestos seatings have been replaced by a progression of materials from plastic rod, butyl strip, PVC and neoprene, to the current EPDM gaskets.

The general awareness and mandatory requirements for improvements to insulation in buildings have been encompassed into the latest Patent Glazing Systems. Modern Patent Glazing bar profiles allow the inclusion of thermal breaks and enhancers, in order that they meet the rigorous standards employed by the other building products.

From quite humble origins the patent glazing bar has kept pace with the many demands made of it by today's Architects, Designers and Legislators.

Along with our involvement in many of today's high-profile glazing projects, we continue to produce the "HERITAGE" Lead Covered Patent Glazing Bar, in both a single and double glazed version. We still supply a once universal, but now unique, product, with - as its name implies - a 'proven heritage'.

