

# SUTCLIFFE SPEAKMAN

A WATERLINK COMPANY



*Celebrating a Century of History*

# *Introduction*

**T**he Sutcliffe Speakman Company has been involved in many businesses during its 100 year existence, but the core activities during the period have been its activated carbon

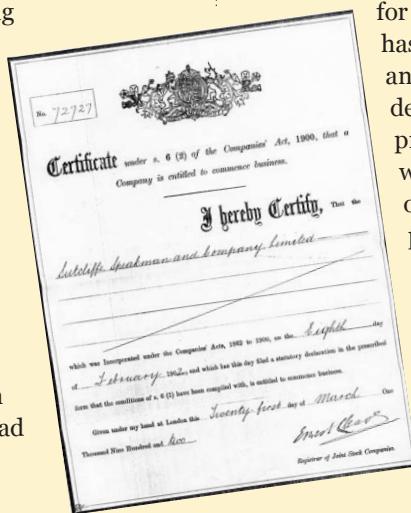
production and it's engineering based business. These activities were initially developed on the Leigh site, the home of Sutcliffe Speakman for the majority of the last century, and have evolved from straight forward brickmaking equipment and fairly simple activated charcoals to very complex engineering equipment and technically challenging carbon based materials to serve a broad range of customer needs.

The Company and its people have seen many ups and downs over the last century with many new opportunities for this long established business.

This booklet attempts to record the development of the Company and its carbon related business over the past 100 years, whilst highlighting all the other businesses with which the Company has been involved. The key element of any business is the people and through the words and pictures

that follow, we attempt to bring back the memories of some of these people and the places in which they worked.

I have been involved in this business for ten years now, a period which has seen more rapid change than any other. The company has delivered up continuous profitability over this time and as we enter the second century of our existence, we are in a good position to capitalise on research carried out over the last 10 years. We move forward with many new opportunities, some driven by environmental legislation and others from new products developed in areas where carbon is the new technology, such as the CellCarb range.



The future looks to be full of challenges and the current team are committed to taking this business forward and developing the Company from its Lancashire base at Ashton-in-Makerfield.

Allan Singleton

**Above:** Certificate of Incorporation (see centre spread).

# *Acknowledgments*

Mr A FLINT  
Mr L HUDSON, Leigh Town Hall  
Mr S PRESCOTT  
Mr P BENT

Mr R GASKELL  
Mrs B ASHCROFT  
Mr E MULLINS  
Mr H DOLPHIN

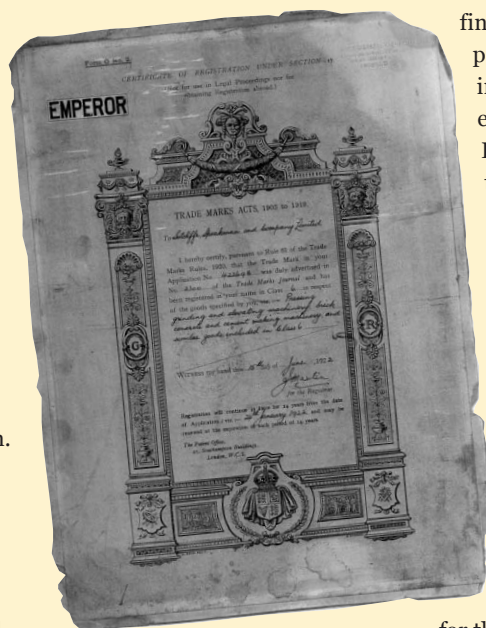
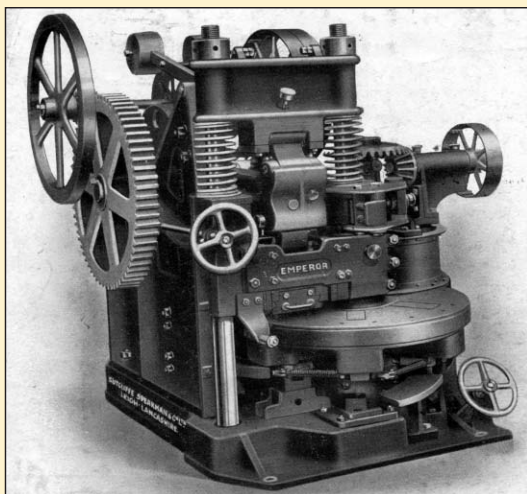
# *Carbon is the World's best friend*

In 2002 one of the world's renowned specialist activated carbon and engineering companies, Sutcliffe Speakman, celebrated its centenary

### ***The beginning***

From the early years of the twentieth century, Sutcliffe Speakman, was established in a factory in Leigh, Lancashire, United Kingdom. The factory was adjacent to George Shaw's brewery, and was later to incorporate the massive red brick brewery building itself, becoming the focal point for the design and production of Lancashire coal based activated carbons utilising the specialist plant and machinery designed by the Company. The activated carbons and specialised plant and equipment, which were originally manufactured for UK consumption, were later to be introduced to a wide range of industries and marketplaces throughout the world.

Edgar Rouse Sutcliffe founded Sutcliffe Speakman & Co Ltd., on the 8th February 1902. He was



financed by a group of prominent local industrialists, including two local mining engineers, namely Harry and Fred Speakman. This was in the era that King Edward succeeded Queen Victoria, the end of the Boer war was imminent and the first powered flight had yet to take place.

Sutcliffe was a young Yorkshire mining engineer and emerging entrepreneur. His first commercial venture was the manufacture of a high strength mechanical press, which was developed

for the briquetting of mineral ores,

prior to their introduction to the blast furnace. The briquetting process was essential, to prevent the ores burning-up in the furnace and being blown up the chimney together with the smoke. This development was to lead to the introduction of a purpose designed brick-making press, which Sutcliffe christened the 'Emperor'. This was followed by the introduction of a complete range of ancillary brick and tile making equipment and plant, which Sutcliffe licensed, from various overseas countries, including, amongst others, the USA. The design of each item of plant was personally reviewed by Sutcliffe and, where capable of improvement, modified such that it met his high specification and performance requirements.

The firm's first commercial office and factory premises were constructed on a plot of land, comprising some 7,845 square yards, on the western side of Guest Street, Leigh, Lancashire. The premises were leased for a period of 999 years, from the estate of the late John Speakman, at an annual

**Top centre:** Trade mark certificate (see centre spread).  
**Left:** Sutcliffe Speakman's early Emperor Brick Press.

## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

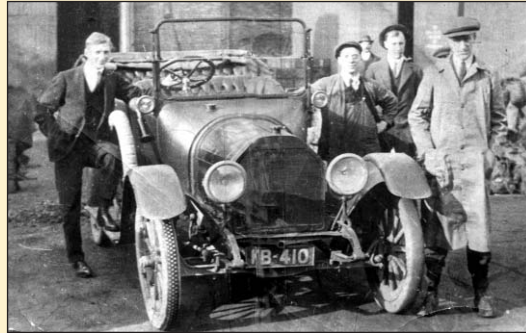
rent of £30. The eastern side of Guest Street was the location for a railway sidings and depot which was later to be used for the unloading of raw materials for the factory and for the loading and despatch of finished products to the cities of Great Britain and the major northern ports of Liverpool and Manchester, for onward shipment worldwide.

### ***The early years***

Lime sand bricks (Calcium Silicate) have been manufactured in Germany since 1894. Shortly after the formation of Sutcliffe Speakman Ltd, Sutcliffe decided to adopt the patent and started to source and introduce the necessary ancillary equipment, to compliment and to work together with the 'Emperor' press, into the Company's product range.

Worldwide, the building materials industry was already massive at that time, and it was continuing to increase at a rapid rate. Sutcliffe, the designer of the Emperor Brick Press, was also extremely enthusiastic and aggressive with the Company's sales activities, and within a few years Sutcliffe Speakman's brick-making plant and machinery was in use in Great Britain, the United States of America, India, New Zealand, the Sudan, France, Germany, Belgium and the Congo.

The 'Emperor Press' was special, as it was the only Rotary Table Press capable of equally pressing bricks from both the top and the bottom faces. Calcium Silicate bricks are made from a mixture of slaked lime and suitable sand. These materials, once properly prepared and thoroughly mixed, were pressed into bricks by one of Sutcliffe's machines and then cured in an autoclave in the presence of pressurised steam. Bricks manufactured by this process were considered superior, to the traditional clay bricks, due to their perfect shape and uniform size, offering a neater appearance, requiring less mortar for laying and only a single coat of plaster for the internal finishing. Whilst the bricks could be coloured any shade, in their natural state they resembled the significantly more expensive sandstone bricks. Although they were far cheaper to



manufacture, they were equally weather resisting and extremely attractive in the finished construction. Many prestigious buildings around the world were constructed from calcium silicate bricks whilst in America; these 'new' building products were selected as the prime material of construction for whole towns. This situation endured until the quality of concrete building products was developed and refined to the stage where they were economically more attractive.



### ***The Great War***

War broke out in 1914 and Britain herself declared war on Germany on August 4th 1914. This war was to last four long, hard years, during which time Sutcliffe Speakman certainly experienced the bad times yet, in a twist of irony, the war was to prove the Company's springboard for major opportunity.

During what was to become known as the First World War, permanent building works almost ceased and, as a result, the demand for construction materials all but vanished. This situation resulted in a dramatic reduction in the sales of brickmaking plants, leaving the Company struggling financially. In 1914, and in anticipation of this situation, employees salaries were almost halved, a step which the Board of Sutcliffe Speakman deemed necessary, if there was to be a future for the Company. However, things were

**Top right:** *Sutcliffe Speakman's first company car, circa 1917. JD Speakman is pictured far right.*

**Above right:** *USA Public building, built from lime & sand bricks, made by Emperor Brick press.*

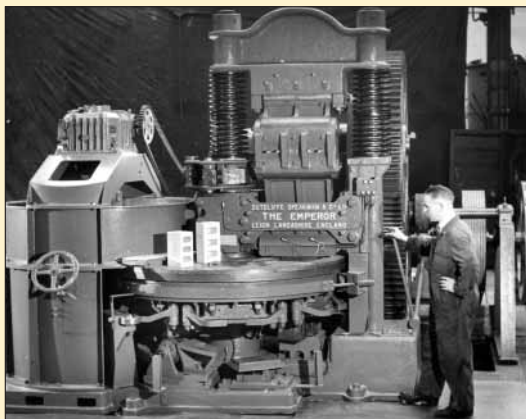
## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

soon to improve. Edgar Sutcliffe kept the firm, and some may say the country, alive by supplying the Admiralty with a range of new items that were manufactured by adapting the Emperor brick presses. Large quantities of practice shells were manufactured, along with millions of fuse rings, fuse bodies, mine parts, gun sights and much, much more.

Such was the situation prevailing in 1915 when an event, which was to shock the world, gave prominence to activated carbon. Following the initial stage of rapid offensive operations, World War I had, to a great degree, become a mutually defensive action, with the opposing armies landlocked in trenches. On April 22 1915, seeking to break the impasse, the German Army, released Chlorine gas from cylinders over a four mile front near Ypres, in Belgium, from where a breeze carried the yellowish-green vapour over no-mans land and into the trenches where the allied forces were located. Against this new 'weapon', the allied soldiers had no protection; the agonised men, who were choking and gasping for breath, could only flee, leaving a breach in the lines. Had the German forces conducted the gas attack over a wider front and provided effective resources to follow through the breach, they could well have won a decisive victory. The German soldiers however, also had no defence against the gas and, as such, were unable to effectively follow through. Soon after, other similar attacks were implemented with equally devastating results.

This development immediately brought about real allied efforts to introduce meaningful gas protection, as the lack of it had, within the first few months, resulted in 15,000 serious casualties, of



which around 5,000 eventually died.

The first response, to Germany's use of poison gas, was to issue the British troops with cotton cloths, which had been soaked in various chemicals, in an attempt to neutralise the Chlorine gas.

The first proper protection provided to troops in France, in 1915, was the 'Phenolate Helmet'. This comprised of a hood made of flannelling which was soaked in chemicals, to similarly combat the effects of the poisonous gases.



Fortunately, the German command, with the initial 'success' achieved, then turned its attention to a study of other potential aspects of gas warfare; the resulting interval enabled the Allies to design, manufacture and issue the troops with purpose designed gas masks containing activated carbon. Had it not been for that development, history might well have followed a frighteningly different course.

Although powdered activated carbon had been manufactured commercially for some years, the powdered form was unsuitable for gas masks, due to the high suction required to breathe through it. Consequently granular grades had to be developed. The rapid progress in developing effective methods of production was a brilliant episode in the annals of industrial chemistry and engineering.

On the continent of Europe, charcoal was, at that time, activated by the use of chemical activators such as Zinc Chloride and Phosphoric Acid, whereas in Great Britain and the USA, steam activation was the preferred process.

The carbon manufactured during the War, under the Sutcliffe Speakman process, proved to be particularly

**Above right:** Phenolate Helmets.

**Left:** Sutcliffe Speakman's Emperor Brick Press.

## SUTCLIFFE SPEAKMAN ~ *A century of history*



effective. It was found that by briquetting and carbonising coal, a special pore structure was introduced into the carbonised product. With further slow oxidation, the pores within the carbon could be deepened and it was rendered as

active, for adsorption purposes, as any of the then known carbon adsorbents which had been produced from other more established raw materials. The 'new' carbons, later to be known as activated carbons, had an adsorption capacity some 7 to 8 times greater than that of the wood charcoal that had hitherto been in use. Activated carbon manufactured by this process was eventually produced in large quantities and supplied to the British Anti-Gas Department



Whilst the use of these gases lasted until the end of the War in 1918, Sutcliffe Speakman's contribution to the war was limited to the later years, the research conducted, on effectively combating the effects of the gas proved to be the embryo for Sutcliffe's continuing growth in the area of gas control. This growth continues into the 21st century.

The manufacturing experience gained by the Company during the War years, subsequently led to Sutcliffe Speakman entering the non-ferrous hot drop-stamping and casting industries. In the years following the end of the First World War, there was a rapidly growing demand for components and accessories for the motor trade and for the manufacture of household electrical appliances. The

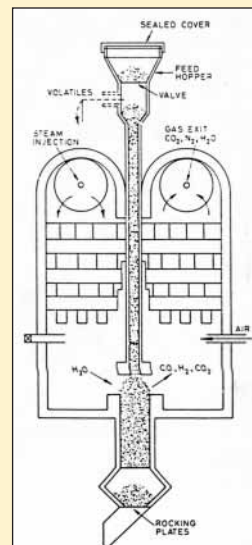
bulk of the Company's production line workers, at this time, were women, not that this had been unusual during the war effort. These women were to continue in this industry for the rest of their working days.



In respirator and advanced filter applications, for the arrestment of war gases, carbons were originally produced from

coconut shells, with all the associated difficulties of importation during wartime. This was one of the main reasons that Sutcliffe's gave increasing attention to the use of domestic coal, as a feedstock for these types of carbon applications. Despite some initial problems, coal-based carbons of the required low ash specification were produced. This was achieved by the extremely fine grinding of a mixture of selected local coals and then briquetting the resulting powder, without the use of a binder, under the extremely high compression load of 10 tons per square inch, (1500 bar) imparted by the Company's Emperor press. The briquettes were in effect hard, dense, solid blocks, really constituting a homogeneous reproduction of the coal. In reality they were even harder than the coals from which they were made.

Briquettes manufactured in this way were then carbonised and activated, under carefully controlled conditions in vertical retorts. The resulting activated lump material was then granulated to the required mesh size, before being impregnated, with the specific chemicals required, to give the final activated carbon products the necessary properties for war gas protection. Most of the carbons produced throughout the rest of the war were manufactured in this way.

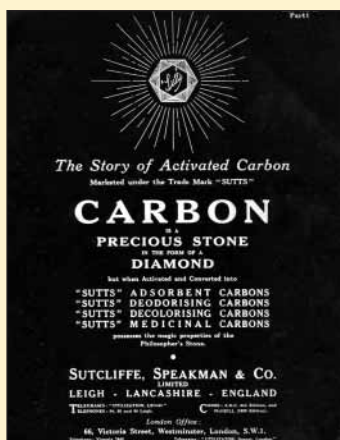


The briquetting of various materials, including coals, led the Company into the development of specialised coal carbonisation, which was to have a major impact on the virtual elimination of smoke from the atmosphere in our major towns and cities. The production of coke and other 'smokeless' fuels were dependent upon the ability to briquette coal. Although spearheading this development ER Sutcliffe had associated with many

**Top left:** Early carbon respirator.

**Above right:** Simplified diagram of an activated carbon retort. **Bottom left:** Miss Nellie Waterworth, circa 1917, Brass Stamping Operative.

## SUTCLIFFE SPEAKMAN ~ *A century of history*



research and development of both the chemistry and technology required for the high quality mass production of the “smokeless” fuels.

Sutcliffe Speakman installed their first carbon production plant in the early 1920s. However it wasn't until the 1930s that the company began to realise the real potential of the 'black diamonds'. With the development of new applications for activated carbon, including solvent recovery, air purification, and of course respirator applications, the manufacturing plant was continually under pressure even though it was being operated on three shifts around the clock.

Chemically there are several familiar forms of carbon: diamonds are a precious form of it, whereas so is simple graphite or pencil 'lead'. Carbon, in the form of charcoal, has been used as a fuel and as filter media, for millennia. It is known that, around 1500 BC the Egyptians used it, in charcoal form, for medical purposes, whilst the ancient Romans also used charcoal to purify water and beer. During the 20th century however many other uses for charcoal and latterly 'activated' carbon have been developed not least as a result of demands for a cleaner environment.

In the 1930s and after a significant amount of research activity, the Company began its chemical engineering business. The first real commercial activity of this business was the design and manufacture of solvent recovery plants. It was known that large quantities of solvents were being used industrially and, after being used once only, were being lost to the atmosphere. Not only were the working conditions in these solvent contaminated environments unpleasant and

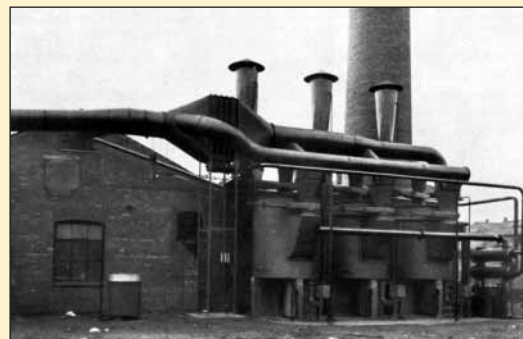


specialists and other interested parties, including Lord Rhondda, in the

unhealthy, but an obvious waste of money was being experienced by the process operators. Sutcliffe Speakman's solvent recovery plants were initially introduced to the rubber proofing industry and from there into the rapidly expanding dry cleaning industry. They improved the working life of thousands by

removing solvents from the working atmosphere, and by recycling them for re-use. The profitability of the operators processes were vastly improved as a result.

Sutcliffe Speakman & Company installed the world's first solvent recovery plant in the Windsor Mill rubber spreading works of A.O. Ferguson & Co. in Manchester, England. So confident was Sutcliffe of his technology that the plant was sold on the basis that the Customer only made payments, for the plant, out of the money saved by the recovery of the solvent for reuse in the process. AO Ferguson immediately achieved a 92 per cent reduction in the loss of the

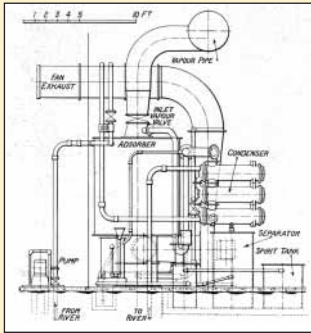


naphtha fumes, recovering 827 gallons of the spirit in just five days. Needless to say the plant was fully paid for in a little over one year, with all parties being extremely satisfied with the outcome.

The possibility of recovering solvents became very attractive to solvent consuming manufacturers worldwide, as primarily this not only lead to major cost savings in the manufacturing process but enabled them to look positively to the future as environmental and other legal requirements would become increasingly stringent.

**Top centre:** Early solvent recovery plant, with chain valves. **Top left:** Sutcliffe Speakman's Activated Carbon Brochure. **Above:** Plant manufactured for A.O. Ferguson.

# SUTCLIFFE SPEAKMAN ~ *A century of history*



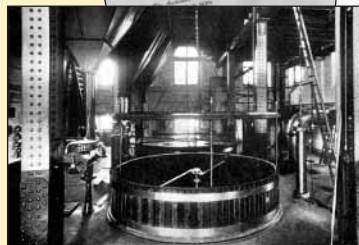
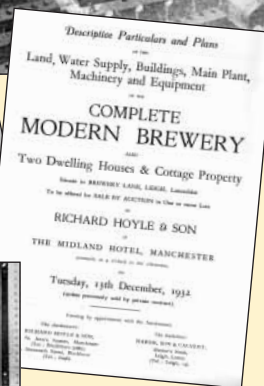
The solvent recovery system developed by Edgar Sutcliffe drew solvent-laden air first through bag filters, to remove any dust, fluff, or other contaminants, which could

have been present in the air, before passing it through a vessel containing a bed of activated carbon. The activated carbon adsorbed the solvent, onto its pore surfaces, whilst the purified air was emitted to atmosphere. Once the carbon had become saturated with the solvent, the air supply was isolated and low-pressure steam was then introduced into the adsorber. The steam then caused the carbon to release the solvent as a solvent /steam vapour, following which, the vapour was released into a condensing chamber, which was also arranged as a separator, dividing the condensed vapour into a solvent layer and a water layer, each of which could be drawn off separately. The water was diverted to drain and the solvent was returned to the manufacturing process feed tank.

In 1936 the Company acquired the local landmark of the George Shaw Brewery Building which proudly stood adjacent to the Guest Street factory. The Brewery building had been built in Edwardian times and in future years was to be designated a Grade Two listed building, due to the fact that it was one of the few remaining examples of early industrial steel framed architecture. In 1927 a newspaper article acknowledged the wonderful cleanliness of the building; unfortunately this feature didn't last for long after the notoriously dusty early carbon production process machinery was installed in the building. The people of Leigh publicly expressed their profound disappointment at seeing the sale of the building and the

subsequent dismantling and 'scrapping' of the long standing brewery process equipment. Fundamentally the brewery had been the focal point for one of the town's oldest industries and gave significant employment to the towns inhabitants. However, the town's occupants were soon to be offered the opportunity of employment at Leigh's newest industrial development, in what was to become the renowned Sutcliffe Speakman carbon factory. This work was to last for many, many, years to come.

The activated carbon which was produced in that famous old factory, was not just manufactured from local British coal, it was also made from coconut shells, which were imported from such exotic origins as India,



Africa and the Orient. Each raw material, dependant upon the manufacturing process applied, offered quite different and distinct finished product characteristics and advantages, which were considered special to a particular application.

Some of the individually finished carbon products were, in the true sense, exported worldwide, from California in the West to Japan in the East, from Finland in the North to New Zealand in the South. 'Sutts Carbon', as it was affectionately known, was then, and remains today, a truly internationally recognised product.

**Top left:** Diagram of solvent recovery plant & adsorbers. **Above:** George Shaw Brewery comes up for sale in 1932.

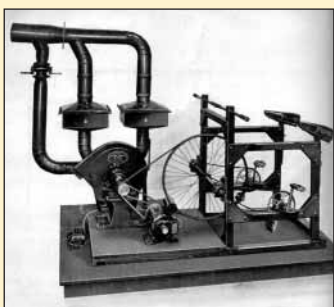
## SUTCLIFFE SPEAKMAN ~ *A century of history*

### ***The Second World War***

During the Second World War, Sutcliffe, Speakman & Company once again turned its capability and experience in activated carbons to good wartime use.

The Company's activated carbons were being used in the vast majority of gas masks issued to the British armed forces and subsequently to the whole civilian population of the UK, during the wartime years. A gas mask enabled the wearer to be protected against any of the poison gases then known and which could be introduced into the atmosphere. Anyone who knew someone who was issued with a gas mask during the Second World War, can be almost certain that they had one which was packed with 'Sutts' carbon. Fortunately for Sutcliffe's and the British public, the Company had proved to be capable of expanding the carbon production capacity quickly, through the use of the new carbon production machinery which by then had recently been installed in the Brewery building. The Company had also equipped, according to its own designs, its Fern Mill factory at Oldham, for the manufacture of activated carbons for respirator purposes. This facility was owned by the Government with the Company being charged with the responsibility for its operation. These measures reconfirmed Sutcliffe Speakman as the UK's leading wartime supplier of impregnated activated carbons for gas masks.

The Company continued its war effort and designed a range of specialised moveable air filtration units, naturally utilising activated carbon, which were



**Above:** ARP filtration machine. **Centre right:** Solvent Recovery Plant. **Above centre:** Activated Carbon. **Right:** Service respirator with activated carbon filters issued to the services and a wartime advert for gas masks.

units were unique in that they relied on pedal power such that they could be successfully operated for short periods of time, or longer when necessary in the event of electrical failure.

The UK in general was, at this time, experiencing a shortage of petrol and aviation fuels. This presented further opportunity for the company's engineering section, which had already been prominent in the supply of solvent recovery plants to the Balloon Fabric section of the Ministry of Aircraft Production, saving huge quantities of the valuable solvents by recycling them. Capitalising on this opportunity, and to further assist the war effort, the Company designed and supplied many plants, similar in design to one supplied to a local gas works before the war, for the extraction of Benzole from coal gas. Valuable fuels could thus be produced in large quantities

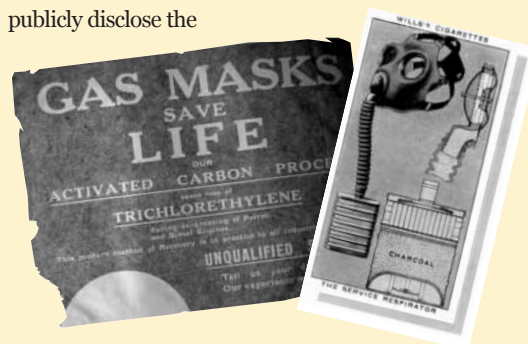


without

interfering with the country's supply of coal gas.

Following on from their efforts during the First World War, Sutcliffe Speakman continued to supply large quantities of hot drop stampings and castings, for the use of all the armed services. These components were used in aircraft production and maintenance, motor transport and what were then specialised secret activities such as radar development and submarine detection activities in particular.

As a result of necessary wartime censorship it was not possible for the Chairman to publicly disclose the



## SUTCLIFFE SPEAKMAN ~ A century of history

full extent of the Company's contribution to the war effort until after the end of the war. However, in 1943, in special recognition of the firm's efforts in meeting the huge demand from the Ministry of Supply, Edgar Rouse Sutcliffe was awarded the OBE. In the Company's Board Room, stood a framed letter from the Ministry of Supply incorporating the paragraph:

*'In the early war years the supply of charcoal was a matter of considerable anxiety to us, but as I have informed you before we were never held up for want of supplies. This is an achievement on which you have every reason to congratulate yourselves.'*

It was indeed a matter for congratulation; bearing in mind that, as has previously been stated, each and every man, woman and child in the United Kingdom had to be issued with a personal gas mask for fear that the Germans might attack with gas bombs. Thankfully for peaceful reasons, similar accolades have been echoed by many customers of Sutcliffe Speakman over the years.

### **The death of an engineer**

In 1945, some five years after the death of co-founder Fred Speakman, Edgar Rouse Sutcliffe died. In his lifetime Edgar Sutcliffe had seen the Company's carbons being used for a remarkable number of purposes. These included the production of Penicillin, the world's first mass produced antibiotic, huge solvent recovery plants being installed in the synthetic fibre industry and the Company's activated carbon even being used to filter Australian honey such that it was decolourised to the shade of amber best liked by consumers. Those who had been closely associated with E.R. Sutcliffe recalled that he was indeed a man who commanded great respect for his exceptional ability as an inventor, engineer and businessman.



Proof of that was that he was the youngest man ever, at the age of just 19, to win the Whitworth Exhibition for engineering skills. A Yorkshireman, he had come to

Leigh, in Lancashire, at the age of 25 and met

Fred Speakman, himself being just 27 years old at the time. Whilst the beginnings of the firm had been small it had been built up by hard work and engineering talent, leading eventually to enormous expansion and world-wide recognition.

### **Leigh to the end**

One of the cornerstones of Sutcliffe Speakman's ability to thrive and prosper through good times and bad was the 'milking stool' principle. The emergence of the prime business' within the Company, namely Brick-making Plant, Chemical Plant (Solvent Recovery and Emission Control) and Activated Carbon Manufacture, representing the three 'legs of the stool'.



The principle was that, whilst the milking stool is most comfortable to sit on when it has three legs on the ground, with balance the stool could support the user with only two legs on the ground. With one leg on the ground it was even more difficult but, with care, it could still be managed.

The same was to be said of the Company's businesses, in that when all three were active the Company was doing exceptionally well, when two were active, the Company was in reasonable shape, whereas with only one business doing well the Company could usually manage to cover its major operational costs.

**Above:** Solvent Recovery Plant leaving for Canada.

**Left:** ER Sutcliffe and JD Speakman.

## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

In its history the Company has experienced all situations and this premise continues to stand the Company in good stead.



### ***All at sea***

During the 1950s and 60s, when sea travel was at its peak, Sutcliffe Speakman were responsible for the high standard of the drinking water being maintained throughout the sailings. Filtration and Dechlorination systems, incorporating the Company's activated carbon were installed on the ships of several lines including RMS Queen Mary, RMS Queen Elizabeth, RMS Sylvania and RMS Mauretania of the Cunard Line, to name but a few. The Company's engineers



were regularly 'on board', servicing the equipment and enjoying a few perks.

**Above:** Brochure for drinking water at sea and a water hardening unit. **Right:** Brewery Building, Leigh, including the ADC blending facility. **Below:** One of the many dinner dances held by the firm at the Leigh Co-operative Hall, circa 1946.

### ***Down Under***

During the late 60s and early 70s the Company supplied odour control systems to the Ministry of Defence, for installation on the Royal Navy's Valiant class submarines. The commissioning engineers were invited to sample the undersea world during the inaugural voyages. The experiences 'aboard ship' giving them "oceans" to talk about for years afterwards.

During the early years of the Second World War, Sutcliffe Speakman had installed a Soda Lime plant at the Fleet Lane Factory near St Helens. The Admiralty's demand, for Soda Lime, had been increasing, whilst its use of Soda Lime in deep sea diving equipment on the North Sea Oil rigs, was also expanding at an exponential rate. The production plant, which was expanded and modernised in 1975, was controlled by the Company's carbon management team. The "new" plant was successfully commissioned in 1976 and added yet another string to the Company's carbon business 'bow'.

Throughout the 1970s and 1980s in particular, however, Sutcliffe Speakman had mixed fortunes in each of its businesses.



## SUTCLIFFE SPEAKMAN ~ *A century of history*

---



### ***Holding hands***

A joint venture, with Norit NV of the Netherlands, was established in 1975 and a new company, namely Anglo-Dutch Water Carbons Ltd., was born. The first order, which was secured in April 1975, was for Eastbourne Water Works. This joint venture flourished for many years hence. ADC, as it was affectionately known, was based at Sutcliffe Speakman's manufacturing site, in Guest Street, Leigh, went on to establish itself as a reliable supplier of mixed coconut shell, coal and wood based activated carbon powders to most of the UK's water supply companies. The profitability of this joint venture was influenced heavily by the weather as, whilst in the rare years of long hot summers it had its most profitable times, with typical British summers the business barely covered its costs. It continued to serve as an outlet for the surplus, but valuable, by-products of both partners for almost two decades.

### ***Pressing needs***

In 1972 the Company entered into a manufacturing Licensing agreement with Bruck Schlosser of Osnabrück, Germany. This facilitated the production of larger and faster hydraulic brick presses that were capable of producing up to 6000 bricks/hr in addition to a range of large building blocks. This development brought about the rapid expansion of this division of the Company, particularly into the Middle East markets, during the late 70s and through the mid 80s 'boom years' of increasing oil prices and resulting growth of local infrastructure.

**Top left:** A works outing to Great Orme, Llandudno in 1952.

### ***Opening the curtain***

In 1975 the Company was successful in winning a large order for the supply of a solvent recovery plant to Russia. This was to be operated as part of a synthetic fibre manufacturing plant. The exacting terms of this order provided for a team of Russian inspectors to visit Leigh, during the manufacturing phase of the order. The inspectors became local celebrities as they visited the local hostelrys in the evenings, often escorted by enthusiastic members of the Company's workforce.

Similarly, during the construction phase of the contract, the Company's installation engineers, who were deployed to construct the plant in Russia, were entertained by the Customer's staff. It is rumoured that the Russians preferred Leigh's fish and chips whilst the installation engineers would have also preferred Leigh's fish and chips to the cabbage soup which was often the dish of the day in Russia.



During the late 1970s and early 80s, at the peak of the Wests 'cold war' with the Eastern Block, Sutcliffe's high efficiency war gas filters, incorporating specially designed impregnated activated carbons, were supplied to the Ministry of Defence. These were installed as standby protection within defined areas of the RAF, the Royal Navy and the Army military command posts in Britain and at their key

European bases. The filters were ostensibly installed to protect against the poisoning of command personnel by known airborne gases and bacteria which could be delivered from the air. Of course the simple early gas masks were the precursor for the technology which had undergone significant development and scaling up for this application.

### ***Desert sands***

The Company, which had supplied an Emperor Press brick plant to the Kuwaiti Government in the 1950s, succeeded in winning two new orders for the same customer, for large multi hydraulic press block-making plants, during the late 70s. These were in addition and similar to large calcium silicate block-making plants which were constructed throughout the 70s and 80s in

## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

Iran, Bahrain, Saudi Arabia, Abu-Dhabi, Ras-al-Khaimah and Jordan. To say that the Company was over extended was an understatement and this was demonstrated through the well-documented problems that were encountered in fulfilling the Company's contractual obligations, particularly in Kuwait. In a nutshell Sutcliffe Speakman were pressed into being victims of their own success.

In 1980 the carbon business began to suffer from the effects of the strengthening pound sterling and, despite continuing attempts to develop new export markets, the business struggled throughout the early 1980s.

### **Reorganisation**

In 1982 the Board re-organised the Company by separating the businesses into two new operating companies. The carbon business became Sutcliffe Speakman Carbons Ltd and the two engineering businesses, namely Brick-making Plant and Chemical Plant were amalgamated into a new company called Sutcliffe Speakman Engineering Ltd. Each company had separate operational management with all central services including finance and purchasing being provided by the Parent Company, Sutcliffe Speakman Plc.

### **Foreign parts**

In the same year a coconut shell carbon production plant was designed by Sutcliffe Speakman Engineering Ltd for Lanka Carbons Limited, Sri Lanka. The process know-how for the plant was, of course, provided by Sutcliffe Speakman Carbons Ltd.

Lanka Carbons, which was subsequently sold, was a joint venture between Sutcliffe Speakman Carbons, who were responsible for sales from the plant, as well as the supply of technical advice and production management, the Sri Lankan Government and a group of local industrialists and bankers.

The engineering business continued to experience difficulties through these years, especially the brick making machinery division. The Chemical Engineering activities, in the Americas, were simultaneously severely affected by fiscal exchange rates and stiff competition from US based carbon and engineering companies.

In 1983 the brick plant division entered into a collaboration with Waagner-Biro AG of Vienna whereby Sutcliffe would supply the Emperor Duplex brick-making presses and plant know-how whilst all the ancillary equipment, installation and site management would be provided by Waagner -Biro. It was believed that this approach particularly for Egyptian contracts would reduce the overall project costs and enable the two companies to offer a more competitive price. In 1984 the collaboration secured their first contract to supply sand-cement brick-making plant in Egypt. Sutcliffe's believed that their competitive advantage in brick-making machinery lay in their range of energy efficient machines. The Company's presses and associated ancillary equipment were capable of utilising low cost, and often low specification materials, and they believed that those were the key factors to winning business in developing countries. Throughout these sometimes dark, yet important, years of Sutcliffe's



*Lanka Carbons Factory built by Sutcliffe Speakman.*

## SUTCLIFFE SPEAKMAN ~ *A century of history*

### ***Apprentice's Race day***

A much-recalled memory is the apprentices race day at the Leigh factory. This event was held every year on Shrove Tuesday. The apprentices were granted a half-day holiday, on the provision that they first take part in a 'Sports Day' in the vicinity of the Leigh factory.

The pressure was on not to let your department down. You were instructed to 'Win or Else!!!'. The first section of the race is a mile sprint across a field littered with cinders, broken bottles and bricks. Add these to the natural obstacles of trees and potholes and you begin to see how the half day holiday was earned. From here up to the tough slope between Holden Road and the wooden castings shed and back round the circuit twice. Participants begin to dwindle as injuries are incurred. The next race, the 100 yard sprint, appears relatively tame. That is until the track is seen. The track is covered in waist high grass. Avoiding bikes and old bedsteads was the least of the apprentice's worries - they needed to watch out for the rope that is held across the course by spectators, just to liven events up a bit more!



The final event of the day is the 'Jumping of the Brook'. The brook then ran through the Guest Street site and down to Leigh Laundry. A run up of only three feet meant that no-one could jump the brook and invariably landed neck deep in the smelly, muddy water.

The winner was awarded a six inch high crooked cup that had been made in the factory at Leigh. Well worth the effort!

**Both pictures:** *Memories of the Apprentices Sports Days, a tradition from the mid 20th century.*

history it was necessary to reduce the Company's extensive engineering manufacturing capability in order to maintain the viability of the three businesses. Despite these difficulties the Company endeavoured, and in most cases succeeded, in maintaining good relations with its employees. This situation was achieved through close and extensive co-operation with the Trade Unions and the Engineering Employers Federation.

### ***Adaptation***

In 1986 Sutcliffe Speakman acquired the assets of Simon Croftshaw Ltd., who had previously been their major domestic and overseas competitor. This acquisition enabled the Company to effectively utilise a wider range of patented carbon adsorption technologies. It was this advance that enabled Sutcliffe's Chemical Plant Division to become the



major supplier of emission control and solvent recovery systems to the US and UK publication and catalogue gravure printing industries. The division was subsequently retitled Sutcliffe Croftshaw, to emphasise the

Company's capability to supply both the Sutcliffe and the Croftshaw technologies.

The acquisition of Wymouth Lehr Limited in 1985, extended the group's activities into international merchandising of speciality chemical products.

In 1987, the brick-making plant business was sold to the Company's major UK competitor, Herbert Alexander Ltd, a subsidiary company of Hepworth Ceramic Plc. Upon the sale of the Brick-making plant business the Company elected to close its already diminished engineering manufacturing facility in Leigh

## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

and to purchase William Booth and Sons, a fabrication company located in Warrington, Lancashire. This Company was then transferred to a larger office and workshop facility in Bold, St. Helens, Lancashire. Subsequently Sutcliffe Speakman Engineering was also relocated to this facility and the two operations were consolidated into a new company called Sutcliffe Croftshaw Ltd.

### ***American brothers***

In 1987 Sutcliffe Speakman purchased the American company - Barnebey Cheney of Columbus, Ohio. Barnebey Cheney was one of the old established major players in the US activated carbon field. In addition to the manufacture of activated carbon Barnebey was a large volume producer of carbon filters, with a comprehensive range of products. This acquisition not only gave Sutcliffe Speakman a company presence in the world's largest single marketplace, but also provided access to new products. Sutcliffe Speakman's solvent recovery technology was immediately transferred to Columbus along with a small number of the Company's specialist engineers. Sutcliffe's US sales had hitherto been handled from a small sales office in Lutherville, Maryland, employing two sales managers, one of whom was on secondment from the UK, and a local secretary. Barnebey Sutcliffe has since grown both organically, and by acquisition, to become the significant force, in the supply of activated carbon and emission control systems, throughout the Americas.

### ***Evolution***

In November 1988, Sutcliffe Speakman Plc acquired Brackett Ltd, a subsidiary of Hawker Siddeley.

Brackett were pre-eminent in the field of water screening and filtration for power stations and in industrial and waste water treatment plants. They operated from a large, purpose built factory and offices in Colchester, Essex. In April 1989, the group acquired the assets and business' of Paxman Filtration and Greenbank Engineering Ltd and merged these activities with those of Brackett Ltd.

The Head Office and the Registered Office of Sutcliffe Speakman Plc, was then transferred to the site at Severalls Lane in Colchester. However, following the sale of the Environmental Division on 2nd November 1990 and the re-financing of the Sutcliffe Speakman Group on 28th May 1991, they were transferred back to the site at Guest Street, Leigh.

### ***New technology***

In 1994 Sutcliffe Croftshaw concluded a licence agreement with Innovational Biotechnologies, a daughter company of the A.N. Bach Institute in Moscow, for the use and know-how of a novel Bioreactor technology, which had been adapted for the arrestment of low concentration VOC (Solvent) emissions. The license gave the Company access to a range of patented microbes that had been specially adapted for the destruction of specific organics. This enabled the Bioreactor systems to be highly efficient, whilst having a small footprint and a correspondingly competitive cost. The Bioreactor technology provided the knowledge base from which the Company developed its own bioscrubbing technology, which is marketed alongside the SC Bioreactor, under the SC Bioscrubber trade name.

### ***On the move***

The Company had made the decision in early 1993 to move from its home in Leigh to new modern premises in Ashton-in-Makerfield, near Wigan in Lancashire. To accommodate the Sutcliffe Croftshaw Engineering and the Sutcliffe Speakman Carbons manufacturing businesses two sets of premises were acquired. The premises selected are conveniently located, some 300 metres apart, at opposite ends of Lockett Road, enabling management and technical staff to easily liaise.

***Left:*** Colchester Head Office.



## SUTCLIFFE SPEAKMAN ~ A century of history



The Sutcliffe Speakman Carbons business was relocated, into a large, and suitably adapted factory unit, to the Eastern end of the road whilst Sutcliffe Croftshaw and the Group management were located at the Western

end of the road, in newly constructed offices, at Antler Court. The landmark move was completed during November of that year.

**Above left:** Site plan for housing built on the former Leigh site. **Right:** Samuel Banner & Co. Ltd logo.

The original site in Guest Street, Leigh was then sold for housing development in 1994 and now provides good quality mixed cost base housing for many local families

The Ashton-in-Makerfield facilities are located on an industrial estate, adjacent to the Three Sisters Country Park. The company enjoys the practicality of having easy motorway access. The close proximity of international airports, major seaports and railway stations combines to ensure that all orders can be despatched to customers quickly and easily.

**Samuel Banner & Co. Ltd.**



### Long Service Award

At the Long Service Award Dinner in 1969 the General Manager, Mr E Mullins, said that it was the 18th long service dinner and that during that time there had been 194 people who had passed the 25 year mark and nine who had passed the 50 year mark. These nine were as follows:-

<u>Name</u>	<u>Date of Award</u>
F. Bleakley	1952
W.H. Castle	1952
F. Lee	1954
W. Platt	1961
J. Darwell	1963
J.M. Johnson	1964
A. Hilton	1966
ALD.E. Green	1966
T.J. Baxendale	1967



Subsequently, Counc. F. Taylor received the award in 1976.



**Above right:** A typical long service certificate.

**Left:** John Ward, the Company's Chief Draughtsman receiving his 25 Year Long Service award in 1969 from Chairman S W Livesey.

## SUTCLIFFE SPEAKMAN ~ *A century of history*

---

### **Group expansion**

In 1996 Sutcliffe Speakman Plc strategically acquired Samuel Banner Holdings Ltd, a group who was engaged in the blending and distribution of solvents for the packaging industry, canning and formulation of oil, chemical and detergent products. This was seen as an appropriate vehicle for the continuing development of the PROTECT range of small refillable and disposable carbon adsorbers, which require similar logistics to that which were already provided by Banner for their solvents businesses.

### **Waterlink**

In 1998 Waterlink Inc., of Canton, Ohio, USA acquired the three core Sutcliffe Speakman businesses, namely Barnebey Sutcliffe Inc., Sutcliffe Speakman Carbons Ltd and Sutcliffe Croftshaw Ltd. Waterlink considered the acquisition as a synergistic move to compliment their already comprehensive range of technology based water treatment companies. They also saw the opportunity to enable the new grouping to enter the field of wastewater air treatment. The relatively close proximity of Barnebey Sutcliffe in Columbus, and Waterlink's Headquarters in Canton, Ohio, became a significant influence in the subsequent evolution of the group management structure.

By the end of 2001 the ex Sutcliffe Speakman businesses had become core to Waterlinks operations and future strategy.



### **Reunification**

In the spring of 2002, Waterlink announced its intention to 'merge' the

Sutcliffe Croftshaw and Sutcliffe Carbons businesses into a single company, to be called Sutcliffe Speakman Ltd. A fitting and poignant echo of the past in what is after all, the centenary year of the famous name.

The commercial staff and senior management of Sutcliffe Carbons were relocated to Antler Court, where they have been merged with the Sutcliffe Croftshaw team. The process engineering, biological and laboratory and production staff of both the Croftshaw and Carbons companies were merged and are now located at the Carbons manufacturing and research facility, thereby creating an integrated specialist Research, Development and Technical Centre. The merger of the two companies, allied to the continuing close co-operation with Barnebey Sutcliffe, in the USA, has created a common wealth of specialised knowledge, in activated carbon and its associated technologies, which is completely unrivalled in today's industrial world.

### **Recent times....**

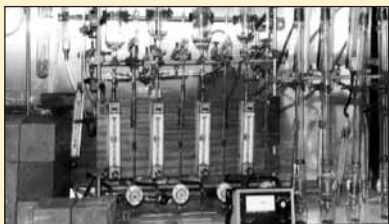
Sutcliffe Speakman Carbons Ltd., were proud to be granted the revered ISO 9002 qualification in November 1997. The award was an acknowledgement of the continuing dedicated effort, and evolved systems, which are applied to ensure that all the Company's products are consistently produced and marketed in accordance with the strict codes of quality required in the modern world.

In 1998 the Company was proud to be presented with the Queen's Award for Export. This was in recognition of the fact that Sutcliffe Carbons had more than doubled their export sales during the period 1995 to 1998. In fact more than half of all the Company's

**Left:** Production Unit at Ashton. **Below left:** Head Office at Antler Court. **Below right:** Carbon being despatched at the Ashton site.



## SUTCLIFFE SPEAKMAN ~ A century of history



orders were generated from international customers, for the export of activated carbons to all the continents of the world. To put the award into perspective, other similar awards that year were made to Aston Martin Lagonda, Johnson & Johnson Medical, Rolls-Royce Commercial Aero Engines and the Rover Group. Sutcliffe Carbons really were enjoying success on a global scale, and it was being recognised at the highest level.

### ***Developing success***

The joint UK research QA and development laboratories in Ashton-in-Makerfield are modern and fully



equipped with a comprehensive array of analytical and test equipment; all this being a far cry from the traditional laboratories which the Company were proud of at Leigh.

There are currently ten different laboratories at Ashton,

specialising in impregnation, gas testing, specialist activation and impregnation, spent carbon regeneration, solvent recovery and the biosciences. Alongside these facilities, Sutcliffe Carbons also co-operates with academia, an example being John Moores University, where the Company has installed a nuclear carbons test rig.

In recent years it has become increasingly attractive for Sutcliffe Speakman Carbons to encourage and assist overseas carbon manufacturers to participate more with the company in the production of high quality base materials. This has enabled the Company to shift its commercial focus from



being production led to being research, marketing and sales driven. Highly qualified and conscientious sales personnel have been employed, to present the Company's products to, what can only be described as, an increasingly demanding and competitive marketplace. The sales operations are supported by a similarly qualified marketing team. The continuing capability to demonstrate the Company's shift of focus to meeting customers requirements from both technical and commercial aspects is vital to the increasing success and growth of the Company.



The Company relationship with the local community is good, with many of the employees always willing to give their time and energy not to mention a contribution from their hard earned money, to local charities, local schools and good causes. A recent example of this, being their continuing fund raising for the Wigan and Leigh Hospice, a worthy local charity.

### ***Looking out***

Having completed the centenary year, the Company stands 'proud of its past' and 'looks to the future' as a strong, experienced and integrated organisation with an abundance of specialised engineering and activated carbons to offer to its customers.

**SUTCLIFFE  
SPEAKMAN**  
A WATERLINK COMPANY

**Top right:** Employees involved in "Going for Goal" 2000, a charity event. **Top left:** Test rig at Liverpool, John Moores University. **Centre left:** State of the art laboratory equipment at Ashton. **Above:** Sutcliffe Speakman logo.

*Managing Director, Allan Singleton, voices his vision of the future of Sutcliffe Speakman*

“**A**t the close of our 100th year, it seems wholly appropriate that the two remaining businesses in the UK, Sutcliffe Carbons and Sutcliffe Croftshaw, will go through a process of integration to capitalise on the strengths of the asset that has driven this business from strength to strength over the hundred year period - our PEOPLE!

The Company has an exceptionally strong portfolio going forward, with a combination of environmental legislation and our own internal development, driving the business towards a strong growth pattern.

The years 2000/2001 saw the launch of CellCarb™ product range, which is the result of 10 years of targeted research and will take us into areas of gas storage and delivery, acoustic compliance and other energy areas. In the late nineties the biological range of products was added giving us a broader portfolio of products to maximise growth in the environmental market.

The engineering business is well positioned to capitalise on opportunities thrown up by

complimentary strengths in the water and chemical industries. These businesses offer existing challenges and opportunities for our people and the other stakeholders in our business, but we mustn't forget that the underpinning product in the business, activated carbon, still retains its strong

functional position in its second millennium of use.

Even so, early in this new century we are again seeing work develop from human conflict with orders for civil respirators developing out of the terrible events of September 2001.

The one certain thing for the coming years is

that there will be new characters in this business. People will find challenging careers, they will develop products in areas we cannot imagine today.

100 years from now maybe one of my successors will look back on the century and review how the people have continued to bring life into this wonderful business that so many have benefited from in it's 'first century'."



**SUTCLIFFE  
SPEAKMAN**  
A WATERLINK COMPANY