

Frederick Benjamin Porges

Frederick Benjamin Porges was born on the 14th June 1907 in Prague, Czech Republic, one of 5 children. He went to school in Vienna between 1913 and 1924 and then studied 'Mechanical Engineering' at the Vienna Technical University, specialising in Internal Combustion Engines.

In 1930, knowing he would not get a job in Austria, he moved to Paris and was very lucky to find, on the day of his arrival, a position as draughtsman at the rate of 65 pence per hour working for Henri, Maurice and Richard Farman in Boulogne-Billancourt (France), a well-known company manufacturing luxury motor cars, aircraft and aircraft engines. He worked on the final testing of their 18T 12 Cylinder Aircraft Engine. He soon became interested in the design of super chargers, concentrating on the difficulties of "pinking" and the loss of power caused by oil leakage from the gear box deposited on the sparking plugs. By 1931 Ben had designed his first seals. The seals did their job and he was appointed as a designer on a salary of £200 per month.

In 1932 he was invited to work in the USSR as Head Engineer of the Engine Department of the "Central Scientific Research Institute for the Design of Aircraft Engines", where he developed more seals and improved their design. In Moscow he married Marianne Raubitschek, a childhood friend. In 1936 Ben and Marianne had to leave the USSR because they refused to become Soviet Citizens and Members of the Communist Party.

After working at several refineries in Europe, Ben was invited to England to be Chief Engineer of the new Solvent Refining and Dewaxing (Edeleanu) Plant of the Manchester Oil Refinery (M.O.R) under construction in Trafford Park.

When the war started in 1939 Ben, as a foreigner, was interned and sent to an internment camp on the Isle of Man. He was only there for a brief period of weeks before returning to Manchester to continue his work at the refinery, which was seen as vital to the war effort.

The Edeleanu process, at M.O.R, involved the circulation of liquid sulphur dioxide as a solvent. It was found that there was heavy leakage of this from the pumps as the existing seals could not stand up to the arduous operating conditions and operators often had to wear gasmasks. It was realised that the only solution lay in the design and construction of a new and improved mechanical seal and the work of designing the new seal was given to Ben Porges. This gave him the opportunity to develop suitable seals which cured the problem.

Ben's friend Norman Tetlow, of Mather & Platt, was the first person to suggest that he should exploit his seal designs commercially. Before the end of the war Ben suggested to the Managing Director of M.O.R (Dr Franz Kind) the formation of a separate subsidiary company for the fabrication and sale of the seals. This was agreed and on April 13th 1945 the company was founded under the name of Flexibox Ltd, with Ben as the Managing Director, a shares investment of £600, a desolate disused air raid shelter with a floor area of 100 square feet, one second-hand lathe, a second-hand drilling machine and one operator (Mr Bruce).

Ben was made a British Subject on October 19th 1946 with Marianne following suit on October 25th 1946.

Ben went on to design many types of seal and by 1948 the business had taken off, with enquiries being received from all around the world, through a network of agents and distributors. The continued expansion of production made the original facilities inadequate and, in 1949, new and more spacious buildings were occupied on a nearby 10-acre site, accommodating the manufacturing workshops, drawing office, administration offices and state of the art test equipment.

In addition to Flexibox in the UK, it was decided to develop overseas companies, manufacturing not only seals but shaft couplings and related units, used in all sorts of industry. Flexibox companies were founded in West Germany (1954), France (1955), Benelux, Australia and Italy in 1961, Sweden (1965), Spain (1967), South Africa and the USA in 1968 and Canada (1970).

Ben was very proud of the fact that a Flexibox 'R' type seal was fitted to the water pumps of Rolls Royce and Bentley motor car engines. He owned his own Rolls Royce, with his private registration 1FBP, and would often drive it to the Manchester office. Below are some of the 100 adverts created over this time, covering many industries.



In 1962 Flexibox joined Burmah Oil and when Burmah Engineering company was founded in 1969, bringing together all the engineering units within the group (including Burmah Oil), Ben was appointed the company's deputy chairman.

By the late 1960s Ben became involved with the Manchester Chamber of Commerce trade mission and travelled around the world, along with others, representing the best of engineering firms in the UK.

In 1972 Ben Porges, deputy chairman of the Burmah Engineering Company Limited, founder of the Flexibox group of companies and inventor of the world famous Flexibox mechanical seal, retired. Many farewell tributes and presentations were made to him by his numerous friends and colleagues throughout the Group in the UK and overseas. One of these gifts was a portrait of him, painted by Brian Nolan.

Ben's wife Marianne died of Alzheimer's disease in 1990 and to honour her memory he funded the Chair in Old Age Psychiatry in the University of Manchester. He kept an active interest in the field and used his connections to research funding for the department.

By 1997 Flexibox had 23 operating companies around the world, employing over 900 people. As well as the companies mentioned earlier, further companies were established in Norway, Finland, Brazil, Japan, Singapore, Mexico, Venezuela, Argentina, India, Thailand, South Korea and Russia. In addition, for all other areas, a network of agents was established over time.

Professional Membership - Chartered Engineer - Fellow of the Institution of Mechanical Engineers - Fellow of the Royal Society of Arts - Member of the VDI (Verein Deutscher Ingenieure, probably the largest Society of Engineers in the world).

On May 12th 1993 the University of Manchester conferred upon him the degree of Master of Science (honoris causa).

Ben died on the 6th December 1999.