



## From Home to Industry

### How PASSAP Knitting machines have evolved



PASSAP Sophisticated knitting technology at a price you can afford

#### The history of PASSAP

In the past, knitting had traditionally been a women's job and men had the leisure - as they did not knit - to invent a machine to do the job. Already in 1589 the Rev. William Lee in Nottingham constructed a first circular frame, to knit socks on it, as he considered handknitting to be too time consuming.

Even then, progress was not unquestioned. The English Handknitting Association showed her anger by destroying most of Lee's knitting frames, as, their members feared the competition. A few frames only were saved and thus further perfected.

In 1857 a first sock knitting machine, however, for industrial use was presented by Arthur Page. In 1863, Isaac W. Lamb, another church man, took into consideration the family needs in the knitting field. In 1863, he constructed, in Rochester/U.S.A his first handknitting machine for domestic use, but the response was small, quite obvious, when considering bulk, size and weight of his construction.

The first genuine handknitting machine made its debut in 1939 on the occasion of the Swiss National Exhibition. It had been constructed by Ernst Luchsinger, helped by an emigrant from Hungary. Who was Ernst Luchsinger ? He and his brother Kaspar were in the cotton import and export business and had offices in Zurich and Amsterdam. He was an engineer and fascinated by technics. Amongst other items, he also developed a knitting machine.

The response this first handknitting machine, exhibited in 1939, evoked, encouraged E. Luchsinger to start production. First in Uster near Zurich and at a later stage in the city of Zurich, where first units were produced and assembled. In those days, all the main parts were made of wood. In about 1942, the production moved to the city of Dietikon near Zurich.

Right from the beginning, E. Luchsinger sold his handknitting machines under the brand name of PASSAP which is an abbreviation of PATent Schnell Strick AParat, meaning something (like "patented quick knitting apparatus". Its official designation was PASSAP St A. 120. It was a single bed knitting machine and instead of latch needles it had so-called pulling needles, looking like simple hooks and a wooden comb with the same number of needle pins, looking like ordinary nails. The needle pitch was 5 mm. To form the stitches, the knitting had to be pulled over the needle pins manually. The knitting technique then commonly used was garter stitch and patterns were made by using crochet hooks. Although the use of this knitting machine involved a fair amount of hand work, results were achieved 5 to 8 times faster than by pure handknitting.

Of the PASSAP St A. 120 model, 30 units were sold in 1939, 289 in 1940 and 298 in 1941, exclusively in Switzerland. Totally 22'000 units were sold and, starting from 1946 sales also took off in neighbouring countries. The PASSAP export division was then founded to supply to agents abroad, then mainly in Luxembourg, Belgium, Germany and France. Until 1954 a total of approx. 55'000 knitting machines were sold. They were practically all made of wood and

only later they had combs made of zinc-plated steel.

A real break-through was the introduction in 1954 of a first knitting machine with latch needles, the PASSAP M 201. This revolutionary machine with the knitting body made of steel had a row of 201 needles. On this machine the complete stitch was formed fully automatically and, on top of that the patented PASSAP pressure foot system was introduced along with it. In 1955, a ribbing attachment for the M 201 was also introduced which was then available as an optional accessory.

Of the PASSAP M 201 model a total of approx. 200'000 units were produced and sold, of which approximately 25'000 units were assembled in France and, yes, in South Africa.

The success PASSAP had in many markets, did not remain unnoticed. The first competitive products appeared between 1954 and 1960. The first double bed knitting machines were introduced to the market, when in 1958 PASSAP started production of the PASSAP Automatic. It was a single bed machine with an automatic yarn guide. Its needle distance was 4 mm. This model was produced until 1968 and approx. 100'00 units were sold. For the first time, synthetic material was used for the production of certain parts.

1959 was the year of the introduction of the Duomatic line of double face knitting machines with firmly connected knitting beds. Some of our employees still remember this period, when extra people were hired to produce and assemble these knitting machines in additional night shifts. &127;

Like hardly any other product, the Duomatic was continuously improved. Production methods were perfected in many ways to make them more efficient and to keep up with competition. The Duomatic is a high quality product and its many accessories, conceived as a modular system, stand for extraordinary durability of the product. Since 1960, a total of well over 1'000'000 units of the Duomatic line have found their users all over the world. Due to continuous improvements and new accessories the Duomatic has kept its place in the market, side by side with the ELECTRONIC 6000.

The development of the ELECTRONIC 6000 was the greatest and most costly challenge of the 60 years of PASSAP history. Its development posed not only a formidable challenge to MADAG's engineers, it also was a giant leap into new technologies. Finally all obstacles were overcome and the result was the state-of-the-art electronic knitting machine in its time. From day one after the launch MADAG was inundated with orders which once more resulted in a situation where demand far exceeded production capacity for more than one year, irrespective of permanent capacity increases.

Today our aim is to capitalise on the 60 years of experience and manufacturing technology PASSAP has acquired during its long tradition as a specialised producer of high quality compact-sized knitting machines. The latest result of this endeavour is a high performance generation of computer controlled knitting machines at unprecedented prices. The PASSAP E 8000 family of computer knitting machines.

This unique computer knitting machine which was launched in autumn of 1997. Specially designed to meet today's requirements of knitwear designers and small yet high-style producers of sophisticated knitted fashions this 8-gauge knitting machine features full-width computer controlled patterning on front and rear knitting beds. With a knitting width of 47", electronically controlled motor drive and fabric take-down, automatic colour changing and the CREATION 8 pattern design software for personal computers, the E 8812 VH is in a class of its own.

A world-wide network of PASSAP representatives who stock and service our machines and keep a permanent stock of spare parts is the guarantee for the long-term protection of our customers' investment. Factory trained staff in each PASSAP service centre assure the efficient communication of machine operating know-how.

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<http://web.archive.org/web/20021006175710/www.woolleys.com/passap.htm>

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