



A look inside Winter Instruments of Jungingen, Germany

Markus Geison

Introducing you to the family business



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Winter Instruments of Jungingen, Germany have been producing aviation instruments for over eighty-four years. Recently pilot Markus Geison, pilot extraordinaire and a Gliding International correspondent took some of his instruments to Jungingen and the Winter factory to get them serviced.

This was to be a combined two-fold project. A tour of the facilities and an interview with the managing director - Achim Winter and at the same time get his instruments serviced. He graciously answered all Markus' questions relating to the company and to all the instruments they manufacture - instruments known to nearly every glider pilot wherever. It was to be a question and answer session which is reported hereunder.

Mr. Winter, you are manufacturing precision pneumatic instruments for aviation since 1931. What can you tell us about the history of your company?

The company Gebrüder Winter OHG was founded by the three brothers Eugen, Heinrich, and Willi Winter on the 1st of October 1931. They originally focussed on the production and marketing of various meteorological instruments.

In 1935 the company acquired the production site at the Hauptstrasse in Jungingen, which was extended in 1951 and again in 1960. We are still at the same site today, still in use today. Production continues at these facilities. The production of our products and the gauging rooms as well as the offices have been modernized several times over the intervening years.

In addition to the metrological instruments the company quickly went into the development and the production of aircraft instruments. Winter instruments have a good reputation and are used by aircraft owners all over the world.

So you are still a typical German family owned company?

The current shareholders are family - the cousins Achim and Gerd Winter are grandchildren of the founder Heinrich Winter. Achim acts as managing and commercial director, whereas Gerd is responsible for production and quality control. The fourth generation is already gearing up to work in the family business!



How many employees does Winter have and what is their professional background?

Apart from the shareholders the company employs 15 staff - all of them precision engineers or industrial engineers, most of them have been working for the company for many years. All staff members are part of our rigorous quality management scheme. That way we achieve the highest standards in operational reliability of our instruments.

How many instruments do you supply per year? Are they all for gliders or do you supply to general aviation as well?

Per annum roughly 2000 units for gliders, motorgliders and microlights are sold. At the same time we do maintenance work on about 1800 units.

To what level are the instruments designed and build in your factory? Do you outsource some of your production?

To achieve our rigorous quality standards we have organised our company in such a way that we have very good control on any technical and human factors that could influence our products. To

achieve this we use state of the art methods, processes, and machinery. All phase of product development and manufacture are carefully planned and the current regulatory framework and air law requirements are taken into account. All purchased parts are either produced in Germany or are acquired from the Swiss watchmaking industry.

During our tour of the facilities I was quite impressed with the level of engineering to be found in the instruments. The mechanics seem minute and quite fragile and yet they withstand a lot of vibration during use. Can you tell us what your most challenging design problems are and how you overcome them?

You are right - one of our most challenging problems is to achieve a stable reading of the instruments whilst still keeping within the tolerances defined by the regulations. The design of our airspeed indicators makes sure that internal friction is low hence keeping the hysteresis to a minimum.

And with all the digitisation even in modern glider cockpits your pneumatic instruments are still

sought after? How do you see the development for your company for the next Generation of owner?

For as long as pneumatic instruments are mandatory in aircraft I can see a good future for our company. Apart from the production of new instruments there is also a strong demand from maintenance and refurbishment work for many years to come.

Given the right level of maintenance and service your instruments have a long lifetime - what was the oldest instrument you ever serviced?

A couple of days ago we serviced a Winter airspeed indicator produced in 1935. The oldest instrument we have serviced was one made 1927.

So what can your customers do to ensure a lifetime of a Wintger precise instrument?

We can guarantee a long service life if the pressure tests are performed regularly and the instruments are returned to us on a five year interval for a check up and recalibration.

One last question - do you fly aircraft yourself?

Sadly no!



