

The saga of a Japanese brand of telescopes

Polarex - Unitron - Nihon Seiko

An partial editing of an original posting by Xavier, Oct 2013

How is it that a famous brand of high quality products can result from the merging of several lesser known manufacturers? That is the story of the Japanese firm **Nihon Seiko Kenkyusho** from Tokyo. The name is most probably not as familiar as the more common brand names Polarex and Unitron that many amateur astronomers know. Within a small group of collectors they are considered the best refractors of the 60's to 80's of the last century.

The early history

In the thirties Nihon Seiko Kenkyusho started making telescopes for the Japanese market. After a break during World War II Nihon Seiko started back in the fifties making telescopes.

The basic brands of Nihon Seiko were **Seiko Scopes** and **Polarex**. In America United Trading Company was an importer and distributor who brought the telescopes on the market under the brand name **Unitron**. In Europe, the same telescopes were marketed under the brands Polarex and Welt Blick.

What makes the brand so mythical? Two aspects of the Polarex telescopes were very important: the high **quality** and **innovation**.

Polarex were the highest quality telescopes for amateur astronomers in the second half of the twentieth century. No other brand could match the quality of Nihon Seiko within this segment. Optically and mechanically they were the best. Until the seventies, there was little competition in Europe.

Nihon Seiko engineers were also very innovative. They designed telescopes that were easy to use and yet very robust. A Polarex telescope is almost indestructible. The craftsmanship of the past has little imitation. Certain accessories were very innovative. Now they know their equal.

The Polarex telescope was a system instrument. That means that the refractors, mounts and accessories were aligned. The buyer did not have to leave the brand to find all the components he needed. Polarex was not the only one with a complete telescope system. **Zeiss Jena, Takahashi, Vixen, GOTO Tokyo** and later had such a system.

Nihon Seiko had one major drawback: the price. The telescopes were very expensive. A small Polarex or Unitron soon took a month's wages. The price rose even more when import duties on Japanese products increased. This meant that they were prestige objects. An amateur astronomer who had received a Polarex was respected within his club. Everyone wanted to even see a Polarex. No one dared to criticize a Polarex (rightly).

Distribution

The distribution and manufacture of telescopes is another story. In the heyday of the brand not many people knew the origin of Polarex and Unitron.

Unitron was marketed by an American distributor of optical instruments. No manufacturer. They divided among other Nihon Seiko telescopes. But also bought parts from other Japanese companies. In itself Nihon Seiko bought his parts from various other subcontractors. You notice it very clear in the telescope mounts. No two mounts are 100% identical. There are always small differences. The main task of Nihon Seiko and Unitron was the quality. This was very strict.

Distribution in America was simple via Unitron. In Europe and especially in the Benelux was less simple. First of all, there were several distributors who succeeded each other rapidly. The Benelux is also a small market that is difficult to increase its profitability. That makes today's telescope specialist still.

The distributors in Europe, the Americas and one time Unitron directly via Nihon Seiko. This means that there is a difference in the composition of a Polarex, Unitron and a telescope. Other accessories and other packaging.

On one occasion the accessories were noticed the other times were blank accessories. But they kept the same Japanese factories.

The result of this uncertain distribution in Europe was that there was a shortage in certain years. Scarcity, high quality and higher price range made Polarex a highly sought after brand. The amateurs who still remember Polarex always talk about the catalogs and advertisements where they were amazed. Mostly, the Polarex telescopes were out of reach. I also cherished the Polarex catalogs, many of which I still own.

Marketing

United Trading Company (Unitron) was very strong in marketing. Progressive itself. From the fifties they placed ads in major astronomical journals that were also read in Europe. They made use of testimonials. Worked with installment plans. There

was a member-get-member system for clubs. Direct mails with new products or accessories. etc.

The brands were highly monitored and the quality was a priority.

The result was a high profile in America and Europe. Nihon Seiko pulled resolutely exports. Within Japan, the Seiko Scope was not a great brand. There were **GOTO, Takahashi, Pentax and Nikon**, the big players.

Carl Zeiss Jena in Europe had a very strong line of telescopes. But because of lesser marketing and less consistent quality they were not as successful.

The "cabinets"

Now, it is evident that the packaging is essential for a product. They knew the Japanese in the fifties though.

All Polarex telescopes and accessories were packed in wooden boxes. No crates but a suitcase that Nihon Seiko called a "Cabinet". The cases were particularly well finished. Inside there was a precise breakdown making the instruments very well protected. Cabinets that fit into the Japanese tradition of making wooden boxes and packaging. Typical features of the Cabinets are the green felt, the locks and handles. A Polarex addict can already recognize a Polarex coffin away without having to open it.

Polarex without a cabinet is not a complete telescope. Today's better telescopic brands know this and still provide the custom rigid packaging, in contrast to the poor packing of the Chinese telescopes.

The professional market

What is less known is that trying to get the professional market with very large refractors with a diameter up to 9 "or 22,5cm.'s 5" foothold Nihon Seiko under its own brands Seiko Scope and Polarex and 6 " telescopes on ornate black pillars were successful., but the larger models are only made a few.

Polarex remained essentially an amateur brand. There are very few professional observatories or wealthy amateur who had a Big Polarex.

The end of the brand and an era

Typically a Polarex telescope is the long white tube on a heavy black mount. Ask your child to draw a telescope it will be a long tube drawing. The Nihon Seiko refractors were achromatic lenses viewers. To obtain a high quality image a long focal length is needed. Hence the long tube. The disadvantage is that the field of view of an achromat is small and not bright. The long tube that allows the telescope is not so convenient for transport. Tubes of two feet were no exception.

In comparison, the diameters were (one of the main features of a telescope) very small. The most popular Polarex had a diameter of 60mm. A refractor with a diameter of 10cm was already a very large telescope. Now, a telescope with a diameter of 20cm and smaller amateur telescope.

The achromatic telescopes were very suitable for Moon and planets. Deep-sky was still little evidence. However these telescopes also suitable for deep-sky and photography. The equatorial rings are still of high quality.

In the late sixties and early seventies doing the larger telescopes and Schmidt Cassegrain telescopes entering the amateur market. More compact, faster and larger telescopes at a lower price. Three brands are positioning themselves aggressively in the market **Celestron**, **Vixen** and **Meade** later. Competition is uneven.

In the seventies, there is the serious economic crisis and Nihon Seiko has the resources and the vision not to jump. On this train they stick to the "clumsy" and expensive refractors.

Then there is the rise of the short refractors with better optics (ED, SD and Apo) which made it possible to create more suitable for photography and deep sky shorter and faster refractors

Nihon Seiko made an attempt to continue with the launch of a "folded" refractor type Schaer on the market. These were compact telescopes based on the same objectives as the regular long refractors. There were only a few hundred of these Schaer made refractors. They were not successful because the distribution failed.

In the mid-eighties, the production of Seiko Scope stopped. There telescopes were still sold, but these were made up of components available from different periods.

Meanwhile, there was competition from other Asian countries with cheaper telescopes of dubious quality which are still sold in department stores.

Beginning of the nineties, the story was over.

Polarex and Unitron now

Almost thirty years after the end of Nihon Seiko realize some amateur astronomers realize that Polarex is a wonderful telescope. Most of the amateur astronomers continue with the prejudices that an achromatic refractor is inferior to a fast apochromatic refractor and especially that "old" telescopes are clumsy. About the Chromatic Aberration of the achromatic lenses, there are books written full. But I know when an amateur once looks through a Polarex he is impressed and quietly revises his opinion.

There is a change. On the second hand market in the United States the prices for the Polarex and especially for the Unitron telescopes are on the rise. First the collectors who were looking for the pretty white and black telescopes. They are prepared as a showpiece in the living room, but now we find that different brands telescope back interested in the long achromat and they are re-created.

The quality of the Polarex - Unitron accessories have in many cases no equal.

Take the **Unihex**. An eyepiece revolver with room for 5 or 6 eyepieces with different diameters. Several brands make an attempt to produce an eyepiece revolver on the market without much success.

Characteristic of the system, the **tube** Nihon Seiko **rings**. Through an ingenious system of braces all kinds of accessories could easily be attached to the tube. The easiest is the **Unibalance**. A weight slidable on the tube which ensures that the telescope is always in balanced.

The classic rack and pinion **focuser** is out of fashion. Most amateurs think these classic Japanese telescopes used inferior and small focusers. The large Polarex telescopes have focusers with a diameter of 60mm almost as precisely as Feather Touch focuser. The disadvantage is that the focusers are not equipped for the modern 1.25 "and 2" eyepieces. To remedy this we have our own line of adapters on the market that makes it possible to use the classic Polarex and Unitron telescopes with contemporary accessories.

My Polarex

Is it nostalgia or my love for beautifully finished telescopes that makes me go collect Polarex telescopes?

My first Polarex I bought when I was twelve years old. A small 40mm refractor. The smallest refractor ever made. I did not realize that it was a great thing. My urge for a

larger telescope made me at sixteen, after the advice of Dany Cardoen, buy a large 75mm Polarex.

Stupidly, I put it away for modern telescopes 15 years ago then was very dissatisfied with the quality and workmanship of the Chinese telescopes.

Then when the decision to return to Polarex, I could only buy secondhand.

Now I have a collection of about 20 Polarex telescopes. At the Arcturus Observatory there are two or three Polarex telescopes set up. In addition, a permanent exhibition of contemporary telescopes. I catch myself that I first observe with telescopes Polarex and only then with the modern Celestron C11 or TEC140.

It's not fair to have a comparison of a Polarex with a modern telescope. It's a different way of perceiving. The picture is different. Not directly better or worse but different. The field and the contrast is different.

The longer focal length is sometimes better suited to our sky quality.

We forget too quickly that a lot of spectacular discoveries were made with the long achromat.