

VISITING HAMBURG TO SEE ELAFLEX-ING ITS MUSCLES

By Nick Needs



Elaflex specialises in refuelling equipment for sensitive gases and liquids. Its comprehensive product range covers equipment from terminal to nozzle, meaning hose assemblies, couplings, nozzles and safety breaks, as well as rubber expansion joints.

Recently, we made the journey to Elaflex HQ in Hamburg, Germany, to meet up with its Managing Director, Stefan Kunter and learn more about the complexity of Elaflex's expanding product range. Stefan kicked off by telling me "Our design and engineering departments and our production facilities safeguard Elaflex's products for being state of the art, technologically speaking, in accordance with the highest safety measures and set industry standards for our industry sector. We place a special focus on the lowest Total Cost of Ownership, whilst achieving long-lasting quality products to meet our customer demands".

The beginning

But where did it all start, is always my first question when visiting a manufacturer and the answer concerning Elaflex, naturally presented itself when reading some literature prior to my meeting. In the 1950's there was a law in Germany compelling fuel stations to use automatic refuelling nozzles when

filling up vehicles, a device which forced the pump to 'click off' when a fuel tank was full. Misinterpreted sometimes by the public in the coming of the 70's self-serve era, it also meant that customers could leave a nozzle in the aperture of the fuel tank and refuel 'hands free', knowing that it would not overfill, or at least that's what they thought.

Today, as attendants have all but disappeared on the forecourt, this particular feature has been removed in several countries as there were too many instances leading to the automatic re-fuelling nozzle not clicking off when it should, resulting in fuel spills on the forecourt.

I know the Swedish didn't like it because in the bitter winters there, customers would on occasion drive away from a fuel station with the nozzle and hose still fixed firmly into the car. However, as it happened, this invention actually marked an extremely important chapter in Elaflex's history, as manufacturing and marketing these automatic refuelling nozzles became a huge area of business for the company.

Staying on the subject of fuel retailing 'trivia' it is also significant to note that the Co-founder of Elaflex, Mr Karl MC Ehlers, was a pilot and a chemist with absolutely no knowledge whatso-

ever of hoses, valves, nozzles or any other such things, prior to being asked in 1948 to develop an aircraft refuelling hose for the British Army. This in-fact marked the beginning of Elaflex's refuelling equipment business, with it producing aircraft refuelling hose assemblies for the Berlin airlift and also fuel hoses for petrol stations, road and rail tankers, ships and also at bunkering facilities for planes and boats.

The commercial effectiveness of any company is what really matters today, but alongside those heady days of the 40's, 50's and 60's where new inventions, revolutionary technology and inspired aspiration all seemed to combine, to create the grass roots for much of what we simply take for granted these days, there are always some amazing stories. The colourful history of Elaflex, now one of the leading international manufacturers of ancillary re-fuelling equipment, did not disappoint. Stefan, joined Elaflex in 2008, having previously worked for Fafnir, a company also based in Hamburg, specialising in the development and manufacture of sensors and systems for monitoring and measuring fill levels.

We briefly covered the company journey, starting with the foundry established by the Albert Hiby



Thomas Wullkopf showing a sample of the data which can be stored on the Product ID App.



Sandra Stoppel and Thomas Wullkopf discuss the Oasis Ultra Fast Fill System for CNG.



The line-up of specialist nozzles for fuel stations.

Company in 1913 before moving swiftly on to the registration of the Karl Max Cäsar Ehlers Company in 1923, listed as a technical distributor to the Navy and shipyards in Hamburg. In 1952 there was the foundation of 'Gummi Ehlers GmbH' a sister company of Karl Heinz Ehlers: specialising in the development and sales of rubber hoses for flammable fluids. Most significantly in 1954, Elaflex GmbH was incorporated as being the first company specialising in the distribution of special couplings for the petrochemical industries.

Only ten years ago, in 2010, after nearly 100 years of close co-operation, ELAFLEX Tankstellentechnik and HIBY merged its common areas of business under a new company name, ELAFLEX HIBY GmbH & Co. KG, which more recently was changed in 2020, when it was announced that ELAFLEX - Gummi Ehlers GmbH and ELAFLEX HIBY Tanktechnik GmbH & Co. KG, were to be united to become ELAFLEX HIBY GmbH & Co. KG. Phew! They say 'the devil is in the detail', so it's important to know all facts about company identities, but when it comes down to it, most of us simply know this internationally renowned company as Elaflex and let's just say, 'old habits die hard'.

Global representation

With 650 people working for Elaflex worldwide, its international profile is secured through offices and representation in Europe, the Far East, Australia and America. Stefan talked me through the primary products they manufacture which range from nozzles, hoses, breakaways and vapour recovery

equipment for fuel stations, to hose reels, tank truck equipment, couplings, valves and rubber extension joints for road and rail tankers, ships and aircraft, with some applications often having to handle extremely volatile substances when working with the chemical and pharmaceutical

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- Stefan Kunter, Managing Director, Elaflex

industries. He commented: “The focus for our business is always on manufacturing high quality, long life products, in every industry sector we represent and this in turn assures our traditional markets continue to perform extremely well all over the world. Developing markets though, like in the case of alternative fuels for example, offer us huge potential for growth, with LPG, LNG and CNG particularly, featuring more and more on our global agenda”

We walked from the conference room to the product showroom, where we met up with

Thomas Wullkopf, Sales Director for EHT, which in Elaflex terms means, petrol station equipment. All divisions of the company have their own unique tag reference. Gazing across the showroom floor, it seemed like every Elaflex product must be on display, under a web of sophisticated lighting, making the whole room look like some kind of mini exhibition. Remember exhibitions? I can only imagine this facility must be extremely helpful in allowing people to understand the full scope of Elaflex's extensive product range. It certainly worked for me, especially after Thomas gave us the full showroom tour, which I have to say, was conducted with all the professionalism one might expect from a TV presenter on the national evening news. We actually filmed some of it, the footage of which is available to see on our erpecnewslive.com video channel. Here are just a few of the products which grabbed our attention.

Product ID App

First up was the 'Product ID App', shown to us on an Elaflex nozzle, located close to the trigger. It's a simple QR code, but it carries an enormous amount of information. Not the kind of data you want to read in bed before lights out I grant you, but nevertheless it's the kind an operator needs on hand in the course of operating a site which dispenses fuel, like technical details and specifications, certificates and the product history of the equipment. From my perspective, this must be a good idea for any piece of equipment, irrespective of whatever industry the equipment is for.



Orange means LPG, as shown on this display of nozzles and hoses.



Three application samples of Hose Reels for different media.

CNG - Oasis Ultra Fast Fill System

Offering a range of products for CNG, which can withstand the pressure of up to 300 bar in storage at a fuel station. The pressure is reduced to 200 bar when refuelling a vehicle, which means different components are needed at different stages of the process. The varying pressure levels are controlled by a priority panel between the tank and the dispenser.

Hoses, couplings and expansion joints

Usually not given the appreciation they deserve, but laid out in their own dedicated showroom area, it's here, that for me these crucial parts of the refuelling jigsaw come into place and it's simply the quality, from an engineering perspective, which shines out everywhere we looked.

The LNG coupling we saw is capable of functioning at -196 degrees, the storage temperature for LNG which is needed in order to compress it. High quality steel, bolts and rubber are no doubt the primary components in everything in front of us and I suppose that old expression 'Made in Germany' came to mind immediately and automatically answered any other questions I might have about durability and length of life. They must last a heck of long time, is all I can remember thinking at the time.

LPG

Orange at Elaflex means LPG on hoses, nozzles and I'm sure other equipment we didn't get the chance to inspect.

Thomas showed us four different LPG nozzles i.e. the screw on version for German speaking countries and the US, although he pointed out that the US market will change from ACME to a Euro connector shortly.

The dish system, used in Italy and Poland, between them representing the largest population in Europe for LPG vehicles. Dish systems are

also used in the Baltic regions. in Europe for LPG vehicles. For the Netherlands and the UK we saw the Bayonet system, but learned that nowadays this market is starting to fade. And then there is the Euro, an LPG nozzle designed to unite the European LPG re-fuelling community, which has yet to come into effect for most of the EU, although in Spain and Portugal it is now law for all operators to use it. Well done Iberia.

It's the motorist of course which will see the thin edge of the wedge, needing to have four adapters on board if making extensive journeys through the continent. Not ideal to say the least and some might be forgiven to saying it's a classic Euro blunder.

Fuel station equipment

Our last but one stop concerned the everyday filling station, which Elaflex supports with three different types of vapour recovery nozzles, necessary for the different types of dispensers. There were another five versions of nozzles displayed, containing a variety of special features, including such things as an integrated shut off system, a drip stop which reduces the volume of drips produced from the nozzle, lever assistance or automatic refuelling, as mentioned earlier in this article and truck nozzles which have a flow rate of up to 200 litres a minute.

If you think that's fast, next to the truck nozzles was a selection of aircraft refuelling devices which function at speeds in excess of 500 litres per minute. Commercial airliners, I am told, will refuel at over 2000 litres per minute.

Hose Reel Solutions

Elaflex have recently extended their product range to include hose reels which are custom-made, equipped with couplings or nozzles and supplied as part of a complete package. Commonly, these packages are used for terminals, road tankers and at stationary or mobile refuelling facilities.

Adblue

We will finish up with a few lines about Adblue, on things I didn't know before we came on this trip.

Adblue is a very sensitive media and as such it is important to protect its purity, Thomas told us. He said it should not contain any foreign particles and as such it is forbidden for equipment to be made using aluminium, brass or gun metal for example.

All Adblue refuelling components are made with stainless steel. Special hoses for refuelling with Adblue have an inner liner for extra cleanliness. There is always the danger of filling up a tank with the wrong type of fuel and with Adblue it's no different, as was pointed out to us when shown the Elaflex mis-filling prevention application for both trucks and cars. Valves and magnets were definitely mentioned and certainly have something to do with it, but if you would like to know more, I suggest you visit www.erpecnewslive.com where you will see a two minute video from Thomas explaining everything in more detail.

Hamburg was great and we look forward to being back there again very soon.



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