LANDUSTRIE

100

years

worldwide water technology

Landustrie
1913 - 2013

LANDUSTRIE 100 years

worldwide water technology

Landustrie
1913 - 2013

LANDUSTRIE 100 YEARS

The 100th anniversary of Landustrie was ushered in on 7 January 2013 with the annual breakfast and group photo of (almost) all employees in front of the company's office on Pieter Zeemanstraat. Photo: Simon Bleeker.

“WE MUST MAKE THE DIFFERENCE”

“Landustrie is a great company. We have a lot of knowledge and are very skilled. And … we have a great team of people.”

General director Marten van der Schoot makes no secret of his pride in Landustrie and its workers. And that Landustrie is in a market that can only grow. “But that doesn’t work if you sit still. We live in a rapidly changing world. You have to keep on the move. You have to show strength. Constantly think about new markets, products and possibilities. And also develop them. That’s what we do at Landustrie.”

In 2007, when Marten van der Schoot took over at the machine factory, changes were necessary. “The organisation had to be professionalised and adapted to the current day. Moreover, we were in the middle of the automation revolution. The existing system (TBX) was from the early 1980s. Then, it was a forerunner. Now it’s the dinosaur in the computer field. Later came the transition from 2D to a 3D design package. That took some getting used to, more for the old guard than the younger employees. But finally it worked: we now design three-dimensionally.”

The drive to go forward is a great strength of Landustrie, according to Van der Schoot. “It’s in the genes of the company. You can see it when you look at the past. We must be the best on all fronts. That works only if you give people freedom, space. Our people strive to use their imagination and creativity. It’s my job to encourage them.”

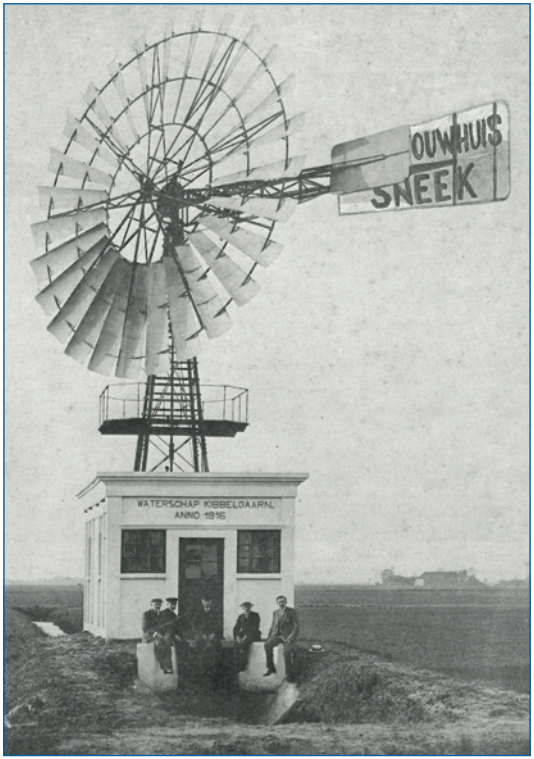
The current management of Landustrie consists of (from left to right) Jan van der Schoot, Marten van der Schoot, and Alfred Zwart.

Landustrie keeps its sights on new markets. “With the creation of new pump series, we now have a complete wet and dry pump range, for example, whereby the world is literally at our feet. It wouldn’t surprise me if this is one of our pillars.”

You must keep making the difference as a company, is the firm opinion of Marten van der Schoot. “You have to be continually busy with that. And look for partnerships, because if you can’t share, you also can’t multiply.”

“Landustrie is 100 years old this year. In this anniversary issue, we would like to take you into the past and present of our company. And, of course, we also look to the future. We must continue to innovate, both in our organisation and in our products. That is of vital importance.”

LANDUSTRIE HISTORY



The founder of Landustrie, Hiltjo Wiert Bos, was present at the opening of one of the first pumping stations. He sits on the right in the photo.

History

As a farmer, Pier Wiebes Cnossen (1870-1933) was a pioneer.

He was one of the first farmers to purchase a mowing machine. Around 1900, he also began to sell these machines, but he didn't stop at that. Because more and more farmers began to mechanise, Pier Wiebes Cnossen's trade began to grow. He sets up Het Landbouwhuis (Agriculture House) in Sneek.

Business goes so well that numerous permanent employees and a director are appointed. Pier Wiebes Cnossen himself disappears more and more into the background. In 1913, he sells a portion of his shares in Landbouwhuis to Hiltjo Wiert Bos (1885-1957), who continues the business as a public company.

Landustrie's beginning

At that moment, the foundation for the current Landustrie was actually laid.

The trading firm sold not only agricultural machinery, such as the beet cutter, but later also dough machines. The sale and installation of wind motors for pumping stations follows. The first drawing of a screw pump also dates from 1916. After World War I, the product range of Het Landbouwhuis was expanded with the design and sale of screw pumps and screws. And – not unimportant – electrical engines made their debut and replaced wind motors.


N.V. „HET LANDBOUWHUIS" SNEEK.

BIETENSNIJDERS.

VERKOOPPRIJS f 50.—

VERKOOPPRIJS f 50.—

Bovenstaande Bietensnijder hebben wij sedert jaren met het GROOTSTE SUCCES VERKOCHT.

De laatste tijd konden wij deze evenwel tot onzen spijt niet leveren.

Thans wederom uit voorraad leverbaar.

Zware Draaischijf 85 cM. in middellijn met 3 uitneembare stalen messen, staat stevig op 4 pooten en is tevens ingericht om electrisch te laten aandrijven.

Maakt plakken van bijna 2 cM. dikte, lichte gang, grootste capaciteit.

N.V. „HET LANDBOUWHUIS" SNEEK - Telef 188.

's VRIJDAGS CAFÉ HOOGKAMP :- LEEUWARDEN.

The Landbouwhuis focussed on the sale of agricultural machines. The beet cutter was, according to them, a great success. An interesting detail is that the people from the Landbouwhuis could be found on Fridays in Café Hoogkamp in Leeuwarden.

Industria

Because the market for agricultural machines increasingly faded into the background, and mechanical and electrical engineering increased, Hiltjo Wiert Bos set up the machine factory Industria in 1928.

Only after World War II did industrialisation take shape and the Industria machine factory grew successfully. The focus was put on the sale and installation of pump and purification installations for

domestic and industrial wastewater. The Landbouwhuis and Industria were then combined and Landustrie was born.

In the spotlight

When a new building on the Pampus Quay in Sneek opened in 1954 with many festivities, Sietjo Bos, the son of Hiltjo Wiert Bos, took over leadership of the flourishing business.
Landustrie was an increasingly important player in the market for wastewater treatment. Their work was no longer limited to the Netherlands.
Due in part to expansion, Landustrie landed in the spotlight.
OGEM (Overseas Gas and Power Company), a rapidly growing concern with 240 employees, took over Landustrie in 1970. The management of Landustrie fell to the brothers Dirk and Sietjo Bos.

Continuing growth

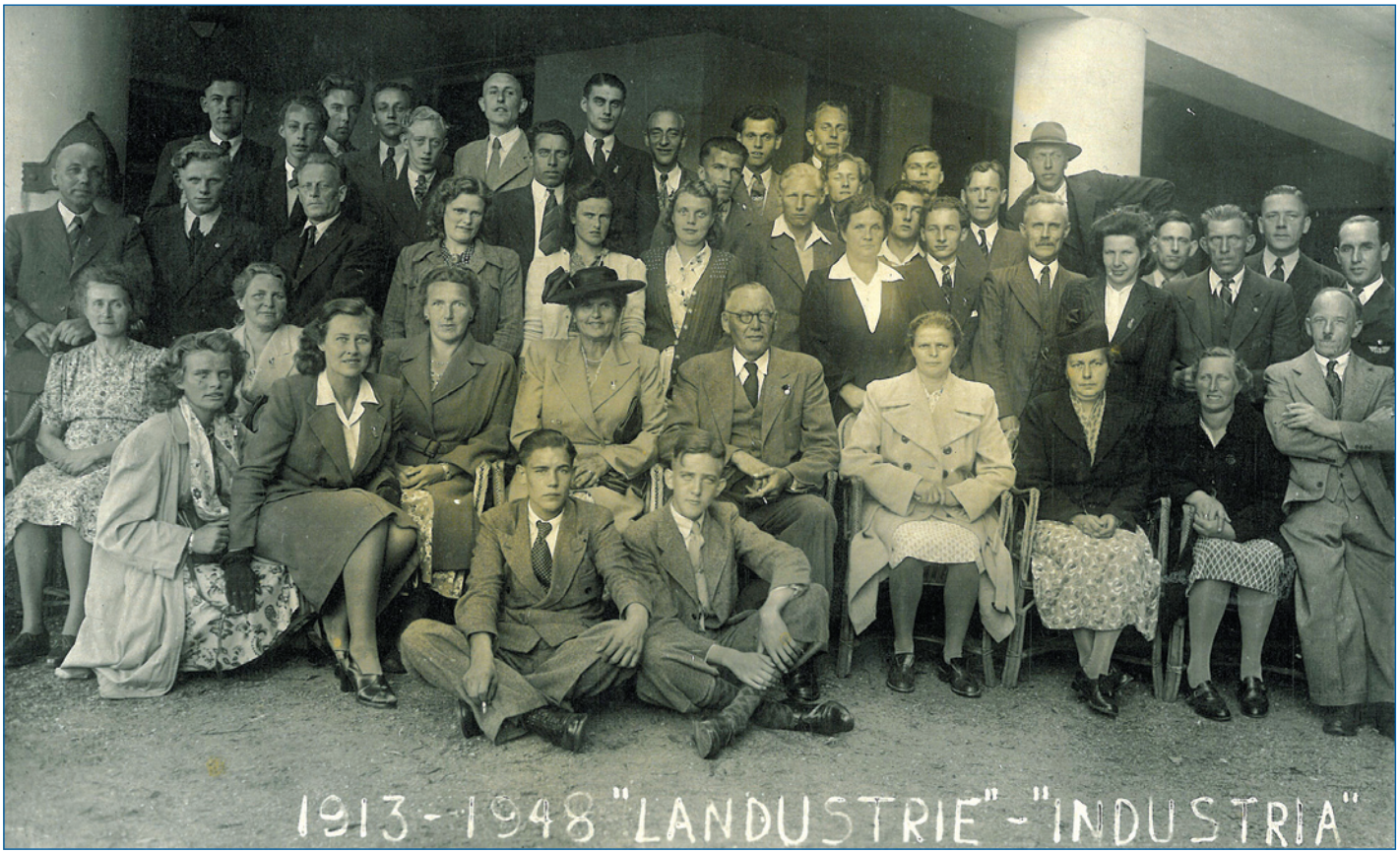
Thanks to the takeover, Landustrie could take advantage of OGEM's network and continue to grow steadily.
The production areas on the Pampus Quay quickly became too small. At the new industrial space on Pieter Zeemanstraat in Sneek, a brand new company was built in stages. After the completion of the first two building periods in 1970 and 1971, a third and (for now) last phase was finalized in 1974. At Pieter Zeemanstraat, Landustrie now has a large production hall, an office and drafting rooms. On 27 March 1974, a new factory was opened by HRH Prince Claus of the Netherlands, who in doing so underlined his commitment to care for the environment.

A trade show in Deventer or Arnhem. The Landbouwhuis also used the name Landustrie for the dough machines. The photo is in all probability made around 1930. The photographer Frans Gazendam worked in those areas at that time.

Landustrie continued to grow. At the end of the 1970s, its employees number more than 200 men and women.

Problems

Through acquisitions at home and abroad, OGEM becomes colossal and barely able to be controlled. Definitely not by the directors, such as Berend Udink en Jaap Boersma, who as former politicians had no entrepreneurial blood in them. A reorganisation attempt failed. Bad press and various problems and riots produced disorder. OGEM falters. This bad image also reflects on Landustrie. But it was the Islamic revolution in Persia and later the war between Iran and Iraq that put Landustrie in serious



Landustrie-Industria exists 35 years. The complete staff was recorded on film for that occasion, as well as 65 years later.

financial difficulties. The building of a large water treatment plant by Landustrie in Persia had to be abandoned and the payments were stopped. Just like the other loss-making OGEM companies, Landustrie was put in an insolvency construction, and in 1982 Landustrie's bankruptcy followed.

New start

The then director Jur Westerhof and the employees left over did not sit still in bankruptcy, rather they fought against it. Orders were finished and the trust of existing customers was won back. Like customer Cees van der Schoot from the shipyard Welgelegen in Harlingen. He had great confidence in the company and the people working there. On 1 July 1982 Landustrie, albeit in a reduced form, was able to make a new start thanks to the acquisition by Welgelegen. Van der Schoot made a good prediction,

because in that same year Landustrie was profitable again. There were 65 people working there and Jur Westerhof was the director.
Whatever work was available was acquired. Shipyard Welgelegen also provided much needed work; ship sections were welded by Landustrie. In 1992, a new boat hall built specifically for that work was opened by Royal Commissioner Hans Wiegel.

New markets

Jur Westerhof retired as director in 1995. The workforce had by then grown to 156 FTEs. Peter van Leeningen, the successor to Westerhof came from its ranks. But work declined and products were shed because they could not be offered competitively. The orders from shipbuilding declined to rock bottom. After three reorganisations, Landustrie had 115 full-time employees. Later, the way back up was found again.
Landustrie continues developing and penetrates new markets. Research and development are important pillars. Landustrie participated for instance in the research institute Wetsus and pioneered in decentralized sanitation, for which the research business Desah was established.

In 2007, Marten van der Schoot, a son of Cees van der Schoot, took over at the helm.
The new director streamlined the company and made room for and invested in further developments. At the initiative of Landustrie, and together with VolkerWessels Telecom, a dike monitoring and conditioning system was developed, which won the national Water Innovation Prize. Generating energy with help of hydro screws gave the production of screws a whole new meaning: a new market of which much is expected.
In 2013, one hundred years after Hiltjo Bos set his first steps on the Landustrie path, it's bustling on Pieter Zeemanstraat as never before.

A clever construction was devised for vacuuming up grain from a freighter.

SCREWS AND SCREW PUMPS

At the World Exhibition in Brussels in 1958, a screw pump from Landustrie was shown.

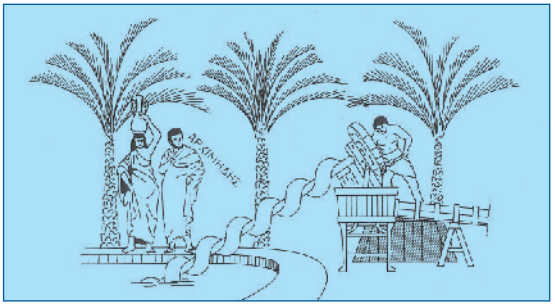
Landustrie has become successful with screw pumps. And while the appearance of the screw pump, to an outsider, has barely changed over the years, the screw pump has undergone a veritable metamorphosis.

The principle of the screw pump predates our era. The Greek mathematician Archimedes (287 BC – 212 BC) thought that you could move fluid by using a spiral tube around a central shaft. This invention was later called the 'Archimedes screw'.

In earlier days, the screw pump was used mainly in polder pump stations. Water from the lower polder was pushed up by the screw in order to be drained away. The effectiveness of the screw pump became increasingly important.

For example, the amount of water pushed up depends on the degree of inclination, the position of the loading point, the diameter of the screw pump, the number of flights, the speed at which the screw rotates, the thickness of the blades and the construction of the trough in which the screw is located.
Over the years, Landustrie has collected much information about the performance of the screw pump. This information makes it immediately clear that there is no one standard screw pump.
A screw pump is uniquely constructed based on extensive computer calculations and a sophisticated design. It is fully adapted to the situation, because only then can the highest efficiency be achieved. The robust construction ensures that the screw pump is highly reliable and has a long life. Landustrie produces screw pumps with a maximum length of 25 meters and, depending on the angle, a height of up to 15 meters and a maximum diameter of 7.5 meters.

Landustrie's screw pumps can be found all over the world. For example, they can be found in pump sta-



Cutting the blades.

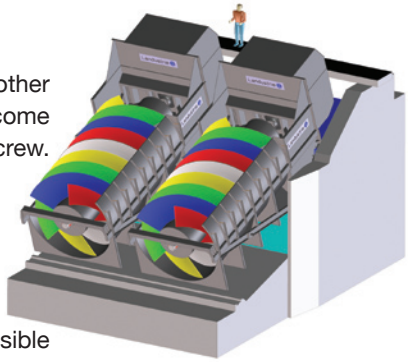
tions and water treatment plants, from Hamburg to Cairo, and from Haaksbergen to Los Angeles.
Screw pumps are not only used in polder drainage and water treatment plants, but also in irrigation projects and in water rides in amusement parks.

Hydropower screw

Further development has also led to a new use for the screw pump. With the hydropower screw, developed with Landustrie, water is led from a higher level to a lower level. The force of the water flow sets the screw in motion. This rotary movement is converted to electricity via a generator. Landustrie is a leader in this sustainable method of generating energy.
Thanks to Landustrie's hydropower screws Windsor Castle one of the homes occupied by the United Kingdom's Royal Family enjoys green energy. Besides England, hydropower screws from Landustrie can also be found in Switzerland, Germany, Austria, Italy and France. The fact that demand for renewable energy is growing strongly worldwide is for Landustrie a reason to make a strong commitment to further development and wider use of the hydro-screw.

Fish-friendly screw pumps

The traditional screw pump is fish-friendly in form.



This is definitely true if you compare it with other pumps. Yet it was still common for fish to become damaged or die while swimming through a screw. For this reason, Landustrie adapted the screw pump so that a genuine fish-friendly screw pump was developed. When tested by an independent bureau, the fish-friendly screw pumps from Landustrie received the designation 'very good'. At all points where possible damage to the fish can occur, the screw pump has been adjusted.

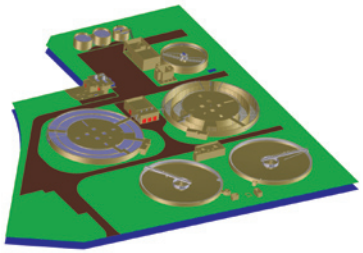
Windsor Castle the home of the UK Royal Family in Berkshire, England, is provided with energy by hydropower screws from Landustrie. Initiator David DeChambeau at the Windsor project.

Still more new technologies

ALMOST 100% OF WASTE WATER IN THE NETHERLANDS IS PURIFIED

Watertreatment USA 2004.

At all sewage treatment plants in the Netherlands – and there are 350 of them – you will find a Landustrie product: screws, pumps, clarifier bridges or aerators. In other words, Landustrie is big in wastewater treatment. And not only in the Netherlands, but also around the world you will find the Landustrie logo.



New sewage treatment plant Hilversum 2013.

With the development of new products to improve treatment of wastewater, Landustrie has always been the frontrunner.
That is still true now. With decentralized purification, Landustrie has devised a new way of treatment whereby extensive sewage systems are no longer needed. And during the purification, energy is generated that can be used for heating, for example. What remains is dry manure. The decentralized purification is housed in a new company: Desah.

Watertreatment Schiphol 1977.

Energy neutral

In the Netherlands, the sewage treatment plants ensure that virtually 100% of domestic wastewater and 90% of company wastewater are purified. This may seem perfect but it is actually only relative, since many purification systems are dated and must be renovated or replaced. The waste stream has also changed over the years, and the sewage system has also seen better days. New purification techniques have been developed and there is constant attention to the possibility of saving energy in wastewater treatment. The objective is for large purification systems to generate energy during the purification process, whereby these purification systems become energy-neutral.

Diseases

Wastewater treatment has a long history.
After the Industrial Revolution and the urbanization that went along with it, the problem of wastewater became greater. The government became increasingly worried about the spread of infectious diseases. That is why, around 1840, research was conducted into the transfer of diseases including cholera and typhoid. John Snow discovered that the London cholera epidemic of 1854 was caused by contaminated water from the Broad Street water pump and he showed that the treatment of wastewater and human waste is necessary for public health. Drinking water and wastewater were separated in London and the wastewater was purified. The subsequent sanitary revolution in the Western world ensured that in cities, for the first time, there was no mortality surplus.

Developments

There are still regions where little or no wastewater is purified. Especially in less populated areas, governments do not want to invest in large purification systems with complete sewage systems. But in these areas as well, decentralized purification offers a possible solution.

Now, in the Western world, there is increasing attention given to the quality of purification and anticipation of changes. Now all the wastewater, including rainwater, goes directly into the sewer. It is heavily diluted, which requires a large purification process. If the wastewater is more concentrated, the purification can be performed more efficiently. In addition, the recovery of nitrates and phosphates from wastewater has increasingly become an issue. Purifying wastewater of drug residues and hormones is also high on the list of priorities.

Aeration of wastewater

Water contains many microorganisms that ensure that the waste in the water is broken down over time. For this process to work, the microorganisms need oxygen. But with wastewater, the quantity of waste is too large for natural self-cleaning. So, in wastewater treatment, oxygen is added with the help of aerators.
Over the years, Landustrie has evolved into an aeration specialist.
Knowledge and experience acquired have led to a wide assortment of aerators, suitable for diverse treatment processes.
Landustrie has an aeration concept for every treatment. There are surface aerators, brush aerators and the Landox flow boosters combined with fine bubble aeration.
Thanks to its full-scale aeration test tank, Landustrie has gained extensive specific knowledge of process technology.
In the case of an oxygen shortage, it is also possible to rent floating aerators.

Sewage treatment plant Sint Maarten 2012.

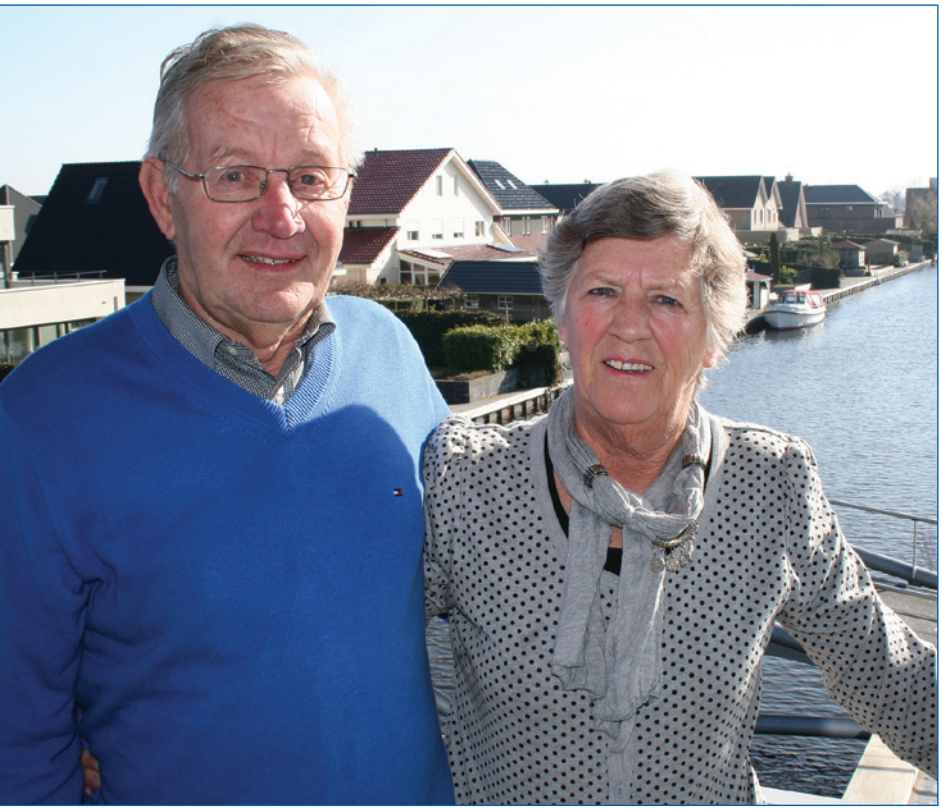
Bubble aeration Aerostrip®

Brush aerators.

Landox flow booster.

Surface aerators.

FORMER DIRECTOR JUR WESTERHOF HAS LANDUSTRIE IN HIS GENES



Jur and Ann Westerhof.

Every two weeks, he enjoys dropping by Landustrie. “Just looking back”, as he himself says. And back it is, because it’s been 18 years since Jur Westerhof retired as director. He experienced up close the difficult times of OGEM’s collapse and the bankruptcy of Landustrie that went along with it. And … the admirable comeback thereafter.

Partly because of that experience, his relationship with the machine factory is as strong as an ox. And the reverse is also undoubtedly true, because Landustrie was successful in climbing out of its deep dip, mostly thanks to Westerhof. “I’m proud of the fact that Landustrie still exists and mostly of how it now exists.”

Jur Westerhof began his career in Veenendaal and arrived about seven years later in Sneek at Landustrie, which was then led by Dirk en Sijtjo Bos. “I was the superintendent and later manager.”
Landustrie was growing well. The work terrain became greater and greater, with the emphasis on production and sale of technical purification installations. The expansion of the small Landustrie did not go unnoticed. The global concern OGEM was banging at the door. The men from Sneek saw their chance. With OGEM’s network, an entirely new world would open up for them. OGEM swallowed Landustrie up and it became only one of the group’s 240 companies. Landustrie grew and grew. Great steps were made – too great, it turned out. OGEM, and Landustrie with it, were in trouble.

Bankruptcy

“The day before we went bankrupt, we had 220 people on staff,” Westerhof recalled. When on 28 April 1982 Landustrie was no more, Westerhof and a group of stalwarts did not throw in the towel. They were given the chance to finish current orders, and meanwhile to look for an opportunity for a new start. Jur Westerhof took that upon himself with a purpose. “I knew Cees van der Schoot from Shipyard

Welgelegen. For the shipyard, we made hatches and wheelhouses. I was regularly at the shipyard and had very good contact with Van der Schoot. He took over Landustrie and ensured that we could go on."

Confidence back

The new owner elevated Westerhof to director. And that was not a bad choice, as soon became obvious. "We made a new start with 65 people, all very good. Enthusiastic and skilled. We needed that. We all worked very hard, because we had to win back the trust of our customers. And we did."
A significant piece of luck came from Curaçao. Landustrie received the order to build a complete wastewater treatment plant. "Thank goodness they didn't know anything about our problems."
The rise of a new Landustrie could then be addressed even more energetically. "The work that we received from Welgelegen formed an important basis. We built entire ship sections for the shipyard. To do that, we had a large ship hall built behind the factory." With that, it became obvious that it was going well again with Landustrie, something that the then Royal Commissioner Hans Wiegel concluded in his opening speech.

Good work

The 65 men that continued after the bankruptcy were not enough. "Within a short time, there were already more than 100 people. The customers came back and we had a lot of work."

At Landustrie, you don't stay for a short while but practically forever. This is clear from the fact that the men that continued after the bankruptcy were all able to leave Landustrie as retiree. It indicates how limited the personnel turnover is.

Large projects in faraway lands, which contributed to OGEM's and Landustrie's fall, were left alone by Westerhof and his team. Projects they could have complete control over were, however, eagerly taken on.

Royal honour

Maybe it's his background as superintendent and later manager, but Westerhof has always appreciated personal contact. "Early in the morning I always first made a round through the factory. That way, you knew what was going on, because I always realized that you stand or fall based on the work floor. I also made sure that I knew everyone personally. Because of that, we had a bond with each other." And on the days that overtime was needed for a job, he didn't abandon his people. "I was also with them then. I felt that I had to do that." At his retirement in 1995, Jur Westerhof was, to his great surprise, appointed Knight in the Order of Orange Nassau by Mayor Hartkamp of Sneek. He is especially proud of his royal honour.
"For two days long, we had a big celebration in the company. I have great memories of that with my wife."

In the genes

It's no surprise to anyone that Jur Westerhof would not let Landustrie go after his retirement. As a com-

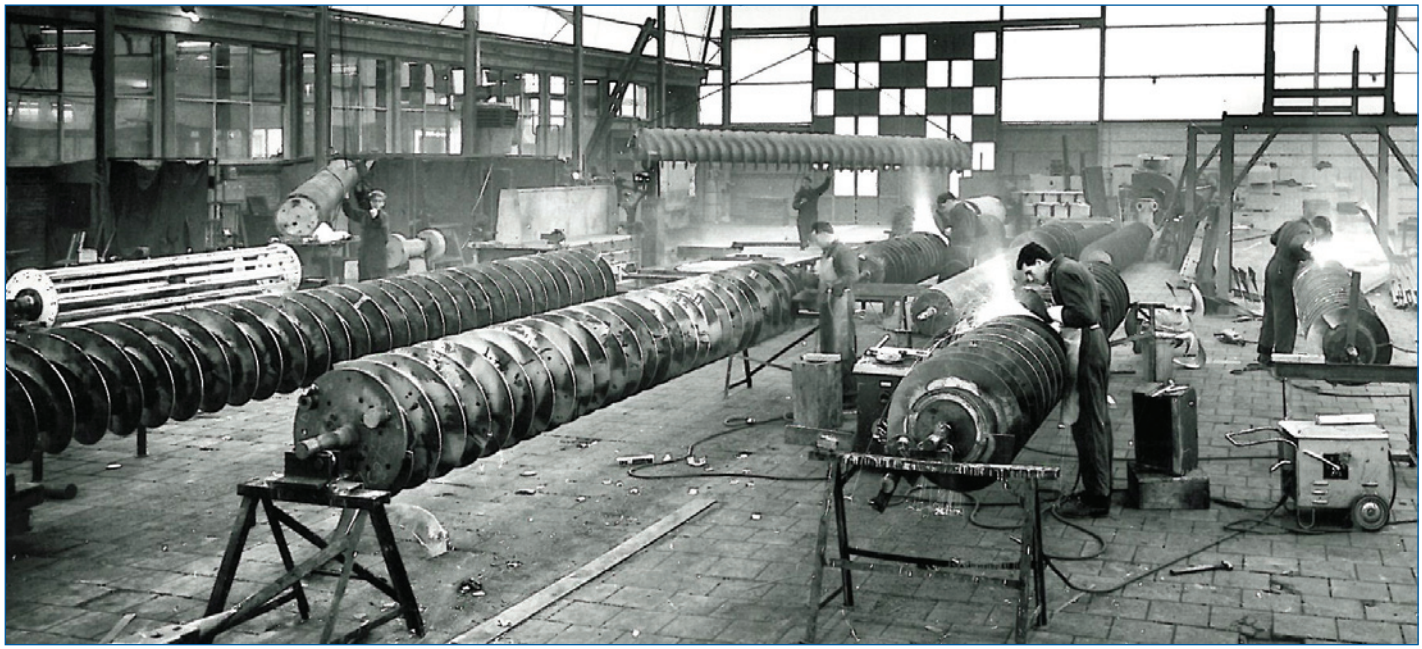
Cees van der Schoot with Jur Westerhof.

missioner, he remained closely involved with the company. But besides that, he had much more free time. “My wife and I went sailing a lot. We made wonderful trips.”
His sailing boat has since been replaced by a comfortable motorboat. No longer the sea but the inner waters are now their domain.
And Landustrie? That is just in his genes. “The motivation of the people there. Their enthusiasm for the company. I can never break away from that. And I also don’t want to.”

THE THAKEOVER

Cees van der Schoot:
“At the time of Landustrie’s bankruptcy, I was on a takeover tour. I was looking for construction sites for building ship sections for our shipyard Welgelegen in Harlingen. In North Holland I was more or less finalising details with a company. Landustrie was then in the insolvency construction, but before that time they were already making ship sections for us. I already knew Jur Westerhof well. He called me, and a half hour later he and the interim directors were in my office. We were discussing a stock transfer and we talked about a negative purchase price. There were quite a few skeletons in the closet and there were considerable debts.
At that time, the sale fell through. I was pre-empted by a couple of people from The Hague who said they represented Arabs who wanted to take over Landustrie.
The curator and OGEM first dealt with the people from The Haguers. All the staff was fired, and the people from The Hague collected everything that there was to collect. They squeezed out three to four million for sure and then took off. They fooled everyone.
When that was done, I talked again with Landustrie. We took over the assets and liabilities, for which we now definitely had to pay. But I had full confidence in Landustrie, especially in Jur Westerhof. I already thought ahead then and had the large ship hall on the water already in my mind. But that would now take a year or so to realize.
In any case, I‘ve never for one moment regretted the takeover.”

THE FACTORY

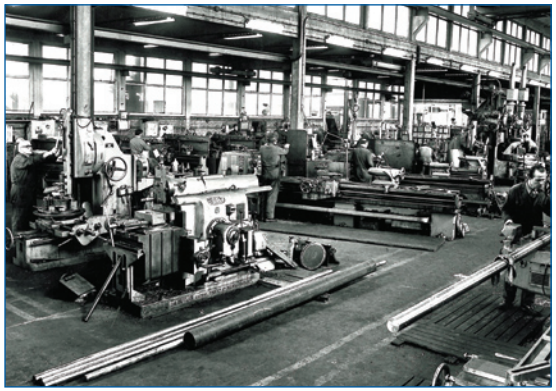


Steel is a rugged material; it makes for bent backs and bald men.

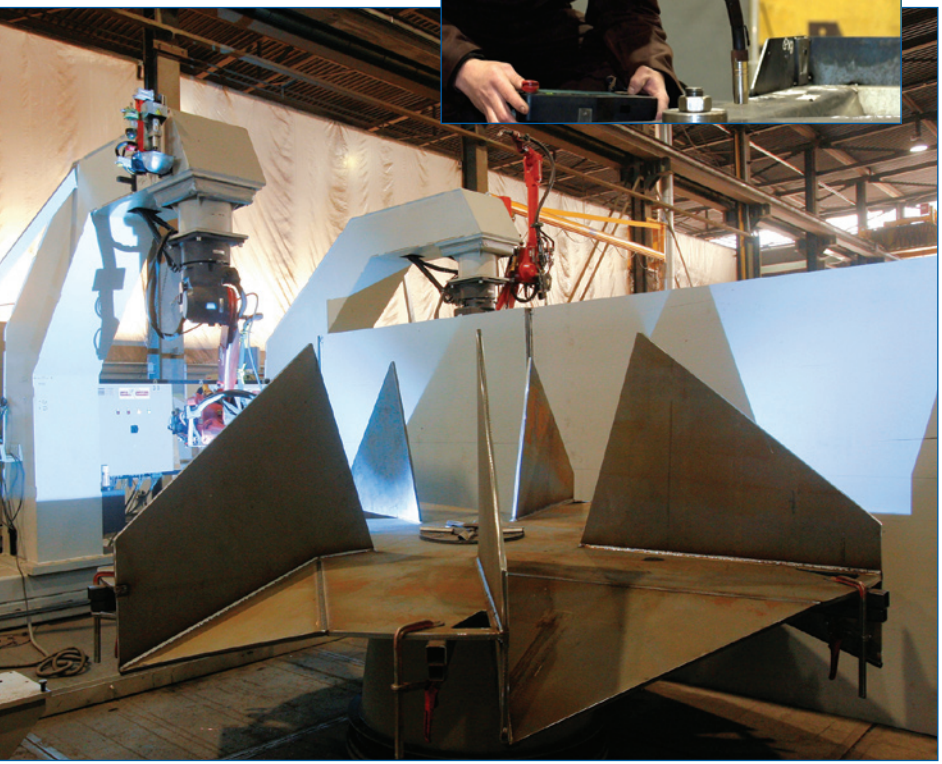
The smell of steel. Plumes of smoke from welding. Rumbling sounds from machines. Shrill sounds from grinding. Nothing, it seems, has changed much over the years in Landustrie's factory. Less noise, maybe. But if you open your eyes, you will see a world of difference.

Robust steel machines have moved over for computer-controlled and advanced equipment. The traditional machine shop has become a modernly equipped production company.

Take the welding processes. Judging by the welding equipment, you can tell that an enormous development has taken place. Instead of big heavy transformers a man could barely lift, the converter technique is now used. It weighs nothing and the possibilities are almost endless. It's really no longer possible to make a bad weld. The welding robot is



The factory in earlier days.



Welding robot.

the pinnacle. If the computer is well tuned for the job, than a perfect weld is created, which is not to be compared to handwork.
Not only has the equipment greatly improved, but also the entire welding process has changed. Previously, you had a welding crew. They did nothing but welding. Now people have much more skill and knowledge, so they can be assigned in a more flexible manner.
It makes the work more varied and more interesting, after all.

Dangerous

For the work in the production areas, there were always men of steel needed, because it was heavy work. Steel plates were loaded off the trucks by hand. That was not only heavy but also dangerous. And to lift screws, pumps and all sorts of other equipment, sometimes lift-constructions were used

Cutting the blades to fit.

Teaching at the lathe.

that were put together very provisionally. Now, everywhere, you see large cranes that can move the heaviest objects with ease. One push on the button is enough. Men of steel are no longer needed. Men who can work with steel, on the other hand, are needed.

More accurate

Of the lathes, which a century ago were doing their simple turning, there are still a few left at Landustrie. They are used for simple turnery and production of singular pieces, but mainly to allow students to get to know and feel the materials. That is no longer possible with modern lathes. The lathe has become a computer-controlled machine that can make all sorts of operations in one step. And it is much more accurate than in earlier times.

Same

Only screws are actually still made in the same way as before, even though all sorts of machines and tools have been introduced. But attaching the blades is still pure handiwork. The machine that is used to help do this job was put together at Landustrie itself. It is a unique device but it is not a device that works automatically. The knowledge and experience of the blade setter plays a large part, because the blades for different screws are never the same. There is no standard and therefore no standard machine can be made to do this. Craftsmanship is the magic word here. Even if you work with all the computers and robots and machines that can be invented, that craftsmanship remains the basis of everything.

Operating an advanced lathe requires knowledge of computer technology.

Welders are at home with all types of steel.

EXPORT OF GREAT IMPORTANCE

Export Group.

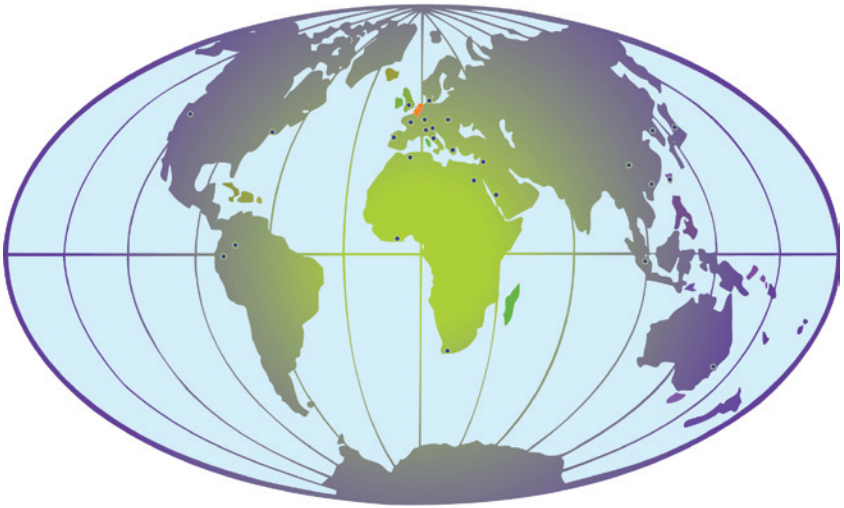
Landustrie soon discovered that exports could be very important to them. The specialist knowledge and the wide range of products, especially the purification technical market, became popular internationally.

Initially, much equipment was provided via Jones & Attwood in England for the British Commonwealth. Later, in the OGEM period, Landustrie made its first major steps in the export market with turnkey projects. Using OGEM's network, Landustrie made

Screen cleaner.

Screw pumps Indianapolis.

numerous important international contacts. In addition, in Ghana during the last 15 years a number of complete drink water plants have been built through a successful partnership with Ballast Nedam (general contractor) and Croon (electrical engineering). Some forty agents and a number of licensees play an important role in Landustrie's foreign trade. Any language barriers and cultural differences are easy to overcome in order to do business on location. From the outset, screws and aerators have been the most successful export products. Now Landu-strie sees great export potential in the hydropower screw, especially since the knowledge advantage they have built up is evident in this new product. In addition, Landustrie's new range of pumps, which has recently been added to their product line, have already generated much foreign interest.



The export market in 2013 provided more than half of Landustrie's total revenues. Landustrie focuses on further growth in the foreign market.

Agents

Landustrie has close relationships with their foreign clients and agents. Next year, for example, marks their fifty-year partnership with Münster Apparatebau in Germany. The relationship with licensee Westech in the United States is also special. The persistence necessary to penetrate the US market for aerators has led to a very close relationship. The sale of Landustrie aerators in the US and also in China also produced tremendous growth for Westech because they were then able to offer complete packages. In Japan, licensee Maezawa is trying hard to put the Landox propellers on the map.

Harvey Avenue Pennsylvania USA.

Hirschtal.

Snyderville WWTP WesTech.

Thanks to the power grid that was laid in the Netherlands, the wind motors in the pumping stations could be replaced by electric motors. In 1928, the modern pumping station drew a crowd posing proudly in front of it.

N.V. LANDBOUWHUIS ∴ SNEEK

TELEPH. 188 — NA 6 UUR 339 — TELEGR.-ADRES: LANDBOUWHUIS

Bij de aanvang van 1922 achten wij het onze plicht U attent te maken op de door ons gevoerde

HOUTBEWERKINGSMACHINES

Wij leveren U uit voorraad diverse Circelzaagmachines met op en neer te verstellen zaagas, schuin verstelbare tafel, en verschuifbaar tafelv

LINTZAAGMACHINES

Vlakbanken

Van dikte banken

Gecombineerd Vlak- en van dikte banken

CIRCELZAAGMACHINES, gecombineerd m

Langgatboor- en Fraismachines.

Men vrage bij ons aan Machines van verschillende Combinaties

Automatische Schaafmessen-Slijpmachines.

Al deze in voorraad zijnde machines loopen op S.K.F. Kogellagers en worden tegen concureerende prijzen geleverd.

Op verzoek worden U deze machines aan onze fabriek in werking gedemonstreerd.

Wij maken U verder opmerkzaam op onze E.M.F. ELECTROMOTOREN, JASTRAM BENZINEMOTOREN, BRONS RUWOLIEMOTOREN.

N.V. LANDBOUWHUIS.

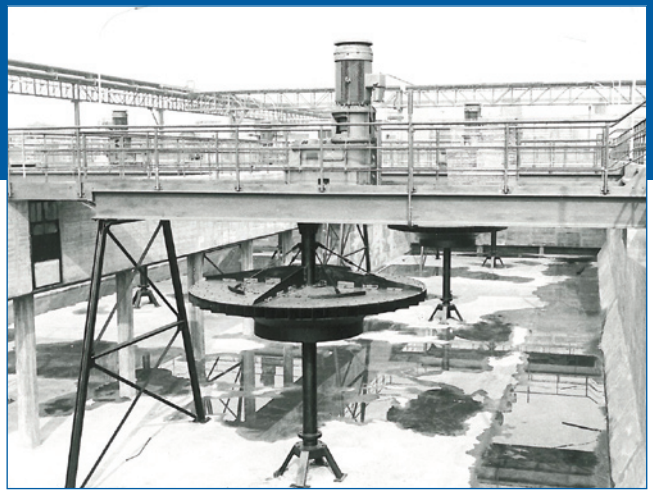
's Vrijdags van 11—1 uur, Café Hoogkamp Leeuwarden, Oude Koemarkt.

The Landbouwhuis provided not only agricultural machines but also woodworking machines.

1913
Hiltjo Wiert Bos (1885-1857) buys into the trading business Het Landbouwhuis from Pier Wiebes Cnossen in Sneek. The company delivers baking machines and agricultural machines. They quickly focus on the building and installation of wind motors and pumping stations.

1918-1928
The first electrical pumping stations are made. Screw pumps and screws are added to the range of products.

1928
Machine shop Industria is established.



First generation surface aerator, 1963.

When large pumps were still produced. Albert Blondeau stands on the colossal machine.

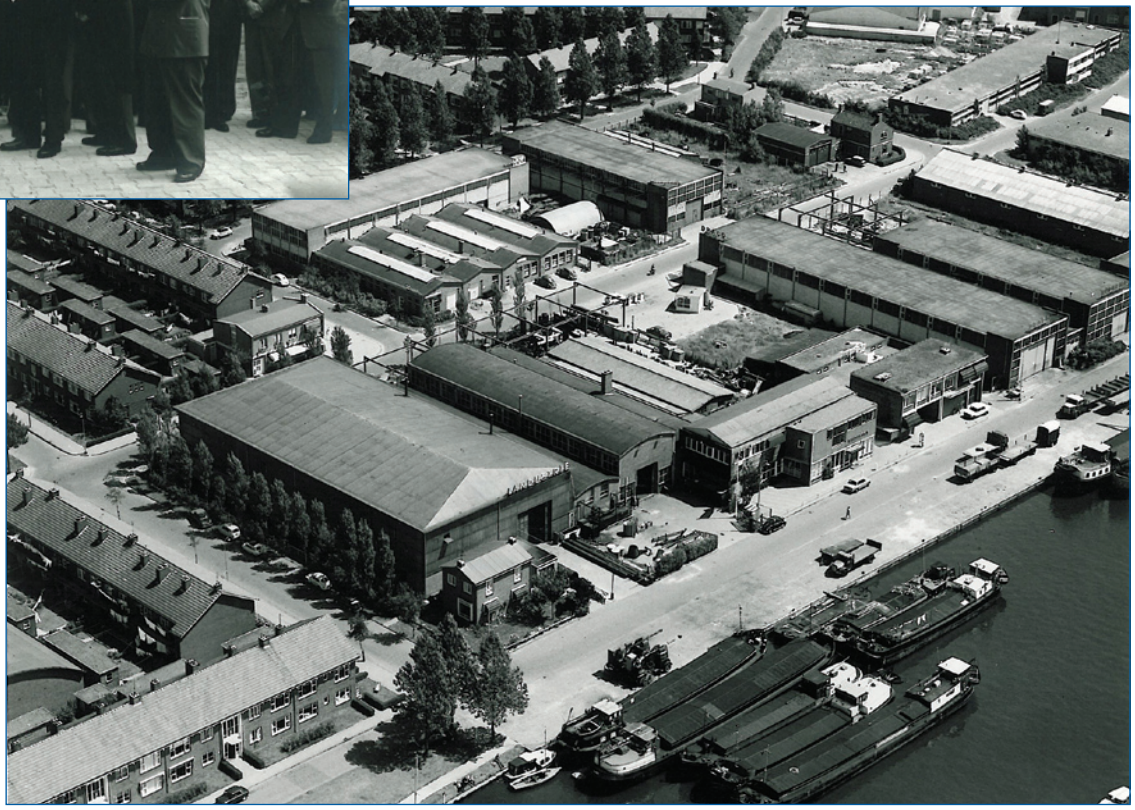
With a bit of improvisation, you could get a screw on the truck.

1940-1945
There is barely any work. If the electricity fails, the plant virtually grinds to a halt.

1948
The supply and installation of pumps and treatment installations for domestic and industrial wastewater rises sharply.
Industria and Het Landbouwhuis are joined to become Landustrie.

The opening of the new factory on the Pampus Quay.

Mr Melchior, proudly at work.



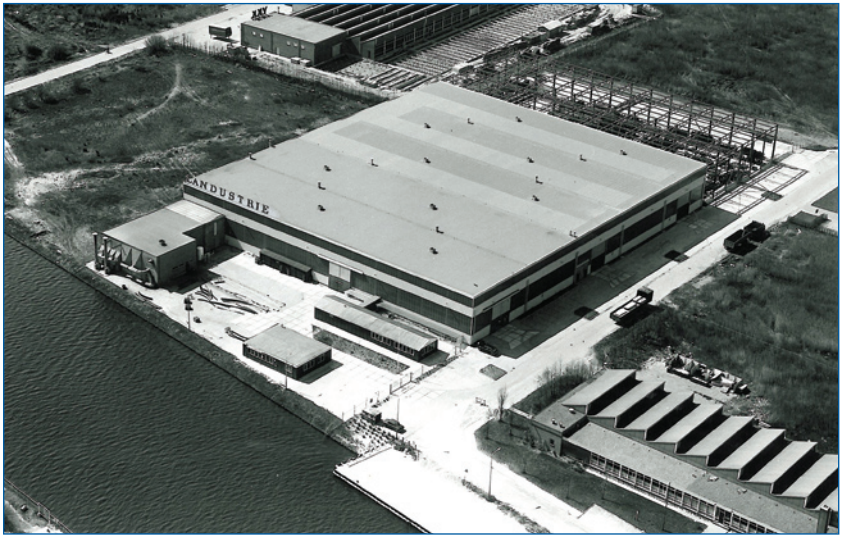
Factory building on the Pampus Quay.

1954
The opening of Landustrie's new building on the Pampus Quay by Mayor Rasterhoff in Sneek. The director at the time Sietjo Bos, son of Hiltjo Wiert Bos.

1970
Landustrie is sold to OGEM and becomes one of the 240 companies of the group. The general management is conducted by the brothers Sietjo en Dirk Bos.
Construction of the new production hall on Pieter Zeemanstraat is completed.

Now you see only computer screens in the drafting room.

An employee explains to HRH Prince Claus. Right, Jur Westerhof; behind, manager Bos.



Landustrie in development on Pieter Zeemanstraat.

1971
Second phase of the new construction. The production hall is expanded.

1974
On 27 March, Prince Claus officially opens the Landustrie building, and completes the third phase. On Pieter Zeemanstraat, Landustrie now possesses a new machine hall and an office with drafting rooms.

1982
Landustrie gets swept up in the bankruptcy of OGEM. On 28 April it is declared bankrupt. On 1 July, a new start for Landustrie is possible thanks to its acquisition by Cees van der Schoot's Shipyard Harlingen Holding, of which Shipyard Welgelegen is a part.

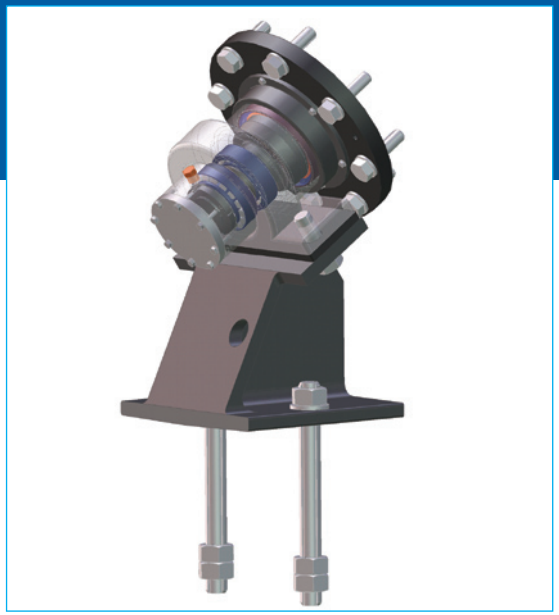
Landustrie after all the expansions.

1982 – 1995
The general management of Landustrie is carried out by Jur Westerhof, former superintendent and manager.

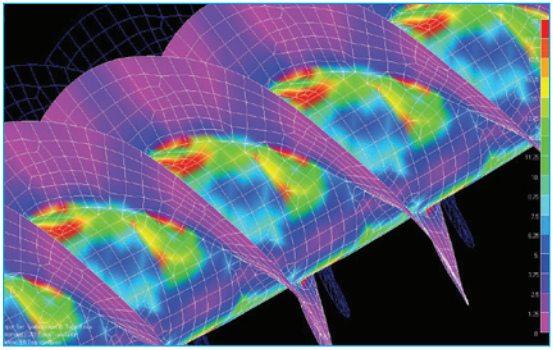
1992
The large new ship hall on the water behind Landustrie is finished and officially opened by the Queen's Commissioner of Friesland, Hans Wiegel.

1995-2007
Peter van Leeningen is general manager.

Chain cleaner.



Eco-friendly lower bearing.



Strength and stability calculations using the Finite Elements Method.

2000-present
Innovations including decentralized wastewater treatment (Desah), Blue Energy (Redstack), eco-friendly lower bearings, chain screen cleaner, mobile sanitation (MobiSan), web-based telemetry systems (Landy-Web), dike monitoring (DMC), fish friendly screw pumps, hydropower installations.

2004
Landustrie participates in Wetsus, the research institute for water technology in Leeuwarden, in which industrial partners, government and universities join forces.

2005
Desah, which stands for decentralized sanitation and reuse, is established by the holding company.

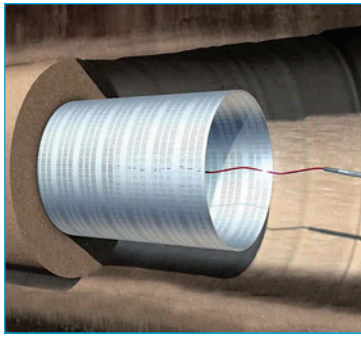
INSIDE THE DIKE MONITORS

Dike breach

When a portion of the ring dike in Wilnis broke on 26 August 2003, a half-meter of water filled the streets and the residential area Veenzijde was flooded. About 500 residents were evacuated. The peat dike was dehydrated and shifted as a result. No one had seen the dike breach coming; they didn't realise that drought could weaken a dike. "Then you just water the dike," thought Hans Lenk of Landustrie later on a whim. He mentioned his idea to a few colleagues and when they didn't laugh at him but thought with him, Lenk realized that his simple idea could become very significant. Watering the dike eventually became a dike monitoring system, with which Landustrie and co-developer Volker Wessels Telecom won the national Water Innovation Prize in 2012.

Most of the Netherlands lies below sea level. Dikes keep the water away and keep our feet dry, at least as long as the dikes remain standing. If a dike is weak, it can be strengthened. This is a considerable and costly operation. But often it is not possible to see how stable a dike really is. One example of this is the ring dike in Wilnis.

A dike can weaken in many ways. At Wilnis, drought was the cause, but too much water can just as easily make a dike unstable. Based on Hans Lenk's brainstorm, Landustrie and VolkerWessels Telecom developed a system whereby the condition inside the dike can be continually monitored and automatically corrected by draining or adding water. This Dike Monitoring and Conditioning (DMC) system provides information about the levees by using fiberoptic sensors to measure the water pressure and temperature in the body of the dike. The stability of the dike can be corrected by using special filter tubes, which are introduced horizontally into the dike body, to add or drain water.



A filter tube, containing the sensitive sensors, is fitted in the dike.

This system has been tested and validated with much success during the experiments on the IJk-dike located near Nieuweschans and has been put into practice in the Ommelanderzee dike, north of Delfzijl. The DMC system has shown that a dike breach can be prevented in advance. With knowledge gained, the stability and thus safety of the dikes can be greatly improved.

2007
Marten van der Schoot (son of Cees van der Schoot) is named general manager.

2009
Opening of the new service support centre in Veenendaal.

2011
The management is strengthened with Jan van der Schoot and Alfred Zwart.

2012
Water Innovation Prize for the dike monitoring system (DMC) and for the sustainable sanitation project Clean Water Sneek (Desah).

2013
Landustrie exists one hundred years.

STRONG IN PUMPS

From the early days of Landustrie, pumps have played an important role. The market for pumping stations was large, and Landustrie – then still Het Landbouwhuis and Industria – was, as a young and dynamic business, right on top of it.

The pump section within Landustrie is still very important. Landustrie still provides the right pumps, whether for pressured sewage and sewage pumping stations or for polder draining stations.

Rope pumps

Pumping water dates back to ancient times. People used a long bamboo pole to raise water from a river. Through the bamboo pole was a rope in the form of a loop with knots in it. When you pulled the rope through the pole, water was brought up out of the river through the knots. Rope pumps are still used in developing countries.

The centrifugal pumps as we know them today were developed at the end of the 16th century. At that time, straight blades were used. Only in 1851 did the British inventor John Appold design a pump with curved blades.

The development and improvement of pumps has not stood still. Over the years, dozens of new types have been developed. As a manufacturer, Landustrie works continuously to achieve the most favourable yield possible with a good output.

Pump test

Pumps must be tested and that is certainly possible at Landustrie, one of the few companies in the Netherlands with a complete trial station where pumps of every make can be tested in accordance with the applicable standards. Landustrie conducts trials on an independent basis, not only for municipalities and water boards but also for other pump manufacturers.

Beaver.

Bison.

Grizzly.

Pump development

Landustrie used to produce very large pumps. That is still possible but the emphasis Is now on smaller types of pumps. One of the most eye-catching pumps is the underwater cutting pump 'Jaws', perhaps better known as 'Wetterfretter', developed in 2005. This pump has no trouble with fibre cloths and other solids in wastewater, and it is the complete solution for residential sewage systems.
In 2006 the pump range for the Dutch market was further expanded with Caprari pumps and, now with the latest series of pumps, the company is looking again to foreign markets. The range includes underwater mixers that ensure the solids do not adhere to the bottom of the pump pit.

Explosion proof

All new underwater pumps and also mixers from Landustrie can be supplied in an ATEX explosion-proof design. The required certification for this was obtained in 2012.

Complete package

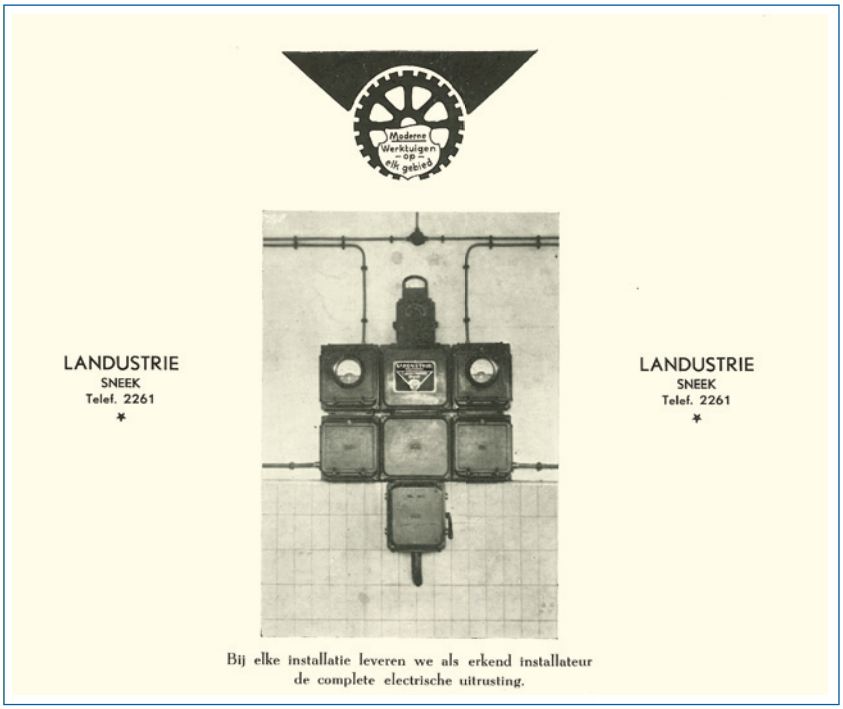
Landustrie designs and supplies complete electro-mechanical installation for pump installations and pumping stations. It is also possible to rent pumps, which offer a quick solution in the case of emergencies.

Caprari pump.

Wetterfretter.

Electrical engineering then, telemetry now

FROM SWITCH CABINET TO ‘IN THE CLOUD’

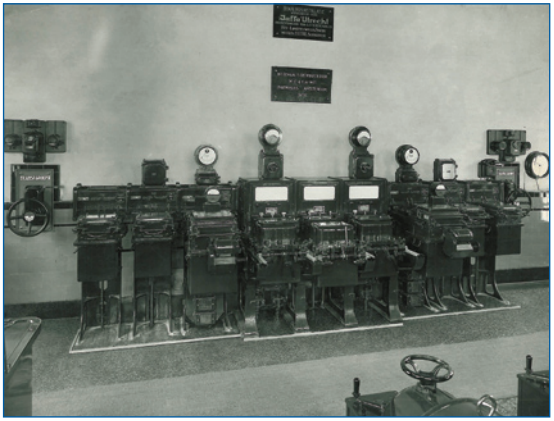


Modern technology back then…

Landustrie, then still Industria, was very progressive when it supplied the first pumping station with an electric motor in 1928. It could by no means predict how big the role of electricity and electronics would be in the future.

For who could have predicted that in 2013 we would be accessible worldwide via our mobile phones. And that we would be able to manage and control with those same mobile phones. Remember that the first personal computer dates only from 1981. That’s how quickly technological developments can happen.

The pumping stations from before 1928 were driven by wind motors. Mills allowed the wind motors to turn and so generate the required energy. But when a power grid across the Netherlands was realized, it was possible to have continual energy and not be dependent on the wind.
It all became very modern. Next to the pumping station, a neat cottage was built where the electric motor was installed. Large switch cabinets enabled the pumping station to be operated from within the little house. The technology improved and the switch cabinet became more sophisticated so that more was possible. But to control or manage the pumping station, someone had to be physically present. Later, it was a big improvement to be able to run the pumping station automatically. And if there was a power outage, a light shone at the pumping station, so that you could see from far away that there was a problem. That’s not even so long ago.



The switch cabinet in 2013.

Monitoring

The control of the pump station became more and more sophisticated.
With a fixed telephone line to the pumping station, it was possible in the 1990s to fulfil the wishes of the water boards and later municipalities to monitor pumping stations from a distance. Landustrie jumped into this new opportunity and developed a system that made monitoring possible: telemetry was born.

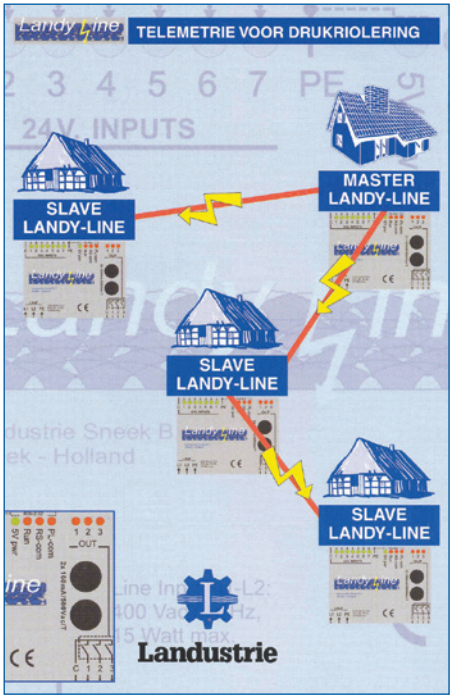
Landy-Net

Around 1993, Landustrie introduced its own telemetry facility: the Landy-Net. This was not a beginner's system but a full-grown system in which all the technical and electrical capabilities of recent years were invested. With this system, Landustrie had – and still has – its own software and hardware development in house.
The technicians of Landustrie further developed the Landy-Net and when cable communication became possible at the end of the 1990s, Landy-Line was born. This was a wonderful telemetry facility, developed especially for the underground pressured sewage pumping stations in rural areas. Faults could be quickly identified and more insight was possible for prevention, even though the pumping station was underground.

Internet

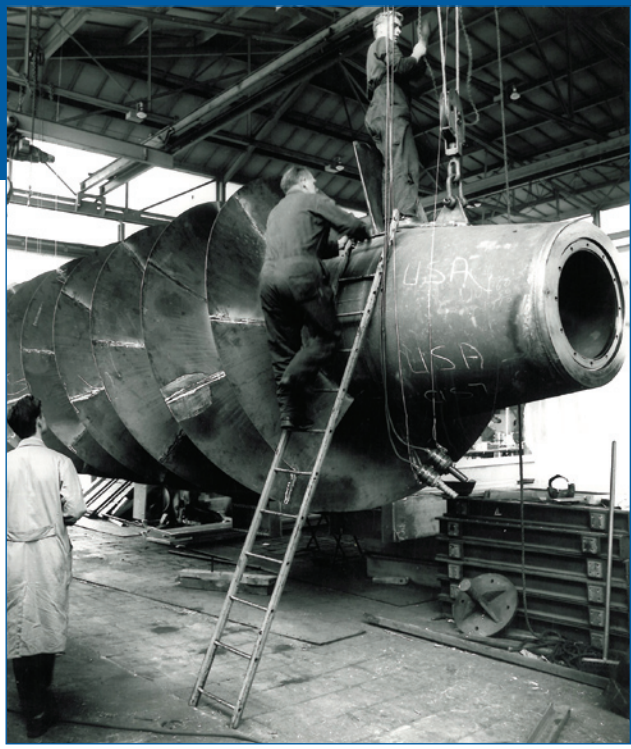
In the last decade, especially, there have been increasing demands on water management. Sitting still and continuing with previously developed systems was not possible. Research and Development was and still is a priority to find new techniques and new opportunities. Everything must be continually more advanced. The advent of the internet created a new revolution.
In 2009, Landustrie zeroed in on this development with the new Land-Web and the Web controller. The specialist knowledge of Landustrie resulted in a revolutionary system in which one could communicate directly with every location or post, via internet naturally. The administrator could communicate with a pump station or purification installation wherever he or she has an internet connection. Working in the cloud, as it's called today.

Landy-Web.



Douwe Stornebrink

THE BANG CAME WITH THE OPENING...



Douwe Stornebrink in dust jacket with colleagues Henk Dunnewand and Willem Boersma.

Douwe Stornebrink closed the door on Landustrie ten years ago, when he retired early after a service of 44 years. "That took some getting used to, but fortunately I had plenty of other things to do," he says now. By the way, Stornebrink almost left Landustrie many years earlier; it was a close shave. "I wanted to get married but I had no money. I asked for a raise of 25 cents per hour. In the end, I got a raise of 50 cents from director Dirk Bos. So I stayed and got married."

When Stornebrink worked at Landustrie, which was at that time on Pampuskade in Sneek, he lived in Bolsward. "Every morning at twenty to six, we got on our bicycles. We were with 24 men and we biked as fast as we could. And at the end of the day we biked home again like crazy. I was home at six o'clock. I had to eat quickly and then go to school, where I had to be by seven o'clock. And then the next morning to Sneek again, no matter what the weather was like. Never with the bus, but always by bicycle. Even if there was a mountain of snow, we made sure we got to Sneek. That was like a sport to us."

Coffee

The provisions for the men in the factory were far from optimal in the 1950s. "Usually, we came home completely black, definitely if you were grinding a pump house the whole day. And coffee was only for the office staff. We got nothing; we had to take care of ourselves. At one point, one of the lathe operators was allowed to operate the coffeemaker. The coffee cost ten cents per cup. Later, coffee was brought into the factory. But we still had to pay for it."

Screw bench

There were more and more technical opportunities, but that didn't go nearly fast enough for Douwe Stornebrink. When the then largest screw had to be built in 1958 for the World Exhibition in Brussels, the blades were made elsewhere. "That we didn't do. Later we did start doing It ourselves. On Saturday mornings, I went to see how the blades were made. Then we made a blade setter machine ourselves." The order for fourteen screws for, for example, Sas

van Gent, was the next challenge. “We had no screw bench. So we had to turn the screws by hand, a hell of a job. There was no money for an automatic screw bench. We made one ourselves. Mark my words, I said to director Bos, next week I’ll be standing here reading the paper.” And indeed, Stornebrink and his colleagues had put together a screw bench within a week. “It was somewhat makeshift, but it did work.”

Windmills

For all the older workers, the OGEM time gave them a bad taste in their mouths. “It was much too crazy. There were no limits. Actually, that’s the reason it was ruined.”
As an example, Douwe Stornebrink mentions the sale of 60 windmills to Brazil. “Look, we had never before made a windmill. It was not good, really.”
After the new start, it was not all rosy right away. “We never got new machines; that wasn’t possible. We had to make aerators by using sledgehammers to get them in the right shape. A hell of a noise that made. Sometimes that lasted days on end.”

Ready

When the order came in for 36 aerators for the purification of Hamburg, Stornebrink knew it for sure: “We have to make a mould.”
“That was not allowed. But we did do it on our own then. We were finished with the aerators in no time. And the office staff had no idea, because they hadn’t heard any noise. When director Westerhof insisted to us that the aerators had to be ready on time, I could tell him that they were ready all along …”

Wisecracks

In the time that Landustrie was still on Pampuskade in Sneek, Stornebrink and many of his colleagues were jokers, as he says himself. “And we played jokes, of course. Mischief. At lunchtime, we had an hour and a half free time. We were not allowed to continue working. And then you get that kind of stuff. Once we had a bag of gas, put a match with it… that had to be a big hit, and it was. It was a gigantic boom. Because of it, all the dust came free and you couldn’t see anything anymore. The police came but no one knew, of course, what to say.”
How that worked with the big bang came in handy later at the opening of the factory. “I took care, then, of the bang. That worked perfectly. But the 600 guests including Mayor Rasterhof were pushed back a couple of meters by the air pressure.”

The memories of Douwe Stornebrink are numerous and he looks back with a good feeling on his time at Landustrie. “I always went to work with pleasure. Never against my will. But that also was because I had such good colleagues. I feel they deserve a big compliment.”

Service then and now

SERVICE REMAINS SERVICE

The motto of the service department at Landustrie is that you must cherish your customers and keep them happy. That is a priority because people realize that service has become more and more important. That means, always be able to respond appropriately – 24 hours per day, 7 days per week.

In that respect, not much has changed over the years. Even decades ago. Landustrie's entire service department stood at the ready. But then it was exclusively mechanical faults that had to be fixed. These days, the service technician has to have more knowledge and skills. Knowledge of electrical engineering to computers and software,

for example. The current demands placed on technicians are quite high. Hence, Landustrie's service team is completely certified. Landustrie possesses the KIWA certificate, so that the maintenance on pump installations and pump stations meets the quality requirements. The service team is also completely equipped for the inspection of gasholders. The working methods of the service teams have also been greatly improved in recent decades. Thanks to new communication methods such as the mobile phone and internet, it's possible to respond much faster than in the past.
Landustrie's team consists of fourteen service technicians who work from Sneek and the service support centre in Veenendaal.

Service then.

Service now.

ARTWORK – YMKE MEESTER

The artwork is displayed in the hall of Landustrie.

Ymke Meester.

At the start of the anniversary year, the staff of Landustrie surprised the board with an artwork by the Friesian artist Ymke Meester.

It is a triptych depicting an impression of a fictitious industrial environment in which the screw pump and waterpower are central. “Water is necessary for the survival of all known life forms,” says Ymke Meester. “Water is a miracle, it can transform itself into three forms, from solid to fluid to gas. The earth’s surface is 71% water, and we humans are 70% water. The importance of water and its power and magic is becoming increasingly clear and urgent. To ensure a healthy future for our earth, good water management is vitally important. The water and the screws strengthen each other. Water has a natural purifying function and gives energy and vitality. The screws in turn help purify the polluted water and hydro screws transform the power of water into energy: clean energy.
The wonderful relationship is what I want to portray,” according to the artist.

ABD Renault feliciteert Landustrie met zijn 100 jarig bestaan!

“Wij bedanken Landustrie voor de prettige samenwerking en hopen deze nog jaren te kunnen voortzetten”.

Welkom bij ABD
ABD RENAULT
www.abdrenault.nl

DRACHTEN	JADE 1	TEL. (0512) 51 56 15
HEERENVEEN	SKRYNMAKKER 26	TEL. (0513) 65 02 22
SNEEK	LORENTZSTRAAT 11	TEL. (0515) 41 32 91
LEEUWARDEN	HORTENSIASTRAAT 2	TEL. (058) 266 35 55

RENAULT QUALITY MADE
RENAULT

BIJLSMA HIJS - EN HEFTECHNIEK




FELICITEERT LANDUSTRIE MET HAAR 100 JARIG JUBILEUM !

- PORTAALKRANEN
- LOOPKRANEN
- ZWENKKRANEN
- BOOTLIFTEN
- TAKELS
- KETTINGWERK
- HIJSJUKKEN
- HIJSBANDEN
- KLIMMATERIAAL
- VALBEVEILIGING
- ADVIES
- KLANTENPORTAAL
- TESTEN, REPARATIE EN REVISIE
- KEURING EN CERTIFICERING
- CURSUS VEILIG HIJSEN

Transportwei 2 • 8501 ZP Joure • Tel : 0513 - 48 11 22 • info@bijlsma.nl • www.bijlsma.nl

www.dehaanlaw.nl

Gefeliciteerd
met jullie jubileum!

De Haan zet de standaard.

De Haan AGW
ADVOCATEN & NOTARISSEN

Machinefabriek

Dekens B.V.

- CNC-DRAAIEN
- CNC-FREZEN
- CONVENTIONEEL DRAAIEN
- DRAAD ERODEREN
- STEKEN
- KOTTEREN
- BALANCEREN
- REVISIE

Dekens Groep B.V.

www.dekensgroep.nl

GIETERIJ BORCHERTS B.V.

MAATGIETWERK IN:

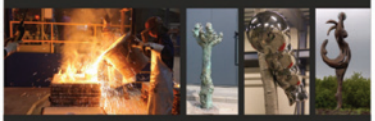
- ROESTVASTSTAAL
- DUPLEX / SUPER DUPLEX
- HASTELLOY
- MONEL
- STAAL ONGELEGEERD
- STAAL GELEGEERD
- GIETIJZER
- NODULAIR GIETIJZER
- NI-RESIST
- NI-HARD
- BRONS
- ALUMINIUM

Dekens Groep B.V.

ISO 9001
ISO 14001
BUREAU VERITAS
Certification

www.dekensgroep.nl

GIETERIJ BORCHERTS B.V.



KUNSTGIETWERK IN:

- BRONS
- ALUMINIUM
- GIETIJZER
- ROESTVASTSTAAL

Dekens Groep B.V.

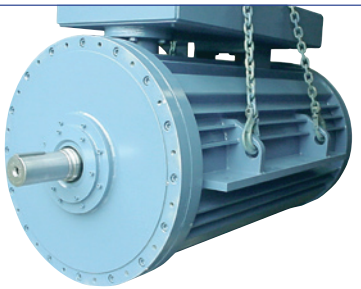
www.dekensgroep.nl

Sinds 1957 leverancier van Landustrie Sneek BV

ELMA motors The Netherlands

Elma B.V.
P.O box 65,
3769 ZH, Soesterberg
The Netherlands
Tel +31 (0)346 35 60 60
mail: Elma@elmabv.nl
Webside: www.elmabv.nl

AL 33 JAAR LEVERANCIER VAN LANDUSTRIE



EN

EN feliciteert Landustrie Sneek BV
met haar honderdjarig bestaan!

www.en-motors.com • info@en-motors.com

A BETTER PERFORMANCE ALL ROUND.

Kijlstra is one of Europe's biggest providers of drainage solutions. Our philosophy of **'rethinking construction'** enables us to deliver added value to the marketplace, whilst our new generation construction materials set new standards in site efficiency, cost savings and environmental performance.

Speed of installation – our off site solutions remove the need for benching and the elimination of a concrete surround significantly reduces installation time. As totally sealed units, connection is faster, with no requirement to drill or grout.

Sustainability – All our manholes are carbon neutral and by working with carbon management company Carbon Clear, we have reduced carbon emissions by up to 65%

Just two reasons why Kijlstra is not only fast becoming known as the manufacturer and supplier of choice to the UK construction sector, but also highly commended in the Construction News Awards 2011.

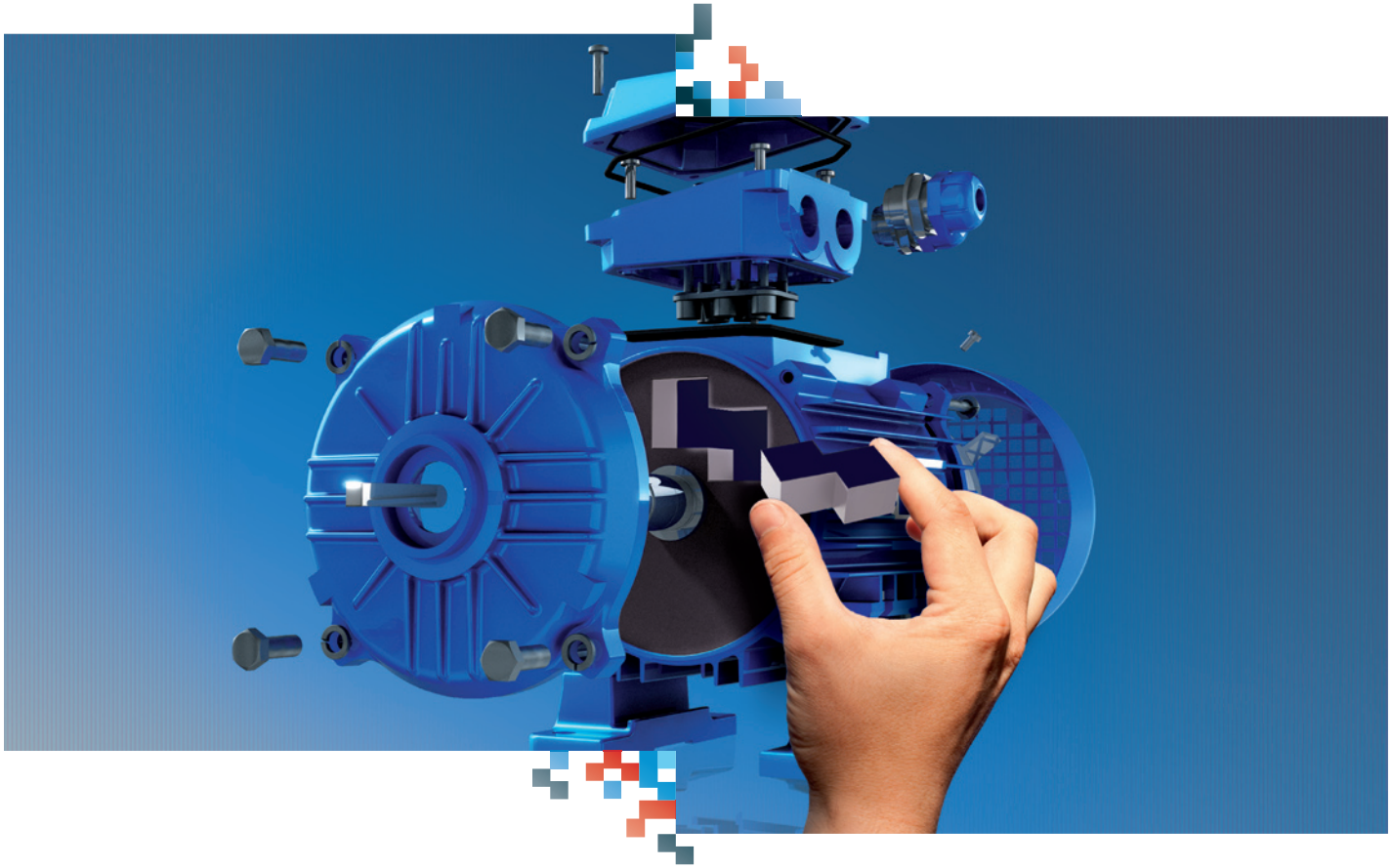
www.kijlstra.co.uk

A Kijlstra manhole installation video can be viewed on You Tube on http://www.youtube.com/watch?v=W0IrAdBpucs.

Kijlstra Precast

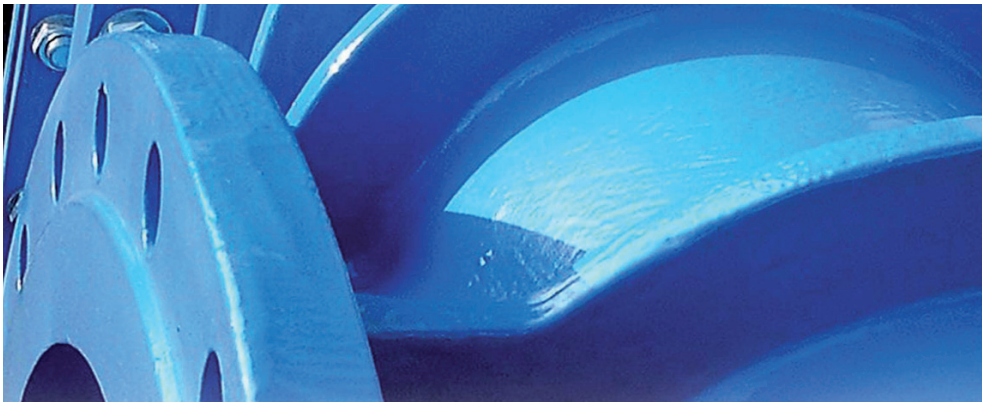
KOLMER ELEKTROMOTOREN B.V.

Al 30 jaar uw vaste kracht voor flexibel vermogen



Wij feliciteren Landustrie Sneek B.V. met het 100-jarig bestaan en kijken uit naar een prettige voortzetting van onze samenwerking!

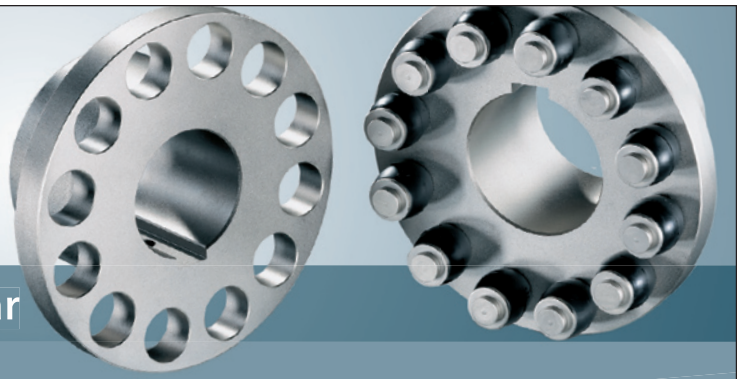
Kolmer Elektromotoren B.V. - Industrieweg 16 - 3881 LB Putten - 0341-369696 - info@kolmer.nl - www.kolmer.nl



SAMSON
AFSLUITERS EN LEIDINGSYSTEMEN

www.samsonappendages.nl
0575-458140

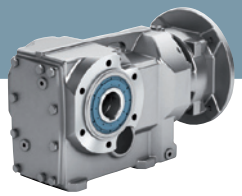
SIEMENS



Landustrie Sneek B.V. 100 jaar

Proficiat!

Siemens Industry feliciteert Landustrie in Sneek met het 100-jarig bestaan. Op het gebied van tandwielkasten, motoren, koppelingen en motorreductoren is Landustrie al vele jaren een gewaardeerde relatie van Siemens.



www.siemens.nl/industry

VEENEMA
OLIE CHEMIE ENERGIE

**SPECIALISTEN IN BRANDSTOFFEN,
SMEERMIDDELEN & DUURZAME ENERGIE
WWW.VEENEMAOLIE.NL
SNEEK
0515-420151**

Explanation of 100 years of Landustrie

Composition:
Reny Bergsma en Peter Prijs

Editing:
Peter Prijs

Design:
Peter Lintveld

Printing:
Drukkerij Van der Eems, Oosterend

Landustrie
1913 - 2013

Landustrie Sneek BV
P.O. Box 199 | NL-8600 AD Sneek | The Netherlands
Tel. +31 515 - 48 68 88 | Fax +31 515 - 41 23 98
E-mail info@landustrie.nl | Website www.landustrie.nl
Office address Pieter Zeemanstraat 6, Sneek