The LINAK A/S Environmental Statement

2016-2017 covers LINAK A/S in Guderup.

The environmental statement sets products, resource consumption, environmental impact and work into focus.

Previous environmental statement covers fiscal year 2012-2013

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General Information

Company name and domicile
LINAK A/S
Group Headquarters
Guderup
DK – 6430 Nordborg
Tel.: +45 73 15 15 15
www.linak.com

CVR/VAT no.
66 36 53 28
P-no.
1.002.230.042

Environmental control authority
Sønderborg Municipality – Environment department

Ownership
LINAK A/S is a 100 % family-owned company

Business code
271100 Manufacturing of electric motors, generators and transformers

Main activity
Assembly – Manufacturing of linear actuators
Activities
A205 - Virksomhed der foretager bearbejdning af jern, stål eller andre metaller på et areal større end 1000 m^2
(Company processing iron, steel or other types of metal on a production area larger than 1000 m^2)
A203 – Anlæg der foretager støvfrembringende overfladebehandling (pulverlakering af emner af jern)
(Facilities performing dust generating surface treatment (powder coating of iron))
A202 – Virksomheder der foretager overfladebehandling af metaller
(Companies performing surface treatment of metals)

Risk declaration
LINAK is not included in any risk declaration acts or the VVM declaration act

Main environmental approvals
27/09-2013 – Directions according to Environmental Protection Act §41
27/12-2011 – Total environmental approval of LINAK A/S, Smedevænget 8 and Spindelvej
10-2001 – Environmental approval of wastewater authorization for powder coating plant at LINAK A/S, Spindelvej

Ressource consumption
LINAK A/S primarily consumes energy in terms of ELECTRICITY and GAS, as well as metals for manufacturing

Company size
At the time of writing LINAK A/S employs approx. 1200 employees, turnover approx. 3.5 bilion DKK.

Environment Statement Details
The Environmental Statement is valid for 2016/2017 and backwards.
In case of questions regarding the environmental stategment please contact the Environmental and Maintenance Manager at LINAK A/S.

LINAK A/S is certified to meet the following standards
ISO 9001 Quality Management
ISO 14001 Environment
ISO 14971 Intertek
ISO 14971 UL
DS-OHSAS 18001 Health & Safety
Danish Ministry of Labour Executive Order 923 on the work environment

LINAK A/S is subject to the following environment-related directives:

WEEE- Waste of Electronic and Electrical Equipment
RoHS - Restriction of Hazardous Substances Directive
REACH - Registration, Evaluation and Authorisation of Chemicals

Contents

Preface

The intention with this environmental statement is to help any parties interested in LINAK A/S to gain insight into the environmental influence which LINAK A/S has on its surroundings and vice versa. The statement is furthermore meant to create an overview of the contribution LINAK A/S provides, in order to ensure continuous improvements and preventive work within both the environment in general and working environment.

The data in the environmental statement is considered to be representative of the influence LINAK A/S has on the environment.

This is third generation of the LINAK A/S Environmental Statement.

Environment

The company accepts responsibility for its effects on the environment and will contribute actively to reducing the CO_2 emissions. Therefore, LINAK® supports Sønderborg Municipality's vision to be CO_2 neutral in 2029 and also participates in Project Zero's activities.

LINAK is determined to continuously keep a high standard within work environment and the environment at large.

Egon Borgkvist Jensen
Vice-President & COO
LINAK A/S

28/8-2017

About LINAK A/S

LINAK® has grown from a humble beginning in 1907. Since Bent Jensen, CEO and owner, took over the family business in 1976 and introduced the idea of a linear actuator, LINAK has continued its growth all over the world.

The LINAK group headquarters in Guderup, Denmark, cover 42.000 m^2, comprising both development and production facilities. LINAK employes approx. 2,000 committed employees in 35 countries. Besides, LINAK A/S will soon start using a newly built 14,000 m^2 building which houses office and production facilities for approx. 500 employees.

LINAK is a local company with a good background and healthy values. This is reflected in the way our staff of employees is made up. Many employees come from the local area and many chose to stay at LINAK for a long time.

Personale sammensætning LINAK A/S	**2010/11**		**2011/12**		**2012/13**		**2016/17**	
Medarbejdere i alt	835	100,0%	858	100,0%	878	100,0%	1034	100,0%
Funktionærer	321	38,4%	341	39,7%	369	42,0%	465	45,0%
Timelønnede	514	61,6%	517	60,3%	509	58,0%	569	55,0%
Kvinder	366	43,8%	358	41,7%	360	41,0%	389	37,6%
Mænd	469	56,2%	479	55,8%	518	59,0%	645	62,4%
Gns. Anciennitet	8,5		9		9,8		9	
Gns. Alder	42,5		43		43,5		44,5	

Geografi (Bopæl)	**2010/11**		**2011/12**		**2012/13**		**2016/17**	
Sønderborg, Nordborg, Augustenborg, Sydals	738	88,4%	735	87,8%	761	86,7%	865	83,7%
Gråsten, Egernsund, Broager	39	4,7%	42	5,0%	47	5,4%	56	5,4%
Tyskland, Padborg (1)	31	3,7%	33	3,9%	40	4,6%	54	5,2%
Aabenraa	15	1,8%	15	1,8%	18	2,1%	23	2,2%
Vojens, Toftlund, Vejle, Sikleborg, Odense, Aalborg, København	12	1,4%	12	1,4%	12	1,4%	35	3,4%
	835		837		878		1033	

Policies and management

QESH management

The word "QESH" means focus on the environment.

LINAK A/S will design, manufacture and sell products produced by our employees under sound environmental conditions in a sound working environment.

QESH management is the "tool" chosen by LINAK A/S to ensure that this is actually achieved and that continuous environmental improvements are made.

LINAK A/S feels committed to ensure that all our employees can perform their tasks safely without unnecessarily impacting the surrounding environment.

Confirmation that LINAK A/S really does focus on the environment has been provided by the company's certification to the following standards:

- ISO 9001 Quality
- ISO 14001 Environment
- DS-OHSAS 18001 Health & Safety

LINAK A/S has had environment and health & safety certification since 2003.

Environmentally, LINAK A/S wants to appear as the good example in the local community. Furthermore, LINAK A/S wants to have focus on choice of material and energy consumption throughout all phases of a product's lifetime when developing new products as well as standby consumption.

Environmental policy

LINAK® considers the environment – also for our customers:

- We offer low energy consumption and environmentally-friendly materials in our products
- We aim at reducing the effect on the environment and minimising our energy consumption
- We are always working on using the best available technology in the production

We visualise the development of energy consumption and invest in sustainable solutions and techologies.
We continuously influence the environmental awareness of our employees to achieve environmentally sound behavior.

CSR policy

To LINAK®, responsibility is about doing what we do best – and doing it in a proper way. No company can work with CRS without making deliberate choices. We base our choises on common sense and on step-by-step improvements. Therefore, it is important to us to prioritise our energy.

The following five areas are especially important to us:

We improve your life
LINAK products help millions of people daily, to improve their quality of life and working environment – always in close cooperation with our customers. We willingly put our knowhow into play and cooperate with for example universities and organisations.

We take care of each other
Job satisfaction and helpfulness are core values at LINAK. We only obtain these by creating good conditions for our employees. Therefore, LINAK has focus on health and safety and we do not accept discrimination or bullying. When it comes to ergonomics, it is natural for us to be at the forefront in our own workplace.

We take care of the environment
We believe that it is possible to run a successful company based on sustainable growth. At LINAK we focus on reducing the energy consumption within our company as well as manufacturing solutions which strain the environment as little as possible.

We are locally committed and with a global view
At LINAK we are proud of being an active player in the local community. Both when it comes to Southern Jutland but also at our offices and factories around the world.

We set expectations
At LINAK we have high expectations to both ourselves and our business partners. We clearly convey our expectations to employees, suppliers and business partners in our Code of Conduct as well as in our Ethics Handbook. And, we follow up continuously.

The guidelines help us clarify some of the expectations we have to ourselves and to our business partners.
Openness and honesty are core values at LINAK. Therefore, our business methods must be transparent and fair.
This applies to our own employees as well as to our business partners who act on our behalf.

LINAK Ethical Guidelines

- We will not give or accept bribery
- We want to avoid conflicts between our personal intersts and LINAK interest
- We only receive gifts which reflect common hospitality and only donate money to charity
- We will not use misrepresentation, cheating or breach of confidence in order to obtain an unfair or a dishonest advantage
- We advocate fair competition and will not use illegal or unethical methods to obtain advantages

Code of Conduct
Code of Conduct describes the expectations LINAK has to its suppliers.
As a part of the Code of Conduct, all suppliers will be introduced to this text. There will thus be no doubt what it takes to be a LINAK supplier. In connection with supplier audits we continuously monitor selected suppliers and we expect our suppliers to commit to an action plan with points for improvement – if any.
LINAK strongly aims at following these ethical rules and we expect our suppliers to share our commitment.

Guidelines

LINAK® respects the principles of international conventions such as the Universal Declaration of Human Rights (1948) and the core labour conventions of the International Labour Organisation. And, we expect our suppliers to share our commitment.

This means:

- All suppliers must provide a safe and healthy work environment for all their employees.
- Employees must have freedom of association and the right to collective bargaining consistent with applicable local laws.
- Suppliers shall refrain from all forms of forced labor.
- Working time shall not exceed the legal limit according to local laws.
- Suppliers shall refrain from using child workers as part of their normal workforce (below 15, or 14 years in countries with ILO exemption).
- Suppliers shall refrain from discrimination.
- Suppliers must support a precautionary approach to environmental challenges and work actively to reduce environmental impact.
- LINAK does not accept bribery and corruption and expects its suppliers to refrain from currupt practices.

In case this code conflicts with national law, the local law must always be followed. In this case, LINAK should always be notified.

Compliance

- LINAK reserves the right to monitor the suppliers to ensure compliance with our Code of Conduct.
- LINAK is willing to engage in dialogue with the supplier to commit to a corrective action plan with points for improvement and time-frame for implementation.
- If improvements do not progress, LINAK reserves the right to terminate the cooperation.

Working environment and environment

It is very important for LINAK A/S to have a good working environment and a sustainable environment. In addition, the work environment and the environment are merged organizationally, in order to utilize the well-implemented work environment organisation and focus on the environment in the departments, by adding environment to the inspiration list for the inspection rounds.

In practice

Based on working environment inspection rounds, APV, etc., **505** completed tasks have been registered in the joint working environment action plan.

A risk assessment is made before and after implementation of a task's solution. This has resulted in the overall average risk assessment for these ratios falling **55** points, to = **12.2** points after implementation.

Preventive actions

The following examples show preventive measures which have been implemented at LINAK A/S:

- Increased number of safety inspection rounds
- Registration of potential dangers which are used as input for safety inspection rounds
- Registration and analyses of near-by-accidents
- Focus on the use of improvement proposals

Prevention of violation of conditions

- LINAK A/S is committed to eliminating the possibility of "stepping out of line".
- For the same reason, LINAK® has appointed responsible persons to take care of both environment and working environment, thus ensuring priority and focus on these areas.
- In addition to the dedicated people, LINAK works together to review and identify changes in rules and laws that may affect the way we work.
- LINAK is also audited by an independent audit firm that follows up on whether we comply with standards and laws we are enrolled and subject to.

Summing up targets and inspections

During the period concerning this environmental statement LINAK A/S has, among other things, been subjected to a new environmental inspection by Sønderborg Municipality. The inspection was part of the building permission for the latest expansion of the machining department in the East building. The inspection resulted in few injunctions which LINAK A/S implemented immediately.

LINAK® has also been recertified during the period, with only a few deviations, remarks and improvement proposals. All deviations and remarks have been implemented and the accepted improvement proposals incorporated. Accepted improvement propoals are being incorporated in the management systems.

The LINAK A/S 5% gas reduction goal was not achieved. The leading project was postponed several times due to technical challenges. After finishing the building project we are back on track and have achieved the targeted gas reductions the past fiscal year.

The LINAK A/S 5% electricity reduction goal was not achieved due to the fact that insufficient energy-saving activities were launched during that period, primarily based on the available technic not being sufficiently cost effective. This goal has also been restored during the past fiscal year where we have achieved the targeted reduction of energy consumption per. produced unit.

Accidents and breakdowns

During the period there have been some alarms on the ABA* system (*ABA = Automatic Fire Alarm Facility).

- An actual fire in a vending machine in the canteen. The episode resulted in some serious smoke damage, but there were no personal linjuries or material damage.
- A heating element which had not been turned off, resulting in development of smoke/steam from a machine in the machining department.
- A machine in the machining department where the cooling oil was ignited by a hot shaving. Due to resourceful employees, the episode was, however, under control when the fire department arrived.
- A collision with the sprinkler system in the DESKLINE® building, which activated the sprinkler system and simultaneously activated the ABA system.

All incidents have been used as input for fire drills and emergency drills.

Energy consumption

Introduction

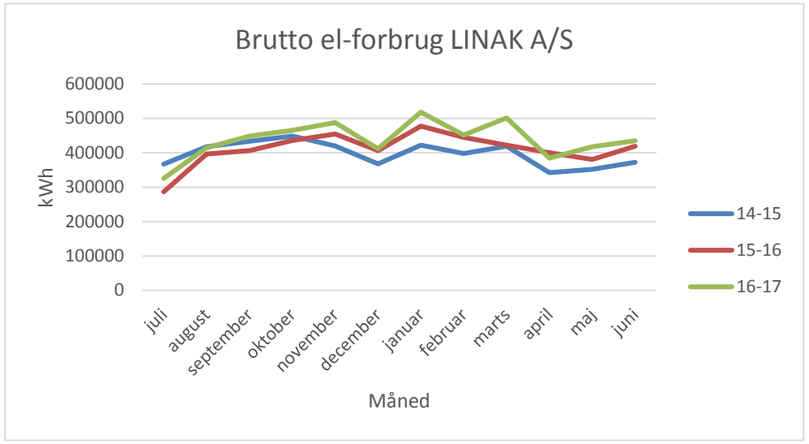
In the following are listed status and visions for the company's effort to optimise the energy consumption at LINAK A/S in Guderup. Both overviews over implemented activities as well as follow-up are available. Also, the visionary aspects, where we see LINAK A/S in 2021.

Status and visions

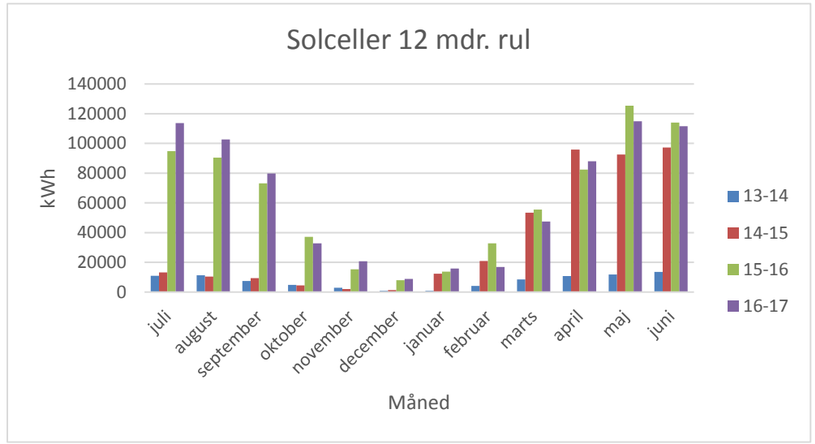
Initiatives 2013/14 – 2016/17	Status 2016/17	Vision 2017/18-2020/21
Establishment of independent green electricity supply	Solarpark at LINAK® has been expanded massively since the 2011 solarpark. A total of 3905 panels have been installed covering 6296 m^2. The total output is 959,5 kWp and the 2016 output was 805.000 kWh.	Additional solar panels will be installed in connection with the Runde II building, as part of the fulfillment of the "Lavenergiklasse 2015" conditions. A total of 110 kWp solar panels are installed, raising the total output to 1050+ kWp or over 1 MWp. LINAK aims at obtaining and sustaining an own-production of green energy of minimum 20% of our total consumption.
Optimisation of the ventilation system with better fans and better heat recovery degree	All ventilation systems have been checked and fitted with new energy optimising fans and frequency regulation. This has enabled us to regulate performance according to the actual need and thus minimise waste. All process ventilation previously directed straight to the outside has now been passed through cross-exchangers, so that the heat is recovered and the gas consumption for heating is reduced. This has resulted in a heat recovery of approx. 70% compared to earlier.	Improvement of heat recovery by replacing old ventilation systems (Potentially going from 70% recovery to 90%). Improved technology for heating the ventilation heating surfaces (eg heat pump technology with cooling option). Optimised control system with possibility of shutdown in all breaks. Overall, alternatives should be considered to minimise the consumption of fossil fuels, ie gas for heating.
Establishing an environmental organisation that can help to carry the small steps into reality. Studies show that efficient environmental management can contribute with energy savings of up to 25%	The long-term existing health & safety organisation is now joint for the working environment and the environment, so the representatives and the structure for this are now united. This has meant that an attitude influence of LINAK employees has come more within reach, and teaching has been done to better suit representatives to lift the new tasks. With articles and campaigns we slowly succeed in taking action on the improvement of leaks in compressed air and purification and limitation of ventilation	With energy surveillance on a departmental basis, the vision is that the energy consumption of the departments can be compared and that there will be a motivation to do better than the others and better than we did last week. Facts must pave the way for a more targeted effort, where even small changes and adjustments can be evaluated quickly and efficiently. It is the vision that we, by using energy monitoring, can motivate the departments to energy optimize their production and planning and thus reduce their energy consumption per. produced unit with minimum 15%.
Conversion of heat supply from gas to more renewable energy source (district heating or biogas) supplemented by heat pumps.	Heat supply unchanged due to postponed district heating in the municipal area. Biogas initiatives are delayed due to high establishment costs and limited support for increased prices. Heat pumps are considered in accordance with LINAK needs and are a possible way to go.	LINAK wishes to support the production of green energy and has therefore announced that we want to connect to the district heating network when it is established. One option is to use a combination of district heating and heat pumps, so the radiant panels can be used for cooling in the summer and heat is supplied to district heating. Businesscase is being prepared and evaluated. The vision is to have at least 50% of our gas consumption replaced by renewable energy sources by 2021.
Our internal procurement procedure for machine purchases has been looked at several times. The purpose of this has been to improve specifications and positive lists, to meet demands from production and avoid mistakes and replacements afterwards.	The purchase process has been through several reviews and has been updated and customised several times. However, there have been no significant environmental requirements or measures in this. This causes machinery to become more expensive in operation due to high energy consumption and low focus on environmental impact.	Due to massive machine purchases there must be more focus on environment and energy during the procurement phase The CP085 process is updated with concrete environmental measures and requirements for eg. TCO and energy consumption per. produced unit. It is expected that this pressure on suppliers will create new opportunities and perspectives for energy optimisation of production equipment. These will naturally also be evaluated in conjunction with our existing production equipment.

Electricity

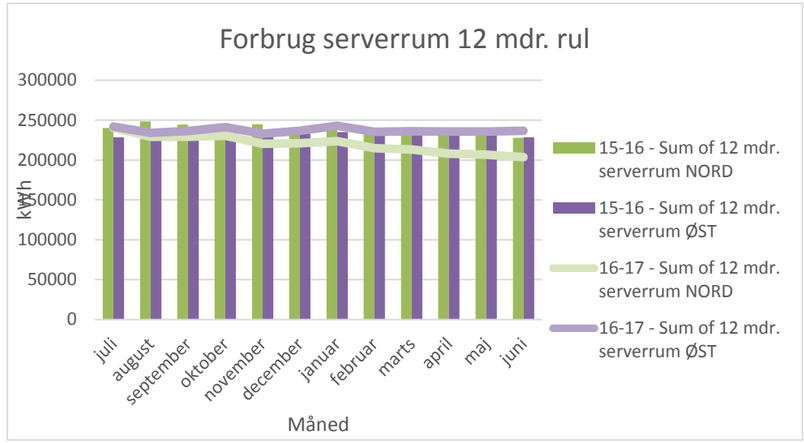
The total electricity consumption in 2015/16 amounted to 4,929 MWh. Hereof, are 0.742 MWh produced by our own solar cell panels, resulting in a total take out of 4,187 MWh from the electricity network.



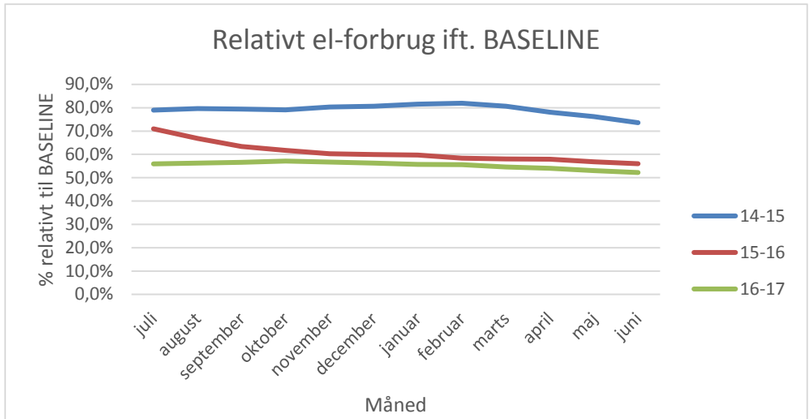
Total electricity consumption has increased by approx. 100,000 kWh in FY 15/16 and another 200,000 kWh in 16/17. This is because of the increasing number of robots which lead to increased production activity at LINAK A/S.



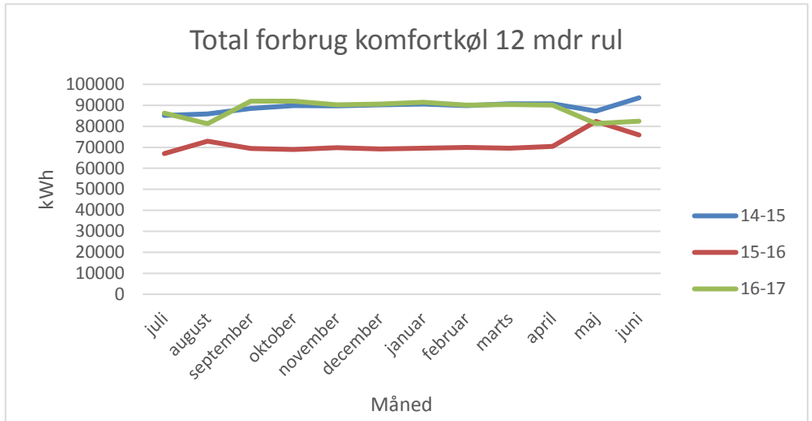
Together with the new solar panels on the roofs, the solar park has produced approx.15 % of our total consumption in 2015/16.



General focus on energy optimisation and replacement of server types to more powerful but fewer physical units has resulted in a reduction in power consumption of 20,000 kWh in FY 16/17.



The relative power consumption (per unit produced) is falling steadily. This development is driven primarily by our investments in automation that have increased productivity. However, surveillance is still relevant as the curve is flattened out and electricity consumption is rising intensly due to the many robots.



Comfort cooling is stable, as all fluctuations on the graph are due to increased cooling in DESKLINE due to hot summer months the respective years.

Electricity reduction initiatives during the period

ID	Year	Initiative	Type	Calculated cost saving	Actualised cost saving
1	2013/14	Frequency controlled compressor in Machining Dept.	Electricity	93,450 kWh	Could not be documented due to production changes and thus increased needs
2	2014/15	Solar panels on the roof (North + East)	Electricity	642,100 kWh	615,000 kWh were registered before new expansion
3	2014/15	Ventilation optimisation 1/2	Gas + Electricity	Electricity: 37,000 kWh	Gas consumption substantially reduced – Electricity not measurable
4	2015/16	Heat recovery in ”Printfabrikken”	Gas + Electricity	85 % heat recovery compared to direct exhaustion	Implemented due to increased need in the production area, thus cost savings cannot be calculated
5	2015/16	Solar panels on roof in connection with expansion of East building (East 4 + Waste and environmental management station)	Electricity	East 4 = 107,000 kWh + Environm. = 38,000 kWh + Extra = 22,000 kWh – Total 167,000 kWh	140,000 kWh achieved so far – However, we need a full season with good weather and the complete plant, before we can see the final effects
6	2015/16	LED lighting in connection with expansion of East building	Electricity	110,450 kWh	Could not be documented due to increased energy consumption
7	2015/16	New compressed air plant in Machining Dept. in connection with expansion of East building	Gas + Electricity	1,309,100 kWh	With the expansion of East, the capacity of the new ventilation systems and compressor installations has increased so severely that it can not be documented as a lower power consumption. Consumption per. m^3 air is not known from earlier.
8	2016/17	Ventilation optimisation 2/2 (in connection with expansion of East building)	Gas + Electricity	Same as for gas	
9	2016/17	New compressed air system for DESKLINE incl. heat recovery	Gas + Electricity		
10					

Conclusion for electricity

In general there is an increasing trend in gross electricity consumption which is due to the increasing purchase of robot cells for production growth.

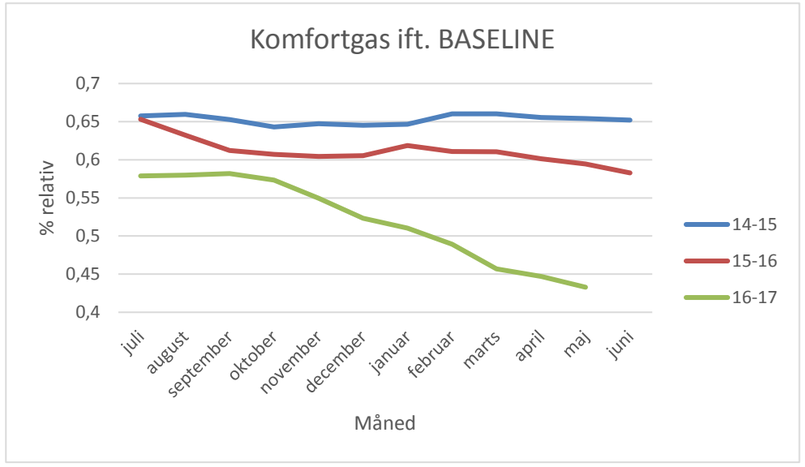
The solar cells have for a period of time been able to limit these increases in absorbed electricity, but if this trend is to be reversed, it will be necessary to focus on energy consumption on new machine purchases in the future.

It is predicted that the development in electricity consumption will increase substantially in 2018, as RUNDE 2 will be completed in December 2017, and LINAK A/S will continue to see strong growth in general.

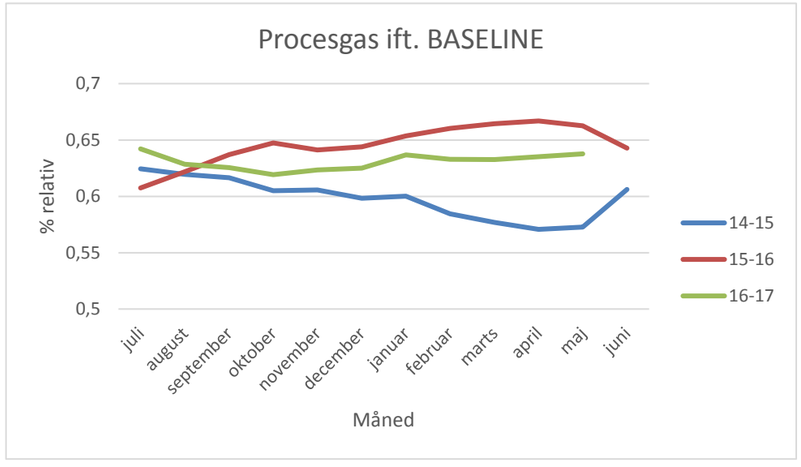
However, it is noted that the energy consumption per produced unit is still under control, as well as slightly decreasing. It is important to maintain focus on maintaining this development.

Gas

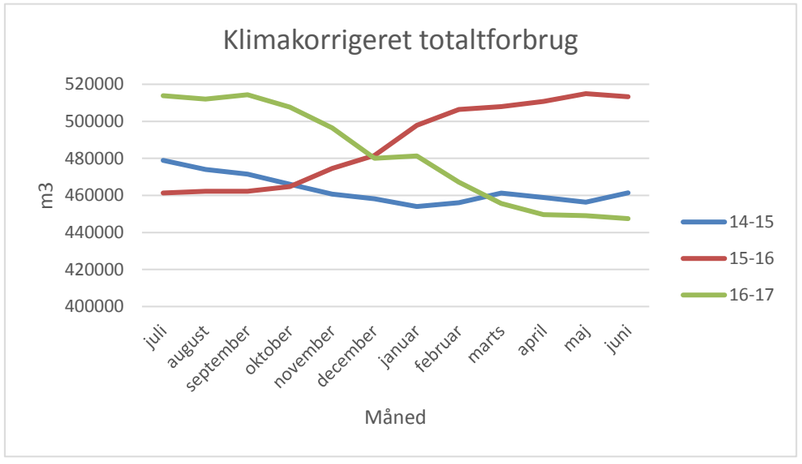
Total gas consumption in 2015/16 amounted to 460,504 m³. Of this, 380,116 m³ was used for comfort heating and 80,388 m³ used for process.



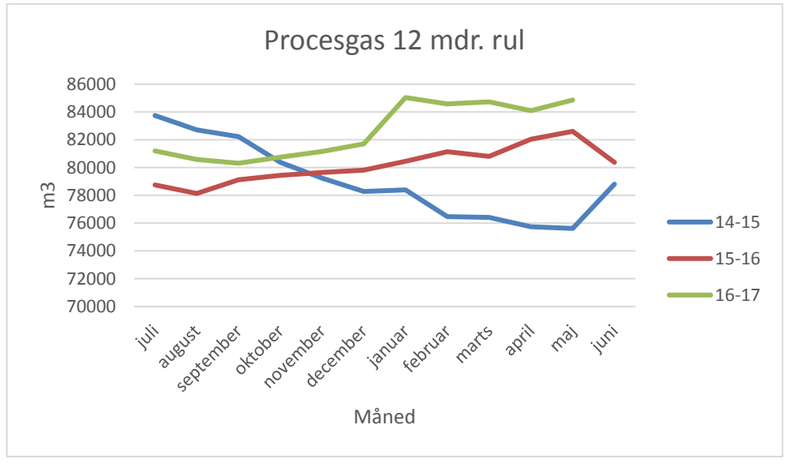
Increase in LINAK A/S production and a decline in gas consumption results in a severe reduction in our CPI in 2010 compared to baseline from 2010.
Developments are considered positive.



Process gas consumption compared to the baseline from 2010 is seen fairly steadily over the last 3 years. There are challenges with the heat recovery on the painting facility, and work is in progress on several fronts to solve this.



Due to massive building expansion, gas consumption growth is increasing in recent years. However, due to the new ventilation systems and optimized operation we have the past year made equivalent saving consumptions as planned.



On the process front, an increase in consumption is also seen. This is partly due to challenges with a heat recovery plant and partly to increased production.

Gas reduction initiatives during the period

ID	Year	Initiative	Type	Calculated cost saving	Actualised cost saving
1	2013/14	New condensing gas boiler (DESKLINE®)	Gas	8,000 m^3 = 80,000 kWh	4,000 m^3 = 40,000 kWh
2	2013/14	Heat recovery painting facility 1/2	Gas	25,000 m^3 = 250,000 kWh	Cannot be detected
3	2014/15	Heat recovery painting facility 2/2	Gas	15,000 m^3 = 150,000 kWh	10,000 kWh = 100,000 kWh Then the filter clogged, so it is not known whether the last can be obtained
4	2014/15	Modification of washing process (elimination of washing facility)	Gas	None	Approx. 50,000 m^3 = 500,000 kWh The plant was operating without meters and was disposed of without a calculation, so saving is based on the change in annual consumption.
5	2015/16	Ventilation optimisation 1/2	Gas + Electricity	Gas: 925,288 kWh	Result of the ever-increasing area, but with the same gas consumption.
6	2015/16	New ventilation system for Machining Dept. in connection with expansion	Gas	1,309,100 kWh	With the expansion of East, the capacity of the new ventilation systems and compressor installations has increased so much that it can not be documented as a lower power consumption. Consumption per. m^3 air is not known from earlier.
7	2015/16	New pressure air plant in Machining Dept. in connection with expansion	Electricity + Gas	Same as for electricity	

Conclusion for gas

The gas consumption is considered positive, when talking about comfort gas. It is a positive achievement to expand by 4,000 m^2 and keeping consumption at bay.

On the process side there are challenges with the implemented heat recovery plant. This is due to a phenomenon called "blooming" that occurs in the powder coating facility that clogs all filters. Work is being done on a solution to this problem in the Machining Dept.

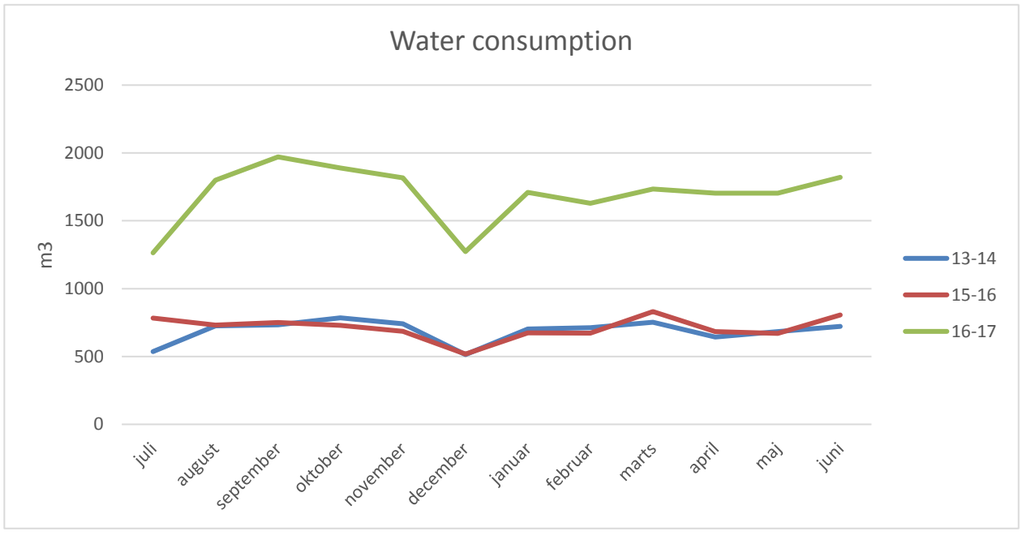
Regarding KPI, a strongly declining level is seen. This is due to the more efficient production that takes place on the same m^2 of heated area as before.

Water

Total water consumption in 2015/16 amounted to 8,842 m³.

Initiatives for water during the period

ID	Year	Initiative	Type	Calculated cost saving
1	Ongoing	Automatic taps	Water	Not calculated
2	Ongoing	Technical optimisation of osmosis plant	Water	Not calculated – However, experts point out that we will lose approx. 10% less water per plant with optimised service and settings.
3	2017	Optimisation of water consumption in connection with wash test	Water	



A characteristic water consumption has arisen due to the procurement and use of new types of accelerated lifetime tests of our products. This makes monitoring of water consumption more complicated. There is an increased focus on water consumption, in order to reduce this.

Conclusion for water

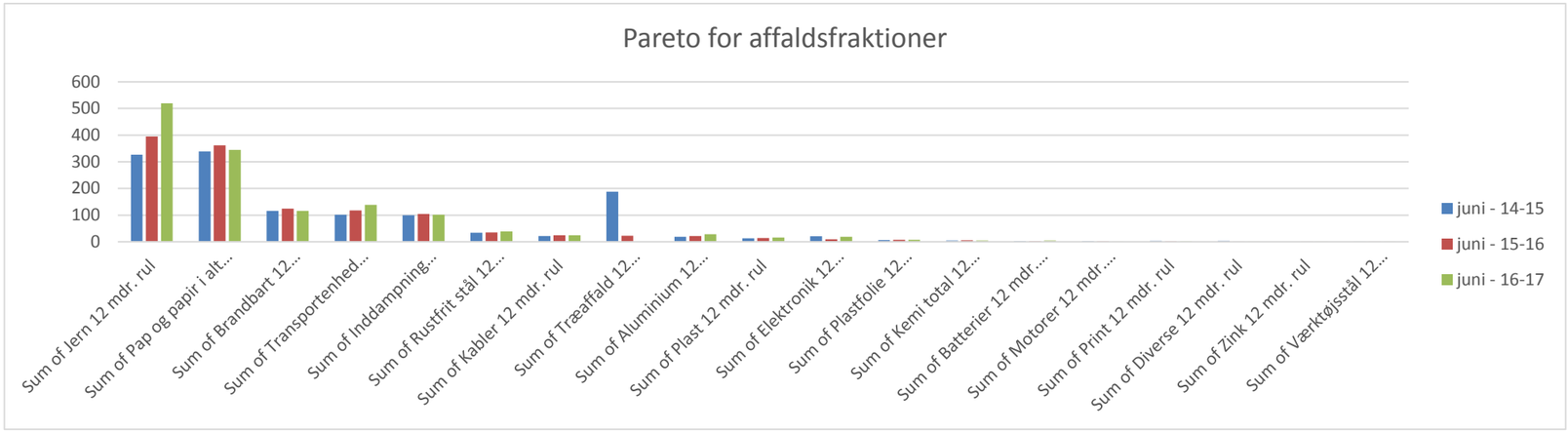
During the last 3 year-period, no significant measures have been taken in water-saving activities. Some years ago, LINAK® bought water-free urinals and toilets with water-saving flush, and most of our shower fittings and washbasin fixtures are water-saving.
Also our machining department has changed the washing process, as it is now in-line, with the same oil emulsion as CNC machines use, instead of a separate washing facility
However, things are not new anymore so it is estimated that many of these will soon be replaced. This will take place continuously and as part of the daily operation.
LINAK has recently started replacing existing washbasin fixtures with automatic fixtures. This, in addition to water saving (no leaking taps), also contributes to improved hygiene.
The new washing machines for testing our products have caused increased water consumption over the past year. We have now implemented water purification in order to recycle the water as the new tests had far more cycles, with fresh water every time.
All in all, it can be concluded that we do not try to revolutionise our water consumption at LINAK A/S, but that we monitor and try to keep a reasonable and low water consumption in general in our production facilities and buildings.

Recycling & disposal

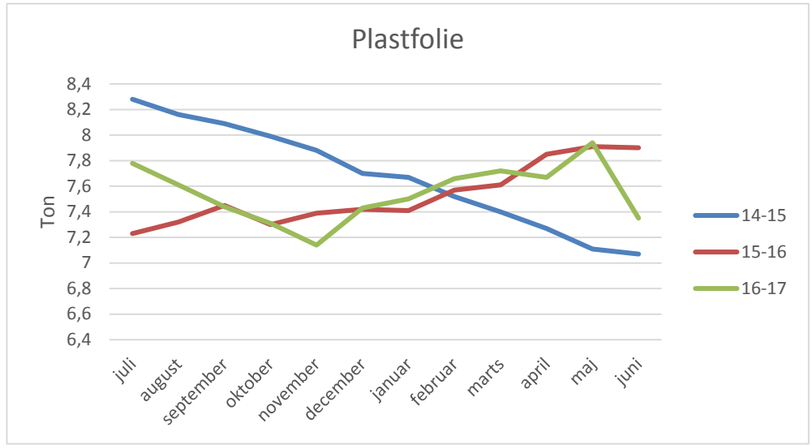
Throughout the years at LINAK A/S, there has always been a great focus on disposing of waste for recycling. We constantly control and monitor that we comply with our fractions and ensure that our customers are satisfied with the quality.
Recent years' developments in waste management and new opportunities have caused us to carry out a screening of our current situation and assess what actions are needed to take LINAK® towards NEXT LEVEL in waste management and recycling

Initiatives 2013/14 – 2016/17	Status 2016/17	Visions 2017/18-2020/21
Ensure high degree of recycling by constantly having correct fractions at LINAK A/S.	So far, there have been no major changes in the way LINAK is producing or which waste fractions we generate. There has been a general focus on recycling as much as possible, provided that our current supplier has been able to purchase.	In the future, we will use suppliers with different "core areas". The FY16-17 screening visualised that better prices and higher degrees of recycling can be obtained if the material is divided into cleaner an more limited fractions. This especially applies to plastic fractions, which will be the 1st priority.
Recycled packaging for several of our subcontractors would cause less cardboard waste from production, especially from DESKLINE.	Several types of recycling packaging and packing methods have been introduced, both internally and from some of our largest subcontractors. However, due to our present handling model it has been difficult to see the reduction as we do not register the amounts of cardboard used per building. All in all, the amount of cardboard used at LINAK A/S over the past years has increased.	Two different scenarios exist for the future cardboard situation at LINAK. Invest in a shredder and high-compression presses/containers which will provide optimisation of the external logistics and settlement price on cardboard, but will put additional stress on internal management. Small compactors in the departments will remove the need for internal handling, as cardboard can now be handled by existing truck drivers and can be stored and dispatched from the environmental station. One of the above mentioned scenarios should be implemented at LINAK A/S before 2021.
Surplus fractions such as glas and bottles have been downgraded and disposed of for incineration.	Offers have been obtained to switch to organic waste. This means that we can dispose of glass, plastic, aluminum foil and anything else that has been in contact with food in an environmentally far better way that provides energy production (from biogas plants) and sorts disposed waste into correct fractions for recycling (after being rinsed for organic content). The action has both environmental impact, signal value and a positive ROI, as organic waste is cheaper to dispose than combustion waste.	If the organic waste fraction is successful, we will spread this to all departments at LINAK A/S. Plans are to start around hot drinks machines and kitchenettes where we assume the greatest concentrations will be. Organic waste is seen as a natural part of the working day at LINAK A/S in 2021.
Wood packaging is sold to subcontractors and other companies for recycling	Since implementation of the initiative, the amount of our waste wood volume has declined significantly due to agreements regarding recycling of boxes and the like.	LINAK wants, as close as possible, a zero-impact solution for our waste wood, as the resources that are bound in these are relatively large. Downcycling for wood pellets etc. are also solutions that can be looked into. Waste wood must be minimised and recycled as much as possible.
Reduction of the amount of oil emulsion in washing water from our machining centers	There have been significant improvements in the amount of evaporative liquid when converting to INLINE washing in the machining department. After the washing machine was removed, it is no longer profitable for LINAK to evaporate our own water, so everything is disposed of and cleaned externally. Recent actions with additives and fungicides, as well as the use of demineralised water in the machining centers, have allowed us to take longer between replacing the oil emulsion with reduced volumes of evaporation as a result of this.	Work is being done to implement "water treatment plants" inline at the machining centers, so that they can be cleaned and recycled for a significantly longer period (practically without limitation) simply by adding water. However, this is on an experimental basis, and clarification will not come until late 2017 (weather this is a possible project for further implementation). The vision is that water for processes (washing, testing, etc.) must be reused and supplemented only if needed by 2021.

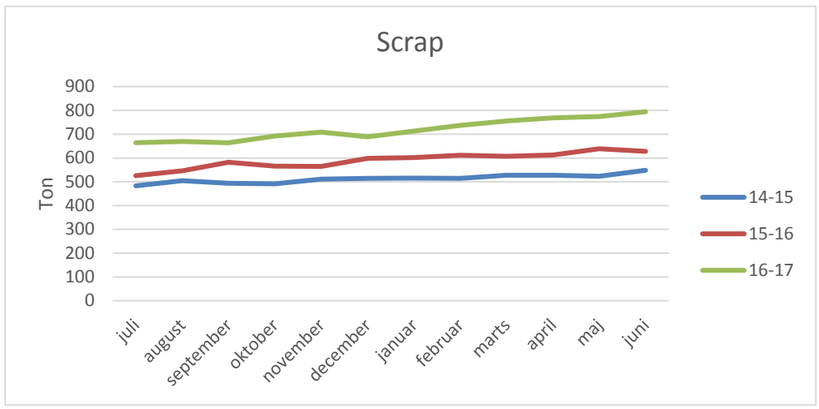
Recycling fractions and pareto



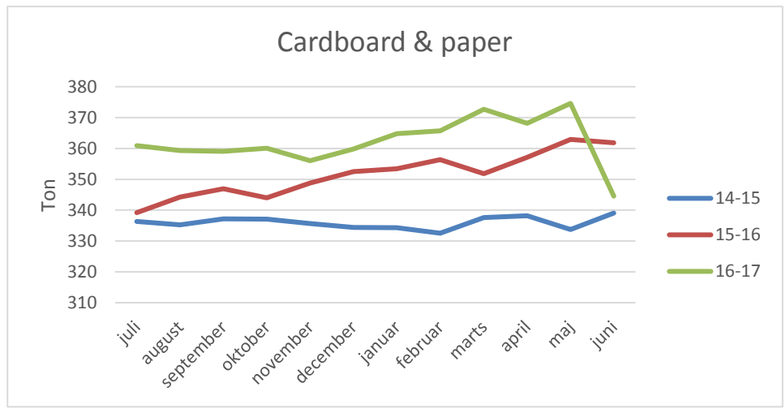
A pareto-presentation for the various waste fractions on LINAK A/S is shown above.
As seen from this overview, waste volumes have risen over recent years. However, this is seen as OK in terms of increased production.
Top 3 becomes iron, cardboard & paper as well as flammable (equal with evaporation).



The amount of plastic sheets is stable, which is seen as positive in relation to rising production.



The amount of scrap rises steadily over the years, in line with increased production. There is major focus on recycling as much as possible, which is why the scrap amounts are considered to be OK.



Cardboard and paper volumes also increase as a result of increased production. More items in and out mean more packaging and thus greater waste volumes. Everything is recycled and therefore it is not seen as a problematic development.

Waste wood is largely "removed" from LINAK A/S. Waste wood is primarily boxes for rod materials and disposable pallets. All of this is now picked up by another supplier who sells and recycles the wood to other manufacturers (Downcycling).

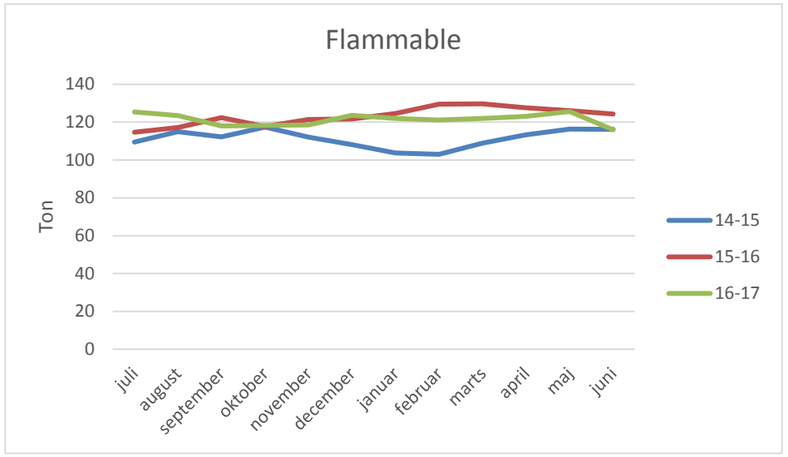
Conclusion for recycling

LINAK A/S has clear guidelines for waste management. Great efforts are made to sort the waste properly, which is crucial to the possibilities of recycling. All sorting of waste is carried out in accordance with applicable waste regulations from Sønderborg Municipality and own internal rules at LINAK A/S.
The company's waste is divided into scrap with additional 33 sorting, renovation with 5 sorting, chemical waste in 8 sortings and emulsions consisting of 3 sortings.

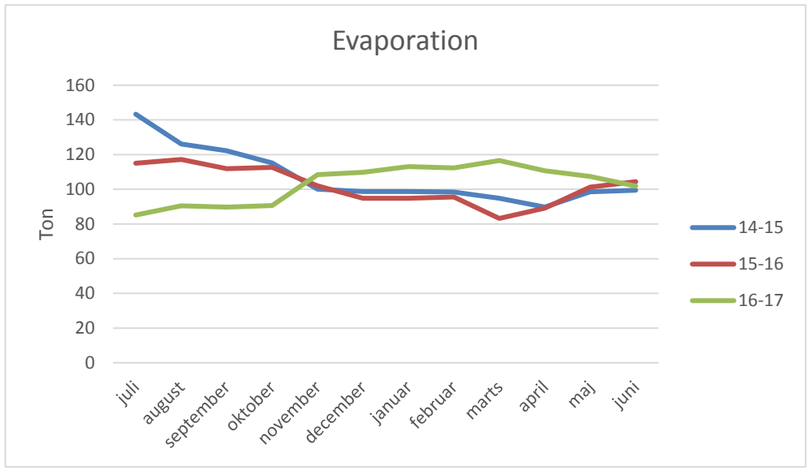
Total amount of waste in 2012/13 = 1103 Tons

Total amount of waste in 2015/16 = 1254 Tons

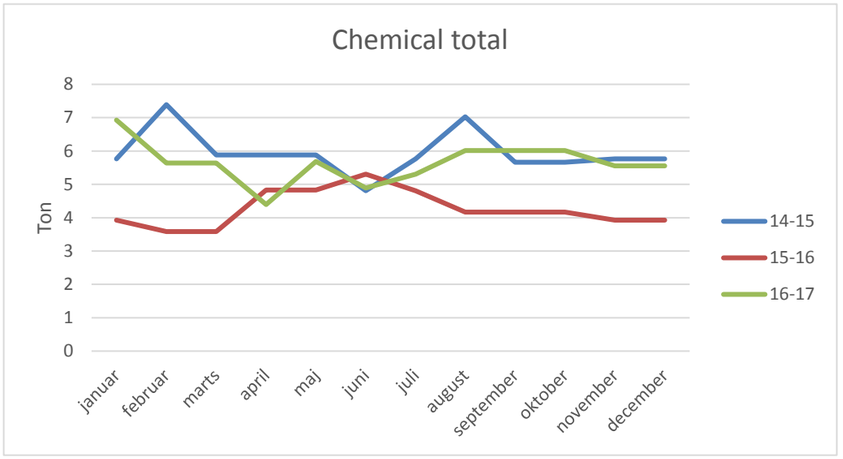
Disposal fractions



The amount of flammable waste also rises as a result of increased production. Increased production means increased activity at the factory, which in turn means greater waste amounts in general. The fraction is not recycled.



The amount of emulsions etc. for evaporation has been declining after implementation of new additives and demineralised water. The development is considered positive.



The amount of chemical waste also increases as production increases. There is a very high focus on chemical waste, and it is estimated that the level is close to a minimum for LINAK A/S.

Conclusion for disposal

LINAK A/S has an ambition to reduce waste volumes for disposal to an absolute minimum, as the prospects for recycling are far greater. This is also supported by suppliers and technologies that take higher recycling rates into account for virtually all fractions. Chemistry waste is strictly monitored and solutions are constantly being sought in order to use the materials better and better, thus avoiding waste and disposal. This also pays off financially because it costs both to buy and to dispose of the materials.

For the evaporation of our emulsions, a great and positive effort has been made which has caused declining volumes in recent years. Additionally, there are actions in the pipeline (experimental) that can further reduce this.
Flammable waste is also expected to decrease in volume when we begin to implement new waste fractions with organic waste and better recycling of plastics.

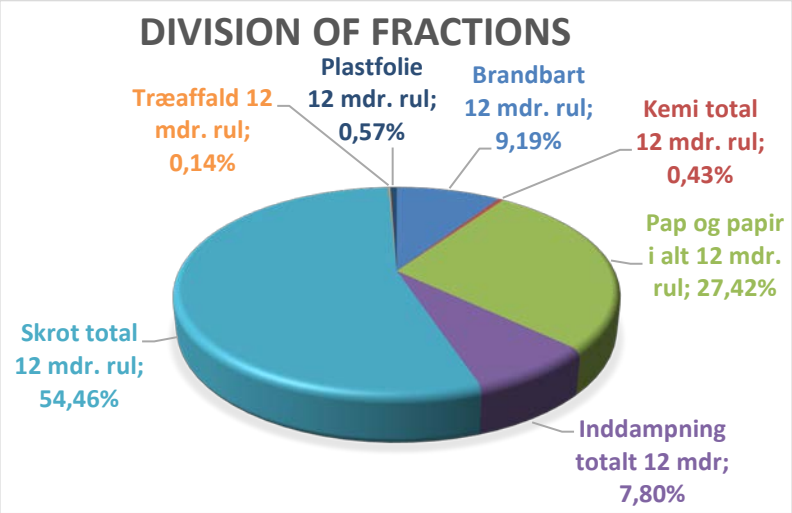
Overall, efforts in the disposal area are considered positive and with good improvement potentials that have already been put in the pipeline for several of the initiatives.

Keyfigures for waste

All waste is collected and recycled, burned/treated or deposited by environmentally approved customers.

In 2015/16 approx. 83 % of the total waste amount was of recyclable type. The remaining 17 % consist of non-recyclable solid waste and liquid waste, which is either incinerated or otherwise degraded.

Scrap
Scrap consists of, for example, iron waste, pure aluminum, accumulators, which are divided into fractions at LINAK A/S and collected at a central location. All fractions can be recycled after treatment.



The total amount of scrap in 2015/16 = 627 ton.

Evaporation
Emulsions are liquids that can not be discharged into the sewage just like that, but must be sent for processing (evaporation). For example soap/washing water from process washing machines, drilling water from machines in the Machining Department, etc.

The total amount of emulsions in 2015/16 = 104 ton.

Chemical waste
The chemical waste consists mainly of powder paint residue and grease. In addition, there is sludge and liquid chemical waste. The chemical waste is sorted in each individual department, after which it is collected centrally at LINAK A/S waste and environmental management station. The volumes are registered in a waste database.

The total amount of chemical waste in 2015/16 = 5.3 ton.

Cardboard and paper
Cardboard and paper consists of all kinds of packaging, printouts etc.

The total amount of cardboard and paper in 2015/16 = 362 ton.

Waste wood
The total amount of wood in 2015/16 = 23 ton.

Plastic sheets
The total amount of plastic sheets in 2015/16 = 8 ton.

Flammable
Flammable waste is the ”rubbish bin” fraction. This consists of mainly of normal rubbish bins as well as minor amounts of waste fractions which are not sorted.

The total amount of flammable waste in 2015/16 = 124 ton.

External environment

Noise

Noise measurements have been made by an external consulting firm in the entire area around LINAK A/S. All in all these measurements conclude that the conditions for the external noise in the environmental approval are met.

New noise measurements were completed in 2017, which have not yet been reported. The following is therefore still the old (and current) measurement report.
This is a conservative point of view as we can safely say that the noise has been reduced as a result of the many actions taken to reduce noise from LINAK A/S.

Noise measurement results:

Ref. point.	***Area***	Lr, dB(A) in period A/B/C		
		A(day)	**B(evening)**	**C(night)**
1	Mixed housing and industrial area 01-0-J1	43 *(55)*	38 *(45)*	38 *(40)*
2	Housing area 01-0-A8	40 *(45)*	36 *(40)*	36 *(35)*
3	Housing area 01-0-A8	45 *(45)*	40 *(40)*	39 *(---)*
4	Industrial area 01-0-H1	52 *(60)*	44 *(60)*	44 *(60)*
5	Housing area 01-0-B1	43 *(45)*	37 *(40)*	37 *(35)*
6	Industrial area 01-0-H2	48 *(60)*	47 *(60)*	47 *(60)*

Smell

The manufacturing of linear actuators does not cause any direct smells.

Complaints

During the period a few complaints regarding the construction of a new building at LINAK A/S (noise, dust or similar) have been filed.

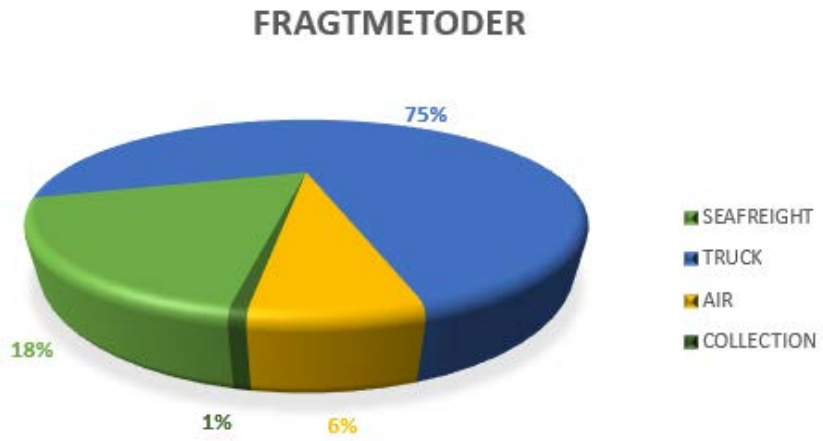
Logistics

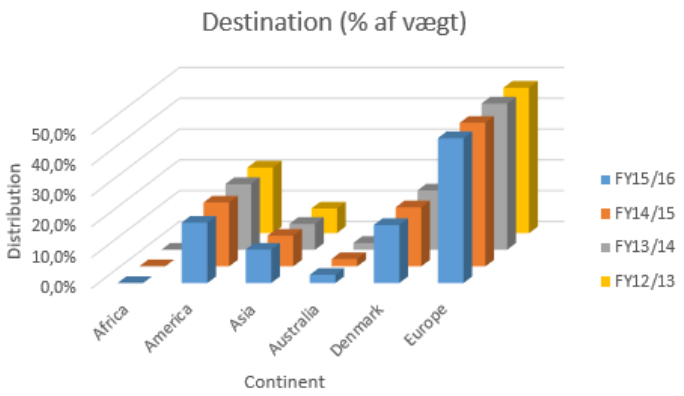
Finished products are dispatched from LINAK A/S in Guderup directly to customers and to the LINAK A/S distribution centre in Padborg.

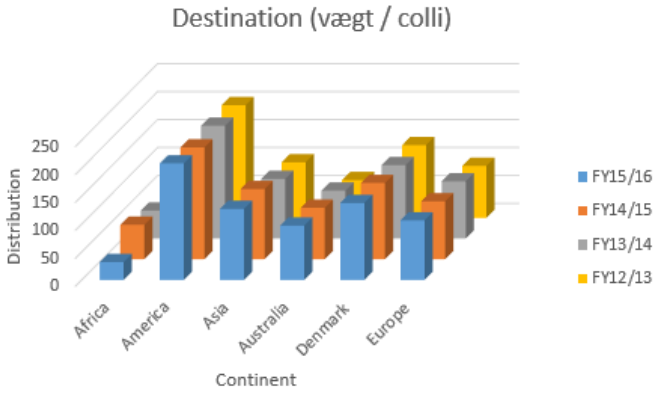
Semi-products and raw material are also dispatched to other LINAK production facilities in China, the USA and Slovakia.

Total gross weight of dispatched goods/packaging = 20.814 ton
This tonnage is divided on 144,448 parcels.

See below how the freight is divided – method and destination.







Key figure overview

LINAK® has a goal not to unnecessarily charge the environment, for example through energy consumption, material consumption or other resources.

Environmental financial statement 2015/16

Area	Unit	Total 2011/12	Total 2015/16	Development in %
Number of employees	number	858	1,034	+ 20.5 %
Area	m^2	38,000	42,000	+ 10.5 %
Electricity consumption total	KWh	4,981,045	4,929,827	- 1.0 %
Electricity consumption compared to BASELINE (2010)	KPI	89.5 %	66.2 %	- 23.3 %-point
Electricity production from solar cell panels	KWh	85,017	742,669	+ 873.5 %
Gas consumption total	m^3	569,614	460,504	- 19.1 %
Gas consumption comfort	m^3	469,023	380,116	- 18.9 %
Gas consumption process	m^3	100,591	80,388	- 20.1 %
Gas consumption comfort compared to BASELINE (2010)	KPI	91 %	69 %	- 22 %-point
Gas consumption process compared to BASELINE (2010)	KPI	67	62	- 5 %-point
Water consumption total	m^3	8,251	8,842	+ 7.16 %
Scrap total	ton	438.57	627.45	+ 43.06 %
Flammable waste	ton	106.6	124.3	+ 16.6 %
Paper and cardboard (recycling)	ton	304.04	357.74	+ 17.6 %
Evaporation total (Emulsions etc.)	ton	80.70	104.41	+ 2.38 %
Chemical waste total	ton	5,503	5,307	- 3.56%
Number of produced units	units	1,695,044	2,137,864	+ 26.12 %

In addition to our approach to material selection, the use of chemicals, etc., there is also much focus on optimal utilisation of materials and thus minimising waste. This should lead to less waste and higher recycling rates.

Summary

The environmental statement concerns LINAK A/S in Guderup.

For LINAK A/S the word environment encompasses both the internal environment and the external environment. This environmental statement contains the most essential information from both.

The environmental statement presents data for both the direct and indirect environmental effects of the manufacturing processes used to produce the company's products.

LINAK A/S accepts responsibility for its environmental effects and will do its bit to reduce global CO_2 emissions.

The company has an effective environmental management system that helps ensure continuous environmental impact improvements and that LINAK A/S develops, produces and sells products that the employees have produced under environmentally sound conditions. In addition, LINAK® also focuses on the environmental impacts of products during their lifetime.

LINAK A/S is determined to avoid unnecessary environmental impacts, e.g. through wastage or excessive consumption of materials, energy and water. In addition, new chemical substances must not be introduced at LINAK A/S without prior critical assessment.

LINAK A/S has during the period had many good objectives within environment and work environment. Many of the objectives have been met, but there is still room for improvement.

If you have any comments regarding the LINAK A/S Environmental Statement 2016/2017 or the environmental policies and efforts in general, please contact

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