STABILUS

YOUR MOTION. OUR SOLUTION.

EMAS
GEPRÜFTES UMWELTMANAGEMENT
DE-141-00021

ENVIRONMENTAL STATEMENT 2021

Stabilus GmbH, Koblenz site

STABILUS GMBH – ENVIRONMENTAL STATEMENT 2021
KOBLENZ SITE

CONTENTS

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Layout: *LOUISP* Werbeagentur | cover image: istockphoto.com

PREAMBLE

Stabilus makes life easier!
As the world market leader for gas springs, dampers and electro-mechanical damper actuators, we supply customers all over the world. Our products enable renowned companies from many different industries to make the everyday lives of millions of people more pleasant. Whether it be in the car, at home, in the office, even at the doctor's office or in the hospital: Stabilus products do their job in almost all areas of day-to-day living.

Business development since 2011, shows year after year: Stabilus is very well positioned. Despite our great success on the market, we are more committed than ever to a holistic way of thinking and acting. We pursue the goal of expanding our economic success in conformity with sustainability, ecological compatibility and social justice.

A glance at the company's history reveals that this claim is more than only words: Shortly after the reunification of Germany and two years before the protection of the natural bases of life was included in the German Constitution, Stabilus created a Department of Environmental Protection in 1992.

With this step, the company began to systematically address this issue. Since then, Stabilus has done everything to be able to call its products environmentally friendly in the broadest sense of the word – from design to production up to marketing and disposal. Handling our resources responsibly across the entire life cycle – that constitutes ecological quality for us.

We are convinced that a comprehensive concept of quality that includes the environment is indispensable for sustainable success on the market. And we are also convinced that Stabilus has acquired an excellent position in this respect. For a long time now, we have had it black-on-white: in the form of certificates for permanently reviewed processes and systems.

For more than two decades, we have voluntarily participated in the Eco-Management and Audit Scheme (EMAS) and have been certified to the globally valid environmental management system ISO 14001. In this system, the use of energy is also considered. Owing to the increased importance of a reasonable and sustainable use of energy, an energy management system in accordance with ISO 50001 was built and certified in 2012. With the combination of environmental and energy management, Stabilus is well prepared for the future. We want to emphasise this fact with this consolidated Environmental Statement 2021.

It contains the current data material for all environmental aspects from the 2019/20 fiscal year as well as an overview of our environmental and energy goals. All the information regarding the environment and energy has been reviewed as meticulously and consistently as the products in our portfolio.

As you can see: We mean business with our claim to sustainable economic activities.

Koblenz, 2021

Mark Wilhelms

Management
Stabilus GmbH

Markus Kühn

Plant Management
Koblenz

Gerhard Dienhart (UMB)

Environmental Management
Officer

Rudolf Pretz (EnMB)

Energy Management
Officer

STABILUS AT ITS SITE IN KOBLENZ

CONTEXT OF ORGANISATION

The history of the automobile began in the 1880s. But it was only with assembly line production that cars became affordable for the general public. That was the hour of birth of Stabilus: Founded in 1934 as "Stabilus Industrie- und Handels-Gesellschaft mbH", the company from the very beginning focused on the topic of shock absorbers and stabilisers. With the highest level of expertise in hydraulic dampers, the plant at Koblenz made a profound contribution to the history of automotive engineering.

1962 was a milestone in the company's history. The first series-produced gas spring evolved that year. With it, Stabilus opened up a new market with undreamed of prospects. Today, Stabilus is the undisputed global market leader with its product lines of gas springs, hydraulic vibration dampers and automatic flap opening and closing systems. With around 1,700 employees at its headquarters in Koblenz, Stabilus is one of the most important employers in the third-largest city in the German federal state of Rhineland-Palatinate. The plant is located on the left side of the Rhine in the northern district of Neuendorf, close to the river bank. This area has been classified as a class III/b water protection area since 2014. Evolving over time, residential areas sit adjacent to the compound on two sides; an industrial area lies to one side, and a German Army (Bundeswehr) training compound sits opposite.

According to the development plan of the city of Koblenz, Stabilus is situated in a mixed-use area. Not least on account of this location, Stabilus defines at least once a year internal and external issues that can be influenced by the company and might impact the environmental and energy management system as well as the attainment of stipulated goals. This includes the identification of all stakeholders and their expectations; a life cycle analysis of our products and services as well as upstream and downstream processes; and the inference and identification of resulting opportunities and risks. This allows us to seize opportunities and avoid risks. This opportunities and risks analysis as well as the measurement of the environmental and energy performance by means of key performance indicators is used to implement a continuous improvement process.

Top management is committed to defining an environmental and energy policy as well as associated goals; to integrating the environmental and energy management system in all business processes; and to identifying, complying with or implementing all binding obligations affecting the organisation. The duties required are inferred and delegated to the people concerned.

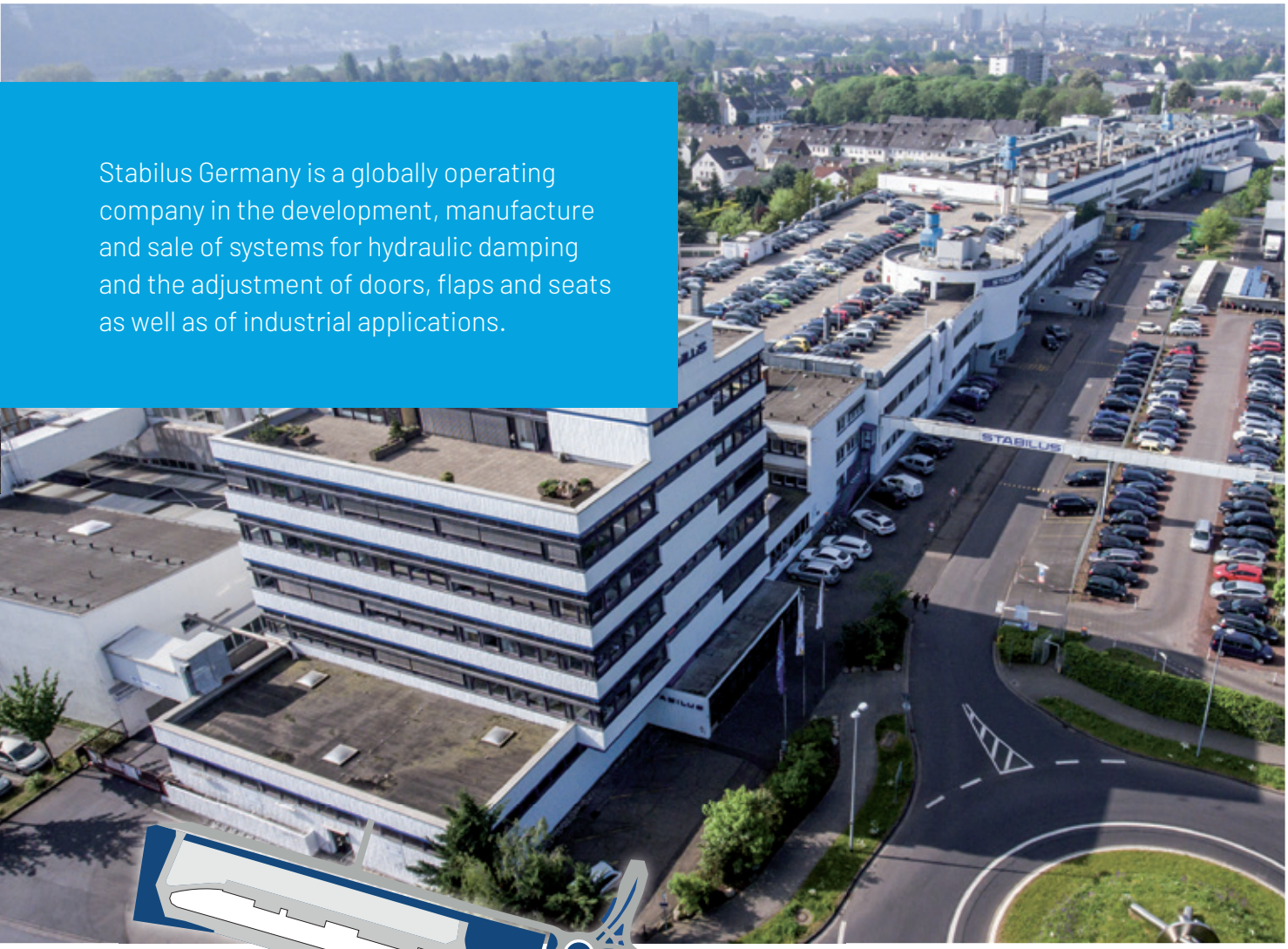
Top management shall also ensure that all necessary resources are made available for this purpose.

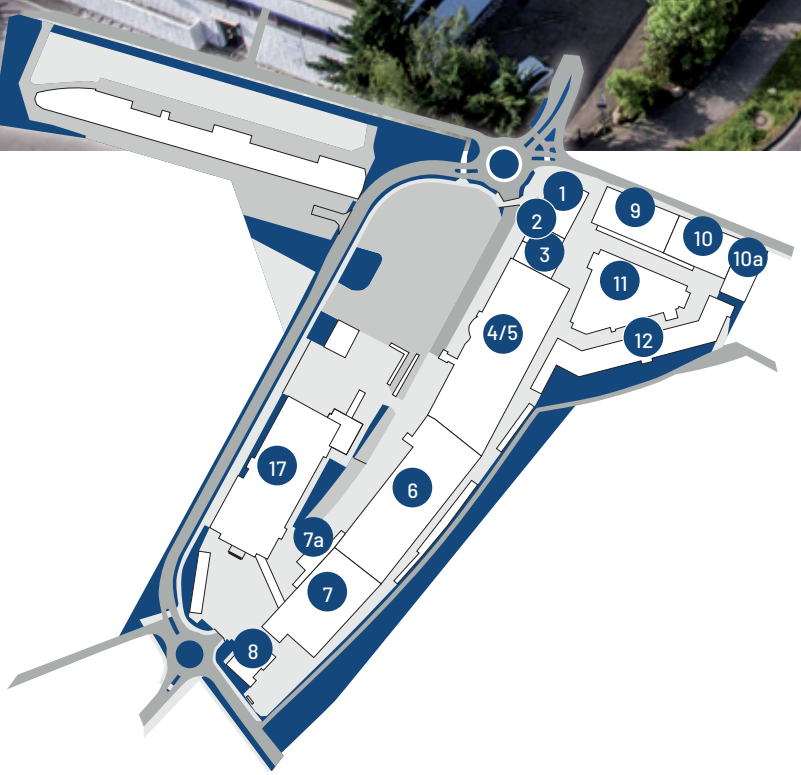
Worldwide, Stabilus has over 6,400 employees at 17 plants in Germany, Romania, the United States, Mexico, Brazil, New Zealand, South Korea, China, Australia and Argentina. With its global sales and service network, the company supplies and supports many thousands of customers the world over. In the 2019-2020* fiscal year, Stabilus generated sales revenue of approx. EUR 822 million.

* 1 Oct. 2019 - 30 Sept. 2020

USE OF BUILDINGS

Stabilus Germany is a globally operating company in the development, manufacture and sale of systems for hydraulic damping and the adjustment of doors, flaps and seats as well as of industrial applications.





Building	Usage
1, 2, 3, 8	Administration
4, 5, 6, 7, 11, 10, 17	Production
9	Storage
12	Development

PRODUCT DIVERSITY FOR A BETTER LIFE

AN AMBITIOUS SELF-IMAGE

The automotive sector is the largest business sector of Stabilus, but the industrial sector is also of great importance: The areas of application in aircraft construction and mechanical engineering, in the technology of medical and commercial vehicles as well as in the furniture industry are multifarious. With thousands of products and product variants that make life easier, Stabilus meets the rising standards for comfort and ergonomics that people expect.

At the latest with the IPO in May 2014, Stabilus has been noticed with interest by the public – as an unknown global market leader, a so-called "hidden champion". The "unknown" is owing to the fact that Stabilus does not offer end products in the traditional sense of the word, so the brand name is usually only known to professionals and experts. Stabilus operates actively all over the world. Thanks to our know-how in production technology, grown over many decades, and the experience of our development engineers, our products are one-of-a-kind and provide our customers with a competitive edge.

As global market leader, Stabilus is well prepared for the future. The trend toward smart solutions revolving around ergonomics is clearly unbroken. Comfort and safety have become a global mega-trend. And everywhere where something is lifted or lowered, opens or closes with ease, Stabilus is behind it. Thanks to innovative products, high product quality and pioneering product development, the company has evolved into a highly valued system supplier and is growing profitably.

The dedication of our employees, the high-quality training of new recruits and a responsible role in the respective local communities ensure that we are perceived as an attractive employer. Our state-of-theart processes and environmentally friendly production systems constitute the success factors for sustainable economic activity.

BECAUSE THIS IS OUR BENCHMARK:

We are committed to responsible corporate conduct. And with this commitment, we see ourselves set on the right course because we have stipulated both people and the environment as our highest priority.

At our headquarters in Koblenz alone, Stabilus employees work day after day for a successful future by developing, producing and delivering our products and providing the associated services always on a customer-oriented basis in Research and Development, in Production and in the Service units. Our focus is on customer satisfaction. We always strive for it by making sure that each and every employee sees continuous improvement and process optimisation as his or her personal goal.

WE ARE CONVINCED:

The qualification and motivation of our employees shape the success of the company. Therefore, employee development, responsibility for decision-making, occupational safety and health protection are a matter of course at our company.

And, of course, we know that many resources are finite. This is why we are committed to sustainable development. Wherever possible, we use environmentally friendly technologies and processes in order to keep the impact on the environment and natural resources as low as possible.

ASSESSMENT OF THE ENVIRONMENTAL IMPACT
KOBLENZ SITE

Stabilus decided early on to establish an environmental management system and to have it audited regularly. The company relies on certification according to ISO standard 14001 with its globally applicable requirements for an environmental management system, and on EMAS.

The European Community system for voluntary environmental management and environmental audits (Eco-Management and Audit Scheme, EMAS) is a premium label of the EU that goes beyond the ISO standard. The Environmental Protection Department established an operational and organisational structure early on, which takes into account all essential parameters of an environmental management system. The first environmental audit to determine the actual situation took place in Koblenz already in 1996. We have been participating in the Eco-Management and Audit Scheme (EMAS) since 1997 and the Koblenz site has been certified according to ISO 14001. Since then, the company's own compliance checks, so-called internal audits, have taken place regularly. In addition, the status quo as well as the plans for further improvements of the standards are identified every three years in environmental audits.

BECAUSE THIS IS THE SPECIAL CHALLENGE OF EMAS:
This system is performance-oriented: It requires the company to improve beyond the requirements of provisions in environmental law.

PRODUCTION PROCESS AND ENVIRONMENTAL PROTECTION

The production process at the Koblenz site essentially consists of the following steps:

- Goods receipt/delivery
- Preprocessing of delivered raw materials
- Heat and surface treatment
- Assembly and finishing
- Shipment

In addition, there are administrative activities and the work of technical services as well as the indirect environmental impact (delivery traffic, energy generation, design, products, etc.).

The assessment of the entire production process determines the implications for environmental protection:

- Consumption of raw materials
- Consumption of energy
- General emissions
- Use of oils, greases and lubricants
- Use of fresh water
- Use of auxiliary and operating supplies
- Accumulation of waste
- Accumulation of waste water
- Use of soil

The implications for environmental protection are shown in an assessment matrix.

DIRECT AND INDIRECT ENVIRONMENTAL ASPECTS

For the location, we have developed a method for determining the areas in which the environmental burden can be reduced and resources can be preserved.

An assessment matrix serves as a tool for estimating the direct and indirect environmental aspects. The criteria for the assessment have been determined within the framework of an ABC analysis and will be adapted if needed. This assessment is evaluated once a year by the Environmental Protection Department together with the Energy Manager. If an environmental impact is classified as requiring action, this is dealt with through goals and action plans.

We will always implement all measures to prevent possible environmental impacts.

Environmental aspect	direct environmental aspect	possible environmental impacts	Measures	Evaluation	Notes
Emissions	• Air pollution due to exhaust gases • noise, vibrations • odours, dust • traffic • release of heat, radiation, light	• climate-relevant emissions • deterioration of the air quality • noise damage • leakage of hazardous substances • landscape consumption • non-compliance with limit values	• environmental training • noise protection • air filters, exhaust air scrubbers • regular limit value checks • emission protection report • increasing employee awareness	B	Regular inspection and maintenance of all plants
Water (city and well water) Waste water	• use of fresh water • water savings • waste water treatment, sewerage • only indirect discharge into water	• resource consumption • waste from waste water treatment • compliance with requirements for dischargers • deterioration of water quality	• consumption controls • monitoring of the plants • water reports • water protection officer • specialist company according to WHG	B	Continuous optimisation of the plants, keeping water law permits in order, observance of conditions WSG III/b
Energy	• energy consumption, energy management • energy savings • share of renewable energies • use of energy sources	• increased consumption of non-renewable resources • climate-relevant CO_2 emissions	• energy efficiency improvement • recording energy consumption • adjustment to the state of the art • energy manager, energy report	A	Constant review for possible savings potential, monitoring list
Raw materials	• use of raw materials and natural resources • sustainable selection of auxiliary and operating supplies • resource conservation • packaging	• consumption of natural resources • shortage of raw materials • waste generation, disposal and recycling	• preparation of consumption balances • quality management • reduction of rejects • high material efficiency • development	C	Sustainability is already taken into account during development
Soil	• use and contamination of soils • contamination and soil sealing • erosion and soil compaction • impacts on biodiversity	• consumption of natural resources • impacts due to pollutant input • contamination of soils • loss of recreational areas	• training in the handling of hazardous substances • plant and disaster protection • avoidance of negative soil changes	C	Compliance with the relevant legal provisions
Waste	• generation of waste/ rejects • prevention, recycling, reuse, transport and disposal of solid and other wastes, especially hazardous wastes	• increased waste generation, landfill volume and scrapping rate • disposal and transport after the end of the use phase • emissions in the case of thermal recycling	• balancing of the waste streams • reduction of rejects • recycling and recovery • waste separation • transfer of waste to authorised disposal companies • Waste Officer	B	Compliance with the relevant legal provisions

A High environmental relevance – checking whether there is an immediate need for action
B Medium environmental relevance – monitoring and checking whether there is a need for action in the medium term
C Low environmental relevance – observation only

DIREKTE UND INDIREKTE UMWELTASPEKTE

Environmental aspect	direct environmental aspect	possible environmental impacts	Measures	Evaluation	Notes
Production support processes	• services (capital investment, lending and insurance) • internal and external reporting • planning and selection of operational processes • marketing and distribution of the products • composition of the portfolio • opening up new markets	• sustainable investments • expansion of infrastructure • global sourcing	• Consideration of environmental aspects in investment decisions • reduction of the use of resources • Local sourcing • setting goals	C	Preparation of sustainability report, integration of environmental and energy management into all business processes
Influence by customers, suppliers and personnel	• environmental behaviour of contractors, subcontractors and suppliers • personnel in terms of competences, information (level of knowledge), training, qualification and motivation • power suppliers	• consumption of resources in the operation of the products (energy, water) • useful life of the products • environmental performance of suppliers and outsourced processes • emissions from energy generation	• training, education, information events • increasing awareness of employees • Supplier review, evaluation and audits	A	Influence through purchasing conditions, disposal recommendations for our products after the useful life, employee development
Public	• authorities • application decisions, approval procedures • political framework conditions, municipal requirements	• public participation • communication with the local neighbourhood • ensuring compliance with environmental regulations	• open communication • positive company image • Investments at the site	C	Legal register
Mobility	• transport services, material transport • transport employees, customers, disposal companies • car and bicycle parking spaces • business trips • location and general infrastructure of the company	• greenhouse gas emissions • fossil fuel consumption • energy consumption for electricity generation and heating • waste generation • handling of hazardous waste • Noise pollution	• car pooling • working from home • shuttle • electromobility • video conferences instead of business trips • efficient investments • local sourcing	B	Travel policy for employees
Technology	• state of the art in production plants • technology and training standards	• selection of new procedures and the adaptation of existing procedures • maintenance and repair • energy efficiency • sustainability	• meaningful investments in new, efficient technologies • implementation of the state of the art	B	Ensuring production readiness
Product-related impacts	• life cycle aspects • employee-specific impacts • raw material selection • development and product planning • use and disposal of the products • complaints/product recall	• design, development, packaging, transport, use and recycling, waste disposal • service life of the products • environmental compatibility of the materials • handling of auxiliary and operating supplies	• quality management • life cycle assessment • training, instruction in the handling of products • evaluation of the raw materials used • substitution of hazardous substances • reduction of rejects to a minimum	B	constant adaptation of the process technology

ENVIRONMENTAL AND ENERGY POLICY
KOBLENZ SITE

We undertake to reduce our environmental impact and our energy consumption in the long run and to boost our environmental performance and energy efficiency in a continuous improvement process.

In order to implement these objectives, we have introduced and will maintain an environmental and energy management system in accordance with DIN EN ISO 14001:2015, EMAS and DIN EN ISO 50001:2018. We ensure that all the requirements of these standards are fully implemented and that the processes within this environmental and energy management system are continuously improved. The improvement of our environmental performance and energy efficiency is determined and monitored.

Furthermore, the environmental and energy management system is integrated in all business processes at the Koblenz site and is facilitated through the provision of resources. All requisite responsibilities have been stipulated and mapped in the "Environmental and energy management" organisational chart.

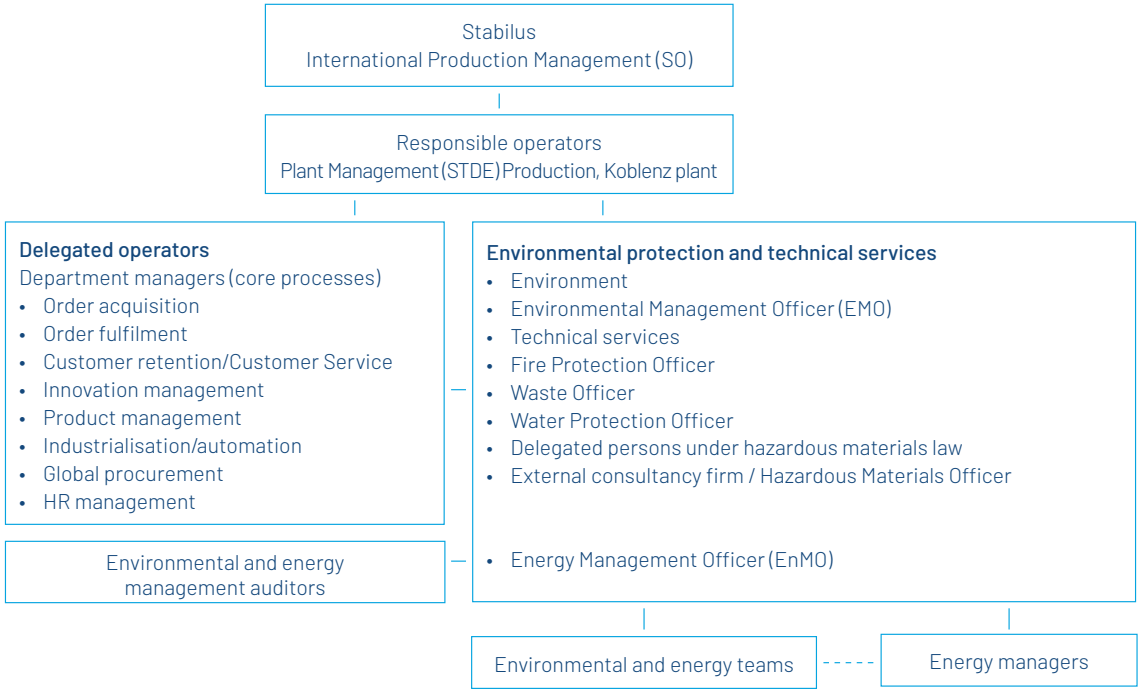
We are also committed to identifying all binding obligations in terms of the environment and energy on a regular basis, implementing them effectively, deriving and allocating duties as well as monitoring conformity.

Environmental and energy-relevant data is regularly identified, reviewed and used for the assessment of the environmental performance and energy efficiency. The results are evaluated by means of internal audits, opportunities and risks are assessed, entered in the stakeholder table and reported to top management.

To ensure a sustainable increase in environmental and energy performance, all necessary resources are made available by the site's top management.

We will actively involve our employees, as well as all other internal and external stakeholders, in the implementation of the environmental and energy policy. Information on the environmental and energy policy is published on the homepage and the portal, where it can be accessed by every employee.

The satisfaction of our customers, other partners and employees is our primary goal. Continuous further development and improvement of our product portfolio, methods and organisation as well as the qualification and involvement of our employees are required to achieve this goal.



MISSION STATEMENT

ENVIRONMENTAL AND ENERGY MANAGEMENT

At an early stage, Stabilus opted to make use of these systems. Hence the topics of process and occupational safety, preservation of resources and active protection of the environment through emissions management, waste management and waste water management have had top priority for a long time at the Koblenz site. The professional management of the increasingly complex environmental and energy impact in the manufacture of goods has emerged to help companies improve their performance in these areas on a consistent basis. At an early stage, Stabilus opted to make use of these systems. Hence the topics of process and occupational safety, preservation of resources and active protection of the environment through emissions management, waste management and waste water management have had top priority for a long time at the Koblenz site.

The site is certified in accordance with the internationally applicable standards for quality assurance and safety at work, environmental and energy management. In light of the high level of energy needs and continuously rising energy costs, the highly efficient ISO-certified energy management is of particular importance. The appointment of an Energy Manager, the establishment of environmental and energy teams in terms of both strategy and operations as well as targeted communications ensure that any progress made in this field is for the benefit of all.

All efforts and activities are based on the continuous improvement process (CIP), which is part and parcel of the Stabilus production system and integrated in our operational processes. The manufacturing processes of products are constantly improved, the energy use optimised, costs are saved, and waste is significantly reduced.

The dedication of many people guarantees that it is done systematically and efficiently. The management representatives for environmental protection and energy coordinate their work in close consultation with the department managers and report directly to the plant management. They are supported by various plant representatives for special areas as well as by colleagues in the sectors of environmental protection, operational safety, technical services and plant security. All of them in common monitor compliance with provisions and the stipulated rules for achieving defined improvements.

In addition to monitoring, encouragement, information and documentation obligations, the experts trained in environmental and energy topics also establish and manage cross-departmental work groups, each of which is dedicated to one project. This is to ensure that it's always the right people who make decisions on the use of new technology, better processes and targeted measures.

They make the environmental and energy management comprehensible by describing the required contents of standards for the operational conditions. More requirements are governed by work instructions and operating instructions. Through the regular review and improvement of standards and management systems, Stabilus ensures the sustainability of its activities.

STATUTORY PROVISIONS

The professional management of the increasingly complex environmental and energy impact in the manufac-ture of goods has emerged to help companies improve their performance in these areas on a consistent basis.

We are committed to implementing and complying with all statutory provisions as well as all other binding obligations. In order to be able to meet our responsibilities to the full, our "Environment and energy" legal register is kept by an external consultancy firm, where it is up-dated once a quarter.

Since the end of 2015, this legal register has been expanded by the topic of operational safety and was transferred to the system of an external specialist attorney at law. Furthermore, the obligations arising from legal requirements are derived and assigned to the persons concerned. If there is a need for action due to statutory changes, it is forwarded to the people responsible in the specialist department for implementation. Stabilo employees as well as external service providers working at our company take part in training events on a regular basis in order to collect information on changes to legal requirements. This applies in particular to the requirements of our key legal areas of the Federal Water Act, the Closed Substance Cycle Waste Management Act, the law on hazardous materials as well as air and soil conservation laws. In addition, the implementation of statutory provisions by the work of those officers responsible for waste, water protection, fire protection and hazardous materials is ensured by internal audits. All officers write a report for the respective expired fiscal year distributed to all persons involved by means of a distribution list. The regular monitoring of our waste water treatment plant is conducted within the framework of the self-monitoring by internal staff and an external, accredited laboratory. If any breaches of the limit values are identified, all competent bodies and authorities are informed so immediately. Furthermore, the causes are determined and corrective measures laid down. After the completion of all measures, the officer for water protection documents it in his annual report. Accredited specialist companies are tasked with the construction, installation, maintenance and cleaning of plants and plant parts. In this way, service provision in conformity with the law is ensured. All the necessary permits for the construction and operation of buildings and facilities are on hand.

In addition, plants requiring approval according to the Federal Immission Control Act (BImschG) and WHG are being operated. Exemptions pursuant to the Workplaces Ordinance (ArbStättV) are on hand. If limit values are stipulated in the approvals or for plants not requir-ing approval, e.g. the Technical Instructions on Air Quality Control (TA Luft), analyses are performed by accredited test institutes at regular intervals in order to check adherence to the limit values. The test reports are then evaluated by the Environment Department and forwarded to the competent authority.

To ensure approval-compliant operation, we use various monitoring tools at the company, e.g. system for tracking legal requirements, internal audits, inspections by the relevant officers as well as checks in day-to-day business. These control instruments guaranteed compliance with our binding obligations and ensured legally compliant operation.

COMMUNICATION AND QUALIFICATION

The aim is a fair balance between economic performance, environmental requirements and social concerns.

Such an approach requires the continuous further training of employees and open communications. Both together – communication and qualification – are key elements of a successful environmental and energy management system. In light of their great social, economic and entrepreneurial importance, environmental and energy management constitute management tasks at Stabilus.

For a long time now, Stabilus has also relied on training measures, which are not directly allocable to individual departments, e.g. Development, Production or Sales. They include measures in the field of environmental and energy management. Separation of waste and the handling of hazardous materials are always on the further training schedule; likewise, the handling of environmentally relevant substances and boosting energy efficiency. The fact that new recruits are consistently involved early on shows just how important this task is to Stabilus. Current environmental and energy issues are part of vocational training; environmental protection is even an examination subject. This way, the awareness is raised today for shaping the experts of tomorrow.

Similarly, the on-the-job training programme for new employees contains environmental and energy issues. They are also an integral part of the company suggestion scheme. And all media – from the employee maga-zine "We@Stabilus" to the electronic Intranet portal right on up to traditional bulletin boards – are used to enshrine environmental and energy topics lastingly in the minds of employees.

ENVIRONMENTAL ASPECTS, DATA AND FIGURES

For Stabilus, sustainable economic activity means creating values in the long term that help guarantee that future generations can also lead a good life. This can only be achieved with the development of innovative solutions for current and future problems, the efficient use of resources and proper conduct towards people.

Input/output presentation and key indicators 2017/18, 2018/19 + 2019/20

GENERAL INFORMATION:

The following core indicators consist of:

- figure A to specify the total input/impact during the fiscal year in the respective area
- figure B to specify the total output of the organisation in the fiscal year
- figure R to specify the ratio of A to B

CORE INDICATORS

The following compilation lists and compares the core indicators of the last two fiscal years.

FISCAL YEAR PERIOD:

October to September
(some data determined from the calendar year)

1) Values were obtained from measurements of the heating, surface treatment plants, which was on hand as at 30 Sept. 2017.
2) Values were calculated from the consumption of natural gas through the emission factor of the gas supplier
3) Values were calculated from the waste water quantity treated in-house
4) No self-produced electricity, just external procurement, conversion with EVU factor
5) Based on a calendar year

The quantity produced as number of units is derived from the number of manufactured products, which have been handed over to the Warehouse. The specification of the quantity in t/FY (figure B) relates to the weights of the devices sold, without packaging, sent by Logistics to customers.

Material efficiency refers to all raw materials, materials, auxiliary supplies and operating supplies.

Energy efficiency is the use of primary energy, electricity and natural gas.

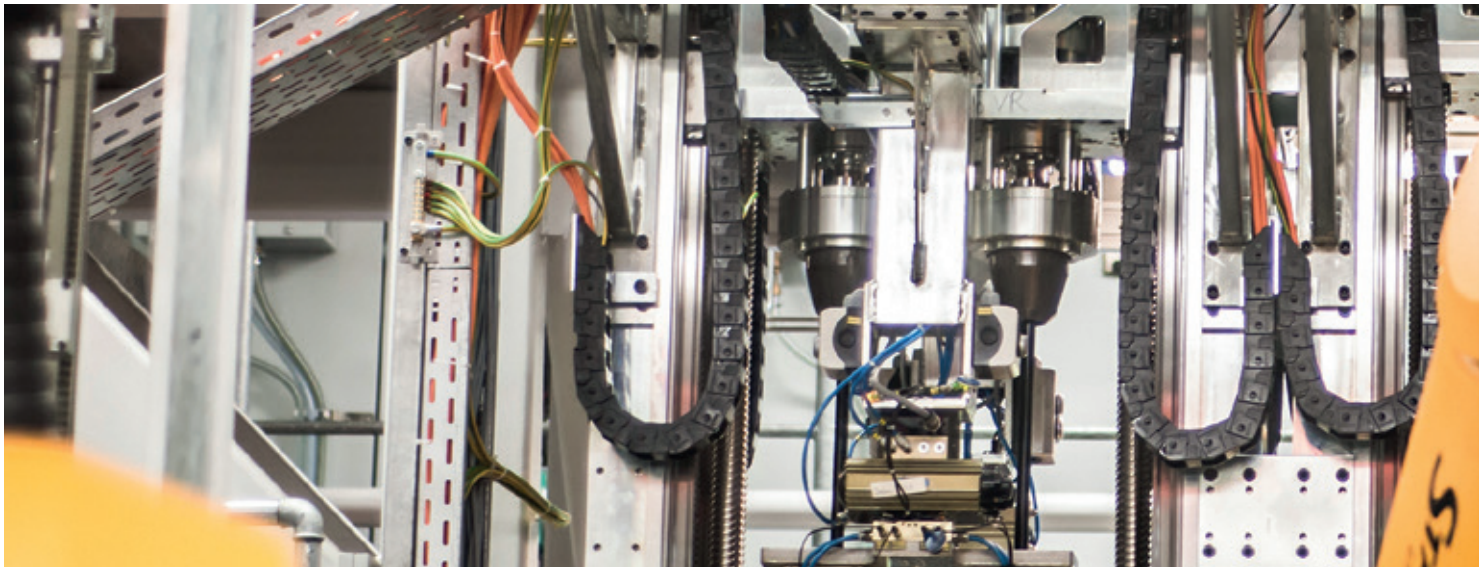
MATERIAL CONSUMPTION

As early as during the development and design of new product, Stabilus pays heed do a careful use of resources. The focus is on high functional safety and durability. Given this goal, raw materials, auxiliary supplies and operating supplies are checked and considered.

ENERGY

Our primary energy needs are covered by the purchase of natural gas and electrical energy. These energy sources are provided by national energy supply companies. The largest portion of the electrical energy is needed for the operation of production plants and HVACR systems. The natural gas is used for the generation of industrial and building heat as well as for the operation of a CHP plant.

ENVIRONMENTAL ASPECTS, DATA AND FIGURES



WATER

"Energieversorgung Mittelrhein AG" supplies the Koblenz site with drinking water through the public network. The drinking water is used by the employees at the site for sanitary and social purposes. Our industrial water is taken from two internal wells and made available via the company's industrial water network. It is used for the cooling of machines and plants, for the generation of fully demineralised water, for the operation of the washing machines and as flushing water in surface treatment. All procured quantities of energy and water are recorded by pulse-controlled measuring devices, transmitted to the building control system and analysed on a monthly basis. The results of these analyses are provided to all departments, so sustainable behaviour is ensured.

WASTE WATER

Various waste water flows are produced at the Koblenz site. Sanitation waste water, waste water from the cooling of industrial processes and waste water from the generation of fully demineralised water are allowed to be fed into the sewage treatment plant of the city of Koblenz through the municipal waste water sewer. The waste water from washing processes, paint pretreatment and surface treatment must be pretreated in the in-house waste water treatment plant before it is allowed to be drained into the municipal waste water sewer and fed into the Koblenz sewage treatment plant. The waste water sewer is designed as a mixed sewer system. The monitoring of the waste water is conducted in accordance with the Self-Monitoring Ordinance in our in-house laboratory and with the support of an external laboratories. The values measured as well as the operation of the waste water treatment plant are checked by the Water Protection Officer on a regular basis and reported to top management.

SOIL

Since the water protection area of Koblenz-Urmitz was designated in 2014, soil protection has become even more important. All necessary construction work, e.g. the rehab of light liquid separators, is carried out in consultation with the competent authority. Because the plant has been on today's site since 1934, potential contamination cannot be completely ruled out. However, Stabilus does not know of any contamination; nor does the register of contaminated sites of the city of Koblenz list any.

AIR

Heat treatment, surface treatment and ventilation systems of production are the main emission sources at the site. The exhaust gases are cleaned with appropriate washers, separators and filters. Combustion-related emissions come from the low-pressure steam boiler plants, with a total installed capacity of 16 MW, for the generation of process heat and room heat. All emitting plants are inspected and tested as part of the existing approvals or according to requirements of "TA Luft" by a government-approved test institute. The test reports are forwarded to the responsible operator and the competent authority.

NOISE

Different noise emissions arise in each operating area. For the protection of the neighbouring residential area, the noise emissions from the operating area must not exceed the noise

level values allowed in residential areas. This is ensured by extensive noise protection measures as well as regular self-monitoring.

WASTE

In areas in which the goal of waste avoidance cannot be fully implemented, a tried-and-tested separation and collection system constitutes the basis for the proper recycling or disposal of our waste. The data of all recovery and disposal procedures is recorded via an EDP (IT) system. At the Koblenz site, the system serves for the monitoring and optimisation of waste management. The evaluations and statistics of the IT documentation are incorporated in the annual report of the Waste Officer to Management.

TRANSPORT AND LOGISTICS

In a final work step, our products are packaged for shipping. If agreed with our customers, the customer's own reusable packaging is used. In order to ensure easy handling, standardised reusable containers are used for purchased parts.

TRANSPORT OF HAZARDOUS MATERIALS

A hazardous materials organisation that is firmly established within the company structure deals with the transport of hazardous materials. External transports are conducted by authorised carriers. All in-house transports are safely and securely conducted by personnel who are correspondingly well trained.

EMERGENCY MANAGEMENT

Extensive precautionary measures have been taken to ensure that no hazardous materials are released to the environment. An essential component of the safety and security system is the building control system as well as the plant protection centre that is manned 24/7. All the different monitoring lines are connected here, and the necessary instruments are available in an emergency. In addition, the alarm plan governs the tasks of the organisation management, the crisis management group and other emergency services. The municipal fire department of the city of Koblenz is also integrated in the alarm network. Internally, around 70 trained fire protection assistants are currently fulfilling special tasks in fire prevention and preventive fire protection.

ENVIRONMENTAL AND ENERGY GOALS

The environmental and energy goals as well as action plans are derived from the environmental and energy policy and the findings of the environmental audits and energy assessments.

MEASURES AND ACTION PLANS

Appointed executives are responsible for the implementation of the measures and action plans. The Environmental Protection Department checks and documents how far the implementation has progressed. Our Management is informed by status reports from the Environmental Management Officer and the Energy Management Officer of the results achieved and supports the measures proposed. The priorities and the time frame are defined, taking into account environmental relevance, possible impact on energy consumption and economic feasibility.

ENVIRONMENTAL ASPECTS, DATA AND FIGURES

SIGNIFICANT CHANGES

- In FY 19/20, the production volume decreased by 22%. The reason for this was the Corona pandemic in conjunction with correspondingly lower order volumes and short-time work. As a result, the required raw materials, auxiliary and operating supplies, waste quantities and emissions are also significantly lower. All changes to FY 18/19 that deviate from the lower production volume are explained in the following text.
- The procurement of ferrous metals was reduced in FY 18/19 and FY 19/20 due to lower production volumes.
- The quantities of plastics, rubber parts, paints, thinners and chemical compounds fluctuate in parallel with the produced quantity.
- The used oils, greases and lubricants also fluctuate due to different product mixes in different fiscal years.
- The packaging material paper, cardboard and wood increased, but the packaging material plastics was reduced significantly. We strive to increase the amount of recyclable packaging (paper, cardboard, wood). Since plastics have a slightly lower weight in direct comparison, this resulted in an increase in the total weight of the packaging.
- The largest portion of technical gases is the nitrogen needed for the production of the gas spring. During the FY 17/18, the supply was changed from in-house generation to external procurement. In this context, quantity counting was changed from gaseous (m^3) to liquid (kg). The actually delivered quantities are more precise with this counting method and will only be presented in such a way as of FY 18/19. The supply quantities depend on the product mix, resulting in a moderate increase compared to the previous year. Due to the influence of the pandemic, there has been a clear shift in products. Proportionally more products were manufactured for the industrial sector than for the automotive sector. As these products have a larger volume and are often filled at a higher pressure, the amount of technical gases has increased.
- The steady decrease in consumption of electrical energy has been possible due to continuous optimisation of the consumers within the scope of energy management. The reduced production quantity in FY 18/19 and FY 19/20 has also been responsible for the decrease.
- The gas consumption depends on various influences such as production quantities, system scheduling as well as different shift plans. The reduction in the volume of obtained gas is of the same range as the decline in production.
- The obtained quantity of municipal water has slightly increased over the last years, but a reduction was recorded in FY 19/20. Since this water is mainly used for sanitary purposes, this decline is due to the change in the working environment as a result of work from home and short-time work, which was necessary for several months.
- The quantity of well water has decreased since FY 18/19. The quantity of technical waste water has thus also decreased. This positive trend continued in FY 10/20. This has been caused by the implementation of new technology in the area of system cooling and by other optimisation measures within the entire plant.
- Our CO_2 footprint is presented in more detail for the first time in this Environmental Statement. In addition to the direct CO_2 emissions resulting from the combustion of the obtained city gas, the indirectly caused CO_2 emissions from the procurement of electricity and other materials were also taken into account. As the determination of t $CO_{2\text{-eq}}$ from other material is very complex, this will be successively expanded in the coming years with the support of Purchasing.
- The quantities of organic solvents have increased compared to FY 18/19, but these are still well below the quantities permitted according to the solvent reduction plan. This was caused by several extensive cleaning activities on the painting systems.
- We use the term "substances harmful to the climate" for the coolants that are disposed of from our cooling systems. They accumulate when we replace old systems with new, more eco-friendly units. The quantity is therefore no appropriate measure for possible environmental pollution.
- In May 2020, the measurements required every three years on our emitting plants were carried out by an external measuring institute. Since these measurements serve as the basis for determining emissions, there are fluctuations compared to previous years. However, all measured values are well below the authorised limit values. If limit values were set, they are shown in the list.
- All measured waste water loads are below the authorised limit values, the loads depend directly on the waste water quantity.
- The waste for recycling continued to decline in FY 19/20. The increase in wood and plastic waste is due to the special disposal of old materials.
- The waste for disposal increased in FY 19/20 due to the special disposal of about 750 t of excavated earth for construction projects.

Input (figure A)	FY 17/18	FY 18/19	FY 19/20	Unit
Raw materials/materials	**22,048**	**20,609**	**16,781**	**t**
Ferrous metals	16,226	15,184	11,863	t
Non-ferrous metals	58	45	37	t
Plastics/rubber	2,381	2,073	1,734	t
Auxiliary supplies and operating supplies				
Fats/oils/lubricants	635	574	459	t
Acids, alkalis, chemical compounds	1,000	1,008	783	t
Paints and thinners (calculated)	243	223	145	t
Packaging material, paper, cardboard, wood	1,088	1,111	1,673	t
Packaging material, Plastic	417	391	87	t
Technical gases	1,413,627	1,512,058	1,658,642	m^3
Total energy (electricity/natural gas)	**74,129**	**70,847**	**59,744**	**MWh**
Electrical energy	42,411	39,387	33,078	MWh
of which from renewable energy (electricity)	24,684	23,883	21,002	MWh
Natural gas	31,718	31,460	26,666	MWh
Total water	**124,296**	**106,532**	**92,182**	**m^3**
Drinking water	9,243	10,075	7,805	m^3
Well water	115,053	96,457	84,377	m^3
Soil (base area)	**78,450**	**78,450**	**78,450**	**m2**
total area usage	78,450	78,450	78,450	m^2
total sealed area	55,414	55,414	55,414	m^2
near-natural area on site	0	0	0	m^2
near-natural area off site	0	0	0	m^2

Quantity produced (figure B)	FY 17/18	FY 18/19	FY 19/20	Unit
	75.63	69.19	53.78	Mio pcs/ FY
	22,362	20,046	14,145	t/FY

Output (figure B)	FY 17/18	FY 18/19	FY 19/20	Unit
Emissions*				
Carbon dioxide (CO_2), total	18,757	16,122	13,604	t
Carbon dioxide (CO_2)** from city gas, direct	6,790	6,292	5,333	t
Carbon dioxide (CO_2) from electricity procurement, indirect	11,513	9,423	7,970	$t/CO_{2\text{-EQ}}$
Carbon dioxide (CO_2) from other materials, indirect	454	407	301	t
Sulphur dioxide (SO_2)	95	94	80	kg
Nitrogen oxides (NO_x)	3,314	3,262	4,302	kg
Annual load limit (NOx)		15,206		kg
Carbon monoxide (CO)	159	157	133	kg
Carbon (C-total)	8,088	7,041	3,614	kg
Annual load limit (C-total)		29,335		kg
Ammonia (NH_3)	6,764	6,467	2,159	kg
Annual load limit (NH_3)		6,931		kg
Cyanides (CN)	317	303	525	kg
Annual load limit (CN)		1,190		kg
Dust	86	83	93	kg
Annual load limit (dust)		753		kg
org. solvents (VOC)	13,144	11,835	23,632	kg
Annual load limit (VOC)		46,318		kg
Substances harmful to the climate (refrigerants)****	72	54	35	kg
Waste water* **	**15,206**			**m^3**
Total waste water	85,349	74,115	61,932	m^3
Sanitary water	6,285	4,558	6,533	m^3
Evaporation, discharge	38,947	32,417	30,250	m^3
Technical waste water	79,064	69,557	55,399	m^3
of which treated internally	31,209	29,319	23,424	m^3
AOX	0.31	1.47	<2.3	kg
Annual load limit (AOX)		23		kg
HVHC	<0.12	<0.12	<0.12	kg
Annual load limit (LHKW)		2.3		kg
Hydrocarbon (KW)	46.81	32.54	59.5	kg
Annual load limit (KW)		234		kg
Total waste	**5,717**	**4,412**	**4,172**	**t**
of which non-hazardous waste	3,910	3,096	1,316	t
of which hazardous waste	1,807	1,316	2,856	t
Waste for recycling	**4,513**	**3,808**	**2,870**	**t**
Iron and steel waste	3,035	2,599	1,879	t
Paper and cardboard waste	238	207	139	t
Used machining oils	122	99	80	t
Waste containing non-ferrous metals	14	9	6	t
Metal sludge	564	494	319	t
Wood waste	256	173	180	t
Plastic waste	227	187	232	t
Electronic scrap	19	16	14	t
Commercial municipal waste	38	24	21	t
Waste for disposal	**1204**	**604**	**1302**	**t**
Sludges from surface treatment	8	21	2	t
Metal hydroxide sludges	49	12	19	t
Absorbents, filter materials	31	22	17	t
Salts	31	37	46	t
Rubble	556	64	82	t
Liquids, sludges from separators	152	187	106	t
Solvents, paint sludges	37	42	26	t
Contaminated plastic waste	25	19	18	t
Emulsions	283	188	220	t
Acids	4	11	0	t
Other	28	1	766	t
Compressed air	**45,312,282**	**45,227,896**	**35,991,209**	**m^3**

Core indicators (figure R)	FY 17/18	FY 18/19	FY 19/20	Unit
Technical gases	63.2156	75.4294	117.2600	m^3/t
Material efficiency	0.9860	1.0281	1.1864	t/t
Energy efficiency	3.3150	3.5342	4.2237	MWh/t
of which from renewable energy (electricity)	1.1797	1.2673	1.5340	MWh/t
Total water	5.5584	5.3144	6.5169	m^3/t
Soil (base area)				
total area usage	3.5082	3.9135	5.5461	m^2/t
total sealed area	2.4780	2.7643	3.9176	m^2/t
near-natural area on site	0.0000	0.0000	0.0000	m^2/t
near-natural area off site	0.0000	0.0000	0.0000	m^2/t
Emissions*				
Carbon dioxide (CO_2), total	0.0008	0.0008	0.0010	t/t
Carbon dioxide (CO_2)** from city gas, direct	0.0003	0.0003	0.0004	t/t
Carbon dioxide (CO_2) from electricity procurement, indirect	0.0005	0.0005	0.0006	t/t
Carbon dioxide (CO_2) from other materials, indirect	0.0000	0.0000	0.0000	t/t
Total waste	**0.2557**	**0.2201**	**0.2949**	**t/t**
of which non-hazardous waste	0.1749	0.1544	0.0930	t/t
of which hazardous waste	0.0808	0.0656	0.2019	t/t
Waste for recycling	**0.2018**	**0.1900**	**0.2029**	**t/t**
Iron and steel waste	0.1357	0.1297	0.1328	t/t
Paper and cardboard waste	0.0106	0.0103	0.0098	t/t
Used machining oils	0.0055	0.0049	0.0057	t/t
Waste containing non-ferrous metals	0.0006	0.0004	0.0004	t/t
Metal sludge	0.0252	0.0246	0.0226	t/t
Wood waste	0.0114	0.0086	0.0127	t/t
Plastic waste	0.0102	0.0093	0.0164	t/t
Electronic scrap	0.0008	0.0008	0.0010	t/t
Commercial municipal waste	0.0017	0.0012	0.0015	t/t
Waste for disposal	**0.0538**	**0.0301**	**0.0920**	**t/t**
Sludges from surface treatment	0.0004	0.0010	0.0001	t/t
Metal hydroxide sludges	0.0022	0.0006	0.0013	t/t
Absorbents, filter materials	0.0014	0.0011	0.0012	t/t
Salts	0.0014	0.0018	0.0033	t/t
Rubble	0.0249	0.0032	0.0058	t/t
Liquids, sludges from separators	0.0068	0.0093	0.0075	t/t
Solvents, paint sludges	0.0017	0.0021	0.0018	t/t
Contaminated plastic waste	0.0011	0.0009	0.0013	t/t
Emulsions	0.0127	0.0094	0.0156	t/t
Acids	0.0002	0.0005	0.0000	t/t
Other	0.0013	0.0000	0.0542	t/t
Compressed air	**2,026.3**	**2,256.2**	**2,544.4**	**m3/t**

GENERAL INFORMATION:
The core indicators consist of:
- figure A to specify the total input/impact during the fiscal year in the respective area. This information was determined from the goods received during the financial year. If this evaluation led to unrealistic data, this information was calculated on the basis of the quantity produced. A project will be started in the near future to optimise data collection.
- figure B to specify the total output of the organisation in the fiscal year
- figure R to specify the ratio of A to B

Fiscal year period: October-September
(some data determined from the calendar year)

* Values were obtained from measurements of the heating and surface treatment plants, which was on hand as at 30 Sept. 2020.

** Values were calculated from the consumption of natural gas through the emission factor from EVM information.

*** Values were extrapolated from consumption and measurements of the wastewater treatment plants.

**** Refrigerant calculated from service reports of external inspections.

ENVIRONMENTAL ASPECTS, DATA AND FIGURES

ENVIRONMENTAL AND ENERGY GOALS

WASTE/RAW MATERIAL

Objective: **Saving of 5% of the hazardous materials at the Koblenz site***

Measures: Establishment of a "hazardous materials" team for checking the hazardous materials used for substitution options; reduction of the quantities used

Opportunities: Replacement and reduction of hazardous substances

Risks: none

planned goal achievement: week 52/2022

WASTE/RAW MATERIAL USE

Objective: **Reduction of the amount of waste chips of core scrap by 50 t/a***

Measures: Alternative to machining

Opportunities: Material savings due to direct machining with lower quantity of rest pieces, lower quantity of waste due to omission of machining.

Risks: none

planned goal achievement: week 39/2023

ENERGY

Objective: **Energy savings of 100,000 kWh/a / 23 t CO_{2-eq}***

Measures: Process optimisation for surface treatment plant 2, automating and visualising process technology for piston rod production, waste heat utilisation

Opportunities: Energy saving for electricity and gas, waste heat utilisation through WHR

Risks: none

planned goal achievement: week 39/2022

WATER/WASTE WATER

Objective: **Savings of 500 kWh and 100 m^3 of waste water ***

Measures: Separation of the waste water flows in an appropriate way and discharge of only the waste water flow that may be contaminated with solids via the gravel filter

Opportunities: Energy saving due to elimination of two pumps, less maintenance required

Risks: none

planned goal achievement: week 39/2022

* based on the base year 2019/2020

ENVIRONMENTAL ASPECTS, DATA AND FIGURES

Except for the goal "Waste/raw material", all the goals from the updated Environmental Statement 2020 have been achieved. The establishment of a "hazardous materials" team planned until week 10/2021 could only be realised to 40% due to personnel changes and a shift in priorities caused by the pandemic.

OBJECTIVE:
NEW PAINTING TECHNOLOGY FOR THE KOBLENZ SITE*

WASTE/RAW MATERIAL USE
Measures: saving hazardous substances and water through alternative surface conditioning
Opportunities: quality improvement
Risks: none
planned goal achievement: week 39/2023

RAW MATERIAL USE
Measures: modified paint application and drying technology
Opportunities: quality improvement
Risks: none
planned goal achievement: week 39/2023

EMISSIONS
Measures: modern replacement technology for spray and dip painting equipment for the follow-up painting process
Opportunities: quality improvement and resource conservation through compensation
Risks: none
planned goal achievement: week 39/2023

ENERGY
Measures: increasing the energy efficiency of cooling systems
planned goal achievement: week 39/2023

OBJECTIVE:
ENERGY SAVING OF 400,000 kWh ENERGY/102 t $CO_{2\text{-EQ}}$ *

ENERGY
Measures: optimising pump control
Treatment of grinding fluid
planned goal achievement: week 39/2022

ENERGY
Measures: continuation of measures for the comprehensive use of LED lighting technology at the Koblenz site
planned goal achievement: week 39/2023

* based on the base year 2019/2020

VALIDATION
KOBLENZ SITE

DECLARATION BY THE ENVIRONMENTAL AUDITOR ON AUDITING AND VALIDATION ACTIVITIES

The undersigned Erich Grünes, EMAS environmental auditor with registration number DE-V-0017,

accredited or approved for the area of the manufacture of hydraulic and pneumatic components and systems, NACE code WZ 2008: 28.12 and in case cooperation with

Michael Sperling – EMAS environmental auditor with registration number DE-V-0097,

confirm that they have examined the question of whether the site – as stated in the Environmental Statement 2021 of Stabilus GmbH, Wallersheimer Weg 100, 56070 Koblenz, Germany –

meets all requirements of Regulation (EC) no. 1221/2009 of the European Parliament and of the Council dated 25 November 2009 and the Regulation (EU) 2017/1505 dated 29 August 2017 on the voluntary participation of organisations in a common system for environmental management and environmental audits (EMAS).

With the signing of this declaration, it is confirmed that

- the examination and validation were conducted in full compliance with the requirements of Regulation (EC) no. 1221/2009 and Regulation (EU) 2017/1505 dated 29 August 2017,
- there is no evidence for non-compliance with the applicable environmental provisions,
- the data and information in the Environmental Statement 2021 of the site provide a true and fair picture of all activities of the site within the area described in the Environmental Statement.

This declaration cannot be equated with an EMAS registration.
An EMAS registration can only be made by a competent authority in accordance with the provisions of Regulation (EC) No 1221/2009 and Regulation (EU) 2017/1505 dated 29 August 2017. This declaration is not allowed to be used on a stand-alone basis for informing the public.

Koblenz, Cologne, 30.09.2021

Erich Grünes

Michael Sperling

Business address:
TÜV Rheinland Cert GmbH
Am Grauen Stein
51105 Cologne, Germany

DOCUMENTS/CERTIFICATES

TÜV Rheinland Certificates
ISO standard 14001:2015

Certificate

Standard ISO 14001:2015

Certificate Registr. No. 01 104 1500047

Certificate Holder: **Stabilus GmbH**
Wallersheimer Weg 100
56070 Koblenz
Germany

Scope: Development (Stabilus Germany), Manufacturing and Distribution of Systems for Hydraulic Dampening and Adjustment of Doors, Hoods and Seats as well as industrial Applications

Proof has been furnished by means of an audit that the requirements of ISO 14001:2015 are met.

Validity: The certificate is valid from 2021-08-13 until 2024-08-12.
First certification 2015

2021-06-17

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com

TÜVRheinland®
Precisely Right.

ISO standard 50001:2018

Certificate

Standard ISO 50001:2018

Certificate Registr. No. 01 407 1500047

Certificate Holder: **Stabilus GmbH**
Wallersheimer Weg 100
56070 Koblenz
Germany

Scope: Development, Manufacturing and Distribution of Systems for Hydraulic Dampening and Adjustment of Doors, Hoods and Seats as well as Industrial Applications

Proof has been furnished by means of an audit that the requirements of ISO 50001:2018 are met.

Validity: The certificate is valid from 2021-08-13 until 2024-08-12.
First certification 2012

2021-06-17

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com

TÜVRheinland®
Precisely Right.

Certificate of registration for the environmental management system according to EMAS

CERTIFICATE

Stabilus GmbH

Site
Wallersheimer Weg 100
56070 Koblenz

Registration-No.: DE-141-00021

Date of first registration
23rd October 1997

This certificate is valid until
31st August 2024

This organisation has established an environmental management system according to EU-Regulation 1221/2009 and EN ISO 14001:2015 section 4 to promote the continual improvement of environmental performance, publishes an environmental statement, has the environmental management system verified and the environmental statement validated by a verifier, is registered under EMAS (www.emas-register.de) and therefore is entitled to use the EMAS-Logo.

EMAS
VERIFIED ENVIRONMENTAL MANAGEMENT

IHK Chambers of Industry and Commerce of the German State Rheinland-Pfalz

The Chambers of Industry and Commerce of the German State Rheinland-Pfalz as common Competent Body in the Community eco-management and audit scheme (EMAS).
28.10.2021

Albrecht Hornbach
President

Dr. Tibor Müller
Hauptgeschäftsführer

STABILUS

YOUR MOTION. OUR SOLUTION.

Next comprehensive environmental declaration:
In the framework of the requirements of EMAS, the next consolidated environmental declaration for the Koblenz site is planned for 2024. Annual updates with significant changes are carried out in between.

www.stabilus.com