



2015

Sustainability  
Report

# ABOUT THIS REPORT

This is AstenJohnson's first sustainability report, covering our environmental and social performance in calendar year 2015. It is based on the Global Reporting Initiative's G4 Guidelines and encompasses our global operations, with a specific focus on our manufacturing and production facilities. The report is inclusive of our four pulp and paper industry related and integrated business groups: Paper Machine Clothing, Advanced Fabrics®, Filaments, and Paperchine®. Eagle Nonwovens is a recently acquired, separate business group and not included in this report, but will be included in future reports. We encourage you to submit feedback at [sustainability@astenjohnson.com](mailto:sustainability@astenjohnson.com).

## DISCLAIMER

We have engaged Strategic Sustainability Consulting (SSC), an independent party, to support our sustainability reporting efforts. We believe that this report contains information that is accurate, timely and balanced. While the report and the data within have not been formally assured, we have completed an internal assessment process in conjunction with SSC to review the contents for clarity and completeness.

## CONTENT

- 02 About AstenJohnson
- 11 Sustainability Approach
- 17 Environmental Responsibility
- 21 Social Responsibility
- 27 Product and Supply Chain Responsibility
- 30 GRI Content Index

## A LETTER FROM THE CEO, KEVIN FRANK

When I took over the CEO position in January 2015, one of my priorities was to ensure that AstenJohnson was meeting expectations about what leadership in the paper machine clothing industry means. One of the areas we knew needed extra attention was our sustainability communications. While AstenJohnson has a long record of environmental, social and product responsibility, we have not always done a good job in sharing that story with our stakeholders.

Today, customers, employees and suppliers are increasingly interested in how AstenJohnson tackles sustainability, including how we manage our carbon footprint, how we protect workers in dangerous job situations and how we

engage with local communities. I'm proud to share this document, our first sustainability report, which puts all the information in a single place.

One area where sustainability is a natural fit with our business strategy is in our approach to regional supply. With production facilities globally, we are able to manufacture and deliver our products within a smaller geographical area. This local focus not only helps us create value for our customers, but also maximized efficiency for transportation and logistics.

The act of producing a sustainability report is a significant one, involving dozens of employees and top management over months of work. It also forces us to reexamine our sustainability

priorities, identify areas of opportunity, and set goals for the future. In particular, our 2016 sustainability activities will focus on expanding our data tracking, engaging with suppliers, and implementing a new safety program.

I look forward to sharing the results of our activities in the coming months. In the meantime, please share with us your feedback. Are we on the right track? What else would you like to see from AstenJohnson's sustainability strategy? We're keen for your input.

Sincerely,

Kevin Frank, CEO  
AstenJohnson



“My priorities are to ensure that AstenJohnson is meeting expectations about what leadership in the paper machine clothing industry means.”

# ABOUT ASTENJOHNSON

## OVERVIEW OF THE COMPANY

AstenJohnson's legacy in the paper and textile industries dates back to 1790, when the Johnson family opened the Manchester Wire Works in Manchester, England. Nearly 100 years later, the Asten family launched the Asten Manufacturing company in Belgium, producing felts for papermakers in Europe. Both families' successful operations led to expansions in North America – Johnson Wire began operations in Montreal in 1901, and Asten Manufacturing expanded to Philadelphia in 1931.

Growth over the next seven decades continued for both companies in the United States and Canada with manufacturing facilities opened in several states and provinces. The textile weaving expertise was strengthened with the addition of a filaments extrusion facility in both companies, and the Johnson family adding a drainage equipment division to service the pulp and paper industry.

In 1999, Asten Manufacturing and the JWI Group merged to become AstenJohnson. Additional changes and acquisitions quickly followed — in 2000, the newly

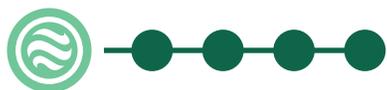
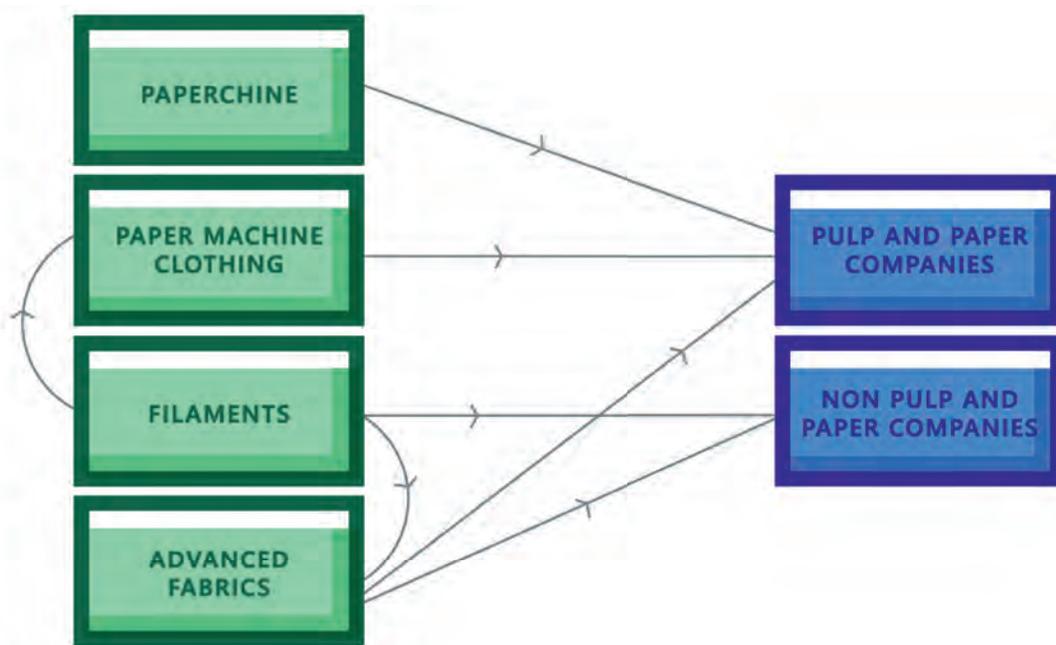
formed AstenJohnson acquired Asten AG in Eupen, Belgium; a Sales and Marketing office was opened in Singapore in 2003; a new manufacturing facility was opened in China in 2004; and Sitos, a Czech corporation, was acquired in 2005.

In 2011, AstenJohnson acquired Paperchine. With this acquisition, the company expanded its offerings in the papermaking drainage equipment business, and added full machine service capability from headbox to winder. The service capability was further enhanced with the acquisition of VIB Systems in Maintal, Germany, in 2012.

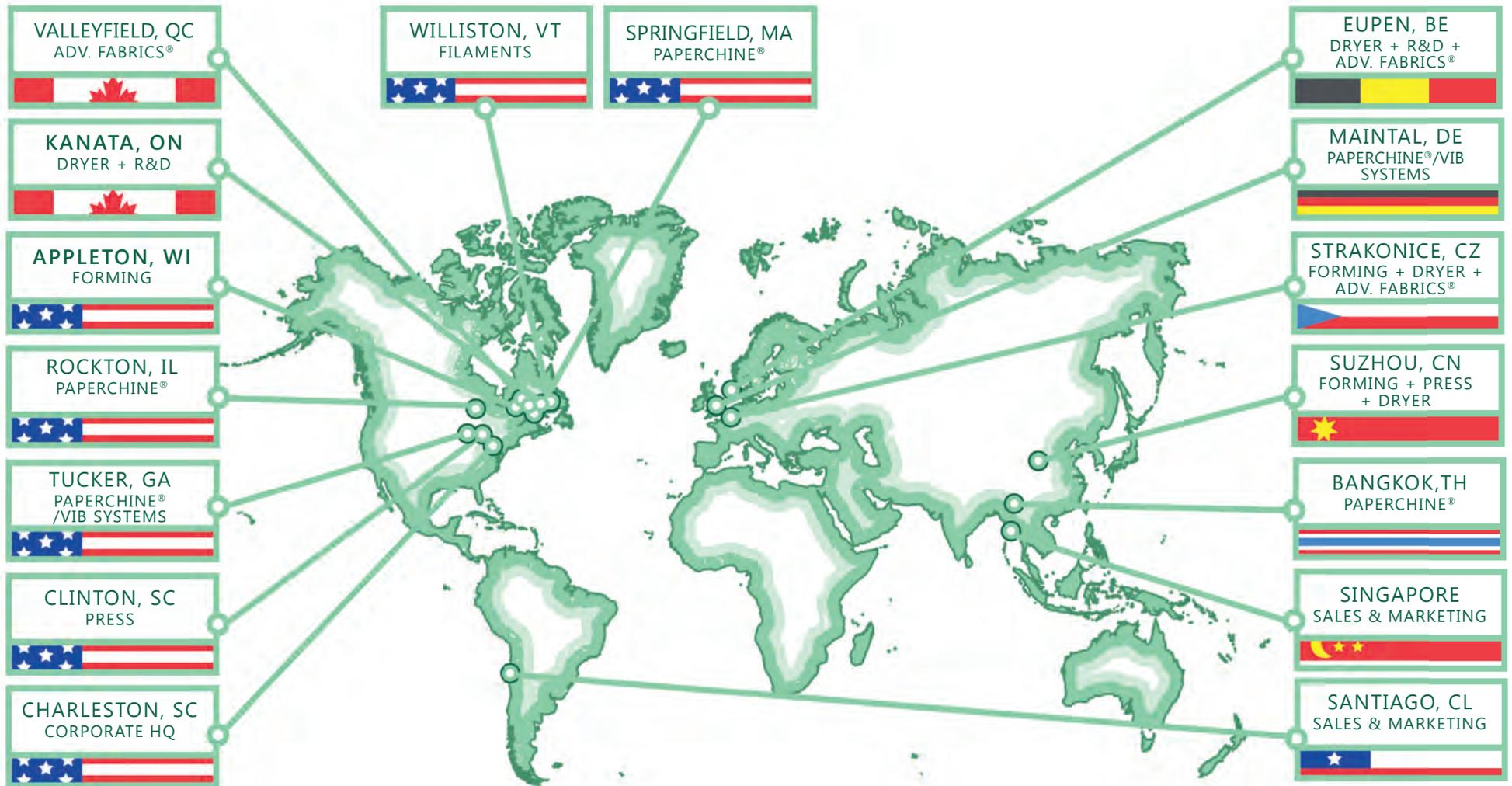
AstenJohnson's primary business interests are in the pulp and paper industry, with growth in other industries that utilize technical textiles. Four business groups cover the primary business interests: Paper Machine Clothing, Advanced Fabrics, Filaments, and Paperchine.

## OUR PRODUCTS AND SERVICES

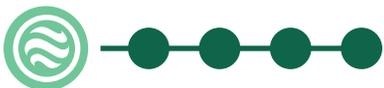
AstenJohnson's products and services can be broadly classified into two categories: industrial technical textiles and machinery components. Industrial textiles are supplied for applications both



TODAY, ASTENJOHNSON CONDUCTS GLOBAL OPERATIONS ON FIVE CONTINENTS AND HAS MAJOR CUSTOMERS WORLDWIDE.



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within the pulp and paper industry, and for applications outside of it. Machinery components are supplied exclusively for the pulp and paper industry. With deep knowledge, many resources and years of industry experience, we also offer technical and diagnostic services alongside our manufactured products.

Approximately 84 percent of the company's revenue is from the sale of technical textiles and plastic monofilaments, the balance is from the sale of mechanical components for paper making equipment. Our three primary core strengths are industrial technical textile weaving, fibrous web/sheet formation and associated water drainage and air management while web/sheet forming.

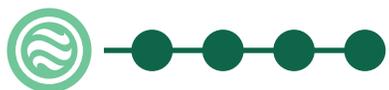
### WITHIN THE PAPER INDUSTRY

Paper is used in every aspect of daily life – cardboard boxes to hold food products in the kitchen, glassine paper to hold foodstuffs within those boxes, liquid-proof paper containers for beverages and other liquids, paper towels for cleanup, the daily newspaper, glossy magazines, advertising flyers, writing paper, sanitary tissue paper – and these are just a few of the more common consumer uses. Paper products are also a

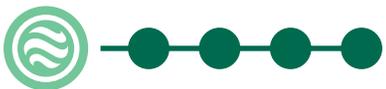
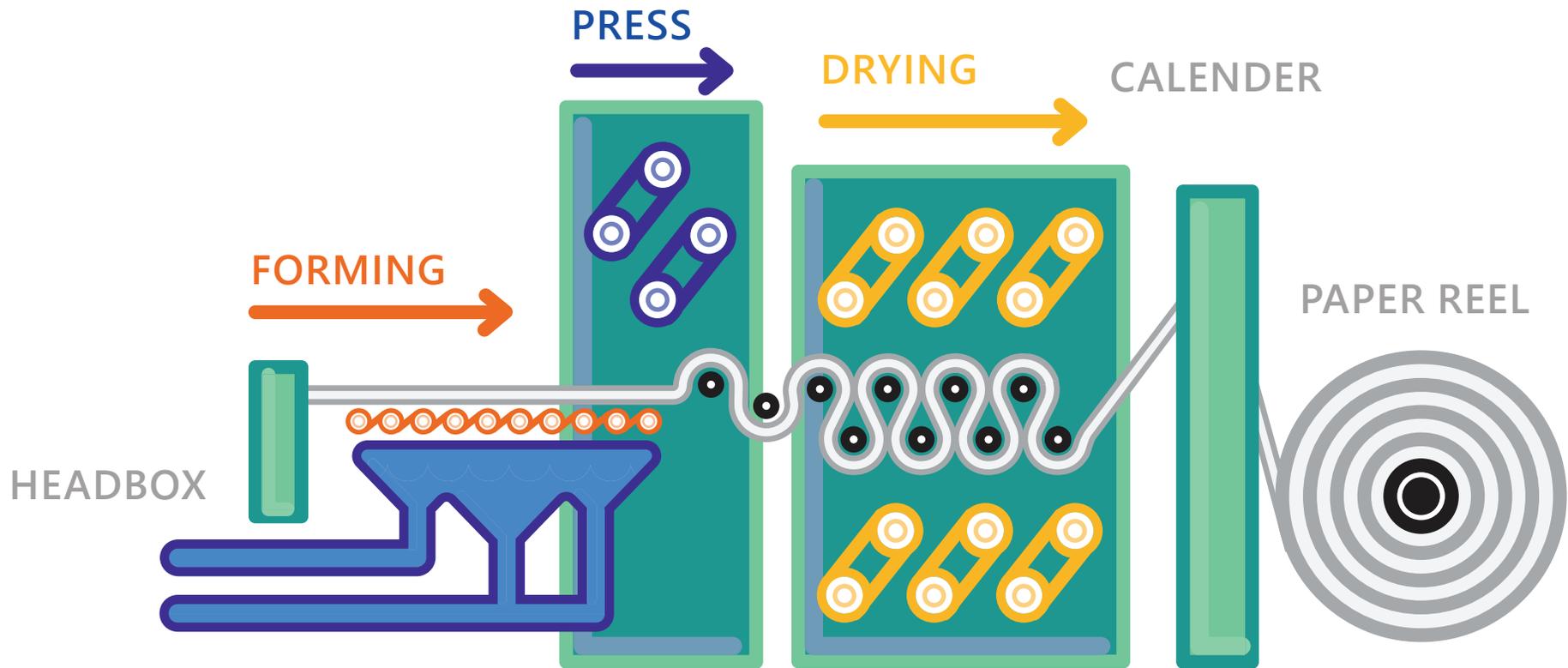
massive part of industry where cardboard boxes and kraft paper are used globally for packaging and shipping of goods. Industrial uses include paperboard products used for product shipment and in the construction industry to make concrete columns.

Most paper is made on very large machines, some of which are as long as a football field. Raw ingredients, like water and wood fibers enter the machine at the headbox, and are then discharged as a thin layer of liquid paper pulp slurry onto a moving textile belt in the forming section. This belt can be up to 10m wide, and can travel at speeds up to 100km per hour.

As the pulp is carried along by the belt, the water in it drops away, and the cellulose fibers become matted together, forming paper. While the paper is still very wet, it is then fed through a series of rollers in the press section which press it and remove more water. The damp paper is fed through a long series of heated rolls in the dryer section for steam evaporative drying of the remaining water.



# THE OVERALL PAPER MAKING PROCESS



The paper then enters the reel section and is spooled into huge rolls, cut into various sizes, and converted into paper products.

Today, AstenJohnson products are at work in paper and pulp mills around the world. Papermakers rely on our headbox to winder understanding of the papermaking process, equipment capabilities, innovative products, a highly technical approach to service and sales, and dedicated professionals that help meet customers' individual operational goals.

AstenJohnson Paper Machine Clothing supplies the technical textile belts for paper machines as described above. These textile belts are broadly referred to as paper machine clothing (PMC) with three distinct categories: Forming Fabrics, Press Felts, and Dryer Fabrics.

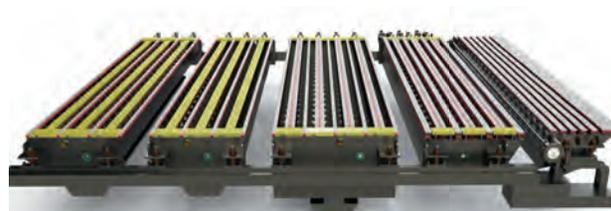
All PMC acts as an endless mechanical conveyor belt and helps separate water from paper fibers. PMC is consumable, wearing down as it is used, and must be replaced regularly.

No two paper machines are alike. As such our PMC products are essentially custom made, in terms of both size and application attributes. To provide this needed level of customization, we have a large sales and service team working

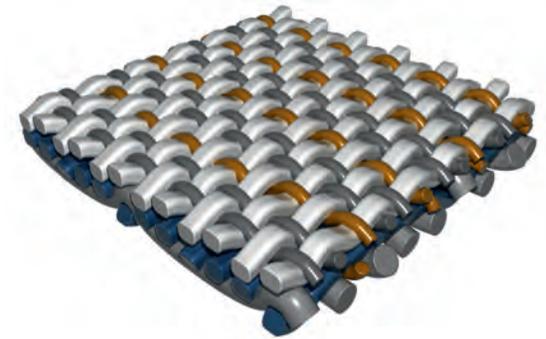
closely with our customers, understanding their particular clothing needs.

AstenJohnson Filaments manufactures plastic monofilament yarn used to weave industrial textiles, including PMC fabrics. Monofilaments are generally comprised of polyester or polyamide for normal temperature applications, or polyphenylene sulfide for high temperature applications. AstenJohnson Filaments is vertically integrated, supplying mostly to other AstenJohnson divisions, with a small portion of sales to external customers.

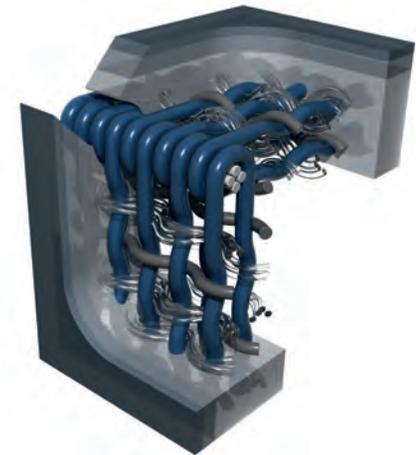
AstenJohnson Paperchine supplies the headboxes used to spray the paper slurry onto the PMC on the paper machine, the mechanical drainage components that assist in the water removal from the slurry and PMC, the winders that roll the paper product onto reels, and other mechanical components used on a paper machine. These mechanical components are a durable good, with a long lifespan, given a routine maintenance plan and periodic repairs.



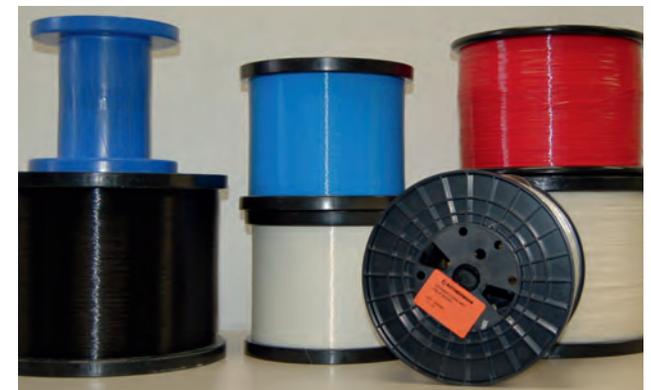
PAPERCHINE® DELTA PLATFORM



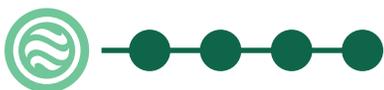
TECHNICAL TEXTILE



PRESS FELT



FILAMENTS - SPOOLS



The Paperchine group offers new equipment, rebuilt equipment, spare parts, and diagnostic services.

## INDUSTRIAL TEXTILES BUSINESS

The industrial technical textile market is very diverse. Applications include agriculture, construction textiles, geo-textiles, protective textiles, conveyor belts, filtration textiles, and packaging, to name only a small sample. Technical textiles are designed and made for a very specific function, often used in a manufacturing process as a tool to make another product.

AstenJohnson Advanced Fabrics designs, manufactures and markets advanced

fabrics for a variety of industries. Products are made primarily from polyester and polyamide filaments or metal wire, and are used in a variety of paper manufacturing and non-paper industrial applications, such as water filtration, press and pulp machinery, washing machinery, conveyor belting for the food, board, and mining industries, and specialty fabrics for unique applications. With global resources, best practice use, and deep technical knowledge, the Advanced Fabrics group provides our customers with the most up-to-date products and emerging technologies.

## OUR SUPPLY CHAIN

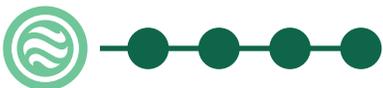
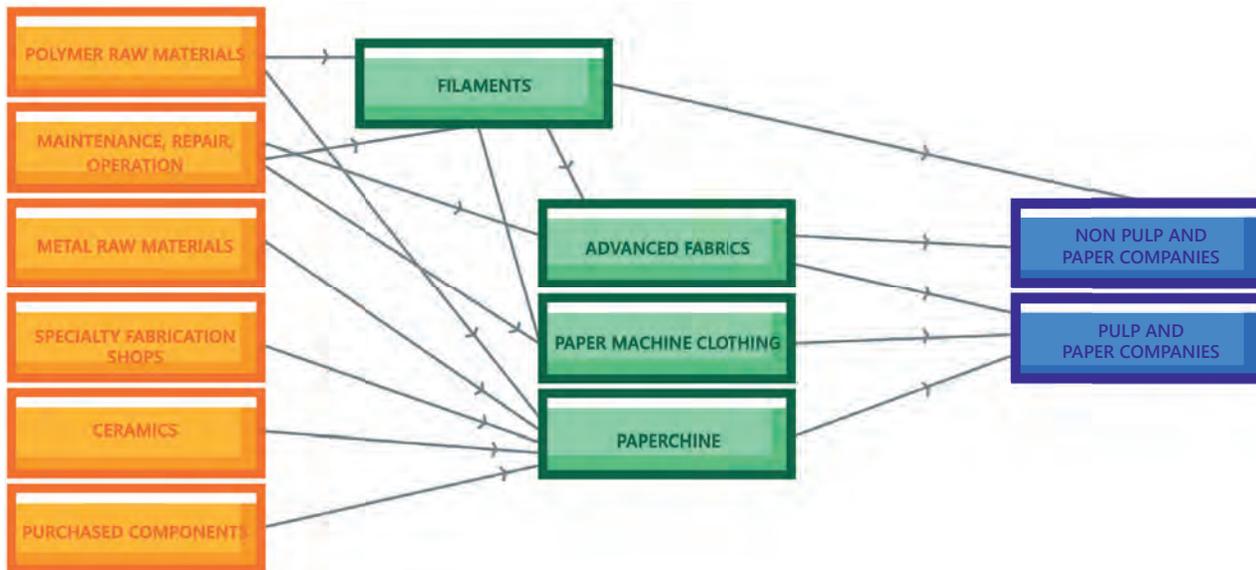
AstenJohnson is divided into business groups, and each group supply chain is unique. The PMC and Advanced Fabrics groups have manufacturing sites in North America, Europe and Asia.

These groups source weaving filaments principally from AstenJohnson's own U.S. based Filaments group, and also from global suppliers with locations in North America, Europe and Asia.

The Filaments group, located in the U.S., sources raw materials mostly from within the United States.

The Paperchine group, with facilities in North America, Europe, and Asia, uses three main raw material categories: plastic polymers, ceramics, and metals. Plastic polymers are sourced from both Asia and North America. Ceramics are sourced globally. Metals are sourced from Asia and North America. The U.S. based Paperchine locations work with regional suppliers for machinery manufacturing projects that require large industrial casting and fabrication capabilities.

All manufacturing locations use machinery from a host of suppliers located in countries throughout the world, but a majority of the machinery suppliers are located in North America and Europe.



Factory supplies and end-product packaging supplies are domestically sourced at each location. Vendors of these products range from small, local companies to international corporations.

## ETHICS AND INTEGRITY

At AstenJohnson, our reputation for ethical behavior and integrity is very important. AstenJohnson has two guiding documents: 1) Code of Business Conduct and Ethics and 2) Our Values. In the code, the company expects that all of its officers, directors and associates will adhere to sound business principles, comply with all applicable laws, and be dedicated to high ethical business standards. Our guiding values were established shortly after the merger of the Asten and Johnson companies in 2000.

## OUR VALUES

### EXCELLENCE

We expect excellence in all our endeavors. We foster the spirit of innovation and maintain the highest quality standards through responsible leadership. We continuously improve our processes to provide our customers and stakeholders with exceptional value to achieve their goals.

### INTEGRITY

We perform our duties in a responsible, loyal and ethical manner. We strive to create an environment of trust and honesty inside and outside our organization by treating everyone with respect and dignity.

### PEOPLE

We work in a flexible team environment with fairness, diversity and open communication. Investing in people through development, recognition and opportunities strengthens us.

### SAFETY

We conduct business in a manner that promotes safety first. We expect personal accountability from all associates for their actions and results.

### STEWARDSHIP

We protect and carefully manage the resources entrusted to us. We actively support our communities, and we are environmentally responsible.

We pledge to practice these values each day because they are vital to the success of AstenJohnson.

## GOVERNANCE AND COMPLIANCE

At AstenJohnson, our commitment to sustainability starts at the top. The

Executive Leadership Team is engaged with developing our sustainability strategy and goals and delivering action items to our Group Business Leaders. Group Business Leaders then drive specific environmental, social, and supply-chain responsibility improvement efforts into all areas of the company, giving specific guidance to each facility.

AstenJohnson's Code of Business Conduct and Ethics document confirms our commitment to conduct business affairs in accordance with the highest standards of integrity and applicable laws.

The document covers the following:

- Promoting a Positive Work Environment
- Protecting the Assets of the Company
- Fraud Prevention
- Protecting Company Information
- Conflicts of Interest
- Competition Law
- Industrial Espionage
- Environmental & Safety Compliance

From the executive level to the operational level, we continually evaluate our business practices to ensure we fulfill all legal obligations and that our activities remain firmly aligned with our core values.



# SUSTAINABILITY APPROACH

AstenJohnson is a privately held company and financial results are not publicly shared. However, financial governance is assured by external auditing conducted by a major accounting firm for our North American, European and Asian business units to ensure compliance with local accounting standards. Additionally, our global consolidated results are reviewed through consultation with regional audit teams to provide an opinion annually on whether our consolidated financial statements are fairly presented in accordance with U.S. accounting principles.

AstenJohnson has not been subject to any fines or sanctions for noncompliance with environmental, social, or governance laws and regulations during the past five years, 2011 – 2015.

AstenJohnson has taken care to operate in an environmentally and socially responsible way for many years. While we have always been focused on remaining compliant with all laws and regulations, we also realize the growing value in moving beyond compliance and engaging in sustainability programs that provide a lens for risk management, stakeholder

engagement and business planning.

We have recently formalized our approach to sustainability, and our 2015 sustainability report is one of our efforts to better communicate our environmental and social priorities and performance. We recognize that the development and implementation of a sustainability strategy is a long-term process, and that we have just begun. We anticipate that AstenJohnson will continue to grow and refine the sustainability strategy in the years to come.

## MATERIALITY

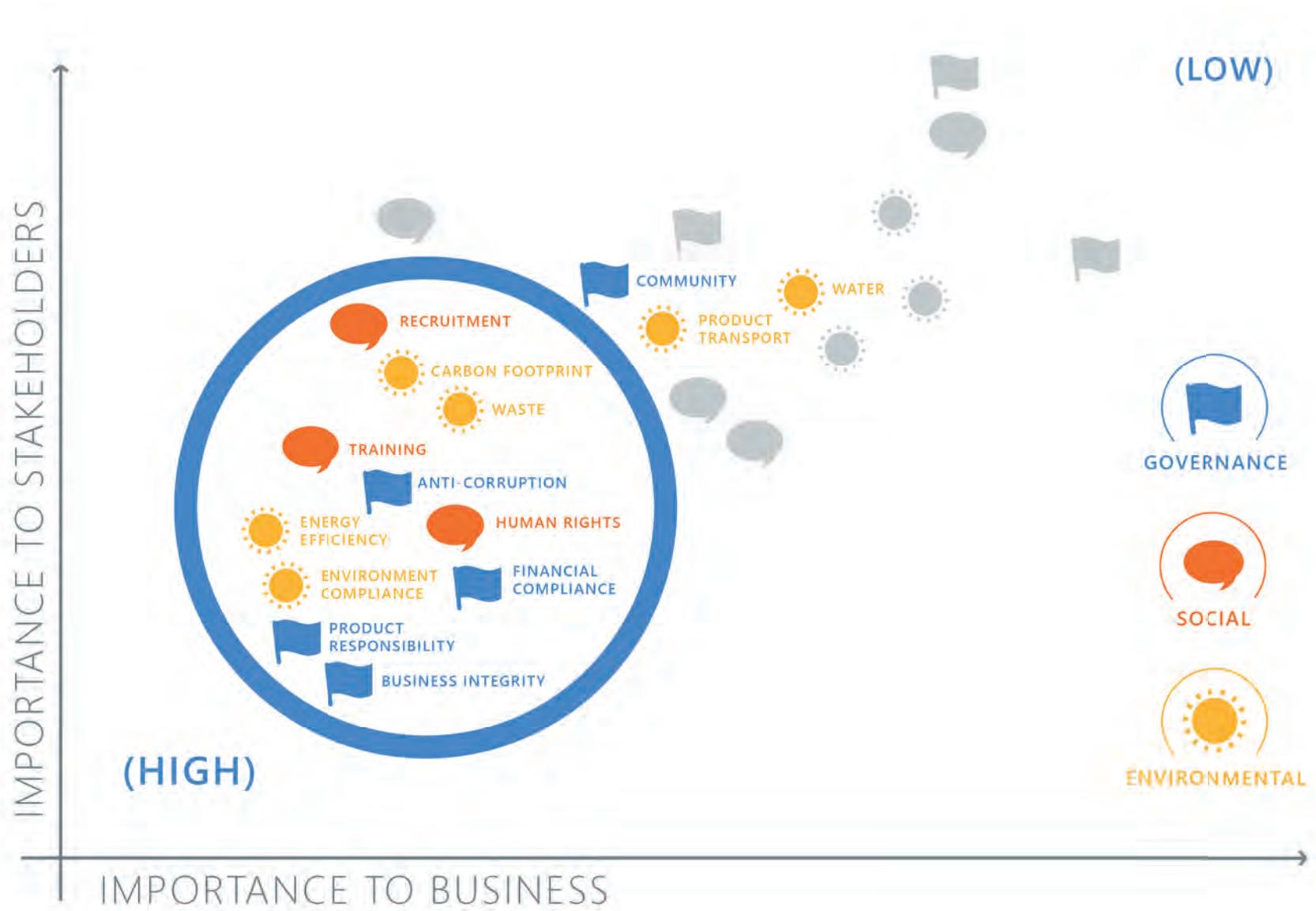
The range of strategic activities an organization can take under the umbrella of “sustainability” is broad. To help refine and focus our activities, one of our first tasks was to understand which sustainability issues were the most closely tied to AstenJohnson’s business success and which issues were most urgent in the minds of our stakeholders. In early 2015, we conducted a materiality assessment, partnering with an experienced third-party consultant using best practices, to determine AstenJohnson’s material areas of focus.

Our materiality process included the following steps:

- Identifying 36 sustainability issues with potential relevance to AstenJohnson across environmental, workplace, community, product, and governance categories
- Soliciting input from 43 internal and external stakeholders in a range of job responsibilities, geographies, and stakeholder groups.
- Ranking each issue on a grid, with one axis representing “importance to AstenJohnson’s business success” and another axis representing “importance to stakeholders” – 14 issues were identified as medium or high importance.
- Reviewing and refining the final matrix, based on additional feedback interviews with stakeholders.
- Finalizing the list of “most material” issues, including identification of 30+ indicators to include in this sustainability report.



# MATERIALITY MATRIX





## ENVIRONMENTAL ISSUES

- ENERGY EFFICIENCY
- ENVIRONMENTAL COMPLIANCE
- WASTE AND RECYCLING
- WATER
- CLIMATE CHANGE AND EMISSIONS
- PRODUCT TRANSPORTATION



## SOCIAL ISSUES

- OCCUPATIONAL HEALTH AND SAFETY
- RECRUITMENT AND RETENTION
- TRAINING AND EDUCATION
- WAGES AND BENEFITS



## PRODUCT AND GOVERNANCE ISSUES

- BUSINESS INTEGRITY
- PRODUCT RESPONSIBILITY
- FINANCIAL COMPLIANCE
- ANTI-CORRUPTION



We have focused the bulk of this sustainability report on providing information on the most highly material topics identified during our materiality assessment. The second-highest group of material topics are discussed as well, but with less detail. We have also addressed a few additional items, such as the company's community involvement, because these activities are important aspects of upholding our business values. We intend to revisit our materiality assessment results on an annual basis, formally engaging stakeholders as needed. As new issues emerge, they will be added for consideration, and we look forward to sharing our evolving priorities and progress in future sustainability reports.

## STAKEHOLDER ENGAGEMENT

Understanding and responding effectively to sustainability issues requires a deep understanding of stakeholder concerns. AstenJohnson employs a number of approaches to inform, collaborate, and respond to our key constituencies.

### CUSTOMERS

Our customers range from global companies to small, independent companies, and we are in constant communication with them as we collaborate on product and service requirements. Each customer has a dedicated service representative, and feedback is used to inform us on everything from product documentation and new product development to product

quality requirements and packaging requirements. Customers' sustainability requirements often become our sustainability requirements, so ongoing communication is key.

Additionally, sustainability personnel from some of our largest customers participated in our 2015 materiality assessment, providing us with valuable insight on what they see as the most important sustainability concerns for AstenJohnson.

### SUPPLIERS

We source from thousands of suppliers around the world. Primary is suppliers of raw material, machinery and parts, packaging materials, and fabrication shops.

“One of the most important things we learned from engaging with our customers is the importance they place on water as a sustainability issue. Even though AstenJohnson does not operate in areas of high water scarcity, customers want to know that we're paying attention to water risk now and in the future.”



Secondary is suppliers of office and shop supplies and services. With the primary suppliers, sustainability is becoming an increasingly important component of our relationship. We are cognizant that sustainability matters throughout the entire life cycle of a product, and just as our customers care about AstenJohnson's sustainability performance, AstenJohnson needs to push that concern down the supply chain to our suppliers.

Three of our primary suppliers participated in our recent materiality assessment, providing a window into how their internal sustainability priorities compare with those of AstenJohnson. Overall, we found significant overlap in our most material issues—indicating possible opportunities for collaboration and alignment in the future.

## INTERNAL STAKEHOLDERS

Within AstenJohnson, we engaged with 28 employees assigned to various leadership roles at multiple site locations worldwide as part of our materiality assessment.

Immediate key findings included:

- Confirming a direct link between retention and good working conditions and remuneration packages at our Suzhou facility.

- A need to give special attention to the many levels of environmental and social regulations and guidelines in Europe.
- A need to focus on the growing demand in North America to reduce our carbon footprint through improved energy efficiency and waste management practices.
- A 10-member core team was established alongside the materiality assessment to guide the development of this, the company's first, sustainability report and to engage consistently with employees at the local and regional level.

## INDUSTRY PEERS

AstenJohnson keeps abreast of industry trends through our membership in professional organizations, attendance at industry educational events, and through attendance at industry conferences.

Within the paper industry, AstenJohnson is a member of the Paper Machine Clothing Council in North America, the Paper Machine Clothing Association in Europe and Asia, and the Association of Suppliers to the Paper Industry in



North America. We are also a member of TAPPI, PAPTAC, and APPITA, all leading paper industry groups. Company leaders also attend conferences hosted by RISI a global information provider for the global forest products industry. We also host educational events, attended by our papermaking customers, to share industry knowledge and best practices.

The Advanced Fabrics division is a member of INDA and EDANA, associations for the Nonwoven Fabrics Industry, participating in their conferences and expositions. Advanced Fabrics is also a member of, AVED, an European employer association that provides access to programs, conferences, and information on regulatory obligations relating to environmental and sustainability activities.



## SUSTAINABILITY STRATEGY AND 2016 GOALS

Almost 15 years ago, AstenJohnson embraced the Lean methodology as an essential tool for our future success. The primary focus of Lean is waste reduction. Initially applied within our manufacturing processes, the Lean methodology was soon implemented across all business processes. Due to broad integration of Lean, AstenJohnson has seen significant reduction in the use of natural resources, such as energy and raw materials.

In addition to all associates being given Lean overview training, nearly 150 associates globally have received higher-level Green Belt or Black Belt certifications over the past 12 years, and several have attained Master Black Belt certifications.

As we become more aware and focused on our sustainability impact, AstenJohnson will continue to use Lean principles to improve our business results and sustainability objectives.



### ENVIRONMENTAL

In 2015, we recorded baseline data on utilities usage at all of our facilities – capturing electricity, gas, and water use levels. In 2016 we will use this data to identify opportunities to improve environmental efficiency in our facilities.

In 2016, we will use internal benchmarking and outside resources to further analyze our waste stream to help move us toward reduced landfilled waste.



### SOCIAL

Safety for all AstenJohnson associates is a top priority, whether in our offices, factories, or at supplier or customer facilities. In 2016, we plan to take safety a step further by implementing a Zero Accident Culture program based on the core values of accountability, commitment, and trust.



### GOVERNANCE

AstenJohnson regularly verifies its compliance with fair labor practices and regulations to our customers worldwide. In 2016, we will prepare our own Supplier Code of Conduct and publicize it.



# ENVIRONMENTAL RESPONSIBILITY

At AstenJohnson, environmental stewardship is one of our core values. Stewardship means prudently managing the raw material resources that we transform into our products, minimizing facility waste, and adopting efficient processes to reduce our environmental impact. Within our manufacturing and product-development process, lean concepts and methods are used extensively to continuously improve our environmental performance.

Our main areas of focus are energy efficiency and waste management – two issues clearly identified as priorities to our business success and to our stakeholders. Diligent management of energy and waste are not only good for the environment, but are also related to product quality, business profitability, and good management.

We primarily work on reduction of energy use and reduction of waste within our facilities and directly-controlled operations, with a secondary focus on our supply chain and indirect impacts. In the short term, our environmental improvements will focus on facility retrofits and equipment upgrades, such

as updating lighting with more energy efficiency options, to further reduce energy consumption. Capital planning for more ambitious energy-efficiency investments will be required for mid- and long-term improvements.

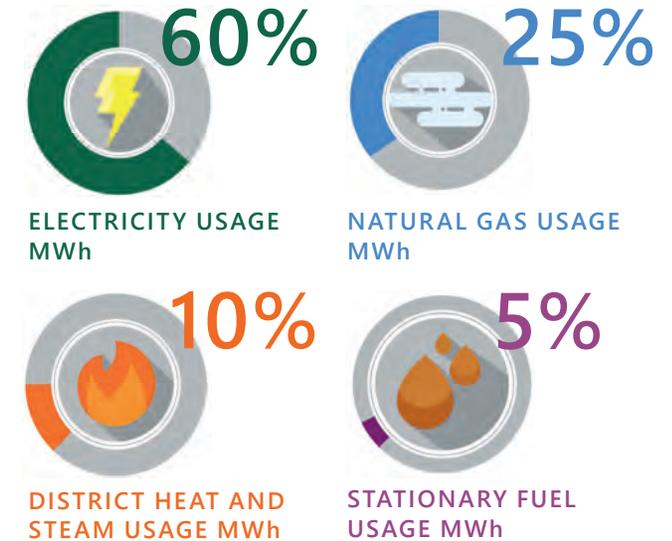
## ENERGY AND EMISSIONS

AstenJohnson’s primary energy impact is the utilities purchased to run our facilities: electricity, natural gas, and steam. Efficient use of energy is a primary objective to reduce our carbon emissions and operating costs, mainly through efficiency improvements at our facilities.

### ENERGY USE IN 2015

	Absolute Use (MWh)
Electricity	66,683
District Heat and Steam	5,033
Natural Gas	37,270
Stationary Fuel	666
<b>TOTAL</b>	<b>106,098</b>

### ABSOLUTE USE (MWh)



### 2015 CARBON FOOTPRINT

	Absolute Use (MTCO2e)
SCOPE 1 INCLUDED natural gas, stationary fuel, mobile fuel	8,662
SCOPE 2 INCLUDED electricity, district heat, and steam	29,584
SCOPE 1 INCLUDED water use and water treatment	173



In 2015, we recorded baseline utility use data from our manufacturing facilities worldwide.

#### AT OUR FACILITIES

Electricity represents approximately 60 percent of AstenJohnson's energy resource globally (by MWh). With electricity being the highest-use utility, efficiency improvement investments have been made in these primary draw areas: facility lighting, HVAC systems, and machinery.

In 2015, our Eupen Belgium site conducted an energy audit in cooperation with SENSE, to measure the effectiveness of improvements made over the previous decade, including heat recovery of thermal heating oil, new roof insulation, replacement of fuel boilers with new, higher efficiency units, automated control of thermal oil pumps, and window upgrades.

The results were impressive:

- Reduced overall electrical energy draw by approximately 22%
- CO2 emissions reduced by approximately 22%

Our Strakonice plant has been ISO 14001 certified since 2007. ISO 14001 specifies the requirements of an Environmental

Management System (EMS) that identifies environmental impacts of site activities, products and services. As part of continued ISO 14001 certification, the plant defines annual environmental objectives, taking into account significant environmental impacts and regulatory requirements. In 2014, a major environmental objective was achieved through upgrading a heat processing unit, resulting in a 21 percent reduction in energy per production unit at the plant.

One of our highest energy use facilities underwent a warehouse LED lighting upgrade and installation of motion sensors in Q4 2015, immediately netting a 60 percent reduction in kWh usage.

In 2016, we will engage with an energy management expert to audit our highest energy usage facility. The audit outcome will help formulate our strategy to reduce energy usage at the site, and serve as a template for evaluation of other facilities to follow.

#### IN OUR FLEET

In 2015, our sales and customer service teams drove more than five million kilometers, comprising just over four percent of our total carbon footprint. Although depressed oil prices have reduced operating costs, fuel efficiency remains a

primary selection criteria factor for fleet vehicles. Fleet vehicle model selection is periodically reviewed with regard to functional requirements and fuel efficiency.

Vehicles are maintained according to OEM recommendations for optimum life cycle operation. Nearly 75 percent of AstenJohnson's fleet is U.S. based.

Our fleet management company provided a reference benchmark for North America indicating the 2015 peer average fuel economy was 21.3mpg, whereas the AstenJohnson fleet average was 26.1mpg (9.0L/100km). The above average performance validates our selection of 4-cylinder, mid-size vehicles as appropriate for optimum fuel efficiency, functionality, and safety.

NA FUEL EFFICIENCY/ MPG



## WATER

AstenJohnson recognizes global water scarcity issues. Although these concerns are serious and global, truly addressing water issues requires action at the local and regional level.

Water usage at AstenJohnson sites is primarily for human consumption and sanitation purposes. At several manufacturing sites water is used as process coolant. All water discharge is within compliance to laws and regulations, discharge being both direct to sewer or evaporation from cooling towers.

Examples of water usage in manufacturing operations include: as a cooling lubricant for polymer machining at our Springfield site, as a cooling bath for filament extrusion at our Williston site, and in cooling towers for process heat removal and HVAC systems at our press fabric manufacturing sites in Clinton and Suzhou.

TOTAL WATER USE  
(m3)

164,792

WATER INTENSITY  
(cubic m/sqm)

0.85

In 2015, water data was collected from our manufacturing sites to establish

baseline water use. In 2016, the data will be analyzed to help develop our objectives and goals with regard to water use.

## WASTE AND EFFLUENTS

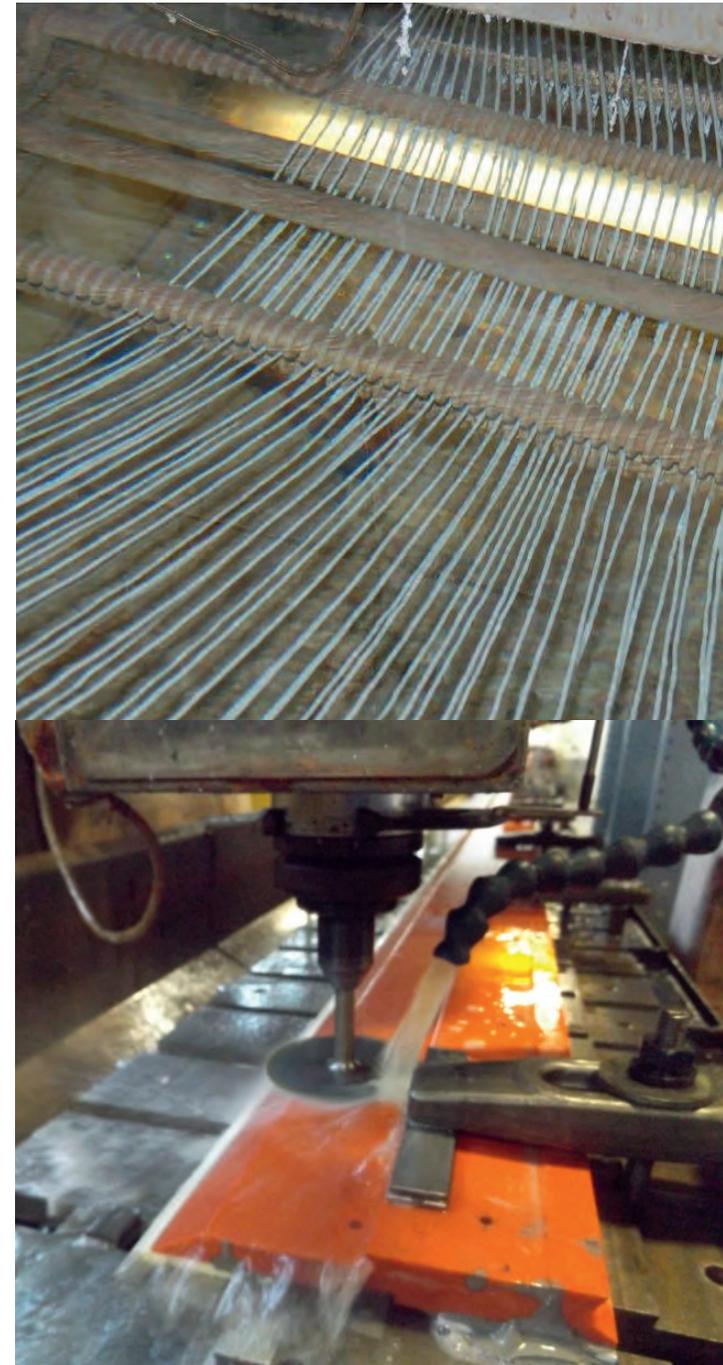
As a manufacturing company, AstenJohnson's core expertise is transforming raw materials into value-added products for our customers. Conversion of raw material and use of packaging materials for shipment results in waste.

Through a sharp focus on Lean methodology, we are guided by the "Three R's" of waste: Reduce, Reuse, and Recycle.

### REDUCE

The primary solid waste at AstenJohnson facilities is raw material scrap. Scrap includes plastic polymers and metals. Raw material scrap reduction is achieved on two fronts: reducing the amount of processing trim waste and reducing product rejects. AstenJohnson employs Lean methodologies to achieve results on both fronts.

In 2015, our Clinton site chartered a project to reduce felt trim scrap and achieved a 15 percent scrap reduction.





The project resulted in the reduction of 5,000kg of scrap over a nine month period, material that would have been otherwise recycled or landfilled. Reducing scrap content upstream in the manufacturing process saved raw material and reduced downstream waste.

#### REUSE

Packaging waste is a primary focus of reuse efforts. We work with all of our suppliers to encourage the reuse of filament spools and cardboard boxes. Additionally, we work with select paper mill customers to gather and reuse metal poles that paper machine clothing is wound on. The lack of proximity of paper mills to our manufacturing sites does limit wider reuse practices due to logistics and cost. In 2015, we were able to reuse 116 metal poles in the U.S. and Canada, and 165 in Europe.

#### RECYCLE

Excess raw materials from manufacturing processes, plastics and metals, are collected for recycling. Excess packaging materials, such as paperboard split cores and tubes, metal pipe end cuts, and wood crates and skids, are also collected and recycled. Unfortunately, there are some plastic types that are landfilled due to a lack of current recycling options.

We continue to look for new opportunities to reduce landfilled material.

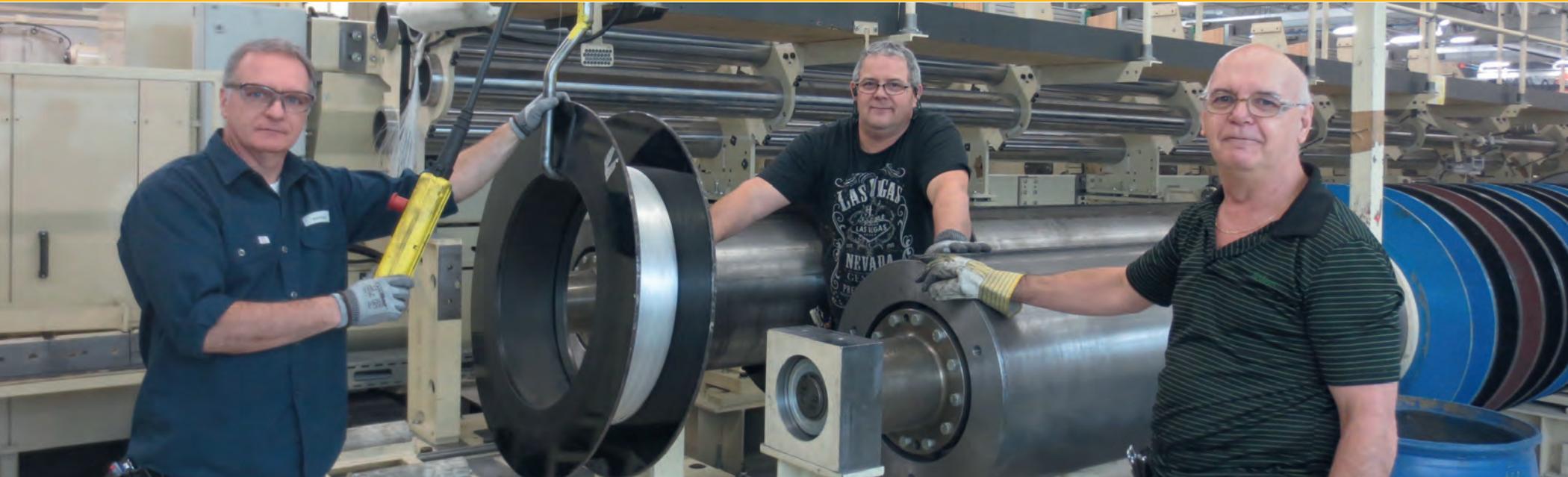
Our Paperchine Springfield site machines raw bar stock of ultra-high molecular weight polyethylene (UHMWPE) to make drainage elements for paper machines. The excess shavings and end cut offs are collected and recycled. An automated collection system has been installed to achieve both efficiency and optimum results.

Liquid wastes include small batch chemicals for laboratory level testing, and light industrial lubricants and cleaning solvents. Eco-friendly alternatives are used whenever possible to avoid hazardous material handling and collection. All liquid wastes are collected and disposed of properly in accordance with environmental regulations.

In 2016, we will use internal benchmarking and outside resources to further analyze our waste stream to help move us toward reduced landfilled waste.



# SOCIAL RESPONSIBILITY



AstenJohnson is committed to providing its associates worldwide with a workplace where employees are safe, healthy and engaged.

Safety is foremost in all aspects of our business activities, both internally and externally. In 2016 AstenJohnson will implement a new safety program to take safety to the next performance level through the introduction of a Zero Accident Culture™ program.

In addition to a focus on safety, AstenJohnson strives to offer associates a positive working environment with

development opportunities. Through dynamic work experience and learning opportunities, our associates are able to fully contribute today, and grow to become leaders for tomorrow. Investing in employee development provides a positive return to our associates, our customers, and our company's future.

We also believe that we have an inherent responsibility to help improve the quality of life in the communities in which we work. Globally, our sites and associates actively support their local communities in numerous ways.

## HEALTH AND SAFETY

Safety is a core value at AstenJohnson. We conduct business in a manner that promotes safety first, beginning at the highest levels of management. This is passed down to reach all 1,800+ associates worldwide. Our corporate safety leaders establish safety policies and programs, each site has an assigned safety leader, and all associates receive introductory and annual refresher safety training.

Over the past 15 years, the number of recordable incidents and number of lost-time incidents has fallen significantly.



Safety improvements have been realized by the broad adoption of formal safety programs and practices in all aspects of our business.

At all AstenJohnson locations, the designated safety leaders and team members perform monthly Behavior-Based Safety (BBS) audits. BBS engages all associates in a culture of personal responsibility, while recognizing good safety behavior and revealing opportunities for safety. All audit findings are recorded and resolved promptly.

In our manufacturing facilities, operating and maintaining machinery has inherent risks. Physical barrier guards, electronic fences, emergency stop switches, and other visual safety queues help minimize these risks. A full "Lockout – Tagout" (LOTO) procedure for all machinery repairs also ensures safe machinery maintenance

and repair practices for our technicians and mechanics.

In 2016, we will move from paper BBS safety audit forms to a mobile application for inputting safety audit data. The mobile app, Safety Check 360, will automatically summarize findings and help identify improvement opportunities. It will be programmed to provide real-time, proactive safety guidance for associates in the field.

Our safety teams share audit findings, innovative solutions, and best practices with safety colleagues across our global operations. Annually we recognize our best performing site with a Safety Excellence Award. In 2015, our Appleton site received an award in recognition of 1,000 days achieved without a lost-time incident. CSMO Textile Quebec recognized AstenJohnson's Advanced Fabrics for the

work done in changing the culture at the Valleyfield site, bringing everyone to think safety first for a zero accident work place. This allowed us to reach 500 days without an accident. Safety at work is not looked at as a project at AstenJohnson, it is looked at as a value.

#### 2015 SAFETY PERFORMANCE

FATALITIES	0
RECORDABLE INCIDENTS	27
RECORDABLE INCIDENTS RATE	1.63
LOST TIME RECORDABLE INCIDENTS	12
LOST TIME RECORDABLE INCIDENT RATE	0.72

“Safety is always a concern in manufacturing and production oriented operations. AstenJohnson’s dedication to safety excellence assures our customers and suppliers of our ability to support their safety objectives in a collaborative manner.”



# ASTENJOHNSON SAFETY HISTORY



In 2016 we will take the next step in safety excellence by implementing the Zero Accident Culture (ZAC) program. The benefits of ZAC are:

- Unsafe behaviors stand out
- Unsafe behaviors are unacceptable
- Safe work is influenced through peer-to-peer relationships.

By developing a stronger safety culture through ZAC, we will ultimately create an environment where each associate becomes responsible for their own safety and the safety of their fellow associates.



## EMPLOYMENT AND RECRUITMENT

AstenJohnson associates are central to every part of our company's success. We work hard to attract and retain the very best people, built on our world-class culture of innovation, shared engagement, and personal responsibility. Our focus on providing an inclusive, respectful and collaborative work environment will help ensure the company thrives for the next 200 years.

Our talent management programs are designed to support our company culture, reinforce our values and align operational and financial needs to our business goals of growth and profitability.

AstenJohnson's human capital needs are diverse. From skilled machine operators, maintenance technicians, process and design engineers to talented office and

systems support, and managers, to innovative leaders, we must attract and develop competent employees across our business units.

Recruitment takes place via multiple channels: through our website and social media, at trade shows and conferences, through professional colleague connections, at colleges and vocational training institutions, and at local job banks.

Maintaining these various channels ensures the long-term viability to remain competitive and fill vacancies quickly.

## TALENT MANAGEMENT

Development of AstenJohnson associates is the foundation of our success.

“Recent studies have shown that social responsibility is a particularly important factor in attracting and retaining members of tomorrow's workforce. AstenJohnson recognizes the value all members of our workforce place on environmental and social responsibility.”



Each year, independent of performance, each salaried associate works on an individual development plan. This plan is aimed at supporting associates in their individual career ambitions, as well as ensuring that AstenJohnson has exceptional people who are well qualified for future roles. Employee development focus is on training and education, especially through experiential learning.

To support our Talent Management initiatives, AstenJohnson recently began the roll out of "MyAJCareer," a comprehensive global Talent Management program including strategic goal alignment, performance management, Individual Development Plans, Succession Planning, and a Learning Management System (LMS). MyAJCareer will help the company achieve its strategic goals, improve customer satisfaction, and maintain and build a skilled and prepared workforce at all levels, while simultaneously providing associates with clear links between their performance and company success, paths to positive performance incentives, and customized development opportunities that are aligned with their career ambitions.

## WAGES AND BENEFITS

AstenJohnson provides a competitive compensation and benefit package

in its industry and operating regions. AstenJohnson works hard to administer the compensation program in a manner that is fair, consistent and free of discrimination. In alignment with our company culture, we strive to communicate openly about the goals of the company and how our associates can share in company success.

As a global company, the benefits provided or offered vary from region to region. Benefit packages are influenced by a variety of factors including: collective bargaining agreements, competitive practices, and government programs in the countries we operate. In all cases, benefits are offered or provided to all full time employees to support our associates' health and well-being.

## TRAINING AND EDUCATION

Investment in associate knowledge is critical to AstenJohnson's continued success and our pursuit of excellence. Learning is a constant, with formal internal training provided for safety, new or upgraded equipment and processes, required governance compliance, and other job knowledge areas. Globally, AstenJohnson offers associates assistance with formal education programs that are linked to their functional job area. Education Assistance Program benefits

are determined and administered regionally.

In Europe, we encourage and support dual training/education programs, co-op programs, or internships with students. The dual program is a balanced mix of on the job training at the manufacturing plant and time in special schools. Short, co-op work terms and internships are offered for technical and bachelor's degrees, and at the master's thesis level. The purpose of these programs is to identify and develop future talent and help prepare students for full-time work.

## COMMUNITY

A component of AstenJohnson's core value of Stewardship states, "We actively support our communities."

We believe that we have an inherent responsibility to help improve the quality of life in the communities in which we live and work.

Employee and corporate-led community support efforts find many forms, including financial contributions, food collection drives, winter clothing drives, logged volunteer hours at community projects and fundraisers, and employing or supporting mentally or physically challenged adults where appropriate.



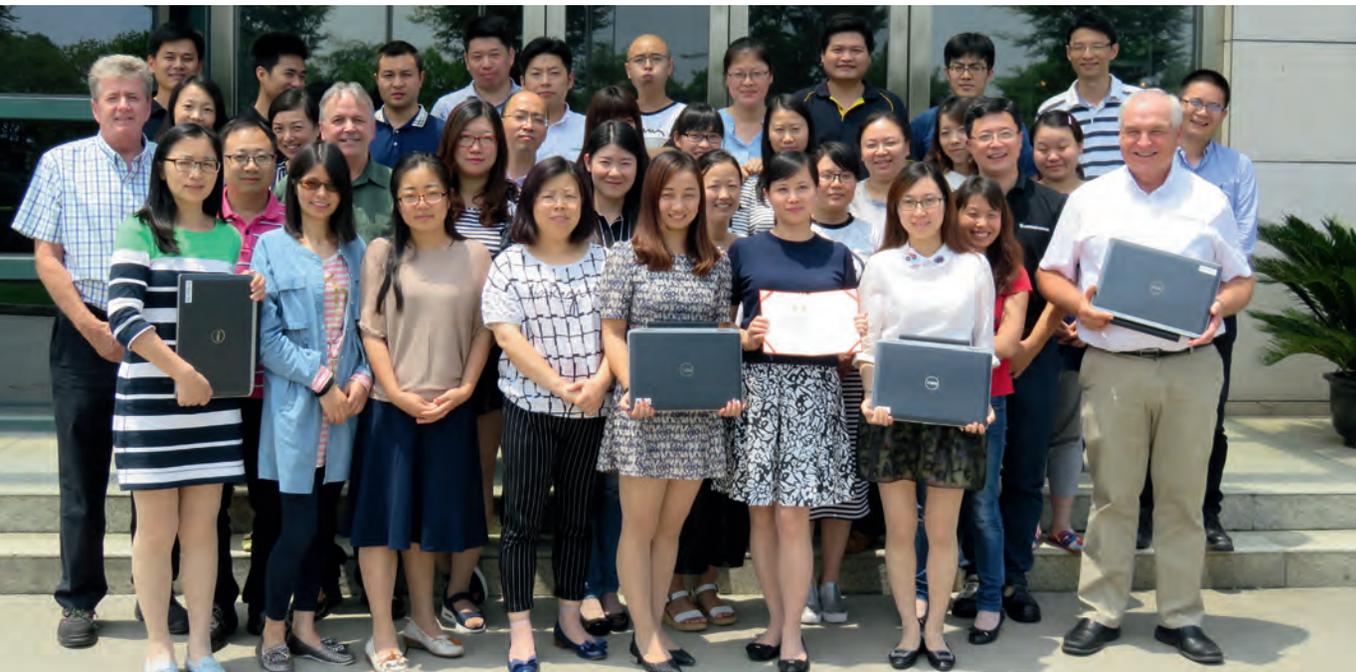


Our community support efforts are guided by employee input at the local site level. We believe our local associates' best know the needs of their respective communities and where we can have a positive impact.

In the U.S., AstenJohnson locations participate in their local United Way campaigns. The United Way's focus on using core building blocks to create opportunities for all aligns with AstenJohnson's philosophy of associate engagement and empowerment for improved results.

In Suzhou, China, the site's used computers became available after a hardware refresh. The site donated 17 computers to a middle school in an impoverished area of Xinjiang province and 29 computers to a Suzhou orphanage. As computers are replaced, older, working machines will again be donated to local organizations in need.

Our Strakonice site in Czech Republic has supported Domov Petra Mackov since 2013. Domov Petra Mackov is a home for disabled individuals, providing workshops, physical therapy and other activities for their residents. Artwork made by the residents is displayed in the plant foyer and is available for purchase by associates and visitors.



# PRODUCT AND SUPPLY CHAIN RESPONSIBILITY

AstenJohnson makes every effort to ensure its products meet or exceed requirements set by our customers. These requirements normally include: life cycle operation performance characteristics; quality thresholds; product packaging and shipment requirements; and transportation, delivery, and inventory management. Our customer feedback processes allow formal review to ensure requirements are being met, and continued dialog for product improvement and development.

The primary raw materials for Paper Machine Clothing and Advanced Fabrics are petroleum based monofilaments and fibers. For Paperchine, the primary raw materials are stainless steel, mild steel, ceramics, ultra high molecular weight polyethylene and fiber reinforced polyester.

In addition to our commitment to waste reduction in our own facilities, we are working to build strong partnerships with suppliers and customers to help reduce the environmental impacts of our products and services all along the supply chain.

## PRODUCT SAFETY

There are two product related safety issues on which AstenJohnson focuses: product failure and associate safety during service calls.

We perform stringent tests to ensure a product will not fail prematurely on a customer's machine. If a previously unknown operating condition or new material weakness is discovered after products are sold to customers, we quickly recall suspect product. ISO 9001:2008 quality systems are in place to execute any recalls efficiently.

Our associates face risk daily when in the field servicing our products at our customer's facilities. Because of this difficult work, we work hard to keep safety awareness high. In addition to following all customer safety rules, our sales and service associates receive ongoing training and refresher programs to ensure associate and equipment safety in the field.

Some examples of current activities are:

- Elimination of all NDC gauges that use a radioactive energy source
- Adoption of TappiSafe as our safety trainer

## PRODUCT LIFE CYCLE MANAGEMENT

The industries we serve have been very effective in increasing the average operational life of technical textile products. As operational life increases, less textile is landfilled at its end of life. Some customers have ad hoc systems in place to allow associates to re-purpose spent textiles, thereby avoiding landfill.

Recycling of waste polymer into new textile yarns for the industries we serve using current recycling technology is not practical because yarns made from recycled materials do not meet the stringent technical requirements. The most viable short-term recycling possibility is to recycle waste into less demanding applications. We will continue to explore ways we can participate in plastic recycling programs being utilized globally.



AstenJohnson recently undertook an investigation of the most promising research into bio-based alternative materials for polyester. At this time, more refinement in bio-based polymers is needed to meet the technical and pricing specifications for our textile products. In the medium term, we will continue to closely monitor the development in bio-based polymers, and in the long term we will continue to look at ways to recycle or re-purpose our used technical textiles. Paperchine offers new products and rebuild services. Major components such as head boxes, drainage units, and reels are normally capital expenditures, and, as such, have long service life. These machinery components are mostly of metal construction and may be either rebuilt for continued use, or recycled when taken out of service at the end of life.

Lastly, we emphasize maximum reuse of existing equipment. This entails recycling existing equipment into the design of the new supply and also maintaining the expertise to refurbish and reuse existing equipment at considerable savings in new material.

## PRODUCT QUALITY AND CUSTOMER SATISFACTION

AstenJohnson must build close relationships with our customers to ensure we meet ongoing needs and can make appropriate adjustments to customized products. To capture, quantify and respond to customer complaints about product quality in a timely manner, we have a Customer Relationship Management (CRM) system in place that integrates the sales, manufacturing and product management teams.

Apart from responding to and resolving individual complaints, data is analyzed for wider trends and opportunities to help us improve. In addition to the CRM system, we conduct regular performance reviews with key customers.

Periodically, we conduct a third-party survey of existing and potential customers to determine customer satisfaction and loyalty levels in a number of areas. This helps us identify areas of strength and opportunity based on customer feedback. By using the data to improve customer satisfaction, we have increased our customer loyalty rating from 81 to 85 in North America.

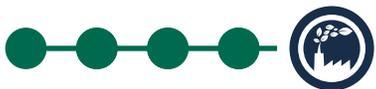
In 2017, we hope to expand the survey to customers in Europe and Asia.

## PRODUCT TRANSPORTATION

AstenJohnson works to optimize its supply chain for efficiency and reduced environmental impact.

Several strategies employed to address transportation impact are:

- AstenJohnson supplies most products and services from within the region they are sold. The company has full-line supply capability for paper machine clothing in both Asia and North America, and most products supplied in Europe are made in Europe.
- Local sourcing of supplies and services reduces the environmental impact.
- The company works with major suppliers for full truck or container shipping whenever possible.
- The company works with preferred freight logistics companies for full truck or container shipping of our finished products.



AstenJohnson commissioned an internal study to determine the environmental impact of our intra-region supply model for Europe.

Based upon a two year representative period, it was estimated that by supplying within region versus from Asia had approximately 8.5 times lower CO2 impact.

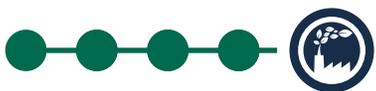
#### CO2 EMISSION TOTAL FREIGHT



TOTAL CO2 EMISSION THROUGH TOTAL FREIGHT (TO CO2)

#### SUPPLIER SUSTAINABILITY

AstenJohnson is a supplier to many of the world's leading pulp and paper companies and is regularly asked for information on our sustainability work and policies. With growing business in non-woven textiles, there has been increasing inquiries for raw material information for food grade products. We are committed to complying with all customer requirements. In 2016, we will prepare an AstenJohnson Supplier Code of Conduct.



# GRI CONTENT INDEX

STRATEGY AND ANALYSIS		
G4-1	Letter from the CEO	3
ORGANIZATIONAL PROFILE		
G4-3	Name of the organization	4
G4-4	Primary brands, products, and services	4,8
G4-5	Location of the organization's headquarters.	5
G4-6	Countries of operation	5
G4-7	Ownership and legal form	11
G4-8	Markets served	5
G4-9	Scale of the operations	5,24
G4-12	Description of supply chain	9
G4-16	Memberships and associations	15
MATERIAL ASPECTS AND BOUNDARIES		
G4-17	List of company entities	4-5
G4-18	Process for defining report content	11
G4-19	Material topics	12-13
STAKEHOLDER ENGAGEMENT		
G4-24	Stakeholder groups	14-15
G4-26	Approach to stakeholder engagement	14-15
G4-27	Key topics and concerns	14-15
REPORT PROFILE		
G4-28	Reporting period	2
G4-31	Point of contact	2
G4-33	External assurance	2
ETHICS AND INTEGRITY		
G4-56	Code of ethics	10
ENERGY		
G4-DMA	Approach to energy	17-18
G4-EN3	Energy consumption	17
G4-EN6	Reduction of energy consumption	18
WATER		
G4-DMA	Approach to water	19
G4-EN8	Water withdrawals	19

## GRI CONTENT INDEX CONTINUED

<b>EMISSIONS</b>		
G4-DMA	Approach to emissions	17
G4-EN15	Scope 1 emissions	17
G4-EN16	Scope 2 emissions	17
<b>EFFLUENTS AND WASTE</b>		
G4-DMA	Approach to effluents and waste	19-20
<b>COMPLIANCE</b>		
G4-DMA	Approach to compliance	11
G4-EN29	Significant fines and sanctions	11
<b>TRANSPORTATION</b>		
G4-DMA	Generic Disclosures on Management Approach	18, 28
G4-EN30	Transportation Impacts	18, 28
<b>OCCUPATIONAL HEALTH AND SAFETY</b>		
G4-DMA	Approach to health and safety	21-24
G4-LA6	Injury and illness rates	23
<b>TRAINING AND EDUCATION</b>		
G4-DMA	Approach to training and education	25
G4-LA10	Training and skills development programs	25
<b>SUPPLIER HUMAN RIGHTS ASSESSMENT</b>		
G4-DMA	Approach to supplier human rights	29
<b>LOCAL COMMUNITIES</b>		
G4-DMA	Approach to local communities	25-26
G4-SO1	Operations with community engagement programs	26
<b>ANTI-CORRUPTION</b>		
G4-DMA	Approach to anti-corruption	10
G4-SO5	Incidents of corruption	11
<b>COMPLIANCE</b>		
G4-DMA	Approach to compliance	11
G4-PR9	Fines related to products and services	11