

We live green.



Greener Package[™]
2010 Innovator of the Year

"Greener Package Awards judges used words such as **'incredible,' 'visionary'** and **'outstanding'** to describe Vanguard's sustainability achievements..."

~ *Packaging World*, Sept. 2010.

About Vanguard Packaging

Vanguard Packaging is an independently-owned manufacturer of point-of-purchase displays, signage, retail packaging and corrugated boxes. In addition to the corporate headquarters design and manufacturing facility at SubTropolis in Kansas City, Missouri, the company has offices in St. Louis, Missouri and Bentonville, Arkansas. Vanguard emphasizes the creation of high-quality products through the use of sustainable business practices and has become recognized as the most sustainable packaging company in North America.

POP Displays | RRP's | Signage | Retail Packaging | Assembly & Fulfillment

**VANGUARD**
COMPANIES
display and packaging solutions

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To learn more about our company,
visit www.vanguardpkg.com

ISO 9001:2008

ISO 14001:2004

OHSAS 18001:2007

Vanguard's New Underground Production Facility

In 2010, Vanguard completed the consolidation of its operations into a single 380,000 square foot underground facility.



Our goal? Create the most energy efficient corrugated converting facility in North America. In August 2010, Vanguard was named "Innovator of the Year" by the Greener Package association for our efforts.

Why Underground?

- Located underground in the Hunt Midwest SubTropolis in Kansas City, Missouri, many of our walls and ceilings are preexisting limestone. By locating our office underground, we reduced construction material usage by an estimated 300%.
- The geo-thermal properties of our underground environment reduces heating and cooling costs, saving an average of \$50,000 per month in winter heating costs for a comparable above ground facility.
- Constant temperature and humidity protects our corrugated and our customer's products.

Sustainable in the Details

- Solid rock ceilings avoided 4,114 square feet of tiles and future replacements.
- Polished concrete floors are cleaned with water instead of chemicals and avoided usage of 10,041 square feet of carpet and future replacements.

Water Treatment

- An on-site production waste water treatment system utilizes one-step clay-based separating agents, lessens environmental impact and reduces chemical hazards in the workplace.
- Vanguard utilizes laboratory analysis to ensure minimal levels of heavy metals, petroleum by-products, volatile organic compounds (VOCs) and acceptable pH neutrality of treated discharge water and filtration process by-products.

Lighting System

- Vanguard's new lighting system is comprised of high-efficiency T-5 lighting and motion sensors, a combination that has drastically lowered our lighting system's electrical consumption.
- By using highly reflective paint on the rock walls, Vanguard has reduced the number of fixtures necessary to achieve proper lumen levels.
- Office lighting was derived from overruns of other construction projects.
- Our toilets and faucets are solar powered. Despite having no natural light, we are able to recycle the light from our T5 fixtures.

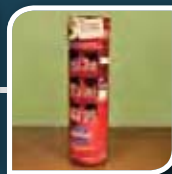
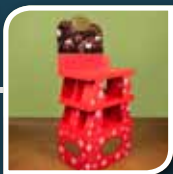
Centrally Located

- Our Central USA location and proximity to major rail and highways reduces energy used for freight.

Critical Acclaim

- Vanguard has been heralded as North America's most sustainable corrugated converting facility, recently receiving the following recognitions:

- *Greener Package 2010 "Innovator of the Year"*
- *Greener Package 2010 "Beyond the Package" Winner*
- *2010 Capstone Award for Green Design*
- *2010 EDC Cornerstone Small Business Finalist*
- *2011 KCIC Brick-By-Brick Award Winner*
- *Hallmark Certified Quality Supplier*



CEO Sustainability Resume

- **Member and Chairman**, AICC (Association of Independent Corrugated Converters) Sustainability Committee
- **Member**, FBA (Fibre Box Association) Sustainability Committee
- **Member**, Wal-Mart Sustainable Value Network
- **Member**, Wal-Mart PSST Team to advise on issues relating to the Wal-Mart Scorecard
- **National speaker** on the subject of sustainability in the corrugated industry
- **Member**, Board of Directors, AICC
- **Member**, Board of Directors, FBA
- **Member**, Board of Directors, Corrugated Packaging Alliance
- **Faculty Member**, In-Store Marketing Institute
- **Member**, Editorial Advisory Board for Paperboard Packaging Magazine



"What we are trying to do is live every day as an example of how lots of small things start to add up."

~ Mark Mathes, CEO & Owner,
Vanguard Companies

Sustainable Vendors

Vanguard is committed to using vendors who share its sustainable philosophies. Here are some examples:

Sustainable Machinery

- Vanguard frequently requests that our vendors supply us with creative concepts to make our operations more sustainable.
- At Vanguard's request, GF Puhl created a new corrugated scrap system that operates on a series of switches. Instead of each machine having a dedicated blower, two machines share a single blower.
- The end result is a trim system that draws 40% less electricity than a comparable model.

Sustainable Inks

- Vanguard uses a pine tree rosin-based ink from BCM Inks. Pine tree rosin is a byproduct of the paper making process.
- By removing petroleum from the ink making process, BCM Inks offers us a sustainable alternative to traditional inks.
- By blending ink on-site, we reduced shipments of ink from 3 times a week to twice a month.
- All leftover ink is blended to create black ink.



Sustainable Designs

Vanguard's Creative Services team always designs packaging and displays with a focus on sustainability.

- We strive to remove less sustainable materials such as plastics and metals from a project.
- Our goal is that each design be 100% recyclable at the end of life.
- We regularly use 3-D animation in the conceptual stage — drastically reducing the amount of paper consumed in the sampling phase.



Next Steps: New RRP Designs

In February 2011, Vanguard installed a state-of-the-art TRIFEED gluer.

- This gluer allows us to adhere three pieces of corrugated together.
- We can now run jobs that were previously impossible to manufacture without hand gluing.
- Our very first project was a stackable tray that removed 23 percent of paper content from the traditional stackable tray design and cut setup times in half.
- Vanguard is one of only a few companies that can now glue HSC shippers onto a PDQ tray. The HSC is removed without a knife!

Our Waste is not Wasted

Alternative Solid Fuels

Instead of filling landfills, much of Vanguard's non-recyclable waste is utilized as an Alternative Solid Fuel (ASF), a coal substitute, in the power plant of a local cement producer.

- Air emissions are subject to the same government regulations as a coal facility.
- Leftover ash is mixed back into the concrete — *our concrete floors contain our old waste!*
- Between traditional recycling and this strategic partnership, Vanguard is effectively recycling or reclaiming over 96% of its waste stream.

2010 Vanguard Recycling Program:

Total Waste: 3,044 tons

Total Recycled: 2848 Tons (or 93%!)

Total Reclaimed as ASF: 69 tons (or 3%)

Total to Landfill: 127 tons (or 4%)

In 2010, Vanguard recycled 5,700,000 pounds of materials!



Vanguard's Certifications

Vanguard recognizes that to be truly sustainable a company must address all three legs of sustainability: economic, environmental and social. Vanguard recently completed a certification drive that gives it a unique and all-encompassing focus on sustainability that is second to none in the packaging industry.

What is ISO? Why does it matter?

ISO (International Organization for Standardization) is the world's largest developer and publisher of international standards for business and government. It is a network of the national standards institutes from 160 countries, and private sector organizations, set up by national partnerships with industry trade associations.

Standards ensure desirable characteristics of products and services such as quality, environmental procedures, safety, reliability, efficiency and interchangeability. They also put in place procedures for us to constantly evaluate our performance so we can offer continuously improving products and services.

Truly sustainable companies focus on economic, social and environmental sustainability. Our certifications play a vital role in helping us realize our sustainability goals in all three areas. Visit our website (vanguardpkg.com) for more detailed explanations of our ISO and OHSAS certifications.

Sustainable Forestry Initiative (SFI) Certification



Good for you. Good for our forests.[™]
www.sfiprogram.org
 SFI - 00606

The Sustainable Forestry Initiative is a forest certification standard based on principles that promote sustainable forest management, including measures to protect water quality, biodiversity, wildlife habitat, species at risk, and forests with exceptional conservation value. For sourcing managers of wood and paper-based products, the SFI label is a sign, backed

by rigorous third-party certification audits, that the wood and paper products being sold originate from well-managed forests.

Quick Facts

- 1 Underground geothermal facility has 150 feet of mother nature's insulation
- 2 Vanguard has a world-class 96% waste reclamation rate
- 3 Flexo printing processes in our facility use sustainable tree rosin-based inks
- 4 100% process waste water is treated on-site
- 5 Vanguard's certifications ensure third-party verification

1 Environmental Sustainability: ISO 14001:2004

2 Economic Sustainability: ISO 9001:2008

3 Social Sustainability: OHSAS 18001:2007

What is HACCP?

Vanguard has implemented a Hazard Analysis and Critical Control Point (HACCP) program which enables us to produce products that are safe for indirect food contact. With two certified trainers on staff and a third-party auditing firm that verifies our compliance, Vanguard can safely meet our clients' indirect food contact packaging needs.

What is Chain-of-Custody?

Chain-of-Custody (COC) allows products to be segregated and identified as having come from a particular source — in this case, an SFI or FSC-certified forest. It tracks the flow of certified wood through the supply chain and across borders through each successive stage — including processing, transformation and manufacturing — all the way to the final product.

Forest Stewardship Council (FSC) Certification



The mark of responsible forestry

Forest Stewardship Council is a non-profit organization devoted to encouraging the responsible management of the world's forests. FSC sets high standards that ensure forestry is practiced in an environmentally responsible, socially beneficial, and economically viable way. Consumers can trust the FSC label to know that wood fiber based materials have been tracked from the forest to final products with a verified "chain-of-custody" certification process.

Trusted environmental organizations including Greenpeace, National Wildlife Federation, The Nature Conservancy, Sierra Club and World Wildlife Fund all support and encourage FSC certification.

VANGUARD

ISO 9001:2008

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CERTIFICATIONS