



VALUES THAT ENDURE

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Message from the Vice Chairman

At ITW, we are very proud to celebrate our 100-year anniversary, a milestone reached by only a few U.S. public companies. We credit a highly ethical approach to doing business and long-time principles that we have never abandoned: innovation, quality acquisitions, and giving back to local communities. Our founder Byron L. Smith and his descendants believed strongly that no company exists in a vacuum—supporting vibrant, healthy and educated communities goes hand-in-hand with business success. At ITW, responsible corporate citizenship is a core value.

A HISTORY OF SOCIAL RESPONSIBILITY

It is difficult to put an exact value on 100 years of social responsibility, but we can confidently state that we have made a positive difference in the communities where we do business by donating thousands of volunteer hours, in-kind donations, and tens of millions of dollars to cultural, educational and humanitarian organizations dedicated to advancing society, primarily through the ITW Foundation. When it comes to our own operations, we have considered compliance with local and national regulations the minimum that a company can do. So while maintaining an exceptionally strong philanthropy record over the years, we have also been developing programs that actively promote the safety, health and career opportunities for our employees. We have also established several robust policies for our governance and business ethics.

A NEW FOCUS ON THE ENVIRONMENT

Today, we recognize that a more formalized, goal-driven approach to managing our impact on the environment must be part of our story going forward. In 2011 we made significant investments in a web-based data collection system and improved our scores from tough, independent organizations like the Carbon Disclosure Project. But as a global manufacturing business, we acknowledge that our energy consumption and the greenhouse gas emissions that result is one of our most complex and urgent challenges. With this in mind, we are pleased to announce our first near-term environmental goal:

Within five years (2016), we plan to reduce the energy intensity and resulting greenhouse gas emissions at our ten largest energy-consuming businesses by 20 percent.



DAVID C. PARRY, ITW VICE CHAIRMAN

We have established a somewhat modest reduction target because we believe it is more realistic and attainable than a vague or sweeping long-term goal. Given the logistical challenges inherent in our global, decentralized structure, we know that smaller steps are the best way to help bring the many individual businesses that make up ITW into an era of greater environmental accountability. We will support them by providing resources such as our Strategic Sourcing program, making it easier to share competencies, and encouraging application of the ITW Toolbox.

A LONG-TERM VISION OF SUSTAINABILITY

Although we have a long journey ahead, ITW is putting the right tools and processes in place to aim for a future where our carbon footprint is smaller and well managed. Creating lower impact, more sustainable business operations isn't just the right thing to do—it is essential to seeing our way through to another 100 years. ITW relies on natural resources to manufacture many of its products, and we have an interest in developing sustainable practices and preserving the environment for future generations. More energy-efficient manufacturing also saves money, which in turn contributes to profitable growth and shareholder value.

What's more, recycleable, energy-efficient components, renewable energy technology, and products essential to LEED-certified or green construction comprise a highly promising market for ITW. Sustainable products and processes also help us meet the needs of the many customers looking to reduce energy costs and do business with a company they can feel good about. ITW's position near the top of the production and supply chain creates an

Within five years (2016), we plan to reduce the energy intensity and resulting harmful emissions at our ten largest energy-consuming businesses by 20 percent.

excellent opportunity for us to enable sustainable progress and ultimately drive change on every continent. (For an in-depth look at our efforts, see the case study on page 17.)

We would also like to take this opportunity to thank all of the men and women of ITW, all over the world, for your dedication to local communities and for keeping ITW's values close. Your ideas, your integrity and your generosity have helped us remain a responsible corporate citizen for 100 years, and we look forward to an even brighter future.

David C. Parry
Vice Chairman

Corporate Profile



MANY LOCAL BUSINESSES, ONE GLOBAL COMMUNITY

EMPLOYEES

65,000

COUNTRIES

58

2011 TOTAL REVENUES

\$17.8 Billion

ITW is a publicly traded, diversified industrial manufacturing company headquartered in Glenview, IL. Our company is comprised of many independent, decentralized businesses operating in countries on six continents. These businesses are organized into 52 operating segments which are aggregated into eight reporting segments: Transportation, Industrial Packaging, Power Systems & Electronics, Food Equipment, Construction Products, Polymers and Fluids, Decorative Surfaces and all other ITW products serving industrial, consumer, and electronic end markets. ITW's primary brands include Deltar, Shakeproof, Acme, Signode, Hobart, Miller, Vulcan, Paslode, Ramset, Plexus, Densit, Wilsonart, Hi-Cone, Fastex, and Avery Weigh-Tronix. As detailed in our 2011 financial annual report, 59 percent of the company's revenues were generated from sales to customers outside of the United States.

REPORT PARAMETERS

Given the decentralized structure of ITW and the diverse markets it serves, we use ITW's signature 80/20 principle to determine what types of corporate social responsibility information we can reasonably collect from our businesses, and with the greatest relevance to our stakeholders. We report on an annual cycle; the previous report was dated 2010, and the reporting period for this report is January 1 – December 31, 2011. The reporting boundary includes companies over which ITW has operational control, with the exception of leased non-manufacturing facilities and joint ventures. Eighty-eight percent of ITW's required facilities have provided information for the 2011 reporting year.

If you have questions about the content of the ITW Corporate Social Responsibility Report, contact us at ehs@itw.com.

HIGH ETHICAL STANDARDS
ACROSS BRANDS, INDUSTRIES
AND GEOGRAPHIES

ITW has instituted several robust, company-wide policies to ensure that the highest standards of ethical conduct are met across our decentralized, global business structure. For 100 years, ITW has built its reputation by conducting business according to these high standards; we believe our strong culture of integrity and trust is one of the reasons our company has thrived for so many years.

Corporate
Governance

ITW's Board of Directors has established clear and extensive guidelines that ensure our company is governed in a manner that serves the interests of our shareholders, employees and other stakeholders. The Corporate Governance Guidelines detail responsibilities, communication, compensation, succession planning, and the term limits, selection, and evaluation of board members. The guidelines reflect our expectation of absolute integrity and responsibility and our insistence on constant oversight and avoidance of conflicts of interests.

Code of
Ethics

Since our founding, ITW has unwaveringly operated under the highest ethical standards. The ITW Code of Ethics reflects our strong commitment to honest business dealings and provides explicit direction to our top executive officers and all key financial personnel who have responsibilities in connection with financial information and data. The code details our principles regarding honest and ethical dealings and conflicts of interest, full, fair and timely disclosure, government compliance, internal reporting, and adherence to the Code of Ethics.

Statement
of Principles
of Conduct


Whereas the Code of Ethics applies primarily to ITW executive officers and senior financial leadership, the Statement of Principles of Conduct describes the expected standard of behavior governing all ITW employees and managers, regardless of the type of business or where it is located. In 2011, ITW initiated a new, 24/7 confidential employee helpline to report possible ethics violations directly to designated ITW staff. The helpline, handled by third-party service provider, EthicsPoint, provides an alternative for employees not comfortable reporting or handling concerns at the local business unit. As ITW expands globally, the helpline provides another way for us to maintain our high standards of business conduct.

Global Anti- Corruption Policy

A fair, competitive marketplace drives ITW's innovation and increases the value of our products. However, some of the countries where ITW conducts business struggle with bribery and corruption. These crimes can impede free enterprise and work against our business interests. But more importantly, bribery and corruption reduce the economic empowerment of local residents and degrade their standard of living. To combat the problem of bribery and corruption, we enforce a strict Global Anti-Corruption Policy that applies to all ITW divisions, subsidiaries, agents, consultants and affiliates.

Government Affairs

ITW participates appropriately and legally in political advocacy around the globe to advance policies that support our business operations. Participation is managed by two professionals based at ITW's corporate headquarters. In addition to advocacy, the company operates one active political action committee, the Illinois Tool Works for Better Government Committee, which participates legally in the election processes within the United States and is funded entirely by voluntary contributions from exempt U.S. employees. ITW maintains full transparency of its involvement in advocacy activities, and at any time, the public may access reports filed with the U.S. federal government outlining the company's activities.



To view our governance and ethics policies in detail, please visit the Investor Relations section at **www.itw.com**.

100 Years of Making a Difference



ADLER PLANETARIUM



UNITED WAY

Responsible corporate citizenship has been an important part of ITW for 100 years. It is a core company value with its own unique, rich history, initiated and nurtured by the Smith family founders. Harold B. Smith, Jr., ITW director emeritus and great-grandson of founder Byron L. Smith, recalls that his family understood from day one the strong connection between healthy communities and the long-term success of the company. That commitment is reflected in ITW's business ethics and the responsible way in which it treats employees and the environment. But it is also evident in the way ITW has established itself as a philanthropic leader, sharing its good fortune with organizations that work to advance society and the potential of every individual.

BEGINNING WITH EDUCATION

In its earliest days, long before "corporate citizenship" was a familiar concept in business and philanthropy, ITW supported employee well being and was involved with local Chicago-area charities. By 1954, though still a relatively young company, ITW formalized these philanthropic efforts by creating the Illinois Tool-Shakeproof Foundation, later named the ITW Foundation. It began primarily as a grant program that supported education for ITW employees' children; in 1969, the foundation established a one-to-one match

for employee contributions, with most funds directed to colleges, universities and private secondary schools.

The Foundation also began working with National Merit, awarding five scholarships in 1968. To date, over 569 scholarships have been awarded for a total of \$2,130,726. In 1983, the Foundation began working with Scholarship America and, to date, a total of 1,284 scholarships have been awarded for a total of \$6,308,600.

DIVERSE GIVING

During these early years, the Foundation also looked beyond education, making direct contributions to an array of local nonprofit organizations. A look through the Foundation's early, handwritten financial archives reveals contributions to a diverse array of institutions: hospitals, libraries, museums, opera houses, neighborhood associations, health, safety and housing programs, disaster relief organizations, and scouting groups. The recipients also included numerous organizations dedicated to serving those in need in the communities where we work and live.

NEW FOCUS, WITH LOCAL ROOTS

In more recent years, the Foundation has evolved and narrowed its attention to education, the arts, health and human services, the environment and youth. It has

“It’s a good thing to have a healthy education and cultural and civic life. That’s what we wanted to help create.”

– Harold B. Smith, Jr., ITW director emeritus and great-grandson of ITW founder Byron L. Smith



JUNIOR ACHIEVEMENT



THE RED CROSS



AMERICAN CANCER SOCIETY

also focused on developing long-term relationships with key institutions it began supporting over 40 years ago. Many of these partnerships are tied to ITW’s Midwest roots and the value it places on education, particularly scientific education. The partnerships also align with the company’s spirit of entrepreneurialism and scientific innovation.

For example, ITW has supported several expansions and renovations of the Adler Planetarium’s iconic 1930s structure in Chicago and helped fund its important role in the 1960s “space race.” ITW has also been supporting exhibits at Chicago’s Museum of Science and Industry, helped build the Illinois Holocaust Museum & Education Center, and revamped the laboratories at the University of Illinois at Chicago. ITW businesses support several chapters of Junior Achievement, a group that provides volunteer-led business education to schools. ITW is also a long-time supporter of national organizations, such as the Red Cross, The American Cancer Society, the United Way and many others.

OUR NEXT CENTURY: GLOBAL GIVING

As the Foundation has grown and evolved alongside the company, it has sought to engage its employees in community support and extend its philanthropy to communities all over North America. That effort

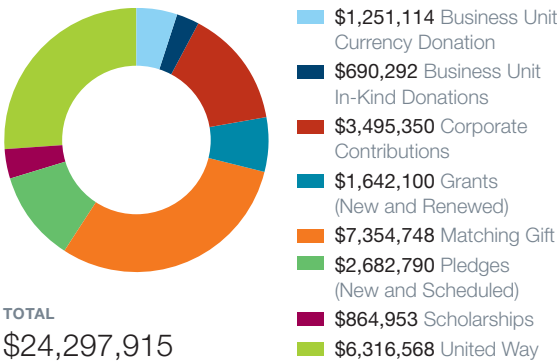
began in 1983, when the Foundation organized a campaign to match employee contributions for the Statue of Liberty restoration project. It opened the door to a broader matching program and the linking of employee contributions to larger national and international disaster efforts, such as support for the victims of 9/11, the Japan earthquake, Australian fires, and Thailand flooding. Today, the ITW Foundation’s matching program matches employee donations three to one—one of the highest match rates among U.S. public companies. These financial contributions are supplemented by thousands of volunteer hours and in-kind donations.

As ITW continues to expand its global footprint, the ITW Foundation is actively exploring options to extend its strong philanthropy program beyond North America. Through endowments from ITW, the ITW Foundation looks forward to a new century of generous, global giving.

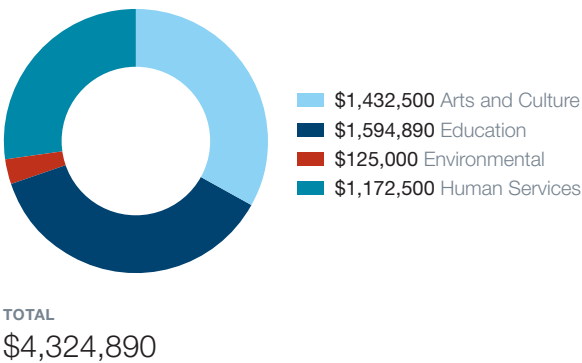
“We want communities all over the world to benefit from the commitment and generosity that we’ve seen from ITW employees here in the U.S.,” says Smith, who served as the president of the ITW Foundation in addition to his executive roles with ITW. “The health of the communities in which our people live and work is vital to the long-term success of our business.”

ITW CHARITABLE GIVING

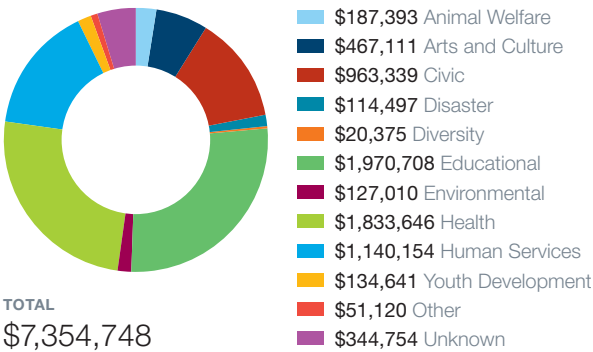
2011 TOTAL GIVING



ITW FOUNDATION – PLEDGES AND GRANTS BY FUNDING AREA



EMPLOYEE MATCHING GIFTS



MILLER SUPPORTS BUDDING ENTREPRENEURS

In 2011, Miller Welding employees in Appleton, WI helped over 3,000 students in kindergarten through high school discover the world of business through the Junior Achievement program. Junior Achievement is a national, non-for-profit organization with local chapters of volunteers who teach on the subjects of business leadership, career readiness, financial literacy and entrepreneurship. Volunteers also help facilitate experiential learning opportunities while working with students onsite in their classrooms, in local schools across the country. The program provides an invaluable curriculum not typically offered in either public or private schools.

For ITW, it is an opportunity to support the spirit of entrepreneurship and develop the leadership skills in young people that will empower them for the global economy. Approximately 90 Miller employees volunteered their time for JA in 17 districts and 125 classrooms within a 20-mile radius of Appleton. Miller has a long history of supporting the program, with many employees serving as seasoned JA instructors.

ITW has been supporting Junior Achievement for nearly 60 years, and in addition to our Wisconsin volunteers, we have active partnerships with the Chicago, South Texas, West Texas, Cleveland, North Central Alabama, Northwestern Ohio, and Atlanta regional chapters.



Left to right: Peggy Smith, Debbie Weikert, Dawn Vanover, Kathy Agenbroad (chairperson), Tracie Kimrey, Jeff Taylor



ITW FOOD EQUIPMENT GROUP HELPS IN THE FIGHT TO END CANCER

ITW's support for the American Cancer Society (ACS) began in 1955, with a donation of \$150. At ITW Food Equipment Group (FEG) in Troy, OH, involvement began about ten years ago, with a handful of employees who raised about \$1,000 for the ACS. Today, FEG is a strong fundraising force for the organization. In 2011, 30 employees participated in the ACS' Relay for Life event, which raises funds for a range of critical cancer patient support services and survivor scholarships. The race also gives survivors and their family members a place to join others passionate about ending cancer.

Combined with onsite fundraisers such as raffles, lunches and outings, FEG employees raised \$14,000 for ACS in 2011. These donations are given a boost by ITW's generous three-for-one matching gift program, but are largely driven by employees' efforts. For example, FEG also offers \$25 stars in honor or memory of a loved one lost to cancer. The stars are displayed in FEG's lobby and the Relay for Life tent—a vivid testament to the company's compassion and initiative. Employees at North American ITW businesses like FEG contributed over \$72,000, and the ITW Foundation matched at approximately \$229,000, for a total contribution topping \$300,000. ITW CEO David Speer and his wife Barbara also served as co-chairs of the 2011 American Cancer Society Discovery Ball.

SENIORS OUTREACH—SUPPORTING ITW RETIREES, COMMUNITIES FOR OVER 20 YEARS

A company like ITW has a large pool of dedicated and loyal retirees. Not many companies seek to engage their retiree base, and fewer still can claim to have a pool of 6,000 senior citizens actively connected to the company through volunteering and fundraising.

The Seniors Outreach Group was formed in 1991 to serve two valuable community needs: connect this large pool of skilled and dedicated former employees with organizations badly in need of volunteer service, and provide the social connections and activity that can be invaluable to the mental and physical well being of senior citizens. In fact, the group holds formal social events annually in Illinois, Florida and Arizona.

Seniors Outreach also gives eligible retirees an opportunity to continue receiving ITW's generous three-to-one match for contributions to approved charitable organizations they choose to support (donations to United Way are matched one-to-one). Many volunteer at the ITW corporate office in exchange for a stipend that is donated to partner charities selected for corporate volunteer assignments. Since its founding, Seniors Outreach has volunteered hundreds of hours of community service and raised thousands of dollars in financial donations.

Labor

LEADERSHIP DEVELOPMENT

In 2011, ITW created two pilot programs that enhance employee access to leadership opportunities while ensuring ITW has the talent needed to support our future growth and stability.

- *Early in Career* is designed to accelerate development of future leadership talent and prepare them for leadership positions through an experiential learning program that cuts across all geographies, functions and ITW businesses.
- *Emerging Markets Leadership Development* augments the current ITW leadership development track in the emerging markets of China and India. ITW taps into the graduate programs at the University of Illinois at Chicago to recruit prospective candidates from these countries. Upon graduation, the recruits participate in a 12-18 month rotational leadership program that leads to an ITW position within their home country.

ENGAGEMENT

To better respond to employee needs, in 2011 ITW created an employee survey instrument that can be used by all ITW businesses on a voluntary basis. The survey is intended to capture employee feedback and develop action plans that address concerns and build higher levels of commitment.

DIVERSITY AND INCLUSION

WOMEN'S LEADERSHIP DEVELOPMENT

The impact of ITW's Women's Leadership Development efforts have resulted in two councils of senior women, one in the United States and one in Europe. The goal of these councils is to support ITW's diversity and talent management objectives by increasing the number of women in leadership in ITW globally.

In 2011, ITW continued its ongoing support of the Society of Women Engineers (SWE) conference. The event had exceptionally high attendance, including 60 ITW engineers along with ITW senior leadership. ITW Women in Technology (WIT) continues to grow and now boasts more than 200 members. WIT fulfilled its mission of inspiring emerging leaders by hosting four career development events, all of which had record attendance and highly favorable feedback.

CELEBRATING DIVERSITY

Maria C. Green was approved by ITW's Board of Directors as the corporation's next senior vice president and general counsel replacing James Wooten, who will retire first quarter of 2012 after 24 years of service. Ms. Green is the 2011 recipient of Chicago United's Business Leaders of Color Award and the Thurgood Marshall College Fund Award of Excellence.

In 2011, ITW received the Society of Women Engineers' Heritage Club Award, the Society of Hispanic Professional Engineers' Inner Circle Award, and the National Society of Black Engineers' Premier Media Partner Award.

WELDING GROUP CREATES LEADERSHIP PATH FOR VETERANS, PEOPLE OF COLOR AND NEW GRADUATES

Under the leadership of the executive vice president, Sundaram (Naga) Nagarajan, the ITW Welding platform embarked upon a strategic multi-level recruiting and leadership development effort. The objectives include building bench strength to fill management opportunities, filling the talent pipeline, and increasing the diversity of ITW's workforce. In 2011 we worked on two aspects of these objectives.

Businesses in the welding platform initiated a job rotation program. A highly diverse group of program participants joined ITW as early-in-career professionals, veteran military officers, and new college graduates. These new employees are assigned a mentor and placed in two-year rotations across departments and given defined, management-oriented learning opportunities.

Also, in partnership with UNCF (United Negro College Fund), welding businesses began hiring African-American college students for paid summer internships across the platform's 23 U.S. business units. Through specific projects and other responsibilities, the interns are given an opportunity to apply what they have learned in the classroom while making a contribution to their respective business unit. Upon successful completion of the summer internship, interns receive an ITW UNCF scholarship which helps pay for their tuition, books and fees.

The job rotation program and the UNCF partnership complement ITW Welding's existing leadership development approach for establishing employees who exhibit greater leadership potential.

HEALTH & WELLNESS

GOALS

Over the long term, ITW aims to create a culture of wellness across all ITW business units, including raising participation in wellness programs that improve the health of employees and their families. We strive to continue providing affordable access to healthcare, while encouraging employees to take greater personal responsibility for their health.

PROGRESS

In 2009, ITW launched a wellness initiative in the United States promoting awareness of employee health status and providing a variety of programs and tools to manage and improve health. The program included coaching, education, and online tools. Employees were also rewarded with a premium discount for completing a Personal Health Assessment and participating in a biometric screening. We have seen steady growth in participation for activities that earn the incentive, a clear indication that employees are recognizing the value of the wellness program.

COMMENTARY

As ITW employees' knowledge of their health status grows, we have been able to identify specific challenges and the greatest areas of need across our workforce. As a result, ITW wellness programs will be modified in 2012 to bring more focus to improving employee physical activity and improving nutrition habits.

U.S. WELLNESS INCENTIVE PARTICIPATION



32.5%

INCREASE IN
PARTICIPATION
SINCE 2009



Mentors Hans Bachmeier and Wendy Garrity, general managers, and rotation participants Koray Benson, operations manager and Elizabeth Froelich, marketing manager.

Labor

*Doug Delheimer,
Laboratory technician*
*Jud Broome,
General manager*
*Denise Steiner,
Human resources manager/
safety coordinator*



DYNATEC RECERTIFIED FOR VOLUNTARY SAFETY STAR

In 2011, Dynatec in Hendersonville, TN obtained recertification to continue as a STAR worksite, which is the highest level of recognition offered by the U.S. Occupational Safety & Health Administration's (OSHA) Voluntary Protection Programs (VPP). To be accepted as a VPP STAR worksite, the business must demonstrate an exemplary, comprehensive, successful safety management system. To recertify as a VPP STAR worksite, the business must undergo a rigorous onsite evaluation by a team of OSHA safety and health experts who examine each of the required elements of the site's safety and health management programs, verifying that the site's occupational safety and health program meet the high quality expected of VPP participants. The self sufficiency of STAR worksites and their ability to identify and control workplace hazards makes them exempt from the OSHA administration's planned inspections as long as the business maintains VPP STAR status. The injury and illness rates of VPP STAR sites are significantly lower than National Bureau of Labor averages. In fact, only .01 percent of all U.S. businesses have achieved recognition as a VPP STAR worksite.

ITW FOOD EQUIPMENT GROUP HELPS EMPLOYEES AND LOCAL KIDS STAY HEALTHY

The health fair at ITW Food Equipment Group (FEG) in Troy, OH is a two-day event featuring door prizes, interactive booths, and speakers on topics ranging from safety to sustainability. In past fairs, organizers have invited representatives from the local fire and police departments, the American Red Cross, and the Ohio Environmental Protection Agency to address bicycle safety, safe driving, first aid kits for tornado season and gas cap checks. The fair also educates employees about alternative approaches to wellness. And with roughly 90 percent attendance, the fair is a good opportunity to increase participation in ITW's free biometric health screening program. The fair is just one part of FEG's plan to keep health top of mind for its 400 employees. An FEG employee also established an immensely popular kids triathlon; many employees now support the event, with proceeds benefitting a local United Way chapter.

Product Responsibility

ITW's decentralized, diversified structure presents a challenge to mandating company-wide approaches to product responsibility.

However, each individual ITW business is expected to uphold high standards for

the safety and quality of its products. In fact, many have voluntarily implemented standards developed by the International Organization for Standardization (ISO). ISO standards help businesses safeguard consumers and make the development, manufacturing and supply of products

more efficient, safer and cleaner. Decentralization also enables each of our businesses to develop practices that foster product responsibility according to their specific industries and processes.



ITW TACC CUSTOMERS BREATHE CLEANER AIR

ITW TACC, an ITW adhesives business in Rockland, MA, added more products certified safe for indoor air quality by the GREENGUARD Environmental Institute (GEI). The GEI is an internationally recognized, independent organization that uses rigorous testing and empirical data to set higher safety standards for products that emit harmful volatile organic compounds (VOCs) into the air of indoor spaces. Air quality affects workers who use adhesives as well as consumers spending time in homes and offices constructed with these products. The certification also qualifies the products for LEED credits (Leadership in Energy & Environmental Design), the accepted rating system for “green” construction developed by the U.S. Green Building Council. GEI certification is voluntary—separate from government ozone regulations—and not required. TACC has pursued voluntary certification for 20 products, ensuring that VOCs levels are not only safe, but exceptionally low across its product line. TACC also developed a program that annually recycles thousands of single-use metal adhesive canisters.

Environment

GOALS

ITW has established a five-year energy reduction goal. By 2016, ITW plans to reduce energy intensity and the resulting harmful greenhouse gas emissions in our top ten energy-consuming businesses by 20 percent.

PROGRESS

In 2011, ITW continued its global reporting program—collecting environmental data from every one of the manufacturing and ITW-owned businesses—under the guidelines of the internationally recognized Greenhouse Gas Protocol. We invested in a new web-based reporting system and brought the environmental data it collects into our internal audit program to ensure accuracy. We also added new metrics, such as quantity of recycled materials, (including water), biomass combustion and other stationary fuel sources. ITW also began participating in two mandatory greenhouse gas emissions reporting and reduction schemes, the CRC Energy Efficiency Scheme (United Kingdom) and the National Greenhouse Reporting Scheme (Australia).

COMMENTARY

ITW's global, decentralized structure and the sheer volume of our independently managed businesses has presented some challenges to environmental data collection and more aggressive energy management. However, our new web-based reporting system, along with other internal initiatives, are important early steps in our plan to create a highly accurate, transparent reporting process that helps us to monitor our global carbon footprint and meet company-wide energy reduction goals.

WILSONART BUILDS A CULTURE OF SUSTAINABILITY

As it expands worldwide, Wilsonart is deepening its longstanding commitment to the environment by developing robust sustainability policies and rigorous near-term goals. In 2011, Wilsonart made significant progress toward these goals at its North American manufacturing plants. It achieved minimum 20 percent post-consumer recycled content in its laminate products and 66 percent post-consumer content in certain backer products. The company also earned some of the most respected environmental certifications; it received GREENGUARD (an independent environmental testing organization) and Scientific Certification Systems Indoor Advantage Gold for improved indoor air quality, and it was the first laminate manufacturer to achieve Forest Stewardship Council certification. In addition, Wilsonart developed manufacturing improvement goals based on 2010 benchmarking, began product life cycle assessment, and completed sustainability training for all employees.

ITW LABELS ACHIEVES ZERO LANDFILL WASTE

In just nine months, ITW Labels in Gardner, KS went from having no recycling program to running a business that can boast a zero waste-to-landfill stream. As part of ITW's company-wide Go Green initiative, ITW Labels used an external waste consultant recommended by ITW Strategic Sourcing to develop a recycling program that separates waste flows for over 20 different materials generated by their manufacturing process. Items include paper, cardboard, metal scrap, ink buckets, plastic, aluminum, and glass, as well as various printing and packaging materials. ITW Labels also partners with a local cement company to pick up the label stock waste. The company burns the waste as a coal replacement to heat the kilns used in cement manufacturing. ITW Labels' efforts will reduce costs and save 360 tons of solid waste annually from entering the nation's landfills.

PERFORMANCE SUMMARY

TOTAL ENERGY (thousands MWh)



12.2%

REDUCTION IN
COMPANY-WIDE
ENERGY USAGE

TOTAL CALCULATED EMISSIONS (thousands metric tons CO₂e)



11.6%

REDUCTION IN
COMPANY-WIDE
EMISSIONS

Complete data listed on page 16.



Rob Lester,
Business unit manager

Richard Boone,
Production support
manager

Alan Schneider,
Purchasing shipping/
warehouse lead

2011 ENVIRONMENTAL AND SAFETY DATA

ENERGY

	2011	2010*
<i>(thousand MWh)</i>		
Direct Energy		
Natural Gas	1,140	1,200
Heating/Fuel Oil	100	490
Coal	40	40
Propane (Fork Trucks)	30	40
Wood	20	–
Total Direct Energy	1,340	1,770
Indirect Energy		
Electricity	1,380	1,340
Total Indirect Energy	1,380	1,340
Total Energy	2,730	3,110

EMISSIONS

<i>(thousand metric tons CO₂e)</i>		
Calculated Direct Emissions		
Calculated CO ₂ e – Natural Gas	230	240
Calculated CO ₂ e – Heating/Fuel Oil	30	120
Calculated CO ₂ e – Coal	10	10
Calculated CO ₂ e – Propane	10	10
Total Direct Emissions		
Calculated CO₂e	280	380
Calculated Indirect Emissions		
Calculated CO ₂ e – Electricity	710	740
Total Indirect Emissions CO₂e	710	740
Calculated Emissions from Biomass		
Calculated CO ₂ e – Wood	10	–
Total Calculated Emissions	990	1,120

INTENSITY INDICATORS**

<i>(MWh/million \$ Operating Revenue)</i>		
Energy Intensity	160	220
<i>(metric tons CO₂e/million \$ Operating Revenue)</i>		
Emissions Intensity	60	80

WATER WITHDRAWAL

	2011	2010*
<i>(thousand US gallons)</i>		
Water Withdrawal – Purchased	1,400,050	2,042,520
Water Withdrawal – Non-Purchased	680,480	418,970
Total Water Withdrawn	2,080,530	2,461,490

SOLID WASTE & RECYCLING

<i>(thousand US tons)</i>		
Waste		
Hazardous and Special Industrial Waste	20	10
Non-Hazardous Waste	140	160
Total Waste	160	170

Recycling

Cardboard & Corrugated	20	–
Mixed Paper	10	–
Plastic	10	–
Metal	40	–
Total Recycled Material	80	–

SAFETY

Injuries Resulting in Days Away	890	670
Fatalities	–	–

REGULATORY

Government Safety Inspections (Units)	230	190
Resulting Fines	\$70,330	\$63,870
Government Environmental Inspections (Units)	180	110
Resulting Fines	\$6,550	\$43,530

* 2010 values were recalculated

** Only operating revenue from participating business units was used in the calculation of intensity metrics

The reporting boundary for this data includes companies over which ITW has operational control, with the exception of leased non-manufacturing facilities. The reporting boundary does not include joint ventures. The 2011 reporting year showed an approximate 10% increase in business unit reporting. The uncertainty of the data is as follows: Gross direct emissions +/- 1.1 percent and gross indirect emissions +/- 0.5 percent. Neither emissions nor consumption values were verified by a third party.

A CLOSER LOOK:

Product testing—an opportunity for sustainability



*Graham Mead, principal design engineer
for Instron®'s ElectroPuls Dynamic Systems*



There's no doubt that manufacturing consumer and industrial products is an energy-intensive business. But can changing the way that we test products make a difference? ITW's Test and Measurement platform has shown that in the long production run up to a final product, innovations in the testing phase have far-reaching effects.

Consider the range of products that touch our lives: the clothes and shoes we wear, the cars we drive, the mobile devices we've come to depend on—even the tiny dental or biomedical devices that promote health and longevity. Every one of these products has its own environmental footprint, a measure of the natural resources, emissions and waste generated in its production. Many forget that before these products ever reach us, they stand up to rigorous testing. Exhaustive, energy-intensive testing and research of materials and finished products make that footprint grow even larger.

TESTING SCOPE CREATES OPPORTUNITY

"Tangible consumer and industrial products must be able to withstand the duress of daily life," explains Yahya Gharagozlou, group president within ITW's relatively new Test and Measurement platform, based in Norwood, MA. "It's essential to manufacturing that products live up to promises of quality, reliability, and safety. A small device like a heart valve or stent requires many rounds of testing by a small desktop machine, whereas something like a bridge cable requires enormous testing equipment. This diversity in equipment size shows the scope of testing

“With ElectroPuls, there’s no doubt that we have reduced our energy consumption, and this is an important point today as sustainability becomes more and more a focus.”

—Eric Ciracq, laboratory manager
at Stryker Spine, a division of the Stryker
global medical technology company.

environments—and how much energy the process can consume.”

Instron, one of the larger businesses within ITW’s Test and Measurement platform, draws on the company’s long history of innovation to design testing products that have minimal environmental impact. A test equipment manufacturer like Instron can leverage its position for the greater good: since testing is performed on hundreds of different products by their manufacturers, even one innovation can drive change across *multiple* sectors and countries.

ELECTROPULS – A GAME-CHANGING INNOVATION

The ElectroPuls range of testing instruments is manufactured at Instron’s Center of Excellence, based in High Wycombe, UK. They are a series of compact dynamic test systems that illustrate how innovation can reap big gains in energy efficiency. But it is important to first understand how conventional dynamic test systems work. The “old game” is about intense use of hydraulic oil, water and cumbersome electrical systems to power and cool the machine through countless testing rounds. The conventional servohydraulic testing machine, a standard in the industry for decades, requires three-phase electrical power, water for cooling, a high-pressure hydraulic oil supply, numerous consumable parts and extensive regular maintenance.

“We knew our customers wanted something cleaner, quieter and more compact, with a lighter

ELECTROPULS LINEAR MOTOR TECHNOLOGY

ENERGY SAVINGS
OVER FIVE YEARS,
PER MACHINE,
AT 21 PERCENT
UTILIZATION:



40,000

KILOWATT HOURS



210

GALLONS OF HYDRAULIC OIL



369,841

GALLONS OF COOLING WATER



73.6%

REDUCED CONSUMABLES
(FILTERS, HOSES, OTHER)

environmental impact that would keep their overall costs of ownership down,” says Graham Rogers, general manager at Instron. “We developed what we believe is the dynamic testing instrument of the future—one that eliminates the use of hydraulic oil, reduces energy usage and cost, and saves over 300,000 gallons of cooling water over a typical five year period.”

Key for Instron was replacing the conventional hydraulic actuator with a more energy efficient electric linear motor. The linear motor technology of the ElectroPuls changes the game; it requires only a single phase, plug-in electrical source, does not use oil and is cooled by air rather than water. So whether it is used for testing the durability of gym shoes, artificial hip replacements, or auto components, integration of this more sustainable technology leads to energy savings across multiple industries.

TOO GOOD TO BE TRUE?

The innovation behind the ElectroPuls can also save nearly 40,000 kilowatt hours of electricity per machine over a typical five-year period. The new test instrument also uses far fewer filters, hoses and other materials, reducing consumable waste by *over 70 percent* compared with an equivalent servohydraulic system. And, this ground-breaking design reduces the energy involved throughout the full product life cycle: production, installation, utilization, and maintenance.

The dramatic data is not hard to believe, considering that Instron invested over five years of research and development to overcome the challenges inherent in the use of linear motor technology in dynamic materials testing—while staying mindful of the high stakes involved with accurate and reliable testing.

“Certainly, others have tried to create these kinds of test systems, but they could not fully master the technical challenges of linear motor technology while improving upon the precision and familiar characteristics of conventional hydraulic machines,” explains Gharagozlou. “When it comes to ensuring the durability of a passenger plane component or a medical device like a heart valve, the machine has to get it right. We wanted to develop a product that our customers can depend upon, while making huge strides in efficiency.”

BUEHLER DRIVES SUSTAINABILITY FROM THE INSIDE OUT

ITW's Test and Measurement platform is also exploring ways to improve how it manages the environmental impact of its own operations. Buehler, another division within the platform based in Lake Bluff, IL, creates materials testing products used by manufacturing facilities, laboratories, and universities. The company's sectioning, mounting, grinding and polishing, imaging and analysis, hardness testing equipment, and related consumable products enable critical research on materials that can advance science and industry. But they also

BUEHLER

102,000 POUNDS OF
MATERIAL RECYCLED
ANNUALLY, SAVING:



581,789

KILOWATT HOURS



34,216

GALLONS OF OIL



222,250

GALLONS OF WATER



380

CUBIC YARDS OF LANDFILL

necessitate significant volumes of packaging for single-use parts and large pieces of equipment.

GREENING MANUFACTURING OPERATIONS

In 2010, Buehler was running a trash compactor to manage the numerous loads of packaging and shipping material waste from the material testing products it manufactured. But after bringing in an external sustainability consultant and tapping into ITW's Strategic Sourcing program, the company has begun a robust recycling program throughout its operations and front offices. The program prevents nearly 102,000 pounds of waste from entering landfills annually. Additional conservation efforts led Buehler to convert to energy-efficient lighting, reducing its kilowatt hours by 34 percent annually. These changes have not only made for more sustainable operations—they have altered the way employees approach their work.

"There was so much shared excitement around the energy savings data," recalls Michele Arnison, Buehler general manager. "It has had a profound effect on many of our employees; they look at what we do and how we do it in a different way. It is not just our products that need to be low impact on the environment, our operations do as well."

Some of those product-related changes include reusable cloths as an alternative to grinding paper used in metal polishing applications and reformulations of

resins to eliminate toxins. Arnison believes these kinds of small innovations can influence customers across industries and countries, especially those who are already receptive to creating a material preparation, testing and analysis process that puts less stress on the planet.

DRIVING LONG-TERM CHANGE

"We sell to global, high-tech organizations—scientifically-oriented individuals who take the long view and consider sustainability to be as important as the quality or accuracy of the testing itself," she says. "Through innovation and operational transformation we can raise the visibility of these issues throughout the industrial manufacturing industry and make a real difference."

In the years ahead, both Instron and Buehler will continue to conduct research on energy-efficient testing equipment and develop close customer relationships to pinpoint solutions that have a broad impact. They will also be keeping an eye on their own manufacturing processes, exploring how small operational changes can cultivate a culture of sustainability that aligns with socially responsible product innovation.



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