

Committed to Saving Energy & Saving Money



Energy Saving Solutions from Source Atlantic

**COMPRESSED AIR
ELECTRICAL
STEAM**

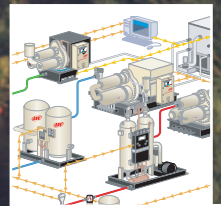
in Our Industry, Change is Constant

With soaring energy costs, strengthening competition from emerging markets and a robust Canadian dollar, our challenge as manufacturers has never been greater. To stay competitive

we must optimize our throughput and product quality, all the while demanding maximum value from supply chain partners and reducing unnecessary cost from the production cycle.



With energy costs representing up to 50% of the operating costs of a production facility, smart and efficient energy consumption has never been more important.



Compressed Air
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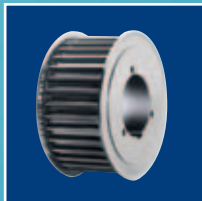
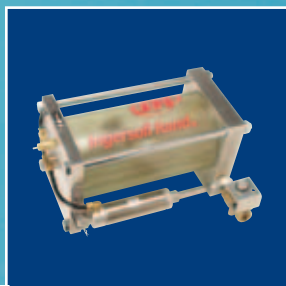
Energy Saving Solutions from Source Atlantic

Source Atlantic is proud to bring energy optimization solutions to market, with a leading array of products and services that focus on three key areas of energy utilization:

- Compressed Air
- Electrical
- Steam

Take the guesswork out of capital purchases... through the integrated capabilities of the Source Atlantic group, multi-disciplined teams can evaluate these critical utilities, and provide solutions with clearly defined paybacks. The majority of products in this brochure have proven return-on-investment models, so both the payback period and long term savings are clearly understood.

What other resources are available... learn more from our team about the federal government's Canadian Industry Program for Energy Conservation (CIPEC), which has, for over thirty (30) years, educated industry in understanding energy usage, helped fund energy-related audits and assisted companies in reducing energy consumption.



**One Source.
One Call.**

**Toll Free:
1.888.846.7637
www.sourceatlantic.ca**

SERVICES

Compressed Air System Audits

A better understanding of your compressed air system can yield 20% or greater cost and energy savings.

As a critical power resource, compressed air affects your profit. Our independent auditors will show step-by-step how to lower your compressed air system operating and capital costs while increasing productivity and reliability.

Your compressed air system requires a total solution so our compressed air auditors address the complete system not only the compressors. We will work closely with our customers to develop cost-effective solutions and meet return on investment goals to help industry thrive in today's global business climate.

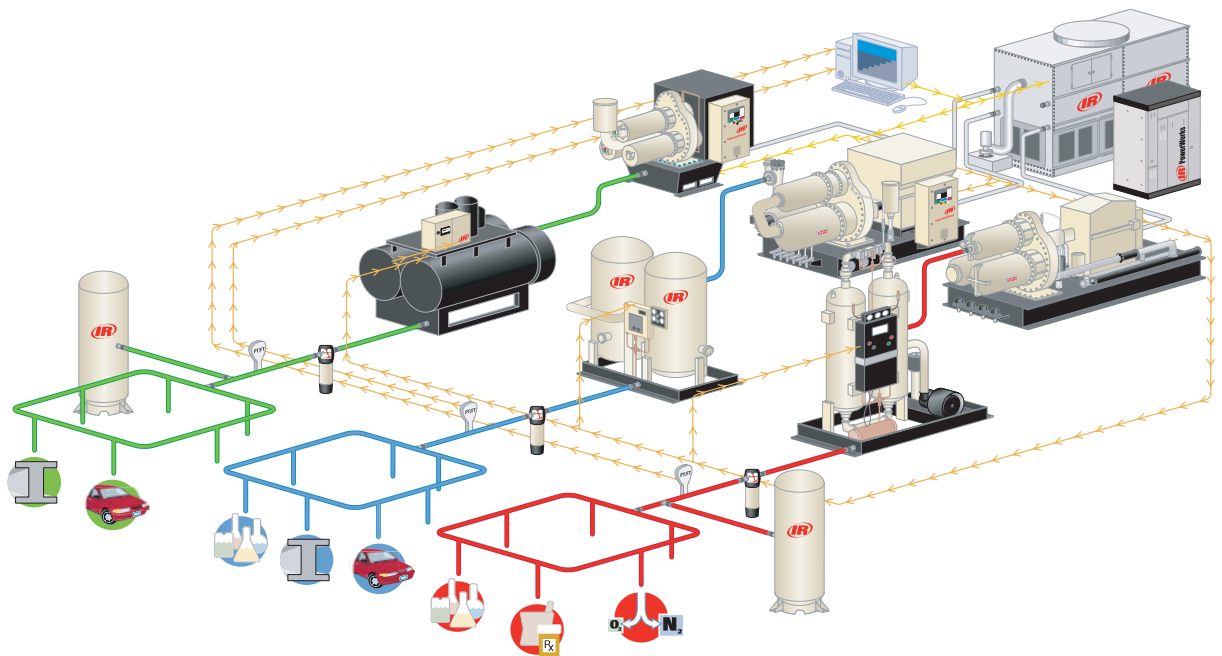
What makes us different?

Our team of auditors:

- have audited or redesigned over 1600 facilities worldwide
- represent more than 160 years of technical expertise in a wide spectrum of industry

- undergo extensive training, mentoring, continuing education and certification
- use and develop state of the art testing equipment including the most sophisticated logging and profiling hardware in combination with the most advanced diagnostic software
- meet twice a year with the leading engineering departments of compressed air manufacturers and large compressor users to exchange ideas and procedures

Our services will not only audit or design your compressed air system but also educate, train and layout the fundamental steps for you to gain a reliable, efficient and productive system.



PRODUCTS

NIRVANA Air Compressors by Ingersoll Rand



A conventional, fixed speed rotary screw air compressor is controlled by an inlet valve to meet system air demand which results in extreme pressure fluctuations and wasted energy, greatly reducing efficiency whenever the compressor operates outside its optimum performance range.

Ingersoll Rand's NIRVANA rotary screw air compressor package matching a standard variable speed inverter with a HYBRID PERMANENT MAGNET motor, coupled with a time-proven airend, represents a stunning advance in compressor technology. This new rotary screw compressor provides unparalleled energy efficiency at all speeds and offers superb reliability. At full load, Nirvana will produce the most air using the least energy; and will continue to do so down to loads as low as 20%. Nirvana runs at 95% efficiency throughout its entire speed range.

Example: To operate a standard 100 HP rotary screw air compressor with modulation control, operating at an average of 70% capacity, 24 hours per day, 6 days per week and a charge of \$0.07 per kwh would cost \$42,544.00 per year. Under the same conditions, a similar horsepower NIRVANA compressor would save \$12,058.00 per year in energy cost.

PRODUCTS

Unigy 7.5 to 15 HP Air Compressors by Ingersoll Rand



Introducing the Compressed Air Re-Invented Winner of 6 Global Awards for Innovation and Energy Savings, Unigy delivers the benefits of variable speed control to smaller users. Designed to save money by lowering operating costs and eliminating wear and tear, Unigy ensures that these savings continue year after year. The variable speed drive offers lowest power consumption at start-up, full and part load conditions. Further, Unigy's unique and exclusive ability to be easily resized to different horsepower and pressure ranges ensures that maximum productivity and efficiency are realized even as the customers demand changes.



Compressed Air

PRODUCTS

Intellisys Energy Optimizer (IEO) by Ingersoll Rand



The Intellisys Energy Optimizer (IEO) is capable of controlling up to eight (8) rotary screw or reciprocating compressors. The IEO will load or unload compressors as necessary to maintain a user adjustable, 2-30 PSI pressure band. The IEO will prevent electrical power surges using control logic that will prevent the simultaneous loading of compressors. Up to eight compressor sequences can be designated by the user to provide customized control of the compressor system.

By reducing the system pressure band, maintaining the optimum average system pressure and turning

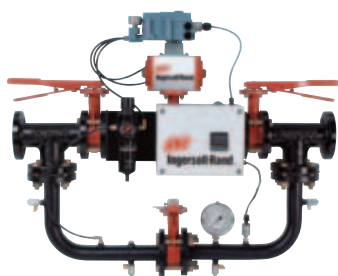
off those compressors not required to meet demand, the Intellisys Energy Optimizer will minimize energy waste.

In addition, as on-line horsepower increases, the narrow pressure band provided by the IEO saves 1% of total system BHP for every two pounds pressure reduction.



PRODUCTS

Intelliflow Pressure Controller by Ingersoll Rand



The *Intelliflow*TM air system pressure controller is a new generation controls product that will save considerable energy dollars

through precise control of the demand side pressure. The precise pressure control enables the demand side pressure to be safely lowered to the minimum acceptable level required by the

process. By reducing the demand side pressure, significant energy dollars are saved through the elimination of artificial demand and feeding all plant leaks at the minimum possible pressure.

Example:

Initial Demand Side Pressure	125 PSIG
Installed Horsepower	500 HP
Available CFM	2425 CFM
Average Air Loss to Leaks	18%
Energy Cost* Associated to Leaks	\$46,295.00

Intelliflow New Demand Side Pressure	100 PSIG
Intelliflow Lower Pressure Leak Savings	\$11,779.00

* Calculated at 4000 hours per year and \$0.06 / kwh

PRODUCTS

PNLD Pneumatic No Loss Drain

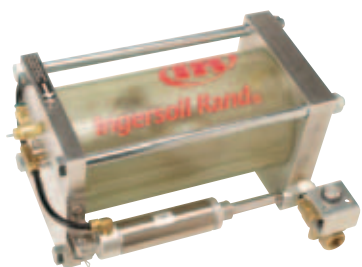


This demand activated condensate removal drain is designed to replace timed electronic auto drains, that unnecessarily discharge compressed air when no moisture is present.

Features

- Accommodates compressed air systems from 100 to 100,000 CFM

- Zero air loss
 - Efficient all pneumatic operation
 - Large clog-resistant fluid porting
 - No electricity or magnets required
 - Intrinsically safe
 - Resists most chemically hostile environments
 - Excellent return on investment
- Six months or less!*



Example

$$1 \text{ cfm/discharge} \times 20 \text{ disch./hr.} \times 8,000 \text{ hr/yr} = 160,000 \text{ cfm/yr.}$$

$$160,000 \text{ cfm} / 5.3 \text{ cfm/kW} = 30,188 \text{ kW/yr @ } \$0.07/\text{kW}$$

Energy Cost (of timed electronic auto drain)	\$2,113.16
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No Loss Drain Cost: \$1,000 Canadian

ROI: 0.45 Yrs.

PRODUCTS

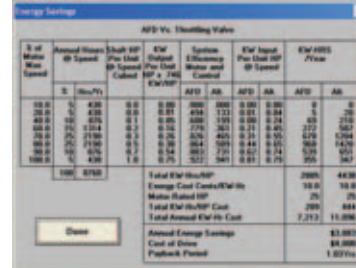
Energy Savings Analysis for AC Drives



Energy Savings Analysis is a simple program designed with on-line context sensitive help, requiring no documentation

manual. The on-line help topics may also be printed as desired to supplement the users understanding. The software is intended for users and sales

engineers who focus on Industrial and Commercial AC Drive applications in the areas of Energy Savings Calculations and Harmonic Distortion Analysis. The software will give you the ability to perform 'short form' studies for AC drive energy savings and harmonic analysis for both voltage and current.



PRODUCTS

Square D® PowerLogic® CM4250 Circuit Monitor



Schneider Electric's North American Operating Division has a new benchmark in power monitoring and control: the Square D® PowerLogic® CM4250 circuit monitor. Designed for energy-intensive businesses and power-sensitive processes, the CM4250 provides the tools to help maximize power quality and control energy-related costs. Schneider has a ROI calculator available which allows you to see how much you can save with a PowerLogic system.



PRODUCTS

Schneider Electric Introduces Low-Cost Ethernet Gateway for Affordable Power Management



Schneider Electric today has the latest innovation in affordable power monitoring and control: the Square D® PowerLogic® EGX100 Ethernet gateway. Whether extending Ethernet access within a single building or

throughout a multi-site enterprise, the PowerLogic EGX100 Ethernet gateway provides cost-effective, reliable Ethernet-to-serial-line connectivity between intelligent meters, sensors and other remote instruments. Ideal for energy management, power distribution, building automation or factory automation, the gateway uses the Modbus® TCP/IP protocol for fast, reliable communications in even the most

demanding applications. Whether used to help monitor, program or control multiple devices, the PowerLogic EGX100 offers power and performance in a compact, affordable and easy-to-use package.

Features and Benefits

Easy to install – Power over Ethernet (PoE IEEE 802.3af) eliminates the need for CPTs, disconnects, and AC-DC power supplies, while greatly reducing installation time. Simply install the EGX in your equipment and wire the serial daisy chain. Connect the CAT5 Ethernet cable to an "endspan" (PoE enabled switch) or "midspan" (PoE injector) to power the gateway.

Easy to setup – Configure the gateway using standard Microsoft tools.

Electric

PRODUCTS

Power Factor Corrections Systems

Many utilities effectively charge a penalty for low power factor. Power factor correction capacitors supply the reactive power (kVAR) required by inductive loads. By correcting poor power factor, capacitors reduce kVA demand, thus off-loading transformers, switchgear and other equipment. The reduced kVA demand results in lower utility power bills, cooler equipment operation and longer equipment life.



Applying power factor capacitors used to be straight forward.

Today, with the proliferation of harmonic generating loads such as variable frequency drives, soft starters and welders, careful attention must be paid to proper

application of power factor correction and harmonic filtering equipment to avoid mis-application problems. As a leader in the field of power factor correction and harmonic filtering equipment, Source Atlantic provides solutions to many power quality problems experienced in today's industrial facilities.



PRODUCTS

Osram - Lighting

OSRAM SYLVANIA



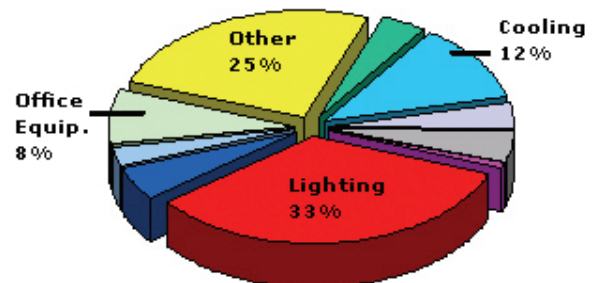
quality, maintaining appropriate light levels in the workplace, and reducing environmental impacts.

Installing energy efficient lighting is one of the best things a building owner can do for the environment, and for business. Energy efficient lighting reduces not only energy consumption – it reduces emissions from power plants and it improves the business owner's bottom line. Some of the most efficient fluorescent lighting systems use T8 lamps and electronic ballasts.

Osram Sylvania and Source Atlantic offer an annual energy savings calculator which will calculate the energy cost savings resulting from an upgrade. The annual cost savings figure can be compared with the cost of the upgrade to determine simple payback and return.

Lighting accounts for the single largest portion of the electric bills for commercial users (30% +), which means that efficient lighting can be a big contributor to reducing energy costs.

Lamp and ballast manufacturers have, over the past decade, brought products to market that can help cut lighting costs 30% to 60% while enhancing lighting



PRODUCTS

ASCO Next Generation Solenoid Valve



New Valve Technology Accepts AC and DC Power While Improving Performance

With new power management technology and robust advanced electronics, the valve accepts both AC and DC voltages while improving performance. Its 2-watt power consumption delivers the same performance as a 17-watt AC solenoid valve. DC performance has been increased by 150% to 500% from today's industry standards, making the valves' DC characteristics equivalent to AC pressure and flow values.

Customers now can operate a solenoid solely on DC power, greatly simplifying field-wiring schemes and reducing their cost. This capability also ends the need for costly AC -power control cards.

The Next Generation technology incorporates built-in surge suppression that protects both the solenoid cell and system electrical controls. This feature also eliminates inductive spikes generated

by the solenoid, greatly lengthening the lives of mechanical or solidstate switches and ending the need for external snubber circuits.



Its exceptional flexibility means one version of the Next Generation valve can be used throughout a plant or across a global manufacturing network, simplifying and minimizing inventory requirements. The new valves are offered in three voltage ranges covering most electrical requirements – 100-240/AC or DC, 24-99/AC or DC, or 12-24/DC.

Next Generation products include 2-, 3-, and 4- way solenoid valves for most fluid control applications.

PRODUCTS

Energy Efficient EXIT signage



Converting existing exit signage from incandescent or fluorescent lamps to LED (Light Emitting Diodes) will drastically reduce your operating and maintenance costs.

Benefits of retrofitting

- Up to 90% reductions in energy consumption
- 10 to 25 year LED lamp life
- Significant reductions in maintenance costs
- Average payback of less than two years
- Easy to install
- Improved reliability and visibility

PRODUCTS

Smarter Occupancy Sensors



Take advantage of new microprocessor-based technology to solve the three major problems of other first-generation occupancy sensors:

- Need for endless manual adjustments
- False lighting activations
- False lighting de-activations



This can be achieved through a combination of Passive Infrared, Ultrasonic, and Dual Technology sensors and systems available from Source Atlantic. Time Delays are automatically adjusted as the system learns from past experience of the buildings' occupants or outdoor movements.



PRODUCTS

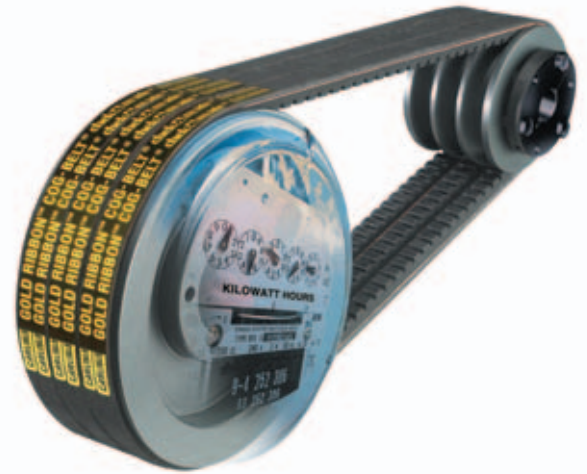
Carlisle – The Gold Label Cog-Belt



Drive system efficiency is at the mercy of its weakest link. The building maintenance industry has taken great strides to improve efficiency and productivity of motors and driven air handling equipment. However, little attention has been given to the power transmission system connecting this equipment.

Ordinary v-belts waste energy and money. Tests show the Gold Label Cog-Belt by Carlisle is, on average, 4-1/2% more efficient than ordinary v-belts. The secret to the energy saving power of the Gold Label Cog Belt is in its unique design. The Gold Label Cog-Belt has raw edge premium rubber sidewalls to grip pulleys better and precision molded cogs for improved flexibility and cooler running.

Saving energy on any power transmission system is as easy as taking old v-belts off the drive and installing a factory matched set of the Carlisle



Gold Label Cog-Belt because the Gold Label Cog-Belt can be installed on your existing drives without any special drive modifications. Switch out your ordinary v-belts to the Gold Label Cog-Belt and start saving time, energy, and money today.

PRODUCTS

Carlisle – RPP Panther



For maximum drive efficiency, the Carlisle RPP Panther high torque synchronous belt can put some real teeth in mesh principle for positive engagement between belt and sprocket. As a result,

power transferred from the motor to the driven unit is at a rate of 98-99% efficiency.

RPP Panther is the power transmission system of choice on many new HVAC installations. Because of the positive engagement power transfer of Panther, operating speeds can be controlled much more closely than with ordinary v-belts. The RPP Panther is ideally suited for modern systems where inverter devices and/or computer controlled air volume technology is used because of its inherent high operating efficiency.

Also, if your belt drive or chain sprockets are more than five years old, these components are likely worn out and wasting energy due to drive slippage and tension loss. It is probably time to replace these worn out components. It is also an opportune time to upgrade your existing power transmission system from outdated chain or v-belt drives to the modern and efficient RPP Panther drive system. The payback in energy savings is often recovered in just a few short months.

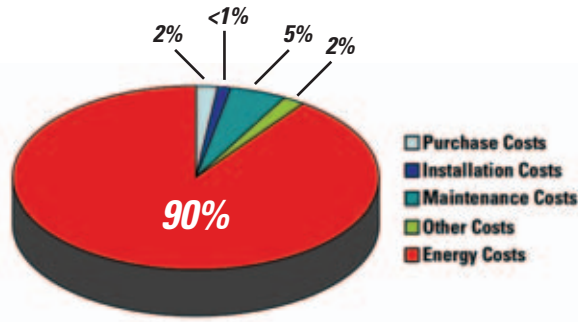


PRODUCTS

Premium Efficiency Motors

Energy costs represent at least 90% of the life cycle cost of a motor.

Upgrades to old motors can present energy savings of 25% to 50%, depending on the application. Even new systems represent opportunities, as many OEMs still do not use premium efficiency products, opting for a lower initial purchase cost rather than a lower life cycle cost.



Source Atlantic represents some of the world's leading motor manufacturers and, through the proper application of our line of premium efficiency motors, will help you to reduce energy consumption and extend motor life.

PRODUCTS

Variable Frequency Drives (VFDs)

Motor-driven systems account for 50 to 75 percent of the electrical utility costs of most industries (higher in some cases!). Since most motor systems are designed to handle peak loads plus a safety factor, tremendous inefficiencies occur when motors operate at reduced loads. With the proper use of a VFD, continuous control is provided by matching motor speed to the specific process application demands.

Let our electrical team at Source Atlantic evaluate your motor system and, through the proper application of VFDs, discover opportunities to:

- Reduce energy consumption by up to 50%
- Provide more precise control of the process
- Extend motor life and reduce maintenance costs by lessening mechanical and electrical stress on the motor
- Improve reliability and visibility



PRODUCTS

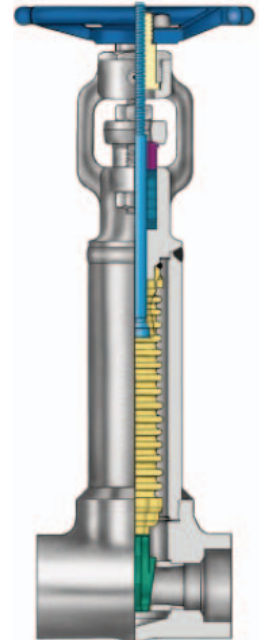
Velan Bellows Seal Gate and Globe Valves

VELAN

Standard gate and globe valves allow expensive steam loss due to packing leaks. Velan's bellows sealed stem and seal-welded body-bonnet joint provide reliability and total containment of steam (zero leakage), resulting in fast payback and big long-term savings.

Example

A 1" standard packed forged steel gate valve costs \$50.00. The equivalent bellows seal valve costs \$260.00. One 1/32" orifice steam leak with \$4.00 per 1,000 lb. steam at 450 psi costs \$5.13 per day or \$1,872.45 for 1 year in a 1" gate valve. A bellows seal valve eliminates the possibility for that leak. The price premium for bellows seal of \$210.00 is recovered in 41 days, and savings of \$35.91 per week are recouped thereafter. Multiply that by the number of valves in your plant, and you see the potential.



SERVICE

Steam Trap Survey

SA | SOURCE ATLANTIC
Industrial Distribution and Services Group



Many steam systems are poorly maintained and in such cases, from 15% to 35% of the installed steam traps have failed. If your steam system is extensive enough to include over 500 traps, you can expect a steam trap audit to reveal significant steam losses, with opportunity to realize considerable energy savings.

Our audit process will identify, tag and test your steam traps, and in addition to evaluating installed trap performance, will help to identify application problems. The benefits of a steam trap survey and ongoing maintenance include:

- Energy savings
- Improved condensate collection
- Improved product quality