



# ENVIRONMENTALLY RESPONSIBLE SWIMMING POOL AND SPA EQUIPMENT

From Pentair

# ECO SELECT® BRAND

## ECO-FRIENDLY EQUIPMENT FOR POOLS AND SPAS



As the global leader in pool and spa equipment, Pentair has made a strong commitment to develop and offer the most environmentally responsible products available. The Eco Select brand is the keystone of this green program to meet the dual objectives of a growing number of pool owners—to save money and make more eco-friendly choices.

It starts with product development. We have dedicated senior staff whose sole mission is to assure that new and re-engineered products are the most eco-friendly and economically attractive on the market.

You'll see the Eco Select brand associated with existing products and systems that already meet these objectives. These products save energy, conserve water, reduce noise, or otherwise contribute to a more environmentally responsible pool equipment system. In every case, a product that earns the Eco Select brand is clearly our "greenest" and most efficient choice. The rest of this booklet will introduce you to the products that have earned the Eco Select brand.

We hope you'll join us in embracing more eco-friendly pools by choosing Eco Select products for your swimming pool. If you have any questions, please contact your pool builder or local Pentair equipment dealer.

## QUICK REFERENCE GUIDE TO ECO SELECT BRANDED PRODUCTS



Check marks (✓) indicate direct contributions to reduce environmental impact and plus signs (+) indicate indirect contributions.

	Reduce Energy Use	Reduce Water Use	Quiet Operation	Reduce Chemical Use	Long Lasting	Low NOx
IntelliFlo® VF Pumps	✓		✓		✓	
IntelliFlo VS-SVRS Pumps	✓		✓		✓	
IntelliFlo Variable Speed Pumps	✓		✓		✓	
IntelliFloXF® Variable Speed Pumps	✓		✓		✓	
IntelliPro® VS-SVRS Pumps	✓		✓		✓	
IntelliPro Variable Speed Pumps	✓		✓		✓	
IntelliProXF™ Variable Speed Pumps	✓		✓		✓	
MasterTemp® Heaters	✓		✓		✓	✓
Max-E-Therm® Heaters	✓		✓		✓	✓
UltraTemp® Heat Pumps	✓				✓	
IntelliBrite® 5g LED Spa Lights	✓				✓	
IntelliBrite 5g LED Pool Lights	✓				✓	
IntelliBrite LED Landscape Lights	✓				✓	
GloBrite® Shallow Water LED Lights	✓				✓	
IntelliChlor® Salt Chlorine Generator	+			✓	✓	
IntelliChem® Chemical Controller	+			✓	✓	
IntellipH® Chemical Controller	+			✓	✓	
Quad D.E.® Filters	+	✓			✓	
System : 3® Mod D.E. Filters	+	✓			✓	
System : 3 Mod Media Filters	+	✓			✓	
Clean & Clear® Plus Filters	+	✓			✓	
Clean & Clear RP Filters	+	✓			✓	
Posi-Clear™ RP Filters	+	✓			✓	
EasyTouch® Control Systems	+				✓	
IntelliTouch® Control Systems	+				✓	
SunTouch® Control Systems	+				✓	
SolarTouch™ Solar System	+				✓	
ProVac® II Flexible Vacuums	+		✓	✓	✓	
Kreepy Krauly® Legend® II Automatic Cleaners	+		✓		✓	
Kreepy Krauly Prowler® Robotic Cleaners	+		✓		✓	

**Reduce Energy Use:** Energy-efficient equipment helps reduce pool operating costs and benefits the environment.

**Reduce Water Use:** The average backwash uses between 250 to 1,000 gallons of water, without completely cleaning the filter. H2Ouse, [www.h2ouse.org](http://www.h2ouse.org)

**Quiet Operation:** Increasingly, local governments are passing noise ordinances which directly affect pool equipment. In addition, equipment noise reduces opportunities for peaceful pool enjoyment. *Noise Pollution Clearing House*, [www.nonoise.org](http://www.nonoise.org)

**Reduce Chemical Use:** Equipment that contributes to the reduced use and storage of harsh chemicals for pool maintenance and/or products that include no hazardous materials.

**Long Lasting:** Products that have a longer service life need to be replaced less often, reducing the impact of waste management and natural resources required for production and transportation.

**Low NOx:** Nitrogen oxides (NOx) emissions are primary contributors to smog and acid rain.

# ULTRA ENERGY EFFICIENT PUMPS

Standard pool pumps can consume as much energy as all other home appliances combined—often costing more than \$1,000 per year! IntelliFlo® and IntelliPro® Variable Speed Pumps can cut energy use up to 90%, saving an estimated \$1,600\* in utility costs annually—more where rates are higher than average.



IntelliFlo vr  
Variable Flow Pump



IntelliFlo vs+svrs  
Variable Speed Pump



IntelliFlo  
Variable Speed Pump



IntelliFloXF®  
Variable Speed Pump

## Revolutionary pool pump slashes energy costs up to 90%

- IntelliFlo and IntelliPro pumps employ exclusive permanent magnet motors (used in hybrid cars), a fundamentally more energy-efficient design compared to traditional induction motors.
- IntelliFlo and IntelliPro pumps include a variable drive, digital controls, and proprietary software that allow custom programming of the optimum speed per function—filtering, heating, cleaning, operating water features, and more. For most all applications, the optimum speed is significantly lower than the unchangeable speed of traditional pumps, so you can exploit a fundamental pump principle (reducing pump speed lowers power consumption).
- The result of these combined innovations is impressive savings...up to 90%.

\*Savings based on variable speed pump compared to a single-speed pump running 12 hours per day at an average of \$0.16 per kWh in a 20,000 gallon pool. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump rpm, plumbing size and length, pump model, service factor and other hydraulic factors.

## The quietest running pump on the planet

- Thanks again to its permanent magnet motor and totally enclosed fan cooled (TEFC) design, IntelliFlo and IntelliPro pumps are also the quietest pumps ever built—at low speeds, you may not even know they're operating.

## Longer, trouble-free service life—greater return on investment

- Permanent magnet motor produces far less heat and vibration than traditional induction motors. This results in less stress and wear on pump components and other equipment, too.
- Built-in diagnostics protect IntelliFlo and IntelliPro pumps from the most common causes of premature pump failure—overheating, freezing, and voltage irregularities.

## Now with added swimmer safety

- SVRS models feature a Safety Vacuum Release System that provides an added layer of anti-entrapment protection. It detects drain blockage and automatically shuts the pump off.





IntelliPro  
Variable Speed Pump



IntelliPro vs+svrs  
Variable Speed Pump



IntelliProXF™  
Variable Speed Pump



## Energy Savings

Here are realistic estimates when comparing IntelliFlo and IntelliPro pumps to a traditional pump running 12 hours per day at various utility rates (in dollars per kilowatt hour [kWh]) in a 20,000 gallon pool.

- At \$0.16/kWh estimated savings of up to \$1,600\* per year.
- At \$0.20/kWh estimated savings of up to \$1,800\* per year.
- At \$0.30/kWh estimated savings of up to \$2,700\* per year.

## A note about utility rates

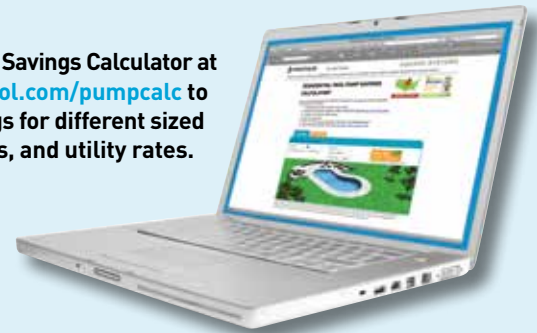
Posted rates and effective rates are not the same thing. Your base posted electricity rate may be 10¢ per kilowatt hour (kWh) or less. So why are we starting our calculations at 16¢ per kWh? We've taken into account the many additional factors that make your effective rate higher:

1. The stated rate is only for electricity used. It does not include user fees and taxes that vary by state and provider.
2. In some states, rates increase substantially as a consumer uses additional electricity beyond a set baseline.
3. Many providers assess a surcharge per kWh during the summer, because demand for electricity is higher.



ENERGY STAR® Certified IntelliFlo and IntelliPro pumps from Pentair meet strict energy efficiency criteria set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. These pumps save money, reduce energy use and protect the environment.

Visit our **Energy Savings Calculator** at [www.pentairpool.com/pumpcalc](http://www.pentairpool.com/pumpcalc) to calculate savings for different sized pools, run times, and utility rates.



# HIGH PERFORMANCE HEATERS

MasterTemp® and Max-E-Therm® High Performance Heaters offer best-in-class energy efficiency. Plus, they are certified for low NOx emissions, making them eco-friendly favorites.



MasterTemp High Performance Heaters



Max-E-Therm High Performance Heaters

## Best-in-class energy efficiency

- High efficiency rating makes these heaters extremely economical to operate. If your pool heater is more than 5 years old, chances are a MasterTemp or Max-E-Therm heater could quickly pay for itself in utility bill savings.
- Optimized fuel/air mix provides superior efficiency and faster heat up.

## Certified for low NOx emissions

- In fact, our heaters outperform current industry standards for air pollution exhaust.

## Super-quiet operation won't intrude on pool leisure time

### Built to last longer

- Tough composite exterior won't corrode; stands up to extreme weather conditions.



# HEAT PUMPS

When a heat pump is appropriate for your climate, it is the most energy-efficient heating option. The UltraTemp® Heat Pump transfers heat from the atmosphere to the pool or spa, saving up to 80% in energy costs compared to other types of heaters. Plus, it is charged with R-410A refrigerant, a non-ozone depleting refrigerant which is safer for the environment.



UltraTemp Heat Pumps

## Saves up to 80% in energy costs

- Heat pumps are the most energy-efficient heating option.
- The UltraTemp heat pump uses the most energy-efficient compressor available.
- State-of-the-art engineering design provides improved air flow, efficiency, heat output, sound reduction and overall performance.
- Check with your pool professional to see if a heat pump is appropriate for your region.

## Uses environmentally safer and clean refrigerant

- Pentair heat pumps have been using the EPA-recognized, environmentally safer, non-ozone depleting R-410A refrigerant for over 10 years. This has allowed the UltraTemp heat pump to be awarded the Eco Select® Brand for environmental responsibility.

## Built to provide long-lasting value

- Tough composite exterior won't corrode or fade; stands up to extreme weather conditions.

## Compare the Cost

This chart illustrates how the UltraTemp heat pump generates 2.75 to 5.8 times more heat for the same cost. Costs are based on national average fuel costs and efficiencies [Source: Federal Register]. Please consult your local provider for current pricing.

Heater/Fuel Type	Cost	BTU/\$1.00
Electric	\$0.1065/kWh	32,000
LP Gas	\$1.87/Gal	40,100
Oil	\$2.22/Gal	47,200
Natural Gas	\$1.218/Therm	67,300
<b>UltraTemp</b>	<b>\$0.1065/kWh</b>	<b>185,600</b>

# D.E. (DIATOMACEOUS EARTH) FILTERS

Water flows very efficiently through Quad D.E.® and System:3® Mod D.E. Filters, allowing the use of smaller pumps or lower pump speeds to minimize energy use. And when you rinse cartridges rather than backwash, you can significantly reduce water use, too.



System:3 Mod D.E. Filters

Quad D.E. Filters

## **More efficient water flow through Quad D.E. and System:3 Mod D.E. filters may allow use of smaller pumps or lower pump speeds to minimize energy use**

- Internal flow path ensures optimum filtration while reducing overall back-pressure.
- Can be installed without backwash valve, further increasing hydraulic efficiency.

## **Cartridge cleaning options can significantly reduce water usage**

- When you can rinse the cartridges rather than backwash, water use is reduced by hundreds, if not thousands, of gallons per year.
- Large-capacity cartridges provide maximum filter surface area for greater dirt-trapping capacity and fewer cleanings.

## **Durable construction provides longer service life**

- Chemical-resistant, fiberglass-reinforced polypropylene tank provides exceptional strength.





# CARTRIDGE FILTERS

Water flows very efficiently through the Clean & Clear® Plus, Clean & Clear RP, System:3 Mod Media and Posi-Clear™ RP Cartridge Filters, often allowing the use of smaller pumps or lower pump speeds to minimize energy use. Plus when you rinse cartridges rather than backwash, you can significantly reduce water use, too.



Clean & Clear Plus  
Cartridge Filters



Clean & Clear RP  
Cartridge Filters

## More efficient water flow through these cartridge filters may allow the use of smaller pumps or lower pump speeds to minimize energy use

- Internal flow path ensures optimum filtration while reducing overall back-pressure.

## Rinsing cartridges uses less water compared to backwashing

- When you rinse the cartridges rather than backwash, water use is reduced by hundreds, if not thousands, of gallons per year.
- Large-capacity cartridges provide maximum filter surface area for greater dirt-trapping capacity and fewer cleanings.

## Durable construction provides longer service life

- Chemical-resistant, fiberglass-reinforced polypropylene tank provides exceptional strength.



System:3 Mod Media  
Cartridge Filters



Posi-Clear RP  
Cartridge Filters

# AUTOMATIC POOL CLEANERS

The powerful **Kreepy Krauly® Legend® II Pressure-side Pool Cleaner** and **Kreepy Krauly Prowler® Robotic Cleaners** provide highly energy-efficient cleaning performance.



Kreepy Krauly  
Prowler 820  
Robotic Pool Cleaner

Kreepy Krauly  
Prowler 830  
Robotic Pool Cleaner

Kreepy Krauly  
Legend II  
Automatic Pool Cleaner

## **The Kreepy Krauly Legend II cleaner provides great value and powerful pressure-side cleaning**

- No need to buy or operate a separate booster pump, which saves money and energy.
- Front-wheel drive provides maximum traction on inclined surfaces and total cleaning coverage of pool bottom and walls.
- 4-wheel design and wide base prevent tipping (common with 3-wheel cleaners) for uninterrupted performance.
- Dual thrust jets for maximum power, speed and performance.
- 60% larger debris bag captures more dirt, wider bag opening makes emptying a cinch, and new snap-lock bag provides easy, secure closure.
- Disposable cleaner bags are available to assure that you never have to touch or empty debris again.

## **Kreepy Krauly Prowler robotic cleaners offer fast, eco-friendly cleaning performance**

- Plug-in convenience; requires no installation, no booster pump and no hoses.
- Easy to maintain; filter cartridge is quick and simple to clean.
- Full cartridge indicator lets you know when Prowler needs attending.
- Superior swivel design helps prevent cable tangling.
- Auto-reverse feature helps prevent hang-ups near corners, steps and ladders for uninterrupted performance.



# POOL MAINTENANCE PRODUCTS

Our pool maintenance products provide superior cleaning and sanitation performance while significantly reducing the use and handling of harsh chemicals and hazardous materials.

ProVac II Flexible Vacuum



IntelliChem Chemical Controller



IntelliChlor Salt Chlorine Generator

IntelliPH Chemical Controller

## **IntelliChlor® Salt Chlorine Generator provides effective sanitization performance without the use of harsh chemical compounds**

- Less chlorine needs to be produced at chemical processing plants for use in swimming pools and spas. This reduces emissions and energy use from production, packaging and transportation.
- Pool owners no longer need to buy, transport, store, or handle chlorine products.
- Because the chlorine is pure, the odor, stinging eyes and irritated skin caused by additives in packaged chlorine are eliminated.

## **With IntelliChem® Chemical Controller, the correct amount of sanitization chemicals is always dispensed**

- Minimizes chemical costs by adding chemicals with precision, and only when needed, to eliminate waste. No more manual handling of chlorine and acid.
- Protects your pool equipment from corrosion caused when pH swings in and out of balance.

- Eliminates the time and guesswork that leads to imbalances as bather loads change and airborne contaminants invade your pool.

## **ProVac® II Flexible Vacuum offers commercial grade performance that's environmentally friendly**

- Ball bearing wheels convert from a straight cleaning pattern to a 360 degree pivot for even greater coverage.
- Features composite weight system that is eco-friendly and lead free.

## **IntelliPH® Chemical Controller is the perfect companion for the IntelliChlor generator by providing a constant acid dose to maintain just the right pH level**

- Makes sanitizing more effective by eliminating fluctuations in pH level.
- Eliminates poolside acid spills and splashes.
- Protects your pool equipment from corrosion when pH swings in and out of balance.

# LED COLOR-CHANGING AND WHITE POOL AND SPA LIGHTS

IntelliBrite® 5g Underwater LED Pool and Spa Lights and IntelliBrite LED Landscape Lights are the most energy-efficient pool and spa lighting option available. Plus, they last longer than traditional halogen or incandescent lights, minimizing replacement cost and disposal.



**GloBrite® Shallow Water LED Lights**



**IntelliBrite 5g LED Pool Lights**

**IntelliBrite 5g LED Spa Lights**



**IntelliBrite LED Landscape Lights**

## **LED lights use the least amount of energy of all lighting options**

- IntelliBrite 5g color-changing pool lights provide vivid illumination using less than half the energy of competing LED lights.
- IntelliBrite 5g white pool and spa lights use 86% less energy than incandescent and halogen lights.
- Consuming only 30 watts for pool lights and 18 watts for spa lights, IntelliBrite 5g color-changing LED lights use significantly less energy than traditional incandescent and halogen pool lights.

## **LED lights are more durable and can last longer**

- Cool-running LED lights are durable, solid-state technology, with no internal filament to wear out.
- Unlike many LED pool lights, IntelliBrite 5g lights continue to work even when a single LED goes out.

## **IntelliBrite color-changing LED landscape lights are the most dramatic and energy-efficient lighting option available**

- Versatile, adjustable, compact, medium floodlight design in matte black finish.
- Choose from two levels of brightness.
- Easily connects to standard 12-volt transformer.
- The most efficient lighting technology available—LED lights consume less energy than traditional landscape lighting systems.

# AUTOMATION

Pentair® control systems can optimize energy use and equipment performance by automating and synchronizing equipment scheduling. They prevent problems and waste so you don't have to rely on your memory or limited time clocks to operate or turn off equipment.

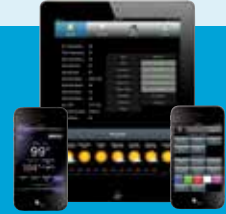
IntelliTouch  
Indoor Control  
Panel



EasyTouch  
Wireless  
Controller



ScreenLogic Interface  
app for iPad, iPhone  
and iPod touch mobile  
digital devices



SunTouch®  
Control System



SolarTouch®  
Solar Control System

## Automated control systems can help offset rising utility costs

- Equipment schedules are easily altered to account for changes in pool usage, weather and other factors that impact overall equipment performance.
- Equipment isn't accidentally left on for extended periods, thereby wasting energy (for example: lights, cleaners, heaters).
- Control systems make it easier to take advantage of off-peak, seasonal utility rates.
- IntelliTouch® and EasyTouch® Control Systems now have an optional ScreenLogic® Interface app available to allow control access from your iPad®, iPhone® and iPod touch® mobile digital device.



# HOW THE SYSTEMS APPROACH DELIVERS EVEN MORE

As you've seen, there is a compelling "green case" for our products under the Eco Select® Brand. Every one of these products can lay claim to saving energy, water, reducing noise, maintaining air quality, or delivering combinations of these environmental benefits.

Perhaps most compelling of all is when you link these "best in class" choices into a single green system. Not only do you deliver individual products that are more environmentally responsible than other choices, there can be synergistic effects as well.

## Examples include:

- Optimizing pump speed automatically improves the effectiveness of the filter media. It traps more dirt by allowing better utilization of the media's surface area, postpones pressure increases, and extends the time between cleanings. You minimize energy use on the front end, minimize wash water use on the back end, and get cleaner water all along the way.



- Optimizing flow from the pump to the heater results in faster heat-up and greater efficiency so run times may be reduced and energy saved.
- Running the filter pump longer at a lower speed/flow for energy savings also improves the effectiveness of sanitization chemicals...delivering improved water quality with less total chemical consumption.
- Variable speed pump capability minimizes energy use by solar-powered systems that require high flow to initiate but less flow pressure to maintain circulation.
- Adjusting the output flow of a variable speed pump to match the exact requirements of a booster-free, pressure-side cleaner, rather than relying on an oversized conventional pump, optimizes cleaning while minimizing energy use.
- Utilizing chemical reducing maintenance equipment minimizes the handling and storage of harsh chemicals and also reduces the use of resources in the production, packaging and transportation of these compounds.

**Your pool professional will help you optimize your system for peak performance to minimize your energy and water use**



# ENERGY-SAVING POOL TIPS

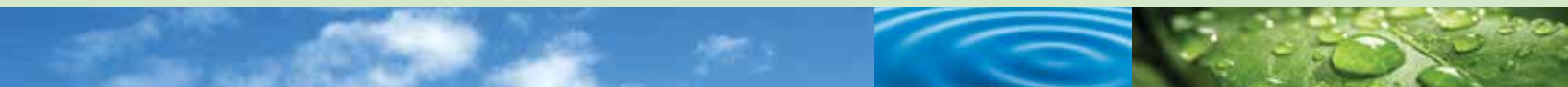
To support your efforts to make your pool and spa as economical and eco-friendly as possible, below are some changes you can make that can help conserve energy and water while reducing your operating costs.

## Heating & Heat Loss

- Reduce heat loss by using a pool cover. According to the U.S. Department of Energy, savings of 50% to 70% are possible.
- Fencing, hedges, landscaping and cabanas that shelter your pool from prevailing winds will further reduce heat loss.
- If you use your pool only on weekends, reduce your heater or heat pump thermostat settings by eight to ten degrees during the week.
- When leaving for vacation for more than a week, unless freezing conditions are expected, turn off the pool heater or heat pump.
- According to The Association of Pool and Spa Professionals (APSP) and the American Red Cross, the most healthful swimming temperature is 78°F. Reducing your heater or heat pump thermostat to maintain a 78°F or lower temperature will also help conserve energy.

## Circulation

- Replace your pool pump with a more energy-efficient model.
  - New variable speed pumps with permanent magnet motors and digital controls can save as much as 90% in utility costs compared to one- or two-speed pumps with induction motors.
  - If using an energy-efficient one- or two-speed pump, make sure your pump is sized to your pool's requirements.
- Reduce pump speed to reduce energy use. Remember the pump principal—by going slower, power consumption is reduced.
- For good water maintenance, circulate water through filter only once per day. Additional cycles are generally unnecessary and waste energy.
- Run your pool's filtration system during off-peak hours when electricity demand is lower, generally between 8 pm and 10 am.
- Keep intake grates clear of debris. Clogged drains require the pump to work harder.
- To obtain maximum filtration and energy efficiency, clean your filter regularly, as required.





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