



THE BIGGEST  
INNOVATION  
IN ENERGY  
EFFICIENCY  
FOR POOLS



INTELLIFLO<sup>®</sup>  
VSD & VF



PENTAIR

INTELLIGENT VARIABLE SPEED & VARIABLE FLOW PUMPS



# INTELLIFLO

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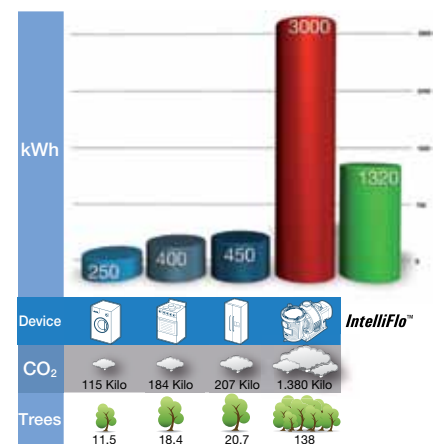
## INTELLIGENT VARIABLE SPEED & VARIABLE FLOW PUMPS

### DO YOU KNOW HOW MUCH ENERGY A SWIMMING POOL PUMP CONSUMES ?

If we compare several domestic appliances like a washing machine, a kitchen cooker or a fridge, a pool pump consumes as much as 7 fridges ! That means that a single speed pool pump produces indirectly about 1,380,000 grams of CO<sub>2</sub>, which is equivalent to 138 trees. The IntelliFlo can provide tremendous energy savings. When operated at low speeds its energy consumption is reduced by as much as 80% compared with a regular single speed pool pump.

#### Considerations:

- Regular 1.5HP single speed pool pump, 3 turnovers/day, 10 hours/day and 200 days running time/year.
- 1 kWh = 460 Grams of CO<sub>2</sub>.
- 1 tree = 10 kg of CO<sub>2</sub>.



Sources : The International Energy Agency (IEA - [www.iea.org](http://www.iea.org)), European Commission of Energy ([www.ec.europa.eu/energy](http://www.ec.europa.eu/energy)) and own calculations.

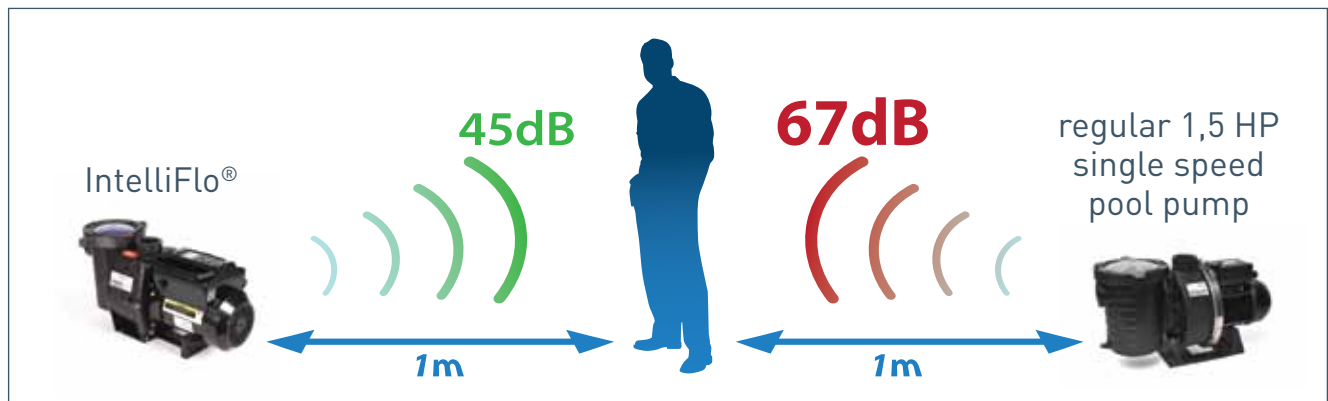
### HOW MUCH WILL YOU SAVE WITH AN INTELLIFLO® ?

As you can see, the savings with IntelliFlo can be dramatic. Over the long life of the pump your savings could be huge.

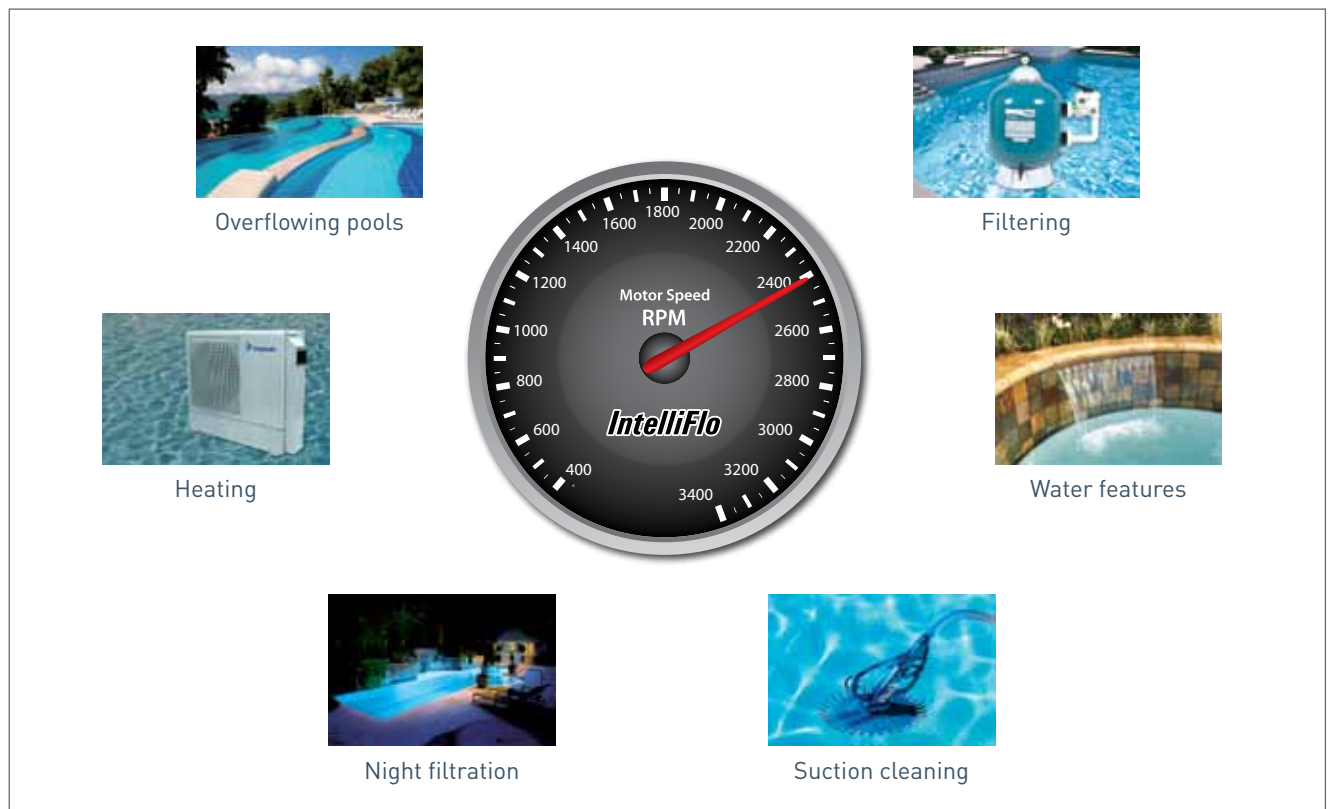
- At €0,12/kWh estimated savings range from **€170** to **€440** per year.
- At €0,24/kWh estimated savings range from **€340** to **€880** per year.
- Assumptions : 3 turns/day, 10 hours/day and 200 days running time/year

| Pool size in litres | Pump                | Energy cost € / kWh | Cost per day € | Cost per season € | IntelliFlo savings per year | IntelliFlo savings after 5 years |
|---------------------|---------------------|---------------------|----------------|-------------------|-----------------------------|----------------------------------|
| 30.000              | 1 CV - Single Speed | 0.12                | 1.18           | 248.22            |                             |                                  |
|                     |                     | 0.24                | 2.36           | 496.44            |                             |                                  |
|                     | IntelliFlo          | 0.12                | 0.37           | 78.12             | <b>€ -170.10</b>            | <b>€ -850.50</b>                 |
|                     |                     | 0.24                | 0.74           | 156.24            | <b>€ -340.20</b>            | <b>€ -1,701.00</b>               |
| 60.000              | 2 CV - Single Speed | 0.12                | 2.35           | 493.92            |                             |                                  |
|                     |                     | 0.24                | 4.70           | 987.84            |                             |                                  |
|                     | IntelliFlo          | 0.12                | 0.79           | 166.32            | <b>€ -327.60</b>            | <b>€ -1,638.00</b>               |
|                     |                     | 0.24                | 1.58           | 332.64            | <b>€ -655.20</b>            | <b>€ -3,276.00</b>               |
| 90.000              | 3 CV - Single Speed | 0.12                | 3.50           | 735.84            |                             |                                  |
|                     |                     | 0.24                | 7.01           | 1,471.68          |                             |                                  |
|                     | IntelliFlo          | 0.12                | 1.41           | 296.35            | <b>€ -439.49</b>            | <b>€ -2,197.45</b>               |
|                     |                     | 0.24                | 2.82           | 592.70            | <b>€ -878.98</b>            | <b>€ -4,394.90</b>               |

## EXTREMELY SILENT : "AS QUIET AS A WHISPER!"



## MULTI-TALENT : 1 PUMP FOR ALL APPLICATIONS



The IntelliFlo is a variable speed pump, and as such it is possible to select a very precise speed or flow to perfectly suit your needs, at any time of the day...and night. These are some examples of what the IntelliFlo can do thanks to its multi-speed / multi-flow capabilities: night filtration at low speed to maintain the best possible pool chemistry, fine-tuning of overflowing pools or fountains, etc...

The IntelliFlo has also a direct impact on the water quality: not only will the filtration be improved at low speed (the debris will take longer to pass through the filter) but also the backwashing will be more efficient due to higher flow which clears the debris from the filter better.

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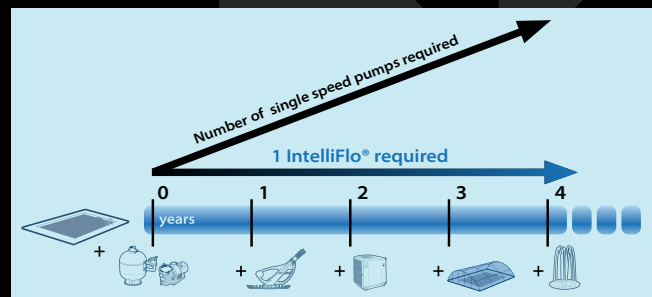
## FINE TUNING

The IntelliFlo allows you to easily set the perfect speed between 400RPM and 3'450RPM by increments of 10 RPM, giving a total of 305 different speed settings. On top of that, with the IntelliFlo VF you can also set any flow between 4 and 30m<sup>3</sup> per hour to get 27 different flows.



## SCALABLE: YOUR POOL LANDSCAPE CHANGES, NOT YOUR PUMP

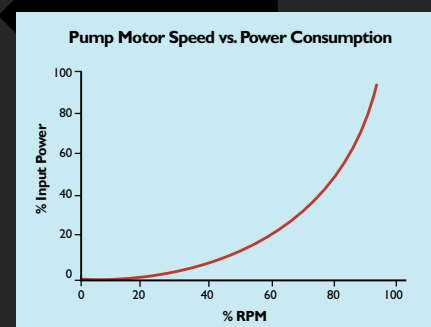
During its entire life, the pool will evolve as additional applications are installed. Previously, the solution was to install a more powerful pump in order to always have some free capacity to link to a cleaner or to a heater. But if more applications are required, such as a fountain, a second pump would probably be installed. With the IntelliFlo one pump will do the business. Thanks to its ability to deliver between 4 and 30m<sup>3</sup> per hour, just connect the new application and increase the RPM until you are satisfied with the supplied flow.



## EASY INSTALLATION: THIS PUMP IS INSTALLED IN THE SAME WAY AS ANY OTHER POOL PUMP IN THE MARKET

### Slow is better : Affinity law

This graph shows the huge increase in energy consumption as pump speed increases. Slow down the pump and you cut energy costs dramatically. A good analogy is your car: you will drive for much longer at 60km/h than at 120km/h.



## CHARACTERISTICS OF THE INTELLIFLO VSD AND VF



|  | VSD           | VF |
|--|---------------|----|
| Possibility of reducing energy consumption up to -90% compared to single speed or two speed pumps  | ✓             | ✓  |
| Tremendous cost savings due to very low energy consumption   | ✓             | ✓  |
| Permanent magnet motor with ultra-high efficiency that operates at a lower temperature   | ✓             | ✓  |
| Totally Enclosed Fan Cooled : no water / dust / humidity can enter the motor   | ✓             | ✓  |
| Extremely quiet operation at low speeds  | ✓             | ✓  |
| Increased pump lifetime due to slow running mode and very little heat emission from motor  | ✓             | ✓  |
| 3 year warranty  | ✓             | ✓  |
| A pump that can adapt to the user's needs : increase motor speed or flow when a new application is installed (heater, fountain, cleaner...) rather than install another pump | ✓             | ✓  |
| Smart anti-failure system (thermal overload protection, anti-freeze protection, under/over voltage protection)   | ✓             | ✓  |
| Ultimate speed control : set any motor speed by steps of 10 RPM between 400 and 3'450 RPM = 305 speeds   | ✓             | ✓  |
| Link external applications to the pump via the IntelliComm   | ✓             | ✓  |
| CE certification   | ✓             | ✓  |
| IntelliComm interface enables external applications to control the pumps speed/flow  | ✓             | ✓  |
| Wet-end part easy to maintain, including a large prefilter basket  | ✓             | ✓  |
| Owner manual translated into English, French, German, Italian, Spanish and Dutch   | ✓             | ✓  |
| 4 pre-set motor speeds for ease of operation   | ✓             |    |
| 16 button LCD screen showing RPM and kWh consumption   | ✓             |    |
| Ultimate flow control : choose any specific flow between 4 and 30m <sup>3</sup> /h with steps of 1m <sup>3</sup> /h.   |               | ✓  |
| 16 button LCD screen showing m <sup>3</sup> / RPM / kWh consumption  |               | ✓  |
| Specific programs to customize the flow to enhance fountain effects. Flow is constant even when filter is dirty.   |               | ✓  |
| Pump will stop in case of blockage of suction line : no risk of accidents such as entrapment   |               | ✓  |
| A timer allows programming of up to 9 different motor speeds or flows during specific time periods during the day  |               | ✓  |
| Protect against loss of prime : pump will turn off if not primed within specific timeframe   |               | ✓  |
| Automatically determines optimum flow after pool size and turnovers/day have been entered : reduced installation time  |               | ✓  |
| Program that modulates the flow to ensure minimum flow is maintained for specific application such as heater   |               | ✓  |
| For connecting directly to 75 or 90 mm piping  | 5PXF VSD      |    |
| For seawater applications up to 4.5% salt concentration  | SW5P6R VSD    |    |
| Can replace all conventional SW5P6R and 5P6R pumps   | SW5P6R VSD    |    |
| Can replace all conventional UltraFlow pumps   | UltraFlow VSD |    |

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IntelliFlo WhisperFlo VF



IntelliFlo WhisperFlo VSD



IntelliFlo UltraFlow VSD



IntelliFlo 5PXF VSD



IntelliFlo SW5P6R VSD



## HOW IS IT POSSIBLE?

The Variable Speed Technology allows you to run your pump at very low speeds, and running slowly dramatically reduces the energy consumption and the noise level. On top of that, the IntelliFlo also lowers the CO<sub>2</sub> emissions, improves the filtration quality and the chlorination efficiency, extends the time between backwashes and services and much more.

## WHY?

Because of the ultra-efficient permanent magnet motor and the affinity law: when the flow is divided by 2, the electricity consumption is divided by 8.

# SLOW IS BETTER!