

THE REVOLUTIONARY HIGHLY EFFICIENT CIRCULATORS FOR DOMESTIC HEATING WITH THE SIMPLE AND SHAFTLESS SPHERICAL MOTOR DESIGN AND PATENTED ANTI-BLOCK TECHNOLOGY



# How can efficiency work

## The simple spherical motor design....

Impressively simple, that's the shaftless spherical motor design. It requires only one single bearing, which is even self re-aligning but does not require any shaft at all. That significantly reduces the number of costly and complicated parts.

- No common shaft, shaft seals and conventional bearings have been eliminated.
- No back bearing.
- No air vent bleed valve.
- Floating spherical impeller.
- Self realigning ultra-hard ceramic ball bearing.
- Energy saving.
- Only one moving part.
- Anti-block devise.
- Quick and easy to install.
- 2 metre's of pre-wired cable or plug assembly.
- Thermal barrier.
- Led light function on control giving operational status of Pump.
- Directly interchangeable with other manufacturers units.
- Automatic air purge function.
- ErP Ready to 2015 standards.
- Permanent magnet electronically commutated type motor.
- High efficiency and long term quiet operation.
- No special tools required.
- Speed selector switch with automatic regulation.
- Microprocessor controlled.





## even harder?

## ...with the patented Anti-Block-Technology!





#### The spherical rotor

With the evolutionary Anti-Block-Technology, the ceramic bearing ball is now encapsulated inside in the centre of the rotor/impeller unit.

#### The new design

Magnetite and sludge, which are both found in the pumped liquid are both magnetic, this can accumulate at the permanent magnetic parts of a high efficiency pump, and therefore block and damage it, or decrease the pump's efficiency. Our new Anti-Block-Technology separates the main flow of the pumped media completely from the permanent magnetic parts, blocking up even in very old, open systems is impossible by our pump design.



Ecocirc circulators come standard with an internal temperature sensor which measures the temperature directly at electronic components. Electronic temperature from 105°C to 115°C makes the pump reduce its speed continuously. The pump stops automatically at 125°C, and restarts again after cooling down at 115°C.

In addition, the inrush-current limitation of 6,5 Amp protects also older external heating controls that may be installed on site.



One single rotary dial serves all needs: stepless control options, automatic air purge and maximum hydraulic performance. The multi-colour LED inside the transparent dial indicates the currently chosen control option:

#### **Control options:**

white: stepless fixed speed, especially for boiler feed, single-pipe

automatic proportional pressure control  $\Delta p v$ ,

heating systems, systems with hydraulic separators;

especially for thermostatic radiator valves green: automatic constant pressure control  $\Delta p$  c,

especially for underfloor heating

(available only in PREMIUM models)

In addition, a blink code of the LED indicates about potential messages.

#### Automatic air purge:

Simply turn the rotary dial towards the air purge symbol for more than 5 seconds. This will start the automatic air purging, no matter which control option had been chosen before. This will effectively remove the air from the inner of the pump. The circulator will return automatically to all its previously chosen settings after having finished this service mode.

#### **Quick connection**

ecocirc: pre-wired power cord (2 meter);

ecocirc PREMIUM: plug, no tools required for assembly



## Affordable efficiency!

Approximately 10 to 15 percent of the electricity consumption of an average household is caused by domestic heating circulators. The overwhelming majority of these consist of fixed three speed standard circulators. The EU's new Eco-Design Directive, the ErP-Directive EC 641/2009 has started 1st January 2013. The purpose is to reduce the energy consumption significantly. Again in 2015 these strict requirements will be tightened further.

To date there was only the choice of purchasing an inexpensive inefficient standard circulator with high energy consumption or selecting a modern high efficiency pump which was quite costly but very energy saving. The new Lowara ecocirc made by Xylem strikes the balance between these two options: a modern, electronically controlled high efficiency pump, which pays for itself within a short period of installation.

Xylem now offers two options, both focus on a quick payback time: the Lowara ecocirc, a highly efficient circulator, and also the ecocirc PREMIUM, which offers in addition a multi-display, a plug for a quick and easy installation and even one more control option.

### ecocirc<sup>®</sup>

The Lowara ecocirc focuses on quick amortisation and short payback times. No compromise in reliability and high efficiency, all with a clear focus on the essentials in mind.



#### Two stepless control options

- stepless fixed speed
- automatic proportional pressure control Δp v

The Lowara ecocirc circulator has won the Plus X "Best Product of the Year 2013" award.

The Plus X Awards is the world's largest innovation award ceremony for technology, sport and lifestyle products, and honors manufacturers of unique, innovative high-quality products. The winners of Plus X Awards are chosen by an independent, international panel of 25 judges from various industries.

In addition, it also was awarded as best in class for Innovation, High Quality and Functionality.



Personalise your ecocirc: Now you can leave your company/contact details behind when your job is done with our endcap campaign, we offer a choice of 11 different design templates which are free to order.

Visit the ecocirc page on our website:

www.lowara.co.uk



\* Based on 13.7 pence per kW/h.

### ecocirc® PREMIUM

All Lowara ecocirc PREMIUM come standard with three control options, a plug that does not require a tool for assembly, and even a multi-display mounted on the end cap:



#### **Multi-Display**

The automatically alternating display shows either the power consumption, the pump head or the flow rate.



#### Three stepless control options

- stepless fixed speed
- automatic proportional pressure control  $\Delta p$  v
- automatic constant pressure control  $\Delta p$  c



#### Plug, no tools required for assembly

An easy and quick electrical connection. The female plug is compatible also with male plugs from previously on site installed third-party circulators.

By turning the stator via the screw ring, the plug can be fixed in any position, making an installation even in the hardest and tightest environment easy.



## Product range





#### Highly efficient circulators for domestic heating: Lowara ecocirc

High efficiency pumps with ECM-technology and permanent magnet rotor for applications like radiant heating (one- and two pipe systems), underfloor and surface heating, boiler feed, solar stations and similar applications; Efficiency ErP ready 2015; shaftless, maintenance-free spherical motor, magnetite resistant Anti-Block-Technology, switchable control options (step-less manually or automatic variable differential pressure), cataphoresis coated cast iron pump housing, LED operation indicator, pre-wired 2 metre power cable, automatic air purge mode;

Model	Part number	Version	Pump housing length (mm)	Connec- tion	for union fittings	electric connec- tion	Control options (stepless)	Magnetite resistance	Pump housing
ecocirc 25-4/130*	60500 8200	4 meter	130	G 1 1/2''	1''	2 meter pre- moun-	- stepless fixed speed - automatic proportional pressure control Δp v	Anti-Block- technology	cata- phoresis coated cast iron
ecocirc 25-6/130*	60500 8250	6 meter	130	G 1 1/2''	1''	ted power cable			

<sup>\*</sup> other models with different port lengths and connections available on request.







### Highly efficient circulators for domestic heating: Lowara ecocirc PREMIUM

Like ecocirc, however in addition with Multi-Display to show power consumption, pump head or flow rate; automatic constant pressure control  $\Delta p$  c suitable especially for underfloor heating.

Model	Part number	Version	Pump housing length (mm)	Connec- tion	for union fittings	electric connec- tion	Control options (stepless)	Magnetite resistance	Pump housing
ecocirc PREMIUM 25-4/130*	605008208	4 meter	130	G 1 1/2"	1''	Plug	- stepless fixed speed - automatic proportional pressure control Δp v	Anti-Block- technology	cata- phoresis coated cast iron
ecocirc PREMIUM 25-6/130*	605008262	6 meter	130	G 1 1/2''	1"		- automatic constant pressure control Δp c		

<sup>\*</sup> other models with different port lengths and connections available on request.

Accessories		
RG 3/4" RG 1" RG 5/4"	LH 95 00 014 LH 95 00 015 LH 95 00 016	Connection kit 1 1/4" IG x 3/4" IG (1 set) Connection kit 1 1/2" IG x 1" IG (1 set) Connection kit 2" IG x 1 1/4" IG (1 set)
WD-B PS-B	LH 96 00 011 LH 96 00 002B	Heat insulation capsule for all Lowara ecocirc and ecocirc PREMIUM cast iron housings Screw ring tool for ecocirc and ecocirc PREMIUM heating circulators

#### **Technical Data**

Electronically commutated, shaftless spherical Motor design

motor design with permanent magnetic rotor

10 bar

Max. system pressure 200 - 240 Volt, 50 / 60 Hertz Electric connection ecocirc xx-4: 4 - 23 Watt Power consumption ecocirc xx-6: 4 - 42 Watt Heating water VDI 2035 Accepted liquids Water/Glycol mixtures\* Anti-Block-Technology

Magnetite resistance

Accepted

-10 °C\*\* to +110° C temperature range Energy efficiency ErP 2015 ready

Motor protection class IP 44 Insulation class F

\* check hydraulic performance with more than 20 % glycol

#### **Model designation**





Replacement tool online: www.lowara.com

#### **Pump curves and dimensional drawings**





stepless fixed speed, especially for boiler feed, single-pipe heating systems, systems with hydraulic switch

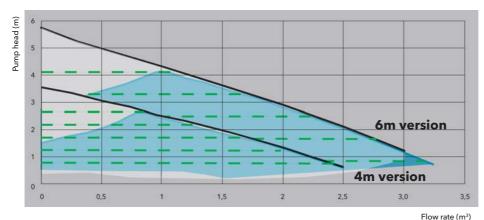




automatic proportional pressure control  $\Delta p \ v$  , especially for radiator heating

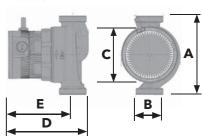
automatic constant pressure control  $\Delta p$  c,  $\,$  especially for underfloor heating (available only in PREMIUM models)

#### Lowara ecocirc and ecocirc PREMIUM - 4-Meter-Versions & 6-Meter-Versions



Models	Α	В	С	D	Е
ecocirc 25-x/130	130	G 1 1/2"	104	141	113

Dimensions in mm



ecocirc 25-6

Rep	lacem	ent	guide
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TLC 25-6

Grundfos	Grundfos Fixed Speed		Grundfos ErP Pump	Lowara ErP Replacement
	UPS 15/50			ecocirc 25-4
	UPS 15/60			ecocirc 25-6
			Alpha + 15/50	ecocirc 25-4
			Alpha + 15/60	ecocirc 25-6
			Alpha 2 15/50	ecocirc 25-4 or ecocirc PREMIUM 25-4
			Alpha 2 15/60	ecocirc 25-6 or ecocirc PREMIUM 25-6
			Alpha 2L 15/50	ecocirc 25-4
			Alpha 2L 15/60	ecocirc 25-6
			UPS 2	ecocirc 25-6
Wilo	Wilo Fixed Speed	Wilo "A" Pump	Wilo ErP Pump	Lowara ErP Replacement
	Wilo Gold 50	Smart 25/4	Stratos Pico 25/1-4	ecocirc 25-4 or ecocirc PREMIUM 25-4
	Wilo Gold 60	Smart 25/6	Stratos Pico 25/1-6	ecocirc 25-6 or ecocirc PREMIUM 25-6
Dab	Dab Fixed Speed	Dab "A" Pump	Dab ErP Pump	Lowara ErP Replacement
	VA 35/130	VEA 35/130	Evotron 40/130	ecocirc 25-4 or ecocirc PREMIUM 25-4
	VA 55/130	VEA 55/130	Evotron 60/130	ecocirc 25-6 or ecocirc PREMIUM 25-6
			Erosta	ecocirc 25-6
CPC/Myson	CPC/Myson Fixed Speed			Lowara ErP Replacement
	CP53			ecocirc 25-4
	CP63			ecocirc 25-6
Lowara	Lowara Fixed Speed			Lowara ErP Replacement
	TLC 25-5			ecocirc 25-4

<sup>\*\*</sup>non-freezing

### **Xylem**

Xylem /'zīlem/

- 1) The tissue in plants that brings water upward from the roots.
- 2) A leading global water technology company.

We're 12,900 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to www.xyleminc.com







































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