## **EVAstream Move**

Get the most out of your pool with the very first battery-operated plug-and-play counter-current swimming machine!

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## **"Transform your pool in seconds** from a recreational pool to a versatile home fitness space."

**Create your own home fitness space with the EVAstream Move** The EVAstream Move transforms every pool into a versatile home fitness space. From a recreational pool to a comprehensive training facility, therapy space and water attraction in just seconds!

### **EVAstream Move** Introducing our latest innovation

Having your own pool at home is great! But how often do you actually swim in your pool? Perhaps your pool is too small to comfortably swim laps. Swimming whenever you want in the privacy of your own garden – the reason you chose to have a pool in the first place – is, in practice, often limited to a refreshing dip on hot summer days.

The EVAstream Move changes all that.

#### Mobile battery-operated swimming machine

Introducing the EVAstream Move, the very first mobile counter-current swimming machine in the world. With this compact portable machine, you can swim as freely as you would in a competition pool. Start your working day with a vigorous fitness training session or dive into the pool in the evening to unwind after a busy day.

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With the EVAstream Move, you can use your pool year-round, not just on hot days. Moreover, the EVAstream Move is battery operated, so you can use it wherever and whenever you want without having to renovate your entire pool.

# The benefits of a portable swimming machine

## The only swimming machine designed for existing pools

The demand for swimming machines has skyrocketed in recent years. New swimming pools often come equipped with a built-in swimming machine such as the EVAstream Fit, Pro or Max. However, this development came too late for pool owners who already have a pool – until now! The EVAstream Move is the only powerful swimming machine that is fully battery powered. You don't have to make any technical renovations to your pool; simply start swimming straight away.

#### Instantly ready for use

The EVAstream Move is instantly ready for use and can be moved and operated by one person. Fast and simple. Depending on your swimming speed, you can swim uninterrupted for 1 to 4 hours on a full battery. Charging the battery is simple using a standard 230-volt power outlet. After 4 hours, the battery is fully charged and ready for a new swimming session.

#### Suitable for any size and shape

The EVAstream Move can be used for small pools starting at 4 x 2.5 metres. The EVAstream Move is also suitable for irregularly shaped pools. Note that the machine needs to be placed symmetrically on the pool's edge for an optimal swimming experience. "Start your working day with a vigorous fitness training session or dive into the pool in the evening to unwind after a busy day."



## Versatile swimming machine for the entire family

The EVAstream Move is fantastic for the entire family. The children and grandchildren can splash and swim against the current, dive underneath the current or float along easily created rapids (by positioning the machine in the corner of the pool). And once the kids are finished playing, you can swim a couple of laps against a mild, steady current.

#### For beginners or seasoned swimmers,

with a current flow of up to 250 m<sup>3</sup> per hour, the EVAstream Move is powerful enough to please even the most experienced swimmers. The current can easily be adjusted so everyone can swim at their own pace. Whether you're a beginner or a seasoned swimmer, young or old, with the EVAstream Move, you will get the most pleasure out of your pool.

#### Use it everywhere!

You can use the EVAstream Move at home in your own swimming pool. But, you can also bring it along with you. On holiday, in your hotel swimming pool or the campsite pool. The EVAstream Move is also perfect for public pools, hydrotherapy pools, wellness centres, diving pools, training pools, and even open water. The EVAstream Move makes swimming more fun wherever you go!

## "With the EVAstream Move, you can do so much more than swim laps"

## Get the most out of your swimming pool with the EVAstream Move

Just imagine: exercising in the luxury of your own pool, endlessly swimming against the current with the sun shining on your face. Now that's something to look forward to.

But your children or grandchildren probably have other ideas... They would much rather position the EVAstream Move in the corner of the pool for an exciting rapid stream, surf on a bodyboard against the strong current, or work on their water polo technique.

With the EVAstream Move, you can do much more than swim laps. And that's not just for the kids and grandkids. Try the aqua jogging or aqua aerobics program, walk against the current or practice physical therapy exercises in the flowing water.

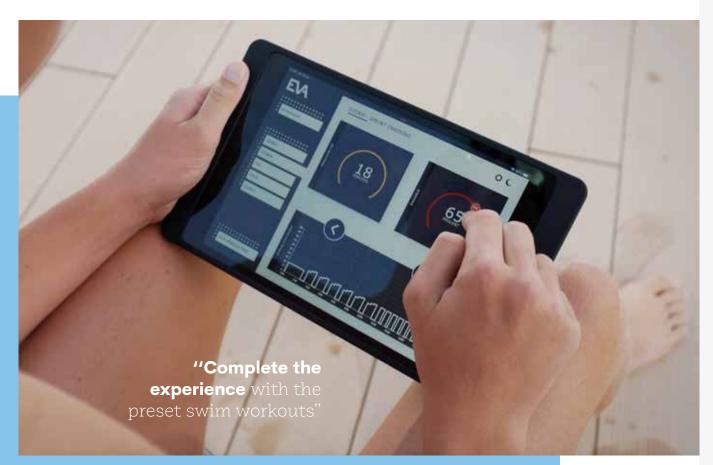
With the EVAstream Move, you can instantly transform your swimming pool into a state-of-the-art training facility, home fitness space, hydrotherapy pool, and a unique water attraction to get the most out of your pool.

## **Use the EVA Experience web app** Your personal swimming trainer

You can control the EVAstream Move from the pool using the waterresistant (IP67) remote control supplied with the machine. Swim freely at your own pace by increasing or decreasing the current speed with just the press of a button.

#### EVA app with pre-set swimming training programmes

There's more! Download the free EVA experience web app for a comprehensive swimming experience. The app serves as your personal swimming trainer with pre-set swimming training programmes that you can easily adjust to suit your own pace. The training includes sprint, endurance and interval exercises with built-in breaks for a realistic training experience.



# EVA Experience web app functions

#### Swim duration management

Select the preferred duration of your swimming session, varying from a minimum of 5 minutes to a maximum of 120 minutes. The app shows the remaining duration in real time, so you can easily follow your progress during the session.

#### Intensity management

Adjust the swimming intensity by selecting a percentage of the maximum EVAstream capacity. The app remembers your most recent intensity setting, so that you can start new swimming sessions at your own pace.

#### **Real-time session monitoring**

Monitor your current swimming session in real time. Click the 'play' icon to reveal a progress bar displaying the elapsed time and your swimming intensity.

#### Make adjustments from the water

You can pause and restart your swimming session at any time. You can also adjust your swimming speed during your session using the app or the water-resistant remote control.

#### Control your EVA underwater lighting with the app!

Do you have EVA LED underwater lighting in your swimming pool? You can also control your EVA LED underwater lights using the EVA Experience web app. Change the ambience of your swimming pool with the press of a button. Easily dim the lights or change their colour with the app on your smartphone or tablet!





### Swimming:

The best investment for your health

Swimming is increasingly considered the preferred and fun way to get and stay fit. It minimally impacts the bones, tendons and joints. And the chance of injury is minimal. Swimming has a lot of other health benefits besides being a safe workout.  $\rightarrow$ 

#### 1. Improved brain function

Swimming increases the blood flow to your brain and the circulation throughout your entire body. This has a positive impact on your short- and long-term memory.

#### 2. Pain-free movement

In the water, you feel a sense of weightlessness. The pressure on the knees, hips, and back decreases, and you feel more flexible. Swimming is a pleasant form of exercise if you suffer from painful joints or conditions such as arthritis. You'll also notice that regular swimming will improve your mobility outside the pool.

#### 3. Improved muscular strength and muscle mass

Losing muscle mass and muscular strength is an unavoidable part of the ageing process. Swimming can help improve this. Swimming is an effective way to train your main muscle groups; it's a full-body workout. An intensive hour-long swimming training will burn up to 500-750 kcal per hour.

#### 4. Improved condition through swimming

Swimming is the perfect way to improve your condition, even when other sports are no longer feasible. You don't need to carry as much of your body weight in the water, yet the water resistance still gives you a thorough workout.

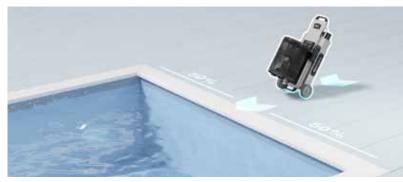
#### 5. Improved sleep pattern and decreased stress levels

Swimming gives your body and brain a tremendous energy boost. Regular swimming lowers stress levels in your body and improves your mood as it produces the feel-good hormone serotonin. Regular swimming also improves your sleep pattern. You fall asleep more quickly and sleep through the night better.

#### 6. Effects in and out of the swimming pool

Even if you use the swimming machine once a week, you'll notice that your endurance improves. This is because your cardiovascular system improves, and your lung capacity increases so that you'll run out of breath less quickly. This is why swimming is often recommended for asthma patients.

### How does the EVAstream Move work?



1. Choose the correct pool edge position. Position the machine as symmetrically as possible for a pleasant, stable current in the water.



2. Measure the distance in centimetres from the top of the swimming pool edge to the water level to determine the correct turbine height.



3. Unclip the turbine and place it in the correct height bracket (see step 2). Attach the turbine to the bracket.



4. Use the handle to tip the turbine and lower it into the water. For stability, the turbine must be firmly placed against the edge of the pool.



5. Connect the turbine electrical cable to the Battery Control Unit.



6. The EVAstream Move is ready for use! Operate the swimming machine with the remote control or download the EVA Experience web app.

# Broad swimming zone for an optimal swimming experience

#### **Turbine-driven technology**

In contrast to many other swimming machines, which work with jet streams, the EVAstream uses turbine-driven technology. This ensures a broad, powerful, and stable current.

#### **Patented technology**

The EVAstream sets itself apart from the rest with its specially designed, patented turbine with a narrowed outlet. This seemingly trivial adjustment provides significant results in terms of efficiency. With this technology, we can achieve enormous water speeds using a highly compact machine.

The EVAstream Move swimming machine displaces an impressive 250 cubic metres of water per hour, resulting in a water speed of 6 metres per second. In comparison, a counter-current swimming machine with a standard straight turbine displaces the same amount of water per hour yet only reaches a speed of 3.5 metres per second.

#### Natural swimming experience

The EVAstream current is broad and powerful without the inconvenience of splashing water. Moreover, the current extends further into the length of the pool. This results in a spacious swimming zone, allowing you to swim further away from the machine.

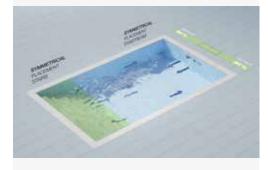
You have sufficient freedom of movement to speed up or slow down during your swimming session without hitting the pool wall or getting out of the stream. This makes swimming in the EVAstream a pleasant and carefree experience. The EVAstream creates the most natural swimming experience possible, and it is now available in a portable batterypowered version for existing pools!



# Tips for the best swimming experience

#### 1. Symmetrical positioning

Consider 'obstacles' in the water when positioning the turbine, such as stairs and platforms. Symmetrical positioning ensures an even water circulation for the best swimming experience.





# 2. Adjust the current to the individual swimmer

Place the machine in the water and swim about 2.5 metres away from the machine. You should now feel the current on your torso, not on your face. The current should envelop your entire body. Make sure that you are not swimming on top of or under the current. You can use the adjustment knob at the back of the turbine to adjust the machine tilt. Use this to slightly adjust the current upward or downward until you feel just the right resistance on your body.

## Technology and safety

The EVAstream Move's **Li-ion battery** is an essential part of the swimming machine. Li-ion (Lithium-ion) batteries are generally recognized for their high energy density and reliable performance. The battery used for the EVAstream Move meets several essential criteria for safety and durable performance, such as:

#### Battery management

The EVAstream Move comes equipped with an advanced battery management system (BMS). This system constantly monitors the battery's status, which includes things like the temperature and the charge level, to ensure they remain at safe levels. The BMS protects against risks such as overcharging and excessive battery discharge.

#### Thermal protection

The battery includes thermal protection systems that monitor the temperature. If the battery's temperature becomes too high, the system will take measures to cool the battery down and prevent potential overheating.

#### • Battery capacity and durability

With a capacity of 60 ampere-hours, the battery provides enough power for at least one hour of uninterrupted use at maximum speed. In practice, the machine will run at a lower intensity, which means you can probably swim a couple of hours with a full battery. This ensures an excellent user experience and prolongs the battery's lifespan

• No cables, no high-voltage current

The fact that the EVAstream Move does not require cables or high-voltage current sources contributes to general safety. There are no exposed cables in the pool, minimizing the risk of electrical shocks.

#### Charging options

The battery pack can be easily charged using a standard 230-volt power outlet, increasing the machine's usability and flexibility.

PRCD plug

The EVAstream Move charging station is equipped with a PRCD plug for your personal safety. The PRCD plug acts as a circuit breaker, immediately shutting down the electrical current from the wall socket as soon as it detects any leakage.

Conformity with safety standards for safe transport

Both the battery and the supplied charging station meet the criteria for international standards such as the UN 38.3, UN 3481 and IEC EN 62133 standards.

## Safety first

In various stages of the EVAstream Move's development process, crucial safety measures were taken to guarantee the safety of fingers and toes and to prevent hair from becoming entangled in the machine. Nonetheless, it is always important to keep a safe distance from the machine and use it carefully. This is a powerful machine and not a toy.

EVAstream meets the following safety standards: DIN EN16582-1/2/3, EN16713-2 (domestic pools) and EN13451-1/3 (commercial pools). In addition, the EVAstream Move and the supplied battery system meet strict national and international standards for electrical safety and material usage in swimming pools, including EN 60364-7-702/ DIN VDE 0100-702:2012-03, IEC EN 62133 and UN 38.3.



## **Standards and directives**

The EVAstream Move is an ELV (Extra Low Voltage) system with a maximum voltage of 30 VDC. With this extra low voltage, the EVAstream Move falls far below the scope of both the Machinery Directive 2006/42/ EC (1000VAC/1500VDC or higher) and the Low Voltage Directive 2014/35/EU (50 VAC/75 VDC - 1000 VAC/1500 VDC). Nevertheless, during the development of the EVAstream models, the relevant safety guidelines outlined in these directives were followed.

## **Technical product information**

#### EVAstream Move

Machine configuration	Single turbine		
Minimum pool dimensions	4 x 1.5 metres (l x w)		
Warranty	2-year warrant on the turbine + MCU		
Recommended usage	Beginner to experienced swimmers		
EVAstream Move weight	30 kg		
(incl. battery)			

#### EVAstream Move - Turbine

Water temperature	5°C to 35°C		
IP rating	IPX8		
Water current capacity	Max. 250 m³/h (adjustable flow)		
Max. water speed at outlet	6 m/s		
Max. water flow speed	1:30 sec. per 100 metres		
swimming zone			

#### EVAstream Move - Motor control unit

Control input	DMX 512		
Output Motor PMSM 3x DC	RPM range 10-100%		
IP rating	IP 20		
Ambient temperature	Max 32°C, store in a dry space free of condensation		
Safety measures	EVA Torque control, Voltage/current control,		
	Mosfet temperature control		

#### **EVAstream Move - Battery**

Battery type	Li-ion NMC 8S 30 VDC 60 A			
Swimming time on a full battery	ery 60 minutes at 100% intensity			
Warranty	1 year on the battery			
Battery charging time	4 hours			
Battery weight	10.9 kg			
Battery dimensions	26.5 cm x 7.3 cm x 41 cm (l x w x h)			
Chemical composition	Lithium-ion (NMC)			
Nominal battery voltage	> 30 volts			
Capacity	60 ampere-hours			
Ambient temperature	100% power in an environment with temperatures up to			
	max. 35°C. Reduced capacity at higher temperatures.			

#### EVAstream Move - water speed vs. battery duration

Intensity	Speed km/h	Speed m/s	m³/h	Duration on a full battery
50%	15	4.2	172	04:00
60%	16	4.5	184	02:30
70%	18	5	204	02:00
80%	19	5.3	216	01:40
90%	21	5.8	236	01:20
100%	22	6.1	250	01:00

#### EVAstream Move safety standards

EVAstream is built for speed and safety. Measures were taken to guarantee the safety of fingers, toes and hair. EVAstream complies with the following safety standards: DIN EN16582-1/2/3, EN16713-2 (domestic pools) and EN13451-1/3 (commercial pools). The Battery Control Unit complies with the following safety standards: IEC EN 60950-1: 2006 +A11:2009 +A1:2010 +A12:2011 +A2: 2013, IEC EN 62133, UN 38.3 and UN3481.

# Would you prefer to have the EVAstream built into your pool?

The EVAstream Move is unique in the market as the only portable battery-powered swimming machine with more than enough power to swim freely. It is a fantastic solution for existing pool owners, campsites, hotels, swimming schools, personal trainers and public pools. The machine's portable nature offers benefits that a permanent installation doesn't have.

However, there are situations where a permanently mounted swimming machine is the preferred option. In that case, our built-in EVAstream models offer the perfect solution. We have several built-in models available, depending on the user's swimming needs and wishes.



**EVAstream Fit | Pro | Max** swimming training guided by coloured underwater lighting solutions

> The built-in EVAstream models can be synchronized with EVA LED underwater lighting solutions for a unique immersive experience in your pool. For instance, follow one of the comprehensive professional swimming programmes with synchronized underwater lighting that changes colour.

#### Operation from the pool

Start your EVAstream swimming training with a press of the button straight from the pool. The training sessions are fully pre-programmed, with various swimming exercises and built-in breaks. Adjust your training speed to your own pace and enjoy an invigorating swim training session!

#### Your personal swimming trainer

The EVA underwater lighting changes colour and serves as a guide during your training. Each exercise is divided into three sections. The lights are initially red, indicating the start of the exercise. After a third of the exercise has passed, the lights change to green to demonstrate progress. The exercise finishes with blue lighting. The changing colours help you stay oriented during the exercise as well as keep you motivated. When the lights turn blue, you know that the workout is almost complete, motivating you to push yourself further to the finish! "We deliberately don't look at what's already available on the market. By looking beyond conventional design concepts, you create room for new possibilities."

### Innovation and production entirely in-house

All EVA Optic products are designed, developed and produced in-house at our Zwartsluis facilities in the Netherlands. This process has many benefits, such as quality control. We are highly critical of quality; the product must ensure years of carefree enjoyment.

#### Everything in-house, from concept to production

We develop our products from a user's perspective. That means we're not hindered by "how it's always done" in the market. We constantly focus on new techniques and push the boundaries of what is possible, which we then integrate into our production methods. A great example is 3D printing, a technique that has provided us with fantastic creative opportunities for product design, prototyping and even production.

#### High-end production facilities

Our focus on superior product quality and durability has resulted in a state-of-the-art production department. We strive to maintain complete control of every part of the production process. For instance, we have our own Pick & Place department, which is truly unique. This is where we produce our LED print boards and electrical components. They are then checked down to the component level using an X-ray machine for extreme precision to supply our customers with the highest quality products.

## Would you like to discover whether the EVAstream Move is right for you?

Test the EVAstream Move at a nearby testing facility or even in your own swimming pool! Send us an email to discuss the possibilities: **info@evaoptic.com** 



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